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05-352

**CONTRACT DOCUMENTS AND
SPECIFICATIONS
FOR
INDIAN RIVER DRIVE SOUTH SIDEWALK IMPROVEMENTS
HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS
FELLSMERE SIDEWALK PHASE II
64TH AVENUE SIDEWALK AND
6250 OLD DIXIE HIGHWAY SIDEWALK IMPROVEMENTS
JIMMY'S TREE SERVICE**

**BID NO. 7084
PROJECT NO. 0201, 03128, 0382, 0452 & 0524**

**PREPARED FOR
THE BOARD OF COUNTY COMMISSIONERS
INDIAN RIVER COUNTY, FLORIDA
THOMAS S. LOWTHER, CHAIRMAN
ARTHUR R. NEUBERGER, VICE CHAIRMAN
COMMISSIONER SANDRA L. BOWDEN
COMMISSIONER WESLEY S. DAVIS
COMMISSIONER GARY C. WHEELER**

**JOSEPH A. BAIRD, COUNTY ADMINISTRATOR
JEFFREY K. BARTON, CLERK OF COURT
WILLIAM G. COLLINS, II, COUNTY ATTORNEY
CHRISTOPHER J. KAHER, JR., P.E., COUNTY ENGINEER
MICHELLE A. GENTILE, C.E.T., CIVIL ENGINEER**

**INDIAN RIVER COUNTY
ENGINEERING DIVISION
1840 25TH STREET
VERO BEACH, FL 32960**

0201&03128-00001 - Project Title Page

00001 - 1



Board of County Commissioners

**1840 25th Street
Vero Beach, Florida 32960
Telephone: (772) 567-8000
FAX: (772) 778-9391**

July 21, 2005

TO ALL PROSPECTIVE BIDDERS

**INDIAN RIVER DRIVE SOUTH SIDEWALK IMPROVEMENTS
HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS
FELLSMERE SIDEWALK PHASE II
64TH AVENUE SIDEWALK AND
6250 OLD DIXIE HIGHWAY SIDEWALK IMPROVEMENTS
JIMMY'S TREE SERVICE**

**IRC PROJECT NO. 0201, 03128, 0382, 0452 AND 0524
IRC BID NO. 7084
BID OPENING DATED: AUGUST 17, 2005**

ADDENDUM NO. 1

TO ALL PROSPECTIVE BIDDERS:

The following clarifications, amendments, additions, deletions and revisions form a part of the Contract Documents and change the original documents only in the manner and to the extent stated:

1. Remove Project No. 0201 Indian River Drive South Sidewalk Improvements and Project No. 0382 Fellsmere Sidewalk Phase II from the Plans, Contract Documents, Bid Tabulation Sheets and Specifications.
2. The Plans, Contract Documents and Specifications will include Indian River County Project Numbers:

03128	Highland Drive Sidewalk
0452	64 th Avenue Sidewalk
0524	6250 Old Dixie Highway, Jimmy's Tree Service

The contract documents and construction plans should then consist of the original documents plus:

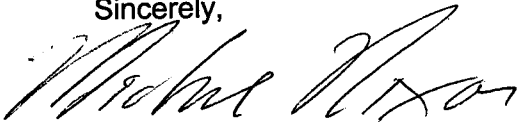
1. Addendum No. 1 dated July 21, 2005

Page Two
All Prospective Bidders
July 21, 2005

All bids should be submitted on the revised Itemized Bid Form, Addendum No. 1 pages 1 through 10.

We thank you for your cooperation, and if you have any questions please call me at (772) 567-8000 extension 1280.

Sincerely,



Michael D. Nixon, P.E.
Design Professional Engineer

MAG/bjr

cc: James W. Davis, P.E., Public Works Director
Christopher J. Kafer, Jr., P.E., County Engineer
Michael D. Nixon, P.E., Design Professional Engineer
Jerry Davis, Manager Purchasing Division
File

SEP 27 2005

ITEMIZED BID SCHEDULE
64TH AVENUE SIDEWALK #0452

Project Name: 64TH AVENUE SIDEWALK #0452
Bidder Name: Timothy Rose Contracting, Inc.

INDIAN RIVER COUNTY
ENGINEERING DIVISION

ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	PRICE BID (FIGURES)
	BID ITEMS FOR 64TH AVENUE SIDEWALK PHASE II				
1	MOBILIZATION	1	LS	\$ 6200	\$ 6200
2	MAINTENANCE OF TRAFFIC	1	LS	\$ /	\$ /
3	EROSION & WATER POLLUTION CONTROL	1	LS	\$ /	\$ /
4	CLEARING & GRUBBING	1	LS	\$ /	\$ /
5	GRADING, EXCAVATION & EMBANKMENT	1	LS	\$ /	\$ /
6	AS-BUILT DRAWING (BY REGISTERED SURVEYOR)	52	LF	\$ 67.00	\$ 3484
20	BITUMINOUS COATED CORRUGATED METAL PIPE (17" X 13")	2	EA	\$ 1500	\$ 3000
26	INLET STRUCTURES (TYPE C)	600	SY	\$ 28.62	\$ 17,173
32	CONCRETE SIDEWALK (6" THICK - 5' WIDE) TO INCLUDE STABILIZED SUBGRADE	350	SY	\$ 1.75	\$ 612.50
36	SOD (BAHIA) (INCLUDES TOP SOIL, FERTILIZER AND WATERING)	1	LS	\$ /	\$ /
300	PAYMENT BOND	1	LS	\$ /	\$ /
301	PERFORMANCE BOND	1	LS	\$ /	\$ /
01024	FORCE ACCOUNT	1	LS	\$ 2,000.00	\$ 2,000.00

TOTAL AMOUNT OF BID (IN FIGURES): \$ 35,969.50
TOTAL AMOUNT OF BID (IN WORDS): Thirty-five thousand nine hundred sixty-nine dollars and fifty

RECEIVED

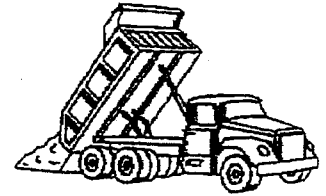
SEP 27 2005

ITEMIZED BID SCHEDULE

Project Name: 64TH AVENUE SIDEWALK #0452Bidder Name: Timothy Rose Contracting, Inc.INDIAN RIVER COUNTY
ENGINEERING DIVISION

ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	PRICE BID (FIGURES)
	BID ITEMS FOR 64TH AVENUE SIDEWALK PHASE II				
1	MOBILIZATION	1	LS	\$ 6200	\$ 6200
2	MAINTENANCE OF TRAFFIC	1	LS	\$ /	\$ /
3	EROSION & WATER POLLUTION CONTROL	1	LS	\$ /	\$ /
4	CLEARING & GRUBBING	1	LS	\$ 1500	\$ 1500
5	GRADING, EXCAVATION & EMBANKMENT <i>County to supply</i>	1	LS	\$ 4000	\$ 4000
6	AS-BUILT DRAWING (BY REGISTERED SURVEYOR)	1	LS	\$ /	\$ /
20	BITUMINOUS COATED CORRUGATED METAL PIPE (17" X 13")	52	LF	\$ 67.00	\$ 3484
26	INLET STRUCTURES (TYPE C)	2	EA	\$ 1500	\$ 3000
32	CONCRETE SIDEWALK ^{4"} THICK - 5' WIDE TO INCLUDE STABILIZED SUBGRADE <i>Ends 6"</i>	600	SY	\$ 28.62 ^{\$ 28.62}	\$ 17,173.00
36	SOD (BAHIA) (INCLUDES TOP SOIL, FERTILIZER AND WATERING)	350	SY	\$ 1.75	\$ 612.50
300	PAYMENT BOND	1	LS	\$ /	\$ /
301	PERFORMANCE BOND	1	LS	\$ /	\$ /
01024	FORCE ACCOUNT	1	LS	\$ 2,000.00	\$ 2,000.00

TOTAL AMOUNT OF BID (IN FIGURES): \$ 35,969.50TOTAL AMOUNT OF BID (IN WORDS): Thirty-five thousand,Nine hundred sixty-nine dollars and fifty cents



TIMOTHY ROSE CONTRACTING, INC.
1360 SW Old Dixie Hwy, Suite 106
Vero Beach, Florida 32962
772-564-7800
772-564-7888 fax
Trc@flbb.net
sheri.trc@flbb.net

FAX TRANSMITTAL FORM

To: Michelle Gentile

Fax: 772-778-9391

From: Morgan Smith

Sent: 9/21/05

faxed 9/21/05

Michelle,

Following are the revisions that you have requested for the IRC Sidewalks bid.
Please let me know if there is anything more that I can do for you.

Thank you,

Morgan

COPY

ITEMIZED BID SCHEDULE

Project Name: 64TH AVENUE SIDEWALK #0452

Bidder Name: Timothy Rose Contracting, Inc.

ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL PRICE BID (FIGURES)
	BID ITEMS FOR 64TH AVENUE SIDEWALK PHASE II				
1	MOBILIZATION	1	LS	\$11,990	\$11,990
2	MAINTENANCE OF TRAFFIC	1	LS	\$3500	\$3500
3	EROSION & WATER POLLUTION CONTROL	1	LS	\$2200	\$2200
4	CLEARING & GRUBBING	1	LS	\$5,700	\$5,700
5	GRADING, EXCAVATION & EMBANKMENT	1	LS	\$8,900	\$8,900
6	AS-BUILT DRAWING (BY REGISTERED SURVEYOR)	1	LS	\$5,500	\$5,500
20	BITUMINOUS COATED CORRUGATED METAL PIPE (17" X 13")	52	LF	\$67.00	\$3,484
26	INLET STRUCTURES (TYPE C)	2	EA	\$1,500	\$3,000
32	CONCRETE SIDEWALK (6" THICK - 5' WIDE) TO INCLUDE STABILIZED SUBGRADE	600	SY	\$39.00	\$23,400
36	SOD (BAHIA) (INCLUDES TOP SOIL, FERTILIZER AND WATERING)	350	SY	\$2.75	\$962.50
300	PAYMENT BOND	1	LS	\$1,550	\$1,550
301	PERFORMANCE BOND	1	LS	\$1,550	\$1,550
01024	FORCE ACCOUNT	1	LS	\$2,000.00	\$2,000.00

TOTAL AMOUNT OF BID (IN FIGURES): \$ 73,736.50

TOTAL AMOUNT OF BID (IN WORDS): Seventy-three thousand

seven hundred thirty-six dollars and fifty cents

ITEMIZED BID SCHEDULE

Project Name: HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS. #03128

Bidder Name: Timothy Rose Contracting Inc.

ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL PRICE BID (FIGURES)
	BID ITEMS FOR HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS				
1	MOBILIZATION	1	LS	\$12,460	\$12,460
2	MAINTENANCE OF TRAFFIC	1	LS	\$3,500	\$3,500
3	EROSION & WATER POLLUTION CONTROL	1	LS	\$2,000	\$2,000
4	CLEARING & GRUBBING	1	LS	\$7,950	\$7,950
5	GRADING, EXCAVATION AND EMBANKMENT	1	LS	\$7,840	\$7,840
6	AS-BUILT DRAWING (BY REGISTERED SURVEYOR)	1	LS	\$5,500	\$5,500
32	CONCRETE SIDEWALK (6" THICK 5' WIDE) TO INCLUDE STABILIZED SUBGRADE	980	SY	\$38.78	\$38,004.40
36	SOD (BAHIA) (INCLUDES TOP SOIL, FERTILIZER AND WATERING)	380	SY	\$2.75	\$1,045
300	PAYMENT BOND	1	LS	\$1,730	\$1,730
301	PERFORMANCE BOND	1	LS	\$1,730	\$1,730
01024	FORCE ACCOUNT	1	LS	\$2,000.00	\$2,000.00

TOTAL AMOUNT OF BID (IN FIGURES): \$ 83,759.40

TOTAL AMOUNT OF BID (IN WORDS): Eighty three thousand, seven hundred fifty nine dollars and forty cent

ITEMIZED BID SCHEDULE
 Project Name: 6250 OLD DIXIE HIGHWAY JIMMYS TREE SERVICE SIDEWALK IMPROVEMENTS # 0524
 Bidder Name: Timothy Rose Contracting, Inc.

ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL PRICE BID (FIGURES)
	<u>OLD DIXIE</u> BID ITEMS FOR HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS				
1	MOBILIZATION	1	LS	\$6,640	\$6,640
2	MAINTENANCE OF TRAFFIC	1	LS	\$3,000	\$3,000
3	EROSION & WATER POLLUTION CONTROL	1	LS	\$2,000	\$2,000
4	CLEARING & GRUBBING	1	LS	\$4,000	\$4,000
5	GRADING, EXCAVATION AND EMBANKMENT	1	LS	\$3,950	\$3,950
6	AS-BUILT DRAWING (BY REGISTERED SURVEYOR)	1	LS	\$5,500	\$5,500
32	CONCRETE SIDEWALK (6" THICK 5' WIDE) TO INCLUDE STABILIZED SUBGRADE	187	SY	\$39.50	\$7,386.50
36	SOD (BAHIA) (INCLUDES TOP SOIL, FERTILIZER AND WATERING)	264	SY	\$2.75	\$726.00
300	PAYMENT BOND	1	LS	\$865	\$865
301	PERFORMANCE BOND	1	LS	\$865	\$865
01024	FORCE ACCOUNT	1	LS	\$2,000.00	\$2,000.00

TOTAL AMOUNT OF BID (IN FIGURES): \$ 36,932.50

TOTAL AMOUNT OF BID (IN WORDS): Thirty six thousand, nine hundred thirty two dollars and fifty cent

SUMMARY - ITEMIZED BID SCHEDULE

Project Name: Highland Drive SW sidewalk improvements IRC Project #03128

64th Avenue Sidewalk. IRC Project #0452

6250 Old Dixie Highway, IRC Project # 0524

Bidder Name: Timothy Rose Contracting, Inc.

TOTAL AMOUNT OF BID FOR IRC PROJECT #13428 HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS (IN FIGURES):

\$ 83,759.40

TOTAL AMOUNT OF BID (IN WORDS):

eighty three thousand seven hundred fifty nine dollars and forty cent

TOTAL AMOUNT OF BID FOR IRC PROJECT #0452, 64TH AVENUE SIDEWALK (IN FIGURES):

\$ 73,736.50

TOTAL AMOUNT OF BID (IN WORDS):

Seventy three thousand seven hundred thirty six dollars and fifty cent

TOTAL AMOUNT OF BID FOR IRC PROJECT #0524, 6250 OLD DIXIE HIGHWAY SIDEWALK (IN FIGURES)

\$ 36,932.50

TOTAL AMOUNT OF BID (IN WORDS)

Thirty six thousand nine hundred thirty two dollars and fifty cent

TOTAL AMOUNT OF BID FOR IRC PROJECTS #03128, & 0452 (IN FIGURES):

\$ 157,495.90

TOTAL AMOUNT OF BID (IN WORDS):

One hundred fifty seven thousand, four hundred ninety five dollars and ninety cents

Considerations for bids will be based on the total amount for all four projects.

INDIAN RIVER COUNTY, FLORIDA
CHANGE ORDER NO. 1
PROJECT NO. 0452
Bid # 7084

PROJECT: 64th Avenue Sidewalk North of C.R. 510

CONTRACTOR NAME/ADDRESS: Tim Rose Contracting
 1360 S. W. Old Dixie Highway, Suite 106
 Vero Beach, Florida 32962

DATE: September 28, 2005

	DESCRIPTION OF CHANGE	PRICE INCREASE	PRICE DECREASE
1	Reduce Mobilization Costs		\$5,790.00
2	Remove Maintenance of Traffic Costs		\$3,500.00
3	Remove Erosion and Water Pollution Control		\$2,200.00
4	Reduce Clearing and Grubbing Costs		\$4,200.00
5	Reduce Grading, Excavation and Embankment Costs. County to supply embankment		\$4,900.00
6	Remove As-Built Drawing Costs		\$5,500.00
32	Revise Concrete Sidewalk to 4" Thick 5' wide to include stabilized subgrade - Ends 6" Thick 600S @ \$28,6216/SY = \$17,173.00		\$6,227.00
36	Reduce Costs of Sod (Bahia) Remove Fertilizer and Watering 350SY @ \$1.75 = \$612.50		\$650.00
300	Remove Payment Bond		\$1,550.00
301	Remove Performance Bond		\$1,550.00
01024	Remove Force Account		\$2,000.00
	Total Increase/Decrease	-0-	\$37,767.00
NET CHANGE IN AMOUNT			(\$37,767.00)

ORIGINAL CONTRACT PRICE \$73,736.50 TIME 165 DAYS

CURRENT CONTRACT PRICE \$35,969.50 TIME 60 DAYS

NET CHANGE PRICE/TIME FROM THIS CHANGE ORDER NO.1 (\$37,767.00) 105 DAYS

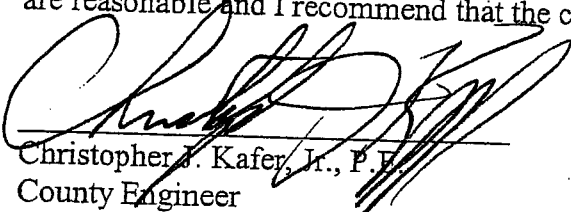
NEW CONTRACT PRICE/TIME INCLUDING THIS CHANGE ORDER \$35,969.50 60 DAYS

INDIAN RIVER COUNTY, FLORIDA
CHANGE ORDER NO. 1
PROJECT NO. 0452
Bid # 7084

APPROVAL

ENGINEERS RECOMMENDATION:

I have examined the above changes. They are necessary to satisfactorily complete the Contract. The price changes are reasonable and I recommend that the changes be made.

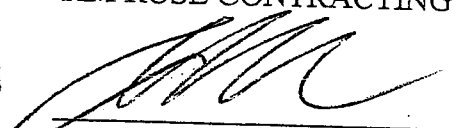

Christopher J. Kafer, Jr., P.E.
County Engineer

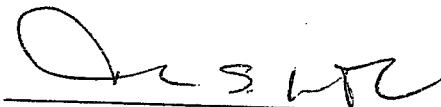
10-12-05
Date

I agree to the amendment of the 64th Avenue Sidewalk North of C.R. 510 Contract as indicated on the attached (2) two page Change Order No. 1. This Change Order shall become a part of the 64th Avenue Sidewalk North of C.R. 510 Contract and incorporated therein.

TIM ROSE CONTRACTING

INDIAN RIVER COUNTY, FLORIDA


(Name and Title of Signatory)

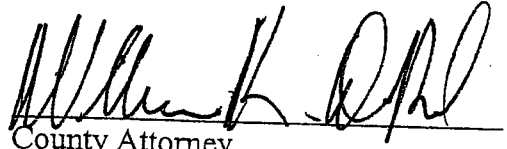

Thomas S. Lowther, Chairman

Witnessed by:

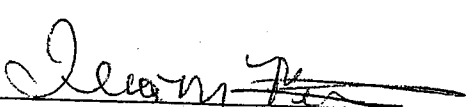
Approved by BCC October 18, 2005

Attest:

Jeffrey K. Barton, Clerk of Circuit Court


County Attorney

Approved as to Form and Legal Sufficiency

By: 
Deputy Clerk

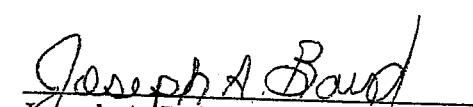

Joseph A. Baird,
County Administrator

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BOARD OF COUNTY COMMISSIONERS

1840 25TH Street, Vero Beach, Florida 32960



Telephone : (772) 567-8000

SUNCOM: 224-1000

FAX: (772) 778-9391

ADVERTISEMENT FOR BIDS INDIAN RIVER COUNTY

Sealed bids will be received by Indian River County until 2:00 PM on Wednesday, August 17, 2005. Each bid shall be submitted in a sealed envelope and shall bear the name and address of the bidder on the outside and the words "INDIAN RIVER DRIVE SOUTH SIDEWALK IMPROVEMENTS, HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS, FELLSMERE SIDE4WALK PHASE II, 64TH AVENUE SIDEWALK, 6250 OLD DIXIE HIGHWAY BID NO. 7084". All bids, either mailed or walked in, will be received by the Purchasing Division, 1840 25th Street, Vero Beach, Florida, where they will be opened publicly and read aloud at 2:00 PM. All bids received after 2:00 P.M., of the day specified above, will be returned unopened.

**INDIAN RIVER COUNTY PROJECT NO. 0201
INDIAN RIVER COUNTY PROJECT NO. 03128
INDIAN RIVER COUNTY PROJECT NO. 0382
INDIAN RIVER COUNTY PROJECT NO. 0452
INDIAN RIVER COUNTY PROJECT NO. 0524**

INDIAN RIVER COUNTY BID NO. 7084

PROJECT DESCRIPTION:

**INDIAN RIVER DRIVE SOUTH SIDEWALK IMPROVEMENTS,
HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS
FELLSMERE SIDEWALK PHASE II
64TH AVENUE SIDEWALK
6250 OLD DIXIE HIGHWAY**

All material and equipment furnished and all work performed shall be in strict accordance with the plans, specifications, and contract documents pertaining thereto, which may be obtained from the Engineering Division. Copies of the plans and specifications containing the necessary contract documents may be obtained by deposit of a check made payable to Indian River County, in the amount of \$150.00 for each set, which represents cost of printing, handling, and mailing and which is non refundable.

0201&03128-00100 - Advertisement for Bids

All bids shall be submitted in duplicate on the Bid Proposal forms provided within the specifications. A BID BOND must accompany each Bid, and be properly executed by the Bidder and by a qualified surety, or certified check or cashier's check on any bank authorized to do business in the State of Florida, in the sum of not less than Five Percent (5%) of the total amount bid, made payable to Indian River County Board of County Commissioners. In the event the Contract is awarded to the Bidder, he will enter into a Contract with the County and furnish the required Performance Bond and Payment Bond. If he fails to do so, he shall forfeit the said bid Bond as liquidated damages. Please note that the questionnaire must be filled out completely including the financial statement.

The County reserves the right to delay awarding of the Contract for a period of sixty (60) days after the bid opening, to waive informalities in any bid, or reject any or all bids in whole or in part with or without cause/or to accept the bid that, in its judgement, will serve the best interest of Indian River County, Florida. The County will not reimburse any Bidder for bid preparation costs.

INDIAN RIVER COUNTY

By: _____
Purchasing Manager

For Publication in the Vero Beach Press Journal
Date(s): July 13, 2005
July 20, 2005

For: Vero Beach Press Journal

Please furnish tear sheet and Affidavit of Publication to:

INDIAN RIVER COUNTY
PURCHASING DIVISION
1840 25TH STREET
Vero Beach, FL 32960

**** END OF SECTION ****

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SECTION 00200 - Instructions to Bidders

ARTICLE 1 - DEFINED TERMS

1.01 Terms used in these Instructions to Bidders will have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof:

- A. Bidder--The individual or entity who submits a Bid directly to OWNER.
- B. Issuing Office--The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.
- C. Successful Bidder--The lowest responsible Bidder submitting a responsive Bid to whom OWNER (on the basis of OWNER's evaluation as hereinafter provided) makes an award.

ARTICLE 2 - COPIES OF BIDDING DOCUMENTS

- 2.01 Complete sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the Advertisement or Invitation to Bid may be obtained from the Issuing Office.
- 2.02 Complete sets of Bidding Documents must be used in preparing Bids; neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 OWNER and ENGINEER in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

ARTICLE 3 - QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate Bidder's qualifications to perform the Work, within five days of OWNER's request Bidder shall submit written evidence such as financial data, previous experience, present commitments, and such other data as may be called for below.
 - A. Bidder must have at least five years' experience in the construction of similar projects of this size and larger.
 - B. Bidder must have successfully constructed, as prime CONTRACTOR, at least three projects similar in scope to this project.
 - C. Bidder must have good recommendations from at least three clients similar to the OWNER.
 - D. The Bidder's superintendent and assistants must be qualified and experienced in similar projects in all categories.
 - E. Bidder must be able to provide evidence of authority to conduct business in the jurisdiction in which the project is located.
- 3.02 Each bid must contain evidence of Bidder's qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the contract.

3.03 The OWNER reserves the right to reject bids from Bidders that are unable to meet the listed required qualifications.

ARTICLE 4 - EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

4.01 Subsurface and Physical Conditions

A. The Supplementary Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Bidding Documents.
2. Those drawings of physical conditions in or relating to existing surface and subsurface structures at or contiguous to the Site (except Underground Facilities) that ENGINEER has used in preparing the Bidding Documents.

B. Copies of reports and drawings referenced in paragraph 4.01.A will be made available by OWNER to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in paragraph 4.02 of the General Conditions has been identified and established in paragraph 4.02 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions or information contained in such reports or shown or indicated in such drawings.

4.02 Underground Facilities

A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to OWNER and ENGINEER by OWNERS of such Underground Facilities, including OWNER, or others.

4.03 Hazardous Environmental Condition

A. The Supplementary Conditions identify those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that ENGINEER has used in preparing the Bidding Documents.

B. Copies of reports and drawings referenced in paragraph 4.03.A will be made available by OWNER to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in paragraph 4.06 of the General Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

4.04 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated conditions appear in paragraphs 4.02, 4.03, and 4.04 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at

the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work appear in paragraph 4.06 of the General Conditions.

4.05 Upon a request directed to the ENGINEER (Christopher J. Kafer, Jr., P.E., (772) 567-8000, ext. 1221), OWNER will provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

4.07 It is the responsibility of each Bidder before submitting a Bid to:

A. Examine and carefully study the Bidding Documents, including any Addenda and the other related data identified in the Bidding Documents;

B. VISIT THE SITE AFTER CONTACTING THE ENGINEER (CHRISTOPHER J. KAFER, JR., P.E., (772) 567-8000, EXT. 1221) TO MAKE ARRANGEMENTS IN ADVANCE, AND BECOME FAMILIAR WITH AND SATISFY BIDDER AS TO THE GENERAL, LOCAL, AND SITE CONDITIONS THAT MAY AFFECT COST, PROGRESS, AND PERFORMANCE OF THE WORK;

C. Become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, or performance of the Work;

D. Carefully study all reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions, and carefully study all reports and drawings of a Hazardous Environmental Condition, if any, at the Site which have been identified in the Supplementary Conditions as provided in paragraph 4.06 of the General Conditions;

E. Obtain and carefully study (or assume responsibility for doing so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (overhead, surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto;

F. Agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times and in accordance with the other terms and conditions of the Bidding Documents;

G. Become aware of the general nature of the work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Bidding Documents;

H. Correlate the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents;

I. Promptly give ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by ENGINEER is acceptable to Bidder; and

J. Determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.

4.08 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by ENGINEER are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

ARTICLE 5 - PRE-BID CONFERENCE

5.01 The date, time, and location for a Pre-Bid conference, if any, are specified in the Advertisement for Bids. Representatives of OWNER and ENGINEER will be present to discuss the Project. Bidders are encouraged to attend and participate in the conference. ENGINEER will transmit to all prospective Bidders of record such Addenda as ENGINEER considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

ARTICLE 6 - SITE AND OTHER AREAS

6.01 The Site is identified in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by OWNER unless otherwise provided in the Bidding Documents.

ARTICLE 7 - INTERPRETATIONS AND ADDENDA

7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to ENGINEER in writing. Interpretations or clarifications considered necessary by ENGINEER in response to such questions will be issued by Addenda mailed or delivered to all parties through the Issuing Office as having received the Bidding Documents. Questions received less than ten days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

7.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by OWNER or ENGINEER.

ARTICLE 8 - BID SECURITY

8.01 A Bid must be accompanied by Bid security made payable to OWNER in the amount specified in the Bid Form and in the form of a certified or bank check or a Bid Bond [on the form attached except as provided otherwise by Laws or Regulations]. All Bonds shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. The Surety must be authorized to issue surety bonds in Florida. The Bidder shall require the attorney-in-fact who executes any Bond, to affix to each a current certified copy of their Power of Attorney, reflecting such person's authority as Power of Attorney in the State of Florida. Further, at the time of execution of the Contract, the Successful Bidder shall for all Bonds, provide a copy of the Surety's current valid Certificate of Authority issued by the United States Department of the Treasury under 31 United States Code sections 9304-9308. The Surety shall also meet the requirements of paragraphs 5.01 and 5.02 of the General Conditions.

8.02 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, OWNER may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid security of other Bidders whom OWNER believes to have a reasonable chance of receiving the award may be retained by OWNER until the earlier of seven days after the Effective Date of the Agreement or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned.

8.03 Bid security of other Bidders whom OWNER believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening.

ARTICLE 9 - CONTRACT TIMES

9.01 The number of calendar days within which, or the dates by which, the Work is to be (a) Substantially Completed and (b) also completed and ready for final payment are set forth in the Agreement.

ARTICLE 10 - LIQUIDATED DAMAGES

10.01 Provisions for liquidated damages, if any, are set forth in the Agreement.

ARTICLE 11 - SUBSTITUTE AND "OR-EQUAL" ITEMS

11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or "or-equal" items. Whenever it is specified or described in the Bidding Documents that a substitute or "or-equal" item of material or equipment may be furnished or used by CONTRACTOR if acceptable to ENGINEER, application for such acceptance will not be considered by ENGINEER until after the

Effective Date of the Agreement. The procedure for submission of any such application by CONTRACTOR and consideration by ENGINEER is set forth in the General Conditions and may be supplemented in the General Requirements.

ARTICLE 12 - SUBCONTRACTORS, SUPPLIERS, AND OTHERS

12.01 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to OWNER in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to OWNER a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by OWNER. If OWNER or ENGINEER, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, OWNER may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute, without an increase in the Bid.

12.02 If apparent Successful Bidder declines to make any such substitution, OWNER may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which OWNER or ENGINEER makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER and ENGINEER subject to revocation of such acceptance after the Effective Date of the Agreement as provided in paragraph 6.06 of the General Conditions.

12.03 CONTRACTOR shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom CONTRACTOR has reasonable objection.

ARTICLE 13 - PREPARATION OF BID

13.01 The Bid form is included with the Bidding Documents. Additional copies may be obtained from the Issuing Office.

13.02 All blanks on the Bid form shall be completed by printing in ink or by typewriter and the Bid signed. A Bid price shall be indicated for each section, Bid item, alternative, adjustment unit price item, and unit price item listed therein, or the words "No Bid," "No Change," or "Not Applicable" entered.

13.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.

13.04 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.

13.05 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown below the signature.

13.06 A Bid by an individual shall show the Bidder's name and official address.

13.07 A Bid by a joint venture shall be executed by each joint venturor in the manner indicated on the Bid form. The official address of the joint venture must be shown below the signature.

13.08 All names shall be typed or printed in ink below the signatures.

13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid form.

13.10 The address and telephone number for communications regarding the Bid shall be shown.

13.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the Contract. Bidder's state contractor license number or county registration number for the state or county of the Project, if any, shall also be shown on the Bid form.

13.12 All supporting information requested in the Bid Form must be furnished. Do not leave any questions or requests unanswered.

ARTICLE 14 - BASIS OF BID; EVALUATION OF BIDS

14.01 Unit Price

A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the Bid schedule.

B. The total of all estimated prices will be determined as the sum of the products of the estimated quantity of each item and the unit price Bid for the item. The final quantities and Contract Price will be determined in accordance with paragraph 11.03 of the General Conditions.

C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

14.02 The Bid price shall include such amounts as the Bidder deems proper for overhead and profit on account of cash allowances, if any, named in the Contract Documents as provided in paragraph 11.02 of the General Conditions.

14.03 The Bidder's attention is called to the fact that any estimate of quantities of work to be done and materials to be furnished under the Specifications as shown on the Bid Schedule, or elsewhere, is approximate only and not guaranteed. The OWNER does not assume any responsibility that the final quantities shall remain in strict accordance with the estimated quantities, nor shall the Bidder plead misunderstanding or deception because of such estimate of quantities or of the character, location of the work, or other conditions pertaining thereto.

ARTICLE 15 - SUBMITTAL OF BID

15.01 The Bid form is to be completed and submitted with the Bid security and the following data:

- A. Statement of Public Entity Crimes.
- B. Sworn Statement under Section 105.08, Indian River County Code, on Disclosure of Relationships.
- C. Sworn Statement under the Florida Trench Safety Act.
- D. General Information Required of Bidders.
- E. List of Subcontractors.

15.02 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the advertisement or invitation to Bid and shall be enclosed in an opaque sealed envelope plainly marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If mail or other delivery system sends a Bid, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to Indian River County, Purchasing Division, 2625 19th Avenue, Vero Beach, Florida, 32960.

ARTICLE 16 - MODIFICATION AND WITHDRAWAL OF BID

16.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.

ARTICLE 17 - OPENING OF BIDS

17.01 Bids will be opened at the time and place indicated in the advertisement or invitation to Bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 18 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE

18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but OWNER may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 19 - AWARD OF CONTRACT

19.01 OWNER reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. OWNER further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to be non-responsible. OWNER may also reject the Bid of any Bidder if OWNER believes that it would not be in the best interest of the Project to make an award to that Bidder. OWNER also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder. The County will not reimburse any Bidder for bid preparation costs. The OWNER reserves the right to select, from among the various Bid alternatives, those alternatives to be included in the final Contract as well as the right and option to award or re-bid alternatives in any sequence or at any time deemed to be in the best interest of the OWNER.

19.02 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.

19.03 In evaluating Bids, OWNER will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award. It is the OWNER's intent to accept alternates (if any are accepted) in the order in which they are listed on the Bid form, but OWNER may accept them in any order or combination.

19.04 In evaluating Bidders, OWNER will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.

19.05 OWNER may conduct such investigations as OWNER deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities to perform the Work in accordance with the Contract Documents.

19.06 If the Contract is to be awarded, OWNER will award the Contract to the Bidder whose Bid is in the best interests of the Project.

ARTICLE 20 - CONTRACT SECURITY AND INSURANCE

20.01 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth OWNER's requirements as to performance and payment Bonds and insurance. When the Successful Bidder delivers the executed Agreement to OWNER, it must be accompanied by such Bonds, unless the Bonds have been waived due to the total contract being less than \$50,000. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. The sureties for all Bonds must be authorized to issue surety bonds in Florida. The CONTRACTOR

shall require the attorney-in-fact who executes any Bond, to affix to each a current certified copy of their Power of Attorney, reflecting such person's authority as Power of Attorney in the State of Florida. Further, at the time of execution of the Contract, the CONTRACTOR shall for all Bonds, provide a copy of the Surety's current valid Certificate of Authority issued by the United States Department of the Treasury under 31 United States Code sections 9304-9308.

ARTICLE 21 - SIGNING OF AGREEMENT

21.01 When OWNER gives a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents which are identified in the Agreement as attached thereto. Within fifteen (15) days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER.

21.02 OWNER shall return one fully signed counterpart to Successful Bidder.

21.03 Should Bidder to whom the Contract has been awarded refuse or fail to complete the requirements of Article 21.01 above, the additional time in calendar days, required to correctly complete the documents will be deducted, in equal amount, from the Contract time. Or, the OWNER may elect to revoke the Award and the OWNER shall hold the Bid Bond for consequential damages incurred, and the Contract may be awarded as the OWNER desires.

ARTICLE 22 - SALES AND USE TAXES

22.01 OWNER is exempt from Florida state sales and use taxes on materials and equipment to be incorporated in the Work. Exemption No. 41-05-012529-53C. Said taxes shall not be included in the Bid. Refer to paragraph 6.10 of the Supplementary Conditions for additional information.

ARTICLE 23 – RETAINAGE

23.01 This Section intentionally left blank.

ARTICLE 24 - CONTRACTS TO BE ASSIGNED

24.01 OWNER has executed contracts with [_____

for [_____
and with [_____
for [_____]

The materials and equipment provided for in these contracts are to be furnished and delivered to the Site for installation by CONTRACTOR. The contracts will be assigned by OWNER to CONTRACTOR. Identification of the materials and equipment and the procedures to be followed appear in paragraph 6.21 of the Supplementary Conditions.

24.02 Bidders may examine the documents for these contracts at the Issuing Office.

ARTICLE 25 - PARTNERING

25.01 OWNER intends to participate in a partnering process with CONTRACTOR. The objectives of the process will be to achieve effective and efficient performance of the Work and completion of the Work within the Contract Price and Contract Times, all in accordance with the Contract Documents.

25.02 Participation in the partnering process will be voluntary. To initiate the process, within [] days after the Notice to Proceed the key personnel of OWNER, ENGINEER, CONTRACTOR, and CONTRACTOR's major Subcontractors will be invited to attend a one-day seminar followed by a one-day team building workshop to develop a partnering statement. The seminar and the workshop will be conducted by a neutral facilitator at a time and location agreed to by OWNER and CONTRACTOR in the general vicinity of the Site.

25.03 The facilitator will be selected by OWNER, subject to approval by CONTRACTOR. Costs of the facilitator and facilities for the initial seminar and workshop will be paid by OWNER. Thereafter, all facilitator-related and facilities costs will be shared equally by OWNER and CONTRACTOR with no change in the Contract Price. Each party will pay all costs associated with the participation of its own personnel.

25.04 It is intended that the initial seminar and workshop sessions be followed by periodic half-day evaluation sessions approximately every 90 days as agreed to by OWNER and CONTRACTOR.

25.05 A primary objective of the partnering process is to maximize the potential for resolution of disputes in a timely and non-adversarial manner. The use of alternative dispute resolution (ADR) methods will be encouraged in order to promote and maintain amicable working relationships among the parties. In the event that ADR procedures are unsuccessful, the dispute resolution provisions set forth in the Contract Documents will be employed.

25.06 These provisions express the intent and spirit of the partnering process, and nothing stated herein or in the partnering statement shall change in any way the rights, responsibilities, and obligations of the parties as set forth in the Contract Documents. The partnering statement will not be a part of the Contract Documents and will not modify any defense, claim, obligation, or right that otherwise exists.

*** * END OF SECTION * ***

SECTION 00300 - Bid Package Contents

THIS PACKAGE CONTAINS:

<u>SECTION TITLE</u>	<u>SECTION NUMBER</u>
Bid Form	00310
Bid Bond	00430
Public Entity Crimes Affidavit	00450
Sworn Statement on Disclosure of Relationships	00452
Sworn Statement Under the Florida Trench Safety Act	00454
General Information Required of Bidders	00456
List of Subcontractors	00458

SUBMIT TWO (2) COPIES OF THIS COMPLETE PACKAGE WITH YOUR BID

**** END OF SECTION ****

SECTION 00310 - Bid Form

PROJECT IDENTIFICATION:

Project Name: HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS

County Project Number: 03128, 0452 & 0524

Project Address: HIGHLAND DRIVE SOUTH 64TH AVENUE SIDEWALK
VERO BEACH, FLORIDA VERO BEACH, FLORIDA
6250 OLD DIXIE HIGHWAY VERO BEACH, FLORIDAProject Description: SIDEWALK IMPROVEMENTS TO HIGHLAND DRIVE SW FROM
CANAL B-10 TO 10TH AVENUE SW. 64TH AVENUE,
FELLSEMER AND 6250 OLD DIXIE HIGHWAY

THIS BID IS SUBMITTED TO:

INDIAN RIVER COUNTY
1840 25TH STREET
VERO BEACH, FLORIDA 32960

- 1.01 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.
- 2.01 Bidder accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. The Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of OWNER.
- 3.01 In submitting this Bid, Bidder represents, as set forth in the Agreement, that:

A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of all which is hereby acknowledged.

Addendum DateJuly 21, 2005Addendum NumberNo. 1

B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions, and (2) reports and drawings of a Hazardous Environmental Condition, if any, which have been identified in the Supplementary Conditions as provided in paragraph 4.06 of the General Conditions.

- E. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.
- F. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
- I. Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by ENGINEER is acceptable to Bidder.
- J. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.
- 4.01 Bidder further represents that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any individual or entity to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.

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ITEMIZED BID SCHEDULE

Project Name: 64TH AVENUE SIDEWALK #0452

Bidder Name: Timothy Rose Contracting, Inc.

ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL PRICE BID (FIGURES)
	BID ITEMS FOR 64TH AVENUE SIDEWALK PHASE II				
1	MOBILIZATION	1	LS	\$ 11,990	\$ 11,990
2	MAINTENANCE OF TRAFFIC	1	LS	\$ 3500	\$ 3500
3	EROSION & WATER POLLUTION CONTROL	1	LS	\$ 2200	\$ 2200
4	CLEARING & GRUBBING	1	LS	\$ 5,700	\$ 5,700
5	GRADING, EXCAVATION & EMBANKMENT	1	LS	\$ 8,900	\$ 8,900
6	AS-BUILT DRAWING (BY REGISTERED SURVEYOR)	1	LS	\$ 5500	\$ 5,500
20	BITUMINOUS COATED CORRUGATED METAL PIPE (17" X 13")	52	LF	\$ 67.00	\$ 3,484
26	INLET STRUCTURES (TYPE C)	2	EA	\$ 1,500	\$ 3,000
32	CONCRETE SIDEWALK (6" THICK - 5' WIDE) TO INCLUDE STABILIZED SUBGRADE	600	SY	\$ 39.00	\$ 23,400
36	SOD (BAHIA) (INCLUDES TOP SOIL, FERTILIZER AND WATERING)	350	SY	\$ 2.75	\$ 962.50
300	PAYMENT BOND	1	LS	\$ 1,550	\$ 1,550
301	PERFORMANCE BOND	1	LS	\$ 1,550	\$ 1,550
01024	FORCE ACCOUNT	1	LS	\$2,000.00	\$2,000.00

TOTAL AMOUNT OF BID (IN FIGURES): \$ 73,736.50

TOTAL AMOUNT OF BID (IN WORDS): Seventy-three thousand

seven hundred thirty-six dollars and fifty cents

ITEMIZED BID SCHEDULE

Project Name: HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS, #03128

Bidder Name: Timothy Rose Contracting Inc.

ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL PRICE BID (FIGURES)
	BID ITEMS FOR HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS				
1	MOBILIZATION	1	LS	\$12,460	\$12,460
2	MAINTENANCE OF TRAFFIC	1	LS	\$3,500	\$3,500
3	EROSION & WATER POLLUTION CONTROL	1	LS	\$2,000	\$2,000
4	CLEARING & GRUBBING	1	LS	\$7,950	\$7,950
5	GRADING, EXCAVATION AND EMBANKMENT	1	LS	\$7,840	\$7,840
6	AS-BUILT DRAWING (BY REGISTERED SURVEYOR)	1	LS	\$5,500	\$5,500
32	CONCRETE SIDEWALK (6" THICK 5' WIDE) TO INCLUDE STABILIZED SUBGRADE	980	SY	\$38.78	\$38,004.40
36	SOD (BAHIA) (INCLUDES TOP SOIL, FERTILIZER AND WATERING)	380	SY	\$2.75	\$1,045
300	PAYMENT BOND	1	LS	\$1,730	\$1,730
301	PERFORMANCE BOND	1	LS	\$1,730	\$1,730
01024	FORCE ACCOUNT	1	LS	\$2,000.00	\$2,000.00

TOTAL AMOUNT OF BID (IN FIGURES): \$ 83,759.40

TOTAL AMOUNT OF BID (IN WORDS): Eighty three thousand, seven hundred fifty nine dollars and forty cent

ITEMIZED BID SCHEDULE
Project Name: 6250 OLD DIXIE HIGHWAY JIMMYS TREE SERVICE SIDEWALK
IMPROVEMENTS # 0524
Bidder Name: Timothy Rose Contracting, Inc.

ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL PRICE BID (FIGURES)
	BID ITEMS FOR HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS				
1	MOBILIZATION	1	LS	\$6,640	\$6,640
2	MAINTENANCE OF TRAFFIC	1	LS	\$3,000	\$3,000
3	EROSION & WATER POLLUTION CONTROL	1	LS	\$2,000	\$2,000
4	CLEARING & GRUBBING	1	LS	\$4,000	\$4,000
5	GRADING, EXCAVATION AND EMBANKMENT	1	LS	\$3,950	\$3,950
6	AS-BUILT DRAWING (BY REGISTERED SURVEYOR)	1	LS	\$5,500	\$5,500
32	CONCRETE SIDEWALK (6" THICK 5' WIDE) TO INCLUDE STABILIZED SUBGRADE	187	SY	\$39.50	\$7,386.50
36	SOD (BAHIA) (INCLUDES TOP SOIL, FERTILIZER AND WATERING)	264	SY	\$2.75	\$726.00
300	PAYMENT BOND	1	LS	\$865	\$865
301	PERFORMANCE BOND	1	LS	\$865	\$865
01024	FORCE ACCOUNT	1	LS	\$2,000.00	\$2,000.00

TOTAL AMOUNT OF BID (IN FIGURES): \$ 36,932.50

TOTAL AMOUNT OF BID (IN WORDS): Thirty six thousand, nine hundred thirty two dollars and fifty cent

SUMMARY - ITEMIZED BID SCHEDULE

Project Name: Highland Drive SW sidewalk improvements IRC Project #03128

64th Avenue Sidewalk, IRC Project #0452

6250 Old Dixie Highway, IRC Project # 0524

Bidder Name: Timothy Rose Contracting, Inc.

TOTAL AMOUNT OF BID FOR IRC PROJECT #13428 HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS (IN FIGURES):

\$ 83,759.40

TOTAL AMOUNT OF BID (IN WORDS):

eighty three thousand seven hundred fifty nine dollars and forty cent

TOTAL AMOUNT OF BID FOR IRC PROJECT #0452, 64TH AVENUE SIDEWALK (IN FIGURES):

\$ 73,736.50

TOTAL AMOUNT OF BID (IN WORDS):

Seventy three thousand seven hundred thirty six dollars and fifty cent

TOTAL AMOUNT OF BID FOR IRC PROJECT #0524, 6250 OLD DIXIE HIGHWAY SIDEWALK (IN FIGURES)

\$ 36,932.50

TOTAL AMOUNT OF BID (IN WORDS)

Thirty six thousand nine hundred thirty two dollars and fifty cent

TOTAL AMOUNT OF BID FOR IRC PROJECTS #03128, & 0452 (IN FIGURES):

\$ 157,495.90

TOTAL AMOUNT OF BID (IN WORDS):

One hundred fifty seven thousand, four hundred ninety five dollars and ninety cent

Considerations for bids will be based on the total amount for all four projects.

ITEMIZED BID SCHEDULE

Project Name: HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS,
64TH AVENUE SIDEWALK
6250 OLD DIXIE HIGHWAY

Bidder Name: Timothy Rose Contracting, Inc.

5.01 Bidder shall complete the Work in accordance with the Contract Documents for the price(s) contained in the Bid Schedule:

- A. The Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.
- B. The Owner reserves the right to omit or add to the construction of any portion or portions of the work heretofore enumerated or shown on the plans. Furthermore, the Owner reserves the right to omit in its entirety any one or more items of the Contract without forfeiture of Contract or claims for loss of anticipated profits or any claims by the Contractor on account of such omissions.
- C. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities provided. The quantities actually required to complete the contract and work may be less or more than so estimated, and, if so, no action for damages or for loss of profits shall accrue to the Contractor by reason thereof.
- D. Unit Prices have been computed in accordance with paragraph 11.03.B of the General Conditions.

6.01 Bidder agrees that the Work will be substantially completed and ready for final payment in accordance with paragraph 14.07.B of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified, which shall be stated in the Agreement.

7.01 The following documents are attached to and made a condition of this Bid:

- A. Required Bid security in the form of Bond;
- B. A tabulation of Subcontractors, Suppliers [and other] individuals and entities required to be identified in this Bid;
- C. Statement of Public Entity Crimes;
- D. Sworn Statement under Section 105.08, Indian River County Code, on Disclosure of Relationships;
- E. Sworn Statement Under the Florida Trench Safety Act;
- F. General Information Required of Bidders;
- G. List of Subcontractors; and

ITEMIZED BID SCHEDULE

Project Name: HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS,
64TH AVENUE SIDEWALK
6250 OLD DIXIE HIGHWAY

Bidder Name: Timothy Rose Contracting, Inc.

H. (List other documents as pertinent).

8.01 The terms used in this Bid with initial capital letters have the meanings indicated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

SUBMITTED on August 17, 2005.

State Contractor License No. CGC052940

If Bidder is:

An Individual

Name (typed or printed): _____

By: _____ (SEAL)
(Individual's signature)

Doing business as: _____
Business address: _____

Phone No.: _____ FAX No.: _____

A Partnership

Partnership Name: _____ (SEAL)

By: _____
(Signature of general partner – attach evidence of authority to sign)

Name (typed or printed): _____

Business address: _____

Phone No.: _____ FAX No.: _____

A Corporation

Corporation Name: Timothy Rose Contracting, Inc. (SEAL)

State of Incorporation: Florida

Type (General Business, Professional, Service, Limited Liability): _____

By: _____
(Signature -- attach evidence of authority to sign)

Name (typed or printed): Timothy Rose

Title: President

Attest _____ (CORPORATE SEAL)

ITEMIZED BID SCHEDULE

Project Name: HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS,
64TH AVENUE SIDEWALK
6250 OLD DIXIE HIGHWAY

Bidder Name: _____
(Signature of Corporate Secretary)

Business address: _____

Phone No.: _____ FAX No.: _____

Date of Qualification to do business is _____

A Joint Venture

Joint Venture Name: _____ (SEAL)

By: _____
(Signature of joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone No.: _____ FAX No.: _____

Joint Venture Name: _____ (SEAL)

By: _____
(Signature -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone No.: _____ FAX No.: _____

Phone and FAX Number, and Address for receipt of official communications:

(Each joint venturor must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

ITEMIZED BID SCHEDULE

Project Name: HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS,
64TH AVENUE SIDEWALK
6250 OLD DIXIE HIGHWAY

Bidder Name: _____

** END OF SECTION **

INDIAN RIVER COUNTY, FLORIDA
CHANGE ORDER NO. 1
PROJECT NO. 0452
Bid # 7084

PROJECT: 64th Avenue Sidewalk North of C.R. 510

CONTRACTOR NAME/ADDRESS: Tim Rose Contracting
1360 S. W. Old Dixie Highway, Suite 106
Vero Beach, Florida 32962

DATE: September 28, 2005

	DESCRIPTION OF CHANGE	PRICE INCREASE	PRICE DECREASE
1	Reduce Mobilization Costs		\$5,790.00
2	Remove Maintenance of Traffic Costs		\$3,500.00
3	Remove Erosion and Water Pollution Control		\$2,200.00
4	Reduce Clearing and Grubbing Costs		\$4,200.00
5	Reduce Grading, Excavation and Embankment Costs. County to supply embankment		\$4,900.00
6	Remove As-Built Drawing Costs		\$5,500.00
32	Revise Concrete Sidewalk to 4" Thick 5' wide to include stabilized subgrade - Ends 6" Thick 600S @ \$28,6216/SY = \$17,173.00		\$6,227.00
36	Reduce Costs of Sod (Bahia) Remove Fertilizer and Watering 350SY @ \$1.75 = \$612.50		\$650.00
300	Remove Payment Bond		\$1,550.00
301	Remove Performance Bond		\$1,550.00
01024	Remove Force Account		\$2,000.00
	Total Increase/Decrease	-0-	\$37,767.00
NET CHANGE IN AMOUNT		(\$37,767.00)	

ORIGINAL CONTRACT PRICE \$73,736.50 TIME 165 DAYS

CURRENT CONTRACT PRICE \$35,969.50 TIME 60 DAYS

NET CHANGE PRICE/TIME FROM THIS CHANGE ORDER NO.1 (\$37,767.00) 105 DAYS

NEW CONTRACT PRICE/TIME INCLUDING THIS CHANGE ORDER \$35,969.50 60 DAYS

INDIAN RIVER COUNTY, FLORIDA
CHANGE ORDER NO. 1
PROJECT NO. 0452
Bid # 7084

APPROVAL

ENGINEERS RECOMMENDATION:

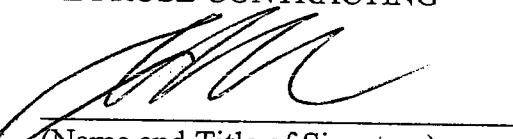
I have examined the above changes. They are necessary to satisfactorily complete the Contract. The price changes are reasonable and I recommend that the changes be made.


Christopher J. Kafer, Jr., P.E.
County Engineer

10-12-05
Date

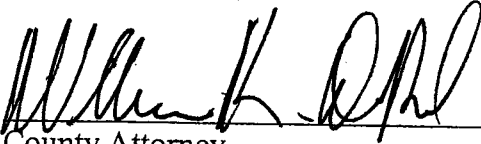
I agree to the amendment of the 64th Avenue Sidewalk North of C.R. 510 Contract as indicated on the attached (2) two page Change Order No. 1. This Change Order shall become a part of the 64th Avenue Sidewalk North of C.R. 510 Contract and incorporated therein.

TIM ROSE CONTRACTING

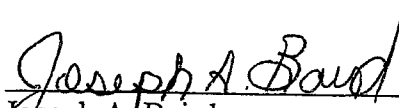

(Name and Title of Signatory)

Witnessed by:

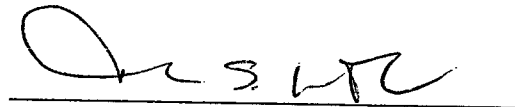

Barbara Romero


County Attorney

Approved as to Form and Legal Sufficiency

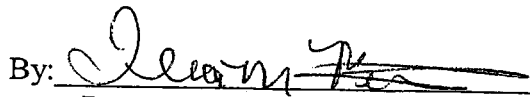

Joseph A. Baird,
County Administrator

INDIAN RIVER COUNTY, FLORIDA


Thomas S. Lowther, Chairman

Approved by BCC October 18, 2005

Attest:
Jeffrey K. Barton, Clerk of Circuit Court

By: 
Deputy Clerk

ESTIMATE: \$

PROJECT NAME

PROJECT MANAGER	Michelle Gentile	PHONE 567-8000 EXT. 1280
PROJECT NOS.	0201	AMT. PER SET \$ 150.00

AMT. PER SET \$ 150.00

PROJECT NOS.

03128

0382

0452

0424

[illegible]

KNOW ALL MEN BY THESE PRESENTS, that we

Timothy Rose Contracting, Inc.

(BIDDER'S NAME)

as Principal,

and Developers Surety and Indemnity Company

(SURETY'S NAME)

a corporation duly organized under the Laws of the State of Florida as a Surety with its principal offices in the City of Plantation, FL and authorized to do business in the State of Florida, are held and firmly bound unto INDIAN RIVER COUNTY (hereinafter called the OWNER) in the penal sum of Five Percent of Bid Amount Dollars (\$ 5% of Bid lawful money of the United States, amounting to 5% of the total bid price, for the payment of which sum well and truly be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

Whereas said Principal is herewith submitting a Bid dated August 17, 20 05 for the construction of:

Project Name:

INDIAN RIVER DRIVE SOUTH SIDEWALK IMPROVEMENTS,
HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS,
FELLSMERE SIDEWALK PHASE II, 64TH AVENUE SIDEWALK
AND 6250 OLD DIXIE HIGHWAY, JIMMY'S TREE SERVICE

County Project Number: 0201, 03128, 0382, 0452 & 0524

Project Address:

INDIAN RIVER DRIVE SOUTH, FROM SOUTH SEBASTIAN CITY
LIMITS TO US HIGHWAY NO. 1,
HIGHLAND DRIVE SW, FROM THE B-10 CANAL TO 10TH AVENUE
SW, VERO BEACH,
FELLSMERE SIDEWALK FROM MYRTLE STREET TO CYPRESS
STREET FELLSMERE
64TH AVENUE SIDEWALK FROM CR 510 TO 86TH LANE, WABASSO
AND
6250 OLD DIXIE HIGHWAY, VERO BEACH

Project Description:

INDIAN RIVER DRIVE SOUTH SIDEWALK IMPROVEMENTS,
HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS, FELLSMERE
SIDEWALK PHASE II
64TH AVENUE SIDEWALK
AND
6250 OLD DIXIE HIGHWAY JIMMY'S TREE SERVICE, VERO BEACH

HEREFORE, the condition of the above obligation is such that if the Principal does not withdraw the Bid within the period of time set forth in the Bid Documents, and on or before the fifteenth day after the date of award, the Principal enters into a written contract with the OWNER in accordance with the Bid Documents, and if the Principal gives the required bonds with good and sufficient sureties for the performance and proper fulfillment of such Contract and for the protection of laborers and mechanics, then this obligation shall be null and void. Otherwise, the Principal and Surety, jointly and severally, shall on or before the sixtieth day after request by the OWNER, pay to the OWNER in money, the difference between the amount specified in said Bid and the amount for which the OWNER may

procure the required work if the latter amount is greater than the former, together with any expense and reasonable attorney fees, including appellate proceedings, incurred by the OWNER if suit is brought hereon, but in no event shall Surety's liability exceed the penal sum hereof plus such expenses and attorney's fees.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their several seals this 16 day of August, 2005, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

Signed, sealed and delivered in the presence of:

Witness

Signature of Individual

Address

Printed Name of Individual

Witness

Address

NAME: _____

Signed, sealed and delivered in the presence of:

14-00000

Name of Partnership

4. 11. 1953

BY:
Partner

Printed Name of Partner

(SEAL)

PRINCIPAL IS A PARTNERSHIP

and delivered in the presence of:

Name of Partnership

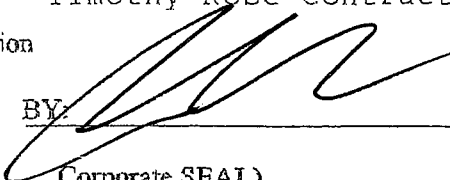
BY:
Partner

Printed Name of Partner

(SEAL)

WHEN THE PRINCIPAL IS A CORPORATION:

Attest:

Secretary _____ Name of Corporation Timothy Rose Contracting, Inc.
BY:  _____ (Affix
Corporate SEAL)

Printed Name Timothy Rose President

Official Title President

CERTIFICATE AS TO CORPORATE PRINCIPAL

_____, certify that I am the Secretary of the corporation named as Principal in the
within bond; that _____, who signed the said bond on behalf of the Principal was
_____ of said corporation; that I know his signature, and his signature
is genuine; and that said Bond was duly signed, sealed and attested for and on behalf of Said
corporation by authority of its governing body.

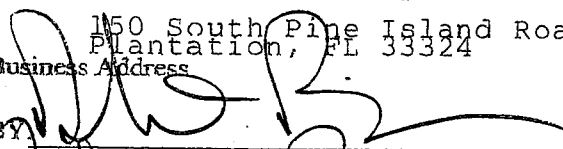
Secretary

(SEAL)


TO BE EXECUTED BY CORPORATE SURETY:


Corporate Surety

Developers Surety and Indemnity Con
1150 South Pine Island Road, Ste 115
Plantation, FL 33324
Business Address

BY:  _____
(Affix Corporate SEAL) Robert Barra

(Attach Power of Attorney)


Attorney-In-Fact Robert Barra

Name of Local Agency

Bob Barra Bonds, Inc.

Business Address

9373 West Sample Road, Ste
Coral Springs, FL 33065

STATE OF FLORIDA
COUNTY OF INDIAN RIVER

Before me, a Notary Public, duly commissioned, qualified and acting, personally appeared
Robert Barra, to me well known, who being by me first duly sworn upon oath, says that
he is the attorney-in-fact for the Developers Surety and that he has been authorized by
Power of Attorney to execute the foregoing bond on behalf of the CONTRACTOR named therein in
favor of the County of Indian River, Florida. Subscribed and sworn to before me this 16 day of
August, 2005.

Nancy L. Carman
Notary Public, State of Florida
Nancy L. Carman



Nancy L. Carman
My Commission DD335646
Expires August 25, 2008

My Commission Expires: August 25, 2008

Any claims under this bond shall be addressed to:

Name and address of Surety:

Developers Surety & Indemnity Company

150 South Pine Island Road, Ste 115

Plantation, FL 33324

Name and address of agent
or representative in Florida
if different from above:

Robert Barra

9373 West Sample Road, Ste 206

Coral Springs, FL 33065

Telephone number of Surety and

agent or representative in Florida: (954) 255 - 9855

++ END OF SECTION ++

**POWER OF ATTORNEY FOR
DEVELOPERS SURETY AND INDEMNITY COMPANY**
PO BOX 19725, IRVINE, CA 92623 (949) 263-3300
www.lnscoDico.com

KNOW ALL MEN BY THESE PRESENTS, that except as expressly limited, DEVELOPERS SURETY AND INDEMNITY COMPANY does hereby make, constitute and appoint:

Robert Barra


as its true and lawful Attorney(s)-in-Fact, to make, execute, deliver and acknowledge, for and on behalf of said corporation as surety, bonds, undertakings and contracts of suretyship giving and granting unto said Attorney(s)-in-Fact full power and authority to do and to perform every act necessary, requisite or proper to be done in connection therewith as the corporation could do, but reserving to the corporation full power of substitution and revocation, and all of the acts of said Attorney(s)-in-Fact, pursuant to these presents, are hereby ratified and confirmed.

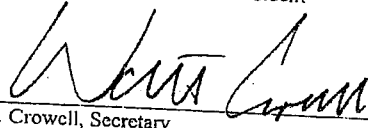
This Power of Attorney is granted and is signed by facsimile under and by authority of the following resolution adopted by the Board of Directors of DEVELOPERS SURETY AND INDEMNITY COMPANY effective as of November 1, 2000:

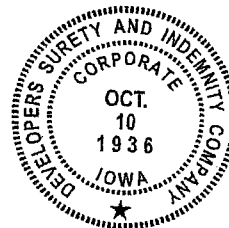
RESOLVED, that the Chairman of the Board, the President and any Vice President of the corporation be, and that each of them hereby is, authorized to execute Powers of Attorney, qualifying the Attorney(s)-in-Fact named in the Powers of Attorney to execute, on behalf of the corporation, bonds, undertakings and contracts of suretyship; and that the Secretary or any Assistant Secretary of the corporation be, and each of them hereby is, authorized to attest the execution of any such Power of Attorney;

RESOLVED, FURTHER, that the signatures of such officers may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures shall be valid and binding upon the corporation when so affixed and in the future with respect to any bond, undertaking or contract of suretyship to which it is attached.

IN WITNESS WHEREOF, DEVELOPERS SURETY AND INDEMNITY COMPANY has caused these presents to be signed by its respective Executive Vice President and attested by its Secretary this 1st day of February, 2005.

By: 
David H. Rhodes, Executive Vice-President

By: 
Walter A. Crowell, Secretary



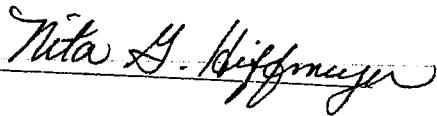
STATE OF CALIFORNIA)

COUNTY OF ORANGE) SS.

On February 1, 2005, before me, Nita G. Hiffmeyer, personally appeared David H. Rhodes and Walter A. Crowell, personally known to me (or proved to me on the basis of satisfactory evidence) to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same in their authorized capacities, and that by their signatures on the instrument the entity upon behalf of which the persons acted, executed the instrument.

WITNESS my hand and official seal

Signature

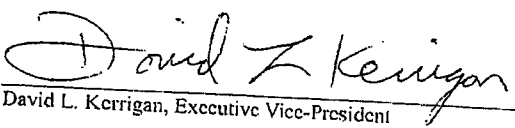




CERTIFICATE

The undersigned, as Executive Vice-President, of DEVELOPERS SURETY AND INDEMNITY COMPANY, does hereby certify that the foregoing Power of Attorney remains in full force and has not been revoked, and furthermore, that the provisions of the resolution of the respective Boards of Directors of said corporation set forth in the Power of Attorney, is in force as of the date of this Certificate.

This Certificate is executed in the City of Irvine, California, the 16 day of August, 2005.

By: 
David L. Kerrigan, Executive Vice-President

AG#1686461

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

SEQ#L0410140212

DATE	BATCH NUMBER	LICENSE NBR
10/14/2004	040354897	CGC052940

The GENERAL CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2006

ROSE, TIMOTHY WILLIAM
TIMOTHY ROSE CONTRACTING INC
120 43RD AVE SW
VERO BEACH FL 32962

JEB BUSH
GOVERNOR

DISPLAY AS REQUIRED BY LAW

DIANE CARR
SECRETARY

SECTION 0045 - PUBLIC ENTITY CRIMES

Pursuant to Florida Statutes Section 287.133(2)(a), all Bidders are hereby notified that a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity (defined as the State of Florida, any of its departments or agencies, or any political subdivision); may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Florida Statutes Section 287.017 for CATEGORY TWO [currently \$25,000] for a period of 36 months from the date of being placed on the convicted vendor list. A "public entity crime" means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid, proposal, reply, or contract for goods or services, any lease for real property, or any contract for the construction or repair of a public building or public work, involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

**** END OF SECTION ****

SECTION 00452 - Sworn Statement under Sect. 105.08 Indian River County Code on
Disclosure of Relationships

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC
OR OTHER OFFICER AUTHORIZED TO ADMINISTER OATHS.

This sworn statement is submitted with Bid, Proposal or Contract No. 7084 for
INDIAN RIVER DRIVE SOUTH SIDEWALK IMPROVEMENTS, HIGHLAND DRIVE SW
SIDEWALK IMPROVEMENTS, FELLSMERE SIDEWALK PHASE II, 64TH AVENUE SIDEWALK
AND 6250 OLD DIXIE HIGHWAY, JIMMY'S TREE SERVICE.

1. This sworn statement is submitted by: Timothy Rose Contracting Inc.
(Name of entity submitting sworn statement)
whose business address is: 1360 Old Dixie Hwy SW, Vero Beach, FL
32962
(if applicable) its Federal Employer Identification Number (FEIN) is 605-0284242
(If the entity has no FEIN, include the Social Security Number of the individual signing this
sworn statement _____).

2. My name is Timothy Rose
(Please print name of individual signing)
and my relationship to the entity named above is President

3. I understand that an "affiliate" as defined in Section 105.08, Indian River County Code,
means:

*The term "affiliate" includes those officers, directors, executives, partners,
shareholders, employees, members, and agents who are active in the management
of the entity.*

4. I understand that the relationship with a County Commissioner or County employee that
must be disclosed is as follows:

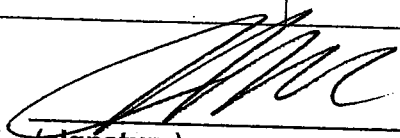
*Father, mother, son, daughter, brother, sister, uncle, aunt, first
cousin, nephew, niece, husband, wife, father-in-law, mother-in-
law, daughter-in-law, son-in-law, brother-in-law, sister-in-law,
stepfather, stepmother, stepson, stepdaughter, stepbrother,
stepsister, half brother, half sister, grandparent or grandchild.*

5. Based on information and belief, the statement which I have marked below is true in
relation to the entity submitting this sworn statement. [Please indicate which statement
applies.]

☒ Neither the entity submitting this sworn statement, nor any officers, directors,
executives, partners, shareholders, employees, members, or agents who are active in
management of the entity, have any relationships as defined in Section 105.08, Indian
River County Code, with any County Commissioner or County employee.

_____ The entity submitting this sworn statement, or one or more of the officers, directors,
executives, partners, shareholders, employees, members, or agents who are active
in management of the entity have the following relationships with a County
Commissioner or County employee:


	Name of Affiliate or Entity	Name of County Commissioner or employee	Relationship
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			


 (signature)
8/17/05
 (date)

STATE OF Florida
 COUNTY OF Indian River

Personally appeared before me, the undersigned authority, Timothy Rose
 who after first being sworn by me, affixed his/her signature in the space provided above on this
17th day of August, 2005.

Morgan Smith
 Notary Public, State at large
 My Commission Expires:
March 21, 2008


 MORGAN SMITH
 MY COMMISSION # DD 301919
 EXPIRES: March 21, 2008
 Bonded Thru Budget Notary Services

SECTION 00454 - Sworn Statement Under the Florida Trench Safety Act

THIS FORM MUST BE SIGNED BY THE BIDDER WHO WILL BE RESPONSIBLE FOR THE EXCAVATION WORK ("BIDDER"), OR ITS AUTHORIZED REPRESENTATIVE, IN THE PRESENCE OF A NOTARY PUBLIC AUTHORIZED TO ADMINISTER OATHS.

1. This Sworn Statement is submitted with Project No. 0201, 03128, 0382, 0452 & 0524 for INDIAN RIVER DRIVE SOUTH SIDEWALK IMPROVEMENTS, HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS, FELLSMERE SIDEWALK PHASE II, 64TH AVENUE SIDEWALK AND 6250 OLD DIXIE HIGHWAY, JIMMY'S TREE SERVICE.

(Name of Project)

2. This Sworn Statement is submitted by Timothy Rose Contracting, Inc.
(Legal Name of Entity Submitting Sworn Statement)

hereinafter "BIDDER". The BIDDER's address is 1360 Old Dixie Hwy, SW, Vero Beach, FL 32902
BIDDER's Federal Employer Identification Number (FEIN) is 65-0284242

3. My name is Timothy Rose and my relationship to the BIDDER is President
(Print Name of Individual Signing) (Position or Title)

I certify, through my signature at the end of this Sworn Statement, that I am an authorized representative of the BIDDER.

4. The Trench Safety Standards that will be in effect during the construction of this Project are contained within the Trench Safety Act, Section 553.60 et seq. Florida Statutes and refer to the applicable Florida Statute(s) and/or OSHA Regulation(s) and include the "effective date" in the citation(s). Reference to and compliance with the applicable Florida Statute(s) and OSHA Regulation(s) is the complete and sole responsibility of the BIDDER. Such reference will not be checked by OWNER or ENGINEER and they shall have no responsibility to review or check the BIDDER's compliance with the Trench Safety Standards.

5. The BIDDER assures the OWNER that it will comply with the applicable Trench Safety Standards.

6. The BIDDER has allocated and included in its bid the total amount of \$ N/A, based on the linear feet of trench to be excavated over five (5) feet deep, for compliance with the applicable Trench Safety Standards, and intends to comply with said standards by instituting the following specific method(s) of compliance on this Project: N/A

The determination of the appropriate method(s) of compliance is the complete and sole responsibility of the BIDDER. Such methods will not be checked by the OWNER or ENGINEER for accuracy, completeness, or any other purpose. The OWNER and ENGINEER shall have no responsibility to review or check the BIDDER's compliance with the Trench Safety Standards.

7. The BIDDER has allocated and included in its bid the total amount of \$ N/A based on the square feet of shoring to be used for compliance with shoring safety requirements and intends to comply with said shoring requirements by instituting the following specific method(s) of compliance on this Project: _____

N/A

The determination of the appropriate method(s) of compliance is the complete and sole responsibility of the BIDDER. Such methods will not be checked by the OWNER or ENGINEER for accuracy, completeness or any other purpose. The OWNER and ENGINEER shall have no responsibility to review or check the BIDDER's compliance with the Trench Safety Standards.

8. The BIDDER, in submitting this bid, represents that it has obtained and considered all available geotechnical information, has utilized said geotechnical information and that, based on such information and the BIDDER's own information, the BIDDER has sufficient knowledge of the Project's surface and subsurface site conditions and characteristics to assure BIDDER's compliance with the applicable Trench Safety Standards in designing the trench safety system(s) for the Project.

BIDDER: Timothy Rose

By: _____

Position or Title: President

Date: 8/17/05

STATE OF Florida
COUNTY OF Indian River

Personally appeared before me, the undersigned authority, Timothy Rose who after first being sworn by me, affixed his/her signature in the space provided above on this 17th day of August, 2005.

Morgan Smith
Notary Public, State at large
My Commission Expires:
March 21, 2008



MORGAN SMITH
MY COMMISSION # DD 301919
EXPIRES: March 21, 2008
Bonded Thru Budget Notary Services

**** END OF SECTION ****

SECTION 00456 – QUALIFICATIONS QUESTIONNAIRE

NOTICE: THE OWNER RETAINS THE DISCRETION TO REJECT THE BIDS OF NON-RESPONSIBLE BIDDERS.

- UNDER PENALTY OF PERJURY, the undersigned Bidder Guarantees the truth and accuracy of all statements and answers herein contained. Failure to comply with these requirements may be considered sufficient justification to disqualify a Bidder. Attach additional sheets as required.

Documentation Submitted with Project No: 0201, 03128, 0382, 0452 & 0524

Project Name: INDIAN RIVER DRIVE SOUTH SIDEWALK IMPROVEMENTS,
HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS,
FELLSMERE SIDEWALK PHASE II, 64TH AVENUE SIDEWALK
AND 6250 OLD DIXIE HIGHWAY, JIMMY'S TREE SERVICE.

1. Bidder's Name / Address: Timothy Rose Contracting, Inc
1360 Old Dixie Hwy SW, Vero Beach FL 329102
2. Bidder's Telephone & FAX Numbers: (phone) 772-564-7800
(fax) 772-564-7888
3. Licensing and Corporate Status:
 - a. Is Contractor License current? Yes
 - b. Bidder's Contractor License No: CGC052940 [Attach a copy of Contractor's License to the bid]
 - c. Attach documentation from the State of Florida Division of Corporations that indicates the business entity's status is active and that lists the names and titles of all officers.
4. Number of years the firm has performed business as a Contractor in construction work of the type involved in this contract: 1940
5. What is the last project OF THIS NATURE that the firm has completed?
Publix Kanner Crossing Stuart, FL.
6. Has the firm ever failed to complete work awarded to you? NO

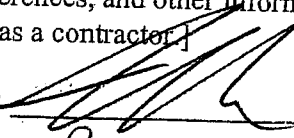
[If your answer is "yes, then attach a separate page to this questionnaire that explains the circumstances and list the project name, Owner, and the Owner's telephone number for each project in which the firm failed to complete the work.]
7. Has the firm ever been assessed liquidated damages? NO

[If your answer is "yes, then attach a separate page to this questionnaire that explains the circumstances and list the project name, Owner, and the Owner's telephone number for each project in which liquidated damages have been assessed.]

8. Has the firm ever been charged by OSHA for violating any OSHA regulations? NO
[If your answer is "yes, then attach a separate page to this questionnaire that explains the circumstances and list the project name, Owner, and the Owner's telephone number for each project in which OSHA violations were alleged.]
9. Has the firm ever been charged with noncompliance of any public policy or rules? NO
[If your answer is "yes, then attach a separate page to this questionnaire that explains the circumstances and list the project name, Owner, and the Owner's telephone number for each project.]
10. Attach to this questionnaire, a notarized financial statement and other information that documents the firm's financial strength and history.
11. Has the firm ever defaulted on any of its projects? NO
[If your answer is "yes, then attach a separate page to this questionnaire that explains the circumstances and list the project name, Owner, and the Owner's telephone number for each project in which a default occurred.]
12. Attach a separate page to this questionnaire that summarizes the firm's current workload and that demonstrates its ability to meet the project schedule.
13. Name of person who inspected the site of the proposed work for the firm:
Name: Tim Rose Date of Inspections: 8/16/05
14. Name of on-site Project Foreman: Steve Doran
Number of years of experience with similar projects as a Project Foreman: 5
15. Name of Project Manager: Tim Rose
Number of years of experience with similar projects as a Project Manager: 19
16. What is the firm's bonding capacity? 5,000,000.00

[The remainder of this page was left blank intentionally]

[NOTE: If requested by the County, the Bidder shall furnish references, and other information, sufficiently comprehensive to permit an appraisal of its abilities as a contractor.]

By:  (Signature)
President (Position or Title)
8/17/05 (Date)

** END OF SECTION **

Complete the following table for SIMILAR projects:

[illegible]

SECTION 00458 - List of Subcontractors

The Bidder **SHALL** list below the name and address of each Subcontractor who will perform work under this Contract in excess of one-half percent of the total bid price, and shall also list the portion of the work which will be done by such Subcontractor. After the opening of Bids, changes or substitutions will not be allowed unless approved by Indian River County after a request for such a change has been submitted in writing by the Contractor, which shall include reasons for such request. Subcontractors must be properly licensed and hold a valid Certificate of Competency.

Documentation Submitted with Project No. 0201, 03128, 0382, 0452 & 0524 for INDIAN RIVER DRIVE SOUTH SIDEWALK IMPROVEMENTS, HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS, FELLSMERE SIDEWALK PHASE II, 64TH AVENUE SIDEWALK AND 6250 OLD DIXIE HIGHWAY, JIMMY'S TREE SERVICE.

<u>Work to be Performed</u>	<u>Subcontractor's Name/Address</u>
1. <u>Sod</u>	<u>A-1 Quality Sod 1958 33rd Ave</u> <u>Vero Beach, FL. 32960</u>
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____
11. _____	_____
12. _____	_____
13. _____	_____
14. _____	_____
15. _____	_____
16. _____	_____
17. _____	_____

Note: Attach additional sheets if required.

** END OF SECTION **

0201&03128-00458 - List of Subcontractors

FILE COPY

MG



October 19, 2005

VIA OVERNIGHT DELIVERY

RECEIVED

NOV - 2 2005

INDIAN RIVER COUNTY
ENGINEERING DIVISION

NOTICE OF AWARD

Reference: Indian River County Bid # 7084 Indian River County Miscellaneous Sidewalks

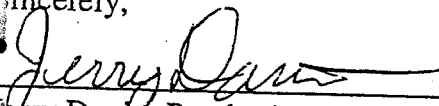
Dear Mr. Timothy Rose,

I am pleased to inform you that on October 18 2005, the Board of County Commissioners awarded the above referenced project to your company. The following documents are required before the applicable County Department can issue a "Notice to Proceed" letter.

1. Certificate of Insurance, must name Indian River County as an additional insured and must provide for a 30 day Notice of Cancellation.

Please submit the Certificate of Insurance to the address provided below to this office no later than **November 2, 2005**. Failure to comply with the established deadline for submittal of required documents may be grounds for cancellation of the award.

Sincerely,


Jerry Davis, Purchasing Manager

cc: Michelle Gentile, Engineering Department

SECTION 00520 - Agreement (Public Works)

10-18-05

11 I 2

205-3521
Timothy Rose 1st 2
sidewalks-misc

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[THE REMAINDER OF THIS PAGE WAS LEFT BLANK INTENTIONALLY]

SECTION 00520 - Agreement (Public Works)

THIS AGREEMENT is by and between INDIAN RIVER COUNTY, a Political Subdivision of the State of Florida organized and existing under the Laws of the State of Florida, (hereinafter called OWNER)

and Sumathy Rose Contracting Co.
(hereinafter called CONTRACTOR).

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1 - WORK

- 1.01 CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

CONSTRUCT A 5' AND 8' WIDE CONCRETE SIDEWALK AND PROVIDE DRAINAGE AS SHOWN ON THE PLANS.

ARTICLE 2 - THE PROJECT

- 2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

Project Name: INDIAN RIVER DRIVE SOUTH SIDEWALK IMPROVEMENTS,
HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS,
FELLSMERE SIDEWALK PHASE II, 64TH AVENUE SIDEWALK
AND 6250 OLD DIXIE HIGHWAY, JIMMY'S TREE SERVICE.

County Project Number: 0201, 03128, 0382, 0452 & 0524

Project Address: INDIAN RIVER DRIVE SOUTH FROM SOUTH SEBASTIAN CITY LIMITS TO US HIGHWAY NO. 1, HIGHLAND DRIVE SW FROM THE B-10 CANAL TO 10TH AVENUE SW VERO BEACH, FLORIDA, FELLSMERE SIDEWALK FROM MYRTLE STREET TO CYPRESS ST., 64TH AVENUE SIDEWALK AND 6250 OLD DIXIE HIGHWAY, JIMMY'S TREE SERVICE.

ARTICLE 3 - ENGINEER

- 3.01 The Indian River County Public Works Department is hereinafter called the ENGINEER and will act as OWNER's representative, assume all duties and responsibilities, and have the rights and authority assigned to ENGINEER in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 - CONTRACT TIMES

- 4.01 *Time of the Essence*

- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

- 4.02 *Days to Achieve Substantial Completion and Final Payment*

- A. The Work will be substantially completed on or before the 150TH day after the date when the Contract Times commence to run as provided in paragraph 2.03 of the General

0201&03128-00520 - Agreement (Public Works)

Conditions, and completed and ready for final payment in accordance with paragraph 14.07 of the General Conditions on or before the 165th day after the date when the Contract Times commence to run.

4.03 *Liquidated Damages*

- A. CONTRACTOR and OWNER recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not completed within the times specified in paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal proceeding the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay OWNER \$676.00 for each calendar day that expires after the time specified in paragraph 4.02 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by OWNER, CONTRACTOR shall pay OWNER \$676.00 for each calendar day that expires after the time specified in paragraph 4.02 for completion and readiness for final payment until the Work is completed and ready for final payment.

ARTICLE 5 - CONTRACT PRICE

- 5.01 OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents, an amount in current funds equal to the sum of the amounts determined pursuant to paragraph 5.01.A and summarized in paragraph 5.01.B, below:

- A. For all Work, at the prices stated in CONTRACTOR's Bid, attached hereto as an exhibit.
- B. THE CONTRACT SUM subject to additions and deductions provided in the Contract:

Numerical Amount: \$ \$73,736.50

Written Amount: seventy-three thousand, seven hundred &
thirty-six dollars and fifty cents

ARTICLE 6 - PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

- A. CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

- A. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment at intervals not less than once each month during performance of the Work as provided in paragraph 6.02.A.1 below. All such payments will be measured by the schedule of values established in paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units

completed) or, in the event there is no schedule of values, as provided in the General Requirements:

1. Progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as ENGINEER may determine or OWNER may withhold, in accordance with paragraph 14.02 of the General Conditions:
 - a. Ninety percent (90%) of Work completed (with the balance being retainage); and
 - b. Eighty percent (80%) of cost of materials and equipment not incorporated in the Work but stored on the Project site (with the balance being retainage).

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with paragraph 14.07 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said paragraph 14.07.

ARTICLE 7 - INDEMNIFICATION

- 7.01 CONTRACTOR shall indemnify OWNER, ENGINEER, and others in accordance with paragraph 6.20 (*Indemnification*) of the General Conditions to the Construction Contract.

ARTICLE 8 - CONTRACTOR'S REPRESENTATIONS

8.01 In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

- A. CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
- B. CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. CONTRACTOR has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions and (2) reports and drawings of a Hazardous Environmental Condition, if any, at the Site which have been identified in the Supplementary Conditions as provided in paragraph 4.06 of the General Conditions.
- E. CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, including applying the specific means, methods,

0201&03128-00520 - Agreement (Public Works)

techniques, sequences, and procedures of construction, if any, expressly required by the Contract Documents to be employed by CONTRACTOR, and safety precautions and programs incident thereto

- F. CONTRACTOR does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- I. CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract Documents, and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.
- J. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 9 - CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 00520-1 to 00520-8, inclusive);
 - 2. Performance Bond (pages 00610-1 to 00610-6, inclusive);
 - 3. Payment Bond (pages 00612-1 to 00612-5, inclusive);
 - 4. General Conditions (pages 00700-1 to 00700-44, inclusive);
 - 5. Supplementary Conditions (pages 00800-i to 00800-12, inclusive);
 - 6. Specifications as listed in the table of contents of the Project Manual;
 - 7. Drawings consisting of:
 - a. Indian River Drive south Sidewalk (pages 1 through 27)
 - b. 64th Avenue sidewalk (pages 1 through 9)
 - c. Highland Drive Sidewalk (pages 1 through 9)
 - d. Fellsmere Sidewalk (pages 1 through 17)
 - e. 6250 Old Dixie Highway Sidewalk (pages 1 through 2)
 - 8. Addenda (numbers _____ to _____, inclusive);

9. Exhibits to this Agreement (enumerated as follows):
 - a. Notice to Proceed (pages 00550-1, inclusive);
 - b. CONTRACTOR's Bid (pages 00310-1 to 00310-10, inclusive);
 - c. Statement of Public Entity Crime
 - d. Sworn Statement Under the Florida Trench Safety Act (pages _____ to _____, inclusive);
 - e. Sworn Statement Under Section 105.08, Indian River County Code, on Disclosure of Relationships (pages 0454-1 to 0454-2, inclusive);
 - f. Qualifications Questionnaire (pages 00456-1 to 00456-4);
10. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Written Amendments;
 - b. Work Change Directives;
 - c. Change Order(s).
- B. The documents listed in paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in paragraph 3.04 of the General Conditions.

ARTICLE 10 - MISCELLANEOUS

10.01 Terms

- A. Terms used in this Agreement will have the meanings indicated in the General Conditions.

10.02 Assignment of Contract

- A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 Successors and Assigns

- A. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal

representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Venue*


- A. This Contract shall be governed by the laws of the State of Florida. Venue for any lawsuit brought by either party against the other party or otherwise arising out of this Contract shall be in Indian River County, Florida, or, in the event of a federal jurisdiction, in the United States District Court for the Southern District of Florida.

[The remainder of this page was left blank intentionally]

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in duplicate. One counterpart each has been delivered to OWNER and CONTRACTOR. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or on their behalf.

This Agreement will be effective on October 18, 20 05 (the date the Contract is approved by the Indian River County Board of County Commissioners, which is the Effective Date of the Agreement).

OWNER:
BOARD OF COUNTY COMMISSIONERS
INDIAN RIVER COUNTY

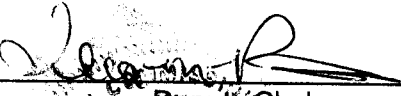
By: 
Thomas S. Lowther, Chairman

By: 
Joseph A. Baird, County Administrator

APPROVED AS TO FORM AND LEGAL
SUFFICIENCY:

By: 
William G. Collins, II, County Attorney


Jeffrey K. Barton, Clerk of Court

Attest: 
(SEAL) Deputy Clerk

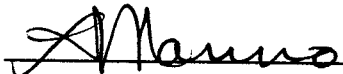
Designated Representative:
Name: Christopher J. Kafer, Jr., P.E.
Title: County Engineer
1840 25th Street
Vero Beach, Florida 32960
(772) 567-8000, ext. 1221
Facsimile: (772) 778-9391

CONTRACTOR:

Timothy Rose Contracting Co.

By: 
Tim Rose (Contractor)

(CORPORATE SEAL)

Attest: 

Address for giving notices:

1360 SW Old Dixie
Vero Beach
FL 32962

License No. CGC 052940
(Where applicable)

Agent for service of process: Tim Rose

Designated Representative:

Name: Tim Rose
Title: P.R.S.
Address: 1360 SW Old Dixie
Vero Beach FL 32962
Phone: 772 564 7800
Facsimile: 564 7888

(If CONTRACTOR is a corporation or a partnership, attach evidence of authority to sign.)

** END OF SECTION **

RECEIVED

SEP 27 2005

ITEMIZED BID SCHEDULE

Project Name: 64TH AVENUE SIDEWALK #0452Bidder Name: Timothy Rose Contracting, Inc.INDIAN RIVER COUNTY
ENGINEERING DIVISION

ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	PRICE BID (FIGURES)
BID ITEMS FOR 64TH AVENUE SIDEWALK PHASE II					
1	MOBILIZATION	1	LS	\$ 6200	\$ 6200
2	MAINTENANCE OF TRAFFIC	1	LS	\$ /	\$ /
3	EROSION & WATER POLLUTION CONTROL	1	LS	\$ /	\$ /
4	CLEARING & GRUBBING	1	LS	\$ 1500	\$ 1500
5	GRADING, EXCAVATION & EMBANKMENT <i>County to supply</i>	1	LS	\$ 4000	\$ 4000
6	AS-BUILT DRAWING (BY REGISTERED SURVEYOR)	1	LS	\$ /	\$ /
20	BITUMINOUS COATED CORRUGATED METAL PIPE (17" X 13")	52	LF	\$ 67.00	\$ 3484
26	INLET STRUCTURES (TYPE C)	2	EA	\$ 1500	\$ 3000
32	CONCRETE SIDEWALK ^{4"} (8" THICK - 5' WIDE) TO INCLUDE STABILIZED SUBGRADE <i>Ends 16'</i>	600	SY	\$ 28.62 ^{\$ 28.88}	\$ 17,130.00
36	SOD (BAHIA) (INCLUDES TOP SOIL, FERTILIZER AND WATERING)	350	SY	\$ 1.75	\$ 612.50
300	PAYMENT BOND	1	LS	\$ /	\$ /
301	PERFORMANCE BOND	1	LS	\$ /	\$ /
01024	FORCE ACCOUNT	1	LS	\$ 2,000.00	\$ 2,000.00

TOTAL AMOUNT OF BID (IN FIGURES): \$ 35,969.50TOTAL AMOUNT OF BID (IN WORDS): Thirty-five thousand,Nine hundred sixty-nine dollars and fifty cents



TIMOTHY ROSE CONTRACTING, INC.
1360 SW Old Dixie Hwy, Suite 106
Vero Beach, Florida 32962
772-564-7800
772-564-7888 fax
Trc@flbb.net
sheri.trc@flbb.net

FAX TRANSMITTAL FORM

To: Michelle Gentile

Fax: 772-778-9391

From: Morgan Smith

Sent: 9/21/05

faxed 9/21/05

Michelle,

Following are the revisions that you have requested for the IRC Sidewalks bid.
Please let me know if there is anything more that I can do for you.

Thank you,

Morgan

COPY

ITEMIZED BID SCHEDULE

Project Name: 64TH AVENUE SIDEWALK #0452

Bidder Name: Timothy Rose Contracting, Inc.

ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL PRICE BID (FIGURES)
BID ITEMS FOR 64TH AVENUE SIDEWALK PHASE II					
1	MOBILIZATION	1	LS	\$ 11,990	\$ 11,990
2	MAINTENANCE OF TRAFFIC	1	LS	\$ 3500	\$ 3500
3	EROSION & WATER POLLUTION CONTROL	1	LS	\$ 2200	\$ 2200
4	CLEARING & GRUBBING	1	LS	\$ 5,700	\$ 5,700
5	GRADING, EXCAVATION & EMBANKMENT	1	LS	\$ 8,900	\$ 8,900
6	AS-BUILT DRAWING (BY REGISTERED SURVEYOR)	1	LS	\$ 5,500	\$ 5,500
20	BITUMINOUS COATED CORRUGATED METAL PIPE (17" X 13")	52	LF	\$ 67.00	\$ 3,484
26	INLET STRUCTURES (TYPE C)	2	EA	\$ 1,500	\$ 3,000
32	CONCRETE SIDEWALK (6" THICK - 5' WIDE) TO INCLUDE STABILIZED SUBGRADE	600	SY	\$ 39.00	\$ 23,400
36	SOD (BAHIA) (INCLUDES TOP SOIL, FERTILIZER AND WATERING)	350	SY	\$ 2.75	\$ 962.50
300	PAYMENT BOND	1	LS	\$ 1,550	\$ 1,550
301	PERFORMANCE BOND	1	LS	\$ 1,550	\$ 1,550
01024	FORCE ACCOUNT	1	LS	\$2,000.00	\$2,000.00

TOTAL AMOUNT OF BID (IN FIGURES): \$ 73,736.50

TOTAL AMOUNT OF BID (IN WORDS): Seventy-three thousand

seven hundred thirty-six dollars and fifty cents

ITEMIZED BID SCHEDULE

Project Name: HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS. #03128

Bidder Name: Timothy Rose Contracting Inc.

ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL PRICE BID (FIGURES)
	BID ITEMS FOR HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS				
1	MOBILIZATION	1	LS	\$12.460	\$12.460
2	MAINTENANCE OF TRAFFIC	1	LS	\$3500	\$3,500
3	EROSION & WATER POLLUTION CONTROL	1	LS	\$2000	\$2,000
4	CLEARING & GRUBBING	1	LS	\$7,950	\$7,950
5	GRADING, EXCAVATION AND EMBANKMENT	1	LS	\$7840	\$7,840
6	AS-BUILT DRAWING (BY REGISTERED SURVEYOR)	1	LS	\$5,500	\$5,500
32	CONCRETE SIDEWALK (6" THICK 5' WIDE) TO INCLUDE STABILIZED SUBGRADE	980	SY	\$38.78	\$38,004.40
36	SOD (BAHIA) (INCLUDES TOP SOIL, FERTILIZER AND WATERING)	380	SY	\$2.75	\$1,045
300	PAYMENT BOND	1	LS	\$1,730	\$1,730
301	PERFORMANCE BOND	1	LS	\$1,730	\$1,730
01024	FORCE ACCOUNT	1	LS	\$2,000.00	\$2,000.00

TOTAL AMOUNT OF BID (IN FIGURES): \$ 83,759.40

TOTAL AMOUNT OF BID (IN WORDS): Eighty three thousand, seven hundred fifty nine dollars and forty cent

ITEMIZED BID SCHEDULE

Project Name: 6250 OLD DIXIE HIGHWAY JIMMYS TREE SERVICE SIDEWALK IMPROVEMENTS # 0524

Bidder Name: Timothy Rose Contracting, Inc.

ITEM NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL PRICE BID (FIGURES)
	BID ITEMS FOR HIGHLAND DRIVE SW <u>OLD DIXIE</u> SIDEWALK IMPROVEMENTS				
1	MOBILIZATION	1	LS	\$6,640	\$6,640
2	MAINTENANCE OF TRAFFIC	1	LS	\$3,000	\$3,000
3	EROSION & WATER POLLUTION CONTROL	1	LS	\$2,000	\$2,000
4	CLEARING & GRUBBING	1	LS	\$4,000	\$4,000
5	GRADING, EXCAVATION AND EMBANKMENT	1	LS	\$3,950	\$3,950
6	AS-BUILT DRAWING (BY REGISTERED SURVEYOR)	1	LS	\$5,500	\$5,500
32	CONCRETE SIDEWALK (6" THICK 5' WIDE) TO INCLUDE STABILIZED SUBGRADE	187	SY	\$39.50	\$7,386.50
36	SOD (BAHIA) (INCLUDES TOP SOIL, FERTILIZER AND WATERING)	264	SY	\$2.75	\$726.00
300	PAYMENT BOND	1	LS	\$865	\$865
301	PERFORMANCE BOND	1	LS	\$865	\$865
01024	FORCE ACCOUNT	1	LS	\$2,000.00	\$2,000.00

TOTAL AMOUNT OF BID (IN FIGURES): \$ 36,932.50

TOTAL AMOUNT OF BID (IN WORDS): Thirty six thousand, nine hundred thirty two dollars and fifty cent

SUMMARY - ITEMIZED BID SCHEDULE

Project Name: Highland Drive SW sidewalk improvements IRC Project #03128

64th Avenue Sidewalk, IRC Project #0452

6250 Old Dixie Highway, IRC Project # 0524

Bidder Name: Timothy Rose Contracting, Inc.

TOTAL AMOUNT OF BID FOR IRC PROJECT #13428 HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS (IN FIGURES):

\$ 83,759.40

TOTAL AMOUNT OF BID (IN WORDS):

eighty three thousand seven hundred fifty nine dollars and forty cent

TOTAL AMOUNT OF BID FOR IRC PROJECT #0452, 64TH AVENUE SIDEWALK (IN FIGURES):

\$ 73,736.50

TOTAL AMOUNT OF BID (IN WORDS):

Seventy three thousand seven hundred thirty six dollars and fifty cent

TOTAL AMOUNT OF BID FOR IRC PROJECT #0524, 6250 OLD DIXIE HIGHWAY SIDEWALK (IN FIGURES)

\$ 36,932.50

TOTAL AMOUNT OF BID (IN WORDS)

Thirty six thousand nine hundred thirty two dollars and fifty cent

TOTAL AMOUNT OF BID FOR IRC PROJECTS #03128, & 0452 (IN FIGURES):

\$ 157,495.90

TOTAL AMOUNT OF BID (IN WORDS):

One hundred fifty seven thousand, four hundred ninety five dollars and ninety cent

Considerations for bids will be based on the total amount for all four projects.

INDIAN RIVER COUNTY, FLORIDA
CHANGE ORDER NO. 1
PROJECT NO. 0452
Bid # 7084

PROJECT: 64th Avenue Sidewalk North of C.R. 510

CONTRACTOR NAME/ADDRESS: Tim Rose Contracting
1360 S. W. Old Dixie Highway, Suite 106
Vero Beach, Florida 32962

DATE: September 28, 2005

	DESCRIPTION OF CHANGE	PRICE INCREASE	PRICE DECREASE
1	Reduce Mobilization Costs		\$5,790.00
2	Remove Maintenance of Traffic Costs		\$3,500.00
3	Remove Erosion and Water Pollution Control		\$2,200.00
4	Reduce Clearing and Grubbing Costs		\$4,200.00
5	Reduce Grading, Excavation and Embankment Costs. County to supply embankment		\$4,900.00
6	Remove As-Built Drawing Costs		\$5,500.00
32	Revise Concrete Sidewalk to 4" Thick 5' wide to include stabilized subgrade - Ends 6" Thick 600S @ \$28,6216/SY = \$17,173.00		\$6,227.00
36	Reduce Costs of Sod (Bahia) Remove Fertilizer and Watering 350SY @ \$1.75 = \$612.50		\$650.00
300	Remove Payment Bond		\$1,550.00
301	Remove Performance Bond		\$1,550.00
01024	Remove Force Account		\$2,000.00
	Total Increase/Decrease	-0-	\$37,767.00
NET CHANGE IN AMOUNT		(\$37,767.00)	

ORIGINAL CONTRACT PRICE \$73,736.50 TIME 165 DAYS

CURRENT CONTRACT PRICE \$35,969.50 TIME 60 DAYS

NET CHANGE PRICE/TIME FROM THIS CHANGE ORDER NO.1 (\$37,767.00) 105 DAYS

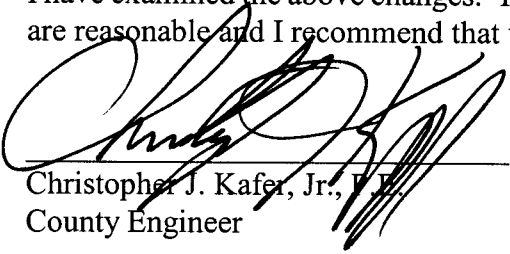
NEW CONTRACT PRICE/TIME INCLUDING THIS CHANGE ORDER \$35,969.50 60 DAYS

INDIAN RIVER COUNTY, FLORIDA
CHANGE ORDER NO. 1
PROJECT NO. 0452
Bid # 7084

APPROVAL

ENGINEERS RECOMMENDATION:


I have examined the above changes. They are necessary to satisfactorily complete the Contract. The price changes are reasonable and I recommend that the changes be made.


Christopher J. Kafer, Jr.,
County Engineer

10-12-05
Date

I agree to the amendment of the 64th Avenue Sidewalk North of C.R. 510 Contract as indicated on the attached (2) two page Change Order No. 1. This Change Order shall become a part of the 64th Avenue Sidewalk North of C.R. 510 Contract and incorporated therein.

TIM ROSE CONTRACTING

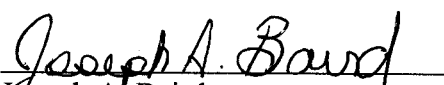

(Name and Title of Signatory)

Witnessed by:

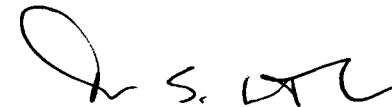

Barbara Romero


Matthew K. Baird
County Attorney

Approved as to Form and Legal Sufficiency


Joseph A. Baird,
County Administrator

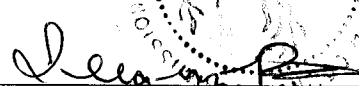
INDIAN RIVER COUNTY, FLORIDA


Thomas S. Lowther, Chairman

Approved by BCC October 18, 2005

Attest:

Jeffrey K. Barton, Clerk of Circuit Court

By: 
Deputy Clerk

ESTIMATE: \$

PHONE 567-8000 EXT. 1280

PROJECT NOS.	AMT. PER SET	\$	150.00
0201			
03128			
0382			
0452			
0424			

[illegible]

SECTION 00550 - Notice to Proceed

Dated October 28, 2005

[Certified Mail -- Return Receipt Requested]

TO:

TIM ROSE CONTRACTING, INC.

(BIDDER)

ADDRESS:

1360 Old Dixie Highway, S.W.

Suite 106

Vero Beach, FL 32962

Contract For:

64TH AVENUE SIDEWALK, INDIAN RIVER COUNTY PROJECT # 0452

(Insert name of Contract as it appears in the Contract Documents)

OWNER's Contract No. 7084

You are notified that the Contract Times under the above contract will commence to run on November 7, 2005 by that date, you are to start performing your obligations under the Contract Documents. The contract has allocated 75 days for the completion of this project. In accordance with Article 4 of the Agreement the date of Substantial Completion is January 5, 2006 and the date of readiness for final payment is January 20, 2005.

Before you may start any work at the site, paragraph 2.05.C of the General Conditions provides that you and Owner must each deliver to the other (with copies to Engineer and other identified additional insured) certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.

Also, before you may start any Work at the Site, you must:
(add other requirements, if applicable)

INDIAN RIVER COUNTY

(OWNER)

By: 

(AUTHORIZED SIGNATURE)

County Engineer

(TITLE)

END OF SECTION

SECTION 00610 - Performance Bond

KNOW ALL MEN BY THESE PRESENTS:
BY THIS BOND, we

_____, as Principal
(Contractor),
(Insert name, principal business address, and telephone number of Principal/Contractor)

and

_____, a corporation,
as Surety,
(Insert name, principal business address, and telephone number of Surety)

are held and firmly bound unto the County of Indian River, Florida, 1840, 25th Street, Vero Beach, Florida 32960, (561-567-8000),
in the sum of _____ Dollars (\$ _____),
amounting to 125% of the total bid price. For the payment of said sum we bind ourselves, our heirs, executors, administrators and assigns, jointly and severally, for the faithful performance of a certain written Contract, dated the _____ day of _____, 20____,
entered into between the Principal and the County of Indian River, for:

Bond Number: _____

Project Name: INDIAN RIVER DRIVE SOUTH SIDEWALK IMPROVEMENTS,
HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS,
FELLSMERE SIDEWALK PHASE II, 64TH AVENUE SIDEWALK AND 6250
OLD DIXIE HIGHWAY, JIMMY'S TREE SERVICE.

County Project Number: 0201, 03128, 0382, 0452 & 0524

Project Address: INDIAN RIVER DRIVE SOUTH FROM SOUTH SEBASTIAN CITY LIMITS
TO US HIGHWAY NO. 1, HIGHLAND DRIVE SW FROM THE B-10
CANAL TO 10TH AVENUE SW VERO BEACH, FLORIDA, FELLSMERE
FROM MYRTLE STREET TO CYPRESS ST., 64TH AVENUE SIDEWALK
AND 6250 OLD DIXIE HIGHWAY, JIMMY'S TREE SERVICE

Project Description: SIDEWALK IMPROVEMENTS ON INDIAN RIVER DRIVE SOUTH FROM SOUTH SEBASTIAN CITY LIMITS TO US HIGHWAY NO. 1, SIDEWALK IMPROVEMENTS ON HIGHLAND DRIVE SW FROM B-10 CANAL TO 10TH AVENUE SW, SIDEWALK IMPROVEMENTS FROM MYRTLE STREET TO CYPRESS STREET and 64TH AVENUE SIDEWALK FROM CR510 TO 86TH LANE, 64TH AVENUE SIDEWALK AND 6250 OLD DIXIE HIGHWAY, JIMMY'S TREE SERVICE

A copy of said Contract is incorporated herein by reference and is made a part hereof as if fully copied herein.

Florida Statutes Section 255.05 (2002), as amended from time to time, together with all notice and time provisions contained therein, is incorporated herein in its entirety by this reference.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that if the Principal shall in all respects comply with the terms and conditions of said Contract and its obligations thereunder, including all of the Contract Documents therein referred to and made a part thereof, and such alterations as may be made in the Contract Drawings and Specifications as therein provided for, and shall indemnify the County of Indian River as set forth in the

Contract, in the execution or performance of said Contract, and further, if the Principal shall promptly make payments to all who supply him with labor and/or materials used directly or indirectly by the Principal in the prosecution of the Work provided for in said Contract, then this obligation shall be null and void; otherwise, the Principal and Surety, jointly and severally, agree to pay the County of Indian River any difference between the sum that the County of Indian River may be obliged to pay for the completion of said Work, by contract or otherwise, and any damages, whether direct, indirect, or consequential, including reasonable attorney's fees (including appellate proceedings), which the County of Indian River may incur as a result of the failure of the Principal to properly execute all of the provisions of the Contract.

AND, the said Principal and Surety hereby further bind themselves, their successors, executors, administrators and assigns, jointly and severally, that they will amply and fully protect the County of Indian River against, and will pay any and all amounts, damages, costs and judgments which may be recovered against or which the County of Indian River may be called upon to pay to any person or corporation by reason of any damage arising from the performance of the said work, repair or maintenance thereof, or the manner of doing the same, or his agents or his servants, or the infringements of any patent rights by reason of the use of any material furnished or work done, as aforesaid or otherwise.

Principal and Surety expressly acknowledge that any and all provisions relating to liquidated damages contained in the Contract are expressly covered by and made a part of this Bond. Principal and Surety acknowledge that any such provisions lie within their obligations and within the policy coverages and limitations of this Bond.

AND, the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder, or the Specifications or Drawings accompanying the same, shall in any way affect its obligations on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work or to the Specifications or Drawings.

[Select either SUBSTANTIAL or FINAL completion in the paragraph below]

AND, the said Principal and Surety jointly and severally covenant and agree that this Bond will remain in full force and effect for a period of one year commencing on the date of Substantial/Final Completion as established on the Certificate of Substantial/Final Completion as issued by the County of Indian River.

IN WITNESS WHEREOF, the above bound parties executed this instrument under their several seals, this _____ day of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

WHEN THE PRINCIPAL IS AN INDIVIDUAL:

Signed, sealed and delivered in the presence of:

Witness

Signature of Individual

Address

Printed Name of Individual

Witness

Address

WHEN THE PRINCIPAL IS A SOLE PROPRIETORSHIP OR OPERATES UNDER A TRADE NAME:

Signed, sealed and delivered in the presence of:

Witness

Name of Partnership

Address

BY:
Partner

Printed Name of Partner

Witness

(SEAL)

Address

WHEN THE PRINCIPAL IS A PARTNERSHIP:

Signed, sealed and delivered in the presence of:

Witness

Name of Partnership

Address

BY:
Partner

Printed Name of Partner

Witness

(SEAL)

Address

[The remainder of this page was left blank intentionally]

WHEN THE PRINCIPAL IS A CORPORATION:

Attest:

Secretary

Name of Corporation

BY:

(Affix Corporate SEAL)

Printed Name

Official Title

CERTIFICATE AS TO CORPORATE PRINCIPAL

I _____, certify that I am the Secretary of the corporation named as Principal in the within bond; that _____, who signed the said bond on behalf of the Principal was then _____ of said corporation; that I know his signature, and his signature thereto is genuine; and that said Bond was duly signed, sealed and attested for and on behalf of Said corporation by authority of Its governing body.

Secretary

(SEAL)

TO BE EXECUTED BY CORPORATE SURETY:

Attest:

Secretary

Corporate Surety

Business Address

BY:

(Affix Corporate SEAL)

Attorney-In-Fact

Name of Local Agency

Business Address

[The remainder of this page was left blank intentionally]

STATE OF FLORIDA
COUNTY OF INDIAN RIVER

Before me, a Notary Public, duly commissioned, qualified and acting, personally appeared _____, to me well known, who being by me first duly sworn upon oath, says that he is the attorney-in-fact for the _____ and that he has been authorized by _____ to execute the foregoing bond on behalf of the CONTRACTOR named therein in favor of the County of Indian River, Florida. Subscribed and sworn to before me this ____ day of _____, 20____.

Notary Public, State of Florida

My Commission Expires: _____

Any claims under this bond shall be addressed to:

Name and address of Surety:

Name and address of agent
or representative in Florida
if different from above:

Telephone number of Surety and
agent or representative in Florida: (_____) _____ - _____

**** END OF SECTION ****

SECTION 00612 - Payment Bond

KNOW ALL MEN BY THESE PRESENTS:
BY THIS BOND, we

_____, as Principal
(Contractor),
(Insert name, principal business address, and telephone number of Principal/Contractor)

and

_____, a corporation,
as Surety,
(Insert name, principal business address, and telephone number of Surety)

are held and firmly bound unto the County of Indian River, Florida, 1840, 25th Street, Vero Beach, Florida 32960, (561-567-8000),
in the sum of _____ Dollars (\$ _____),
amounting to 100% of the total bid price. For the payment of said sum we bind ourselves, our heirs, executors, administrators and assigns, jointly and severally, for the faithful performance of a certain written Contract, dated the _____ day of _____, 20____, entered into between the Principal and the County of Indian River, for:

Bond Number: _____

Project Name: INDIAN RIVER DRIVE SOUTH SIDEWALK IMPROVEMENTS,
HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS, FELLSMERE
SIDEWALK PHASE II 64TH AVENUE SIDEWALK AND 6250 OLD
DIXIE HIGHWAY, JIMMY'S TREE SERVICE.

County Project Number: 0201, 03128, 0382, 0452 & 0524

Project Address: INDIAN RIVER DRIVE SOUTH SEBASTIAN, FLORIDA
HIGHLAND DRIVE SW VERO BEACH, FLORIDA
C.R. 512 IN FELLSEMER, FL.
64TH AVENUE, WABASSO, FL
6250 OLD DIXIE HIGHWAY, VERO BEACH, FL

Project Description: INDIAN RIVER DRIVE SOUTH FROM SOUTH SEBASTIAN
CITY LIMITS TO US HIGHWAY NO. 1, HIGHLAND DRIVE SW
FROM THE B-10 CANAL TO 10TH AVENUE SW VERO BEACH,
FLORIDA, FELLSMERE FROM MYRTLE STREET TO
CYPRESS ST., 64TH AVENUE SIDEWALK FROM CR510 TO
86TH LANE AND 6250 OLD DIXIE HIGHWAY VERO BEACH.

A copy of said Contract is incorporated herein by reference and is made a part hereof as if fully copied herein.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that, if the Principal shall promptly make payments to all claimants, as herein below defined, then this obligation shall be void; otherwise, this Bond shall remain in full force and effect, subject to the following terms and conditions:

1. A claimant, as defined in Florida Statutes Section 255.05(1), supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the Work provided for in the Contract.

2. Florida Statutes Section 255.05 (2002), as amended from time to time, together with all notice and time provisions contained therein, is incorporated herein in its entirety by this reference.

The Surety, for value received, hereby stipulates and agrees that no charge, extension of time, alteration of or addition to the terms of the Contract or to the work to be performed thereunder or to the Specifications applicable thereto, shall in any way affect its obligations on this Bond, and the Surety hereby waives notice of any such change, extension of time, alterations of or addition to the terms of the Contract, or to the Work or to the Specifications.

The Surety represents and warrants to the County of Indian River that it has a Best's Key Rating Guide, General Policyholder's rating of "A" and Financial Size Category of Class "X". The Principal and Surety jointly and severally covenant and agree that this Bond will remain in full force and effect for a period of one year commencing on the date of Final Completion as established on the Certificate of Final Completion as issued by the County of Indian River.

The Principal and Surety jointly and severally, agree to pay the County of Indian River all losses, damages, expenses, costs, and attorney's fees, including appellate proceedings, that the County of Indian River sustains because of a default by the Principal under the Contract.

[The remainder of this page was left blank intentionally]

[illegible]

Printed Name of Partner

Witness

(SEAL)

Address

WHEN THE PRINCIPAL IS A CORPORATION:

Attest:

Secretary

Name of Corporation

BY: _____

(Affix Corporate SEAL)

Printed Name

Official Title

CERTIFICATE AS TO CORPORATE PRINCIPAL

I _____, certify that I am the Secretary of the corporation named as Principal in the within bond; that _____, who signed the said bond on behalf of the Principal was then _____ of said corporation: that I know his signature, and his signature thereto is genuine; and that said Bond was duly signed, sealed and attested for and on behalf of Said corporation by authority of Its governing body.

Secretary

(SEAL)

TO BE EXECUTED BY CORPORATE SURETY:

Attest:

Secretary

Corporate Surety

Business Address

BY: _____

(Affix Corporate SEAL)

Attorney-In-Fact

Name of Local Agency

Business Address

STATE OF FLORIDA
COUNTY OF INDIAN RIVER

Before me, a Notary Public, duly commissioned, qualified and acting, personally appeared _____, to me well known, who being by me first duly sworn upon oath, says that he is the attorney-in-fact for the _____ and that he has been authorized by _____ to execute the foregoing bond on behalf of the CONTRACTOR named therein in favor of the County of Indian River, Florida. Subscribed and sworn to before me this ____ day of _____, 20____.

Notary Public, State of Florida

My Commission Expires: _____

Any claims under this bond shall be addressed to:

Name and address of Surety:

Name and address of agent
or representative in Florida
if different from above:

Telephone number of Surety and
agent or representative in Florida: (_____) _____-_____

**** END OF SECTION ****

SECTION 00620 - Sample Certificate of Liability Insurance

CERTIFICATE OF LIABILITY INSURANCE						
PRODUCER	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.					
INSURED	<div style="text-align: center;">COMPANIES AFFORDING COVERAGE</div> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black;">COMPANY A -</td></tr> <tr><td style="border-bottom: 1px solid black;">COMPANY B -</td></tr> <tr><td style="border-bottom: 1px solid black;">COMPANY C -</td></tr> <tr><td style="border-bottom: 1px solid black;">COMPANY D -</td></tr> <tr><td style="border-bottom: 1px solid black;">COMPANY E -</td></tr> </table>	COMPANY A -	COMPANY B -	COMPANY C -	COMPANY D -	COMPANY E -
COMPANY A -						
COMPANY B -						
COMPANY C -						
COMPANY D -						
COMPANY E -						

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED NOTWITHSTANDING ANY REQUIREMENT TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN THE INSURANCE ACCORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/D/YY)	LIMITS	
A	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE - <input type="checkbox"/> OCCUR <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				EACH OCCURRENCE	\$ 1,000,000
					FIRE DAMAGE (Any One Fire)	\$ 50,000
					MED. EXP. (Any One Person)	\$ 5,000
					PERSONAL & ADV INJURY	\$ 1,000,000
					GENERAL AGGREGATE	\$ 1,000,000
					PRODUCTS - COMP/OP AGG.	\$ 1,000,000
						\$
A	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS <input type="checkbox"/> <input type="checkbox"/>				COMBINED SINGLE LIMIT (Ea. Occurrence)	\$ 1,000,000
					BODILY INJURY (Per Person)	\$
					BODILY INJURY (Per Accident)	\$
					PROPERTY DAMAGE	\$
	GARAGE LIABILITY <input type="checkbox"/> <input type="checkbox"/>				AUTO ONLY - EA ACCIDENT	\$
					OTHER THAN EA ACC	\$
					AUTO ONLY AGG	\$
A	EXCESS LIABILITY <input type="checkbox"/> <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input type="checkbox"/> RETENTION \$				EACH OCCURRENCE	
					AGGREGATE	\$
						\$
A	WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY THE PROPRIETOR/PARTNERS/ EXECUTIVE OFFICERS ARE: <input type="checkbox"/> INCL <input type="checkbox"/> EXCL				<input type="checkbox"/> WC STATUTORY LIMITS	
					E.L. EACH ACCIDENT	\$ 100,000
					E.L. DISEASE - EA	\$ 500,000
					E.L. DISEASE-POLICY LIMIT	\$ 100,000
	OTHER: BUILDER'S RISK				FULL REPLACEMENT COST OF THE WORK	

DESCRIPTION OF OPERATIONS/LOCATIONS VEHICLES/SPECIAL ITEMS

CERTIFICATE HOLDER	ADDITIONAL INSURED; INSURER LETTER:	CANCELLATION
ADDITIONAL INSURED: INDIAN RIVER COUNTY 1840 25 TH STREET, VERO BEACH, FL 32960		SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT. FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.
		AUTHORIZED REPRESENTATIVE

SECTION 00622 - Contractor's Application for Payment.doc

Application for Payment No. _____
For Work Accomplished through the period of _____ through _____

To: Indian River County (OWNER)
From: _____ (CONTRACTOR)
Contract: _____
Project: INDIAN RIVER DRIVE SOUTH SIDEWALK IMPROVEMENTS,
HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS, FELLSMERE SIDEWALK
PHASE II, 64TH AVENUE SIDEWALK AND 6250 OLD DIXIE HIGHWAY, JIMMY'S
TREE SERVICE

OWNER's Project No. 0201, 03128, 0382, 0452 & 0524

ENGINEER's Contract No. _____

ENGINEER _____

1.	Original Contract Price:	\$	_____
2.	Net change by Change Orders and Written Amendments (+ or -):	\$	_____
3.	Current Contract Price (1 plus 2):	\$	_____
4.	Total Work to date:		
4.a	Percentage of Work completed to date: _____%		
4.b	Total Work completed to date:	\$	_____
4.c	Total equipment and material stored to date:	\$	_____
			(1)
4.d	Total Work completed and stored to date: (4.b plus 4.c)	\$	_____
5.	Retainage (per Agreement):		
5.a	10% of completed Work (0.10 x 4.b):	\$	_____
5.b	20% of stored equipment and material (0.20 x 4.c):	\$	_____
5.c	Total Retainage (5.a plus 5.b):	\$	_____
6.	Total Work completed and stored to date less retainage (4.d minus 5.c):	\$	_____
7.	Previous Payments:	\$	_____
8.	AMOUNT DUE THIS APPLICATION (6 MINUS 7):	\$	_____

(1) Attach detailed schedule and copies of all paid invoices.

1.	Original Contract Price:	\$	_____
2.	Net change by Change Orders and Written Amendments (+ or -):	\$	_____
3.	Current Contract Price (1 plus 2):	\$	_____
4.	Total completed and stored to date:	\$	_____
5.	Retainage (per Agreement):		
	_____ % of completed Work:	\$	_____
	_____ % of stored material:	\$	_____
	Total Retainage:	\$	_____
6.	Total completed and stored to date less retainage (4 minus 5):	\$	_____
7.	Less previous Application for Payments:	\$	_____
8.	DUE THIS APPLICATION (6 MINUS 7):	\$	_____

CONTRACTOR'S CERTIFICATION:

UNDER PENALTY OF PERJURY, the undersigned CONTRACTOR certifies that (1) the labor and materials listed on this request for payment have been used in the construction of this Work and payment received from the last request for payment has been used to make payments to all subcontractors, laborers, materialmen and suppliers except as listed below; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to OWNER at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to OWNER indemnifying OWNER against any such Lien, security interest or encumbrance); (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and not defective and (4) If this Periodic Estimate is for a Final payment to project or improvement, I further certify that all persons doing work upon or furnishing materials or supplies for this project or improvement under this foregoing contract have been paid in full, and that all taxes imposed by Chapter 212 Florida Statutes, (Sales and Use Tax Act, as Amended) have been paid and discharged, and that I have no claims against the OWNER.

Dated _____

(CONTRACTOR)

By: _____

State of _____

County of _____

Subscribed and sworn to before me this _____
day of _____

Notary Public

My Commission expires: _____

NOTICE OF NON-PAYMENT. *If one or more "Notice of Non-Payment" or "Notice to Owner" is received by the OWNER, no further payments will be approved until non-payment(s) have been satisfied and a "Lien Waiver" for each "Notice" has been submitted to the OWNER. Upon request, CONTRACTOR shall furnish acceptable evidence that all such claims have been satisfied. The CONTRACTOR may, with consent of Surety and indemnification of the OWNER against any claims, receive payment for work for which there is an outstanding "Notice of Non-Payment" or "Notice to Owner."*

CERTIFICATION OF ARCHITECT OR CONSULTING ENGINEER (WHERE APPLICABLE):

I certify that I have checked and verify the above and foregoing Periodic Estimate for Partial Payment; that to the best of my knowledge and belief it is a true and correct statement of the work performed and/or material supplied by the Contractor.

Dated _____

(ARCHITECT / ENGINEER) SIGNATURE

CERTIFICATION OF ENGINEER / INSPECTOR:

I have checked the estimate against the Contractor's Schedule of Amounts for Contract Payments and the notes and reports of my inspections of the project. It is my opinion that this statement of work performed and/or materials supplied is accurate, that the Contractor is observing the requirements of the Contract, and that the Contractor should be paid the amount requested above.

Dated _____

(ARCHITECT / ENGINEER) SIGNATURE

Accompanying Documentation: _____

[The Remainder of Page Intentional Left Blank]

To: Indian River County (OWNER)
 From: _____ (CONTRACTOR)
 Contract: _____
 Project: _____

Bid Item No.	Unit Price	Estimated Quantity	Schedule Of Values Amount	Quantity Completed	Amount	Percent Complete (%)	Material Stored	Amount Completed and Stored
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
16.								
17.								
18.								
19.								
20.								
21.								
22.								
TOTAL AMOUNT								

[Note: Total Schedule of Values Amount should equal the current Contract Price.]

**** END OF SECTION ****

The responsibilities between OWNER and CONTRACTOR for security, operation, safety, maintenance, heat, utilities, insurance and warranties and guarantees shall be as follows:

OWNER: _____

CONTRACTOR: _____

The following documents are attached to and made a part of this Certificate:

[For items to be attached see definition of Substantial Completion as supplemented and other specifically noted conditions precedent to achieving Substantial Completion as required by Contract Documents.]

This certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of CONTRACTOR's obligation to complete the Work in accordance with the Contract Documents.

Executed by ENGINEER on: _____ (Date).

ENGINEER: _____

By: _____
(Authorized Signature)

CONTRACTOR accepts this Certificate of Substantial Completion on _____ (date).

CONTRACTOR: _____

By: _____
(Authorized Signature)

OWNER accepts this Certificate of Substantial Completion on _____ (date).

OWNER: INDIAN RIVER COUNTY

By: _____
(Authorized Signature)

**** END OF SECTION ****

Date of Issuance: _____, 20____

CONTRACTOR:

Contract:

Project: INDIAN RIVER DRIVE SOUTH SIDEWALK IMPROVEMENTS, HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS, FELLSMERE SIDEWALK PHASE II, 64TH AVENUE SIDEWALK AND 6250 OLD DIXIE HIGHWAY, JIMMY'S TREE SERVICE.

OWNER's Contract No. _____

ENGINEER's Project No. _____

CONTACT FOR: _____

(Insert Name of Contract as it appears in the Bid Documents)

This Certificate of Substantial Completion applies to all Work under the Contract Documents or to the following specified parts thereof:

To: _____

OWNER

And To: _____

CONTRACTOR

The Work to which this Certificate applies has been inspected by authorized representatives of OWNER, CONTRACTOR and ENGINEER, and that Work is hereby declared to be substantially complete in accordance with the Contract Documents on

DATE OF SUBSTANTIAL COMPLETION

A tentative list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include an item in it does not alter the responsibility of CONTRACTOR to complete all the Work in accordance with the Contract Documents. The items in the tentative list shall be completed or corrected by CONTRACTOR within _____ days of the above date of Substantial Completion.

The responsibilities between OWNER and CONTRACTOR for security, operation, safety, maintenance, heat, utilities, insurance and warranties and guarantees shall be as follows:

OWNER: _____

CONTRACTOR: _____

The following documents are attached to and made a part of this Certificate:

[For items to be attached see definition of Substantial Completion as supplemented and other specifically noted conditions precedent to achieving Substantial Completion as required by Contract Documents.]

This certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of CONTRACTOR's obligation to complete the Work in accordance with the Contract Documents.

Executed by ENGINEER on: _____ (Date).

ENGINEER: _____

By: _____
(Authorized Signature)

CONTRACTOR accepts this Certificate of Substantial Completion on _____ (date).

CONTRACTOR: _____

By: _____
(Authorized Signature)

OWNER accepts this Certificate of Substantial Completion on _____ (date).

OWNER: INDIAN RIVER COUNTY

By: _____
(Authorized Signature)

**** END OF SECTION ****

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

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GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Contract Documents and printed with initial or all capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof.

1. *Addenda*--Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the Contract Documents.

2. *Agreement*--The written instrument which is evidence of the agreement between OWNER and CONTRACTOR covering the Work.

3. *Application for Payment*--The form acceptable to ENGINEER which is to be used by CONTRACTOR during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Asbestos*--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

5. *Bid*--The offer or proposal of a bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

6. *Bidding Documents*--The Bidding Requirements and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

7. *Bidding Requirements*--The Advertisement or Invitation to Bid, Instructions to Bidders, Bid security form, if any, and the Bid form with any supplements.

8. *Bonds*--Performance and payment bonds and other instruments of security.

9. *Change Order*--A document recommended by ENGINEER which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

10. *Claim*--A demand or assertion by OWNER or CONTRACTOR seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*--The entire and integrated written agreement between the OWNER and CONTRACTOR concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*--The Contract Documents establish the rights and obligations of the parties and include the Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Notice to Proceed, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders, and ENGINEER's written interpretations and clarifications issued on or after the Effective Date of the Agreement. Approved Shop Drawings and the reports and drawings of subsurface and physical conditions are not Contract Documents. Only printed or hard copies of the items listed in this paragraph are Contract Documents. Files in electronic media format of text, data, graphics, and the like that may be furnished by OWNER to CONTRACTOR are not Contract Documents.

13. *Contract Price*--The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*--The number of days or the dates stated in the Agreement to: (i) achieve Substantial Completion; and (ii) complete the Work so that it is ready for final payment as evidenced by ENGINEER's written recommendation of final payment.

15. *CONTRACTOR*--The individual or entity with whom OWNER has entered into the Agreement.

16. *Cost of the Work*--See paragraph 11.01.A for definition.

17. *Drawings*--That part of the Contract Documents prepared or approved by ENGINEER which graphically shows the scope, extent, and character of the Work to be performed by CONTRACTOR. Shop Drawings and other CONTRACTOR submittals are not Drawings as so defined.

18. *Effective Date of the Agreement*--The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

19. *ENGINEER*--The individual or entity named as such in the Agreement.

20. *ENGINEER's Consultant*--An individual or entity having a contract with ENGINEER to furnish services as ENGINEER's independent professional associate or consultant with respect to the Project and who is identified as such in the Supplementary Conditions.

21. *Field Order*--A written order issued by ENGINEER which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

22. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

23. *Hazardous Environmental Condition*--The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

24. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

25. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

26. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

27. *Milestone*--A principal event specified in the Contract Documents relating to an intermediate

completion date or time prior to Substantial Completion of all the Work.

28. *Notice of Award*--The written notice by OWNER to the apparent successful bidder stating that upon timely compliance by the apparent successful bidder with the conditions precedent listed therein, OWNER will sign and deliver the Agreement.

29. *Notice to Proceed*--A written notice given by OWNER to CONTRACTOR fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform the Work under the Contract Documents.

30. *OWNER*--The individual, entity, public body, or authority with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be performed.

31. *Partial Utilization*--Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

32. *PCBs*--Polychlorinated biphenyls.

33. *Petroleum*--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

34. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part as may be indicated elsewhere in the Contract Documents.

35. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

36. *Radioactive Material*--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

37. *Resident Project Representative*--The authorized representative of ENGINEER who may be assigned to the Site or any part thereof.

38. *Samples*--Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which

establish the standards by which such portion of the Work will be judged.

39. *Shop Drawings*--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR to illustrate some portion of the Work.

40. *Site*--Lands or areas indicated in the Contract Documents as being furnished by OWNER upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by OWNER which are designated for the use of CONTRACTOR.

41. *Specifications*--That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

42. *Subcontractor*--An individual or entity having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the Site.

43. *Substantial Completion*--The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

44. *Supplementary Conditions*--That part of the Contract Documents which amends or supplements these General Conditions.

45. *Supplier*--A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

46. *Underground Facilities*--All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

47. *Unit Price Work*--Work to be paid for on the basis of unit prices.

48. *Work*--The entire completed construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

49. *Work Change Directive*--A written statement to CONTRACTOR issued on or after the Effective Date of the Agreement and signed by OWNER and recommended by ENGINEER ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

50. *Written Amendment*--A written statement modifying the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the nonengineering or nontechnical rather than strictly construction-related aspects of the Contract Documents.

1.02 Terminology

A. Intent of Certain Terms or Adjectives

1. Whenever in the Contract Documents the terms "as allowed," "as approved," or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of ENGINEER as to the Work, it is intended that such action or determination will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to ENGI-

NEER any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.10 or any other provision of the Contract Documents.

B. Day

1. The word "day" shall constitute a calendar day of 24 hours measured from midnight to the next midnight.

C. Defective

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it does not conform to the Contract Documents or does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER's recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER at Substantial Completion in accordance with paragraph 14.04 or 14.05).

D. Furnish, Install, Perform, Provide

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of CONTRACTOR, "provide" is implied.

E. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 - PRELIMINARY MATTERS

2.01 Delivery of Bonds

A. When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish.

2.02 Copies of Documents

A. OWNER shall furnish to CONTRACTOR up to ten copies of the Contract Documents. Additional copies will be furnished upon request at the cost of reproduction.

2.03 Commencement of Contract Times; Notice to Proceed

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 Starting the Work

A. CONTRACTOR shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 Before Starting Construction

A. *CONTRACTOR's Review of Contract Documents:* Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error, ambiguity, or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected

thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless CONTRACTOR knew or reasonably should have known thereof.

B. *Preliminary Schedules:* Within ten days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to ENGINEER for its timely review:

1. a preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2. a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing, and processing such submittal; and

3. a preliminary schedule of values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

~~C. *Evidence of Insurance:* Before any Work at the Site is started, CONTRACTOR and OWNER shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which CONTRACTOR and OWNER respectively are required to purchase and maintain in accordance with Article 5.~~

2.06 *Preconstruction Conference*

~~A. Within 20 days after the Contract Times start to run, but before any Work at the Site is started, a conference attended by CONTRACTOR, ENGINEER, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in paragraph 2.05.B, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.~~

2.07 *Initial Acceptance of Schedules*

A. Unless otherwise provided in the Contract Documents, at least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, ENGINEER, and others as appropriate will be held to review for acceptability to ENGINEER as provided below the schedules submitted in accordance with paragraph 2.05.B. CONTRACTOR shall have an additional ten days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to CONTRACTOR until acceptable schedules are submitted to ENGINEER.

1. The progress schedule will be acceptable to ENGINEER if it provides an orderly progression of the Work to completion within any specified Milestones and the Contract Times. Such acceptance will not impose on ENGINEER responsibility for the progress schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility therefor.

2. CONTRACTOR's schedule of Shop Drawing and Sample submittals will be acceptable to ENGINEER if it provides a workable arrangement for reviewing and processing the required submittals.

3. CONTRACTOR's schedule of values will be acceptable to ENGINEER as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to OWNER.

C. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided in Article 9.

3.02 Reference Standards

A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of OWNER, CONTRACTOR, or ENGINEER, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall any such provision or instruction be effective to assign to OWNER, ENGINEER, or any of ENGINEER's Consultants, agents, or employees any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 Reporting and Resolving Discrepancies

A. Reporting Discrepancies

1. If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, CONTRACTOR shall report it to ENGINEER in writing at once. CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency as required by paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.04; provided, however, that CONTRACTOR shall not be liable to OWNER or ENGINEER for

failure to report any such conflict, error, ambiguity, or discrepancy unless CONTRACTOR knew or reasonably should have known thereof.

B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 Amending and Supplementing Contract Documents

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways: (i) a Written Amendment; (ii) a Change Order; or (iii) a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways: (i) a Field Order; (ii) ENGINEER's approval of a Shop Drawing or Sample; or (iii) ENGINEER's written interpretation or clarification.

3.05 Reuse of Documents

A. CONTRACTOR and any Subcontractor or Supplier or other individual or entity performing or furnishing any of the Work under a direct or indirect contract with OWNER: (i) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER or ENGINEER's Consultant, including electronic media editions; and (ii) shall not reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of OWNER and

ENGINEER and specific written verification or adaption by ENGINEER. This prohibition will survive final payment, completion, and acceptance of the Work, or termination or completion of the Contract. Nothing herein shall preclude CONTRACTOR from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

4.01 Availability of Lands

A. OWNER shall furnish the Site. OWNER shall notify CONTRACTOR of any encumbrances or restrictions not of general application but specifically related to use of the Site with which CONTRACTOR must comply in performing the Work. OWNER will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If CONTRACTOR and OWNER are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in OWNER's furnishing the Site, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

B. Upon reasonable written request, OWNER shall furnish CONTRACTOR with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and OWNER's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 Subsurface and Physical Conditions

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that ENGINEER has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the

Site (except Underground Facilities) that ENGINEER has used in preparing the Contract Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER, or any of ENGINEER's Consultants with respect to:

1. the completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 Differing Subsurface or Physical Conditions

A. *Notice:* If CONTRACTOR believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which CONTRACTOR is entitled to rely as provided in paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any

Work in connection therewith (except in an emergency as required by paragraph 6.16.A), notify OWNER and ENGINEER in writing about such condition. CONTRACTOR shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *ENGINEER's Review:* After receipt of written notice as required by paragraph 4.03.A, ENGINEER will promptly review the pertinent condition, determine the necessity of OWNER's obtaining additional exploration or tests with respect thereto, and advise OWNER in writing (with a copy to CONTRACTOR) of ENGINEER's findings and conclusions.

C. *Possible Price and Times Adjustments*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in CONTRACTOR's cost of, or time required for, performance of the Work; subject, however, to the following:

a. such condition must meet any one or more of the categories described in paragraph 4.03.A; and

b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of paragraphs 9.08 and 11.03.

2. CONTRACTOR shall not be entitled to any adjustment in the Contract Price or Contract Times if:

a. CONTRACTOR knew of the existence of such conditions at the time CONTRACTOR made a final commitment to OWNER in respect of Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for CONTRACTOR prior to CONTRACTOR's making such final commitment; or

c. CONTRACTOR failed to give the written notice within the time and as required by paragraph 4.03.A.

3. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in paragraph 10.05. However, OWNER, ENGINEER, and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or ~~arbitration or other~~ dispute resolution costs) sustained by CONTRACTOR on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to OWNER or ENGINEER by the owners of such Underground Facilities, including OWNER, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and

2. the cost of all of the following will be included in the Contract Price, and CONTRACTOR shall have full responsibility for:

a. reviewing and checking all such information and data,

b. locating all Underground Facilities shown or indicated in the Contract Documents,

c. coordination of the Work with the owners of such Underground Facilities, including OWNER, during construction, and

d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the

Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to OWNER and ENGINEER. ENGINEER will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility.

2. If ENGINEER concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that CONTRACTOR did not know of and could not reasonably have been expected to be aware of or to have anticipated. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, OWNER or CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

4.05 Reference Points

A. OWNER shall provide engineering surveys to establish reference points for construction which in ENGINEER's judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or

property monuments by professionally qualified personnel.

4.06 Hazardous Environmental Condition at Site

A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the ENGINEER in the preparation of the Contract Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER or any of ENGINEER's Consultants with respect to:

1. the completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

C. CONTRACTOR shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. CONTRACTOR shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by CONTRACTOR, Subcontractors, Suppliers, or anyone else for whom CONTRACTOR is responsible.

D. If CONTRACTOR encounters a Hazardous Environmental Condition or if CONTRACTOR or anyone for whom CONTRACTOR is responsible creates a Hazardous Environmental Condition, CONTRACTOR shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in



~~accompanied by a certified copy of such agent's authority to act.~~

C. If the surety on any Bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of paragraph 5.01.B, CONTRACTOR shall within 20 days thereafter substitute another Bond and surety, both of which shall comply with the requirements of paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

A. All Bonds and insurance required by the Contract Documents to be purchased and maintained by OWNER or CONTRACTOR shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

A. CONTRACTOR shall deliver to OWNER, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by OWNER or any other additional insured) which CONTRACTOR is required to purchase and maintain. ~~OWNER shall deliver to CONTRACTOR, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by CONTRACTOR or any other additional insured) which OWNER is required to purchase and maintain.~~

5.04 *CONTRACTOR's Liability Insurance*

A. CONTRACTOR shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR's performance of the Work and CONTRACTOR's other obligations under the Contract Documents, whether it is to be performed by CONTRACTOR, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

B. The policies of insurance so required by this paragraph 5.04 to be purchased and maintained shall:

1. with respect to insurance required by paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insureds (subject to any customary exclusion in respect of professional liability) OWNER, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include completed operations insurance;

4. include contractual liability insurance covering CONTRACTOR's indemnity obligations under paragraphs 6.07, 6.11, and 6.20;

5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least thirty days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the CONTRACTOR pursuant to paragraph 5.03 will so provide);

6. remain in effect at least until final payment and at all times thereafter when CONTRACTOR may be correcting, removing, or replacing defective Work in accordance with paragraph 13.07; and

7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment (and CONTRACTOR shall furnish OWNER and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to OWNER and any such additional insured of continuation of such insurance at final payment and one year thereafter).

5.05 OWNER's Liability Insurance

~~A. In addition to the insurance required to be provided by CONTRACTOR under paragraph 5.04, OWNER, at OWNER's option, may purchase and maintain at OWNER's expense OWNER's own liability insurance as will protect OWNER against claims which may arise from operations under the Contract Documents.~~

5.06 Property Insurance

~~A. Unless otherwise provided in the Supplementary Conditions, OWNER shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:~~

~~1. include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER,~~

~~ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an additional insured;~~

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER;

5. allow for partial utilization of the Work by OWNER;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR, and ENGINEER with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

B. OWNER shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, each of whom is

~~deemed to have an insurable interest and shall be listed as an insured or additional insured.~~

~~G. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with paragraph 5.07.~~

D. OWNER shall not be responsible for purchasing and maintaining any property insurance specified in this paragraph 5.06 to protect the interests of CONTRACTOR, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by CONTRACTOR, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

~~E. If CONTRACTOR requests in writing that other special insurance be included in the property insurance policies provided under paragraph 5.06, OWNER shall, if possible, include such insurance, and the cost thereof will be charged to CONTRACTOR by appropriate Change Order or Written Amendment. Prior to commencement of the Work at the Site, OWNER shall in writing advise CONTRACTOR whether or not such other insurance has been procured by OWNER.~~

5.07 Waiver of Rights

~~A. OWNER and CONTRACTOR intend that all policies purchased in accordance with paragraph 5.06 will protect OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. OWNER and CONTRACTOR waive all rights against each other and their respective~~

~~officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by OWNER as trustee or otherwise payable under any policy so issued.~~

B. OWNER waives all rights against CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to OWNER's property or the Work caused by, arising out of, or resulting from fire or other peril whether or not insured by OWNER; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by OWNER during partial utilization pursuant to paragraph 14.05, after Substantial Completion pursuant to paragraph 14.04, or after final payment pursuant to paragraph 14.07.

C. Any insurance policy maintained by OWNER covering any loss, damage or consequential loss referred to in paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against CONTRACTOR, Subcontractors, ENGINEER, or ENGINEER's Consultants and the officers, directors, partners, employees, agents, and other consultants ~~and subcontractors of each and any of them.~~

5.08 Receipt and Application of Insurance Proceeds

~~A. Any insured loss under the policies of insurance required by paragraph 5.06 will be adjusted with OWNER and made payable to OWNER as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.08.B. OWNER shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order or Written Amendment.~~

B. OWNER as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to OWNER's exercise of this power. If such objection be made, OWNER as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, OWNER as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, OWNER as fiduciary shall give bond for the proper performance of such duties.

5.09 Acceptance of Bonds and Insurance; Option to Replace

~~A. If either OWNER or CONTRACTOR has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by paragraph 2.05.C. OWNER and CONTRACTOR shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the Bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent Bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage,~~

~~and a Change Order shall be issued to adjust the Contract Price accordingly.~~

5.10 Partial Utilization, Acknowledgment of Property Insurer

A. If OWNER finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 Supervision and Superintendence

A. CONTRACTOR shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of OWNER or ENGINEER in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents. CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.

B. At all times during the progress of the Work, CONTRACTOR shall assign a competent resident superintendent thereto who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the Site and shall have authority to act on behalf of CONTRACTOR. All communications given to or received from the superintendent shall be binding on CONTRACTOR.

6.02 Labor; Working Hours

A. CONTRACTOR shall provide competent, suitably qualified personnel to survey, lay out, and construct the Work as required by the Contract Docu-

ments. CONTRACTOR shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday, or any legal holiday without OWNER's written consent (which will not be unreasonably withheld) given after prior written notice to ENGINEER.

6.03 Services, Materials, and Equipment

A. Unless otherwise specified in the General Requirements, CONTRACTOR shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of OWNER. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 Progress Schedule

A. CONTRACTOR shall adhere to the progress schedule established in accordance with paragraph 2.07 as it may be adjusted from time to time as provided below.

1. CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.07) proposed adjustments in the progress schedule that will not result in changing the Contract Times (or Milestones). Such adjustments will conform generally to the progress schedule then in effect and additional-

ly will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of Article 12. Such adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

6.05 Substitutes and "Or-Equals"

~~A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to ENGINEER for review under the circumstances described below.~~

1. "Or-Equal" Items: If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by ENGINEER as an "or-equal" item, in which case review and approval of the proposed item may, in ENGINEER's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment ENGINEER determines that: (i) it is at least equal in quality, durability, appearance, strength, and design characteristics; ~~(ii) it will reliably perform at least equally well the function imposed by the design concept of the completed Project as a functioning whole, and;~~

b. CONTRACTOR certifies that: (i) there is no increase in cost to the OWNER; and (ii) it will conform substantially, even with deviations, to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items

a. If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "or-equal" item under paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. CONTRACTOR shall submit sufficient information as provided below to allow ENGINEER to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR.

c. The procedure for review by ENGINEER will be as set forth in paragraph 6.05.A.2.d, as supplemented in the General Requirements and as ENGINEER may decide is appropriate under the circumstances.

d. CONTRACTOR shall first make written application to ENGINEER for review of a proposed substitute item of material or equipment that CONTRACTOR seeks to furnish or use. The application shall certify that the proposed substitute item will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified, and be suited to the same use as that specified. The application will state the extent, if any, to which the use of the proposed substitute item will prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute item and whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute item from that specified will be identified in the application, and available engineering, sales, maintenance, repair, and replacement services will be indicated. The application will also contain an itemized estimate of all costs or credits that will result

directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change, all of which will be considered by ENGINEER in evaluating the proposed substitute item. ENGINEER may require CONTRACTOR to furnish additional data about the proposed substitute item.

B. Substitute Construction Methods or Procedures: If a specific means, method, technique, sequence, or procedure of construction is shown or indicated in and expressly required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by ENGINEER. CONTRACTOR shall submit sufficient information to allow ENGINEER, in ENGINEER's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by ENGINEER will be similar to that provided in subparagraph 6.05.A.2.

C. Engineer's Evaluation: ENGINEER will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraphs 6.05.A and 6.05.B. ENGINEER will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized until ENGINEER's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." ENGINEER will advise CONTRACTOR in writing of any negative determination.

D. Special Guarantee: OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any substitute.

E. ENGINEER's Cost Reimbursement: ENGINEER will record time required by ENGINEER and ENGINEER's Consultants in evaluating substitute proposed or submitted by CONTRACTOR pursuant to paragraphs 6.05.A.2 and 6.05.B and in making changes in the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) occasioned thereby. Whether or not ENGINEER approves a substitute item so proposed or submitted by CONTRACTOR, CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's Consultants for evaluating each such proposed substitute.

F. CONTRACTOR's Expense: CONTRACTOR shall provide all data in support of any proposed substitute or "or-equal" at CONTRACTOR's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

A. CONTRACTOR shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to OWNER as indicated in paragraph 6.06.B), whether initially or as a replacement, against whom OWNER may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to OWNER in advance for acceptance by OWNER by a specified date prior to the Effective Date of the Agreement, and if CONTRACTOR has submitted a list thereof in accordance with the Supplementary Conditions, OWNER's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. CONTRACTOR shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued or Written Amendment signed. No acceptance by OWNER of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of OWNER or ENGINEER to reject defective Work.

C. CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other individual or entity, nor shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcon-

tractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR.

E. CONTRACTOR shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with ENGINEER through CONTRACTOR.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for CONTRACTOR by a Subcontractor or Supplier will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in paragraph 5.06, the agreement between the CONTRACTOR and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against OWNER, CONTRACTOR, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, CONTRACTOR will obtain the same.

6.07 *Patent Fees and Royalties*

A. CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER or ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. To the fullest extent permitted by Laws and Regulations,

CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees or agents, and other consultants of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 Permits

A. Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER shall assist CONTRACTOR, when necessary, in obtaining such permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto, such as plant investment fees.

6.09 Laws and Regulations

A. CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.

B. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, CONTRACTOR shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve CONTRACTOR of CONTRACTOR's obligations under paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date

of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work may be the subject of an adjustment in Contract Price or Contract Times. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in paragraph 10.05.

6.10 Taxes

~~A. CONTRACTOR shall pay all sales, consumer, use, and other similar taxes required to be paid by CONTRACTOR in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.~~

6.11 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas

1. CONTRACTOR shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultant, and the officers, directors, partners, employees, agents, and other consultants of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against OWNER, ENGINEER, or any other party indemnified hereunder to the

extent caused by or based upon CONTRACTOR's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work CONTRACTOR shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work CONTRACTOR shall clean the Site and make it ready for utilization by OWNER. At the completion of the Work CONTRACTOR shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

A. CONTRACTOR shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to ENGINEER for OWNER.

6.13 *Safety and Protection*

A. CONTRACTOR shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;
2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. CONTRACTOR shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property. All damage, injury, or loss to any property referred to in paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER or ENGINEER or ENGINEER's Consultant, or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them). CONTRACTOR's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

A. CONTRACTOR shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

A. CONTRACTOR shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged be-

tween or among employers at the Site in accordance with Laws or Regulations.

6.16 Emergencies

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, CONTRACTOR is obligated to act to prevent threatened damage, injury, or loss. CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If ENGINEER determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 Shop Drawings and Samples

A. CONTRACTOR shall submit Shop Drawings to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. All submittals will be identified as ENGINEER may require and in the number of copies specified in the General Requirements. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show ENGINEER the services, materials, and equipment CONTRACTOR proposes to provide and to enable ENGINEER to review the information for the limited purposes required by paragraph 6.17.E.

B. CONTRACTOR shall also submit Samples to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog numbers, and the use for which intended and otherwise as ENGINEER may require to enable ENGINEER to review the submittal for the limited purposes required by paragraph 6.17.E. The numbers of each Sample to be submitted will be as specified in the Specifications.

C. Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER as required by paragraph 2.07, any related Work performed prior to ENGINEER's review and approval of the pertinent submittal will be at the sole expense and responsibility of CONTRACTOR.

D. Submittal Procedures

1. Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:

a. all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

b. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to means, methods, techniques, sequences, and procedures of construction and safety precautions and programs incident thereto; and

d. CONTRACTOR shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

2. Each submittal shall bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR's review and approval of that submittal.

3. At the time of each submittal, CONTRACTOR shall give ENGINEER specific written notice of such variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to ENGINEER for review and approval of each such variation.

E. ENGINEER's Review

1. ENGINEER will timely review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER. ENGINEER's review and approval will be only to determine if the items covered by the submittals will, after installation

or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. ENGINEER's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. ENGINEER's review and approval of Shop Drawings or Samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of each submittal as required by paragraph 6.17.D.3 and ENGINEER has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for complying with the requirements of paragraph 6.17.D.1.

F. Resubmittal Procedures

1. CONTRACTOR shall make corrections required by ENGINEER and shall return the required number of corrected copies of Shop Drawings and submit as required new Samples for review and approval. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous submittals.

6.18 Continuing the Work

A. CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by paragraph 15.04 or as OWNER and CONTRACTOR may otherwise agree in writing.

6.19 CONTRACTOR's General Warranty and Guarantee

A. CONTRACTOR warrants and guarantees to OWNER, ENGINEER, and ENGINEER's Consultants that all Work will be in accordance with the Contract Documents and will not be defective. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors, Suppliers, or any other individual or entity for whom CONTRACTOR is responsible; or

2. normal wear and tear under normal usage.

B. CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents:

1. observations by ENGINEER;

2. recommendation by ENGINEER or payment by OWNER of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by ENGINEER or any payment related thereto by OWNER;

4. use or occupancy of the Work or any part thereof by OWNER;

5. any acceptance by OWNER or any failure to do so;

6. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by ENGINEER;

7. any inspection, test, or approval by others; or

8. any correction of defective Work by OWNER.

6.20 Indemnification

~~A. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's~~

~~Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage:~~

1. is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom; and

2. is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of an individual or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such individual or entity.

B. In any and all claims against OWNER or ENGINEER or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of CONTRACTOR under paragraph 6.20.A shall not extend to the liability of ENGINEER and ENGINEER's Consultants or to the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them arising out of:

1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings,

~~opinions, reports, surveys, Change Orders, designs, or Specifications; or~~

2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

ARTICLE 7 - OTHER WORK

7.01 Related Work at Site

A. OWNER may perform other work related to the Project at the Site by OWNER's employees, or let other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to CONTRACTOR prior to starting any such other work; and

2. if OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in paragraph 10.05.

B. CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (and OWNER, if OWNER is performing the other work with OWNER's employees) proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

C. If the proper execution or results of any part of CONTRACTOR's Work depends upon work performed by others under this Article 7, CONTRACTOR shall inspect such other work and promptly report to ENGINEER in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure to so report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent defects and deficiencies in such other work.

7.02 Coordination

A. If OWNER intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
2. the specific matters to be covered by such authority and responsibility will be itemized; and
3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, OWNER shall have sole authority and responsibility for such coordination.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 Communications to Contractor

A. Except as otherwise provided in these General Conditions, OWNER shall issue all communications to CONTRACTOR through ENGINEER.

8.02 Replacement of ENGINEER

A. In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer to whom CONTRACTOR makes no reasonable objection, whose status under the Contract Documents shall be that of the former ENGINEER.

8.03 Furnish Data

A. OWNER shall promptly furnish the data required of OWNER under the Contract Documents.

8.04 Pay Promptly When Due

A. OWNER shall make payments to CONTRACTOR promptly when they are due as provided in paragraphs 14.02.C and 14.07.C.

8.05 Lands and Easements; Reports and Tests

A. OWNER's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.01 and 4.05. Paragraph 4.02 refers to OWNER's identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by ENGINEER in preparing the Contract Documents.

8.06 Insurance

A. OWNER's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 Change Orders

A. OWNER is obligated to execute Change Orders as indicated in paragraph 10.03.

8.08 Inspections, Tests, and Approvals

A. OWNER's responsibility in respect to certain inspections, tests, and approvals is set forth in paragraph 13.03.B.

8.09 Limitations on OWNER's Responsibilities

A. The OWNER shall not supervise, direct, or have control or authority over, nor be responsible for, CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work. OWNER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

A. OWNER's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

A. If and to the extent OWNER has agreed to furnish CONTRACTOR reasonable evidence that financial arrangements have been made to satisfy OWNER's obligations under the Contract Documents, OWNER's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *OWNER'S Representative*

A. ENGINEER will be OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER's representative during construction are set forth in the Contract Documents and will not be changed without written consent of OWNER and ENGINEER.

9.02 *Visits to Site*

A. ENGINEER will make visits to the Site at intervals appropriate to the various stages of construction as ENGINEER deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR's executed Work. Based on information obtained during such visits and observations, ENGINEER, for the benefit of OWNER, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work.

B. ENGINEER's visits and observations are subject to all the limitations on ENGINEER's authority and responsibility set forth in paragraph 9.10, and particularly, but without limitation, during or as a result

of ENGINEER's visits or observations of CONTRACTOR's Work. ENGINEER will not supervise, direct, control, or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

A. If OWNER and ENGINEER agree, ENGINEER will furnish a Resident Project Representative to assist ENGINEER in providing more extensive observation of the Work. The responsibilities and authority and limitations thereon of any such Resident Project Representative and assistants will be as provided in paragraph 9.10 and in the Supplementary Conditions. If OWNER designates another representative or agent to represent OWNER at the Site who is not ENGINEER's Consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Clarifications and Interpretations*

A. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents as ENGINEER may determine necessary, which shall be consistent with the intent of and reasonably inferable from the Contract Documents. Such written clarifications and interpretations will be binding on OWNER and CONTRACTOR. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a written clarification or interpretation, a Claim may be made therefor as provided in paragraph 10.05.

9.05 *Authorized Variations in Work*

A. ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on OWNER and also on CONTRACTOR, who shall perform the Work involved promptly. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of a Field Order,

a Claim may be made therefor as provided in paragraph 10.05.

9.06 *Rejecting Defective Work*

A. ENGINEER will have authority to disapprove or reject Work which ENGINEER believes to be defective, or that ENGINEER believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ENGINEER will also have authority to require special inspection or testing of the Work as provided in paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.07 *Shop Drawings, Change Orders and Payments*

A. In connection with ENGINEER's authority as to Shop Drawings and Samples, see paragraph 6.17.

B. In connection with ENGINEER's authority as to Change Orders, see Articles 10, 11, and 12.

C. In connection with ENGINEER's authority as to Applications for Payment, see Article 14.

9.08 *Determinations for Unit Price Work*

A. ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. ENGINEER will review with CONTRACTOR the ENGINEER's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). ENGINEER's written decision thereon will be final and binding (except as modified by ENGINEER to reflect changed factual conditions or more accurate data) upon OWNER and CONTRACTOR, subject to the provisions of paragraph 10.05.

9.09 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work, the quantities and classifications of Unit Price Work, the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, and Claims seeking changes in the Contract Price or Contract Times will be referred initially to ENGINEER in writing, in

accordance with the provisions of paragraph 10.05, with a request for a formal decision.

~~B. When functioning as interpreter and judge under this paragraph 9.09, ENGINEER will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by ENGINEER pursuant to this paragraph 9.09 with respect to any such Claim, dispute, or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.07) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such Claim, dispute, or other matter.~~

9.10 *Limitations on ENGINEER's Authority and Responsibilities*

A. Neither ENGINEER's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by ENGINEER shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. ENGINEER will not supervise, direct, control, or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work. ENGINEER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

C. ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. ENGINEER's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of

inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

E. The limitations upon authority and responsibility set forth in this paragraph 9.10 shall also apply to ENGINEER's Consultants, Resident Project Representative, and assistants.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

A. Without invalidating the Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Written Amendment, a Change Order, or a Work Change Directive. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If OWNER and CONTRACTOR are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

A. CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in paragraph 3.04, except in the case of an emergency as provided in paragraph 6.16 or in the case of uncovering Work as provided in paragraph 13.04.B.

10.03 *Execution of Change Orders*

A. OWNER and CONTRACTOR shall execute appropriate Change Orders recommended by ENGINEER (or Written Amendments) covering:

1. changes in the Work which are: (i) ordered by OWNER pursuant to paragraph 10.01.A, (ii) required because of acceptance of defective Work under paragraph 13.08.A or OWNER's correction of defective Work under paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 6.18.A.

10.04 *Notification to Surety*

A. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility. The amount of each applicable Bond will be adjusted to reflect the effect of any such change.

10.05 Claims and Disputes

A. *Notice:* Written notice stating the general nature of each Claim, dispute, or other matter shall be delivered by the claimant to ENGINEER and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. Notice of the amount or extent of the Claim, dispute, or other matter with supporting data shall be delivered to the ENGINEER and the other party to the Contract within 60 days after the start of such event (unless ENGINEER allows additional time for claimant to submit additional or more accurate data in support of such Claim, dispute, or other matter). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to ENGINEER and the claimant within 30 days after receipt of the claimant's last submittal (unless ENGINEER allows additional time).

B. *ENGINEER's Decision:* ENGINEER will render a formal decision in writing within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any. ENGINEER's written decision on such Claim, dispute, or other matter will be final and binding upon OWNER and CONTRACTOR unless:

1. an appeal from ENGINEER's decision is taken within the time limits and in accordance with the dispute resolution procedures set forth in Article 16; or

2. if no such dispute resolution procedures have been set forth in Article 16, a written notice of intention to appeal from ENGINEER's written decision is delivered by OWNER or CONTRACTOR to the other and to ENGINEER within 30 days after the date of such decision, and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction within 60 days after the date of such decision or within 60 days after Substantial Completion, whichever is later (unless otherwise agreed in writing by OWNER and CONTRACTOR), to exercise such rights or remedies as the appealing party may have with respect to such Claim, dispute, or other matter in accordance with applicable Laws and Regulations.

C. If ENGINEER does not render a formal decision in writing within the time stated in paragraph 10.05.B, a decision denying the Claim in its entirety shall be deemed to have been issued 31 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any.

D. No Claim for an adjustment in Contract Price or Contract Times (or Milestones) will be valid if not submitted in accordance with this paragraph 10.05.

ARTICLE 11 - COST OF THE WORK; CASH ALLOWANCES; UNIT PRICE WORK

11.01 Cost of the Work

A. *Costs Included:* The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to CONTRACTOR will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in paragraph 11.01.B.

1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Such employees shall include without limitation superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by OWNER.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

3. Payments made by CONTRACTOR to Subcontractors for Work performed by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from subcontractors acceptable to OWNER and CONTRACTOR and shall deliver such bids to OWNER, who will then determine, with the advice of ENGINEER, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as CONTRACTOR's Cost of the Work and fee as provided in this paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of CONTRACTOR's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of CONTRACTOR.

c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from CONTRACTOR or others

in accordance with rental agreements approved by OWNER with the advice of ENGINEER, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by CONTRACTOR in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expressage, and similar petty cash items in connection with the Work.

i. When the Cost of the Work is used to determine the value of a Change Order or of a Claim, the cost of premiums for additional Bonds and insurance required because of the changes in the Work or caused by the event giving rise to the Claim.

j. When all the Work is performed on the basis of cost-plus, the costs of premiums for all

Bonds and insurance CONTRACTOR is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnerships and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by CONTRACTOR, whether at the Site or in CONTRACTOR's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 11.01.A.1 or specifically covered by paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the CONTRACTOR's fee.

2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the Site.

3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.

4. Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraphs 11.01.A and 11.01.B.

C. *CONTRACTOR's Fee:* When all the Work is performed on the basis of cost-plus, CONTRACTOR's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, CONTRACTOR's fee shall be determined as set forth in paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to paragraphs 11.01.A and 11.01.B, CONTRACTOR will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

11.02 *Cash Allowances*

A. It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums as may be acceptable to OWNER and ENGINEER. CONTRACTOR agrees that:

1. the allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. CONTRACTOR's costs for unloading and handling on the Site, labor, installation costs, overhead, profit, and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

B. Prior to final payment, an appropriate Change Order will be issued as recommended by ENGINEER to reflect actual amounts due CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER subject to the provisions of paragraph 9.08.

B. Each unit price will be deemed to include an amount considered by CONTRACTOR to be ade-

quate to cover CONTRACTOR's overhead and profit for each separately identified item.

C. OWNER or CONTRACTOR may make a Claim for an adjustment in the Contract Price in accordance with paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
2. there is no corresponding adjustment with respect any other item of Work; and
3. if CONTRACTOR believes that CONTRACTOR is entitled to an increase in Contract Price as a result of having incurred additional expense or OWNER believes that OWNER is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of paragraph 11.03); or
2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum ~~(which may include an allowance for overhead and profit not necessarily in accordance with paragraph 12.01.C.2); or~~
3. ~~where the Work involved is not covered by unit prices contained in the Contract~~

~~Documents and agreement to a lump sum is not reached under paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in paragraph 11.01) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 12.01.C).~~

~~C. CONTRACTOR's Fee: The CONTRACTOR's fee for overhead and profit shall be determined as follows:~~

1. a mutually acceptable fixed fee; or
2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under paragraphs 11.01.A.1 and 11.01.A.2, the CONTRACTOR's fee shall be 15 percent;
 - b. for costs incurred under paragraph 11.01.A.3, the CONTRACTOR's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and CONTRACTOR will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
 - d. no fee shall be payable on the basis of costs itemized under paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
 - e. the amount of credit to be allowed by CONTRACTOR to OWNER for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in CONTRACTOR's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in CONTRACTOR's fee shall be computed on the basis of the net change in accordance with paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

A. The Contract Times (or Milestones) may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Times (or Milestones) shall be based on written notice submitted by the party making the claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B. Any adjustment of the Contract Times (or Milestones) covered by a Change Order or of any Claim for an adjustment in the Contract Times (or Milestones) will be determined in accordance with the provisions of this Article 12.

12.03 *Delays Beyond CONTRACTOR's Control*

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of CONTRACTOR, the Contract Times (or Milestones) will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in paragraph 12.02.A. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

12.04 *Delays Within CONTRACTOR's Control*

A. The Contract Times (or Milestones) will not be extended due to delays within the control of CONTRACTOR. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.

12.05 *Delays Beyond OWNER's and CONTRACTOR's Control*

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay.

12.06 *Delay Damages*

~~A. In no event shall OWNER or ENGINEER be liable to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization, or to any~~

~~curety for or employee or agent of any of them, for damages arising out of or resulting from:~~

1. delays caused by or within the control of CONTRACTOR; or

2. delays beyond the control of both OWNER and CONTRACTOR including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, or acts or neglect by utility owners or other contractors performing other work as contemplated by Article 7.

B. Nothing in this paragraph 12.06 bars a change in Contract Price pursuant to this Article 12 to compensate CONTRACTOR due to delay, interference, or disruption directly attributable to actions or inactions of OWNER or anyone for whom ~~OWNER is responsible.~~

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

A. Prompt notice of all defective Work of which OWNER or ENGINEER has actual knowledge will be given to CONTRACTOR. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

A. OWNER, ENGINEER, ENGINEER's Consultants, other representatives and personnel of OWNER, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspecting, and testing. CONTRACTOR shall provide them proper and safe conditions for such access and advise them of CONTRACTOR's Site safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

A. CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

~~B. OWNER shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:~~

1. for inspections, tests, or approvals covered by paragraphs 13.03.C and 13.03.D below;
2. that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.04.B shall be paid as provided in said paragraph 13.04.B; and
3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish ENGINEER the required certificates of inspection or approval.

D. CONTRACTOR shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for OWNER's and ENGINEER's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to OWNER and ENGINEER.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by CONTRACTOR without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation.

F. Uncovering Work as provided in paragraph 13.03.E shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

13.04 Uncovering Work

A. If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.

B. If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment. If it is found that such Work is defective, CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed ~~an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both,~~ directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the ~~amount or~~ extent thereof, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

13.05 OWNER May Stop the Work

~~A. If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.~~

13.06 *Correction or Removal of Defective Work*

A. CONTRACTOR shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by ENGINEER, remove it from the Project and replace it with Work that is not defective. CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

13.07 *Correction Period*

A. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for CONTRACTOR's use by OWNER or permitted by Laws and Regulations as contemplated in paragraph 6.11.A is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions: (i) repair such defective land or areas, or (ii) correct such defective Work or, if the defective Work has been rejected by OWNER, remove it from the Project and replace it with Work that is not defective, and (iii) satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or repaired or may have the rejected Work removed and replaced, and all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR.

B. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Written Amendment.

C. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

D. CONTRACTOR's obligations under this paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, OWNER (and, prior to ENGINEER's recommendation of final payment, ENGINEER) prefers to accept it, OWNER may do so. CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to OWNER's evaluation of and determination to accept such defective Work (such costs to be approved by ENGINEER as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by CONTRACTOR pursuant to this sentence. If any such acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and OWNER shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER.

13.09 *OWNER May Correct Defective Work*

A. If CONTRACTOR fails within a reasonable time after written notice from ENGINEER to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.06.A, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days written notice to CONTRACTOR, correct and remedy any such deficiency.

B. In exercising the rights and remedies under this paragraph, OWNER shall proceed expeditiously. In connection with such corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the Site, take possession of all or part of the Work and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees, OWNER's other contractors, and ENGINEER and ENGINEER's Consultants access to the Site to enable OWNER to exercise the rights and remedies under this paragraph.

C. All Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by OWNER in exercising the rights and remedies under this paragraph 13.09 will be charged against CONTRACTOR, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, OWNER may make a Claim therefor as provided in paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of CONTRACTOR's defective Work.

D. CONTRACTOR shall not be allowed an extension of the Contract Times (or Milestones) because of any delay in the performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies under this paragraph 13.09.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

A. The schedule of values established as provided in paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to ENGINEER. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. *Applications for Payments*

1. At least 20 days before the date established for each progress payment (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that OWNER has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect OWNER's interest therein, all of which must be satisfactory to OWNER.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of CONTRACTOR stating that all previous progress payments received on account of the Work have been applied on account to discharge CONTRACTOR's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. *Review of Applications*

1. ENGINEER will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER or return the Application to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application.

2. ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on

ENGINEER's observations on the Site of the executed Work as an experienced and qualified design professional and on ENGINEER's review of the Application for Payment and the accompanying data and schedules, that to the best of ENGINEER's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.08, and to any other qualifications stated in the recommendation); and

c. The conditions precedent to CONTRACTOR's being entitled to such payment appear to have been fulfilled in so far as it is ENGINEER's responsibility to observe the Work.

3. By recommending any such payment ENGINEER will not thereby be deemed to have represented that: (i) inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract Documents; or (ii) that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to withhold payment to CONTRACTOR.

4. Neither ENGINEER's review of CONTRACTOR's Work for the purposes of recommending payments nor ENGINEER's recommendation of any payment, including final payment, will impose responsibility on ENGINEER to supervise, direct, or control the Work or for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for CONTRACTOR's failure to comply with Laws and Regulations applicable to CONTRACTOR's performance of the Work. Additionally, said review or recommendation will not impose responsibility on ENGINEER to

make any examination to ascertain how or for what purposes CONTRACTOR has used the moneys paid on account of the Contract Price, or to determine that title to any of the Work, materials, or equipment has passed to OWNER free and clear of any Liens.

5. ENGINEER may refuse to recommend the whole or any part of any payment if, in ENGINEER's opinion, it would be incorrect to make the representations to OWNER referred to in paragraph 14.02.B.2. ENGINEER may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:

a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;

b. the Contract Price has been reduced by Written Amendment or Change Orders;

c. OWNER has been required to correct defective Work or complete Work in accordance with paragraph 13.09; or

~~d. ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraph 15.02.A.~~

C. Payment Becomes Due

~~1. Ten days after presentation of the Application for Payment to OWNER with ENGINEER's recommendation, the amount recommended will (subject to the provisions of paragraph 14.02.D) become due, and when due will be paid by OWNER to CONTRACTOR.~~

D. Reduction in Payment

1. OWNER may refuse to make payment of the full amount recommended by ENGINEER because:

a. claims have been made against OWNER on account of CONTRACTOR's performance or furnishing of the Work;

b. Liens have been filed in connection with the Work, except where CONTRACTOR has delivered a specific

Bond satisfactory to OWNER to secure the satisfaction and discharge of such Liens;

c. there are other items entitling OWNER to a set-off against the amount recommended; or

d. OWNER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.02.B.5.a through 14.02.B.5.c or paragraph 15.02.A.

2. If OWNER refuses to make payment of the full amount recommended by ENGINEER, OWNER must give CONTRACTOR immediate written notice (with a copy to ENGINEER) stating the reasons for such action and promptly pay CONTRACTOR any amount remaining after deduction of the amount so withheld. OWNER shall promptly pay CONTRACTOR the amount so withheld, or any adjustment thereto agreed to by OWNER and CONTRACTOR, when CONTRACTOR corrects to OWNER's satisfaction the reasons for such action.

3. If it is subsequently determined that OWNER's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by paragraph 14.02.C.1.

14.03 *CONTRACTOR's Warranty of Title*

A. CONTRACTOR warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

A. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Promptly thereafter, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial

Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within 14 days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating the reasons therefor. If, after consideration of OWNER's objections, ENGINEER considers the Work substantially complete, ENGINEER will within said 14 days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER in writing prior to ENGINEER's issuing the definitive certificate of Substantial Completion, ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

B. OWNER shall have the right to exclude CONTRACTOR from the Site after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

14.05 *Partial Utilization*

A. Use by OWNER at OWNER's option of any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which OWNER, ENGINEER, and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER for its intended purpose without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following conditions.

1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER

believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER and ENGINEER that such part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers that part of the Work to be substantially complete, the provisions of paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

2. No occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

A. Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will promptly make a final inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

A. *Application for Payment*

1. After CONTRACTOR has, in the opinion of ENGINEER, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guaran-

tees, Bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in paragraph 6.12), and other documents, CONTRACTOR may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by: (i) all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by subparagraph 5.04.B.7; (ii) consent of the surety, if any, to final payment; and (iii) complete and legally effective releases or waivers (satisfactory to OWNER) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in paragraph 14.07.A.2 and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full and an affidavit of CONTRACTOR that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or OWNER's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

B. *Review of Application and Acceptance*

1. If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten days after receipt of the final Application for Payment, indicate in writing ENGINEER's recommendation of payment and present the Application for Payment to OWNER for payment. At the same time ENGINEER will also give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.09. Otherwise, ENGINEER will return the Application for Payment to

CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application for Payment.

C. *Payment Becomes Due*

~~1. Thirty days after the presentation to OWNER of the Application for Payment and accompanying documentation, the amount recommended by ENGINEER will become due and, when due, will be paid by OWNER to CONTRACTOR.~~

14.08 *Final Completion Delayed*

A. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed, and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

~~A. The making and acceptance of final payment will constitute:~~

~~1. a waiver of all Claims by OWNER against CONTRACTOR, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from CONTRACTOR's continuing obligations under the Contract Documents; and~~

~~2. a waiver of all Claims by CONTRACTOR against OWNER other than those previously made in writing which are still unsettled.~~

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 *OWNER May Suspend Work*

A. At any time and without cause, OWNER may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to CONTRACTOR and ENGINEER which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. ~~CONTRACTOR shall be allowed an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes a Claim therefor as provided in paragraph 10.05.~~

15.02 *OWNER May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. CONTRACTOR's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.07 as adjusted from time to time pursuant to paragraph 6.04);

2. CONTRACTOR's disregard of Laws or Regulations of any public body having jurisdiction;

3. CONTRACTOR's disregard of the authority of ENGINEER; or

4. CONTRACTOR's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in paragraph 15.02.A occur, OWNER may, after giving CONTRACTOR (and the surety, if any) seven days written notice, terminate the services of CONTRACTOR, exclude CONTRACTOR from the Site, and take possession of the Work and of all CONTRACTOR's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the Site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case, CONTRACTOR

shall not be entitled to receive any further payment until the Work is finished. ~~If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by OWNER arising out of or relating to completing the Work, such excess will be paid to CONTRACTOR.~~ If such claims, costs, losses, and damages exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such claims, costs, losses, and damages incurred by OWNER will be reviewed by ENGINEER as to their reasonableness and, when so approved by ENGINEER, incorporated in a Change Order. When exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

C. Where CONTRACTOR's services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

15.03 OWNER May Terminate For Convenience

A. Upon seven days written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy of OWNER, elect to terminate the Contract. In such case, CONTRACTOR shall be paid (without duplication of any items):

1. for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. for expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

~~3. for all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and~~

4. for reasonable expenses directly attributable to termination.

B. CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 CONTRACTOR May Stop Work or Terminate

A. If, through no act or fault of CONTRACTOR, the Work is suspended for more than 90 consecutive days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within 30 days after it is submitted, ~~or OWNER fails for 30 days to pay CONTRACTOR any sum finally determined to be due,~~ then CONTRACTOR may, upon seven days written notice to OWNER and ENGINEER, and provided OWNER or ENGINEER do not remedy such suspension or failure within that time, terminate the Contract and recover from OWNER payment on the same terms as provided in paragraph 15.03. In lieu of terminating the Contract and without prejudice to any other right or remedy, if ENGINEER has failed to act on an Application for Payment within 30 days after it is submitted, ~~or OWNER has failed for 30 days to pay CONTRACTOR any sum finally determined to be due,~~ CONTRACTOR may, seven days after written notice to OWNER and ENGINEER, stop the Work until payment is made of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.04 are not intended to preclude CONTRACTOR from making a Claim under paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or stopping the Work as permitted by this paragraph.

ARTICLE 16 - DISPUTE RESOLUTION

16.01 Methods and Procedures

~~A. Dispute resolution methods and procedures, if any, shall be as set forth in the Supplementary Conditions. If no method and procedure has been set forth, and subject to the provisions of paragraphs 9.09 and 10.05, OWNER and CONTRACTOR may exercise such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any dispute.~~

ARTICLE 17 - MISCELLANEOUS

17.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Agreement.

17.05 *Controlling Law*

~~A. This Contract is to be governed by the law of the state in which the Project is located.~~

SECTION 00800 - SUPPLEMENTARY CONDITIONS
TO THE GENERAL CONDITIONS

NOTE: THIS TABLE OF CONTENTS IS NOT COMPLETE AND NEEDS TO BE UPDATED

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Test and Inspections	SC - 13.03
Progress Payments	SC - 14.02
Mediation	SC -16.02
Arbitration	SC - 16.03
Liens	SC - 17.06

SECTION 00800 - SUPPLEMENTARY CONDITIONS TO THE GENERAL CONDITIONS

SC-1.00 Introduction

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (No. 1910-8, 1996 Edition) and other provisions of the Contract Documents as indicated below. All provisions, which are not so amended or supplemented, remain in full force and effect.

The terms used in these Supplementary Conditions will have the meanings indicated in the General Conditions.

SC-1.01 Defined Terms

SC-1.01.A.20. *Add the following language at the end of GC-1.01.A.20:*

ENGINEER:

Name IRC Engineering Division
Address 1840 25th Street
City, State, Zip Vero Beach, FL 32960
Phone 772-567-8000 x 1280
Fax 772-778-9391

SC-2.05 Before Starting Construction

SC-2.05.C. *Delete paragraph GC 2.05.C in its entirety and insert the following paragraph in its place:*

- C. *Evidence of Insurance:* CONTRACTOR shall not commence work under this Contract until he has obtained all insurance required under Article 5 and such insurance has been delivered to the OWNER and approved by the OWNER, nor shall the CONTRACTOR allow any Subcontractor to commence work on his subcontract until all similar insurance required of the Subcontractor has been so obtained and approved. All such insurance shall remain in effect until final payment and at all times thereafter when CONTRACTOR may be correcting, removing or replacing *defective* Work in accordance with Article 13.

SC-2.06 Pre-Construction Conference

SC-2.06 *Delete paragraph GC-2.06.A in its entirety and insert the following paragraph in its place:*

- A. Immediately after awarding the contract, but before the CONTRACTOR begins work, the Engineer will call a pre-construction conference at a place the ENGINEER designates to establish an understanding among the parties as to the work and to discuss schedules referred to in paragraph 2.05.B, procedures for handling Shop Drawings and other submittals, and maintaining required records. Utility companies and others as appropriate will be requested to attend to discuss and coordinate work.

SC-3.06 Coordination of Plans, Specifications, and Special Provisions

SC-3.06 *Add the following new paragraphs immediately after paragraph GC-3.05:*

SC-3.06 Coordination of Plans, Specifications, and Special Provisions

- A. In case of discrepancy, the governing order of the documents shall be as follows:
 - 1. Written Interpretations
 - 2. Addenda
 - 3. Specifications
 - 4. Supplementary Conditions to the General Conditions
 - 5. General Conditions
 - 6. Approved Shop Drawings
 - 7. Drawings
 - 8. Referenced Standards.
- B. Written/computed dimensions shall govern over scaled dimensions.

SC-4.03 Differing Subsurface or Physical Conditions

SC-4.03.C.3 *Delete the following text from the second sentence of paragraph GC-4.03.C.3:*

~~arbitration or other~~

SC-5.01 Performance, Payment and Other Bonds

SC-5.01.A. *Delete paragraph GC-5.01.A in its entirety and insert the following paragraphs in its place:*

- A. Within ten (10) days of receipt of the Contract Documents for execution, the CONTRACTOR shall furnish a Performance Bond in an amount equal to 125% of the Contract Price and a Payment Bond in an amount equal to 100% of the Contract Price.
 - 1. The CONTRACTOR shall provide two separate bonds. A combined Payment and Performance Bond for 125% of the Contract Price is not an acceptable substitute.
 - 2. Such Bonds shall continue in effect for one (1) year after acceptance of the Work by the OWNER.
 - 3. The CONTRACTOR shall record, the Payment Bond and the Performance Bond with the Public Record Section of the Indian River County Courthouse located at 2000 16th Avenue, Vero Beach, Florida 32960. The recorded bonds shall be forwarded to the Indian River County Purchasing Division on or before the seventh day after they are recorded. The CONTRACTOR shall pay all costs.

SC-5.01.B. *Delete paragraph GC-5.01.B in its entirety and insert the following paragraph in its place:*

- B. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management

Service, Surety Bond Branch, U.S. Department of the Treasury. The sureties for all Bonds must be authorized to issue surety bonds in Florida. The CONTRACTOR shall require the attorney-in-fact who executes any Bond, to affix to each a current certified copy of their Power of Attorney, reflecting such person's authority as Power of Attorney in the State of Florida. Further, at the time of execution of the Contract, the CONTRACTOR shall for all Bonds, provide a copy of the Surety's current valid Certificate of Authority issued by the United States Department of the Treasury under 31 United States Code sections 9304-9308.

SC-5.03 Certificates of Insurance

SC-5.03 *Delete the second sentence of paragraph GC-5.03 in its entirety.*

SC-5.04 CONTRACTOR's Liability Insurance

SC-5.04 *Add the following new paragraphs immediately after paragraph GC-5.04.B:*

- C. The limits of liability for the insurance required by paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:
1. Worker's Compensation: To meet statutory limits in compliance with the Worker's Compensation Law of Florida. This policy must include Employer Liability with a limit \$100,000 for each accident, \$500,000 disease (policy limit) and \$100,000 disease (each employee). Such policy shall include a waiver of subrogation as against OWNER and ENGINEER on account of injury sustained by an employee(s) of the CONTRACTOR.
 2. Commercial General Liability: Coverage shall provide minimum limits of liability of \$1,000,000 per occurrence Combined Single Limit for Bodily Injury and Property Damage. This shall include coverage for:
 - a. Premises/Operations
 - b. Products/Completed Operations
 - c. Contractual Liability
 - d. Independent Contractors
 - e. Explosion
 - f. Collapse
 - g. Underground.
 3. Business Auto Liability: Coverage shall provide minimum limits of liability of \$1,000,000 per occurrence Combined Single Limit for Bodily Injury and Property Damage. This shall include coverage for:
 - a. Owner Autos
 - b. Hired Autos
 - c. Non-Owned Autos.
 4. CONTRACTOR's "All Risk" Insurance: CONTRACTOR shall secure Builders' Risk "All Risk" insurance at his expense and provide properly completed and executed "Certificates of Insurance and Insurance Endorsement" forms *in the exact wording and format presented in these Contract Documents* before starting work.
 5. Special Requirements:
 - a. Ten (10) days prior to the commencement of any work under this Contract, certificates of insurance and endorsement forms in the exact wording and format as presented in these Contract

Documents will be provided to the OWNER's Risk Manager for review and approval.

- b. "Indian River County Florida" will be named as "Additional Insured" on both the General Liability, Auto Liability and Builder's Risk "All Risk" Insurance.
- c. The OWNER will be given thirty (30) days notice prior to cancellation or modification of any stipulated insurance. Such notification will be in writing by registered mail, return receipt requested and addressed to the OWNER's Risk Manager.
- d. An appropriate "Indemnification" clause shall be made a provision of the Contract (see paragraph 6.20 of the General Conditions).
- e. It is the responsibility of the CONTRACTOR to insure that all subcontractors comply with all insurance requirements.
- f. It should be remembered that these are minimum requirements, which are subject to modification in response to high hazard operation.
- g. Insured must be authorized to do business and have an agent for service of process in Florida and have an AAA policyholder's rating and financial rating of a least Class XI in accordance with the most current Best's Rating.

D. Additional Insureds:

- 1. In addition to "Indian River County, Florida," the following individuals or entities shall be listed as "additional insureds" on the CONTRACTOR's liability insurance policies:
 - a. None
 - b. _____
 - c. _____

- E. Should the CONTRACTOR at any time, neglect or refuse to provide the insurance required herein, or should such insurance be canceled or should the full annual aggregate amount of any policy not be available to satisfy the requirements of the Contract, the OWNER shall have the right, but not the obligation, to procure such insurance for the CONTRACTOR and the cost thereof shall be deducted from the monies then due or thereafter to become due to the CONTRACTOR or to declare CONTRACTOR in default under the Contract.

SC-5.05 OWNER's Liability Insurance

SC-5.05 *Delete paragraph GC-5.05.A in its entirety.*

SC-5.06 Property Insurance

SC-5.06 *Delete paragraphs GC-5.06.A, B, and C in their entirety and insert the following paragraphs in their place:*

- A. CONTRACTOR shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof. This insurance shall:
 - 1. include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;

2. be written on a Builder's Risk "All Risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss and damage to the Work, temporary buildings, falsework, and materials and equipment in transit and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER; and
5. allow for partial utilization of the Work by OWNER;
6. include testing and startup; and
7. be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR and ENGINEER with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

B. CONTRACTOR shall be responsible for any deductible or self-insured retention.

C. The policies of insurance required to be purchased and maintained by CONTRACTOR in accordance with this paragraph SC-5.06 shall comply with the requirements of paragraph 5.06.C of the General Conditions.

SC-5.06.E *Delete paragraph GC-5.06.E in its entirety and insert the following in its place:*

E. Additional Insureds:

1. The following individuals or entities shall be listed as "additional insureds" on the CONTRACTOR's property insurance policies:
 - a. Indian River County, Florida
 - b. None
 - c. _____

SC-5.07 Waiver of Rights

SC-5.07 *Delete GC-5.07 (paragraphs A, B, and C) in its entirety.*

SC-5.08 Receipt and Application of Insurance Proceeds

SC-5.08 *Delete GC-5.08 (paragraphs A and B) in its entirety.*

SC-5.09 Acceptance of Bonds and Insurance; Option to Replace

SC-5.09 *Delete GC-5.09 in its entirety.*

SC-6.02 Labor; Working Hours

SC-6.02.B. *Add the following paragraphs immediately after paragraph GC-6.02.B:*

1. Regular working hours are defined as Monday through Friday, excluding Indian River County Holidays, from 7 a.m. to 5 p.m.
2. Indian River County Holidays are: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Friday after Thanksgiving, Christmas Eve and Christmas Day. Working on these days will not be permitted without prior written permission and approval from the Engineer.
3. The CONTRACTOR shall receive no additional compensation for overtime work, i.e., work in excess of eight hours in any one calendar day or 40 hours in any one calendar week, even though such overtime work may be required under emergency conditions and may be ordered by the ENGINEER in writing.
4. All costs of inspection and testing performed during overtime work by the CONTRACTOR, which is allowed solely for the convenience of the CONTRACTOR, shall be borne by the CONTRACTOR, and a credit given to the OWNER to deduct the costs of all such inspection and testing from any payments otherwise due the CONTRACTOR.
5. All costs of OWNER's employees and costs of ENGINEER's Consultant resulting from overtime work by the CONTRACTOR, which is allowed solely for the convenience of the CONTRACTOR, shall be borne by the CONTRACTOR, and a credit given to OWNER to deduct all such costs from any payments otherwise due the CONTRACTOR.
6. No work shall commence before 7 a.m. or continue after 7 p.m. except in case of emergency upon specific permission of the ENGINEER.

SC-6.05 Substitutes and "Or-Equals"

SC-6.05.A *Delete paragraph GC-6.05.A in its entirety and insert the following in its place:*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, that proprietary item or particular Supplier shall be used and no other will be considered. If the specification or description contains or is followed by words such as "equivalent" or "or-equal," then the specification or description is intended to establish the type, function, appearance, and quality required. In such case, substitution of other items of material or equipment or material or equipment of other Suppliers may be submitted to ENGINEER for review under the circumstances described below.

SC-6.05.A.1.a.(ii) *Delete sentence GC-6.05.A.1.a.(ii) in its entirety and insert the following in its place:*

- (ii) it will reliably perform at least equally well the function of the named item of material or equipment, and;

SC-6.06 Concerning Subcontractors, Suppliers, and Others

SC-6.06.C. *Add the following sentence at the end of paragraph GC-6.06.C:*

OWNER or ENGINEER may furnish to any such Subcontractor, Supplier, or other individual or entity, to the extent practicable, information about amounts paid to CONTRACTOR on account of Work performed for CONTRACTOR by a particular Subcontractor, Supplier, or other individual or entity.

SC-6.08 Permits

SC-6.08 *Add the following paragraphs immediately after paragraph GC-6.08.A:*

- B. The OWNER has obtained the following permits (copies of these permits are contained in Appendix "A"):
 - 1. SJRWMD
 - 2. _____.
- C. The CONTRACTOR shall obtain and pay for all other required permits and licenses. The CONTRACTOR shall provide copies of the permits to the OWNER and ENGINEER and shall comply with all conditions contained in the permits at no extra cost to the OWNER.
- D. The CONTRACTOR shall be familiar with all permit requirements during construction and shall be responsible for complying with these requirements. The cost of this effort shall be included in the pay item in which the work is most closely associated with.

SC-6.10 Taxes

SC-6.10.A *Delete paragraph GC-6.10.A in its entirety and insert the following in its place:*

OWNER qualifies for state and local sales tax exemption in the purchase of all material and equipment

SC-6.20 Indemnification

SC-6.20 *Delete paragraph GC-6.20 in its entirety and insert the following in its place:*

- A. CONTRACTOR agrees to indemnify and hold harmless the OWNER, together with its agents, employees, elected officers and representatives, from liabilities, damages, losses, and costs, including but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness or intentionally wrongful conduct of the CONTRACTOR and persons employed or utilized by the CONTRACTOR in the performance of this Work under this Agreement. This indemnification and hold harmless provision shall survive the termination or expiration of this Agreement.

SC-9.09 Decisions on Requirements of Contract Documents and Acceptability of Work

SC-9.09 *Delete paragraph GC-9.09.B in its entirety.*

SC-12.01 Change of Contract Price

SC-12.01.B.2 *Delete the following text from paragraph GC-12.01.B.2 and add a "period" (.) at the end of the remaining text.:*

~~(which may include an allowance for overhead and profit not necessarily in accordance with paragraph 12.01.C.2); or.~~

SC-12.01 *Delete paragraphs GC-12.01.B.3 and GC-12.01.C in their entirety.*

SC-12.06 Delay Damages

SC-12.06 *Delete paragraphs GC-12.06.A and GC-12.06.B in their entirety and insert the following paragraph in their place:*

- A. In no event shall OWNER or ENGINEER be liable to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from any delay whatsoever. The CONTRACTOR's sole and exclusive remedy for delays to the project are time extensions.

SC-13.03 Test and Inspections

SC-13.03.B. *Delete the first sentence of paragraph GC-13.03.B (up to the colon) in its entirety, and insert the following sentences in its place:*

- B. OWNER shall employ and pay for the services of an independent testing laboratory to perform all initial inspections, tests, or approvals required by the Contract Documents except those inspections, tests, or approvals listed immediately below. Subsequent inspections, tests, or approvals required after initial failing inspections, tests, or approvals shall be paid for by the CONTRACTOR by backcharge to subsequent applications for payment. The CONTRACTOR shall arrange, obtain, and pay for the following inspections, tests, or approvals:
1. inspections, tests, or approvals covered by paragraphs 13.03.C and 13.03.D below;
 2. costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.04.B shall be paid as provided in said paragraph 13.04.B;
 3. tests otherwise specifically provided in the Contract Documents.

SC-13.03. *Add the following paragraph immediately after paragraph GC-13.03.F:*

- G. The OWNER shall use the following testing laboratory:
Atlantic Testing Laboratories
1204 N. Harbor City Blvd.
Melbourne, FL 32935

SC-13.04 Uncovering Work

SC-13.04.B *Delete portions of the last two sentences as follows:*

If, however, such Work is not found to be defective, CONTRACTOR shall be allowed ~~an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both,~~ directly attributable to such uncovering, exposure, observation, inspection, testing,

replacement, and reconstruction. If the parties are unable to agree as to the ~~amount or~~ extent thereof, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

13.05 OWNER May Stop the Work

SC-13.05.A. *Delete paragraph GC-13.05.A in its entirety and insert the following paragraph in its place:*

- A. If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to comply with permit requirements, or fails to comply with the technical specifications, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof; until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.02 Progress Payments

SC-14.02.B.5. *Delete paragraph GC-14.02.B.5.d in its entirety and insert the following paragraph in its place:*

- d. ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraph 15.02.A; or

SC-14.02.B.5. *Add the following sentences at the end of paragraph GC-14.02.B.5:*

- e. OWNER has been required to pay ENGINEER or ENGINEER's Consultant additional compensation because of CONTRACTOR delays or rejection of defective Work; or
- f. OWNER has been required to pay an independent testing laboratory for subsequent inspections, tests, or approvals taken after initial failing inspections, tests, or approvals.

SC-14.02.C.1. *Delete paragraph GC-14.02.C.1 in its entirety and insert the following paragraph in its place:*

C. Payment Becomes Due

1. Payment shall be made by OWNER to CONTRACTOR according to the Florida Prompt Payment Act.

SC-14.02.D.1.b *Revise GC-14.02.D.1.b to read as follows:*

- b. Liens have been filed in connection with the Work.

SC-14.02.D.1 *Add the following paragraphs at the end of paragraph GC-14.02.D.1.d:*

- e. CONTRACTOR fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the CONTRACTOR and the Subcontractors;
- f. the Work for which payment is requested cannot be verified;
- g. of persistent failure to carry out the Work in accordance with the Contract Documents, or otherwise unsatisfactory prosecution of the Work; or
- h. of any other breach of, default under or violation of, or failure to comply with, the provisions of the Contract Documents.

SC-14.07 Final Payment

SC-14.07.C.1. *Delete paragraph GC-14.07.C.1 in its entirety and insert the following paragraph in its place:*

C. Payment Becomes Due

1. Payment shall be made by OWNER to CONTRACTOR according to the "Florida Prompt Payment Act" (F. S. Chapter 218.70, et. seq.).

SC-14.09 Waiver of Claims

SC-14.09 *Delete paragraph GC-14.09.A in its entirety and insert the following paragraph in its place:*

- A. Acceptance of Final Payment as Release. The acceptance by the CONTRACTOR of final payment shall be and shall operate as a release to the OWNER from all claims and all liability to the CONTRACTOR other than claims in stated amounts as may be specifically excepted by the CONTRACTOR for all things done or furnished in connection with this Work and for every act and neglect of the OWNER and others relating to or arising out of this Work. Any payment, however, final or otherwise, shall not release the CONTRACTOR or his sureties from any obligations under the Contract Documents or the Payment and Performance Bonds.

SC-15.01 OWNER May Suspend Work

SC-15.01.A *Delete the last sentence in paragraph GC-15.01.A and insert the following in its place:*

CONTRACTOR shall be allowed an extension of the Contract Times, directly attributable to any such suspension if CONTRACTOR makes a Claim for an extension as provided in paragraph 10.05. CONTRACTOR shall not be allowed an adjustment of the Contract Price and CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such Work suspension.

SC-15.02 OWNER May Terminate For Cause

SC-15.02.A.5 and SC-15.02.A.6 *Add the following new paragraphs immediately after paragraph GC-15.02.A.4:*

5. CONTRACTOR's violation of Section 02225 – "Erosion Control and Treatment of Dewatering Water From the Construction Site."
6. CONTRACTOR's failure to make payment to Subcontractors or Suppliers for materials or labor in accordance with the respective agreements between the CONTRACTOR and the Subcontractors or Suppliers.

SC-15.02.B *Delete the third sentence in paragraph GC-15.02.B and insert the following in its place:*

If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and dispute resolution or litigation costs) sustained by OWNER arising out of or relating to completing the Work, CONTRACTOR will be paid for acceptable earned Work that is fully completed or partially completed, and executed in accordance with the Contract Documents, prior to the effective date of termination.

SC-15.02.D *Add the following new paragraph immediately after paragraph GC-15.02.C:*

- D. CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

SC-15.03 OWNER May Terminate For Convenience

SC-15.03.A.3 *Delete paragraph GC-15.03.A.3 in its entirety.*

SC-15.04 CONTRACTOR May Stop Work or Terminate

SC-15.04 *Delete the following text from the first sentence of paragraph GC-15.04.A:*

~~or OWNER fails for 30 days to pay CONTRACTOR any sum finally determined to be due,~~

SC-15.04 *Delete the following text from the second sentence of paragraph GC-15.04.A:*

~~or OWNER has failed for 30 days to pay CONTRACTOR any sum finally determined to be due,~~

SC-16 DISPUTE RESOLUTION

SC-16.01.A. *Delete paragraph GC-16.01.A in its entirety and insert the following paragraph in its place:*

- A. Dispute resolution and procedures: OWNER and CONTRACTOR agree that they may submit any and all unsettled Claims or counterclaims, disputes, or other matters in question between them arising out of or relating to the Contract Documents or the breach thereof, to mediation by a certified mediator of the 19th Judicial Circuit in Indian River County. If mediation is unsuccessful, OWNER and CONTRACTOR may exercise such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any dispute.

SC-17.05 Controlling Law

SC-17.05.A. *Delete paragraph GC-17.05.A in its entirety and insert the following paragraph in its place:*

- A. This Agreement shall be governed by the laws of the State of Florida. Venue for any lawsuit brought by either party against the other party or otherwise arising out of this Contract shall be in Indian River County, Florida, or in the event of a federal jurisdiction, in the United States District Court for the Southern District of Florida.

Add the following new paragraphs immediately after paragraph GC17.05:

SC-17.06 Liens

- A. This project is a "Public Works" under Chapter 255, Florida Statutes. No merchant's liens may be filed against the OWNER. Any claimant may apply to the OWNER for a copy of this Contract. The claimant shall have a right of action against the CONTRACTOR for the amount due him. Such action shall not involve the OWNER in any expense. Claims against the CONTRACTOR are subject to timely prior notice to the CONTRACTOR as specified in Florida Statutes Section 255.05. The CONTRACTOR shall insert the following paragraph in all subcontracts hereunder:

"Notice: Claims for labor, materials and supplies are not assessable against Indian River County and are subject to proper prior notice to (CONTRACTOR'S Name) and to (CONTRACTOR Surety Company Name), pursuant to Chapter 255 of the Florida Statutes. This paragraph shall be inserted in every sub-subcontract hereunder." The payment due under the Contract shall be paid by the OWNER to the CONTRACTOR only after the CONTRACTOR has furnished the OWNER with an affidavit stating that all persons, firms or corporations who are defined in Section 713.01, Florida Statutes, who have furnished labor or materials, employed directly or indirectly in the Work, have been paid in full. The OWNER may rely on said affidavit at face value. The CONTRACTOR does hereby release, remiss and quit-claim any and all rights he may enjoy perfecting any lien or any other type of statutory common law or equitable lien against the job.

++END OF SUPPLEMENTARY CONDITIONS++

SECTION 00942 - Change Order Form

No. _____

DATE OF ISSUANCE: _____

EFFECTIVE DATE: _____

OWNER: Indian River County

CONTRACTOR _____

Contract: _____

Project: INDIAN RIVER SOUTH SIDEWALK IMPROVEMENTS, HIGHLAND DRIVE SW
SIDEWALK IMPROVEMENTS, FELLSMERE SIDEWALK PHASE II, 64TH AVENUE SIDEWALK
AND 6250 OLD DIXIE HIGHWAY

OWNER's Contract No. _____

ENGINEER's Contract No. _____

ENGINEER _____

You are directed to make the following changes in the Contract Documents:

Description:

Reason for Change Order:

Attachments: (List documents supporting change)

CHANGE IN CONTRACT PRICE:	
Description	Amount
Original Contract Price	\$ _____
Net Increase (Decrease) from previous Change Orders No. _____ to _____:	\$ _____
Contract Price prior to this Change Order:	\$ _____
Net increase (decrease) of this Change Order:	\$ _____
Contract Price with all approved Change Orders:	\$ _____

CHANGE IN CONTRACT TIMES	
Description	Time
Original Contract Time:	(days or dates) _____
Substantial Completion:	_____
Final Completion:	_____
Net change from previous Change Orders No. _____ to _____:	(days) _____
Substantial Completion:	_____
Final Completion:	_____
Contract Time prior to this Change Order:	(days or dates) _____
Substantial Completion:	_____
Final Completion:	_____
Net increase (decrease) this Change Order:	(days or dates) _____
Substantial Completion:	_____
Final Completion:	_____
Contract Time with all approved Change Orders:	(days or dates) _____
Substantial Completion:	_____
Final Completion:	_____

ACCEPTED:
By:
CONTRACTOR (Signature)
Date:

RECOMMENDED:
By:
ENGINEER (Signature)
Date:

APPROVED:
By:
OWNER (Signature)
Date:

DIVISION 1 GENERAL REQUIREMENTS

<u>TITLE</u>	<u>SECTION NO.</u>
SPECIAL PROVISIONS	01009
FORCE ACCOUNT	01024
FIELD ENGINEERING AND LAYOUT	01050
REFERENCE STANDARDS	01091
GENERAL QUALITY CONTROL	01215
PROGRESS MEETINGS	01220
CONSTRUCTION SCHEDULES	01310
SUBMITTAL OF SHOP DRAWINGS, PRODUCT DATA AND SAMPLES	01340
CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS	01520
PROTECTION OF THE WORK AND PROPERTY	01541
ACCESS ROADS, PARKINGS AREAS AND USE OF PUBLIC STREETS	01550
STORAGE OF MATERIAL AND EQUIPMENT	01611
SUBSTITUTIONS	01630
SITE CLEANUP AND RESTORATION	01710

SECTION 01009

SPECIAL PROVISIONS

1.1 GENERAL

- A. Visits to the construction site may be made by representatives of permitting or governing bodies. Submit details of all instructions from the above to the ENGINEER immediately. The Work will not be accepted by the OWNER until final acceptance has been received from the various Regulatory Agencies having jurisdiction.
- B. Furnish sufficient labor, construction equipment and materials, and work such hours, including night shifts and overtime operations, as may be necessary to insure the prosecution of the work in accordance with the approved progress schedule. If, in the opinion of the ENGINEER, the CONTRACTOR falls behind the progress schedule, take such steps as may be necessary to improve progress, all without additional cost to the OWNER. The ENGINEER shall be compensated for his overtime services in accordance with the Supplementary Conditions, SC-6.02.
- C. All salvageable material and equipment for which specific use, relocation or other disposal is not specifically noted, shall remain the property of the OWNER and shall be delivered to the OWNER at the following location: 4550 41st Street, at the CONTRACTOR's expense. All material and equipment not in salvageable condition, as determined by the ENGINEER and the OWNER, shall be disposed of by the CONTRACTOR, at the CONTRACTOR's expense.
- D. In addition to these Specifications all work must comply with the requirements of the local governing agency, St. Johns River Water Management District, Department of Environmental Protection, Corps of Engineers, Indian River Farms Water Control District, and all other applicable State or Federal agencies' specifications and permits. In the event of a conflict, the more stringent specification or requirement shall govern.
- E. Before performing any work outside the designated limits of the work site, secure any necessary permits and authorization from the applicable owner, or verify in writing that such has been previously obtained. Follow all requirements of any said permits or authorization. Give the ENGINEER and appropriate owner ten (10) days minimum notice before commencing construction operations outside the designated limits of the work site. Adjacent property owners at time of bidding are listed below.

SECTION 01024
FORCE ACCOUNT

1.1 General

CONTRACTOR shall furnish all labor, materials, equipment and incidentals necessary to perform additional work not covered on the Contract Drawings. The force Account is intended as a contingency for unforeseen work.

1.1 PAYMENT

- A. Lump sum amount for force account work is included in the bid schedule. The value of force account work will be determined in accordance with Article 12 of the General Conditions.

+ + END OF SECTION + +

SECTION 01050

FIELD ENGINEERING AND LAYOUT

1.1 GENERAL

- A. The CONTRACTOR will furnish all construction staking for the project. All staking from control will be under the supervision of a Florida Registered Land Surveyor.
- B. Develop and make all detail surveys and measurements needed for construction including but not limited to, slope stakes, batter boards, piling layouts and all other working lines, elevations and cut sheets.
- C. Keep a transit and leveling instrument on the site at all times and a skilled instrument man available whenever necessary for layout of the Work.
- D. Provide all material required for benchmarks, control points, batter boards, grade stakes, and other items.
- E. Be solely responsible for all locations, dimensions and levels. No data other than written orders of the ENGINEER shall justify departure from the dimensions and levels required by the Drawings.
- F. Safeguard all points, stakes, grademarks, monuments and benchmarks made or established on the Work, and reestablish same, if disturbed. Rectify all Work improperly installed because of not maintaining, not protecting or removing without authorization such established points, stakes, marks and monuments.
- G. When requested by the ENGINEER, provide such facilities and assistance as may be necessary for the ENGINEER to check line and grade points placed by the CONTRACTOR. Do no excavation or embankment work until all cross-sectioning necessary for determining pay quantities has been completed and checked by the ENGINEER.
- H. The cost of performing engineering and layout work described above shall be included in the contract unit prices for the various items of work to which it is incidental. No separate payment will be made for surveying or engineering.

1.2 SURVEY WORK AND QUALIFICATIONS OF SURVEYOR

- A. Prior to commencing work, the CONTRACTOR shall satisfy himself as to the accuracy of all survey and existing site information as indicated in the Contract Documents. Immediately notify the ENGINEER upon discovery of any errors, inaccuracies or omissions in the survey data. The commencing of any of the work by the CONTRACTOR shall be held as the CONTRACTOR's acceptance that all survey or existing site information is correct and accurate, without any reasonably inferable errors, inaccuracies or omissions.

- B. The CONTRACTOR shall carefully preserve all control stakes, benchmarks, reference points and property corners and will be responsible for any mistake or loss of time caused by their unnecessary loss or disturbance. If the loss or disturbance of the stakes or marks cause a delay in the Work, the CONTRACTOR shall have no claim for damages or extension of time. Control stakes, benchmarks, reference points and property corners disturbed by the CONTRACTOR's work shall be replaced by a Florida Registered Land Surveyor and Mapper, at the CONTRACTOR's expense. In the event the Owner must provide the services of the Florida Registered Surveyor and Mapper to perform this replacement work, the cost of the surveying services will be deducted from any sums due the CONTRACTOR for the work performed under this Contract.
- C. All survey work shall be performed under the guidance and direction of a Florida Registered Surveyor and Mapper.
- D. All survey work for Record Drawings shall be performed by a Florida Registered Surveyor and Mapper.

1.3 STATION BOARDS

- A. CONTRACTOR shall erect and maintain white/black standard FDOT station markers every 100 feet.

1.4 LAYOUT OF STRIPING

Establish by instrument, and mark the finished surface, the points necessary for striping finished roadway in conformance with Section 5-7 of FDOT Standard Specifications.

+ + END OF SECTION + +

SECTION 01091

REFERENCE STANDARDS

1.1 GENERAL

- A. Whenever reference is made to the furnishing of materials or testing thereof to conform to the standards of any technical society, organization or body, it shall be construed to mean the latest standard, code, specification or tentative specification adopted and published at the date of advertisement for bids, unless noted otherwise in the Technical Specifications or on the Drawings. When a reference standard is specified, comply with requirements and recommendations stated in that standard, except when they are modified by the Contract Documents, or when applicable laws, ordinances, rules, regulations or codes establish stricter standards. The list of specifications presented in Paragraph B is hereby made a part of the Contract, the same as if repeated herein in full.
- B. Reference to a technical society, organization, or body may be made in the Specifications by abbreviations, in accordance with the following list:

AASHTO	The American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGA	American Gas Association
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
ASCE	American Society of Civil Engineers
ASTM	American Society for Testing and Materials
AWPA	American Wood Preservers Association
AWWA	American Water Works Association
AWS	American Welding Society
FED.SPEC.	Federal Specifications

CRSI	Concrete Reinforcing Steel Institute
FDEP/DEP	Florida Department of Environmental Protection
DNR	Department of Natural Resources
NCPI	National Clay Pipe Institute
NEMA	National Electrical Manufacturers Association
NEC	National Electric Code
NSPE	National Society of Professional Engineers
OSHA	Occupational Safety and Health Administration
PCI	Prestressed Concrete Institute
FDOT/DOT	Florida Department of Transportation
U. L., Inc.	Underwriter's Laboratories, Inc.
SSPC	Steel Structures Painting Council
SJRWMD	St. Johns River Water Management District

- C. When no reference is made to a code, standard or specification, the standard specifications of ASTM, FDOT, or ANSI shall govern.
- D. In the event of a conflict between the specifications prepared by the ENGINEER and the above referenced specifications and standards, or any other regulatory specification or standard, the more stringent requirement prevails.

+ + END OF SECTION + +

SECTION 01215

GENERAL QUALITY CONTROL

1.1 DESCRIPTION OF REQUIREMENTS

- A. Definitions: Specific quality control requirements for the work are indicated throughout the Contract Documents. The requirements of this section are primarily related to the performance of the work beyond the furnishing of manufactured products. The term "Quality Control" includes, but is not necessarily limited to, inspection and testing and associated requirements. This section does not specify or modify the OWNER and ENGINEER duties relating to quality review and Contract surveillance.

1.2 RESPONSIBILITY FOR INSPECTIONS AND TESTS

- A. Residual OWNER Responsibility: The OWNER will employ and pay for the services of independent testing laboratories to perform those required inspections and tests.
- B. CONTRACTORS General Responsibility: No failure of test agencies, whether engaged by the OWNER or CONTRACTOR, to perform adequate inspections of tests or to properly analyze or report results, shall relieve the CONTRACTOR of responsibility for the fulfillment of the requirements of the Contract Documents. It is recognized that the required inspection and testing program is intended to assist the CONTRACTOR, OWNER, ENGINEER, and governing authorities in the nominal determination of probable compliance with requirements for certain crucial elements of work. The program is not intended to limit the CONTRACTOR in his regular quality control program, as needed for general assurance of compliance.

1.3 QUALITY ASSURANCE

- A. General Workmanship Standards: It is a requirement that each category of tradesman or installer performing the work be pre-qualified, to the extent of being familiar with the applicable and recognized quality standards for his category of work, and being capable of workmanship complying with those standards.

1.4 PRODUCT DELIVERY-STORAGE-HANDLING

Handle, store and protect materials and products, including fabricated components, by methods and means which will prevent damage, deterioration and losses (and resulting delays), thereby ensuring highest quality results as the performance of the work

progresses. Control delivery schedules so as to minimize unnecessary long-term storage at the project site prior to installation.

1.5 PROJECT PHOTOGRAPHS/VIDEOS

- A. The CONTRACTOR shall make provisions, at his expense, for video tapes of all work areas just prior to construction, and for unusual conditions during construction. The videos shall show pertinent physical features along the line of construction. The purpose of the videos is to determine any damage to private or public property during construction.
- B. Pre-Construction Video:
1. Contractor shall provide the Owner with a video record and one copy of the existing conditions prior to construction. This video shall be a standard VHS cassette format, and shall be narrated:
 2. The video shall include, but not be limited to, the following items shown in a clear manner:
 - 1) All existing features within the right-of-way.
 - 2) All existing features within the temporary construction easement.
 - 3) All existing features within permanent easements.
 - 4) All existing features adjacent to any construction.
 3. Detail of the video shall be such that the following examples shall be clear and visible:
 - 1) Cracks in walls.
 - 2) Condition of fencing.
 - 3) Condition of planted areas and types of vegetation.
 - 4) Condition of sodded areas.
 - 5) Conditions of sprinkler systems and associated controls and wiring.
 - 6) Condition of signs.
 - 7) Conditions of lighting and associated wiring.
 - 8) Significant detail of any pre-existing damages physical features shall be shown. The coverage of the video should include the limits of effects of the use of vibratory rollers.
 - 9) This video record shall be presented to the Owner within 30 days of the Notice to Proceed. A copy shall be kept in the Contractor's field office.
 - 10) Payment – No additional payment will be made for this work.

+ + END OF SECTION + +

SECTION 01220

PROGRESS MEETINGS

1.1 SCOPE

- A. Date and Time:
 - 1. Regular Meetings: As mutually agreed upon by ENGINEER and CONTRACTOR.
 - 2. Other Meetings: On call.
- B. Place: CONTRACTOR'S office at Project site or other mutually agreed upon location.
- C. ENGINEER shall prepare agenda, preside at meetings, and prepare and distribute a transcript of proceedings to all parties.
- D. CONTRACTOR shall provide data required and be prepared to discuss all items on agenda.

1.2 MINIMUM ATTENDANCE

- A. CONTRACTOR
- B. SUBCONTRACTOR:
When needed for the discussion of a particular agenda item, CONTRACTOR shall require representatives of Subcontractors or suppliers to attend a meeting.
- C. ENGINEER.
- D. OWNER'S representative, if required.
- E. Utility Representatives
- F. Others as appropriate.
- G. Representatives present for each party shall be authorized to act on their behalf.

1.3 AGENDA

Agenda will include, but will not necessarily be limited to, the following:

- 1. Transcript of previous meeting.
- 2. Progress since last meeting.
- 3. Planned progress for next period.
- 4. Problems, conflicts and observations.
- 5. Change Orders.
- 6. Status of Shop Drawings.
- 7. Quality standards and control.
- 8. Schedules, including off-site fabrication and delivery schedules. Corrective measures, if required.
- 9. Coordination between parties.
- 10. Safety concerns.
- 11. Other business.

+ + END OF SECTION + +

SECTION 01310

CONSTRUCTION SCHEDULES

1.1 GENERAL REQUIREMENTS

- A. No partial payments shall be approved by the ENGINEER until there is an approved construction progress schedule on hand.
- B. Designate an authorized representative who shall be responsible for development and maintenance of the schedule and of all progress and payment reports. This representative shall have direct project control and complete authority to act on behalf of the CONTRACTOR in fulfilling the commitments of the CONTRACTOR's schedules.

1.2 REVISIONS TO THE CONSTRUCTION SCHEDULES

When the ENGINEER requires the CONTRACTOR to submit revised (updated) progress schedules on a monthly basis the CONTRACTOR shall:

- A. Indicate the progress of each activity to the date of submission.
- B. Show changes occurring since the previous submission listing:
 - 1. Major changes in scope.
 - 2. Activities modified since the previous submission.
 - 3. Revised projections of progress and completion.
 - 4. Other identifiable changes.
- C. Provide a narrative report as needed to define:
 - 1. Problem areas, anticipated delays, and the impact on the schedule.
 - 2. Corrective action recommended and its effect.
 - 3. The effect of changes on schedules of other prime contractors.

1.3 SUBMISSION OF THE CONSTRUCTION SCHEDULES

On or before the tenth day after the effective date of the Agreement, submit the initial schedules to the ENGINEER. The ENGINEER will review the schedules and return a review copy to the CONTRACTOR within 21 days after receipt. If required by the ENGINEER, resubmit revised schedules on or before the seventh day after receipt of the review copy. If required by the ENGINEER, submit revised monthly progress schedules with that month's application for payment.

1.4 DISTRIBUTION OF THE CONSTRUCTION SCHEDULES

- A. After receiving approval by the ENGINEER, distribute copies of the approved initial schedule and all reviewed revisions (updated) to:
 - 1. Job site file.
 - 2. Subcontractors.
 - 3. Other concerned parties.
 - 4. OWNER (two copies).
 - 5. ENGINEER
- B. In the cover letter, instruct recipients to report promptly to the CONTRACTOR, in writing, any problems anticipated by the projections shown in the schedules.

+ + END OF SECTION + +

0201&03128-01340 - Submittal of Shop Drawings

1.1 SCOPE

- A. Submit shop drawings, product data and samples as required by or inferred by the Drawings and Specifications. Submittals shall conform to the requirements of Article 6.17 of the General Conditions, Section 00700, and as described in this Section.

1.2 SHOP DRAWINGS

- A. Shop drawings are original drawings, prepared by the CONTRACTOR, a subcontractor, supplier, or distributor, which illustrate some portion of the work; showing fabrication, layout, setting, or erection details. Shop drawings are further defined in Article 6.17, Section 00700.
- B. Shop drawings shall be prepared by a qualified detailer and shall be identified by reference to sheet and detail numbers on the Contract Drawings.

1.3 PRODUCT DATA

- A. Product data are manufacturer's standard schematic drawings and manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations, and other standard descriptive data. Product data are further defined in Article 6.17, Section 00700.
- B. Modify standard drawings to delete information which is not applicable to the project and supplement them to provide additional information applicable to the project.
- C. Clearly mark catalog sheets, brochures, etc., to identify pertinent materials, products, or models.

1.4 SAMPLES

Samples are physical examples to illustrate materials, equipment, or workmanship and to establish standards by which work is to be evaluated. Samples are further defined in Article 6.17, Section 00700.

0201&03128-01340 - Submittal of Shop Drawings

1.5 CONTRACTOR'S RESPONSIBILITIES FOR SUBMITTAL OF SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

- A. The CONTRACTOR's responsibilities for submittal of shop drawings, product data, and samples are set forth in paragraph 6.17 of the General Conditions and as further explained herein.
- B. Prior to submission, thoroughly check shop drawings, product data, and samples for completeness and for compliance with the Contract Documents, verify all dimensions and field conditions, and coordinate the shop drawings with the requirements for other related work. Also review each shop drawing before submitting it to the ENGINEER to determine that it is acceptable in terms of the means, methods, techniques, sequences and operations of construction, safety precautions and programs incidental thereto, all of which are the CONTRACTOR's responsibility.
 - 1. It is CONTRACTOR'S responsibility to review submittals made by his suppliers and Subcontractors before transmitting them to ENGINEER to assure proper coordination of the Work and to determine that each submittal is in accordance with its desires and that there is sufficient information about materials and equipment for ENGINEER to determine compliance with the Contract Documents.
 - 2. Incomplete or inadequate submittals will be returned for revision without review.
- C. The CONTRACTOR's responsibility for errors and omissions in submittals is not relieved by the ENGINEER's review of submittals. The CONTRACTOR shall approve the shop drawings based on his in-the-field measurements, prior to submittal to the ENGINEER for his review.
- D. Notify the ENGINEER, in writing at the time of submission, of deviations in submittals from the requirements of the Contract Documents. The CONTRACTOR's responsibility for deviations in submittals from the requirements of the Contract Documents is not relieved by the ENGINEER's review of submittals, unless the ENGINEER gives written acceptance of specific deviations.
- E. Begin no work, which requires submittals until return of submittals with the ENGINEER's stamp and initials or signature indicating the submittal has been reviewed.

0201&03128-01340 - Submittal of Shop Drawings

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0201&03128-01340 - Submittal of Shop Drawings

1.6 SUBMITTAL REQUIREMENTS AND ENGINEER'S REVIEW FOR SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

- A. Submit to: Indian River County
Michelle A. Gentile, C.E.T., Civil Engineer
Engineering Division
1840 25th Street
Vero Beach, FL 32960
- B. A letter of transmittal shall accompany each submittal. If data for more than one Section of the Specifications is submitted, a separate transmittal letter shall accompany the data submitted for each Section.
- C. At the beginning of each letter of transmittal, provide a reference heading indicating the following:
1. OWNER'S Name
 2. Project Name
 3. Contract Number
 4. Transmittal Number
 5. Section Number
- D. All submittals shall have a title block with complete identifying information satisfactory to the ENGINEER. The following is a sample Submittal Form that the CONTRACTOR may use:

[The remainder of this page has been left blank intentionally]

0201&03128-01340 - Submittal of Shop Drawings

CONTRACTOR SUBMITTALS

SUBMITTAL NO. _____

Contractor: _____

Date Sent to County _____

No. Copies Sent to County _____

☐ Original Submittal ☐ Re-Submittal

☐ Shop Drawing ☐ Cut Sheet ☐ Other _____

Description: _____

Sub-Contractor: _____

Remarks: _____

Reviewing Agency: (As checked below)

	<u>Date Received</u>	<u>Date Returned</u>	<u>No. Copies Ret'd</u>
<input type="checkbox"/> I R C Engineering Div.	_____	_____	_____
<input type="checkbox"/> I R C Utilities Services	_____	_____	_____

Remarks: _____

IRC Engineering Division

Michelle A. Gentile, CET

1840 25th Street

Vero Beach, Fl. 32960

Date Rec'd from Contractor _____

Date Ret'd to Contractor _____

No. Copies Ret'd _____

Remarks: _____

Distribution of Copies:

IRC Engineering Division

Office File

Field Office File

0201&03128-01340 - Submittal of Shop Drawings

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0201&03128-01340 - Submittal of Shop Drawings

- E. All submittals shall bear the stamp of approval and signature of CONTRACTOR as evidence that they have been reviewed by CONTRACTOR. Submittals without this stamp of approval will not be reviewed by the ENGINEER and will be returned to CONTRACTOR.
- F. Assign a number to each submittal starting with No. 1 and thence numbered consecutively. Identify resubmittals by the original submittal number followed by the suffix "A" for the first resubmittal, the suffix "B" for the second resubmittal, etc.
- G. Initially submit to ENGINEER a minimum of six (6) copies of all submittals that are on 11-inch by 17-inch or smaller sheets (no less than 8 1/2-inch x 11-inch), and one unfolded sepia and 2 prints made from that sepia for all submittals on sheets larger than 11-inch by 17-inch.
- H. After ENGINEER completes his review, Shop Drawings will be marked with one of the following notations:
 - 1. Approved
 - 2. Approved as Corrected
 - 3. Approved as Corrected - Resubmit
 - 4. Revise and Resubmit
 - 5. Not Approved
- I. If a submittal is acceptable, it will be marked "Approved" or "Approved as Corrected". Three (3) prints or copies of the submittal will be returned to CONTRACTOR.
- J. Upon return of a submittal marked "Approved" or "Approved as Corrected", CONTRACTOR may order, ship or fabricate the materials included on the submittal, provided it is in accordance with the corrections indicated.
- K. If a Shop Drawing marked "Approved as Corrected" has extensive corrections or corrections affecting other drawings or Work, ENGINEER may require that CONTRACTOR make the corrections indicated thereon and resubmit the Shop Drawings for record purposes. Such drawings will have the notation, "Approved as Corrected - Resubmit."
- L. If a submittal is unacceptable, three (3) copies will be returned to CONTRACTOR with one of the following notations:
 - 1. "Revise and Resubmit"
 - 2. "Not Approved"

0201&03128-01340 - Submittal of Shop Drawings

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0201&03128-01340 - Submittal of Shop Drawings

- M. Upon return of a submittal marked "Revise and Resubmit", make the corrections indicated and repeat the initial approval procedure. The "Not Approved" notation is used to indicate material or equipment that is not acceptable. Upon return of a submittal so marked, repeat the initial approval procedure utilizing acceptable material or equipment.
- N. Any related Work performed or equipment installed without an "Approved" or "Approved as Corrected" Shop Drawing will be at the sole responsibility of the CONTRACTOR.
- O. Submit Shop Drawings well in advance of the need for the material or equipment for construction and with ample allowance for the time required to make delivery of material or equipment after data covering such is approved. CONTRACTOR shall assume the risk for all materials or equipment which is fabricated or delivered prior to the approval of Shop Drawings. Materials or equipment will not be included in periodic progress payments until approval thereof has been obtained in the specified manner.
- P. ENGINEER will review and process all submittals promptly, but a reasonable time should be allowed for this, for the Shop Drawings being revised and resubmitted, and for time required to return the approved Shop Drawings to CONTRACTOR.
- Q. Furnish required submittals with complete information and accuracy in order to achieve required approval of an item within three submittals. All costs to ENGINEER involved with subsequent submittals of Shop Drawings, Samples or other items requiring approval, will be back-charged to CONTRACTOR in accordance with the General Conditions and the Supplementary Conditions. If the CONTRACTOR requests a substitution for a previously approved item, all of ENGINEER'S costs in the reviewing and approval of the substitution will be back-charged to CONTRACTOR unless the need for such substitution is beyond the control of CONTRACTOR.

+ + END OF SECTION + +

SECTION 01520 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

1.1 SCOPE

- A. Provide all construction equipment and facilities and temporary controls required to satisfactorily complete the work represented on the Drawings and described in the Specifications.

1.2 RESPONSIBILITY

- A. All construction facilities and temporary controls remain the property of the Contractor establishing them and shall be maintained in a safe and useful condition until removed from the construction site.
- B. All false work, scaffolding, ladders, hoistways, braces, pumps, roadways, sheeting, forms, barricades, drains, flumes, and the like, any of which may be needed in construction of any part of the work and which are not herein described or specified in detail, must be furnished, maintained and removed by the CONTRACTOR, who is responsible for the safety and efficiency of such work and for any damage that may result from their failure or from their improper construction, maintenance or operation.
- C. In accepting the Contract, the CONTRACTOR assumes full responsibility for the sufficiency and safety of all hoists, cranes, temporary structures or work and for any damage which may result from their failure or their improper construction, maintenance or operation and will indemnify and save harmless the OWNER and ENGINEER from all claims, suits or actions and damages or costs of every description arising by reason of failure to comply with the above provision.

1.3 TEMPORARY UTILITIES AND SERVICES

A. TEMPORARY WATER

- 1. Provide a temporary water service as required for all construction purposes and pay for all water used.
- 2. Furnish potable drinking water in suitable dispensers and with cups for use of all employees at the job.
- 3. Provide all temporary piping, hoses, etc., required to transport water to the point of usage by all trades.
- 4. When temporary water service is no longer required, remove all temporary water lines.

SECTION 01520 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

B. TEMPORARY SANITARY FACILITIES

1. Provide temporary toilet facilities separate from the job office. Maintain these during the entire period of construction under this Contract for the use of all construction personnel on the job. Provide enough chemical toilets to conveniently serve the needs of all personnel. Properly seclude toilet facilities from public observation.
2. Chemical toilets and their maintenance shall meet the requirements of State and local health regulations and ordinances. Immediately correct any facilities or maintenance methods failing to meet these requirements. Upon completion of work, remove the facilities from the premises.

1.4 SECURITY

Full time watchmen will not be specifically required as a part of the Contract, but the CONTRACTOR shall provide inspection of work area daily and shall take whatever measures are necessary to protect the safety of the public, workmen, and materials, and provide for the security of the site, both day and night.

1.5 TEMPORARY CONTROLS

Take all necessary precautions to control dust and mud associated with the work of this Contract. In dry weather, spray dusty areas daily with water in order to control dust. Take necessary steps to prevent the tracking of mud onto adjacent streets and highways.

1.6 REMOVAL OF TEMPORARY CONSTRUCTION FACILITIES

Remove the various temporary facilities, services, and controls and legally dispose of them as soon as the work is complete. The areas of the site used for temporary facilities shall be properly reconditioned and restored to a condition acceptable to the OWNER.

+ + END OF SECTION + +

0201&03128-01520 - Construction Facilities

01520-2

SECTION 01541
PROTECTION OF THE WORK AND PROPERTY

1.1 GENERAL

- A. CONTRACTOR shall be responsible for taking all precautions, providing all programs, and taking all actions necessary to protect the Work and all public and private property and facilities from damage as specified in the General Conditions and herein.
- B. In order to prevent damage, injury or loss, CONTRACTOR'S actions shall include, but not be limited to, the following:
 - 1. Store apparatus, materials, supplies, and equipment in an orderly, safe manner that will not unduly interfere with the progress of the Work or the Work of any other Contractor or utility service company.
 - 2. Provide suitable storage facilities for all materials, which are subject to injury by exposure to weather, theft, breakage, or otherwise.
 - 3. Place upon the Work or any part thereof, only such loads as are consistent with the safety of that portion of the Work.
 - 4. Clean up frequently all refuse, rubbish, scrap materials, and debris caused by construction operations, so that at all times, the site of the Work presents a safe, orderly, and workmanlike appearance.
 - 5. Provide barricades and guard rails around openings, for scaffolding, for temporary stairs and ramps, around excavations, elevated walkways and other hazardous areas.
- C. Except after written consent from proper parties, do not enter or occupy privately-owned land with men, tools, materials or equipment, except on easements provided herein.
- D. Assume full responsibility for the preservation of all public and private property or facility on or adjacent to the site. If any direct or indirect damage is done by or on account of any act, omission, neglect or misconduct in the execution of the Work by the CONTRACTOR, it shall be restored by the CONTRACTOR, at its expense, to a condition equal to or better than that existing before the damage was done.

1.2 BARRICADES AND WARNING SIGNALS

Where Work is performed on or adjacent to any roadway, right-of-way, or public place, provide barricades, fences, lights, warning signs, danger signals, and watchmen, and take other precautionary measures for the protection of persons or property and of the Work. Paint barricades so they are visible at night. From sunset to sunrise, furnish and maintain at least one light at each barricade. Erect sufficient barricades to keep vehicles from being driven on or into Work under construction. Furnish watchmen in sufficient numbers to protect the Work. CONTRACTOR's responsibility for the maintenance of barricades, signs, lights, and for providing watchmen shall continue until OWNER accepts the Project.

SECTION 01541
PROTECTION OF THE WORK AND PROPERTY

1.3 TREE AND PLANT PROTECTION

- A. Protect existing trees, shrubs and plants on or adjacent to the site that are shown or designated to remain in place against unnecessary cutting, breaking or skinning of trunk, branches, bark or roots.
- B. Do not store or park materials or equipment within the drip line.
- C. Install temporary fences or barricades to protect trees and plants in areas subject to traffic.
- D. Fires shall not be permitted under or adjacent to trees and plants.
- E. Within the limits of the Work, water trees and plants that are to remain, in order to maintain their health during construction operations.
- F. Cover all exposed roots with burlap and keep it continuously wet. Cover all exposed roots with earth as soon as possible. Protect root systems from mechanical damage and damage by erosion, flooding, run-off or noxious materials in solution.
- G. If branches or trunks are damaged, prune branches immediately and protect the cut or damaged areas with emulsified asphalt compounded specifically for horticultural use.
- H. Remove all damaged trees and plants that die or suffer permanent injury and replace them with a specimen of equal or better quality.
- I. Coordinate Work in this Section with requirements of other sections herein.

1.4 PROTECTION OF IRRIGATION

The CONTRACTOR shall be responsible for maintaining in good condition all irrigation systems within the easements, which could be damaged by construction activities. The CONTRACTOR shall repair any irrigation systems damaged by construction activities within two (2) days. Irrigation systems partially within the right-of-way of Kings Highway and all intersecting side streets within project limits may be cut off and capped or connected to same system to maintain functionality. The CONTRACTOR shall be responsible for maintaining the functionality of the remaining portion of the system if it should fall outside of the right-of-way.

SECTION 01541
PROTECTION OF THE WORK AND PROPERTY

1.5 PROTECTION OF EXISTING STRUCTURES

A. Underground Structures:

1. Underground structures are defined to include, but not be limited to, all sewer, water, gas, and other piping, and manholes, chambers, electrical conduits, tunnels and other existing subsurface work located within or adjacent to the limits of the Work.
2. All underground structures known to ENGINEER except service connections for water, sewer, electric, and telephone are shown. This information is shown for the assistance of CONTRACTOR in accordance with the best information available, but is not guaranteed to be correct or complete. The existing utilities shown on the Contract Drawings are located according to the information available to the ENGINEER at the time the Drawings were prepared and have not been independently verified by the OWNER or the ENGINEER. Guarantee is not made that all existing underground utilities are shown or that the locations of those shown are accurate. The locations shown are for bidding purposes only. Finding the actual location of any existing utilities is the CONTRACTOR's responsibility and shall be done before it commences any work in the vicinity. Furthermore, the CONTRACTOR shall be fully responsible for any and all damages, which might be occasioned by the CONTRACTOR's failure to exactly locate and preserve any and all underground utilities. The OWNER or ENGINEER will assume no liability for any damages sustained or costs incurred because of the CONTRACTOR's operations in the vicinity of existing utilities or structures, nor for temporary bracing and shoring of same. If it is necessary to shore, brace, or swing a utility, contact the utility company or department affected and obtain their permission regarding the method to use for such work.
3. Contact the various utility companies which may have buried or aerial utilities within or near the construction area before commencing work. Provide 48 hours minimum notice to all utility companies prior to beginning construction.
4. Schedule and execute all work involving existing utilities in order to minimize necessary interruption of services. Whenever such interruption is necessary for completion of the work, notify the ENGINEER and the appropriate utility at least 48 hours in advance. Perform all work to repair/restore utility service to the satisfaction of the appropriate utility. Include all costs related to service maintenance, interruption, and restoration in the appropriate line item in the Contract.
5. Where it is necessary to temporarily interrupt house or business services, the CONTRACTOR shall notify the owner or occupant, both before the interruption (24-hour minimum), and again immediately before service is resumed. Before disconnecting and pipes or cables, the CONTRACTOR shall obtain permission from their owner, or shall make suitable arrangement for their disconnection by their owner.

SECTION 01541
PROTECTION OF THE WORK AND PROPERTY

6. Explore ahead of trenching and excavation work and uncover all obstructing underground structures sufficiently to determine their location, to prevent damage to them and to prevent interruption of the services which such structures provide. If CONTRACTOR damages an underground structure, restore it to original condition at CONTRACTOR's expense.
7. Necessary changes in the location of the Work may be made by ENGINEER, to avoid unanticipated underground structures.
8. If permanent relocation of an underground structure or other subsurface facility is required and is not otherwise provided for in the Contract Documents, ENGINEER will direct CONTRACTOR in writing to perform the Work, which shall be paid for under the provisions of Article 11 of the General Conditions.

B. Surface Structures:

1. Surface structures are defined as structures or facilities above the ground surface. Included with such structures are their foundations and any extension below the surface. Surface structures include, but are not limited to, buildings, tanks, walls, bridges, roads, dams, channels, open drainage, piping, poles, wires, posts, signs, markers, curbs, walks and all other facilities that are visible above the ground surface.

C. Protection of Underground and Surface Structures:

1. Sustain in their places and protect from direct or indirect injury, all underground and surface structures located within or adjacent to the limits of the Work. Such sustaining and supporting shall be done carefully, and as required by the party owning or controlling such structure. Before proceeding with the work of sustaining and supporting such structure, satisfy the ENGINEER that the methods and procedures to be used have been approved by the party owning same.
2. Assume all risks attending the presence or proximity of all underground and surface structures within or adjacent to the limits of the Work. CONTRACTOR shall be responsible for all damage and expense for direct or indirect injury caused by its Work to any structure. CONTRACTOR shall repair immediately all damage caused by his work, to the satisfaction of the OWNER of the damaged structure.

- D. All other existing surface facilities, including but not limited to, guard rails, posts, guard cables, signs, poles, markers, and curbs which are temporarily removed to facilitate installation of the Work shall be replaced and restored to their original condition at CONTRACTOR'S expense.**

SECTION 01541
PROTECTION OF THE WORK AND PROPERTY

1.6 DAMAGE TO EXISTING STRUCTURES AND UTILITIES

- A. The CONTRACTOR shall be responsible for and make good all damage to pavement beyond the limits of this Contract, buildings, telephone or other cables, water pipes, sanitary pipes, or other structures which may be encountered, whether or not shown on the Drawings.
- B. Information shown on the Drawings as to the location of existing utilities has been prepared from the most reliable data available to the Engineer. This information is not guaranteed, however, and it shall be this CONTRACTOR's responsibility to determine the location, character and depth of any existing utilities. He shall assist the utility companies, by every means possible to determine said locations. Extreme caution shall be exercised to eliminate any possibility of any damage to utilities resulting from his activities.

1.7 ADJUSTMENTS OF UTILITY CASTINGS, COVERS AND BOXES

- A. All existing utility castings, including valve boxes, junction boxes, manholes, pull boxes, inlets and similar structures in the areas of construction that are to remain in service shall be adjusted by the CONTRACTOR to bring them flush with the surface of the finished work.
- B. The CONTRACTOR shall coordinate the utilities to ensure proper construction sequencing. CONTRACTOR shall make available survey reference markers to the various utility companies.

+ + END OF SECTION + +

**SECTION 01550
ACCESS ROADS, PARKING AREAS
AND USE OF PUBLIC STREETS**

1.1 GENERAL

- A. Provide all temporary construction roads, walks and parking areas required during construction and for use of emergency vehicles. Design and maintain temporary roads and parking areas so they are fully usable in all weather conditions.
- B. Prevent interference with traffic and the OWNER's operations on existing roads. Indemnify and save harmless the OWNER from any expenses caused by CONTRACTOR's operations over these roads.
- C. Roadways damaged by CONTRACTOR shall be restored to their original condition by the CONTRACTOR subject to approval of the OWNER or ENGINEER.
- D. Remove temporary roads, walks and parking areas prior to final acceptance and return the ground to its original condition, unless otherwise required by the Contract Documents.

1.2 USE OF PUBLIC STREETS

The use of public streets and alleys shall be such as to provide a minimum of inconvenience to the public and to other traffic. Any earth or other excavated material spilled from trucks shall be removed immediately by the CONTRACTOR and the streets cleaned to the satisfaction of the Owner.

1.3 USE OF PUBLIC STREETS FOR HAUL ROADS

- A. Prior to construction, the CONTRACTOR shall designate all proposed haul roads to be used during the life of the project. Any earth or other materials spilled from trucks shall be removed by the CONTRACTOR and streets cleaned to the satisfaction of the Owner. He further shall be responsible for repairs to any damages caused by his operations, prior to final payment.

01550 Access Roads

01550-1

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**SECTION 01550
ACCESS ROADS, PARKING AREAS
AND USE OF PUBLIC STREETS**

- B. All trucks carrying earth shall be covered while moving with an appropriate tarpaulin. Should trucks hauling earth fail to cover their loads, the CONTRACTOR will be given two (2) written warnings, after which the CONTRACTOR shall pay a fine of \$50 per uncovered truck to the Owner when invoked by the Owner to Owner's Engineer. All cleanup shall be the responsibility of the CONTRACTOR.
- C. All trucks/moving equipment shall have backup warning horns in proper working order while on the job site.

+ + END OF SECTION + +

01550 Access Roads

01550-2

SECTION 01611

STORAGE OF MATERIAL AND EQUIPMENT

1.1 GENERAL

- A. Store and protect materials and equipment in accordance with manufacturer's recommendations and requirements of Specifications.
- B. Make all arrangements and provisions necessary for the storage of materials and equipment. Place all excavated materials, construction equipment, and materials and equipment to be incorporated into the Work, so as not to injure any part of the Work or existing facilities, and so that free access can be had at all times to all parts of the Work and to all public utility installations in the vicinity of the Work. Keep materials and equipment neatly and compactly stored in locations that will cause a minimum of inconvenience to other contractors, public travel, adjoining owners, tenants and occupants. Arrange storage in a manner to provide easy access for inspection.
- C. Areas available on the construction site for storage of material and equipment shall be as shown or approved by the ENGINEER.
- D. Store materials and equipment which are to become the property of the OWNER to facilitate their inspection and insure preservation of the quality and fitness of the Work, including proper protection against damage by extreme temperatures and moisture.
- E. Do not use lawns, grass plots or other private property for storage purposes without written permission of the OWNER or other person in possession or control of such premises.
- F. CONTRACTOR shall be fully responsible for loss or damage to stored materials and equipment.
- G. Do not open manufacturers containers until time of installation unless recommended by the manufacturer or otherwise specified.
- H. When appropriate store materials on wood blocking so there is no contact with the ground.

+ + END OF SECTION + +

01611-1

01611-Storage of Material

SECTION 01630

SUBSTITUTIONS

1.1 GENERAL

- A. Requests for review of a substitution shall conform to the requirements of Article 6.05, "Substitutes and Or-Equals," of the General Conditions, and shall contain complete data substantiating compliance of the proposed substitution with the Contract Documents.

1.2 CONTRACTOR'S OPTIONS

- A. For materials or equipment (hereinafter products) specified only by reference standard, select product meeting that standard by any manufacturer, fabricator, supplier or distributor (hereinafter manufacturer). To the maximum extent possible, provide products of the same generic kind from a single source.
- B. For products specified by naming several products or manufacturers, select any one of the products or manufacturers named which complies with Specifications.
- C. For products specified by naming one or more products or manufacturers and stating "or equivalent," submit a request for a substitution for any product or manufacturer which is not specifically named.
- D. For products specified by naming only one product or manufacturer and followed by words indicating that no substitution is permitted, there is no option and no substitution will be allowed.
- E. Where more than one choice is available as a CONTRACTOR's option, select product which is compatible with other products already selected or specified.

1.3 SUBSTITUTIONS

- A. During a period of 15 days after date of commencement of Contract Time, ENGINEER will consider written requests from CONTRACTOR for substitution of products or manufacturers, and construction methods (if specified).
 - 1. After end of specified period, requests will be considered only in case of unavailability of product or other conditions beyond control of CONTRACTOR.
- B. Submit 5 copies of Request for Substitution. Submit a separate request for each substitution. In addition to requirements set forth in Article 6.7 of General Conditions, include in the request the following:
 - 1. For products or manufacturers:
 - a. Product identification, including manufacturer's name and address.

- b. Manufacturer's literature with product description, performance and test data, and reference standards.
 - c. Samples, if appropriate.
 - d. Name and address of similar projects on which product was used, and date of installation.
 2. For construction methods (if specified):
 - a. Detailed description of proposed method.
 - b. Drawings illustrating method.
 3. Such other data as the ENGINEER may require to establish that the proposed substitution is equal to the product, manufacturer or method specified.
- C. In making Request for Substitution, CONTRACTOR represents that:
 1. CONTRACTOR has investigated proposed substitution, and determined that it is equal to or superior in all respects to the product, manufacturer or method specified.
 2. CONTRACTOR will provide the same or better guarantees or warranties for proposed substitution as for product, manufacturer, or method specified.
 3. CONTRACTOR waives all claims for additional costs or extension of time related to a proposed substitution that subsequently may become apparent.
- D. A proposed substitution will not be accepted if:
 1. Acceptance will require changes in the design concept or a substantial revision of the Contract Documents.
 2. It will delay completion of the Work, or the work of other contractors.
 3. It is indicated or implied on a Shop Drawing and is not accompanied by a formal Request for Substitution from CONTRACTOR.
- E. If the ENGINEER determines that a proposed substitute is not equal to that specified, furnish the product, manufacturer, or method specified at no additional cost to OWNER.
- F. Approval of a substitution will not relieve CONTRACTOR from the requirement for submission of Shop Drawings as set forth in the Contract Documents.
- G. The procedure for review by Engineer will include the following:
 1. Requests for review of substitute items of material and equipment will not be accepted by Engineer from anyone other than CONTRACTOR.
 2. Upon receipt of an application for review of a substitution, Engineer will determine whether the review will be more extensive than a normal shop drawing review for the specified item.

3. If the substitution will not require a more extensive review, Engineer will proceed with the review without additional cost to CONTRACTOR.
 4. If the substitution requires a more extensive review, Engineer will proceed with the review only after CONTRACTOR has agreed to reimburse Owner for the review cost.
 5. Engineer may require CONTRACTOR to furnish at CONTRACTOR's expense additional data about the proposed substitute.
- H. Any redesign of structural members shall be performed by, and the plans signed and sealed by, a Professional Engineer registered in the State of Florida. The redesign shall be at the CONTRACTOR's expense. Any redesign will require an extensive review by the Engineer. The CONTRACTOR must agree to reimburse the Owner for the review cost prior to the Owner's Engineer proceeding with the design review. The ENGINEER's hourly rate for review is \$125 per hour. The ENGINEER's estimated cost of review shall be provided to the CONTRACTOR prior to proceeding with the review to allow the CONTRACTOR the opportunity to rescind the request.
- I. Engineer will be allowed a reasonable time within which to evaluate each proposed substitution. Engineer will be the sole judge of acceptability and shall have the right to deny use of any proposed substitution. The CONTRACTOR shall not order, install, or utilize any substitution without either an executed Change Order or Engineer's notation on the reviewed shop drawing. Owner may require CONTRACTOR to furnish at CONTRACTOR's expense a special manufacturer's performance guarantee(s) or other surety with respect to any substitute and an indemnification by the CONTRACTOR. ENGINEER will record time required by Engineer and Engineer's consultants in evaluating substitutions proposed by CONTRACTOR and in making changes in the Contract Documents occasioned thereby. Whether or not a proposed substitute is sued, CONTRACTOR shall reimburse Owner for the charges of Engineer and Engineer's consultants for evaluating each proposed substitute.
- J. Substitute materials or equipment may be proposed for acceptance in accordance with this Section. In the event that substitute materials or equipment are used and are less costly than the originally specified material or equipment, than the net difference in cost shall benefit the Owner and CONTRACTOR in equal proportions. This cost difference shall not be reduced by any failure of the CONTRACTOR to base his bid on the named materials or equipment.

+ + END OF SECTION + +

SECTION 01710

SITE CLEANUP AND RESTORATION

1.1 SCOPE

Furnish all labor, equipment, appliances, and materials required or necessary to clean up and restore the site after the construction is completed.

1.2 REQUIREMENTS

- A. During the progress of the project, keep the work and the adjacent areas affected thereby in a neat and orderly condition. Remove all rubbish, surplus materials, and unused construction equipment. Repair all damage so that the public and property owners will be inconvenienced as little as possible.
- B. Provide onsite containers for the collection of waste materials, debris, and rubbish and empty such containers in a legal manner when they become full.
- C. Where material or debris has been deposited in watercourses, ditches, gutters, drains, or catch-basins as a result of the CONTRACTOR's operations, such material or debris shall be entirely removed and satisfactorily disposed of during the progress of the work, and the ditches, channels, drains, etc., shall be kept clean and open at all times.
- D. Before the completion of the project, unless otherwise especially directed or permitted in writing:
 - 1. Tear down and remove all temporary buildings and structures;
 - 2. Remove all temporary works, tools, and machinery, or other construction equipment furnished;
 - 3. Remove all rubbish from any grounds occupied; and
 - 4. Leave the roads, all parts of the premises, and adjacent property affected by construction operations, in a neat and satisfactory condition.
- E. Restore or replace any public or private property damaged by construction work, equipment, or employees, to a condition at least equal to that existing immediately prior to the beginning of the operations. To this end, the CONTRACTOR shall restore all highway, roadside, and landscaping work within any right-of-way, platted or prescriptive. Acceptable materials, equipment, and methods shall be used for such restoration.
- F. Thoroughly clean all materials and equipment installed and on completion of the work, deliver the facilities undamaged and in fresh and new-appearing condition.

- G. It is the intent of the Specifications to place the responsibility on the CONTRACTOR to restore to their original condition all items disturbed, destroyed, or damaged during construction. Particular attention will be placed on restoration of canals to equal or better condition than prior to construction.
- H. When finished surfaces require cleaning with cleaning materials, use only those cleaning materials which will not create hazards to health or property and which will not damage the surfaces. Use cleaning materials only on those surfaces recommended by the manufacturer. Follow the manufacturer's directions and recommendations at all times.
- I. Keep the amount of dust produced during construction activities to a minimum. At CONTRACTOR's expense, spray water or other dust control agents over the areas, which are producing the dust. Schedule construction operations so that dust and other contaminants will not fall on wet or newly coated surfaces.

1.3 SITE CLEANUP AND RESTORATION

Prior to final completion, the OWNER, ENGINEER, INDIAN RIVER FARMS WATER CONTROL DISTRICT, and CONTRACTOR shall review the site with regards to site cleanup and restoration. Clean and/or restore all items determined to be unsatisfactory by the OWNER or ENGINEER, at no additional expense.

+ + END OF SECTION + +

DIVISION 2 TECHNICAL SPECIFICATIONS

<u>Item No.</u>	<u>Title</u>
	STANDARD SPECIFICATIONS
1	MOBILIZATION
2	MAINTENANCE OF TRAFFIC
3	EROSION AND WATER POLLUTION CONTROL
4	CLEARING AND GRUBBING
5	GRADING, EXCAVATION AND EMBANKMENT
6	AS-BUILTS
7-8	TURNOUT CONSTRUCTION
9-10	CLASS I CONCRETE (ENDWALL)
11-17	CLASS III CONCRETE CULVERT PIPE
18-25	BCCMP CULVERT PIPE
26-31	INLETS AND MANHOLES
32	SIDEWALKS
36	BAHIA SODDING
37	ST. AUGUSTINE SODDING
200-210	WATER AND SEWER UTILITIES

SECTION 01025

TECHNICAL SPECIFICATIONS

STANDARD SPECIFICATIONS

- A. All work of this Contract shall conform to the applicable technical specifications of Florida Department of Transportation Standard Specifications for Road and Bridge Construction, current edition, and Supplemental Specification, Special Provisions and addenda thereto, except as modified and supplemented hereinafter. Reference to Article numbers herein-after apply to the FDOT Standard Specifications, and reference in FDOT Standard Specifications to Department shall be taken as the Owner or its appointed Representative. Wherever the Specifications, Supplementals, etc. may refer to the "Owner", "Department", "State of Florida Department of Transportation", or words relating to offices of State Government, such words shall be taken as meaning Owner or Indian River County, Florida. Wherever the word "Owner's Engineer", "District Engineer", "Engineer", "Project Engineer", etc., appears, it shall be taken to mean the Registered Professional Project Engineer of the Indian River County Public Works Department, Engineering Division acting directly or through duly authorized representatives. Wherever the word "Resident Engineer" appears, it shall be taken to mean an authorized representative of the Owner's Engineer on the Project (Resident Construction Inspector) who will act as an agent for Indian River County, assigned to observe the progress quantity and quality of the work.

ITEMS OF PAYMENT

ITEM NO. 1 - MOBILIZATION

The work specified in this section shall conform to Section 101 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction. (2000 Edition)

Item of Payment

Payment for the work specified in this item shall be made under:
Bid Item No. 1 - Mobilization - Lump Sum

ITEM NO. 2 - MAINTENANCE OF TRAFFIC

The work specified in this item shall conform to Section 102 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction (2004 Edition), except as modified herein.

- A. GENERAL PROVISIONS-DESCRIPTION: The work specified in this Section consists of maintaining traffic within the limits of the project for the duration of the construction period, including any temporary suspensions of the work. It shall include the

construction and maintenance of any necessary detour facilities; the providing of necessary facilities for access to residences, businesses, etc., along the project; the furnishing, installing and maintaining of traffic control and safety devices during construction, the control of dust through the use of calcium chloride if necessary, and any other special requirements for safe and expeditious movement of traffic as may be called for on the plans. The term, Maintenance of Traffic, as used herein, shall include all of such facilities, devices and operations as are required for the safety and convenience of the public as well as for minimizing public nuisance; all as specified in this Itemized Section 14 of these provisions and Paragraph 24 in General Conditions Section.

- B. BEGINNING DATE OF CONTRACTOR'S RESPONSIBILITY: The Contractor shall present his Maintenance of Traffic Plan at the pre-construction conference. The Maintenance of Traffic Plan shall indicate the type and location of all signs, lights, barricades, striping and barriers to be used for the safe passage of pedestrians and vehicular traffic through the project and for the protection of the workmen. The plan will indicate conditions and setups for each phase of the Contractor's activities.

When the project plans include or specify a specific Maintenance of Traffic Plan, alternate proposals will be considered when they are found to be equal to or better than the plan specified.

In no case may the Contractor begin work until the Maintenance of Traffic Plan has been approved in writing by the Engineer. Modifications to the Maintenance of Traffic Plan that become necessary shall also be approved in writing. Except in an emergency, no changes to the approved plan will be allowed until approval to change such plan has been received.

The cost of all work included in the Maintenance of Traffic Plan shall be included in the pay item for Maintenance of Traffic.

The Contractor shall be responsible for performing daily inspections, including weekends and holidays, with some inspections at nighttime, of the installations on the project and replace all equipment and devices not conforming with the approved standards during that inspection. The project personnel will be advised of the schedule of these inspections and be given the opportunity to join in the inspection as is deemed necessary.

- C. TRAFFIC CONTROL - STANDARDS: The 2002 FDOT Design Standards For Design, Construction, Maintenance and Utility Operations On The State Highway System, set forth the basic principles and prescribes minimum standards to be followed in the design, application, installation, maintenance and removal of all traffic control devices and all warning devices and barriers which are necessary to protect the public and workmen from hazards within the project limits. The standards established in the aforementioned manual constitute the minimum requirements for normal conditions, and additional traffic control devices warning devices, barriers or other safety devices will be required where unusual, complex or particularly hazardous conditions exist.

The above referenced standards were developed using F.H.W.A., U.S.D.O.T. Manual on Uniform Traffic Control Devices (MUTCD).

- D. TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS - INSTALLATION: The responsibility for installation and maintenance of adequate traffic control devices, warning devices and barriers, for the protection of the travel in public and workmen, as well as to safeguard the work area in general shall rest with the Contractor. Consideration shall be given to recommendations of the Engineer. The required traffic control devices, warning devices and barriers shall be erected by the Contractor prior to creation of any hazardous condition and in conjunction with any necessary re-routing of traffic. The Contractor shall immediately remove, turn or cover any devices or barriers which do not apply to existing conditions. All traffic control devices shall conform to MUTCD standards and shall be clean and relatively undamaged. Damaged devices diminishing legibility and recognition, during either night or day conditions, are not acceptable for use.
- E. NO WAIVER OF LIABILITY: The Contractor shall conduct his operations in such a manner that no undue hazard will result due to the requirements of this article, and the procedures and policies described therein shall in no way act as a waiver of any of the terms of the liability of the Contractor or his surety.

Item of Payment

Payment for the work specified in this item shall be made under:
Bid Item No. 2 - Maintenance of Traffic - Lump Sum

ITEM NO. 3 - EROSION AND WATER POLLUTION CONTROL

PART 1 – GENERAL

1.1 SCOPE

- A. This Section covers erosion control and the treatment of dewatering water and stormwater runoff from the construction site and work area. The pollution control measures shall prevent turbid or otherwise polluted waters from being discharged from the construction site or work area, to undeveloped portions of the site or off-site.
- B. The OWNER considers pollution from dewatering water and stormwater runoff from a construction site or work area to be a very serious offense. The CONTRACTOR is solely responsible for preventing pollution caused by dewatering water and stormwater runoff from the construction site or work area.
- C. The pollution control measures specified herein represent minimum standards

to be adhered to by the CONTRACTOR throughout the Project's construction. The OWNER reserves the right to require the CONTRACTOR to employ additional pollution control measures, when in the sole opinion of the OWNER, they are warranted. If site specific conditions require additional erosion and stormwater pollution control measures during any phase of construction or operation to prevent erosion or to control sediment or other pollution, beyond those specified in the Drawings or herein, implement additional best management practices as necessary, in accordance with Chapter 4, "Best Management Practices for Erosion and Sedimentation Control" of the Florida Erosion and Sediment Control Inspector's Manual, included herein in Appendix "B".

- D. The OWNER may terminate this Contract if the CONTRACTOR fails to comply with this Section. Alternatively, the OWNER may halt the CONTRACTOR's operations until the CONTRACTOR is in full compliance with this Section. If the OWNER halts the CONTRACTOR's work as a result of its failure to comply with this Section, the Construction Contract time clock will continue to run.
- E. In addition to these Specifications, comply with Chapter 4, "Best Management Practices for Erosion and Sedimentation Control" of the Florida Erosion and Sediment Control Inspector's Manual, included herein in Appendix "B." If there is a conflict between the referenced Chapter 4 and these Specifications, the more stringent requirement shall prevail.

1.2 SOME PERMITS TO BE OBTAINED BY THE CONTRACTOR

- A. The OWNER has obtained certain permits for this project and they are listed in paragraph SC-6.08 of the Supplementary Conditions. Per paragraph SC-6.08.B of the Supplementary Conditions, the CONTRACTOR shall apply for, obtain, and pay for all other required permits and licenses. This may include but not be limited to:
 - 1. Long-term or short-term dewatering permit as required by the St. Johns River Water Management District (SJRWMD). Contact SJRWMD at (321) 984-4940 to determine which permit is required and the associated statutory requirements; and
 - 2. The State of Florida Generic Permit for Stormwater Discharge From Large and Small Construction Activities. Contact the Florida Department of Environmental Protection (FDEP) at (866) 336-6312 (toll free) or (850) 245-7522 or www.dep.state.fl.us/water/stormwater/npdes/
- B. Provide copies of all permits to the OWNER and ENGINEER and comply with all conditions contained in all permits at no extra cost to the OWNER. If there is a conflict between any permit requirement and these Specifications, the more stringent specification or requirement shall govern.

1.3 GENERAL

- A. Do not begin any other construction work until the pollution control and treatment system has been constructed in accordance with approved plans and approved for use by the OWNER and applicable permitting authorities.
- B. From time to time, the OWNER or ENGINEER will inspect the pollution control and treatment system and may take effluent samples for analysis by a testing laboratory selected and paid for by the OWNER. If at any time, the OWNER or ENGINEER determines that the pollution control and treatment system is not in compliance with the approved system, the OWNER or ENGINEER will shut the portion of the project down that is not in compliance, and it shall remain shut-down until the pollution control and treatment system is properly constructed or repaired, and complies with the approved pollution control and treatment system plans and specifications.
- C. Schedule construction to minimize erosion and stormwater runoff from the construction site. Implement erosion control measures on disturbed areas as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased.
- D. Inspect each pollution control system at least once per day. Clean and maintain each pollution control system as required by its manufacturer or the OWNER, until the system is no longer needed. If a water quality violation occurs, immediately cease all work contributing to the water quality violation and correct the problem.
- E. Discharge shall not violate State or local water quality standards in the receiving waters, nor cause injury to the public health or to public or private property, nor to the Work completed or in progress. The receiving point for water from construction operations shall be approved by the applicable regulatory agency and the ENGINEER.
- F. Promptly repair all damage at no cost to the OWNER.

1.4 SUBMITTALS

- A. Shop Drawings: Submit shop drawings of the proposed pollution control and treatment systems in accordance with Article 6.17 of the General Conditions.
- B. Stormwater Pollution Prevention Plan.

1.5 STATE CERTIFIED EROSION CONTROL SPECIALTY SUBCONTRACTOR IS

REQUIRED FOR DESIGN, INSTALLATION, AND MAINTENANCE

- A. Site-specific design of the erosion and stormwater pollution control system, and installation and maintenance of all erosion and stormwater pollution control devices, shall be by a State certified erosion control specialty subcontractor who specializes in the design, installation, and maintenance of such devices. After installation, this subcontractor shall maintain the erosion and stormwater pollution control devices until the devices are no longer necessary. (Note: The CONTRACTOR may install and maintain the erosion and stormwater pollution control system under the direction of the State certified erosion control specialty subcontractor.) Before beginning construction, submit to the ENGINEER for review, a **Stormwater Pollution Prevention Plan**, prepared by the State certified erosion control subcontractor. Construction shall not begin until the Stormwater Pollution Prevention Plan has been submitted to the ENGINEER. The CONTRACTOR shall complete the certification provided at the end of this Section and it shall be a part of the Stormwater Pollution Prevention Plan.

1.6 "POLLUTION" AND CERTAIN UNCONTESTABLE POLLUTION EVENTS DEFINED

- A. Except as may be defined otherwise in paragraphs 1.6.B, 1.6.C, and 1.6.D, "pollution" is the presence in off-site waters of any substances, contaminants, or manmade or human-induced impairment of waters or alteration of the chemical, physical, biological, or radiological integrity of water in quantities or at levels which are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property. Pollutants to be removed include but are not limited to, sediment and suspended solids, solid and sanitary wastes, phosphorus, nitrogen, pesticides, oil and grease, concrete truck washout, construction chemicals, and construction debris.
- B. When the Discharge is Directly Into an Existing Water Body, Pollution Occurs When . . . An existing water body (including ditches and canals) is defined to be polluted by the CONTRACTOR's operations when at any time, the turbidity of the water immediately downstream of the CONTRACTOR's discharge point(s) is 29 nephelometric turbidity units (NTUs) higher than the turbidity of the background water upstream of the discharge point(s). [See Fla. Administrative Code 62-302.530] The ENGINEER or OWNER shall determine the locations where the turbidity is measured.
- C. When the Discharge is not Directly Into an Existing Water Body, Pollution Occurs When . . . In some instances, dewatering water or stormwater runoff from the construction site or work area may reach a water body indirectly, such as after traveling through pipes or by overland flow. Before construction commences, the OWNER or ENGINEER will measure background levels of total suspended solids (TSS) and turbidity, in the immediate vicinity of the discharge water's ultimate discharge point into the receiving water body. If the discharge water's TSS and turbidity measurements exceed these pre-

construction background values by 29 NTUs for turbidity, then the discharge from the CONTRACTOR's operations is defined to be polluted.

- D. Pollution Always Occurs When . . . The discharge is defined to be polluted whenever any of the following is present in the discharge water:
- (1) Hazardous waste or hazardous materials in any quantity,
 - (2) Any petroleum product or by-product in any quantity,
 - (3) Any chemical in any quantity, or
 - (4) Concentrated pollutants.
- E. Above paragraphs 1.6.B, 1.6.C, and 1.6.D do not in any way, limit the types of conditions in which pollution may be determined to occur.

1.7 PENALTIES FOR NONCOMPLIANCE WITH THIS SECTION

- A. In addition to the OWNER's other remedies listed herein, if the CONTRACTOR fails to comply with this Section and erosion or pollution is caused by dewatering water or stormwater runoff from the construction site, the OWNER will report the violations to the Indian River County Code Enforcement Board, SJRWMD, Indian River Farms Water Control District (or other F. S. Chapter 298 Drainage District, as appropriate), and other pertinent regulatory or enforcement agencies.

PART 2 - MATERIALS AND INSTALLATION

2.1 GENERAL

- A. Staked Silt Fences:
1. General: Use silt fences to control runoff from the construction site where the soil has been disturbed.
 2. Installation: Install per the manufacture's recommendations and as specified herein. In general, install the silt fence in a manner that allows it to stop the water long enough for the sediment to settle while the water passes through the silt fence fabric. All supporting posts shall be on the down-slope side of the fencing. Place the bottom of the fabric 6-inches minimum, under compacted soil to prevent the flow of sediment underneath the fence. Otherwise, install in accordance with FDOT Index No. 102.
 3. Removal: Contractor is responsible for removal of silt screens.
 4. Product: All material shall be new and unused. Use FDOT Type IV silt fences where large sediment loads are anticipated, where slopes are 1:2 (vertical: horizontal) or steeper, or as directed by the ENGINEER; otherwise use FDOT Type III silt fence.
 - (a) For FDOT Type III Silt Fence - ACF Environmental, Catalog No. 360800000, Florida DOT Silt Fence. U.S. Sieve = 30, tensile strength = 120 pounds. The heavy-duty filter fabric shall be pre-

attached to 48-inch long stakes on 6-foot centers. (1-800-448-3636).

- (b) For FDOT Type IV Silt Fence, modify the above Catalog No. 360800000 to comply with FDOT Index No. 102.
- (c) Or equivalent.

B. Turbidity Barriers:

- 1. General: Use turbidity barriers to control sediment contamination of rivers, lakes, ponds, canals, etc.
- 2. Installation: Install per the manufacturer's recommendations and per FDOT Index No. 103 unless directed otherwise by the ENGINEER.
- 3. Removal: Contractor is responsible for disposal of turbidity barriers.
- 4. Product: All material shall be new and unused. The turbidity barrier shall be a pervious barrier and the fabric color shall be yellow.
 - a. Parker Systems, Inc. (1-866-472-7537), model Type I.
 - b. Or equivalent.

C. Sedimentation Control From Dewatering or Pumping Operations Using Filter Bags:

- 1. Remove silt, sediment, and other particles from dewatering or pumping applications using a filter bag. The bag shall be manufactured using a polypropylene non-woven geotextile and sewn by a double-needle machine, using a high strength nylon thread. The bag shall have a fill spout large enough to accommodate a 4-inch pump discharge hose. Straps shall be attached to the bag to secure the hose and prevent pumped water from escaping without being filtered.
- 2. Installation: Install in accordance with the manufacturer's specifications. Use as many filter bags as required, at no additional cost to the OWNER. Dispose of the bags offsite, at no cost to the OWNER. If the bags are placed on aggregate to facilitate filtration efficiency, do not use limerock aggregate.
- 3. Product: The filter bag shall be supplied with lifting straps.
 - a. "DIRTBAG 53 or 55 as applicable," supplied by ACF Environmental, Inc. (1-800-448-3636).
 - b. "DANDY DEWATERING BAG" supplied by Dandy Products, Inc. (1-800-591-2284).
 - c. Or equivalent.

D. Curb Inlet Protection:

- 1. Filter stormwater before it enters curb inlets.
- 2. Installation: Install in accordance with the manufacturer's specifications. Use as many of the specified filtration devices as required, at no additional cost to the OWNER.
- 3. Removal: The filtration devices shall become the property of the OWNER upon completion of the project. When they are no longer needed, carefully remove and clean the filtration devices and contact Indian River County Road and Bridge Division (772-5085), which will provide a truck to pick them up. Load the filtration devices onto the

- County truck.
4. Product: All materials shall be new and unused. The length of the curb inlet filtration device shall be at least 2-feet longer than the curb inlet opening.
 - a. "GUTTERBUDDY," supplied by ACF Environmental, Inc. (1-800-448-3636).
 - b. Or equivalent.
- E. Catch Basin Protection:
1. Filter stormwater before it enters catch basins (drop inlets). The "sack" shall be manufactured from woven polypropylene geotextile and sewn by a double-needle machine, using a high strength nylon thread. The sack shall be manufactured to fit the opening of the catch basin or drop inlet and it shall have the following features: two dump straps attached at the bottom to facilitate emptying; lifting loops as an integral part of the system to be used to lift the sack from the basin; and a yellow restraint chord approximately halfway up the sack to keep the sides away from the catch basin walls. The yellow restraint chord shall also serve as a visual means of indicating when the sack should be emptied.
 2. Installation: Install in each catch basin in accordance with the manufacturer's specifications. Use as many of the specified filtration devices as required, at no additional cost to the OWNER.
 3. Removal: The Contractor will be responsible for removal of all filtration devices.
 4. Product: All materials shall be new and unused.
 - a. "SILTSACK" (regular flow), supplied by ACF Environmental, Inc. (1-800-448-3636).
 - b. "FloGuard+PLUS," supplied by Kristar Enterprises, Inc. (1-800-579-8819).
 - c. Or equivalent.
- F. Construction Site Egress Driveways: Minimize the transport of sediment and soil from the construction site or work area by vehicle wheels. Construct a crushed rock driving surface at the vehicle exit point(s). Provide an area large enough to remove the sediment and soil from vehicle wheels before the vehicle leaves the construction site or work area. Provide wash-down stations as required to wash vehicle tires and retain all washwater on-site.
- G. Rock and Stone for Erosion Control and Pollution Control and Treatment:
1. Crushed Limerock: Crushed limerock shall not be used under any circumstance.
 2. Acceptable Material: FDOT #4 non-calcareous aggregate (usually granite), washed and meeting the requirements of FDOT Standard Specifications for Road and Bridge Construction, Section 901.
- H. Hay Bales: Hay bales shall not be used.

PART 3 - EXECUTION

- A. Design, construct, and maintain the pollution control and treatment system to minimize erosion and capture and remove pollutants from the construction site and from all other areas disturbed by construction activities.

Item of Payment

Payment for the work specified in this item shall be made under:
Bid Item No. 3 - Erosion and Water Pollution - Lump Sum

(The rest of this page intentionally left blank)

**CONTRACTOR'S CERTIFICATION REGARDING EROSION
CONTROL AND TREATMENT OF DEWATERING WATER
AND STORMWATER FROM THE CONSTRUCTION SITE**
(TO BE MADE A PART OF THE STORMWATER POLLUTION PREVENTION PLAN)

STATE OF _____
COUNTY OF _____

Personally before me the undersigned officer, authorized by the laws of said state to administer oaths, comes _____, who on oath says: That he or she is the CONTRACTOR with whom Indian River County, Florida, a political subdivision of said state, did on the _____ day of _____, 20____, enter into a contract for the performance of certain work, more particularly described as follows:

**INDIAN RIVER DRIVE SOUTH SIDEWALK IMPROVEMENTS
HIGHLAND DRIVE SW SIDEWALK IMPROVEMENTS
FELLSMERE SIDEWALK PHASE II
64TH AVENUE SIDEWALK
& 6250 OLD DIXIE HIGHWAY, JIMMY'S TREE SERVICE**

UNDER PENALTY OF PERJURY, affiant further says that he or she understands and shall comply with, the terms and conditions of the following:

1. The State of Florida Generic Permit for Stormwater Discharge From Large and Small Construction Activities,
2. The Stormwater Pollution Prevention Plan,
3. Section 02225 of the Specifications - Erosion Control and Treatment of Dewatering Water and Stormwater From the Construction Site,
4. The St. Johns River Water Management District permit, and
5. All Codes and Ordinances of Indian River County.

(Corporate Seal)

(Contractor)

By: _____

Subscribed and sworn to before me this ____ day of _____, 20____.

Notary Public State of Florida at Large
My Commission expires: _____

ITEM NO. 4 - CLEARING AND GRUBBING

The work specified in this item shall conform to Section 110 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction. (Latest Edition) with the following modifications:

- A. Prior to any clearing and grubbing, the contractor will stake the right-of-way. Unimproved areas shall be cleared of trees, logs, stumps, brush, vegetation, rubbish and other perishable or objectionable matter within limits shown on the plans excepting for certain trees and shrubs shown on the plans or as directed by the Engineer which are to remain undisturbed and protected. Stumps and roots between slope stakes in cuts and in embankments 3 feet or less in depth shall be removed to a depth of 18 inches below subgrade. No stumps, roots, or perishable matter of any description shall remain under concrete slabs or footing, including pavement and sidewalks.
- B. No trees shall be removed or relocated until the Engineer or his representative has marked all trees to be saved, after a review of the project site with the Contractor's representative.
- C. Where the final pavement or structural work will be close to existing trees, the Contractor shall exercise care in the vicinity of the trees. Further, the Contractor shall saw cut along the edge of the outside limits of the stabilization, structure subgrade or sidewalk to a minimum depth of 4 feet below the finish grade and paint with a commercial grade pruning paint the ends of all sawn roots. If directed by the Engineer or where shown on the drawings, work shall be done ~~by hand~~ in order to protect the trees.
- D. The Contractor shall exercise care when working in the vicinity of all trees to remain so as to not damage or remove major root structures. The Contractor shall not pull hair or major root structures. All severed roots shall be sawn clean and paint with pruning paint. Stumps, roots, etc., shall be completely removed and disposed of by the Contractor. Undesirable, dead, and/or damaged trees (as so designated by the Engineer) shall be removed.
- E. All trees to be removed shall be disposed off site; burning will be strictly prohibited.
- F. All trees or shrubs which are to remain shall be preserved and protected by the Contractor. Where the removal of valuable trees or shrubs specifically for transplanting is required, this work shall be done in cooperation with the Owner and at no additional expense to the Owner.
- G. All items to be removed shall be excavated to their full depth. All culverts removed from residential driveway entrances within the right-of-way shall become the property of the respective homeowner. Those homeowners not desiring the culverts may donate them to the County free of charge. (See Paragraph C, Special Provisions)

The Contractor shall transport the culverts to the County's storage yard. All metal castings for catch basins, manholes, or other structures shall be carefully removed and stored in the County's Storage Yard if they are deemed salvageable by the Engineer. The excavated materials shall be removed from the job site and disposed in a location designated or approved by the Owner. Where required, suitable material as approved by the Engineer shall then be backfilled and compacted to restore the original contour of the ground. The fill material shall be backfilled and compacted in accordance with Section 120 of these specifications.

- H. No additional payment will be made, nor will additional work, or change orders be authorized for work needed to remove, relocate, protect, or otherwise account for in the construction of the work depicted in the plans, for any feature, or item that would be apparent from a careful inspection of the site and review of the plans, even though such feature or item is not specifically called out in the plans. It is therefore essential the contractor make such inspection and review.
- I. The unit price bid for this item shall include the cost of all labor, tools, and equipment necessary to excavate, remove, and dispose of those items as directed by the Engineer and where designated on the Drawings. The cost of restoration and backfill and compaction for the specific area of removal shall also be included under this item.

Item of Payment

Payment for the work specified in this item shall be made under:
Bid Item 4 - Clearing and Grubbing - Lump Sum

The provisions of Special Provisions, Paragraph 9 shall be applicable and the costs thereof included under this item.

ITEM NO. 5 – GRADING, EXCAVATION AND EMBANKMENT

The work specified in this item shall conform to Section 120 of the Florida Department of Transportation Specifications for Road and Bridge Construction. (Latest Edition). Excess fill removed to be delivered to Indian River County to a site designated by the County Engineer.

This item shall include all excavation of whatever kind, including subsoil, if necessary, for the roadway, drainage channels, removal of existing pavement, structures and any other work normally included in Section 120-7. Also included is all work necessary to construct all necessary embankments, including compaction of same, normally included in Section 120-8 and 102-9. Grading of swales and the construction of all earthwork necessary to achieve the final elevations, lines, grades and contours shown on the plans shall be included in this item. No other additional payment will be made for any earthwork, grading or excavation.

Item of Payment

Payment for the work specified in this item shall be made under:

Bid Item No. 5 - Grading – Lump Sum

ITEM 6 - AS-BUILT DRAWINGS

During the entire construction operation, the contractor shall maintain records of all deviations from the Drawings and Specifications and shall prepare them from a record of drawings showing correctly and accurately all changes and deviations from the work, made during construction to reflect the work as it was actually constructed. The following items are required to be shown on County project record drawings:

- A. Right-of-Way Swale/Drainage - All culverts inverts; swale beginning and end bottom elevations; and highs and lows along top of bank. Size of swale.
- B. Structures – Station and offset for all structures, inverts, grate elevation, and bottom elevations.
- C. Sidewalk – Back of sidewalk elevations at every 100' station.

Record drawings shall conform to recognized standards of drafting, shall be neat and legible. County will supply Contractor with AutoCAD 14 drawings on compact disk or 3.5" floppy disks. Contractor will input As-Built information on drawings and return to County. Contractor's surveyor will sign and sealed six (6) sets of record drawings.

Item of Payment

Payment for the work specified in this item shall be made under:
Bid Item 6 - As-Built Drawings - Lump Sum

ITEM NO. 7 through 8 – TURNOUT CONSTRUCTION

The work specified in this section shall conform to Section 286 of the Department of Transportation Standard Specifications for Road and Bridge Construction (2000 Edition).

Driveways to be replaced with pre-construction materials whether it is to be concrete, rock, asphalt or grass.

Item of Payment

The payment for the work specified in this item shall be made under:
Bid Item No. 7-8 – Turnout Construction – Square Yard

ITEM NO. 9 through 10 – CLASS I CONCRETE (ENDWALL)

The work specified in this item shall conform to Section 400 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Latest Edition).

Item of Payment

Payment for the work specified in this item shall be made under:
Bid Item No. 9-10 – Class I Concrete (Endwall) – Each

ITEM NO. 11 through 17 – CLASS III CONCRETE CULVERT PIPE

The work specified in this item shall conform to Section 430 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Latest Edition).

Item of Payment

Payment for the work specified in this item shall be made under:

- Bid Item No. 11 – Class III Concrete Culvert Pipe – Linear Foot
- Bid Item No. 12 – Class III (18") Concrete Culvert Pipe – Linear Foot
- Bid Item No. 13 – Class III (30") Concrete Culvert Pipe – Linear Foot
- Bid Item No. 14 – Class III (36") Concrete Culvert Pipe – Linear Foot
- Bid Item No. 15 – Class III (42") Concrete Culvert Pipe – Linear Foot
- Bid Item No. 16 – Class III (48") Concrete Culvert Pipe – Linear Foot
- Bid Item No. 17 – Class III (48" x 76") Concrete Culvert Pipe – Linear Foot

ITEM NO. 18 through 25 – BCCMP CULVERT PIPE

The work specified in this item shall conform to Section 430 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Latest Edition).

Item of Payment

Payment for the work specified in this item shall be made under:

- Bid Item No. 18 – 12" BCCMP Culvert Pipe – Linear Foot
- Bid Item No. 19 – 15" BCCMP Culvert Pipe – Linear Foot
- Bid Item No. 20 – 17" x 13" BCCMP Culvert Pipe – Linear Foot
- Bid Item No. 21 – 18" BCCMP Culvert Pipe – Linear Foot
- Bid Item No. 22 – 24" BCCMP Culvert Pipe – Linear Foot
- Bid Item No. 23 – 36" BCCMP Culvert Pipe – Linear Foot
- Bid Item No. 24 – 42" BCCMP Culvert Pipe – Linear Foot
- Bid Item No. 25 – 48" BCCMP Culvert Pipe – Linear Foot

ITEM NO. 26 through 31 INLETS AND MANHOLES

The work specified in this item shall conform to Section 425 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Latest Edition).

Item of Payment

Payment for the work specified in this item shall be made under:

- Bid Item No. 26 – Inlet, Type "C" – Each
- Bid Item No. 27 – Inlet, Type "E" – Each
- Bid Item No. 30 – Type "J" Catch Basin – Each
- Bid Item No. 31 – Manhole (Modified Type J-7)

ITEM NO. 32 – 6" THICK SIDEWALKS

The work specified in this item shall conform to Section 522 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Latest Edition).

Item of Payment

Payment for the work specified in this item shall be made under:
Bid Item No. 32 – Concrete Sidewalk – Square Yard

ITEM NO. 33 through 35 MITERED END SECTIONS

The work specified in this item shall conform to Section 430 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Latest Edition).

Item of Payment

Payment for the work specified in this item shall be made under:
Bid Item No. 33 – 18" BCCMP – Each
Bid Item No. 33.1 – 15" BCCMP – Each
Bid Item No. 34 – 24" BCCMP – Each
Bid Item No. 35 – 48" BCCMP – Each

ITEM NO. 36 – SOD (BAHIA)

The work specified for this item shall conform to Section 575 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Latest Edition).

Bahia sod will be used for all disturbed areas. Fertilizer and water will be included in this work.

Item of Payment

Payment for the work specified in this item shall be made under:
Bid Item No. 36 – Sod (Bahia) – Square Yard

ITEM NO. 37 – SOD (ST. AUGUSTINE)

The work specified for this item shall conform to Section 575 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction (Latest Edition).

St. Augustine sod will be used for all disturbed areas. Fertilizer and water will be included in this work.

Item of Payment

Payment for the work specified in this item shall be made under:
Bid Item No. 376 – Sod (St. Augustine) – Square Yard

++ END OF SECTION ++

APPENDIX A

PERMITS



St. Johns River Water Management District

Kirby B. Green III, Executive Director • David W. Fisk, Assistant Executive Director

4049 Reid Street • P.O. Box 1429 • Palatka, FL 32178-1429 • (386) 329-4500
On the Internet at www.sjrwmd.com.

January 19, 2005

Indian River Co Board of County Commissioners
1840 25th St
Vero Beach, FL 32960

SUBJECT: Permit Number 40-061-96830-1
Fellsmere Sidewalk Phase 2

Dear Sir/Madam:

Enclosed is your general permit as authorized by the staff of the St. Johns River Water Management District on January 19, 2005.

This permit is a legal document and should be kept with your other important documents. The attached MSSW/Stormwater As-Built Certification Form should be filled in and returned to the Palatka office within thirty days after the work is completed. By so doing, you will enable us to schedule a prompt inspection of the permitted activity.

In addition to the MSSW/Stormwater As-Built Certification Form, your permit also contains conditions which require submittal of additional information. All information submitted as compliance to permit conditions must be submitted to the Palatka office address.

Permit issuance does not relieve you from the responsibility of obtaining permits from any federal, state and/or local agencies asserting concurrent jurisdiction for this work.

Please be advised that the District has not published a notice in the newspaper advising the public that it is issuing a permit for this proposed project. Publication, using the District form, notifies members of the public (third parties) of their rights to challenge the issuance of the general permit. If proper notice is given by publication, third parties have a 21-day time limit on the time they have to file a petition opposing the issuance of the permit. If you do not publish, a party's right to challenge the issuance of the general permit extends for an indefinite period of time. If you wish to have certainty that the period for filing such a challenge is closed, then you may publish, at your own expense, such a notice in a newspaper of general circulation. A copy of the form of the notice and a list of newspapers of general circulation is attached for your use.

In the event you sell your property, the permit will be transferred to the new owner, if we are notified by you within thirty days of the sale and if you provide the information required by 40C-1.612, F.A.C. Please assist us in this matter so as to maintain a valid permit for the new property owner.

GOVERNING BOARD

Ometrias D. Long, CHAIRMAN
APOPKA

David G. Graham, VICE CHAIRMAN
JACKSONVILLE

R. Clay Albright, SECRETARY
OCALA

Duane Ottenstroer, TREASURER
JACKSONVILLE

W. Michael Branch
FERNANDINA BEACH

John G. Sowinski
ORLANDO

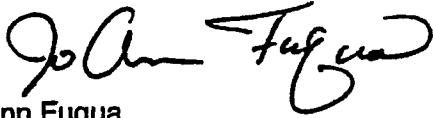
William Kerr
MELBOURNE BEACH

Ann T. Moore
BUNNELL

Susan N. Hughes
JACKSONVILLE

Thank you for your cooperation, and if this office can be of any further assistance to you, please do not hesitate to contact us.

Sincerely,

A handwritten signature in black ink, appearing to read "Jo Ann Fuqua". The signature is fluid and cursive, with the first name "Jo Ann" and the last name "Fuqua" clearly distinguishable.

Jo Ann Fuqua
Service Center Data Mgt Supervisor
Division of Permit Data Services

Enclosures: Permit with As-built Certification Form
Notice of Rights
List of Newspapers for Publication

cc: District Permit File

Agent: Indian River Co Board of County Commissioners
1840 25th St
Vero Beach, FL 32960

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
Post Office Box 1429
Palatka, Florida 32178-1429

PERMIT NO. 40-061-96830-1

DATE ISSUED: January 19, 2005

PROJECT NAME: Fellsmere Sidewalk Phase 2

A PERMIT AUTHORIZING:

Construction of a Surface Water Management System with stormwater treatment by best management practices for Fellsmere Sidewalk Phase 2, a 4.80-acre project to be constructed as per plans received by the District on December 20, 2004.

LOCATION:

Section(s): 70 Township(s): 31S Range(s): 37E

Indian River County

Indian River Co Board of County Commissioners
1840 25th St
Vero Beach, FL 32960

Permittee agrees to hold and save the St. Johns River Water Management District and its successors harmless from any and all damages, claims, or liabilities, which may arise from, permit issuance. Said application, including all plans and specifications attached thereto, is by reference made a part hereof.

This permit does not convey to permittee any property rights nor any rights or privileges other than those specified therein, nor relieve the permittee from complying with any law, regulation or requirement affecting the rights of other bodies or agencies. All structures and works installed by permittee hereunder shall remain the property of the permittee.

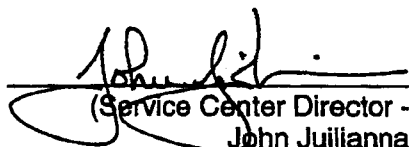
This permit may be revoked, modified or transferred at any time pursuant to the appropriate provisions of Chapter 373, Florida Statutes:

PERMIT IS CONDITIONED UPON:

See conditions on attached "Exhibit A", dated January 19, 2005

AUTHORIZED BY: St. Johns River Water Management District
Department of Resource Management

By:


(Service Center Director - Palm Bay)
John Julliana

"EXHIBIT A"
CONDITIONS FOR ISSUANCE OF PERMIT NUMBER 40-061-96830-1
INDIAN RIVER CO BOARD OF COUNTY COMMISSIONERS
DATED JANUARY 19, 2005

1. All activities shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit.
2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications, shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.
3. Activities approved by this permit shall be conducted in a manner, which do not cause violations of state water quality standards.
4. Prior to and during construction, the permittee shall implement and maintain all erosion and sediment control measures (best management practices) required to retain sediment on-site and to prevent violations of state water quality standards. All practices must be in accordance with the guidelines and specifications in chapter 6 of the Florida Land Development Manual: A Guide to Sound Land and Water Management (Florida Department of Environmental Regulation 1988), which are incorporated by reference, unless a project specific erosion and sediment control plan is approved as part of the permit, in which case the practices must be in accordance with the plan. If site specific conditions require additional measures during any phase of construction or operation to prevent erosion or control sediment, beyond those specified in the erosion and sediment control plan, the permittee shall implement additional best management practices as necessary, in accordance with the specifications in chapter 6 of the Florida Land Development Manual: A Guide to Sound Land and Water Management (Florida Department of Environmental Regulation 1988). The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.
5. Stabilization measures shall be initiated for erosion and sediment control on disturbed areas as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased.
6. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District a Construction Commencement Notice Form No. 40C-4.900(3) indicating the actual start date and the expected completion date.
7. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an Annual Status Report Form No. 40C-4.900(4). These forms shall be submitted during June of each year.
8. For those systems which will be operated or maintained by an entity which will require an easement or deed restriction in order to provide that entity with the authority necessary to operate or maintain the system, such easement or deed restriction, together with any other final operation or maintenance documents as are required by subsections 7.1.1 through 7.1.4 of the Applicant's Handbook: Management and Storage of Surface Waters, must be submitted to the District for approval. Documents meeting the requirements set forth in these subsections of the Applicant's Handbook will be approved. Deed restrictions, easements and other operation and maintenance documents which require recordation either with the Secretary of State or the Clerk of the Circuit Court must be so recorded prior

to lot or unit sales within the project served by the system, or upon completion of construction of the system, whichever occurs first. For those systems, which are proposed to be maintained by county or municipal entities, final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local governmental entity. Failure to submit the appropriate final documents referenced in this paragraph will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system.

9. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by the portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of that phase or portion of the system to local government or other responsible entity.
10. Within 30 days after completion of construction of the permitted system, or independent portion of the system, the permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual as authorized by law, utilizing As Built Certification Form 40C-1.181(13) or 40C-1.181(14) supplied with this permit. When the completed system differs substantially from the permitted plans, any substantial deviations shall be noted and explained and two copies of as-built drawings submitted to the District. Submittal of the completed form shall serve to notify the District that the system is ready for inspection. The statement of completion and certification shall be based on on-site observation of construction (conducted by the registered professional engineer, or other appropriate individual as authorized by law, or under his or her direct supervision) or review of as-built drawings for the purpose of determining if the work was completed in compliance with approved plans and specifications. As-built drawings shall be the permitted drawings revised to reflect any changes made during construction. Both the original and any revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawing. All surveyed dimensions and elevations shall be certified by a registered surveyor. The following information, at a minimum, shall be verified on the as-built drawings:
 1. Dimensions and elevations of all discharge structures including all weirs, slots, gates, pumps, pipes, and oil and grease skimmers;
 2. Locations, dimensions, and elevations of all filter, exfiltration, or underdrain systems including cleanouts, pipes, connections to control structures, and points of discharge to the receiving waters;
 3. Dimensions, elevations, contours, or cross-sections of all treatment storage areas sufficient to determine state-storage relationships of the storage area and the permanent pool depth and volume below the control elevation for normally wet systems, when appropriate;
 4. Dimensions, elevations, contours, final grades, or cross-sections of the system to determine flow directions and conveyance of runoff to the treatment system;
 5. Dimensions, elevations, contours, final grades, or cross-sections of all conveyance systems utilized to convey off-site runoff around the system;
 6. Existing water elevation(s) and the date determined; and Elevation and location of benchmark(s) for the survey.

11. The operation phase of this permit shall not become effective until the permittee has complied with the requirements of general condition 9 above, the District determines the system to be in compliance with the permitted plans, and the entity approved by the District in accordance with subsections 7.1.1 through 7.1.4 of the Applicant's Handbook: Management and Storage of Surface Waters, accepts responsibility for operation and maintenance of the system. The permit may not be transferred to such an approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall request transfer of the permit to the responsible approved operation and maintenance entity, if different from the permittee. Until the permit is transferred pursuant to section 7.1 of the Applicant's Handbook: Management and Storage of Surface Waters, the permittee shall be liable for compliance with the terms of the permit.
12. Should any other regulatory agency require changes to the permitted system, the permittee shall provide written notification to the District of the changes prior implementation so that a determination can be made whether a permit modification is required.
13. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and chapter 40C-4 or chapter 40C-40, F.A.C.
14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the activities authorized by the permit or any use of the permitted system.
15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this permit or a formal determination under section 373.421(2), F.S., provides otherwise.
16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of the permitted system or the real property at which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of section 40C-1.612, F.A.C. The permittee transferring the permit shall remain liable for any corrective actions that may be required as a result of any permit violations prior to such sale, conveyance or other transfer.
17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.
18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the District.
19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.
20. This permit for construction will expire five years from the date of issuance.
21. All wetland areas or water bodies that are outside the specific limits of construction authorized by this permit must be protected from erosion, siltation, scouring or excess turbidity, and dewatering.

22. Prior to construction, the permittee must clearly designate the limits of construction on-site. The permittee must advise the contractor that any work outside the limits of construction, including clearing, may be a violation of this permit.
23. The project must be constructed in accordance with the plans received by the District on December 20, 2004.
24. The stormwater management system must be inspected by the operation and maintenance entity once within two years after the completion of construction and every two years thereafter to insure that the system is functioning as designed and permitted. If a required inspection reveals that the system is not functioning as designed and permitted, then within 14 days of that inspection the entity shall submit an Exceptions Report on form number 40C-42.900(6), Exceptions Report for Stormwater Management System Out of Compliance. The operation and maintenance entity must maintain a record of each required inspection, including the date of inspection, the name, address, and telephone number of the inspector, and whether the system was functioning as designed and permitted, and make such record available for inspection upon request by the District during normal business hours.

Notice Of Rights

1. A person whose substantial interests are or may be determined has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District), or may choose to pursue mediation as an alternative remedy under Sections 120.569 and 120.573, Florida Statutes, before the deadline for filing a petition. Choosing mediation will not adversely affect the rights to a hearing if mediation does not result in a settlement. The procedures for pursuing mediation are set forth in Sections 120.569 and 120.57, Florida Statutes, and Rules 28-106.111 and 28-106.401-.405, Florida Administrative Code. Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code, the petition must be filed at the office of the District Clerk at District Headquarters, P. O. Box 1429, Palatka, Florida 32178-1429 (4049 Reid St., Palatka, FL 32177) within twenty-six (26) days of the District depositing notice of District decision in the mail (for those persons to whom the District mails actual notice) or within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail actual notice). A petition must comply with Chapter 28-106, Florida Administrative Code.
2. If the Governing Board takes action which substantially differs from the notice of District decision, a person whose substantial interests are or may be determined has the right to request an administrative hearing or may choose to pursue mediation as an alternative remedy as described above. Pursuant to District Rule 40C-1.1007, Florida Administrative Code, the petition must be filed at the office of the District Clerk at the address described above, within twenty-six (26) days of the District depositing notice of final District decision in the mail (for those persons to whom the District mails actual notice) or within twenty-one (21) days of newspaper publication of the notice of its final agency action (for those persons to whom the District does not mail actual notice). Such a petition must comply with Rule Chapter 28-106, Florida Administrative Code.
3. A substantially interested person has the right to a formal administrative hearing pursuant to Section 120.569 and 120.57(1), Florida Statutes, where there is a dispute between the District and the party regarding an issue of material fact. A petition for formal must comply with the requirements set forth in Rule 28-106.201, Florida Administrative Code.
4. A substantially interested person has the right to an informal hearing pursuant to Sections 120.569 and 120.57(2), Florida Statutes, where no material facts are in dispute. A petition for an informal hearing must comply with the requirements set forth in Rule 28-106.301, Florida Administrative Code.
5. A petition for an administrative hearing is deemed filed upon delivery of the petition to the District Clerk at the District headquarters in Palatka, Florida.
6. Failure to file a petition for an administrative hearing, within the requisite time frame shall constitute a waiver of the right to an administrative hearing (Section 28-106.111, Florida Administrative Code).
7. The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, and Chapter 28-106, Florida Administrative Code and Section 40C-1.1007, Florida Administrative Code.

Notice Of Rights

8. An applicant with a legal or equitable interest in real property who believes that a District permitting action is unreasonable or will unfairly burden the use of his property, has the right to, within 30 days of receipt of notice of the District's written decision regarding a permit application, apply for a special master proceeding under Section 70.51, Florida Statutes, by filing a written request for relief at the office of the District Clerk located at District headquarters, P. O. Box 1429, Palatka, FL 32178-1429 (4049 Reid St., Palatka, Florida 32177). A request for relief must contain the information listed in Subsection 70.51(6), Florida Statutes.
9. A timely filed request for relief under Section 70.51, Florida Statutes, tolls the time to request an administrative hearing under paragraph no. 1 or 2 above (Paragraph 70.51(10)(b), Florida Statutes). However, the filing of a request for an administrative hearing under paragraph no. 1 or 2 above waives the right to a special master proceeding (Subsection 70.51(10)(b), Florida Statutes).
10. Failure to file a request for relief within the requisite time frame shall constitute a waiver of the right to a special master proceeding (Subsection 70.51(3), Florida Statutes).
11. Any substantially affected person who claims that final action of the District constitutes an unconstitutional taking of property without just compensation may seek review of the action in circuit court pursuant to Section 373.617, Florida Statutes, and the Florida Rules of Civil Procedures, by filing an action in circuit court within 90 days of the rendering of the final District action, (Section 373.617, Florida Statutes).
12. Pursuant to Section 120.68, Florida Statutes, a person who is adversely affected by final District action may seek review of the action in the District Court of Appeal by filing a notice of appeal pursuant to the Florida Rules of Appellate Procedure within 30 days of the rendering of the final District action.
13. A party to the proceeding before the District who claims that a District order is inconsistent with the provisions and purposes of Chapter 373, Florida Statutes, may seek review of the order pursuant to Section 373.114, Florida Statutes, by the Florida Land and Water Adjudicatory Commission, by filing a request for review with the Commission and serving a copy on the Department of Environmental Protection and any person named in the order within 20 days of adoption of a rule or the rendering of the District order.
14. For appeals to the District Court of Appeal, a District action is considered rendered after it is signed on behalf of the District, and is filed by the District Clerk.
15. Failure to observe the relevant time frames for filing a petition for judicial review described in paragraphs #11 and #12, or for Commission review as described in paragraph #13, will result in waiver of that right to review.


Notice Of Rights

Certificate of Service

I HEREBY CERTIFY that a copy of the foregoing Notice of Rights has been sent by U.S.
Mail to:

Indian River Co Board of County Commissioners
1840 25th St
Vero Beach, FL 32960

At 4:00 p.m. this 19th day of January 2005.



Division of Permit Data Services
Gloria Lewis, Director

St. Johns River Water Management District
Post Office Box 1429
Palatka, FL 32178-1429
(386) 329-4152

Permit Number: 40-061-96830-1



St. Johns River

Water Management District

Kirby B. Green III, Executive Director • David W. Fisk, Assistant Executive Director • Mike Slayton, Deputy Executive Director
John Julliana, Palm Bay Service Center Director, Regulatory

525 Community College Parkway S.E. • Palm Bay, FL 32909 • (321) 984-4940

January 13, 2004

Certified No.: 7004 1350 0000 6295 0514

Michelle A. Gentile, C.E.T.
Indian River County
1840 25th Street
Vero Beach, FL 32960

RECEIVED

JAN 14 2005

RE: Indian River Drive Sidewalk South
Permit No. 40-061-89085-1
Compliance No. 061-478014

INDIAN RIVER COUNTY
ENGINEERING DIVISION

Dear Ms. Gentile:

On August 26, 2004, the District received your written request to modify permit number 40-061-89085-1, by proposing minor changes to the location of the swale and sidewalk. This request was updated with additional information by a submittal received by the District on December 13, 2004. Specifically, staff understands that the proposed modification consists of the following:

The construction plans received on August 26, 2004, and again on December 13, 2004, show minor changes to the system design including moving the location of the swale to the east side of the roadway.

Based on the information provided, your request qualifies for a letter modification pursuant to Section 40C-4.331(1)(b), Fla. Admin. Code.

All of the terms and conditions of permit number 40-061-89085-1 will remain in effect.

Please be advised the District has not published a notice in the newspaper to advise the public that it is issuing this letter modification. If you do not publish notice in the newspaper, a party's right to challenge the issuance of this letter modification extends for an indefinite period of time. If you wish to have certainty that the period for filing such a challenge is closed, then you may publish, at your own expense, such a notice in a newspaper of general circulation within the area that includes the project to which the modification applies. A copy of the form of the notice is attached for your use. Pursuant to Section 40C-1.1007, Florida Admin. Code, please forward to the District an affidavit of publication from the newspaper within seven (7) days of publication.

GOVERNING BOARD

Duane Ottenstroer, CHAIRMAN
JACKSONVILLE

Ometrias D. Long, VICE CHAIRMAN
APOPKA

R. Clay Albright, SECRETARY
OCALA

David G. Graham, TREASURER
JACKSONVILLE

W. Michael Branch

John G. Sowinski

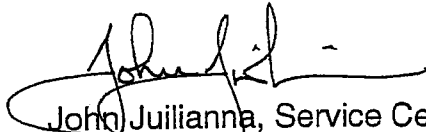
William Kerr

Ann T. Moore

Susan N. Hughes

Please feel free to contact me at (321) 984-4940 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "John Juillianna", with a long horizontal flourish extending to the right.

John Juillianna, Service Center Director
Department of Water Resources

cc: PDS (Letter Modification)
Janice Unger
Mark Crosby



St. Johns River Water Management District

Kirby B. Green III, Executive Director • John R. Weiss, Assistant Executive Director

Post Office Box 1429 • Palatka, FL 32178-1429 • (386) 329-4500

August 28, 2003

Indian River County
1840 25th Street
Vero Beach, FL 32960

SUBJECT: Permit Number 40-061-89085-1
Indian River Drive Sidewalk (South)

Dear Sir/Madam:

Enclosed is your general permit as authorized by the staff of the St. Johns River Water Management District on August 28, 2003.

This permit is a legal document and should be kept with your other important documents. The attached MSSW/Stormwater As-Built Certification Form should be filled in and returned to the Palatka office within thirty days after the work is completed. By so doing, you will enable us to schedule a prompt inspection of the permitted activity.

In addition to the MSSW/Stormwater As-Built Certification Form, your permit also contains conditions which require submittal of additional information. All information submitted as compliance to permit conditions must be submitted to the Palatka office address.

Permit issuance does not relieve you from the responsibility of obtaining permits from any federal, state and/or local agencies asserting concurrent jurisdiction for this work.

Please be advised that the District has not published a notice in the newspaper advising the public that it is issuing a permit for this proposed project. Publication, using the District form, notifies members of the public (third parties) of their rights to challenge the issuance of the general permit. If proper notice is given by publication, third parties have a 21-day time limit on the time they have to file a petition opposing the issuance of the permit. If you do not publish, a party's right to challenge the issuance of the general permit extends for an indefinite period of time. If you wish to have certainty that the period for filing such a challenge is closed, then you may publish, at your own expense, such a notice in a newspaper of general circulation. A copy of the form of the notice and a list of newspapers of general circulation is attached for your use.

In the event you sell your property, the permit will be transferred to the new owner, if we are notified by you within thirty days of the sale and if you provide the information required by 40C-1.612, F.A.C. Please assist us in this matter so as to maintain a valid permit for the new property owner.

GOVERNING BOARD

Duane Coleman, Chairman
JACKSONVILLE

Cynthia D. Long, Vice Chairman
APOPA

R. Clay Albright, Secretary
EAST LAKE WEST

David E. Graham, Treasurer
JACKSONVILLE

W. Michael Branch
FERNANDINA BEACH

Jeff K. Jennings
MAITLAND

William Kent
MELBOURNE BEACH

Ann T. Moore
DUNNELL

Catherine A. Walker
ACWORTH SPRINGS

Thank you for your cooperation, and if this office can be of any further assistance to you, please do not hesitate to contact us.

Sincerely,

Janet White
Data Management Specialist II
Division of Permit Data Services

Enclosures: Permit with As-built Certification Form
Notice of Rights
List of Newspapers for Publication

cc: District Permit File

Agent: Indian River County Engineering Division County Engineer
1840 25th Street
Gifford, FL 32960

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
Post Office Box 1429
Palatka, Florida 32178-1429

PERMIT NO. 40-061-89085-1

DATE ISSUED: August 28, 2003

PROJECT NAME: Indian River Drive Sidewalk (South)

A PERMIT AUTHORIZING:

Construction of a Surface Water Management System with stormwater treatment by swales for Indian River Drive Sidewalk (South), a 0.66-acre project to be constructed as per plans received by the District on July 14, 2003.

LOCATION:

Section(s): 7, 8

Township(s): 31S

Range(s): 38E

Indian River County

Indian River County
1840 25th Street
Vero Beach, FL 32960

Permittee agrees to hold and save the St. Johns River Water Management District and its successors harmless from any and all damages, claims, or liabilities which may arise from permit issuance. Said application, including all plans and specifications attached thereto, is by reference made a part hereof.

This permit does not convey to permittee any property rights nor any rights or privileges other than those specified therein, nor relieve the permittee from complying with any law, regulation or requirement affecting the rights of other bodies or agencies. All structures and works installed by permittee hereunder shall remain the property of the permittee.

This permit may be revoked, modified or transferred at any time pursuant to the appropriate provisions of Chapter 373, Florida Statutes:

PERMIT IS CONDITIONED UPON:

See conditions on attached "Exhibit A", dated August 28, 2003

AUTHORIZED BY: St. Johns River Water Management District
Department of Resource Management

By: _____
(Service Center Director - Palm Bay)
John Juillianna

"EXHIBIT A"
CONDITIONS FOR ISSUANCE OF PERMIT NUMBER 40-061-89085-1
INDIAN RIVER COUNTY
DATED AUGUST 28, 2003

1. All activities shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit.
2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications, shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.
3. Activities approved by this permit shall be conducted in a manner which do not cause violations of state water quality standards.
4. Prior to and during construction, the permittee shall implement and maintain all erosion and sediment control measures (best management practices) required to retain sediment on-site and to prevent violations of state water quality standards. All practices must be in accordance with the guidelines and specifications in chapter 6 of the Florida Land Development Manual: A Guide to Sound Land and Water Management (Florida Department of Environmental Regulation 1988), which are incorporated by reference, unless a project specific erosion and sediment control plan is approved as part of the permit, in which case the practices must be in accordance with the plan. If site specific conditions require additional measures during any phase of construction or operation to prevent erosion or control sediment, beyond those specified in the erosion and sediment control plan, the permittee shall implement additional best management practices as necessary, in accordance with the specifications in chapter 6 of the Florida Land Development Manual: A Guide to Sound Land and Water Management (Florida Department of Environmental Regulation 1988). The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.
5. Stabilization measures shall be initiated for erosion and sediment control on disturbed areas as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased.
6. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District a Construction Commencement Notice Form No. 40C-4.900(3) indicating the actual start date and the expected completion date.
7. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an Annual Status Report Form No. 40C-4.900(4). These forms shall be submitted during June of each year.
8. For those systems which will be operated or maintained by an entity which will require an easement or deed restriction in order to provide that entity with the authority necessary to operate or maintain the system, such easement or deed restriction, together with any other final operation or maintenance documents as are required by subsections 7.1.1 through 7.1.4 of the Applicant's Handbook: Management and Storage of Surface Waters, must be submitted to the District for approval. Documents meeting the requirements set forth in these subsections of the Applicant's Handbook will be approved. Deed restrictions, easements and other operation and maintenance documents which require recordation either with the Secretary of State or the Clerk of the Circuit Court must be so recorded prior

to lot or unit sales within the project served by the system, or upon completion of construction of the system, whichever occurs first. For those systems which are proposed to be maintained by county or municipal entities, final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local governmental entity. Failure to submit the appropriate final documents referenced in this paragraph will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system.

9. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by the portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of that phase or portion of the system to local government or other responsible entity.
10. Within 30 days after completion of construction of the permitted system, or independent portion of the system, the permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual as authorized by law, utilizing As Built Certification Form 40C-1.181(13) or 40C-1.181(14) supplied with this permit. When the completed system differs substantially from the permitted plans, any substantial deviations shall be noted and explained and two copies of as-built drawings submitted to the District. Submittal of the completed form shall serve to notify the District that the system is ready for inspection. The statement of completion and certification shall be based on on-site observation of construction (conducted by the registered professional engineer, or other appropriate individual as authorized by law, or under his or her direct supervision) or review of as-built drawings for the purpose of determining if the work was completed in compliance with approved plans and specifications. As-built drawings shall be the permitted drawings revised to reflect any changes made during construction. Both the original and any revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawing. All surveyed dimensions and elevations shall be certified by a registered surveyor. The following information, at a minimum, shall be verified on the as-built drawings:
 1. Dimensions and elevations of all discharge structures including all weirs, slots, gates, pumps, pipes, and oil and grease skimmers;
 2. Locations, dimensions, and elevations of all filter, exfiltration, or underdrain systems including cleanouts, pipes, connections to control structures, and points of discharge to the receiving waters;
 3. Dimensions, elevations, contours, or cross-sections of all treatment storage areas sufficient to determine state-storage relationships of the storage area and the permanent pool depth and volume below the control elevation for normally wet systems, when appropriate;
 4. Dimensions, elevations, contours, final grades, or cross-sections of the system to determine flow directions and conveyance of runoff to the treatment system;
 5. Dimensions, elevations, contours, final grades, or cross-sections of all conveyance systems utilized to convey off-site runoff around the system;
 6. Existing water elevation(s) and the date determined; and Elevation and location of benchmark(s) for the survey.

11. The operation phase of this permit shall not become effective until the permittee has complied with the requirements of general condition 9 above, the District determines the system to be in compliance with the permitted plans, and the entity approved by the District in accordance with subsections 7.1.1 through 7.1.4 of the Applicant's Handbook: Management and Storage of Surface Waters, accepts responsibility for operation and maintenance of the system. The permit may not be transferred to such an approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall request transfer of the permit to the responsible approved operation and maintenance entity, if different from the permittee. Until the permit is transferred pursuant to section 7.1 of the Applicant's Handbook: Management and Storage of Surface Waters, the permittee shall be liable for compliance with the terms of the permit.
12. Should any other regulatory agency require changes to the permitted system, the permittee shall provide written notification to the District of the changes prior implementation so that a determination can be made whether a permit modification is required.
13. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and chapter 40C-4 or chapter 40C-40, F.A.C.
14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the activities authorized by the permit or any use of the permitted system.
15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this permit or a formal determination under section 373.421(2), F.S., provides otherwise.
16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of the permitted system or the real property at which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of section 40C-1.612, F.A.C. The permittee transferring the permit shall remain liable for any corrective actions that may be required as a result of any permit violations prior to such sale, conveyance or other transfer.
17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.
18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the District.
19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.
20. This permit for construction will expire five years from the date of issuance.
21. At a minimum, all retention and detention storage areas must be excavated to rough grade prior to building construction or placement of impervious surface within the area to be served by those facilities. To prevent reduction in storage volume and percolation rates, all accumulated sediment must be removed from the storage area prior to final grading and

stabilization.

22. All wetland areas or water bodies that are outside the specific limits of construction authorized by this permit must be protected from erosion, siltation, scouring or excess turbidity, and dewatering.
23. Prior to construction, the permittee must clearly designate the limits of construction on-site. The permittee must advise the contractor that any work outside the limits of construction, including clearing, may be a violation of this permit.

The Surface Water Management System must be constructed and operated as per plans received by the District on July 14, 2003.

24.

Notice Of Rights

1. A person whose substantial interests are or may be determined has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District), or may choose to pursue mediation as an alternative remedy under Sections 120.569 and 120.573, Florida Statutes, before the deadline for filing a petition. Choosing mediation will not adversely affect the rights to a hearing if mediation does not result in a settlement. The procedures for pursuing mediation are set forth in Sections 120.569 and 120.57, Florida Statutes, and Rules 28-106.111 and 28-106.401-405, Florida Administrative Code. Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code, the petition must be filed at the office of the District Clerk at District Headquarters, P. O. Box 1429, Palatka, Florida 32178-1429 (4049 Reid St., Palatka, FL 32177) within twenty-six (26) days of the District depositing notice of District decision in the mail (for those persons to whom the District mails actual notice) or within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail actual notice). A petition must comply with Chapter 28-106, Florida Administrative Code.
2. If the Governing Board takes action which substantially differs from the notice of District decision, a person whose substantial interests are or may be determined has the right to request an administrative hearing or may choose to pursue mediation as an alternative remedy as described above. Pursuant to District Rule 40C-1.1007, Florida Administrative Code, the petition must be filed at the office of the District Clerk at the address described above, within twenty-six (26) days of the District depositing notice of final District decision in the mail (for those persons to whom the District mails actual notice) or within twenty-one (21) days of newspaper publication of the notice of its final agency action (for those persons to whom the District does not mail actual notice). Such a petition must comply with Rule Chapter 28-106, Florida Administrative Code.
3. A substantially interested person has the right to a formal administrative hearing pursuant to Section 120.569 and 120.57(1), Florida Statutes, where there is a dispute between the District and the party regarding an issue of material fact. A petition for formal must comply with the requirements set forth in Rule 28-106.201, Florida Administrative Code.
4. A substantially interested person has the right to an informal hearing pursuant to Sections 120.569 and 120.57(2), Florida Statutes, where no material facts are in dispute. A petition for an informal hearing must comply with the requirements set forth in Rule 28-106.301, Florida Administrative Code.
5. A petition for an administrative hearing is deemed filed upon delivery of the petition to the District Clerk at the District headquarters in Palatka, Florida.
6. Failure to file a petition for an administrative hearing, within the requisite time frame shall constitute a waiver of the right to an administrative hearing (Section 28-106.111, Florida Administrative Code).
7. The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, and Chapter 28-106, Florida Administrative Code and Section 40C-1.1007, Florida Administrative Code.

Notice Of Rights

8. An applicant with a legal or equitable interest in real property who believes that a District permitting action is unreasonable or will unfairly burden the use of his property, has the right to, within 30 days of receipt of notice of the District's written decision regarding a permit application, apply for a special master proceeding under Section 70.51, Florida Statutes, by filing a written request for relief at the office of the District Clerk located at District headquarters, P. O. Box 1429, Palatka, FL 32178-1429 (4049 Reid St., Palatka, Florida 32177). A request for relief must contain the information listed in Subsection 70.51(6), Florida Statutes.
9. A timely filed request for relief under Section 70.51, Florida Statutes, tolls the time to request an administrative hearing under paragraph no. 1 or 2 above (Paragraph 70.51(10)(b), Florida Statutes). However, the filing of a request for an administrative hearing under paragraph no. 1 or 2 above waives the right to a special master proceeding (Subsection 70.51(10)(b), Florida Statutes).
10. Failure to file a request for relief within the requisite time frame shall constitute a waiver of the right to a special master proceeding (Subsection 70.51(3), Florida Statutes).
11. Any substantially affected person who claims that final action of the District constitutes an unconstitutional taking of property without just compensation may seek review of the action in circuit court pursuant to Section 373.617, Florida Statutes, and the Florida Rules of Civil Procedures, by filing an action in circuit court within 90 days of the rendering of the final District action, (Section 373.617, Florida Statutes).
12. Pursuant to Section 120.68, Florida Statutes, a person who is adversely affected by final District action may seek review of the action in the District Court of Appeal by filing a notice of appeal pursuant to the Florida Rules of Appellate Procedure within 30 days of the rendering of the final District action.
13. A party to the proceeding before the District who claims that a District order is inconsistent with the provisions and purposes of Chapter 373, Florida Statutes, may seek review of the order pursuant to Section 373.114, Florida Statutes, by the Florida Land and Water Adjudicatory Commission, by filing a request for review with the Commission and serving a copy on the Department of Environmental Protection and any person named in the order within 20 days of adoption of a rule or the rendering of the District order.
14. For appeals to the District Court of Appeal, a District action is considered rendered after it is signed on behalf of the District, and is filed by the District Clerk.
15. Failure to observe the relevant time frames for filing a petition for judicial review described in paragraphs #11 and #12, or for Commission review as described in paragraph #13, will result in waiver of that right to review.

Notice Of Rights

Certificate of Service

I HEREBY CERTIFY that a copy of the foregoing Notice of Rights has been sent by U.S.
Mail to:

Indian River County
1840 25th Street
Vero Beach, FL 32960

At 4:00 p.m. this 28th day of August, 2003.

Division of Permit Data Services
Gloria Lewis, Director

St. Johns River Water Management District
Post Office Box 1429
Palatka, FL 32178-1429
(386) 329-4152

Permit Number: 40-061-89085-1

APPENDIX 'B'

**FLORIDA EROSION & SEDIMENT
CONTROL INSPECTOR MANUAL**

**CHAPTER 4, "BEST MANAGEMENT PRACTICES
FOR EROSION AND SEDIMENTATION CONTROL"**

CHAPTER 4 BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENTATION CONTROL

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CHAPTER NOTE

Effective control of erosion and sedimentation depends on the proper use of a number of specific best management practices (BMP's). Each of these has a correct application, installation, and maintenance requirement. This chapter provides a "toolbox" of BMP's with instructions for their use. Always remember that the rules are performance based. Implementation according to this manual is no guarantee of success, nor is it a constraint to prevent the use of other more efficient or cost effective measures.

4.01 IMPORTANCE OF CONSTRUCTION SEQUENCING

Definition

Coordinating the construction schedule to minimize the amount of area disturbed at any one time and coordinating land clearing with the installation of erosion control measures.

Purpose

To minimize the amount of disturbed area, thereby reducing erosion potential.

Condition where Practice Applies

This practice applies to all construction projects. The level of planning and management necessary to minimize erosion and control sedimentation adequately is dependent upon the size, location, and complexity of the construction site.

Planning Considerations

The key to efficient and cost-effective erosion control is to plan construction activities in phases to reduce the erosion potential of the site. By clearing only areas that are to be developed, only limited areas of land are disturbed, making it much easier to prevent and control erosion than if the entire site were exposed at once. On larger projects sub-phases should be used to minimize the area of exposed soil. Before site disturbance occurs perimeter controls, sediment traps, basins, and diversions should be in place to control runoff and capture sediments. Prioritize disturbed areas in the vicinity of water bodies, wetlands, steep grades, long slopes, etc. for effective stabilization within seven days of disturbance. Graded areas that will not be worked on should be seeded and mulched immediately, rather than waiting until all project grading is done. A well-planned and well-maintained construction entrance with stabilized construction roads can prevent offsite sedimentation, keep sediments off of roads, minimize complaints from neighbors, and reduce future expenses and aggravation.

Land disturbing activities are best scheduled during periods of low precipitation. Generally, Florida's wet season occurs from May to November with a dry season from November to May. Check with your local Water Management District (WMD) or Florida Department of Transportation (FDOT) office for more precise information in your area.

Specifications

Management of construction projects can be viewed in three phases. *Phase I* is the initial installation of perimeter controls, sediment traps, basins, and diversions prior to site development. *Phase II* is an interim stormwater management plan whereby components of the permanent stormwater management system are constructed and connected to the stormwater facilities as the site is developed. *Phase III* is the finished product and should perform as such.

Phase I

This is the first construction related activity to occur on any site. Installation of initial controls shall be discussed at the pre-construction conference. The contractor and the inspector should understand the inspection and maintenance requirements of the specified BMPs, as well as the location and proper installation procedures.

Offsite runoff should be diverted around the project if stabilized areas, adequate conveyance, and/or protected inlets are available. Sediment traps and basins should be built to receive the anticipated runoff and sediments. A temporary sediment basin in the location of the permanent stormwater facility makes efficient use of space and simplifies future tasks. Perimeter controls and diversions must be installed to keep sediments onsite and directed to the traps and basins. As clearing and grading progresses, temporary seeding and mulching should follow immediately for areas which will not be worked for a period of seven days or more.

Phase II

This phase is the interim phase of the project. The permanent stormwater management system is constructed in conjunction with the other construction activities. Before runoff is directed into it, the system must be properly stabilized. Additionally it must be protected from sedimentation until completion of the project. As the stormwater facilities are constructed, they should also be kept free of sediments. Special care must be taken if stormwater ponds are used as temporary sediment basins to ensure complete removal of accumulated sediments which would reduce stormwater storage volume and cause premature clogging. If possible, design and excavate the sediment basin bottom 6" to 12" (15 - 30 cm) higher than the eventual pond bottom. Land disturbance should occur only in areas which are being actively worked. Graded areas should be seeded and mulched immediately if they will not be worked for a period of seven days or more.

A regular maintenance program should insure inspection and maintenance of BMPs by the contractor weekly and/or after significant rain events. Any failures should be analyzed to prevent recurrence. Substantial changes to the approved plan must be made or reviewed by the designer and approved by the appropriate regulatory agency.

Phase III

This is the completed project. The entire stormwater management system should be built according to the approved plans. Substantial deviations from the plan may require revisions by the design professional, reapproval by the regulatory agency, and/or reconstruction by the contractor. The system must also function as designed and in compliance with applicable regulatory criteria. Any previously unforeseen activities which could compromise the function or maintainability of the system should be addressed immediately.

4.02 POLLUTION SOURCE CONTROLS ON CONSTRUCTION SITES **(SW BMP 2.04)**

Definition

Minimizing nonpoint source pollution from construction sites through good management and "housekeeping" techniques.

Purpose

To reduce the availability of construction-related pollutants which can contaminate runoff water and, where runoff contamination cannot be avoided, to retain pollutants and polluted water on the site.

Conditions Where Practice Applies

This practice applies to all construction projects. The level of planning and management necessary to control nonpoint source pollution adequately is dependent upon the size and complexity of the construction site.

Planning Considerations

Construction activities, by their nature, create many sources of potential pollutants which can contaminate runoff and thereby affect the quality of downstream receiving waters. Accelerated erosion and sedimentation caused by land-disturbing activities are the major pollution problems caused by construction.

There are, however, many other potential pollutants associated with construction activities such as gasoline, oils, grease, paints, cements, and solvents, to name only a few. Even relatively non-toxic materials such as paper and cardboard can be classified as potential pollutants when they are washed into streams and lakes.

The best way to prevent nonpoint source pollution on construction sites is to use "good housekeeping" practices, which usually entails simply maintaining the site in a neat and orderly condition. Specific practices should be employed to retain runoff and to deal with toxic substances and materials. An overall plan for the control of nonpoint source pollution is advisable so that control measures can be specified and implemented effectively.

Following are some elements which should be considered in **nonpoint** source pollution control planning on a construction site:

1) Erosion and Sediment Controls

Practices which minimize erosion and retain sediment on site are effective in controlling many other nonpoint source pollutants associated with construction activities as well. Development and implementation of a good erosion and sediment control plan is a key factor in controlling nonpoint source pollutants other than sediment on a construction site.

2) Equipment Maintenance and Repair

Maintenance and repair of construction machinery and equipment should be confined to areas specifically designated for that purpose. Such areas should be located and designed so that oils, gasoline, grease, solvents and other potential pollutants cannot be washed directly into receiving streams, stormwater conveyance systems, or existing and potential wellfields. These areas should be provided with adequate waste disposal receptacles for liquid and solid wastes. Maintenance areas should be inspected and cleaned daily.

On a construction site where designated equipment maintenance areas are not feasible, exceptional care should be taken during each individual repair or maintenance operation to prevent potential pollutants from becoming available to be washed into streams or conveyance systems. Temporary waste disposal receptacles should be provided and emptied as required.

3) Storm Sewer Inlet Protection

Inlets to storm sewers should be protected by suitable filtering devices during construction to keep pollutants from entering conveyance systems. See STORM DRAIN INLET PROTECTION - Section 4.08 (ES BMP 1.08).

4) Waste Collection and Disposal

A plan should be formulated for the collection and disposal of waste materials on a construction site. Such a plan should designate locations for trash and waste receptacles and establish a specific collection schedule. Methods for ultimate disposal of waste should be specified and carried out according to applicable local and state health and safety regulations. Special provisions should be made for the collection, storage, and disposal of liquid wastes and toxic or hazardous materials.

Receptacles and other waste collection areas should be kept neat and orderly to the extent possible. Trash cans should have lids and dumpsters should have covers to prevent rainwater from entering. Waste should not be allowed to overflow its container or accumulate for excessively long periods of time. Trash collection points should be located where they will least likely be affected by concentrated stormwater runoff.

5) Demolition Areas

Demolition projects usually generate large amounts of dust with significant concentrations of heavy metals and other toxic pollutants. Dust control techniques should be used to limit the transport of the airborne pollutants. However, water or slurry used to control dust should be retained on the site and not be allowed to run directly into watercourses or stormwater conveyance systems.

6) Washing Areas

Vehicles such as cement or dump trucks and other construction equipment should not be washed at locations where the runoff will flow directly into a watercourse or stormwater conveyance system. Special areas should be designated for washing vehicles. These areas should be located where the wash water will spread out and evaporate or infiltrate directly into the ground, or where the runoff can be collected in a temporary holding or seepage basin. Wash areas should have gravel bases to minimize mud generation.

7) **Storage of Construction Materials, Chemicals, Etc.**

Sites where chemicals, cements, solvents, paints, or other potential water pollutants are to be stored, should be isolated in areas where they will not cause runoff pollution. Toxic chemicals and materials, such as pesticides, paints, and acids, should be stored according to manufacturers' guidelines. Overuse should be avoided and great care should be taken to prevent accidental spillage. Containers should never be washed in or near flowing streams or stormwater conveyance systems. Groundwater resources should be protected from leaching by placing a plastic mat, tar paper, or other impervious materials on any areas where toxic liquids are to be opened and stored.

8) **Sanitary Facilities**

All construction sites should be provided with adequate sanitary facilities for workers according to applicable health regulations.

9) **Dust Control**

The use of calcium chloride, oils, or other chemical dust control agents on construction roads should be avoided. Periodic watering of these areas is a preferred alternative.

10) **Dewatering**

Many improvements such as underground utilities, foundations, and stormwater management facilities require removal and disposal of water from excavations. A detailed discussion of this practice follows in DEWATERING - Section 4.40.

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4.03 TEMPORARY GRAVEL CONSTRUCTION ENTRANCE & EXIT **(ES BMP 1.01)**

Definition

A stone stabilized pad located at points of vehicular ingress and egress on a construction site.

Purpose

To stabilize entrances to the construction site and reduce the amount of sediment transported onto public roads by motor vehicles or runoff.

Conditions Where Practice Applies

Wherever traffic will be leaving a construction site and moving directly onto a public road or other paved area.

Planning Considerations

Construction entrances provide an area where mud can be removed from construction vehicle tires before they enter a public road. If the action of the vehicle traveling over the gravel pad is not sufficient to remove most of the mud, then the tires must be washed before the vehicle enters a public road. If washing is used, provisions must be made to intercept the wash water and trap the sediment before it is carried off-site. Construction entrances should be used in conjunction with the stabilization of construction roads to reduce the amount of mud picked up by construction vehicles.

Design Criteria

Aggregate Size

FDOT No. 1 Coarse Aggregate (1.5 - 3.5 inch stone)(4 - 9 cm) should be used. Wood chips may be used for single family residential construction, provided that they can be prevented from floating away in a storm.

Entrance Dimensions

The aggregate layer must be at least 6 inches (15 cm) thick. It must extend the full width of the vehicular ingress and egress area. The length of the entrance must be at least 50 feet (20 m). The entrance must widen at its connection to the roadway in order to accommodate the turning radius of large trucks. (See Plate 4.03a)

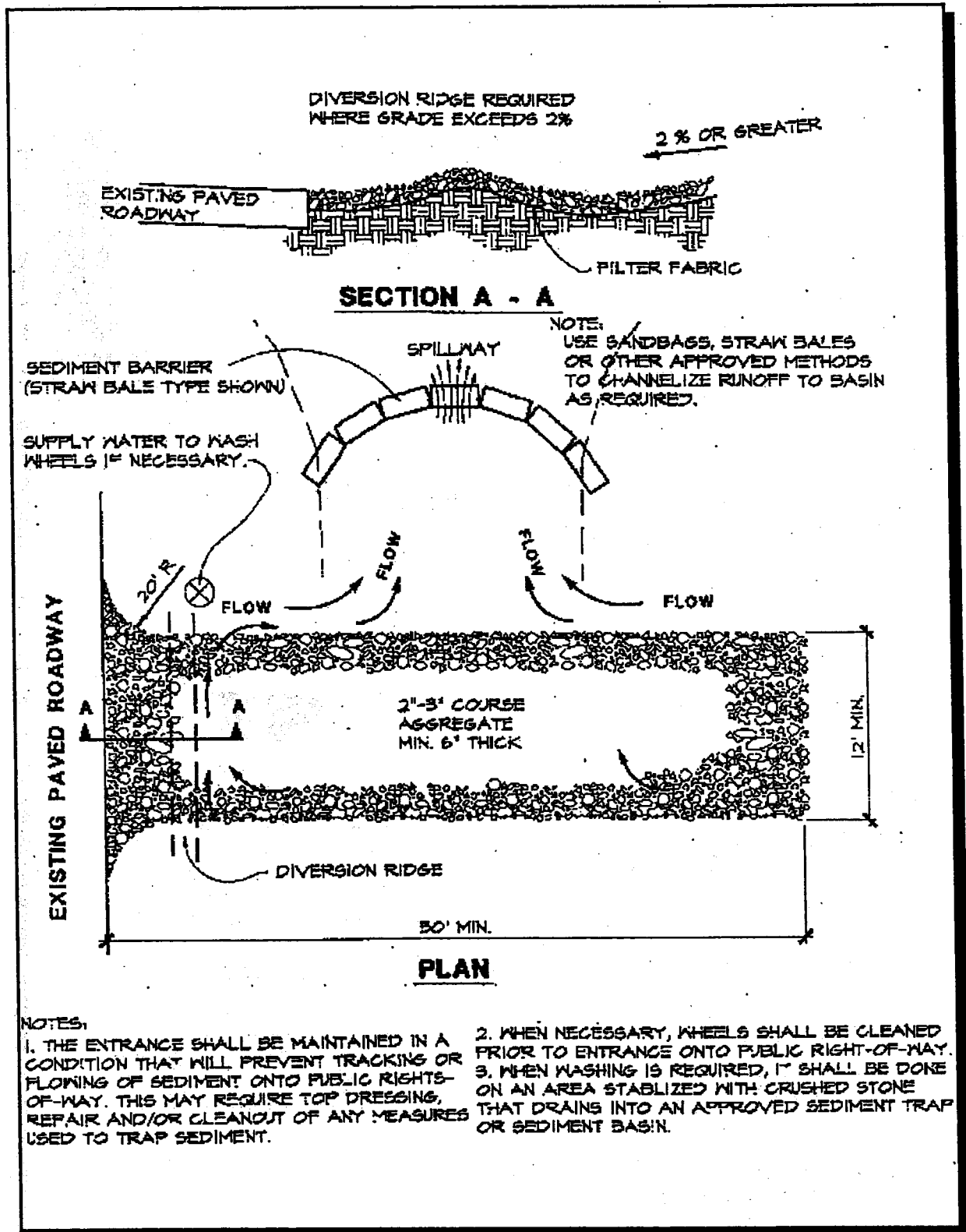


Plate 4.03a Temporary Gravel Construction Entrance

Source: Erosion Draw

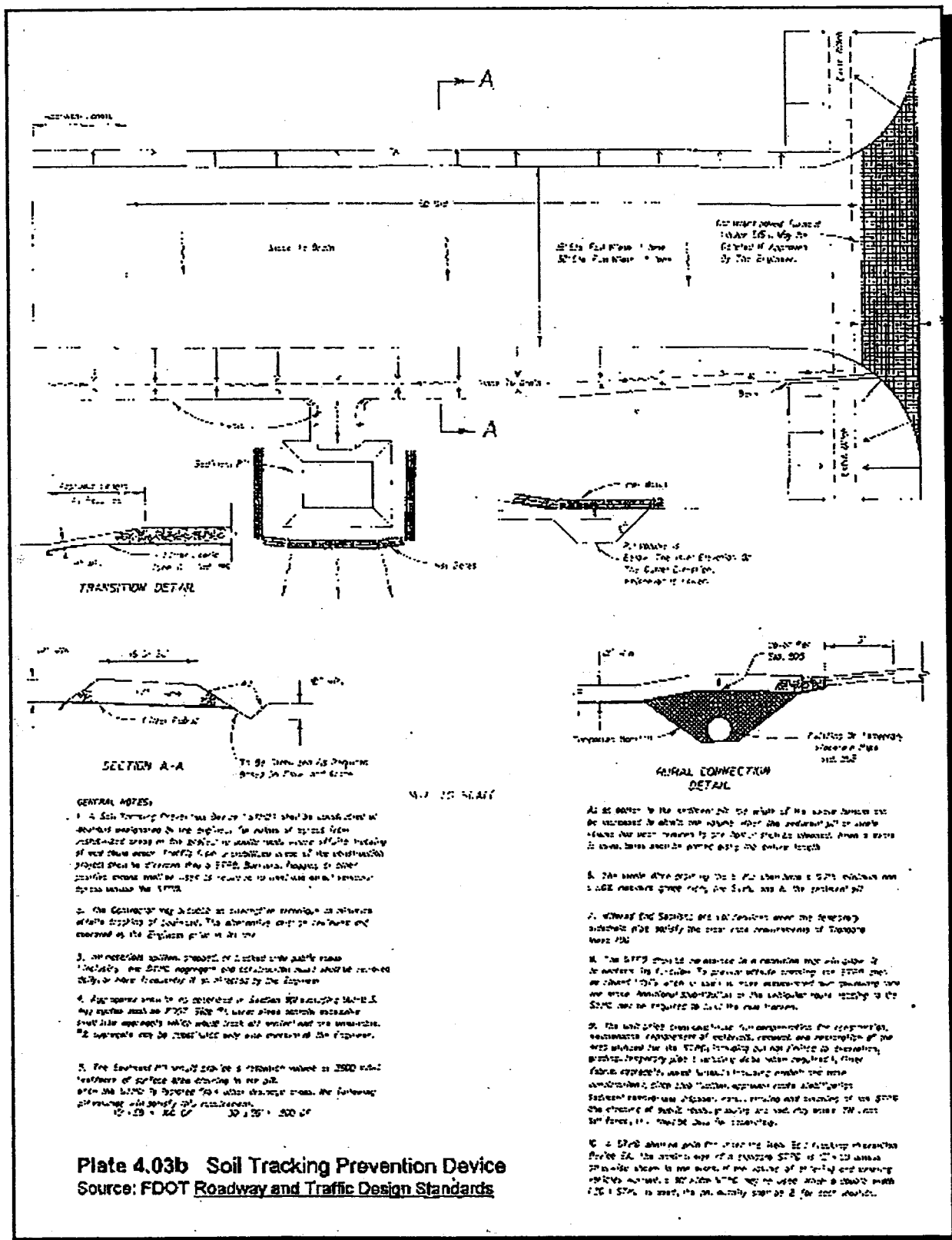


Plate 4.03b Soil Tracking Prevention Device
Source: FDOT Roadway and Traffic Design Standards

Plate 4.03b Soil Tracking Prevention Device
Source: FDOT Roadway and Traffic Design Standards

Washing

If conditions on the site are such that most of the mud is not removed by the vehicles traveling over the gravel, then the tires of the vehicles must be washed before entering a public road. Wash water must be carried away from the entrance to a settling area to remove sediment (See Plate 4.03b). A wash rack may also be used to make washing more convenient and effective (See Plate 4.03c).

Location

The entrance should be located to provide for maximum utility by all construction vehicles.

Construction Specifications

The area of the entrance should be cleared of all vegetation, roots, and other objectionable material. A geotextile should be laid down to improve stability and simplify maintenance. The gravel shall then be placed over the geotextile to the specified dimensions.

Any drainage facilities required because of washing should be constructed according to approved specifications. If wash racks are used, they should be installed according to manufacturer's specifications.

Maintenance

The entrance shall be maintained in a condition which will prevent tracking or flow of mud onto public rights-of-way. This may require periodic top dressing with 2-inch (5 cm) stone, as conditions demand, and repair and/or clean out of any structures used to trap sediments. All materials spilled, dropped, washed, or tracked from vehicles onto roadways or into storm drains must be removed immediately. Look for signs of trucks and trailered equipment "cutting corners" where the gravel meets the roadway. Sweep the paved road daily for sediments and stone.

Plate 4.03c Construction Entrance with Wash Rack

Source: 1983 Maryland Standards for Soil Erosion and Sediment Control

4.04 CONSTRUCTION ROAD STABILIZATION **(ES BMP 1.02)**

Definition

The temporary stabilization of access roads, subdivision roads, parking areas, and other on-site vehicle transportation routes with stone immediately after grading.

Purposes

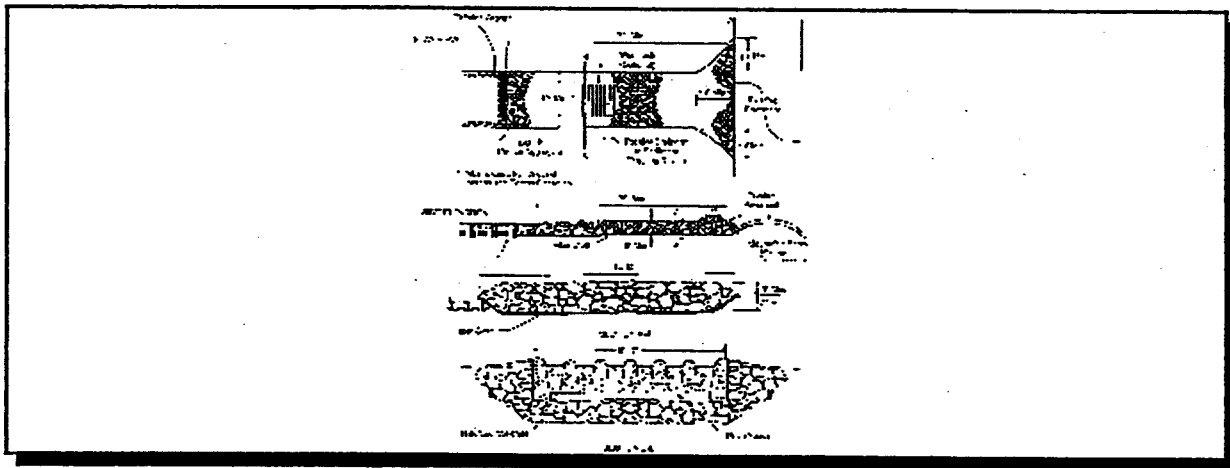
1. To reduce the erosion and degradation of temporary roadbeds by construction traffic, especially during wet weather.
2. To reduce the erosion and minimize regrading of permanent roadbeds between the time of initial grading and final stabilization.

Conditions Where Practice Applies

Wherever stone-base roads or parking areas are constructed, whether permanent or temporary, for use by construction traffic.

Planning Considerations

Areas which are graded for construction vehicle transport and parking purposes are especially susceptible to erosion. The exposed soil surface is continually disturbed, leaving no opportunity for vegetative stabilization. Such areas also tend to collect and transport runoff waters along their surfaces. During wet weather, they often become muddy quagmires which generate significant quantities of sediment that may pollute nearby streams or be transported off-site on the wheels of construction vehicles. Dirt roads can become so unstable during wet weather that they are virtually unusable.



Permanent roads and parking areas should be paved as soon as possible after grading. However, it is understandable that funds for this purpose may not be available in the early phases of the development project. As an alternative, the early application of stone may solve potential erosion and stability problems and eliminate later regrading costs. Immediate stabilization of such areas with stone may cost more money initially, but it may actually save money over the life of the project by increasing the usefulness of the road during wet weather. Some of the stone will also probably remain in place for use as part of the final base course of the road, thereby offsetting the initial expenditure.

Specifications

Temporary Access Roads and Parking Areas

1. Temporary roads shall follow the contour of the natural terrain to the extent possible. Slopes should not exceed 10 percent.
2. Temporary parking areas should be located on naturally flat areas to minimize grading. Grades should be sufficient to provide drainage but should not exceed 4 percent.
3. Roadbeds shall be at least 14 feet (5.5 m) wide for one-way traffic and 20 feet (8 m) wide for two-way traffic.
4. All cuts and fills shall have side slopes that are stable for the particular soil. Slopes of 2:1 or flatter are recommended for clay soils, and slopes of 3:1 or flatter are recommended for sandy soils.
5. Stormwater system shall be provided as needed and shall be designed and constructed according to applicable regulations.
6. The roadbed or parking surface shall be cleared of all vegetation, roots, and other objectionable material.
7. A 6 inch (15 cm) course of FDOT No. 1 aggregate shall be applied immediately after grading or the completion of utility installation within the right-of-way. Filter fabric may be applied to the roadbed for additional stability according to the fabric manufacturer's specifications.

Permanent Roads and Parking Areas

Permanent roads and parking areas shall be designed and constructed according to applicable FDOT or local criteria except that an initial base course of gravel of at least 6 inches (15 cm) shall be applied immediately following grading.

Vegetation

All roadside ditches, cuts, fills and disturbed areas adjacent to parking areas and roads shall be stabilized with appropriate temporary or permanent vegetation according to the applicable

vegetative practices contained in this handbook.

Maintenance

Both temporary and permanent roads and parking areas may require periodic top dressing with new gravel. Seeded areas adjacent to the roads and parking areas should be checked periodically to insure that a vigorous stand of vegetation is maintained. Roadside ditches and other drainage structures should be checked regularly to insure that they do not become clogged with silt or other debris.

4.05 STRAW BALE BARRIER

(ES BMP 1.05)

Definition

A temporary sediment barrier consisting of a row of entrenched and anchored straw bales.

Purposes

1. To intercept and detain small amounts of sediment from disturbed areas of limited extent.
2. To decrease the velocity of sheet flows and low-to-moderate level channel flows.

Conditions Where Practice Applies

1. Below disturbed areas subject to sheet and rill erosion.
2. Where the size of the drainage area is no greater than 1/4 acre per 100 feet (1.3 ha/100 m) of barrier length; the maximum slope length behind the barrier is 100 feet (30 m); and the maximum slope gradient behind the barrier is 50 percent (2:1).
3. In minor swales or ditch lines where the maximum contributing drainage area is no greater than 2 acres(0.8 ha).
4. Where effectiveness is required for less than 3 months.
5. Under no circumstances should straw bale barriers be constructed in streams or in swales where there is a possibility of a washout.

Planning Considerations

Improper use of straw bale barriers has been a major problem. Straw bale barriers have been used in streams and drainageways where high water velocities and volumes have destroyed or impaired their effectiveness. Improper placement and installation of the barriers, such as staking the bales directly to the ground with no soil seal or entrenchment, has allowed undercutting and end flow. This has resulted in additions instead of removal of sediment from runoff waters. Finally, inadequate maintenance lowers the effectiveness of these barriers. Trapping efficiencies of carefully installed straw bale barriers on one project in Virginia dropped from 57 percent to 16 percent in one month due to lack of maintenance.

There are serious questions about the continued use of straw bale barriers as they are presently installed and maintained. Averaging approximately \$3 to \$6 per linear foot installed (\$10 to \$20 / m) the thousands of straw bale barriers used annually in Florida represent sufficient expense that optimum installation procedures should be emphasized. If such procedures are carefully followed, straw bale barriers can be quite effective.

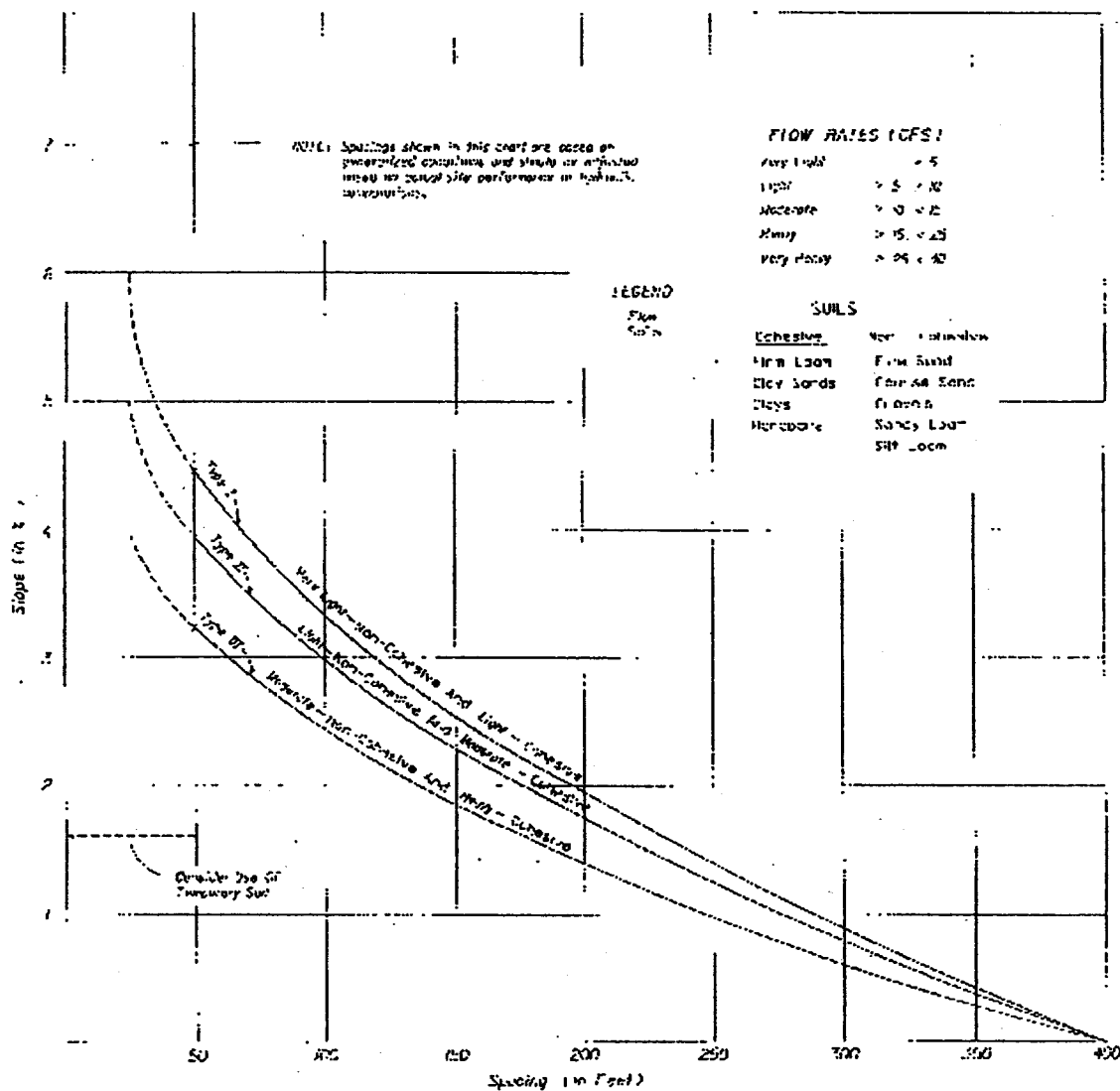


CHART I

RECOMMENDED SPACING FOR TYPE I AND TYPE II HAY BALE BARRIERS, AND TYPE III SILT FENCES

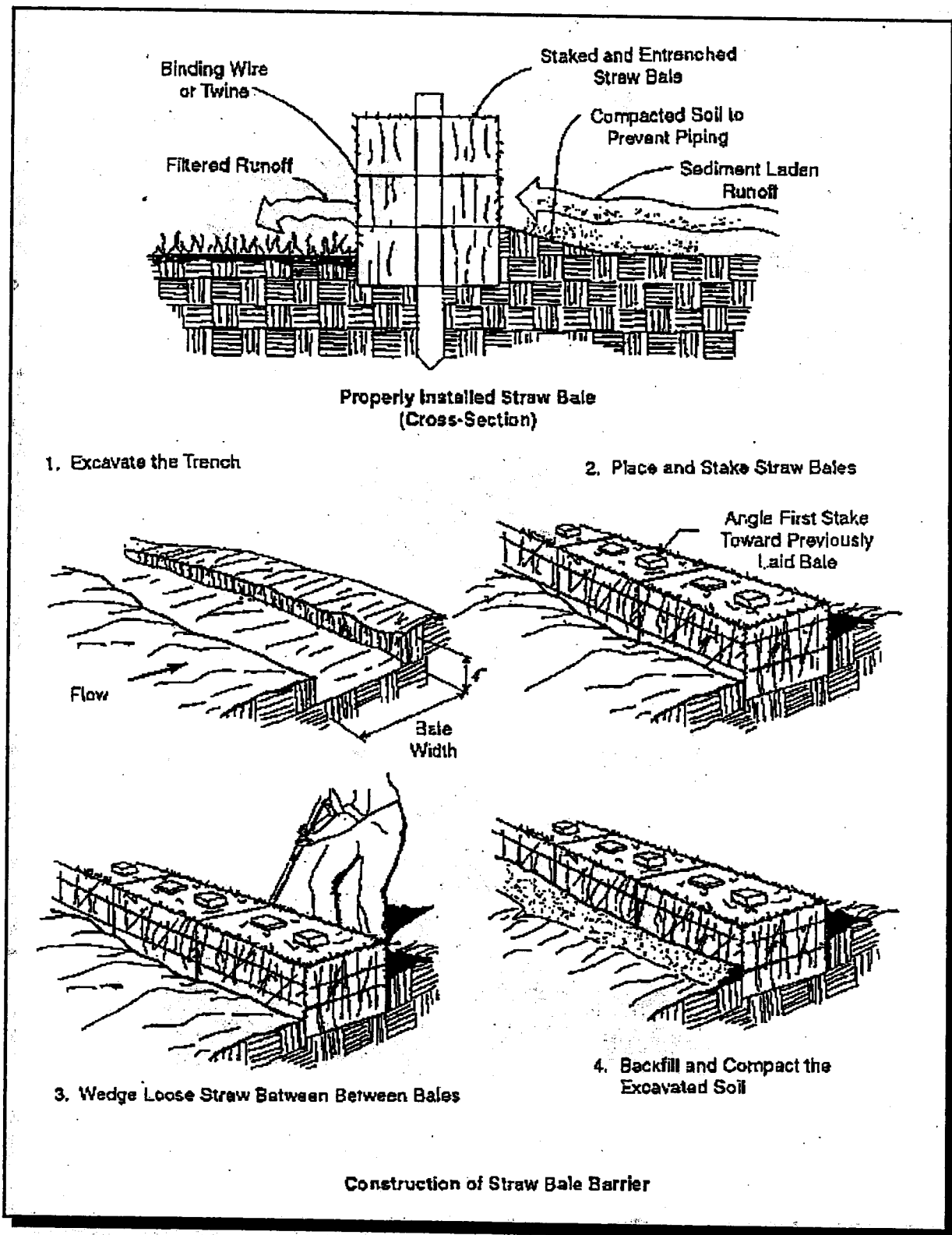


Plate 4.05b Construction of a Straw Bale Barrier

Source: NRCS

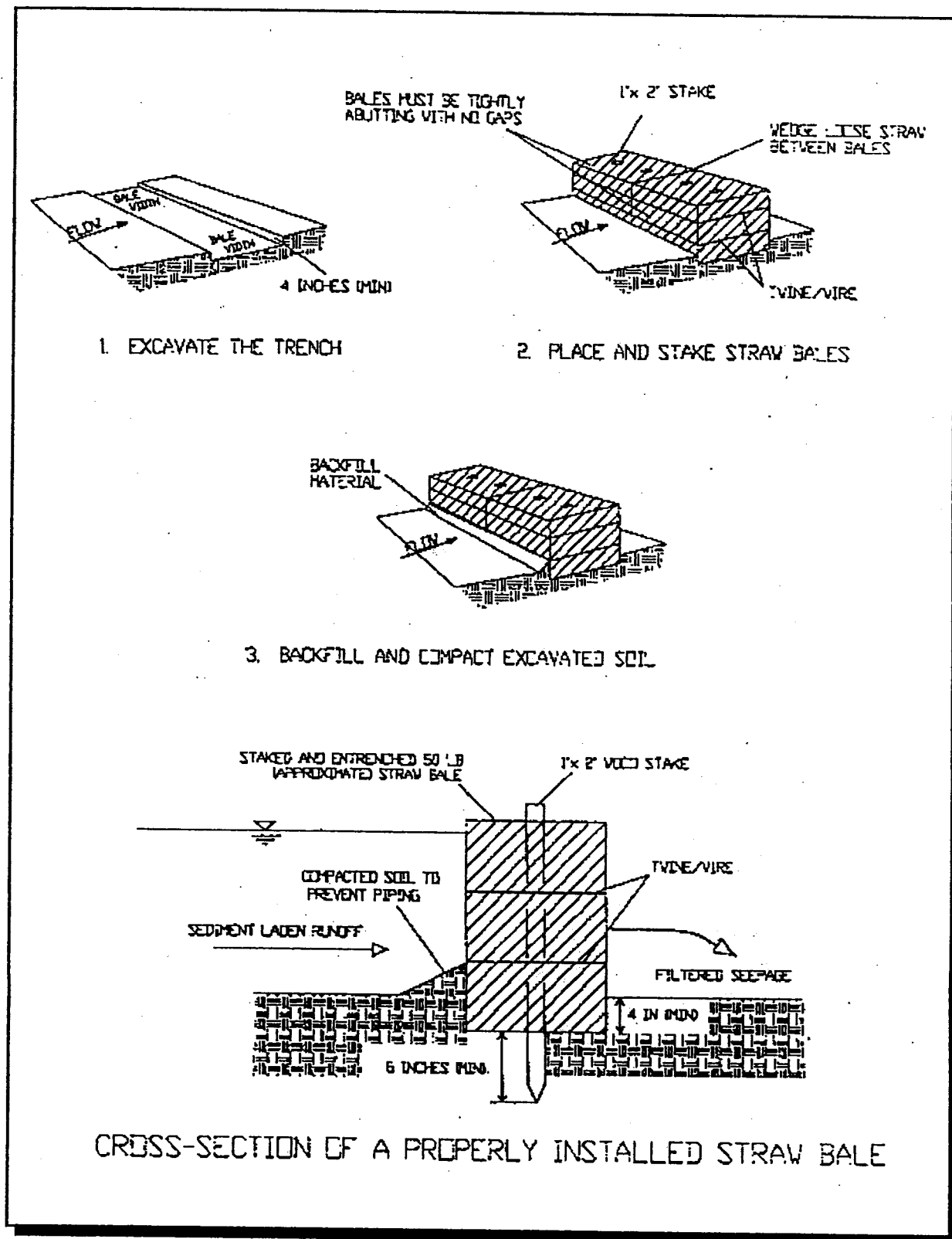


Plate 4.05c Installation of Straw Bales

Source: HydroDynamics, Inc.

Design Criteria

A formal design is not required for many small projects and for minor or incidental applications. For larger projects refer to Figure 4.05a (FDOT Standard Index 102, Chart 1) for guidance on recommended spacing.

Construction Specifications

Sheet Flow Applications

1. Bales shall be placed in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting each other.
2. All bales shall be either wire-bound or string-tied. Straw bales shall be installed so that bindings are oriented around the sides rather than along the tops and bottoms of the bales (in order to prevent deterioration of the bindings). (See Plate 4.05b)
3. The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches (10 cm). After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be built up to 4 inches (10 cm) against the uphill side of the barrier (See Plate 4.05c)
4. Each bale shall be securely anchored by at least two 2" x 2" (5 cm x 5 cm) minimum wooden stakes or two #5 (16 mm) minimum rebars at least 3 feet (0.9 m) driven through the bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes or rebars shall be driven deep enough into the ground to securely anchor the bales. Straw bale barriers placed on paved surfaces may be secured by placing heavy sand bags on top, and/or by bracing with 2 x 4's (5 x 10 cm). (See Plate 4.05d)
5. The gaps between bales shall be chinked (filled by wedging) with straw to prevent water from escaping between the bales. (See Plate 4.05b) Loose straw scattered over the area immediately uphill from a straw bale barrier tends to increase barrier efficiency.
6. When bales are installed at the toe of a slope, they should be placed away from the slope for increased storage capacity. (See Plate 4.05e)
7. Inspection shall be frequent and repair or replacement shall be made promptly as needed.
8. Straw bale barriers shall be removed when they have served their usefulness, but not before the upslope areas have been permanently stabilized.

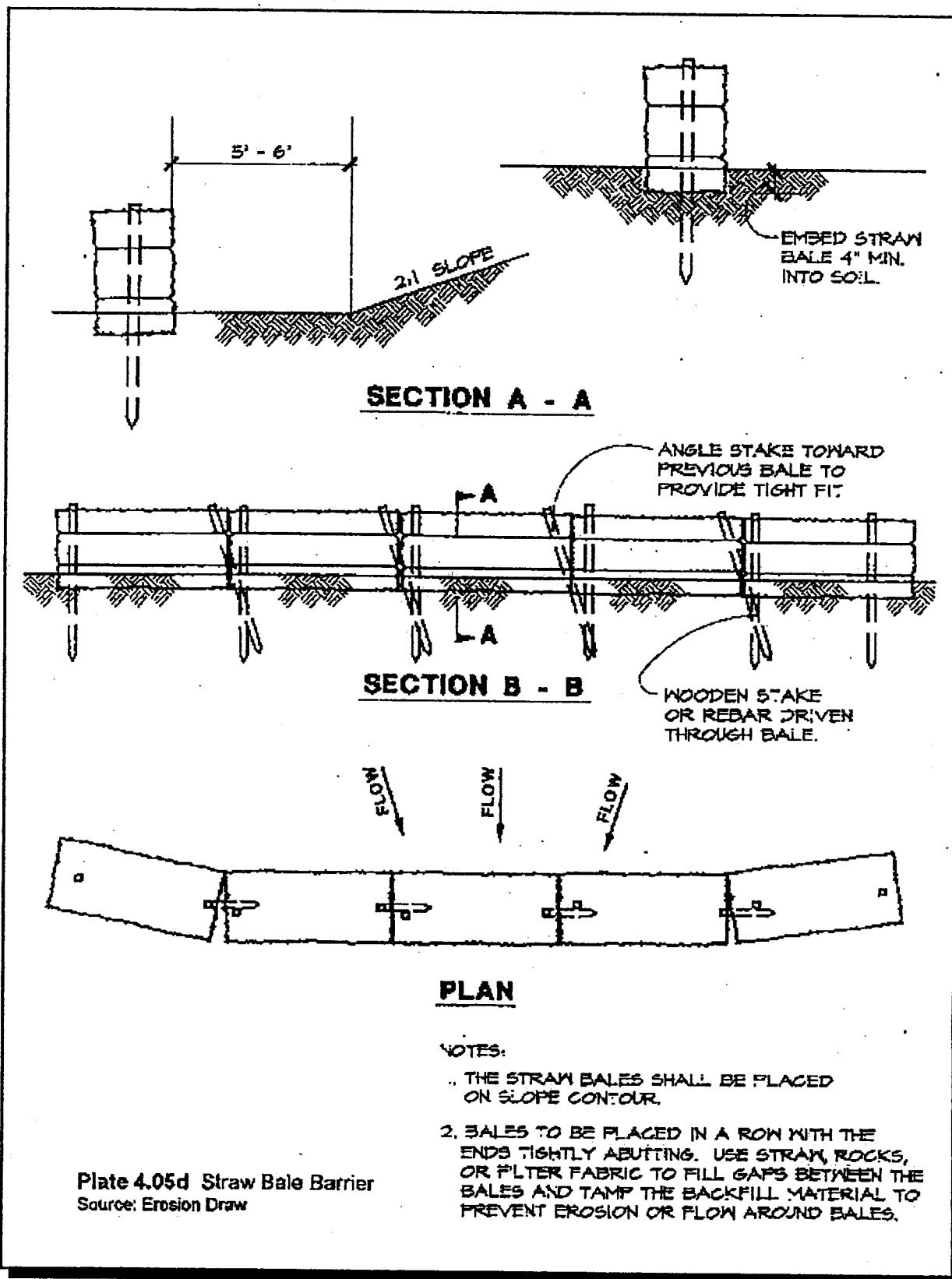


Plate 4.05d Straw Bale Barrier
Source: Erosion Draw

Plate 4.05d Straw Bale Barrier — Source: Erosion Draw

Channel Flow Applications

1. Bales shall be placed in a single row, lengthwise, oriented perpendicular to the contour, with ends of adjacent bales tightly abutting each other.
2. The remaining steps for installing a straw bale barrier for sheet flow applications apply here, with the following addition.
3. The barrier shall be extended to such a length that the bottoms of the end bales are higher in elevation than the top of the lowest middle bale to assure that sediment-laden runoff will flow either through or over the barrier, but not around it. (See Plate 4.05f)

Maintenance

1. Straw bale barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
2. Close attention shall be paid to the repair of damaged bales, end runs and undercutting beneath bales.
3. Necessary repairs to barriers or replacement of bales shall be accomplished promptly.
4. Sediment deposits should be removed after each rainfall. They must be removed when the level of deposition reaches approximately one-half the height of the barrier.
5. Any sediment deposits remaining in place after the straw bale barrier is no longer required shall be dressed to conform to the existing grade, prepared, and seeded.

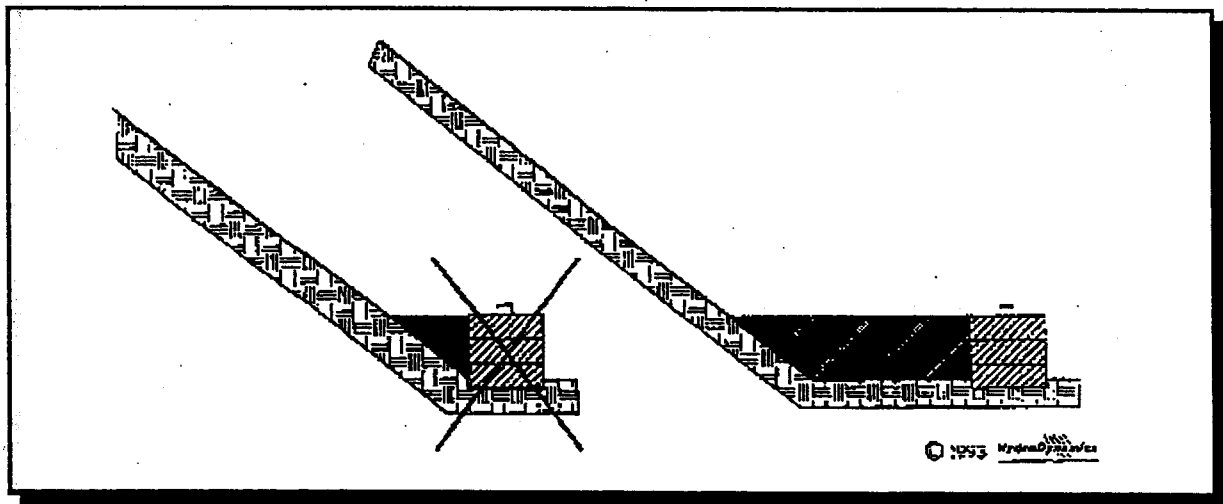
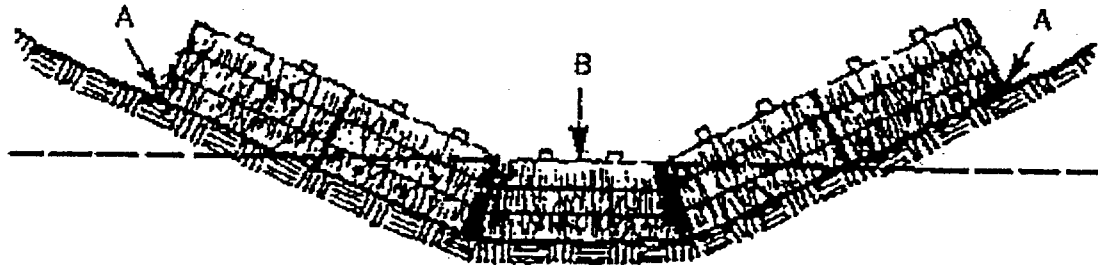


Plate 4.05e Proper Placement of Straw Bales at the Toe of a Slope – Source: HydroDynamics, Inc.



Points A Should be Higher than Point B

PROPER PLACEMENT OF STRAW BALE BARRIER IN DRAINAGE WAY

Plate 4.05f Proper Placement of Straw Bale Barrier in a Drainage Way

Source: Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant

4.06 SILT FENCE **(ES BMP 1.06)**

Definition

A temporary sediment barrier consisting of a filter fabric stretched across and attached to supporting posts and entrenched. There are two types. The silt fence is a temporary linear filter barrier constructed of synthetic filter fabric, posts, and, depending upon the strength of the fabric used, wire fence for support. The filter barrier is constructed of stakes and burlap or synthetic filter fabric.

Purposes

1. To intercept and detain small amounts of sediment from disturbed areas during construction operations.
2. To decrease the velocity of sheet flows and low-to-moderate level channel flows.

Conditions When Practice Applies

1. Below disturbed areas where erosion would occur in the form of sheet and rill erosion.
2. Where the size of the drainage area is no more than 1/4 acre per 100 feet (1.3 ha /100 m) of silt fence length; the maximum slope length behind the barrier is 100 feet (30 m); and the maximum gradient behind the barrier is 50 percent (2:1).
3. In minor swales or ditch lines where the maximum contributing drainage area is no greater than 2 acres (0.8 ha).
4. Under no circumstances should silt fences be constructed in live streams or in swales or ditch lines where flows are likely to exceed one cubic foot per second (cfs)(0.03 m³ / sec.). See Design Criteria for further clarification.

Planning Considerations

Silt fences can trap a much higher percentage of suspended sediments than can straw bales and may be preferable to straw barriers in many cases. While the failure rate of silt fences is lower than that of straw barriers, this failure rate is still due mainly to improper installation. The most effective application is to install two parallel silt fences spaced a minimum of three feet apart. The installation and maintenance methods outlined here can improve performance.

Filter barriers are inexpensive structures composed of burlap or standard weight synthetic filter fabric stapled to wooden stakes. Flow rates through burlap filter barriers are slightly slower and filtering efficiency is significantly higher than for straw bale barriers.

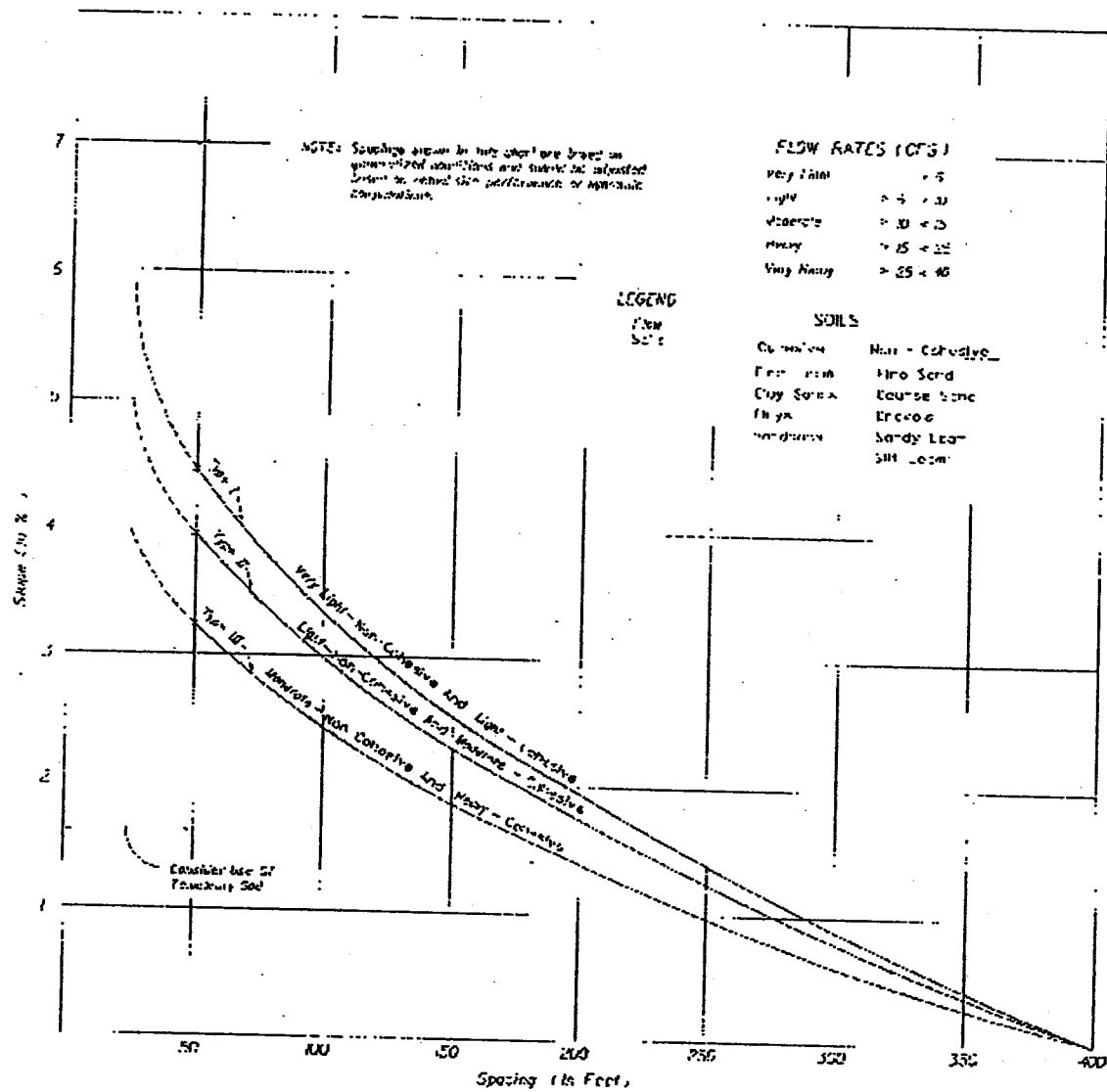


CHART I
RECOMMENDED SPACING FOR TYPE I AND TYPE II HAY BALE BARRIERS, AND TYPE III SILT FENCES

Plate 4.06a FDOT Standard Index 102, Chart 1

Source: FDOT Roadway and Traffic Design Standards

Silt fences composed of a wire support fence and an attached synthetic filter fabric slow the

flow rate significantly but have a higher filtering efficiency than burlap. Both woven and non-woven synthetic fabrics are commercially available. The woven fabrics generally display higher strength than the non-woven fabrics. When tested under acid and alkaline water conditions, most of the woven fabrics increase in strength. There are a variety of reactions among the non-woven fabrics. The same is true of testing under extensive ultraviolet radiation. Permeability rates vary regardless of fabric type. While all of the fabrics demonstrate very high filtering efficiencies for sandy sediments, there is considerable variation among both woven and non-woven fabrics when filtering the finer silt and clay particles.

Design Criteria

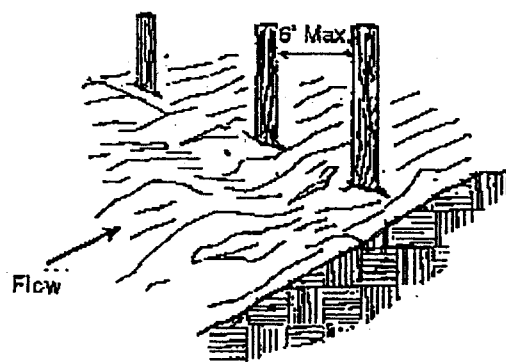
1. No formal design is required for many small projects and for minor and incidental applications. For channel flow applications refer to FDOT Standard Index 102, Chart 1 (Plate 4.06a) for guidance on recommended spacing.
2. Filter barriers shall have an expected usable life of 3 months. They are applicable in ditch lines, around drop inlets, and at temporary locations where continuous construction changes the earth contour and runoff characteristics and where low or moderate flows (not exceeding 1 cfs) ($0.03 \text{ m}^3 / \text{sec.}$) are expected.
3. Silt fences, because they have much lower permeability than burlap filter barriers, have their applicability limited to situations in which only sheet or overland flows are expected. They normally cannot filter the volumes of water generated by channel flows, and many fabrics do not have sufficient structural strength to support the weight of water ponded behind the fence line. Their expected usable life is 6 months.

Construction Specifications

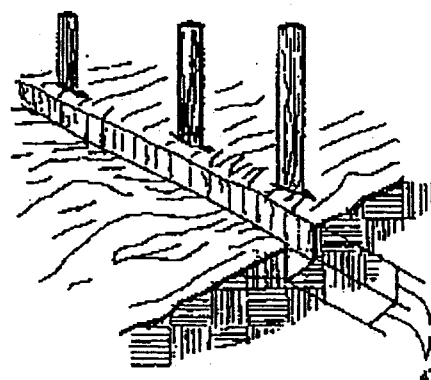
Materials

1. Synthetic filter fabric shall be a pervious sheet of propylene, nylon, polyester, or polyethylene yarn. Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of 6 months of expected usable construction life at a temperature range of 0° F to 120° F (-17° C to 49° C).
2. Burlap shall be 10 ounces per square yard (340 g/m^2) fabric.
3. Posts for silt fences shall be either 4 inch (10 cm) diameter wood, or 1.33 pounds per linear foot (2 kg/m) steel with a minimum length of 5 feet (1.5 m). Steel posts shall have projections for fastening wire to them.
4. Stakes for filter barriers shall be 1" x 2" ($2.5 \times 5 \text{ cm}$) wood (preferred), or equivalent metal with a minimum length of 3 feet (90 cm).

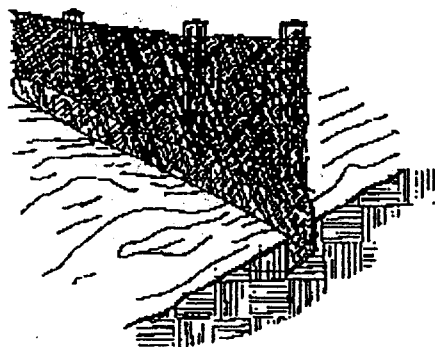
1. Set Stakes



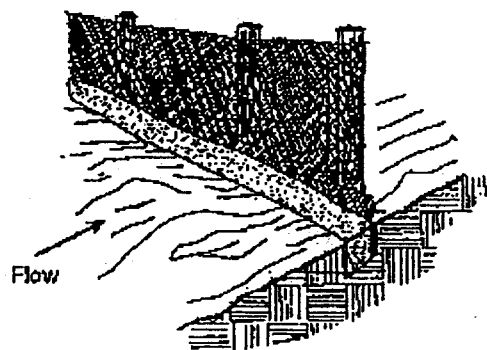
2. Excavate a 4" x 4" Trench Upslope Along the Line of Stakes



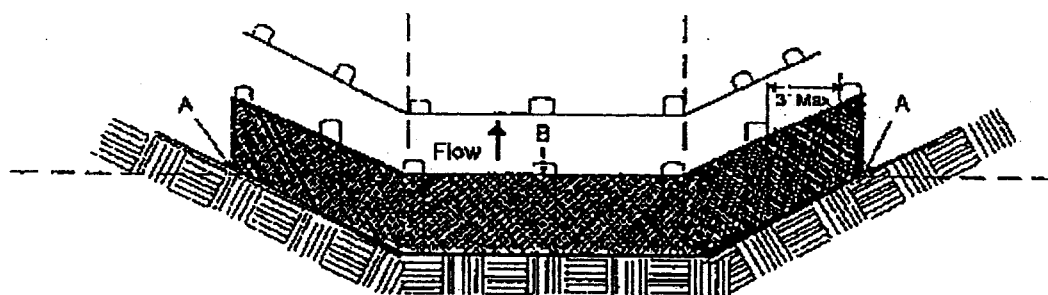
3. Staple Filter Material to Stakes and Extend it into the Trench



4. Backfill and Compact the Excavated Soil



Sheet Flow Installation
(Perspective View)



Points A Should be Higher than Point B

Drainage way Installation
(Front Elevation)

Plate 4.06b Construction of a Filter Barrier

Source: NRCS

5. Wire fence reinforcement for silt fences using standard strength filter cloth shall be a minimum of 36 inches (90 cm) in height, a minimum of 14 gauge and shall have a maximum mesh spacing of 6 inches (15 cm).

Sheet Flow Applications: Filter Barrier

This sediment barrier may be constructed using burlap or standard strength synthetic filter fabric. It is designed for low or moderate flows not exceeding 1 cfs. (0.03 m³ / sec.). (See Plate 4.06b)

1. The height of a filter barrier shall be a minimum of 15 inches (38 cm) and shall not exceed 18 inches (45 cm).
2. Burlap or standard strength synthetic filter fabric shall be purchased in a continuous roll and cut to the length of the barrier to avoid the use of joints (and thus improve the strength and efficiency of the barrier).
3. The stakes shall be spaced a maximum of 3 feet (90 cm) apart at the barrier location and driven securely into the ground a minimum of 8 inches (20 cm).
4. A trench shall be excavated approximately 4 inches (10 cm) wide and 4 inches (10 cm) deep along the line of stakes and upslope from the barrier.
5. The filter material shall be stapled to the wooden stakes, and 8 inches (20 cm) of the fabric shall be extended into the trench. Heavy duty wire staples at least 1/2 inch (13 mm) long, hog rings, or tie wire shall be used. Filter material shall not be stapled to existing trees.
6. The trench shall be backfilled and the soil compacted over the filter material.
7. Filter barriers shall be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized.

Sheet Flow Application: Silt Fence

This sediment barrier uses standard strength or extra strength synthetic filter fabrics. It is designed for situations in which only sheet or overland flows are expected. (See Plate 4.06d)

1. The height of a silt fence shall not exceed 36 inches (90 cm). Higher fences may impound volumes of water sufficient to cause failure of the structure.
2. The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, filter cloth shall be spliced as described in item No. 8 below.

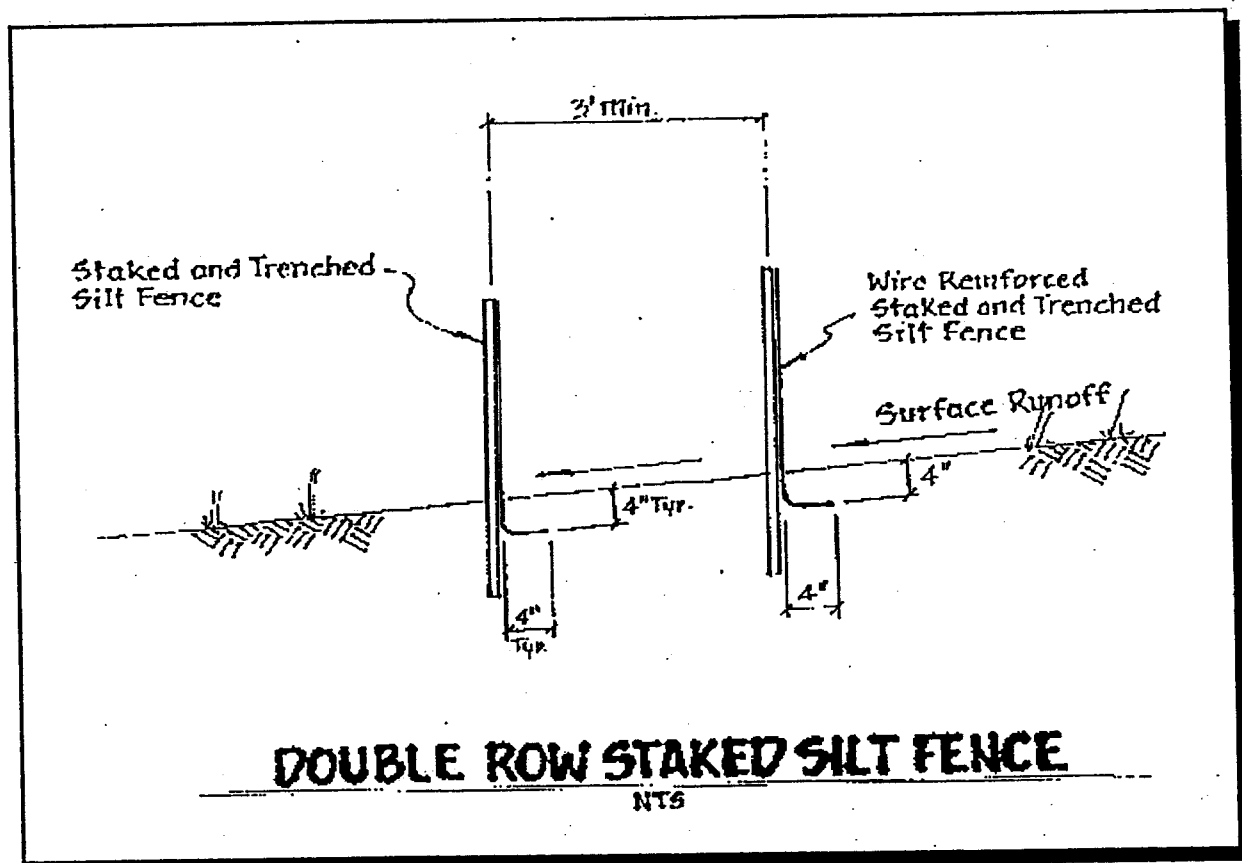


Plate 4.06c Double Row Staked Silt Fence

Source: Reedy Creek Improvement District

3. Posts shall be spaced a maximum of 10 feet (3 m) apart at the barrier location and driven securely into the ground a minimum of 12 inches (30 cm). When extra strength fabric is used without the wire support fence, post spacing shall not exceed 6 feet (1.8 m).
4. A trench shall be excavated approximately 4 inches (10 cm) wide and 4 inches (10 cm) deep along the line of posts and upslope from the barrier.
5. When standard strength filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire staples at least 1 inch (25 mm) long, tie wires, or hog rings. The wire shall extend into the trench a minimum of 2 inches (5 cm) and shall not extend more than 36 inches (90 cm) above the original ground surface.
6. The standard strength filter fabric shall be stapled or wired to the fence, and 8 inches (20 cm) of the fabric shall be extended into the trench. The fabric shall not extend more than 36 inches (90 cm) above the original ground surface.
7. When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric is stapled or

wired directly to the posts with all other provisions of item No. 6 applying.

8. When attaching two silt fences together, place the end post of the second fence inside the end post of the first fence. Rotate both posts at least 180 degrees on a clockwise direction to create a tight seal with the filter fabric. Drive both posts into the ground and bury the flap. (See Plate 4.06g)
9. The trench shall be backfilled and the soil compacted over the filter fabric.
10. The most effective application consists of a double row of silt fences spaced a minimum of three feet apart. The three foot separation is so that if the first row collapses it will not fall on the second row. Wire or synthetic mesh is may be used to reinforce the first row. (See Plate 4.06c)
11. When used to control sediments from a steep slope, silt fences should be placed away from the toe of the slope for increased holding capacity. (See Plate 4.06f)
11. Silt fences shall be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized.

Channel Flow Applications

1. If a filter barrier is to be constructed across a ditch line or swale, the barrier shall be of sufficient length such that the bottom of the end sections of fence are higher in elevation than the top of the center section to eliminate end flow. The plan configuration shall resemble an arc or horseshoe with the ends oriented upslope. (See Plate 4.06b).
2. Use FDOT Standard Index 102, Chart 1(Plate 4.06a) as a guide for spacing.
3. The remaining steps for installing a filter barrier for sheet flow applications apply here.

Maintenance

1. Silt fences and filter barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.
2. Should the fabric on a silt fence or filter barrier decompose or become ineffective before the end of the expected usable life and the barrier still be necessary, the fabric shall be replaced promptly.
3. Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately one-half the height of the barrier.

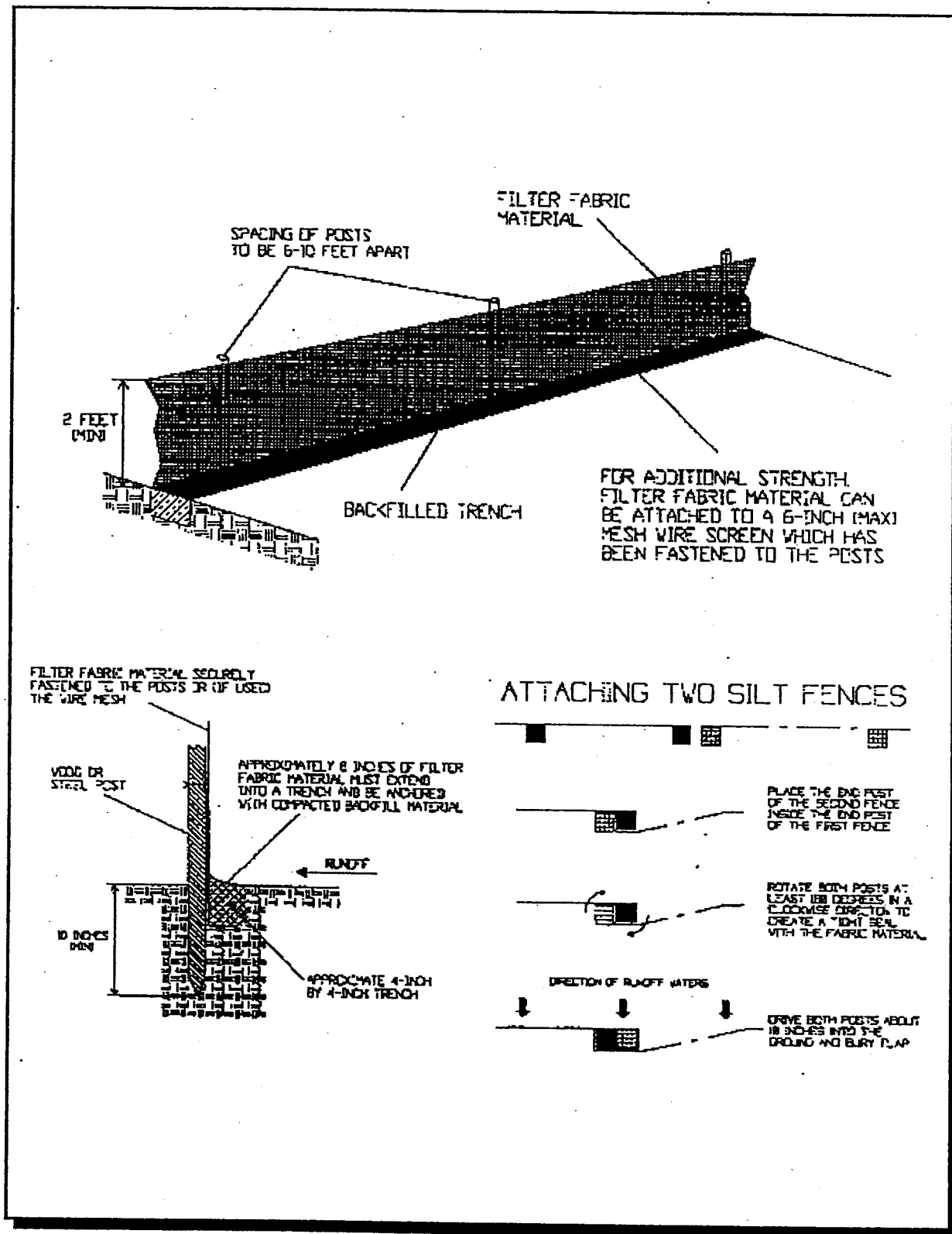


Plate 4.06d Installing a Filter Fabric Silt Fence

Source: HydroDynamics, Inc.

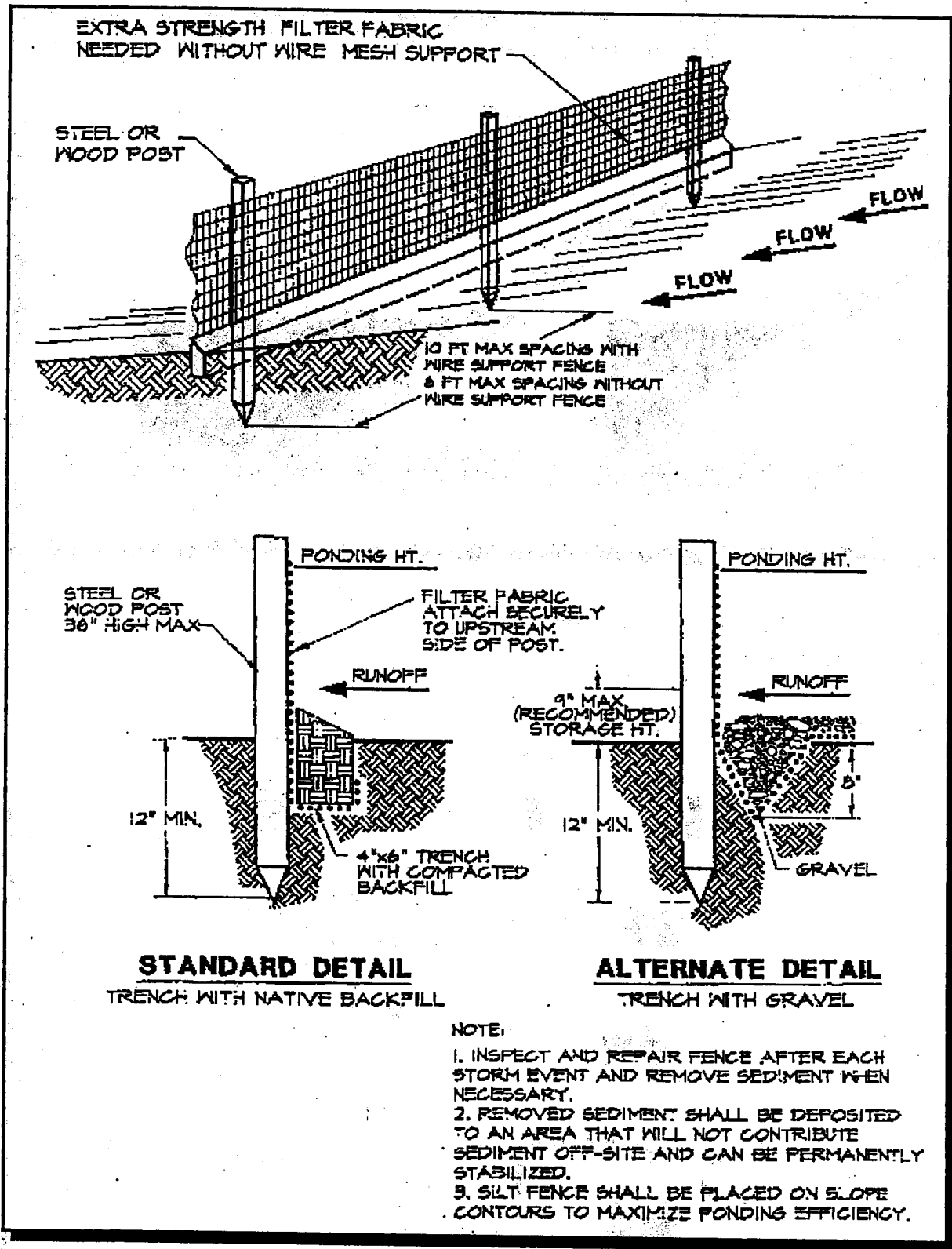


Plate 4.06e Silt Fence

Source: Erosion Draw

Chapter 4 - Best Management Practices for Erosion and Sediment Control

4. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform with the existing grade, prepared, and seeded.

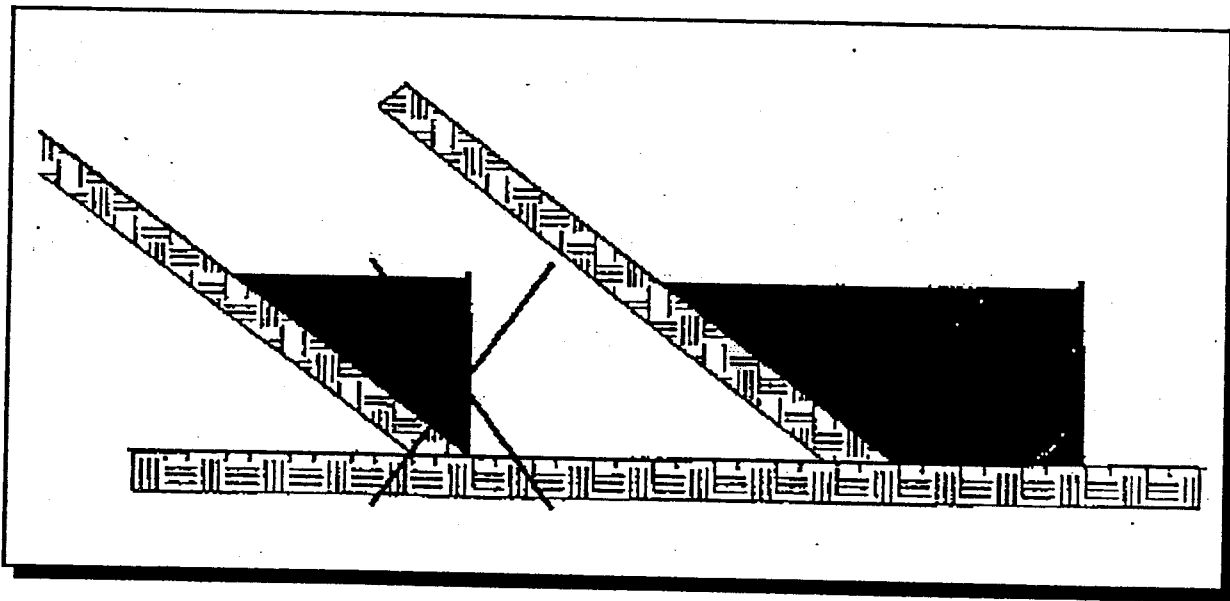


Plate 4.06f Proper Placement of a Silt Fence at the Toe of a Slope
Source: HydroDynamics, Inc

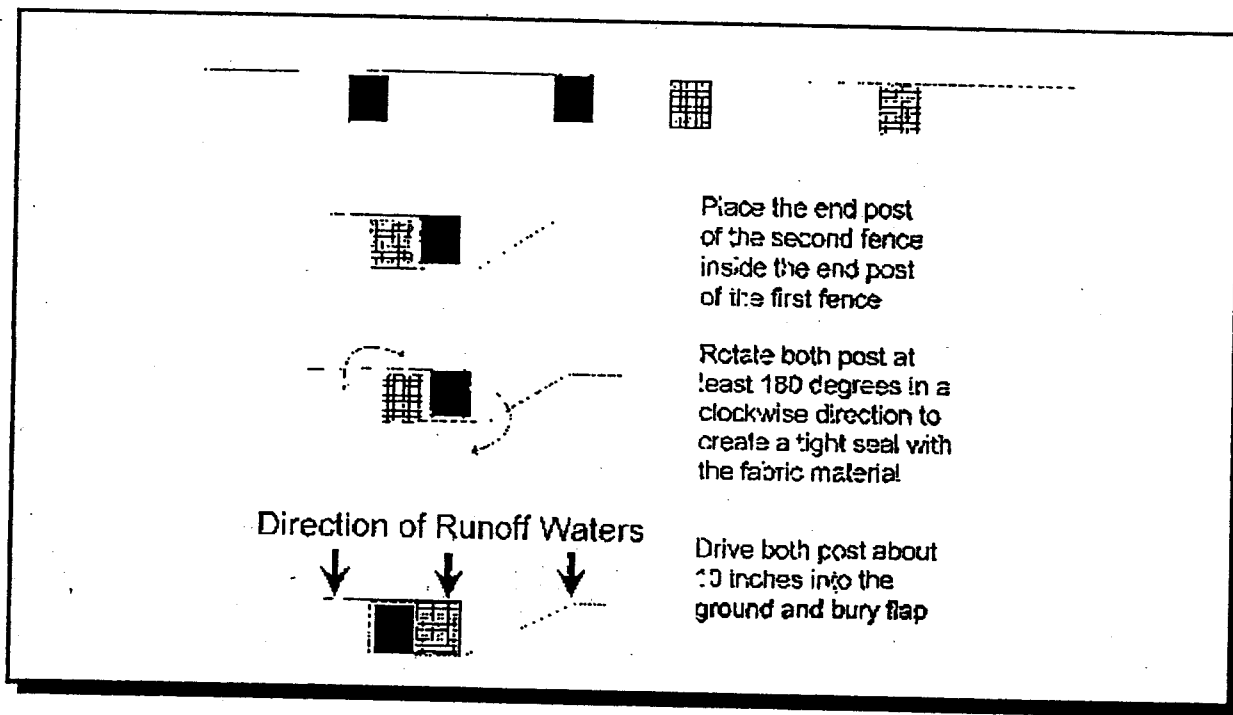


Plate 4.06g Attaching Two Silt Fences
Source: HydroDynamics, Inc.

4.07 BRUSH BARRIER

(ES BMP 1.07)

Definition

A temporary sediment barrier constructed at the perimeter of a disturbed area from the residue materials available from clearing and grubbing the site.

Purpose

To intercept and retain sediment from disturbed areas of limited extent, preventing sediment from leaving the site.

Conditions Where Practice Applies

Below disturbed areas subject to sheet and rill erosion, where enough residue material is available for construction of such a barrier.

Planning Considerations

Organic litter and spoil material from site clearing operations is usually burned or hauled away to be dumped elsewhere. Much of this material can be used effectively on the construction site itself. During clearing and grubbing operations, equipment can push or dump the mixture of limbs, small vegetation and root mat along with minor amounts of soil and rock into windrows along the toe of a slope where erosion and accelerated runoff are expected. Anchoring a filter fabric over the berm enhances the filtration ability of the barrier. Because brush barriers are fairly stable and composed of natural materials, maintenance requirements are small.

Design Criteria

A formal design is not required.

Construction Specifications

1. The height of a brush barrier shall be a minimum of 3 feet (90 cm).
2. The width of a brush barrier shall be a minimum of 5 feet (1.5 m) at its base. (The sizes of brush barriers may vary considerably based upon the amount of material available and the judgment of the design engineer.)
3. The barrier shall be constructed by piling brush, stone, root mat and other material from the clearing process into a mounded row on the contour.

If a filter fabric is used (Plate 4.07a):

4. The filter fabric shall be cut into lengths sufficient to lay across the barrier from its upslope base to just beyond its peak. Where joints are necessary, the fabric shall

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be spliced together with a minimum 6 inch (15 cm) overlap and securely sealed.

5. A trench shall be excavated 6 inches (15 cm) wide and 4 inches (10 cm) deep along the length of the barrier and immediately uphill from the barrier.
6. The lengths of filter fabric shall be draped across the width of the barrier with the uphill edge placed in the trench and the edges of adjacent pieces overlapping each other.
7. The filter fabric shall be secured in the trench with stakes set approximately 36 inches (90 cm) on center. Stakes shall be at least 12" (30 cm) long, 1" x 2" (25 mm x 50 mm) wood or #4 rebar (13 mm) minimum.
8. The trench shall be backfilled and the soil compacted over the filter fabric.
9. Set stakes into the ground along the downhill edge of the brush barrier, and anchor the fabric by tying twine from the fabric to the stakes.

Maintenance

1. Brush barriers shall be inspected after each rainfall and necessary repairs shall be made promptly.
2. Sediment deposits must be removed when they reach approximately one-half of the height of the barrier.

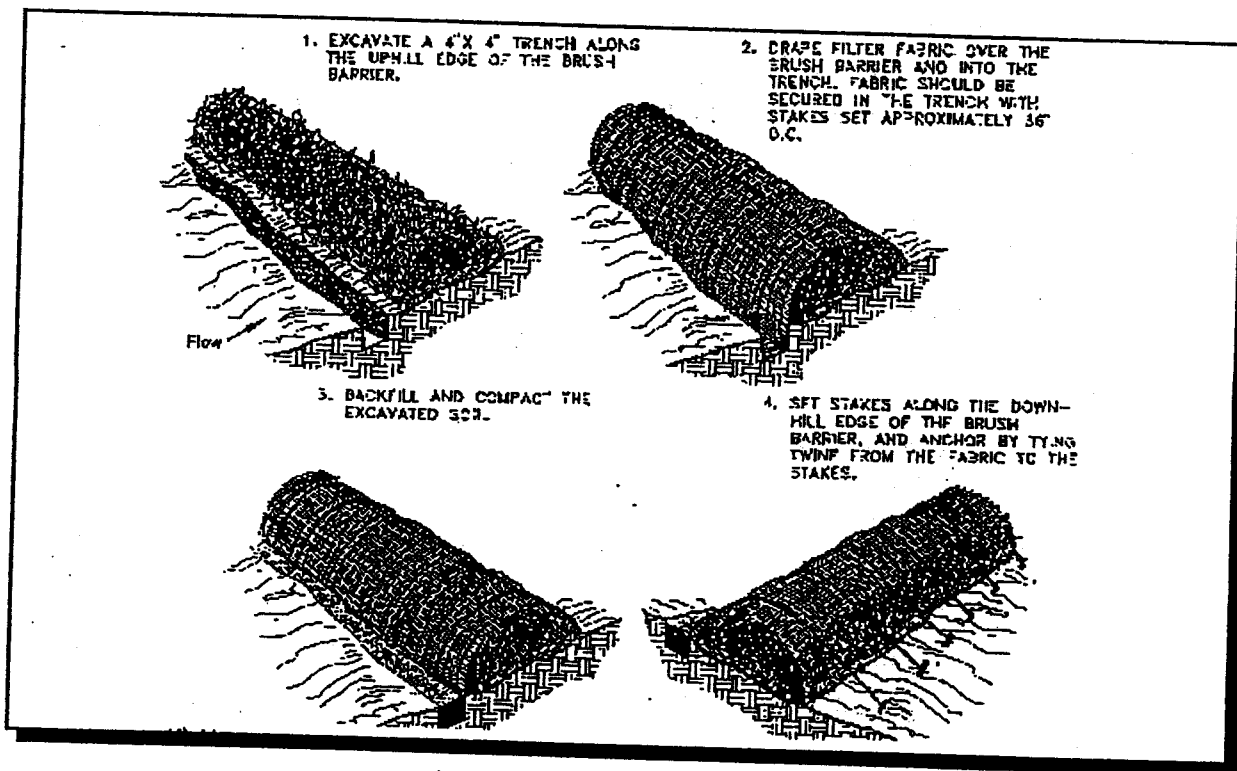


Plate 4.07a Construction of a Brush Barrier Covered with Filter Fabric -- Source: Virginia DSWC

4.08 STORM DRAIN INLET PROTECTION

(ES BMP 1.08)

Definition

A sediment filter or an excavated impounding area around a storm drain drop inlet or curb inlet.

Purpose

To prevent sediment from entering storm water conveyance systems prior to permanent stabilization of the disturbed area.

Condition Where Practice Applies

Where storm drain inlets are to be made operational before permanent stabilization of the disturbed drainage area. Different types of structures are applicable to different conditions (see Plates 4.08a through 4.08h).

Planning Considerations

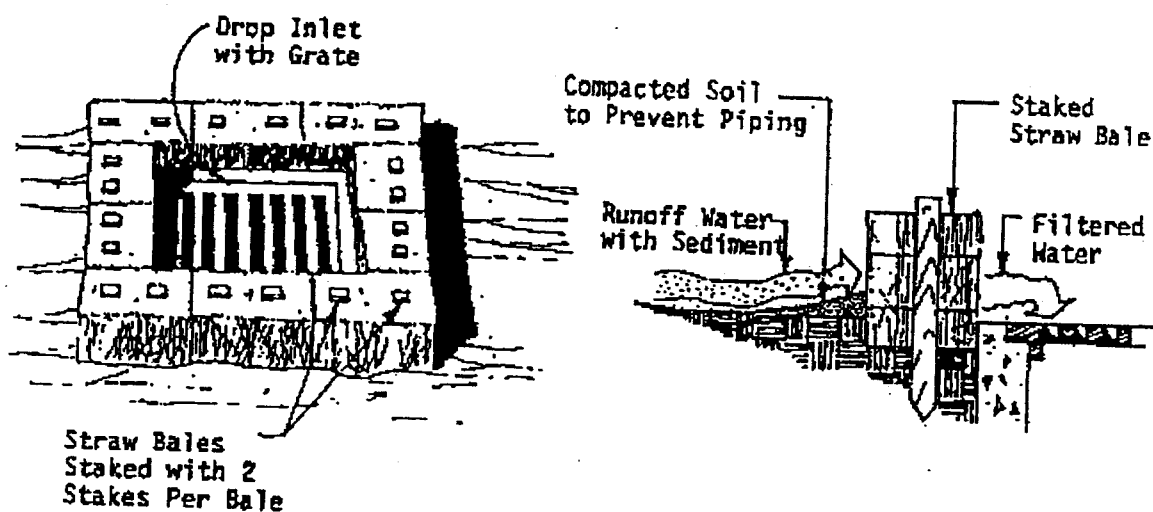
Storm sewers which are made operational before their drainage area is stabilized can convey large amounts of sediment to receiving waters. In case of extreme sediment loading, the storm sewer itself may clog and lose most of its capacity. To avoid these problems, it is necessary to prevent sediment from entering the system at the inlets.

This section contains several types of inlet filters and traps which have different applications dependent upon site conditions and type of inlet. Other innovative techniques for accomplishing the same purpose are encouraged, but only after specific plans and details are submitted to and approved by the stormwater permitting agency.

Note that these various inlet protection devices are for drainage areas of less than one acre (0.4 ha). Runoff from large disturbed areas should be routed through a TEMPORARY SEDIMENT TRAP - Section 4.25 (ES BMP 1.25).

Design Criteria

1. The drainage area shall be no greater than 1 acre (0.4 ha).
2. The inlet protection device shall be constructed to facilitate clean out and disposal of trapped sediment and to minimize interference with construction activities.
3. The inlet protection devices shall be constructed so that any resultant ponding or stormwater will not cause excessive inconvenience or damage to adjacent areas or structures.
4. Design criteria more specific to each particular inlet protection device will be found on Plates 4.08a-h.



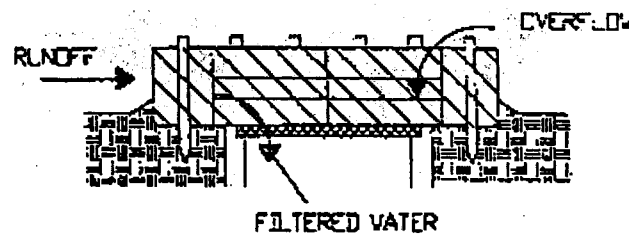
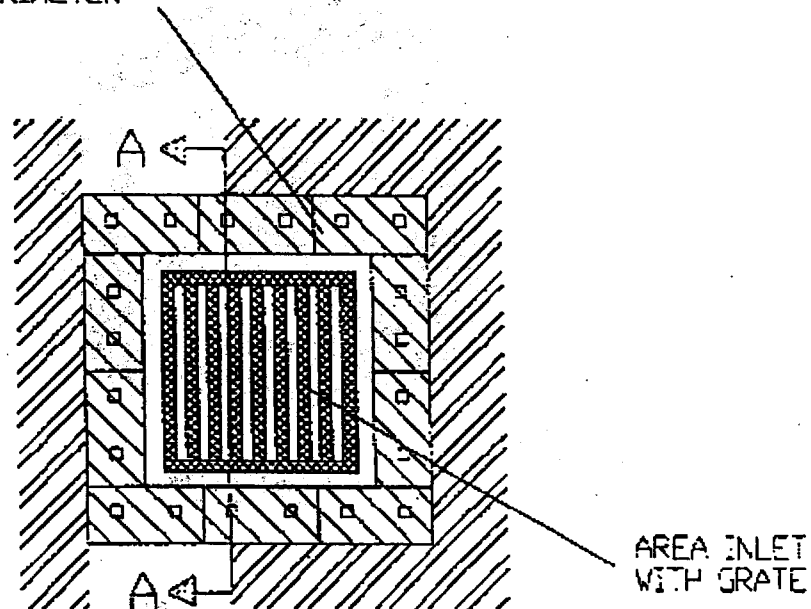
Specific Application

This method of inlet protection is applicable where the inlet drains a relatively flat area (slopes no greater than 5 percent) where sheet or overland flows (not exceeding 0.5 cfs) are typical. The method shall not apply to inlets receiving concentrated flows, such as in street or highway medians.

Plate 4.08a Straw Bale Drop Inlet Sediment Filter

Source: Michigan Soil Erosion and Sedimentation Control Guidebook

STRAW BALES ARE TO BE PLACED 4 INCHES
IN THE SOIL, TIGHTLY ABUTTING WITH NO
GAPS, STAKED AND BACKFILLED AROUND THE
ENTIRE OUTSIDE PERIMETER



SECTION AA

NOTE: STRAW BALE FILTERS ARE NOT TO BE USED IF ADJACENT AREA TO
INLET IS PAVED

Plate 4.08b Straw Bale Filter for Area Inlet

Source: HydroDynamics, Inc.

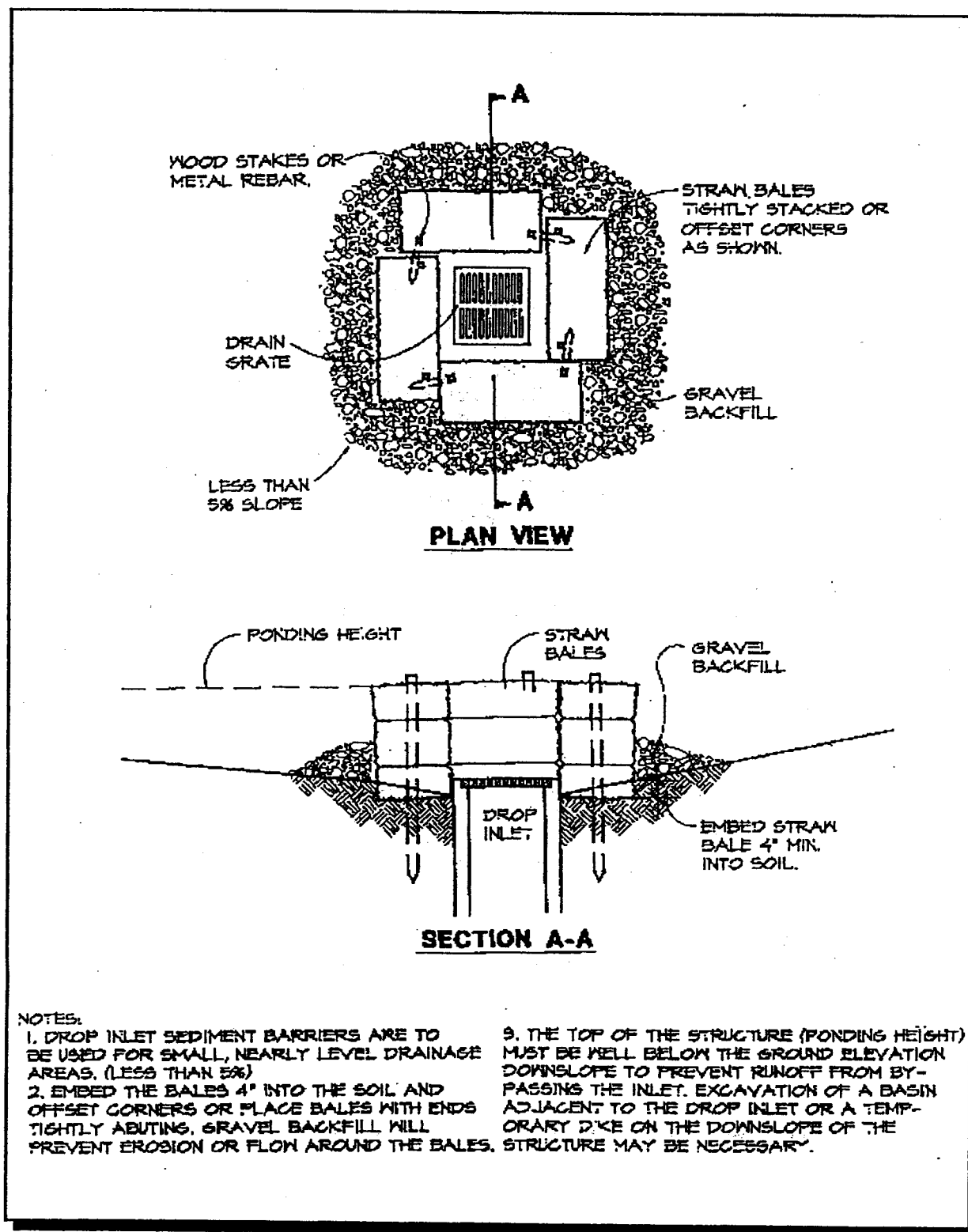


Plate 4.08c Straw Bale and Gravel Drop Inlet Sediment Barrier

Source: Erosion Draw

Construction Specifications

Straw bale drop inlet filter

1. Bales shall be either wire-bound or string-tied with the bindings oriented around the sides rather than over and under the bales.
2. Bales shall be placed lengthwise in a single row surrounding the inlet, with the ends of adjacent bales pressed together. (See Plate 4.08a)
3. The filter barrier shall be entrenched and backfilled. A trench shall be excavated around the inlet the width of a bale to a minimum depth of 4 inches (10 cm). After the bales are staked, the excavated soil shall be backfilled and compacted against the filter barrier. (See Plate 4.08b)
4. Each bale shall be securely anchored and held in place by at least two stakes or rebars (See p. 4-17) driven through the bale.
5. Loose straw should be wedged between bales to prevent water from entering between bales.
6. Gravel may be spread around the bales to improve stability. (See Plate 4.08c)

Fabric drop inlet sediment filter

1. Fabric shall be cut from a continuous roll to avoid joints.
2. Stakes shall be 2" x 4" (5 cm x 10 cm) wood (preferred) or equivalent metal with a minimum length of 3 feet (90 cm). (See Plate 4.08d)
3. Staples shall be of heavy duty wire at least 1/2-inch (13 mm) long.
4. Stakes shall be spaced around the perimeter of the inlet a maximum of 3 feet (90 cm) apart and securely driven into the ground minimum of 8 inches (20 cm). A frame of 2" x 4" (5 cm x 10 cm) wood shall be constructed around the top of the stakes for proper stability.
5. A trench shall be excavated approximately 4 inches (10 cm) wide and 4 inches (10 cm) deep around the outside perimeter of the stakes. (See Plate 4.08e)
6. The burlap shall be stapled to the wooden stakes, and 8 inches (20 cm) of the fabric shall be extended into the trench. The height of the filter barrier shall be a minimum of 15 inches (38 cm) and shall not exceed 18 inches (45 cm).
7. The trench shall be backfilled and the soil compacted over the burlap.

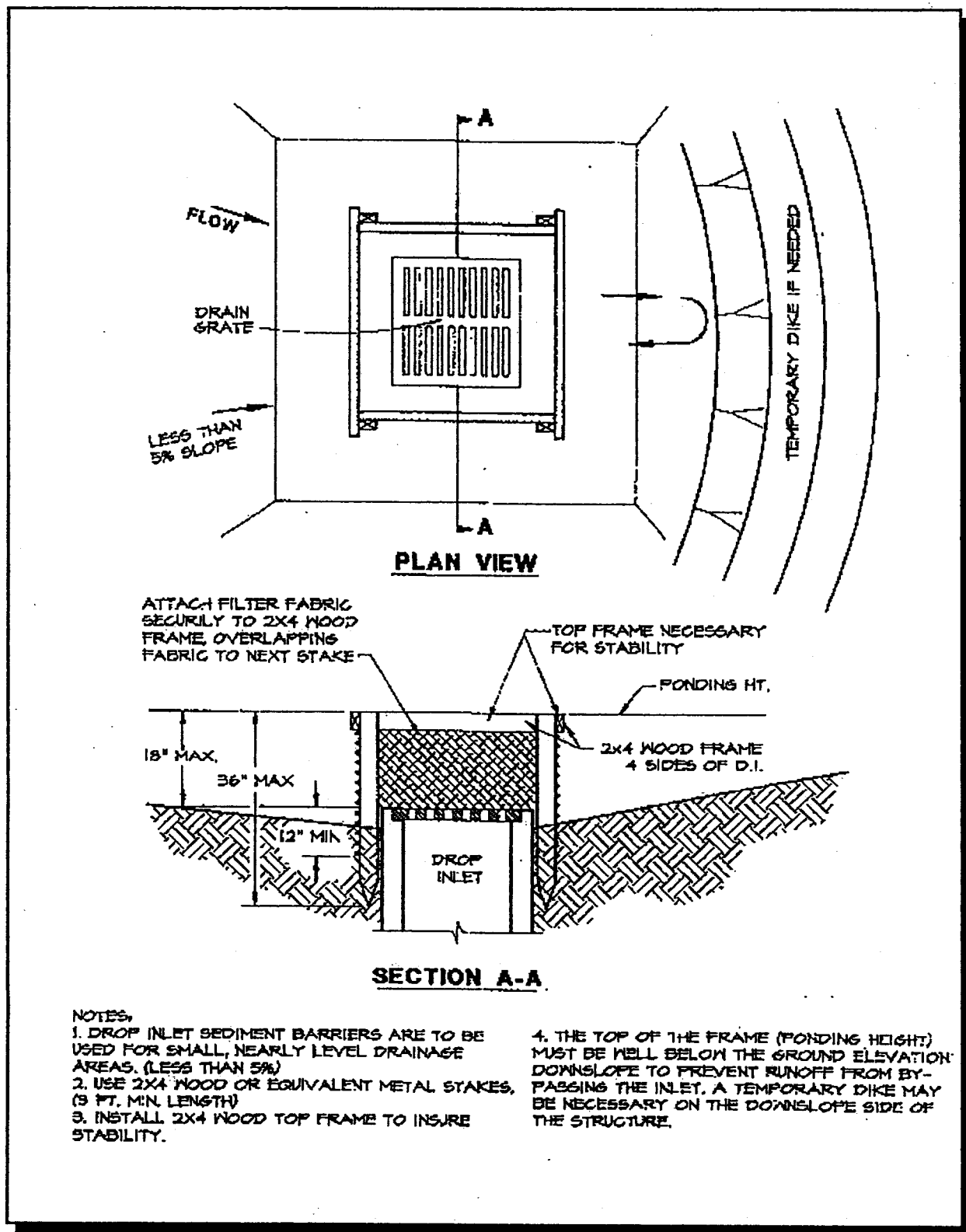


Plate 4.08d Silt Fence Drop Inlet Sediment Barrier

Source: Erosion Draw

Block and gravel drop inlet sediment filter

1. Place concrete blocks lengthwise on their sides in a single row around the perimeter of the inlet, with the ends of adjacent blocks abutting. The height of the barrier can be varied, depending on design needs, by stacking combinations of 4 inch, 8 inch and 12 inch (10, 20, and 30 cm) wide blocks. The barrier of blocks shall be at least 12 inches (30 cm) high and no greater than 24 inches (60 cm) high.
2. Wire mesh shall be placed over the outside vertical face (webbing) of the concrete blocks to prevent stone from being washed through the holes in the blocks. Hardware cloth or comparable wire mesh with 1/2 inch (13 mm) openings shall be used. (See Plate 4.08g)
3. Stone shall be piled against the wire to the top of the block barrier. Suitable coarse aggregate shall be used. (See Plate 4.08h)
4. If the stone filter becomes clogged with sediment so that it no longer adequately performs its function, the stone must be pulled away from the blocks, cleaned and replaced.
5. As a very temporary alternative, pervious burlap bags filled with gravel may be placed around the inlet provided that there are no gaps between the bags. (See Plate 4.08i)
6. Either of these two practices may be installed on pavement or bare ground

Sod drop inlet sediment filter

1. Soil shall be prepared and sod installed according to the specifications in SODDING - Section 6.67 (ES BMP 1.67).
2. Sod shall be placed to form a turf mat covering the soil for a distance of 4 feet (1.2 m) from each side of the inlet structure. (See Plate 4.08j)

Prefabricated drop inlet internal filter bag (ACF Silt Sack)

1. Remove the grate over the catch basin and insert the filter device, then replace grate to hold the device in position.
2. When sediments have accumulated to within one foot (30 cm) of the grate the filter insert must be removed by a front-end loader or forklift. The filter may be discarded and replaced or it may be emptied, cleaned, and reused.

NOTE: This segment does not constitute a product endorsement.

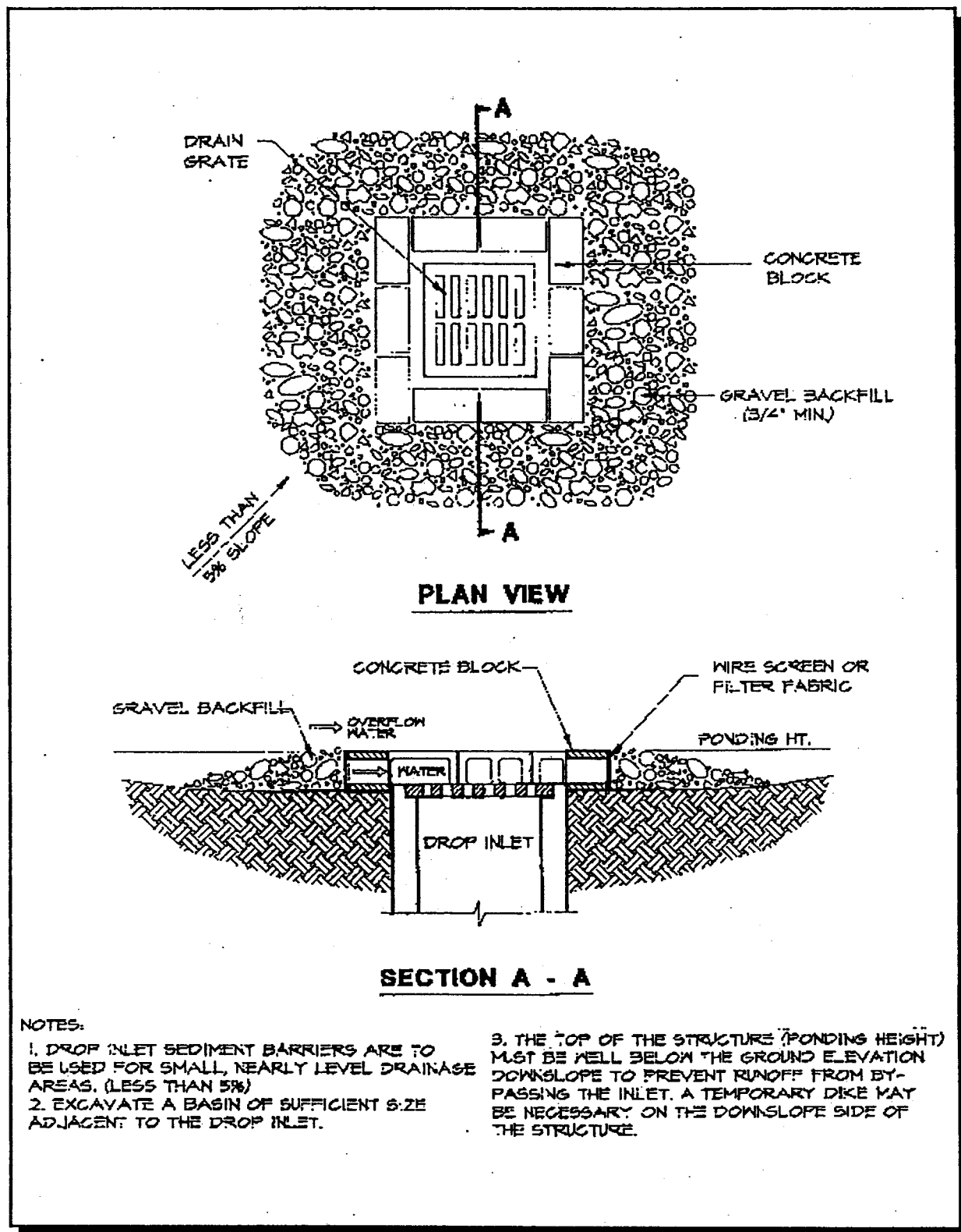
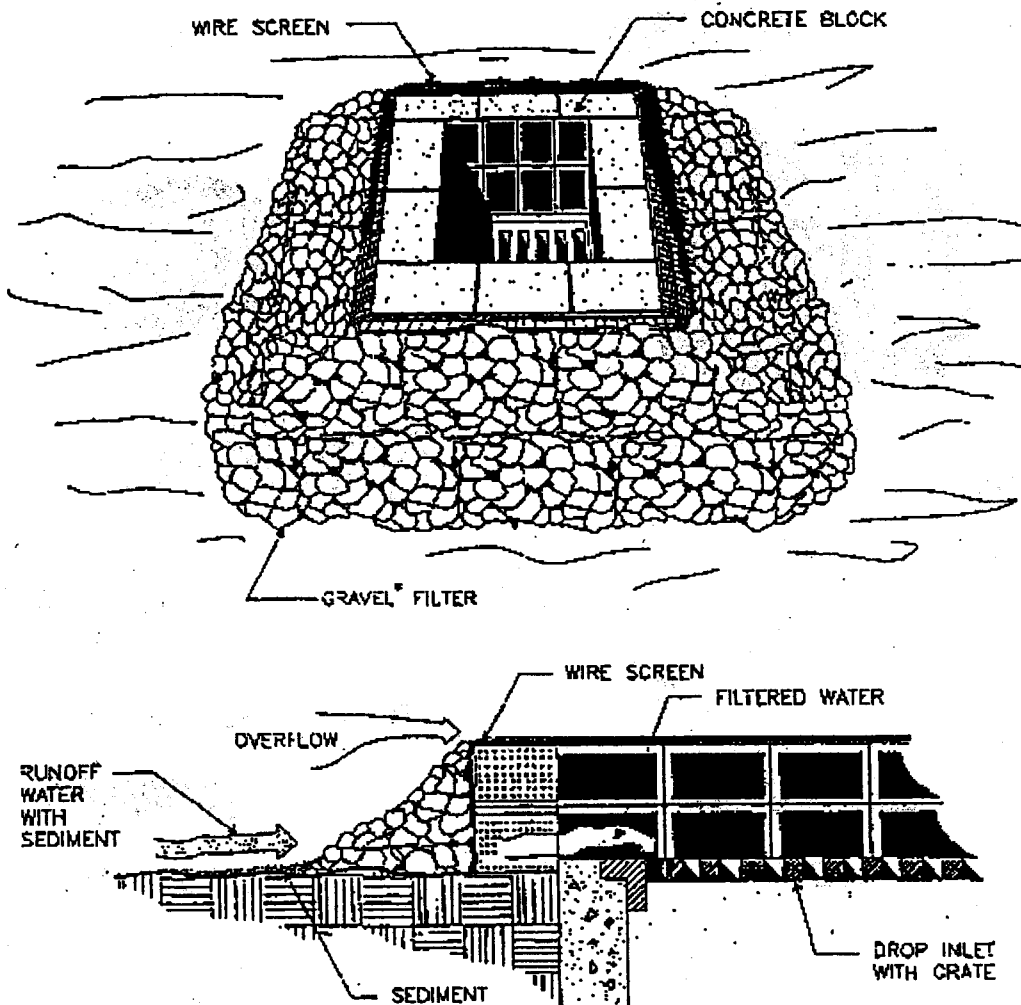


Plate 4.08g Block and Gravel Drop Inlet Sediment Filter

Source: Erosion Draw



Specific Application

This method of inlet protection is applicable where heavy flows are expected and where an overflow capacity necessary to prevent excessive ponding around the structure.

- Gravel Shall be FDOT #3, #357, or #5 Coarse Aggregate.

Plate 4.08h Block and Gravel Drop Inlet Sediment Filter
Source: Michigan Soil Erosion and Sedimentation Control Guidebook

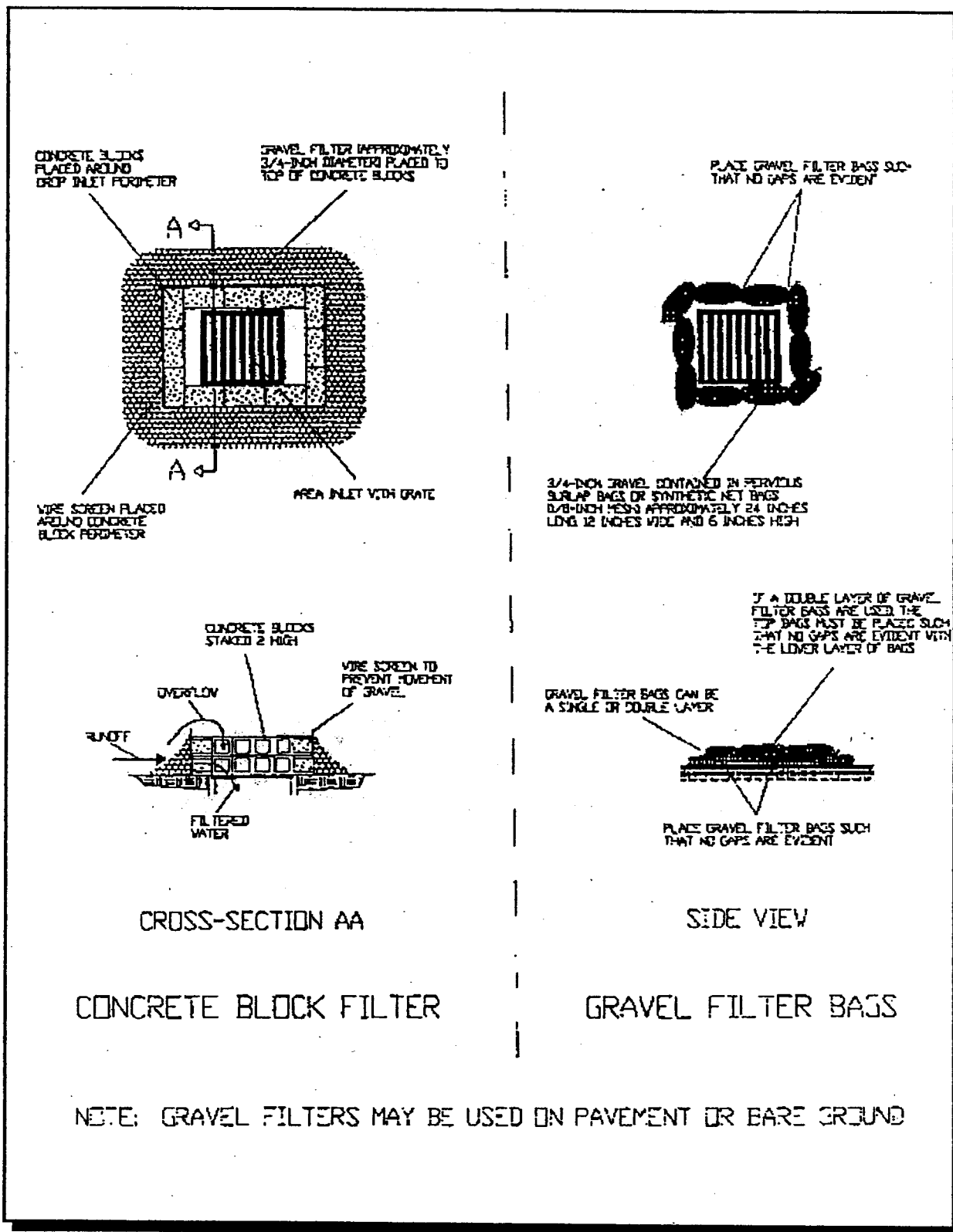


Plate 4.08i Gravel Filters for Area Inlets

Source: HydroDynamics, Inc.

Prefabricated drop inlet external filter (Suntree Isles Grate Inlet Protector)

1. Place the device over the inlet. If the inlet has a grate, the device shall be secured to the grate by means of a long toggle bolt. If the grate is not present, the device shall be bolted directly to the concrete.
2. Sediments shall be removed when they have accumulated to within one foot (30 cm) of the top of the device. The filter fabric elements shall be cleaned or replaced at that time.

NOTE: This segment does not constitute a product endorsement.

Gravel curb inlet sediment filter

1. Hardware cloth or comparable wire mesh with 1/2 inch (13 mm) openings shall be placed over the curb inlet opening so that at least 12 inches (30 cm) of wire extends across the top of the inlet cover and at least 12 inches (30 cm) of wire extends across the concrete gutter from the inlet opening. (See Plate 4.08k)
2. Stone shall be piled against the wire so as to anchor it against the gutter and inlet cover and to cover the inlet opening completely. FDOT No. 1 Coarse Aggregate shall be used.
3. An overflow weir can be constructed of 2" x 4" (5 x 10 cm) boards to lessen ponding from this practice. (See Plate 4.08L)
4. If the stone filter becomes clogged with sediment so that it no longer adequately performs its function, the stone must be pulled away from the block, cleaned and replaced.

Block and gravel curb inlet sediment filter

1. Two concrete blocks shall be placed on their sides abutting the curb at either side of the inlet opening.
2. A 2" x 4" (5 x 10 cm) board shall be cut and placed through the outer holes of each spacer block to help keep the front blocks in place.
3. Concrete blocks shall be placed on their sides across the front of the inlet and abutting the spacer blocks. (See Plate 4.08m)
4. Wire mesh shall be placed over the outside vertical face (webbing) of the concrete blocks to prevent stone from being washed through the holes in the blocks. Hardware cloth with 1/2 inch (13 mm) openings shall be used.
5. FDOT No. 1 Coarse Aggregate shall be piled against the wire to the top of the barrier.

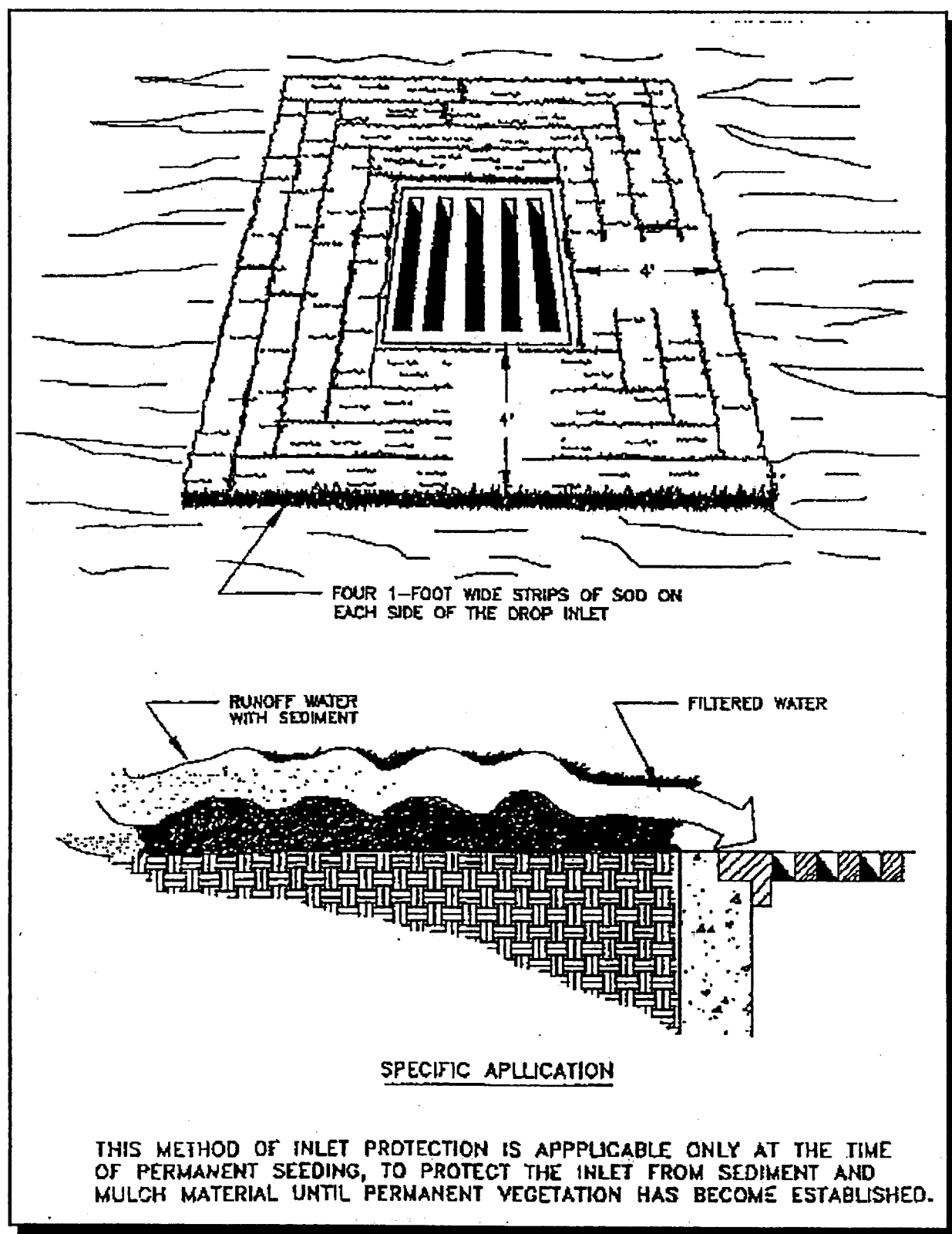


Plate 4.08j Sod Drop Inlet Sediment Filter
Source: Virginia DSWC

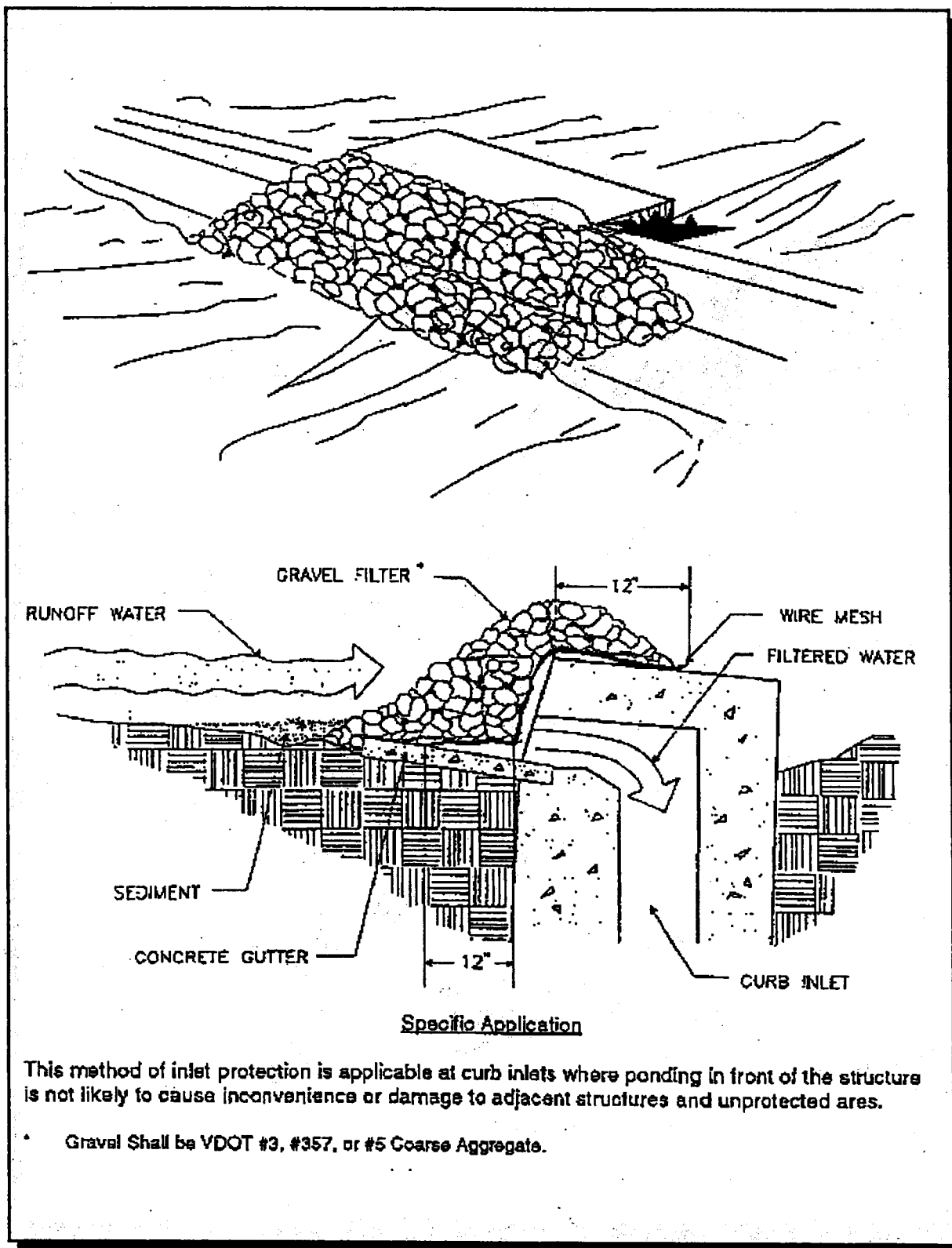


Plate 4.08k Gravel Curb Inlet Sediment Filter
Source: Virginia DSWC

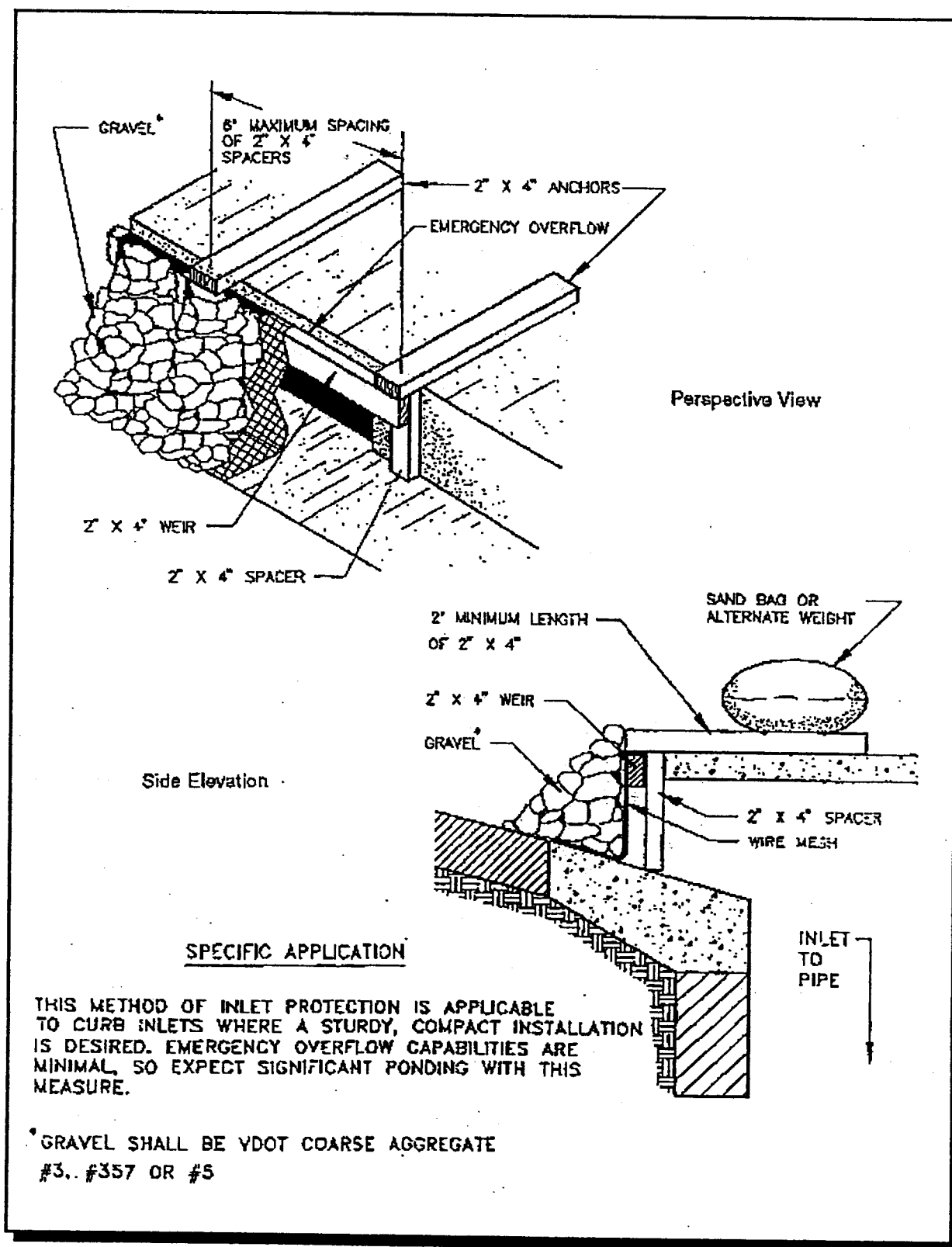


Plate 4.08L Gravel Curb Inlet Sediment Filter with Overflow Weir

Source: Maryland Standards and Specifications for Soil Erosion and Sediment Control

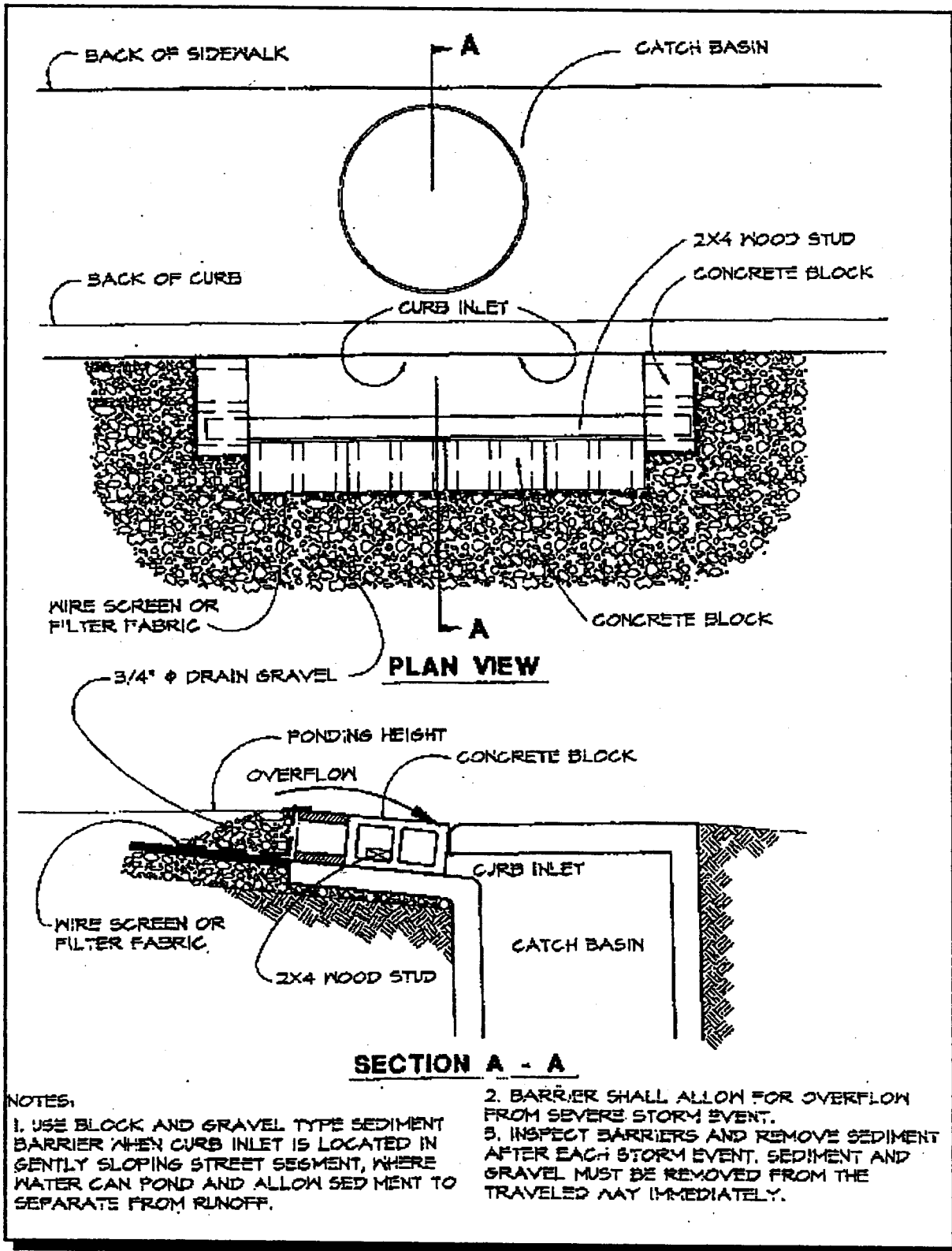
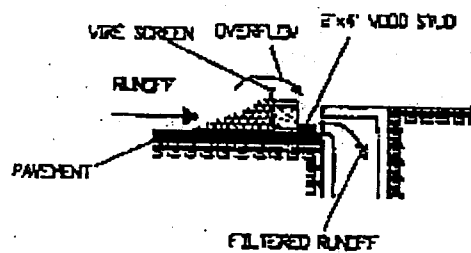
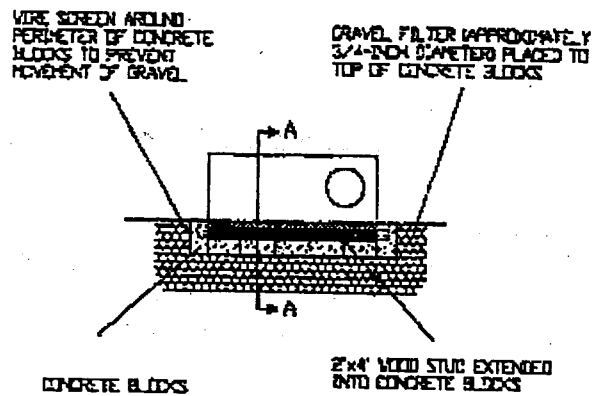


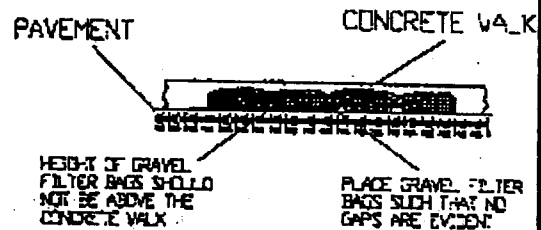
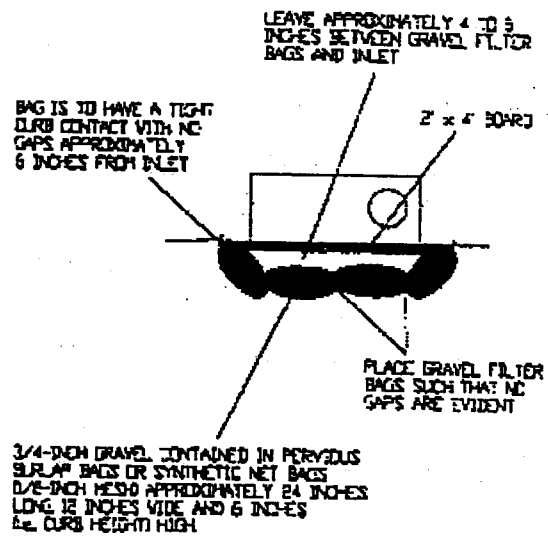
Plate 4.08m Block and Gravel Curb Inlet Sediment Barrier

Source: Erosion Draw



CROSS-SECTION AA

CONCRETE BLOCK FILTER



FRONT VIEW

GRAVEL FILTER BAGS

NOTE: GRAVEL FILTERS CAN BE USED ON PAVEMENT OR BARE GROUND

Plate 4.08n Curb Inlet Gravel Filters

Source: HydroDynamics, Inc.

6. If the stone filter becomes clogged with sediment so that it no longer adequately

performs its function, the stone must be pulled away from the block, cleaned and replaced.

7. As an alternate, gravel filled burlap bags may be stacked tightly around the curb inlet. (See Plates 4.08n and 4.08o)

Curb and Gutter Sediment Barrier

1. Place gravel filled burlap bags on gently sloping street segments according to the spacing chart. (See Plate 4.08p)
2. Place two or more bags at each interval in a manner which provides maximum support.
3. When stacking several bags high, leave a one bag gap to provide an overflow spillway. (See Plate 4.08q)
4. Sediments must be removed after each rain event.

Maintenance

1. The structure shall be inspected after each rain and repairs made as needed.
2. Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to 1/2 of the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
3. Structures shall be removed and the area stabilized when the remaining drainage area has been properly stabilized.

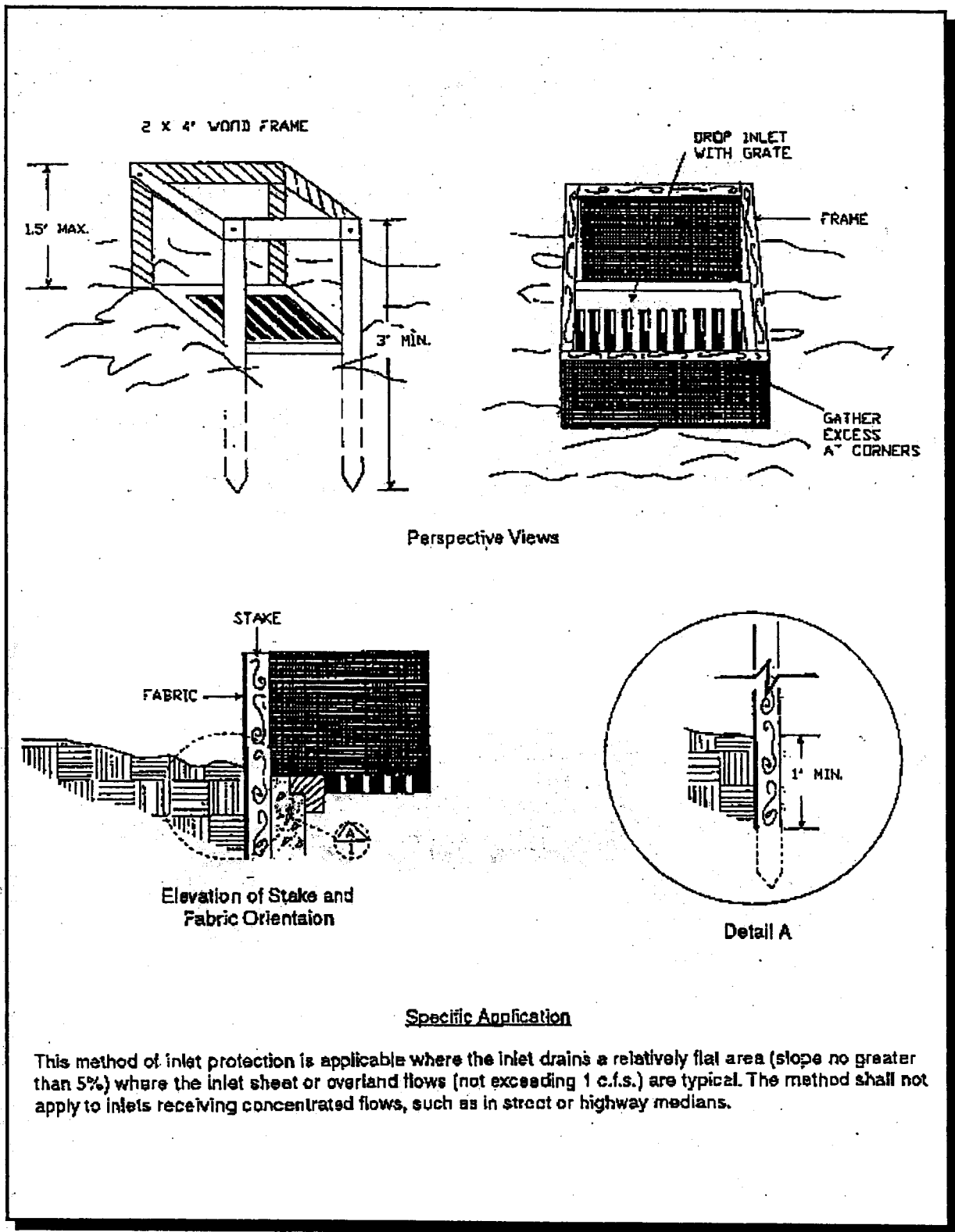


Plate 4.08e Filter Fabric Drop Inlet Sediment Filter

Source: North Carolina Erosion and Sediment Control Manual

Gravel and wire mesh drop inlet sediment filter

1. Wire mesh shall be laid over the drop inlet so that the wire extends a minimum of one foot (30 cm) beyond each side of the inlet structure. Hardware cloth or comparable wire mesh with 1/2 inch (13 mm) openings shall be used. If more than one strip of mesh is necessary, the strips shall be overlapped at least 1 ft. (30 cm).
2. FDOT No. 1 Coarse Aggregate (1.5" to 3.5" stone)(4 - 9 cm) shall be placed over the wire mesh as shown on Plate 4.08c. The depth of stone shall be at least 12 inches (30 cm) over the entire inlet opening. The stone shall extend beyond the inlet opening at least 18 inches (45 cm) on all sides. (See Plate 4.08f)
3. If the stone filter becomes clogged with sediment so that it no longer adequately performs its function, the stones must be pulled away from the inlet, cleaned and replaced.

NOTE: This filtering device has no overflow mechanism. Therefore, ponding is likely especially if sediment is not removed regularly. This type of device must never be used where overflow may endanger an exposed fill slope. Consideration should also be given to the possible effects of ponding on traffic movement, nearby structures, working areas, adjacent property, etc.

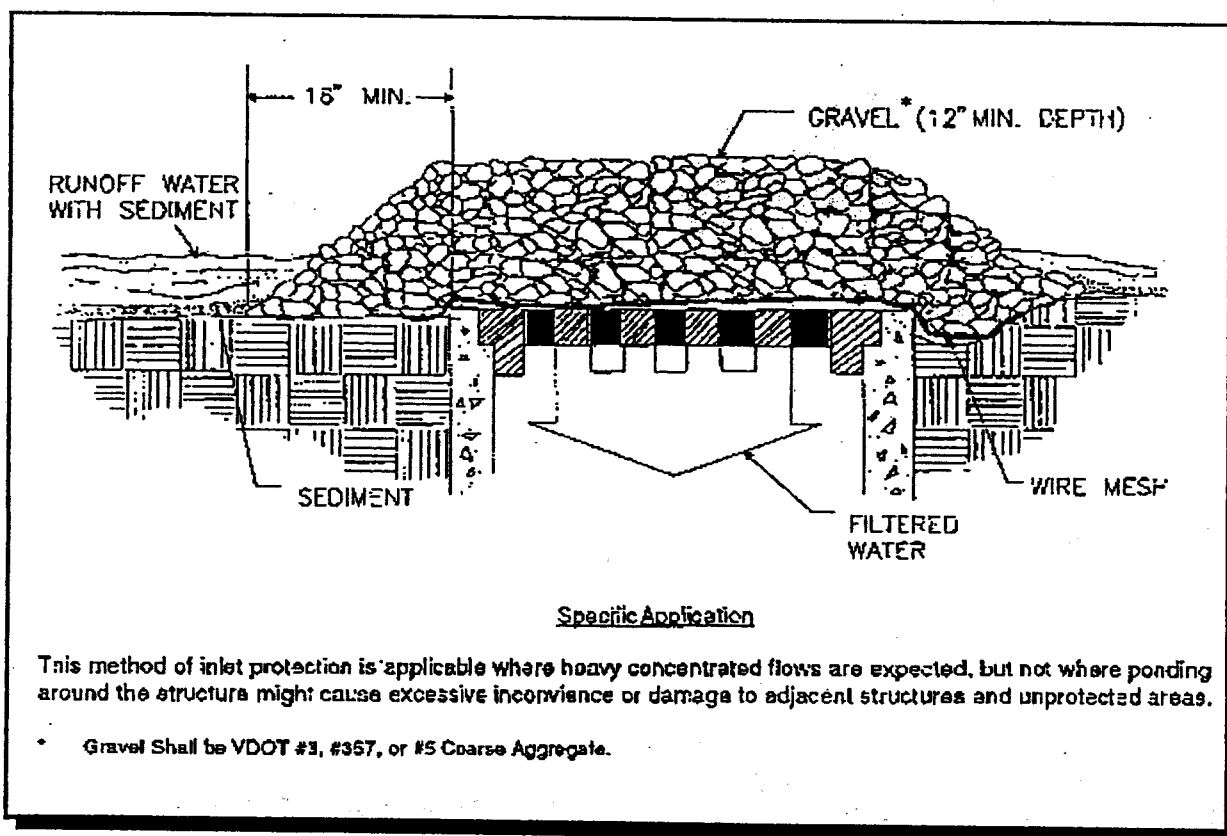


Plate 4.08f Gravel and Wire Mesh Drop Inlet Sediment Filter
Source: Virginia DSWC

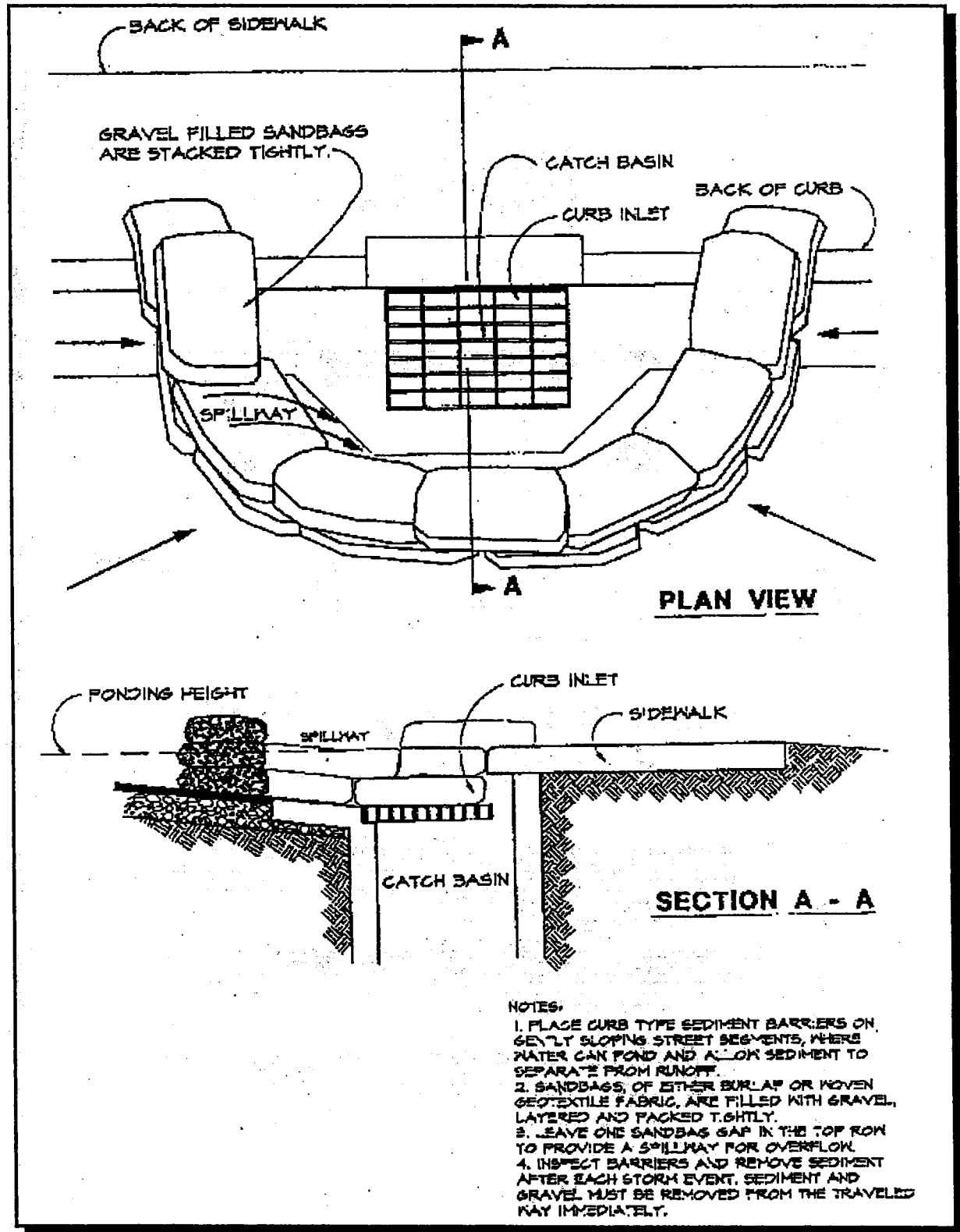
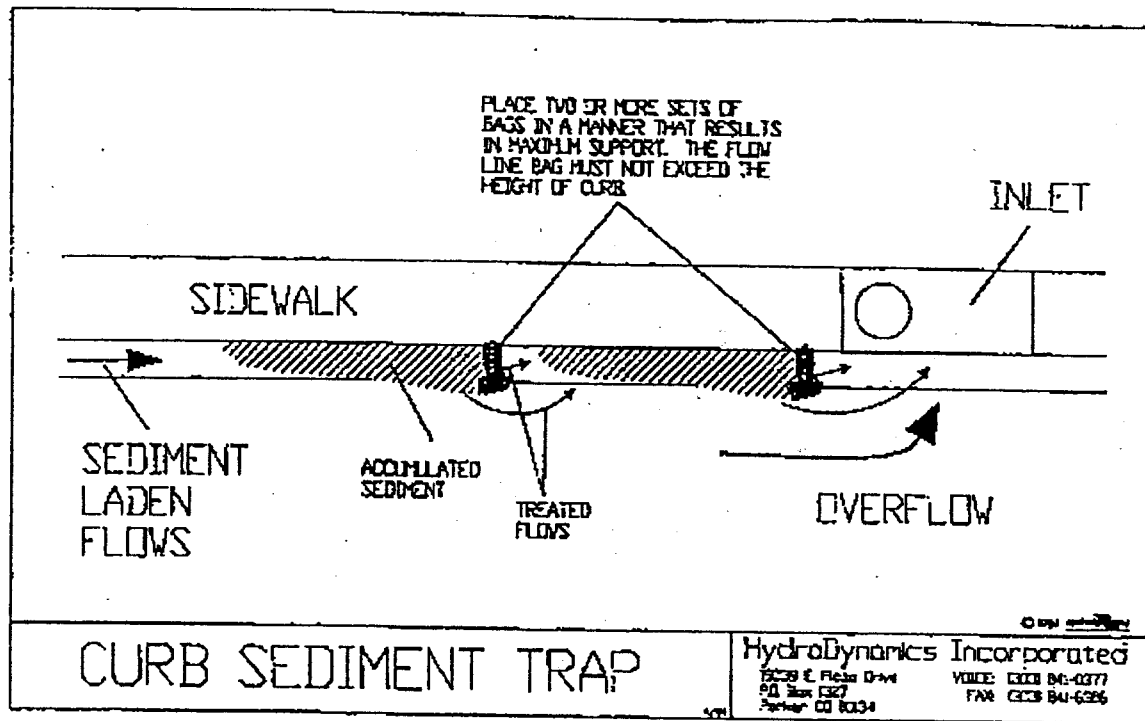


Plate 4.08o Curb Inlet Sediment Barrier

Source: Erosion Draw



SPACING BETWEEN GRAVEL BAG CURB FILTERS

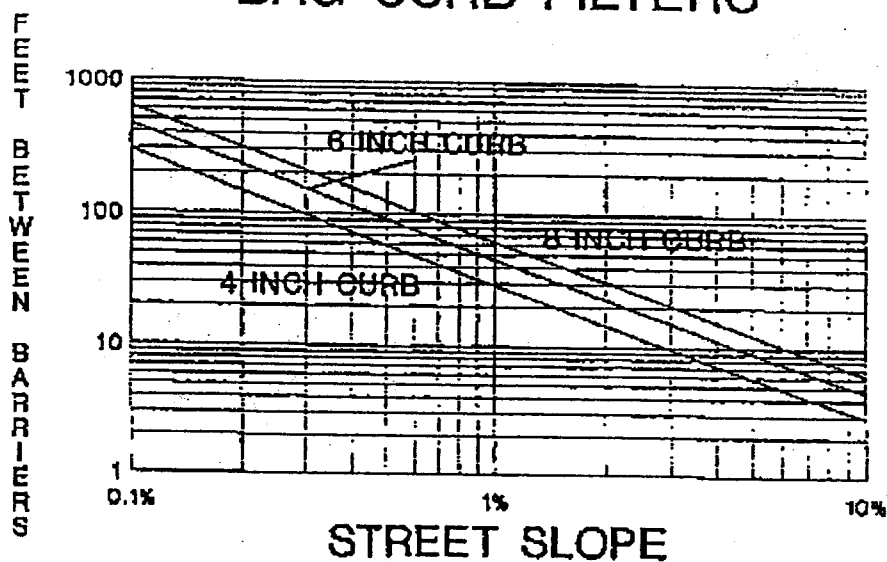


Plate 4.08p Gravel Bag Curb Sediment Filters
 Source: HydroDynamics, Inc.

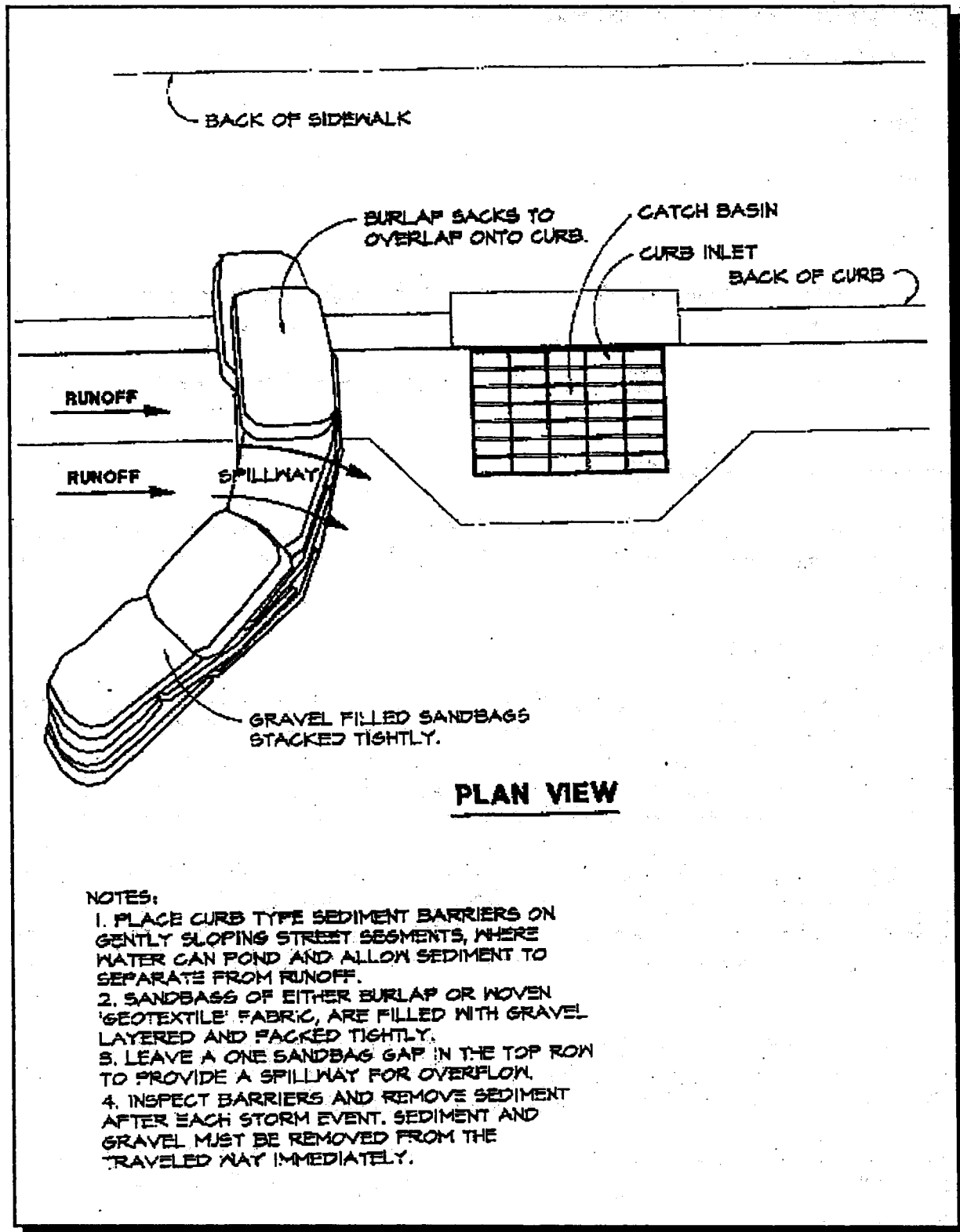


Plate 4.08q Curb and Gutter Sediment Barrier

Source: Erosion Draw

4.15 TEMPORARY DIVERSION DIKE

(ES BMP 1.15)

Definition

A temporary ridge of compacted soil located at the top or base of a sloping disturbed area.

Purposes

1. To divert storm runoff from higher drainage areas away from unprotected slopes to a stabilized outlet.
2. To divert sediment-laden runoff from a disturbed area to a sediment trapping facility.

Condition Where Practice Applies

Wherever stormwater runoff must be temporarily diverted to protect disturbed slopes or retain sediments on site during construction. These structures generally have a life expectancy of 18 months or less.

Planning Considerations

A temporary diversion dike is intended to divert overland sheet flow to a stabilized outlet or a sediment trapping facility during establishment of permanent stabilization on sloping, disturbed areas. When used at the top of a slope, the structure protects exposed slopes by keeping upland runoff away. When used at the base of a slope, the structure protects adjacent and downstream areas by diverting sediment-laden runoff to a sediment trapping facility.

If the dike is going to remain in place for longer than 30 days, it is very important that it be established with temporary or permanent vegetation. The slope behind the dike is also an important consideration. The dike must have a positive grade to assure drainage, but if the slope is too great, precautions must be taken to prevent erosion due to high velocity flow behind the dike.

This practice is considered an economical one because it uses material available on the site and can usually be constructed with equipment needed for site grading. The useful life of the practice can be extended by stabilizing the dike with vegetation.

As specified herein, this practice is intended to be temporary. However, with more stringent design criteria, it can be made permanent in accordance with DIVERSIONS - Section 5.18 (ES BMP 1.18).

Design Criteria

No formal design is required. The following criteria shall be met:

Drainage Area

The maximum allowable drainage area is 5 acres (2 ha).

Dimensions

The minimum allowable height measured from the upslope side of the dike is 18 inches (45 cm). Top width shall be a minimum of 2 feet (60 cm) with a minimum base width of 4.5 feet (1.4 m). (See Plate 4.15a)

Side Slopes

3:1 or flatter.

Grade

The channel behind the dike shall have a positive grade to a stabilized outlet. If the channel slope is less than or equal to 2%, no stabilization is usually required. If the slope is greater than 2%, the channel shall be stabilized in accordance with STORMWATER CONVEYANCE CHANNEL - Section 5.35 (ES BMP 1.35).

Outlet

1. The diverted runoff, if free of sediment, must be released through a stabilized outlet or channel.
2. Sediment-laden runoff must be diverted and released through a sediment trapping facility.

Construction Specifications

1. Whenever feasible, the dike should be built before construction begins on the project.
2. The dike should be adequately compacted to prevent failure.
3. Temporary or permanent seeding and mulch shall be applied to the dike within 15 days of construction.
4. The dike should be located to minimize damages by construction operations and traffic.

Maintenance

The measure shall be inspected after every storm and repairs made to the dike, flow channel and outlet, as necessary. Approximately once every week, whether a storm has occurred or not, the measure shall be inspected and repairs made if needed. Damages caused by construction traffic or other activity must be repaired before the end of each working day.

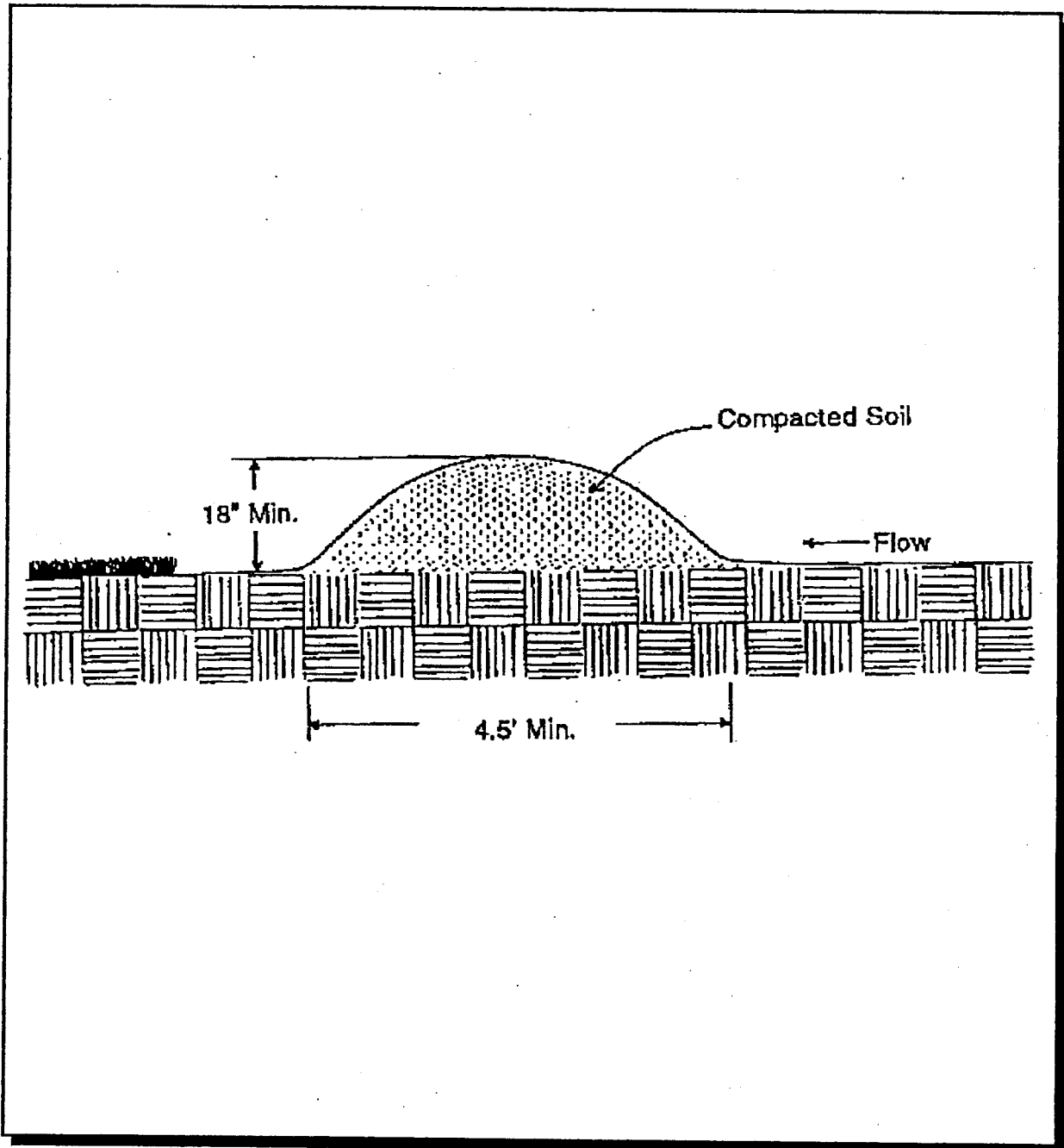


Plate 4.15a Temporary Diversion Dike -- Source: Virginia DSWC

Chapter 4 - Best Management Practices for Erosion and Sediment Control

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4.16 TEMPORARY FILL DIVERSION

(ES BMP 1.16)

Definition

A channel with a supporting ridge on the lower side cut along the top of an active earth fill.

Purpose

To divert storm runoff away from the unprotected slope of the fill to a stabilized outlet or sediment trapping facility

Conditions Where Practice Applies

Where the drainage area at the top of an active earth fill slopes toward the exposed slope and where continuous fill operations make the use of a DIVERSION - Section 5.18 (ES BMP 1.18) unfeasible. This temporary structure should remain in place for less than one week.

Planning Considerations

One important principle of erosion and sediment control is to keep stormwater runoff away from exposed slopes. This is often accomplished by installing a dike, diversion or paved ditch at the top of a slope to carry the runoff away from the slope to a stabilized outlet or down drain. In general, these measures are installed after the final grade has been reached. On cuts, the measures may be installed at the beginning since the work proceeds from the top and the measures have little chance of being covered or damaged. On fills, the work proceeds from the bottom to the top and the elevation changes daily. It is therefore not feasible to construct a compacted dike or permanent diversion which may be covered by the next day's activity.

The temporary fill diversion is intended to provide some slope protection on a daily basis until final elevations are reached and a more permanent measure can be constructed. This practice can be constructed by the use of a motor grader or one of the smaller dozers. To shape the diversion, the piece of machinery used may run near the edge of the fill with its blade tilted to form the channel as described in Plate 4.16a. This work should be done at the end of the working day and should provide a channel with a berm on the lower side to protect the slope. Wherever possible, the temporary diversion should be sloped to direct water to a stabilized outlet. If the runoff is diverted over the fill itself, the practice may cause more problems than it solves by concentrating water at a single point.

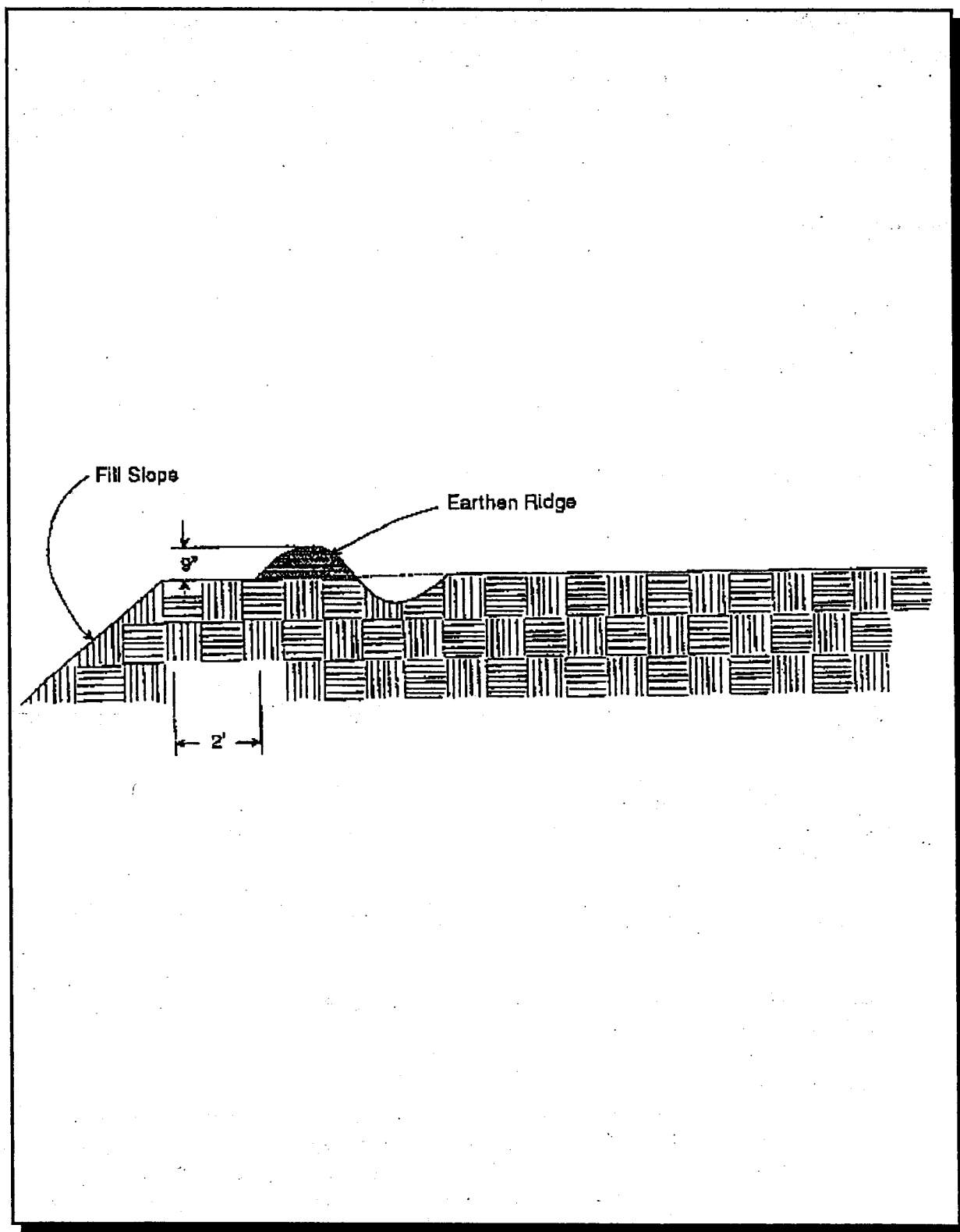


Plate 4.16a Temporary Fill Diversion
Source: Virginia DSWC

Good timing is essential to fill construction. The filling operation should be completed as quickly as possible and the permanent slope protection measures and slope stabilization measures installed as soon after completion as possible. With quick and proper construction, the developer or contractor will save both time and money in building, repairing and stabilizing the fill area. The longer the time period for construction and stabilization, the more prone the fill operation is to damages by erosion. Repairing the damages adds additional time and expense to the project.

Design Criteria

No formal design is required. The following criteria shall be met:

Drainage Area

The maximum allowable drainage area is 5 acres (2 ha).

Height

The minimum height of the supporting ridge shall be 9 inches (23 cm). (See Plate 4.16a).

Grade

The channel shall have a positive grade to a stabilized outlet.

Outlet

The diverted runoff should be released through a stabilized outlet, slope drain or sediment trapping measure.

Construction Specifications

1. The diversion shall be constructed at the top of the fill at the end of each work day as needed.
2. The diversion shall be located at least 2 feet (60 cm) inside the top edge of the fill. (See Plate 4.16a).
3. The supporting ridge of the lower side shall be constructed with a uniform height along its entire length.

Maintenance

Since the practice is temporary and under most situations will be covered the next work day, the maintenance required should be low. If the practice is to remain in use for more than one day, an inspection will be made at the end of each work day and repairs made to the measure if needed. The contractor should avoid the placement of any material over the structure while it is in use. Construction traffic should not be permitted to cross the diversion.

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4.17 TEMPORARY RIGHT-OF-WAY DIVERSION **(ES BMP 1.17)**

Definition

A ridge of compacted soil or loose rock or gravel constructed across disturbed rights-of-way and similar sloping areas.

Purpose

To shorten the flow length within a long sloping right-of-way, thereby reducing the erosion potential by diverting storm runoff to a stabilized outlet or sediment trapping device.

Conditions Where Practice Applies

Generally, earthen diversions are applicable where there will be little or no construction traffic within the right-of-way. Gravel structures are more applicable to roads and other rights-of-way which accommodate vehicular traffic.

Planning Considerations

Construction of utility lines and roads often requires the clearing of long strips of right-of-way over sloping terrain. The volume and velocity of stormwater runoff tend to increase in these cleared strips and the potential for erosion is much greater since the vegetative cover is diminished or removed. To compensate for the loss of vegetation, it is usually a good practice to break up the flow length within the cleared strip so that runoff does not have a chance to concentrate and cause erosion. At proper spacing intervals, Temporary Right-of-Way Diversions can significantly reduce the amount of erosion which will occur until the area is permanently stabilized.

Design Criteria

No formal design is required. The following criteria shall be met:

Drainage Area

Less than 5 acres (2 ha). For larger drainage areas use a DIVERSION - Section 5.18 (ES BMP 1.18).

Dimensions

The minimum allowable height measured from the upslope side of the diversion is 18 inches (45 cm). The minimum top width shall be 2 feet (60 cm) and the base width minimum is 6 feet (1.8 m). (See Plate 4.17a)

Side Slopes

3:1 or flatter to allow the passage of construction traffic.

Width

The measure should be constructed completely across the disturbed portion of the right-of-way.

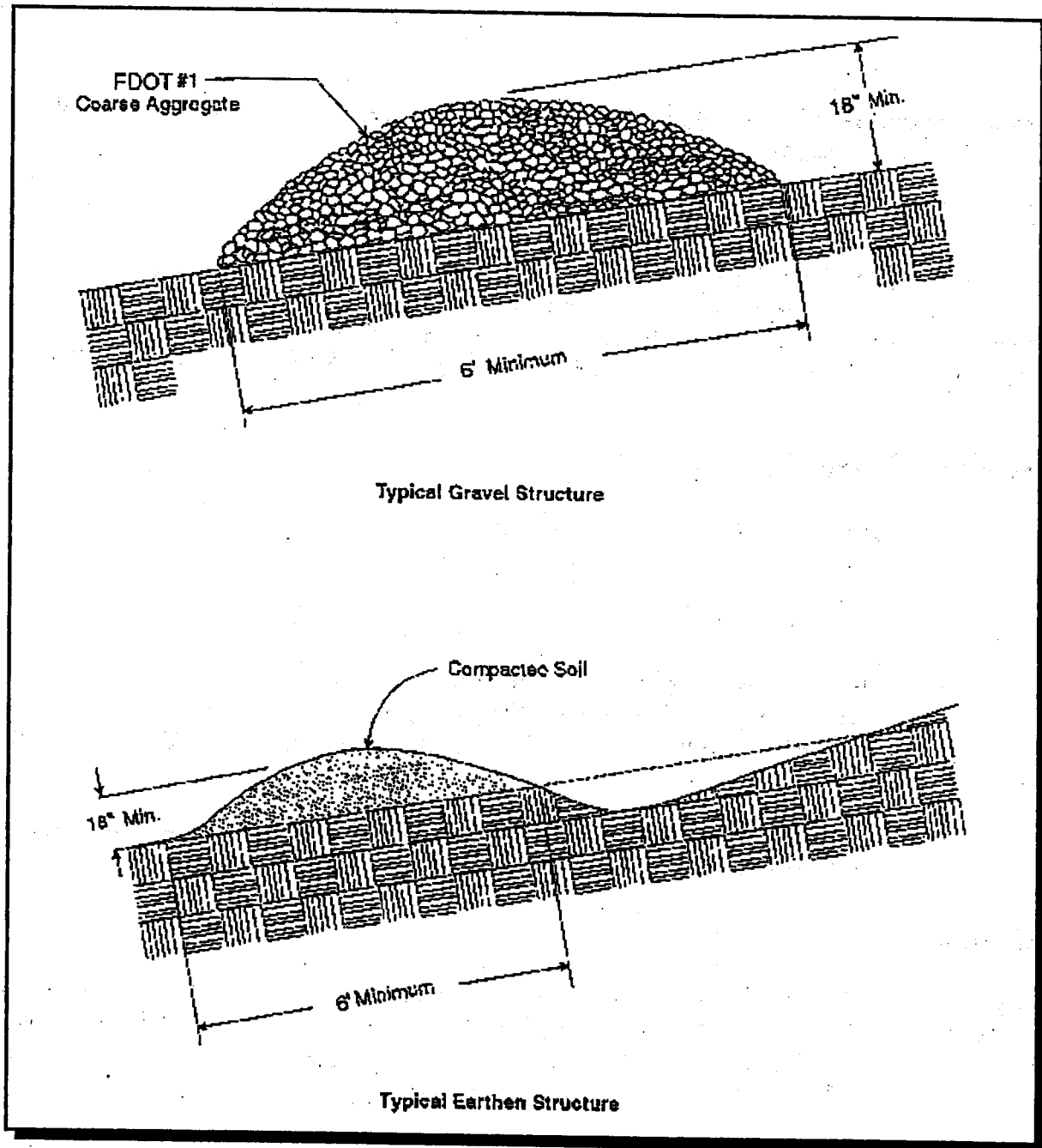


Plate 4.17a Temporary Right-of-way Diversions -- Source: Virginia DSWC

Spacing

The following table will be used to determine the spacing of right-of-way diversions:

<u>% Slope</u>	<u>Spacing in feet(m)</u>
Less than 5%	300 (90 m)
Between 5% and 10%	200 (60 m)
Greater than 10%	100 (30 m)

Grade

Positive drainage, with less than 2% slope, should be provided to a stabilized outlet or sediment trapping facility.

Outlet

Interceptor dikes must have an outlet which is not subject to erosion. The on-site location may need to be adjusted to meet field conditions in order to utilize the most suitable outlet. Concentrated flows should spread over the widest possible area after release. Flows with high sediment concentrations should pass through a sediment trapping measure. (See Plate 4.17b)

Construction Specifications

1. The diversion shall be installed as soon as the right-of-way has been cleared and/or graded.
2. All earthen diversions shall be machine- or hand-compacted in 8-inch (20 cm) lifts.
3. The outlet of the diversion shall be located on an undisturbed and stabilized area when at all possible. The field location should be adjusted as needed to utilize a stabilized outlet. Sediment laden flows shall be conveyed to a sediment trapping device.
4. Earthen diversions which will not be subject to construction traffic should be ~~stabilized~~ in accordance with TEMPORARY SEEDING - Section 6.65 (ES BMP 1.65).

Maintenance

The practice shall be inspected after every rainfall and repairs made if necessary. Approximately once every week, whether a storm has occurred or not, the measure shall be inspected and repairs made if needed. Diversions which are subject to damage by vehicular traffic should be reshaped at the end of each working day.

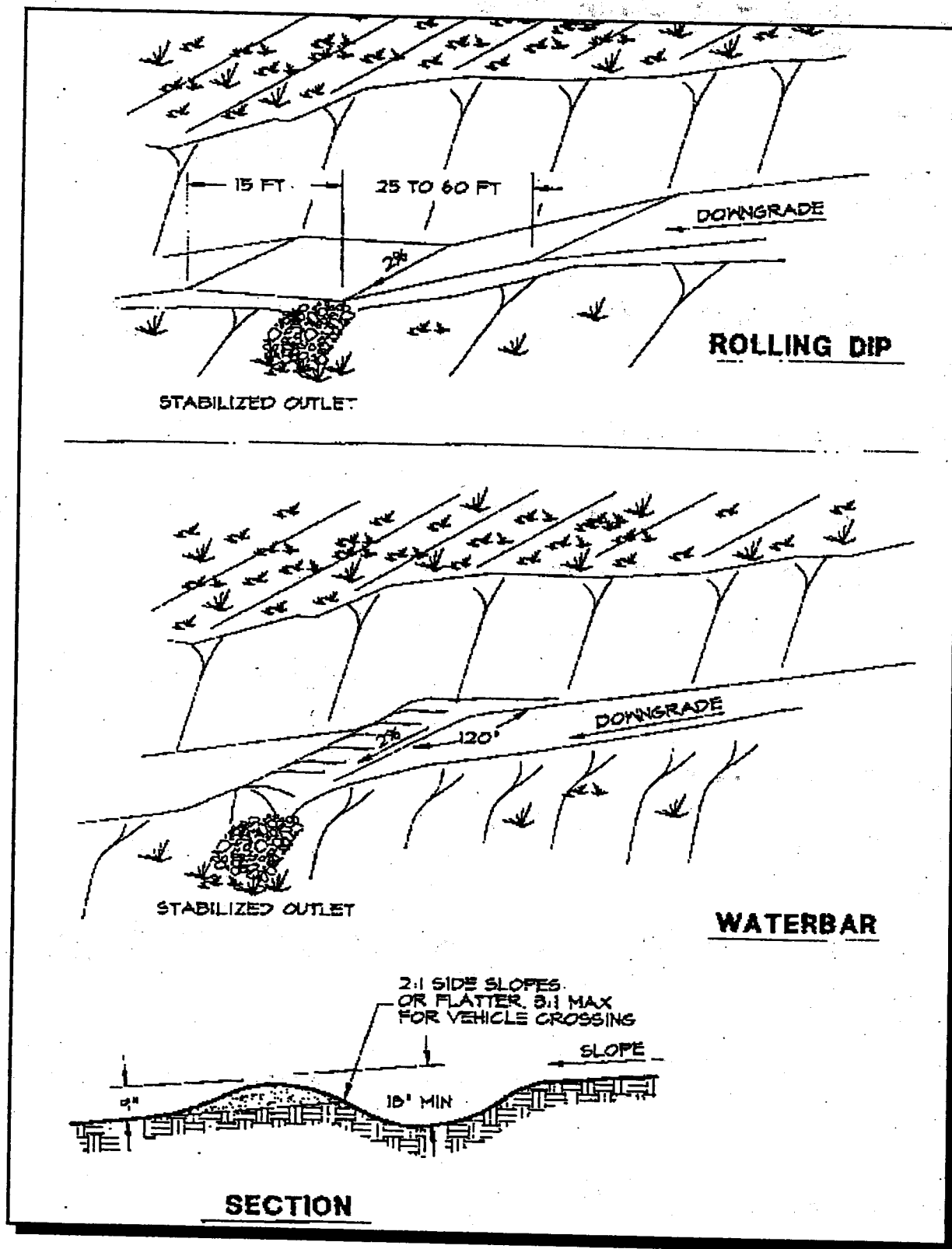


Plate 4.17b Rolling Dip and Water Bar
Source: Erosion Draw

4.25 TEMPORARY SEDIMENT TRAP **(ES BMP 1.25)**

Definition

A small temporary ponding area formed by excavation and/or an embankment across a drainageway.

Purpose

To detain sediment-laden runoff from small disturbed areas long enough to allow most of the sediment to settle out thereby protecting drainageways, properties, and rights-of-way from sedimentation.

Conditions Where Practice Applies

1. A sediment trap is usually installed in a drainageway, at a storm drain inlet or at other points of discharge from a disturbed area.
2. Below drainage areas of 5 acres (2 ha) or less.
3. Where the sediment trap will be used less than 18 months.
4. The sediment trap may be constructed either independently or in conjunction with a TEMPORARY DIVERSION DIKE - Section 4.15 (ES BMP 1.15).

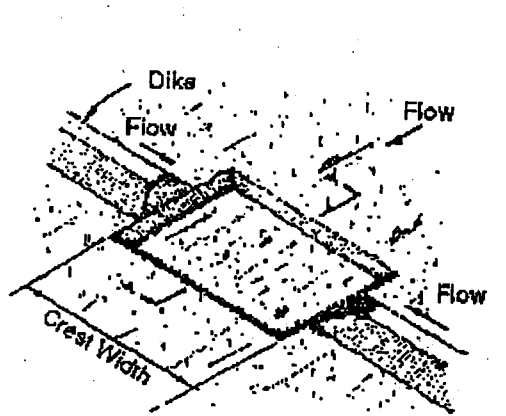
Planning Considerations

The sediment trap should be located to obtain the maximum storage benefit from the terrain, for ease of clean out and disposal of the trapped sediment and to minimize interference with construction activities.

Sediment traps should be used only for small drainage areas. If the contributing drainage area is greater than 5 acres (2 ha), refer to SEDIMENT BASINS - Section 4.26 (ES BMP 1.26).

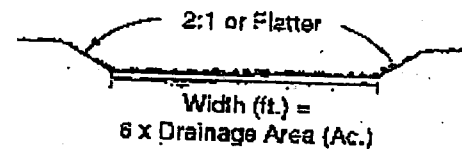
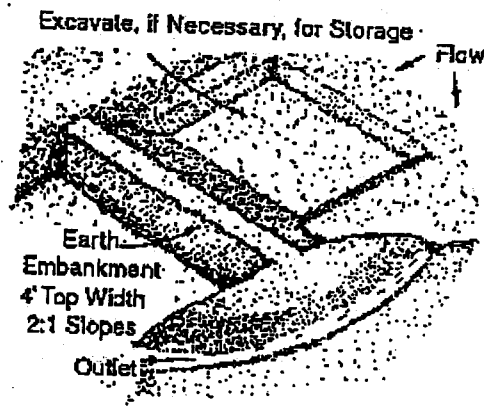
Sediment must be periodically removed from the trap. Plans should detail how this sediment is to be disposed of, such as by use in fill areas on site or removal to an approved off-site dump.

Sediment traps, along with other perimeter controls, shall be installed before any land disturbance takes place in the drainage area.



Section A-A

Excavated Earth Outlet Sediment Trap



Outlet Section

Embankment Earth Outlet Sediment Trap

Construction Specifications

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots or other woody vegetation as well as oversized stones, rocks, organic material, or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
3. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
4. The structure shall be inspected after each rain and repairs made as needed.
5. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
6. This structure shall be removed and area stabilized when the drainage area has been properly stabilized.
7. All cut and fill slopes shall be 2:1 or flatter.
8. Outlet crest elevation shall be at least one foot below the top of the embankment.

Plate 4.25a Earth Outlet Sediment Trap

Source: NRCS

Design Criteria

Trap Capacity

The sediment trap must have an initial storage volume of 134 cubic yards, or 3600 cubic feet per acre (252 m³/ha) of drainage area, measured from the low point of the ground to the crest of the gravel outlet. Sediment should be removed from the basin when the volume is reduced by one-half.

For a natural basin, the volume may be approximated as follows:

$$V = 0.4 \times A \times D$$

where: V = the storage volume in ft.³
 A = the surface area of the flood area at the crest of the outlet, in ft.²
 D = the maximum depth, measured from low point in trap to crest of outlet, in ft.

Excavation

If excavation is necessary to attain the required storage volume, side slopes should be no steeper than 2:1.

Embankment Cross-Section

The maximum height of the sediment trap embankment shall be 5 feet (1.5 m) as measured from the low point. Minimum top widths (W) and outlet heights (H_o) for various embankment heights (H) are shown in Table 4.25a. Side slopes of the embankment shall be 2:1 or flatter.

Table 4.25a

MINIMUM TOP WIDTH (W) AND OUTLET HEIGHT (H_o) REQUIRED FOR
 SEDIMENT TRAP EMBANKMENT ACCORDING TO HEIGHT OF EMBANKMENT (feet)

H	H _o	W
2.0	1.0	2.0
2.5	1.5	2.5
3.0	2.0	2.5
3.5	2.5	3.0
4.0	3.0	3.0
4.5	3.5	4.0
5.0	4.0	4.5

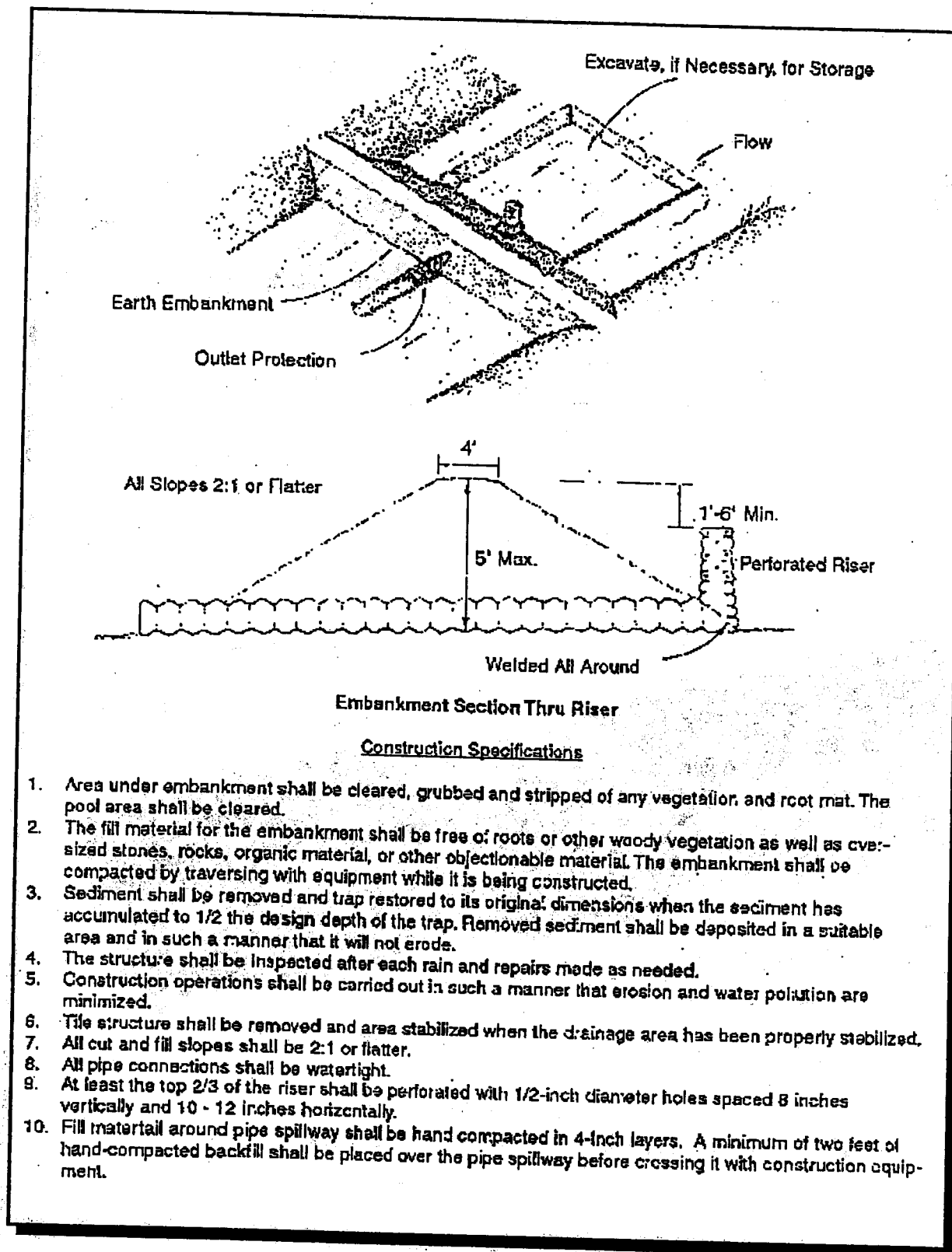


Plate 4.25b Pipe Outlet Sediment Trap

Source: NRCS

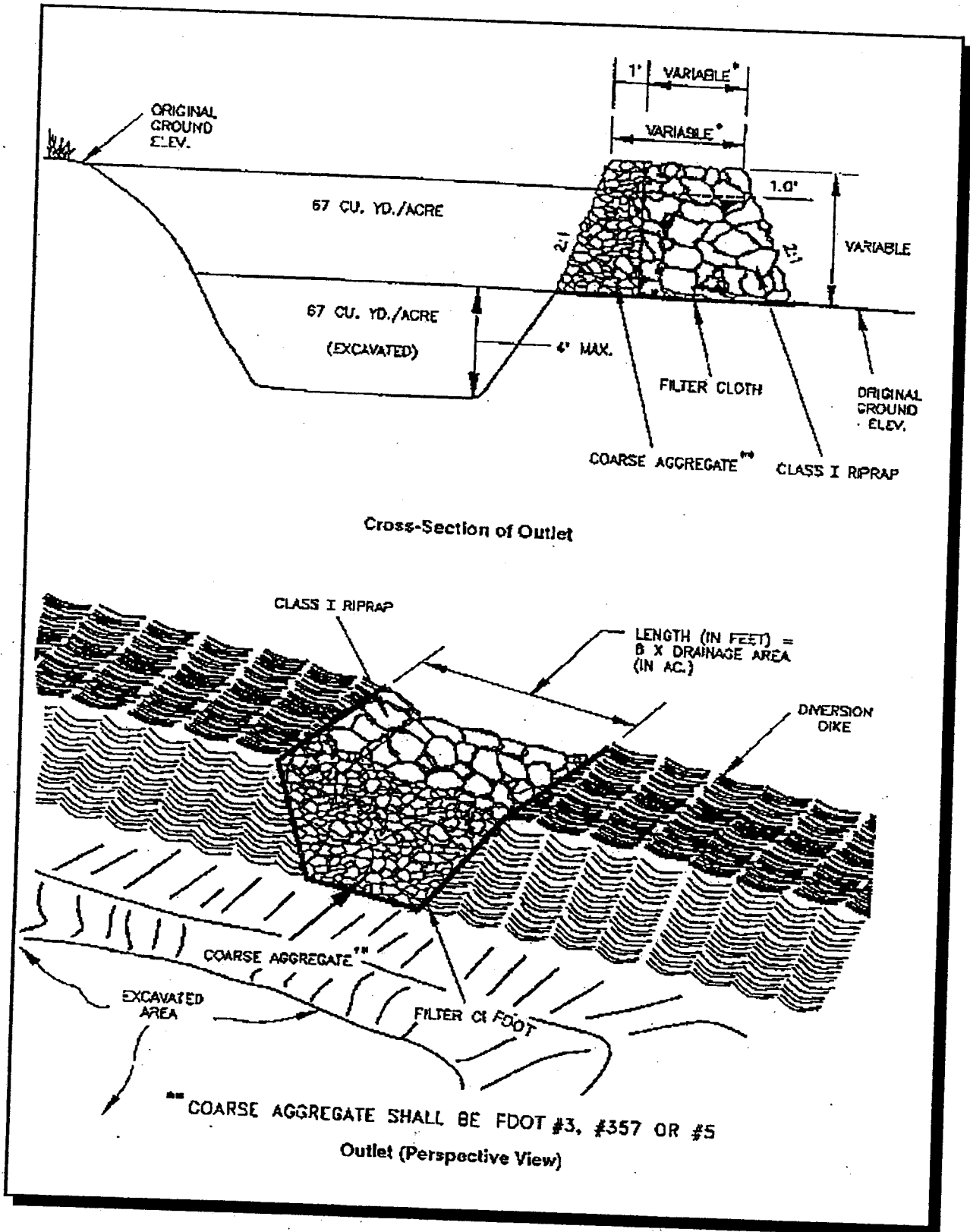


Plate 4.25c Stone Outlet Sediment Trap
Source: NRCS

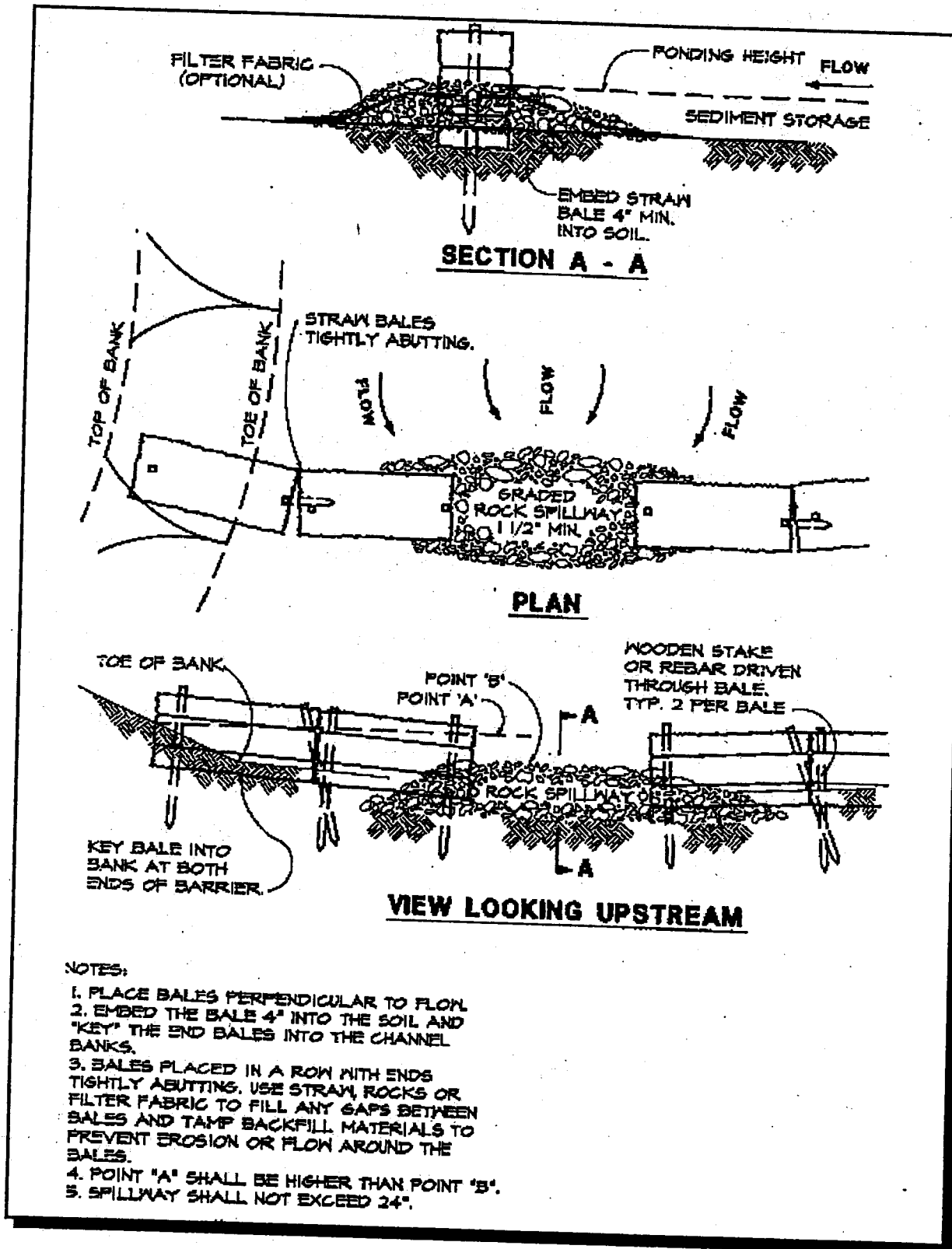


Plate 4.25d Semi-pervious Straw Bale Sediment Barrier
Source: Erosion Draw
Outlet

The outlets shall be designed, constructed and maintained so that sediment does not leave the trap and that erosion of the outlet does not occur. A trap may have several different outlets with each outlet conveying part of the flow based on the criteria below. The combined outlet capacity shall be sufficient for the drainage area. For example, a 12 foot (3.6 m) earth outlet, adequate for 2 acres (0.8 ha), and a 12 inch (30 cm) pipe outlet, adequate for 1 acre (0.4 ha), could be used for a three acre (1.2 ha) drainage area.

There are four types of outlets for sediment traps. Each sediment trap is named according to the type of outlet that it has. Each type has different design criteria and will be discussed separately.

1. An Earth Outlet Sediment Trap consists of a basin formed by excavation and/or an embankment. The trap has a discharge point over or cut into natural ground. The outlet width (feet) shall be equal to 6 times the drainage area (acres). If an embankment is used the outlet crest shall be at least one foot (30 cm) below the top of the embankment. The outlet shall be free of any restriction to flow. The earthen embankment shall be seeded with temporary or permanent vegetation (see Sections 6.65 and 6.66) within 15 days of construction. (See Plate 4.25a)
2. A Pipe Outlet Sediment Trap consists of a basin formed by an embankment, or an excavation and an embankment. The outlet for the trap is through a perforated riser and a pipe through the embankment. The outlet pipe and riser shall be made of corrugated metal. The riser diameter shall be of the same or larger diameter than the pipe. The top of the embankment shall be at least 1.5 feet (45 cm) above the crest of the riser. At least the top 2/3 of the riser shall be perforated with 1/2 inch (13 mm) diameter holes spaced 8 inches (20 cm) vertically and 10-12 inches (25 - 30 cm) horizontally. All pipe connections shall be watertight (See Plate 4.25b). Select pipe diameter from the following table:

Minimum Pipe Diameter in inches (cm)		Maximum Drainage Area in acres (ha)	
12	(30 cm)	1	(0.4 ha)
18	(45 cm)	2	(0.8 ha)
21	(53 cm)	3	(1.2 ha)
24	(60 cm)	4	(1.6 ha)
30	(75 cm)	5	(2.0 ha)

3. A Stone Outlet Sediment Trap consists of a basin formed by an embankment or excavation and an embankment. The outlet for the sediment trap shall consist of a crushed stone section of the embankment located at the low point in the basin. The minimum length of the outlet shall be 6 feet times the acreage of the drainage area (4.5 m times hectares). The crest of the outlet must be at least 1 foot (30 cm) below the top of the embankment, to insure that the flow will travel over the stone and not the embankment. The outlet shall be constructed of FDOT No. 1 size crushed stone. (See Plate 4.25c) A very temporary alternate trap can be constructed from straw bales with a stone outlet. (See Plate 4.25d) Straw bales shall be installed per Section 4.05 STRAW BALE BARRIER (ES BMP 1.05).
4. A Storm Inlet Sediment Trap consists of a basin formed by excavation or natural

ground that discharges through an opening in a storm drain inlet structure. This opening can either be the inlet opening or a temporary opening made by omitting bricks or blocks in the inlet. The trap shall be between 1' and 2' (30 - 60 cm) deep measured from the low point of the inlet. A yard drain inlet or an inlet in the median strip of a dual highway would use the inlet opening for an outlet. (See Plate 4.25e) A curb inlet would require a temporary opening. (See Plate 4.25f) The trap should be out of the roadway to avoid interference with construction. Placing the trap on the opposite side of the opening and diverting water from the roadway to the trap is one means of accomplishing this.

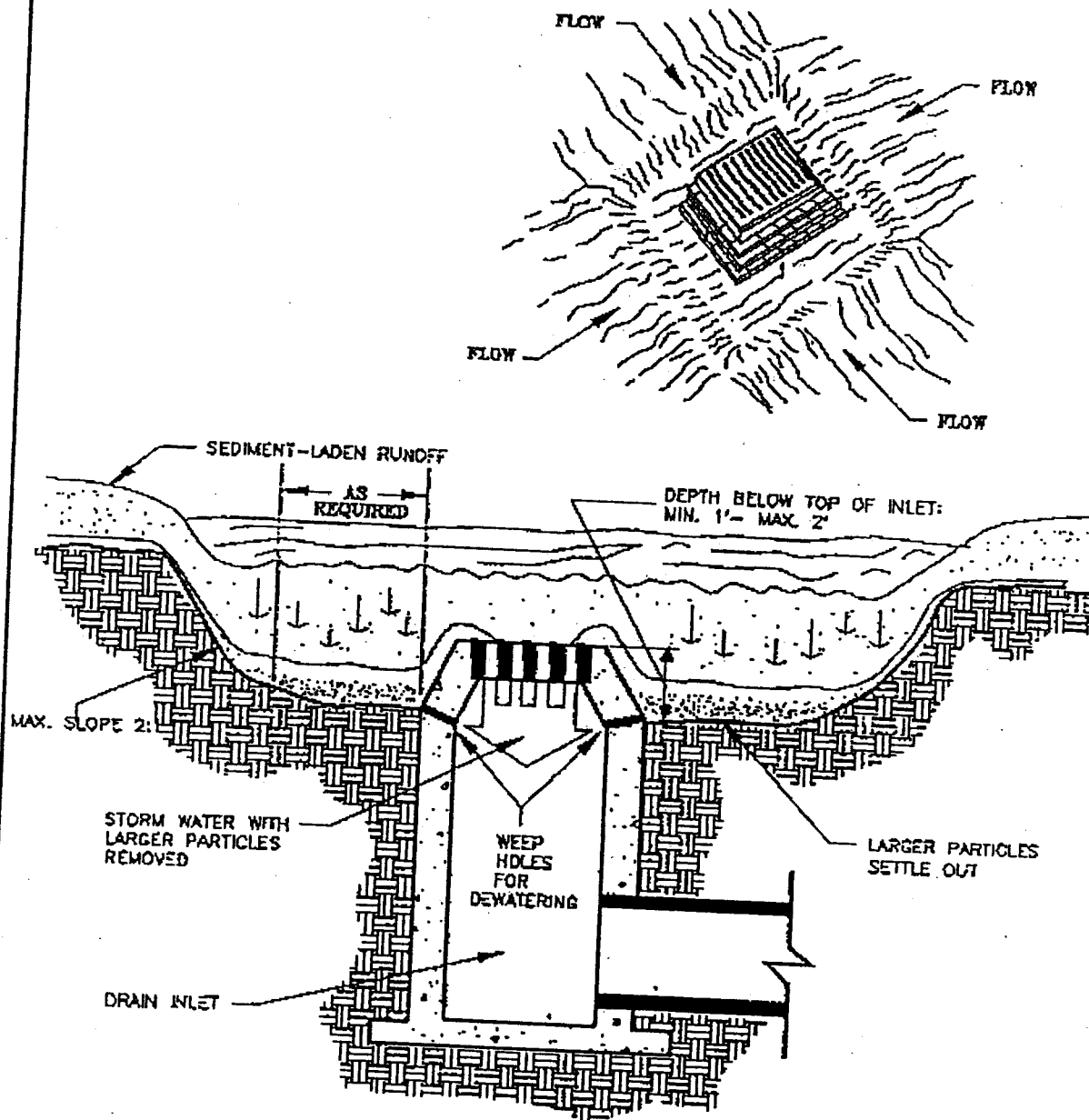
5. Other applications At times a small trap may be constructed in a drainage channel using the culvert for a road crossing. Straw bales or gravel filled bags may be used provided that there are no gaps in the installation. (See Plate 4.25g) In larger traps baffles may be required to insure adequate flow length and prevent short-circuiting. (See Plate 4.25h)

Construction Specifications

1. The area under the embankment shall be cleared, grubbed, and stripped of any vegetation and root mat. To facilitate cleanout, the pool area should be cleared.
2. Fill material for the embankment shall be free of roots or other woody vegetation, organic material, large stones, and other objectionable material. The embankment should be compacted in 8 inch (20 cm) layers by traversing with construction equipment.
3. The earthen embankment shall be seeded with temporary or permanent vegetation (see Sections 6.65 and 6.66) within 15 days of construction.
4. Construction operations shall be carried out so that erosion and water pollution are minimized.
5. The structure shall be removed and the area stabilized when the upslope drainage area has been stabilized.

Maintenance

1. Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to 1/2 the design volume of the trap. Sediment removed from the basin shall be deposited in a suitable area and in such a manner that it will not erode.
2. The structure should be checked regularly to insure that it is structurally sound and has not been damaged by erosion or construction equipment. The height of the outlet should be checked to ensure that its center is at least one foot (30 cm) below the top of the embankment.



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPABILITY AND EASE OF MAINTENANCE ARE DESIRABLE.

Plate 4.25e Excavated Drop Inlet Sediment Trap

Source: Michigan Soil Erosion and Sedimentation Control Guidebook

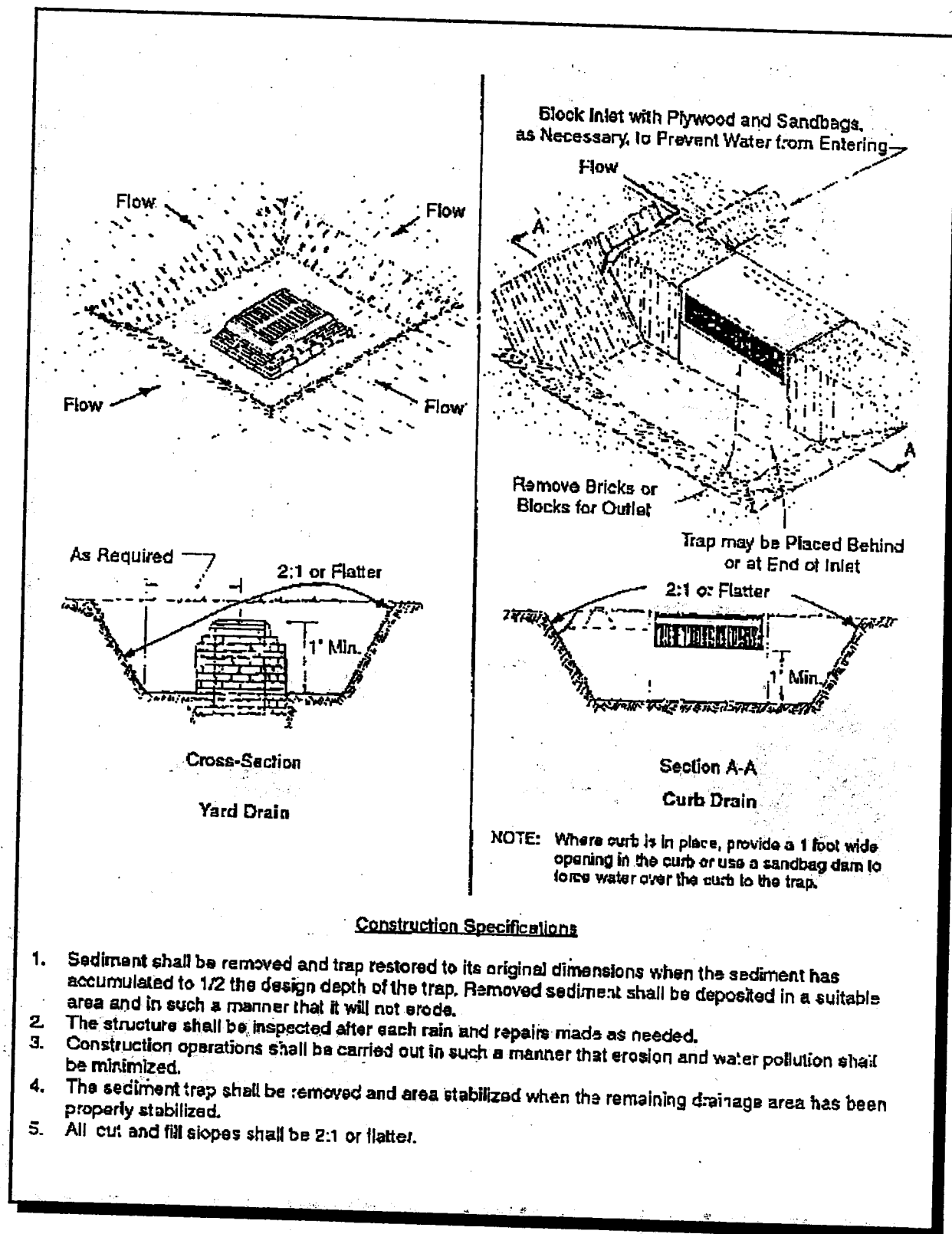


Plate 4.25f Storm Inlet Sediment Trap
Source: NRCS

Removal

Sediment traps must be removed after the contributing drainage area is stabilized. Plans should show how the site of the sediment trap is to be graded and stabilized after removal.

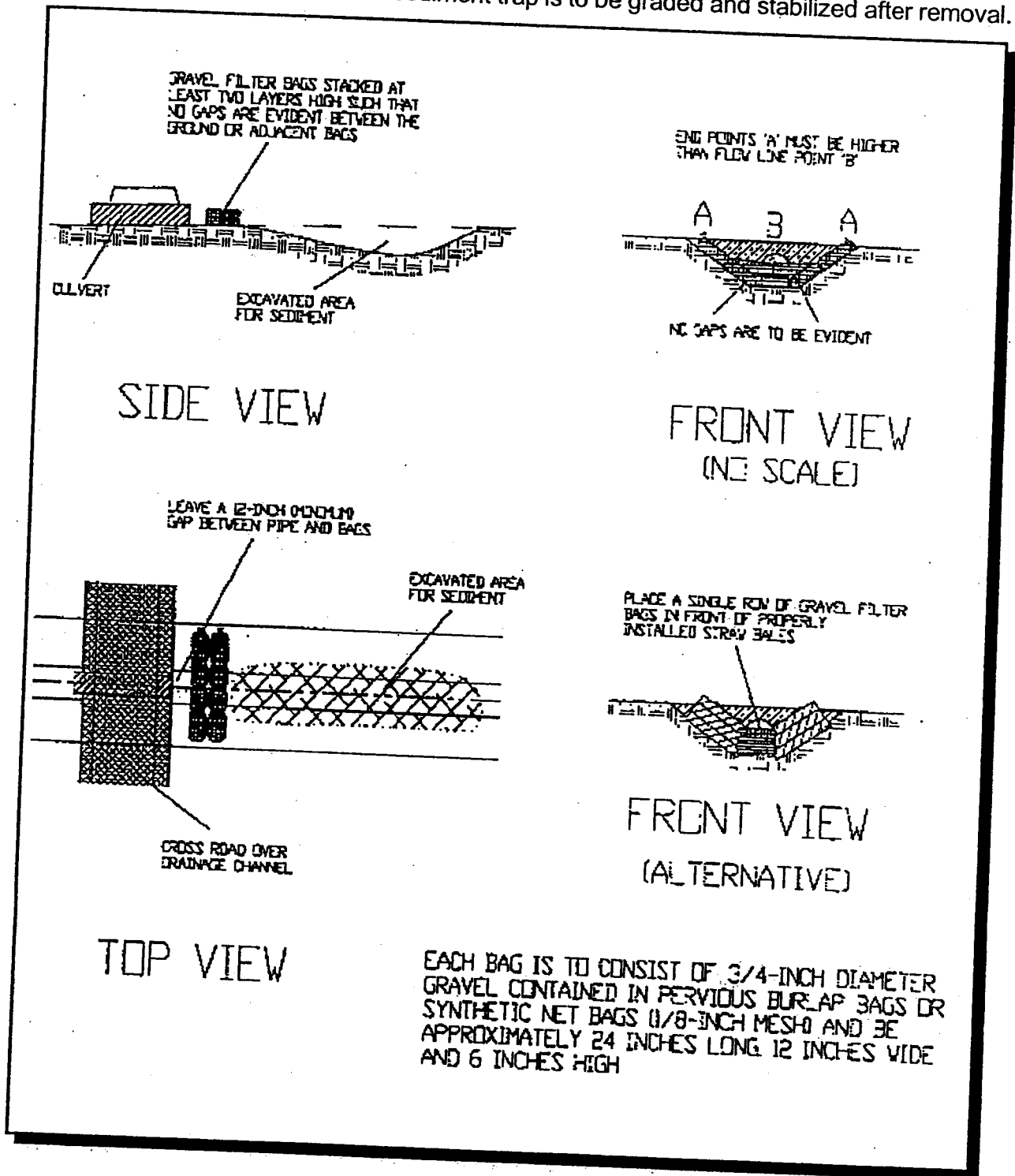
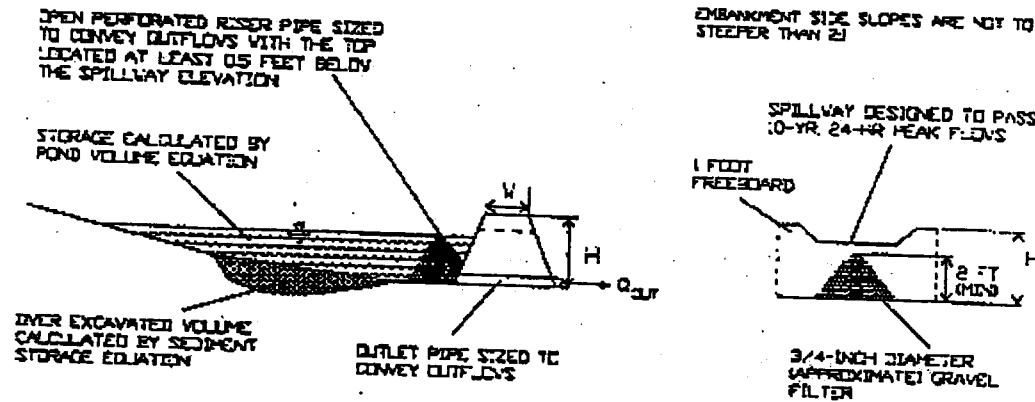


Plate 4.25g Small Sediment Trap Located within a Stormwater Conveyance Channel Source: HydroDynamics, Inc.

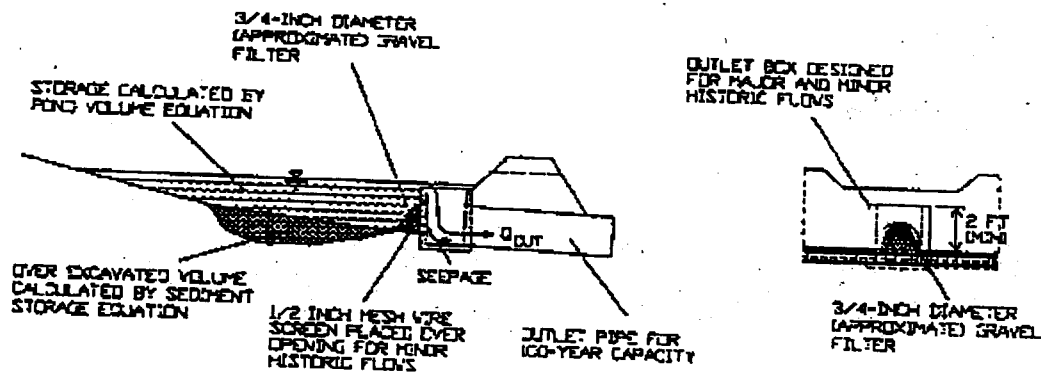
SEDIMENT TRAP GUIDELINES

H (FT)	2.0	2.5	3.0	3.5	5.0	4.5	5.0
W (FT)	2.0	2.5	2.5	3.0	3.0	4.0	4.5

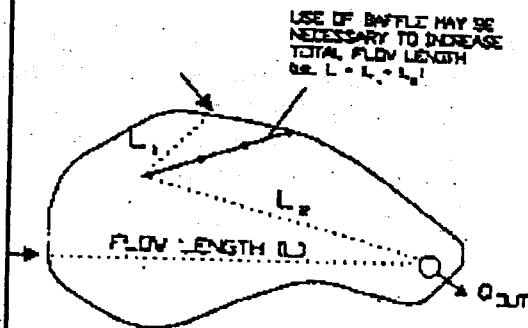
EMBANKMENT SIDE SLOPES ARE NOT TO BE STEEPER THAN 2:1



DETENTION POND SEDIMENT TRAP/BASIN



FLOW LENGTH DETAIL



BAFFLE DETAIL

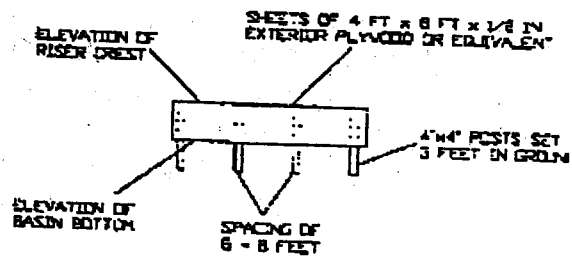


Plate 4.25h Sediment Trap and Basin Guide

Source: HydroDynamics, Inc.

4.26 TEMPORARY SEDIMENT BASIN **(ES BMP 1.26)**

Definition

A temporary basin with a controlled stormwater release structure, formed by constructing an embankment of compacted soil across a drainageway.

Purpose

To detain sediment-laden runoff from disturbed areas long enough for most of the sediment to settle out.

Conditions Where Practice Applies

Below disturbed areas greater than 5 acres (2 ha). There must be sufficient space and appropriate topography for the construction of a temporary impoundment. These structures are limited to a useful life of 18 months unless they are designed as permanent ponds by a qualified professional engineer.

Planning Considerations

Effectiveness

Sediment basins are at best only 70-80% effective in trapping sediment which flows into them. Therefore, they should be used together with erosion control practices such as temporary seeding, mulching, diversion dikes, etc. to reduce the amount of sediment flowing into the basin.

Location

To improve the effectiveness of the basin, it should be located so as to intercept the largest possible amount of runoff from the disturbed area. The best locations are generally low areas and natural drainageways below disturbed areas. Drainage into the basin can be improved by the use of diversion dikes and ditches. The basin must not be located in a live stream but should be located to trap sediment-laden runoff before it enters the stream. The basin should not be located where its failure would result in the loss of life, damage to adjacent properties, or interruption of the use of public utilities or roads.

Multiple Use

Sediment basins may be designed as permanent structures to remain in place after construction is completed. The Stormwater Rule (Ch. 62-25, F.A.C.) makes the use of these structures desirable for stormwater detention purposes. Always leave the bottom of the sediment basin 6" - 12" higher than the eventual bottom of a retention basin. This will ensure removal of accumulated fine sediments which could prematurely clog the retention basin. Wherever these structures are to become permanent, or if they exceed the size limitations of

Chapter 4 - Best Management Practices for Erosion and Sediment Control

the design criteria, they must be designed as permanent ponds by a qualified professional engineer. Permanent ponds are beyond the scope of this BMP.

Design Criteria

Maximum Drainage Area

Unless the structure is designed as a permanent pond by a qualified professional engineer, the maximum allowable drainage area into the basin shall be 150 acres (61 ha).

Basin Capacity

The design capacity of the basin must be at least 134 cubic yards or 3600 cubic feet per acre (252 m³/ha) of drainage area measured from the bottom of the basin to the crest of the principal spillway (riser pipe). Sediment should be removed from the basin when the volume of the basin has been reduced to 55 cubic yards per acre (104 m³/ha) of drainage area. The elevation of the sediment clean out level should be calculated and clearly marked on the riser. In no case shall the sediment clean out level be higher than one foot (30 cm) below the top of the riser. (See Plate 4.26a).

Basin Shape

To improve sediment trapping efficiency of the basin, the effective flow length must be twice the effective flow width. This basin shape may be attained by properly selecting the site of the basin, by excavation, or by the use of baffles. See Appendix 1.26A for design details.

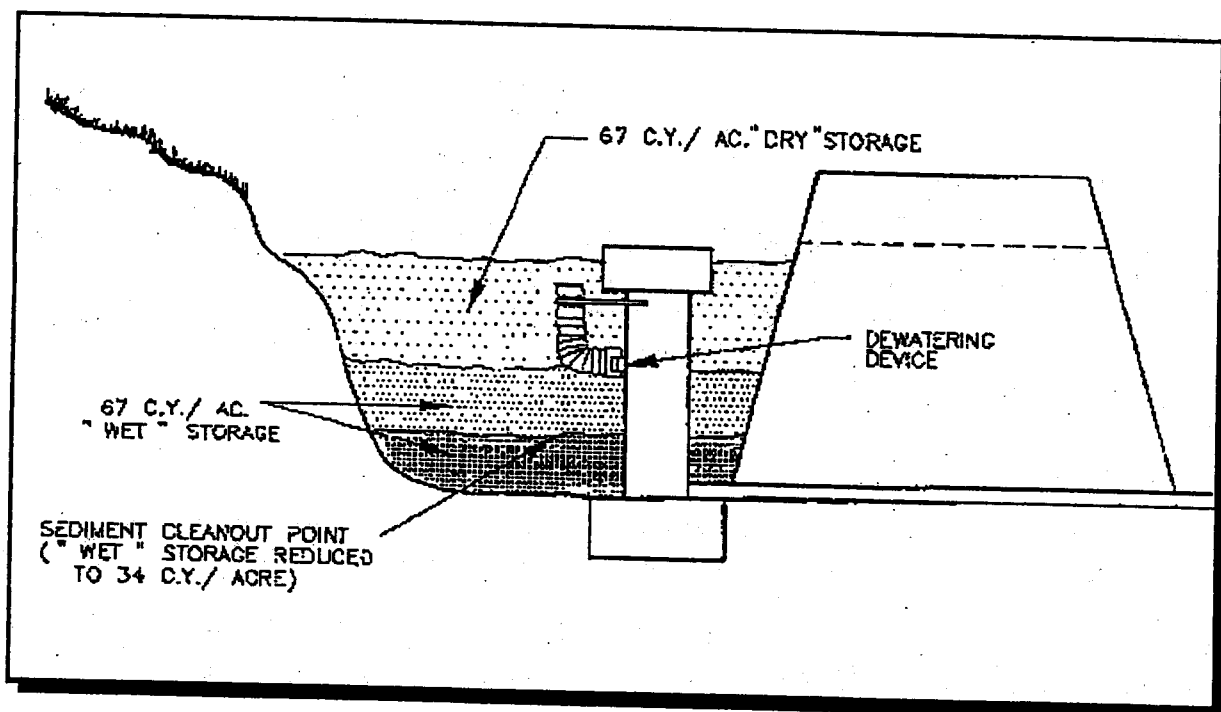


Plate 4.26a Sediment Basin Storage Volumes

Source: Virginia DSWC

Embankment Cross-Section

The embankment must have a minimum top width of 8 feet (2.5 m). The side slopes must be 2:1 or flatter. The embankment may have a maximum height of 10 feet (3 m) if the side slopes are 2:1. If the side slopes are 2.5:1 or flatter, the embankment may have a maximum height of 15 feet (4.5 m).

Spillway Design

The outlets for the basin may consist of a combination of principal and emergency spillways or a principal spillway alone. In either case, the outlet(s) must pass the peak runoff expected from the drainage area for a 10 year storm without damage to the embankment of the basin. Runoff computations shall be based upon the soil cover conditions which are expected to prevail during the life of the basin. Refer to Chapter 3 of this manual for calculation of the peak rate of runoff.

The spillways designed by the procedures contained in this BMP will not necessarily result in any reduction in the peak rate of runoff. If a reduction in peak runoff is needed, the appropriate hydrographs should be generated to choose the basin and outlet sizes.

To increase the efficiency of the basin, the spillway(s) must be designed to maintain a permanent pool of water between storm events.

Principal Spillway

The principal spillway shall consist of a solid (non-perforated), vertical pipe or box of corrugated metal or reinforced concrete joined by a watertight connection to a horizontal pipe (barrel) extending through the embankment and outletting beyond the downstream toe of the fill. If the principal spillway is used in conjunction with an emergency spillway, the principal spillway shall have a minimum capacity of 0.2 cfs per acre (0.015 m³/sec. per ha) of drainage area when the water surface is at the crest of the emergency spillway. If no emergency spillway is used, the principal spillway must be designed to pass the entire peak flow expected from a 10-year storm. See Appendix 1.26A of The Florida Development Manual for design details.

Design Elevations

If the principal spillway is used together with an emergency spillway, the crest of the principal spillway shall be a minimum of one foot (30 cm) below the crest of the emergency spillway. If no emergency spillway is used, the crest of the principal spillway shall be a minimum of 3 feet (90 cm) below the top of the embankment. (See Plate 4.26b.) In either case, a minimum freeboard of one foot (30 cm) shall be provided between the design high water and the top of the embankment.

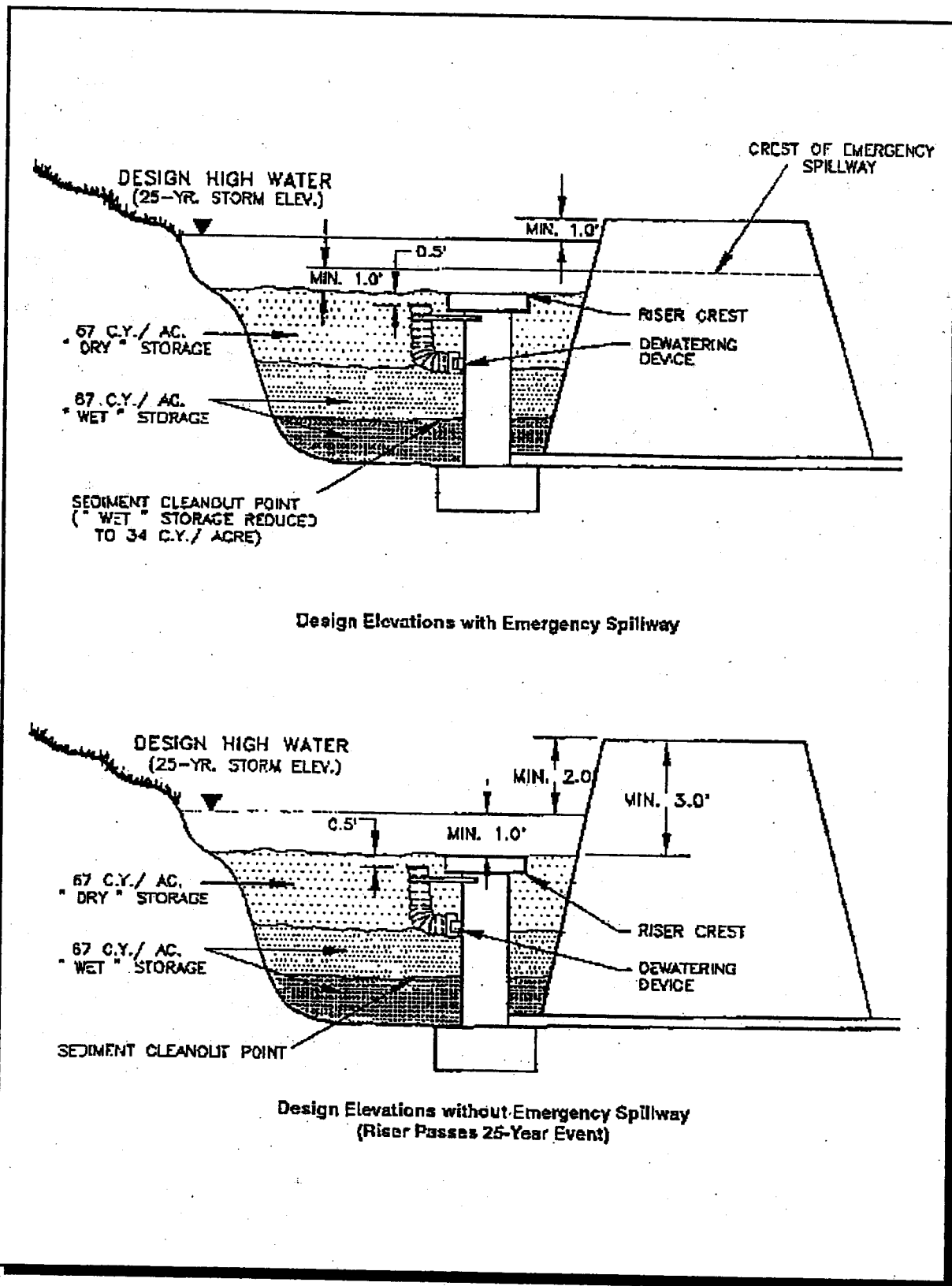


Plate 4.26b Sediment Basin Schematic Elevations
Source: Virginia DSWC

Anti-vortex device and trash rack

An anti-vortex device and trash rack shall be attached to the top of the principal spillway to improve the flow of water into the spillway and prevent floating debris from being carried out of the basin. The anti-vortex device shall be of the concentric type. (See Plate 4.26c). See Appendix 1.26A of The Florida Development Manual for design procedures for the anti-vortex device and trash rack.

Dewatering

Shall be done in a way that removes the relatively clean water without removing any of the sediment that has settled out and without removing any appreciable quantities of floating debris. As a minimum, provisions shall be made to dewater the basin down to the sediment cleanout elevation. This can be accomplished by providing a hole at the maximum sediment retention elevation (See Plate 4.26b). The dewatering hole shall be no larger than 4 inches (10 cm) in diameter. Other means of automatic dewatering are detailed in Appendix 1.26A of The Florida Development Manual.

It is also advantageous (but not required) to provide for dewatering of trapped sediment before clean out. Basin underdrains are generally installed for this purpose. Appendix 1.26A contains details for the design of an underdrain system.

Base

The base of the principal spillway must be firmly anchored to prevent its floating. If the riser of the spillway is greater than 10 feet (3 m) in height, computations must be made to determine the anchoring requirements. As a minimum, a factor of safety of 1.25 shall be used (downward forces = 1.25 x upward forces).

For risers 10 feet (3 m) or less in height, the anchoring may be done in one of the two following ways:

1. A concrete base 18 inches (45 cm) thick and twice the width of riser diameter shall be used and the riser embedded 6 inches (15 cm) into the concrete. (See Plate 4.26d and Appendix 1.26A of The Florida Development Manual for design details).
2. A square steel plate, a minimum of 1/4 inch (6.5 mm) thick and having a width equal to twice the diameter of the riser, shall be welded to the base of the riser. The plate shall then be covered with 2.5 feet (76 cm) of stone, gravel, or compacted soil to prevent floatation. (See Plate 4.26d and Appendix 1.26A for design details).

Barrel

The barrel of the principal spillway, which extends through the embankment, shall be designed to carry the flow provided by the riser of the principal spillway with the water level at the crest of the emergency spillway. The connection between the riser and the barrel must be watertight. The outlet of the barrel must be protected to prevent erosion or scour of downstream areas. See Appendix 1.26A for design details.

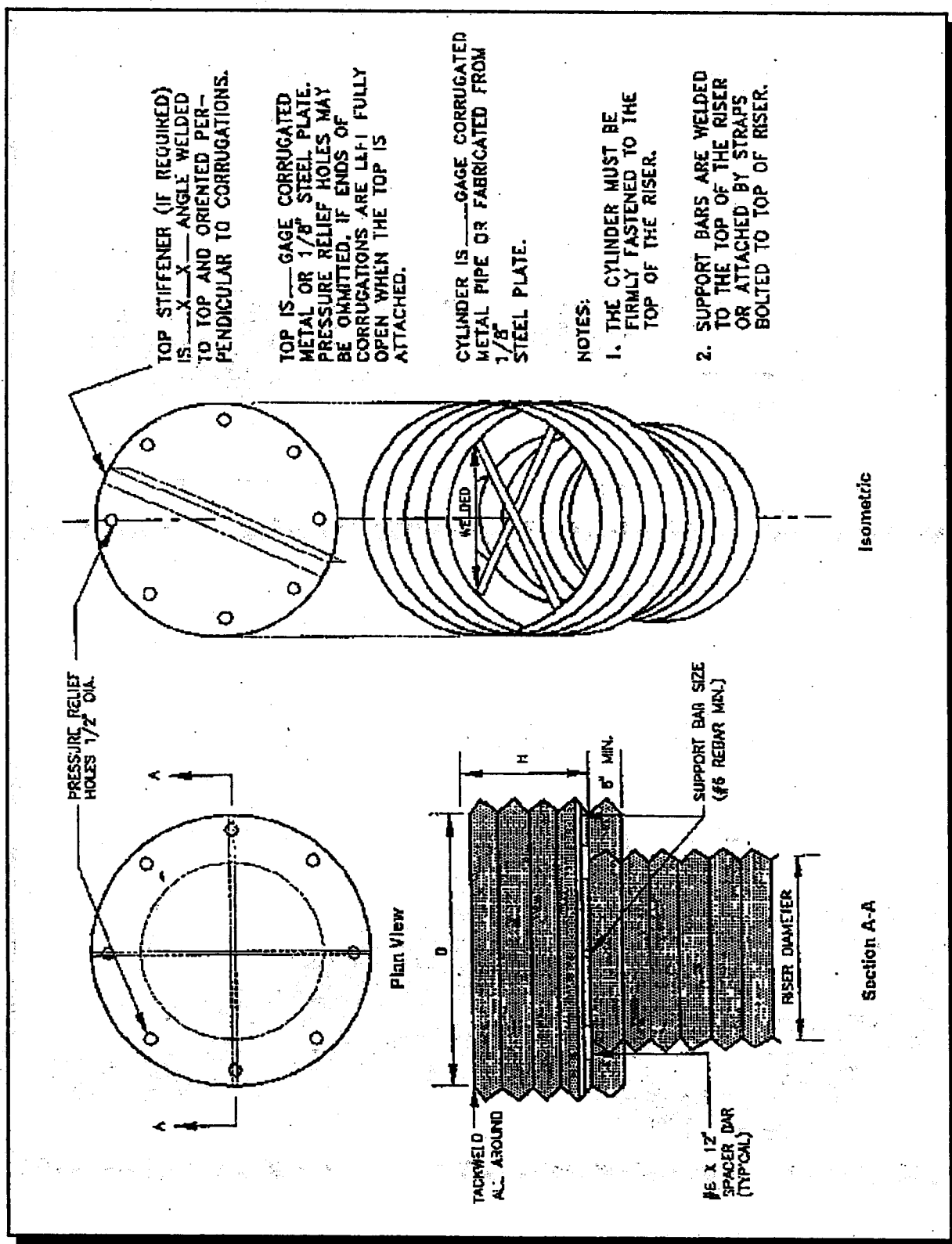


Plate 4.26c Anti-vortex Device Design
Source: NRCS

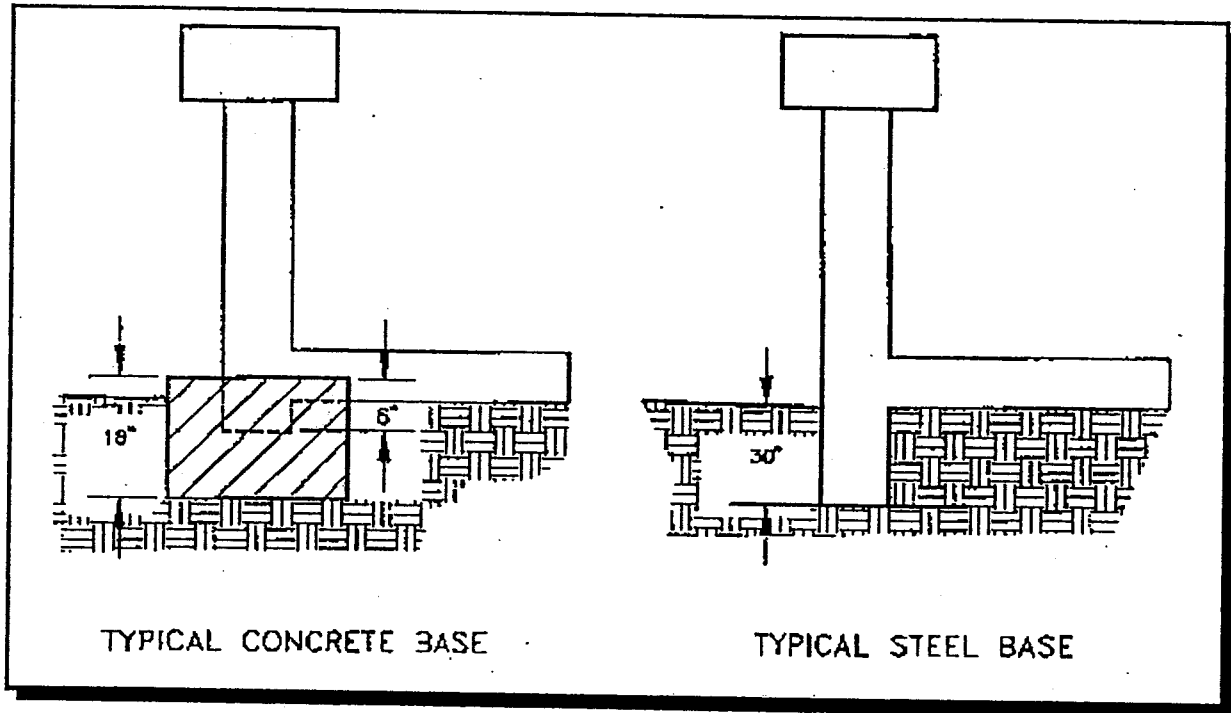


Plate 4.26d Riser Pipe Conditions
Source: Virginia DSWC

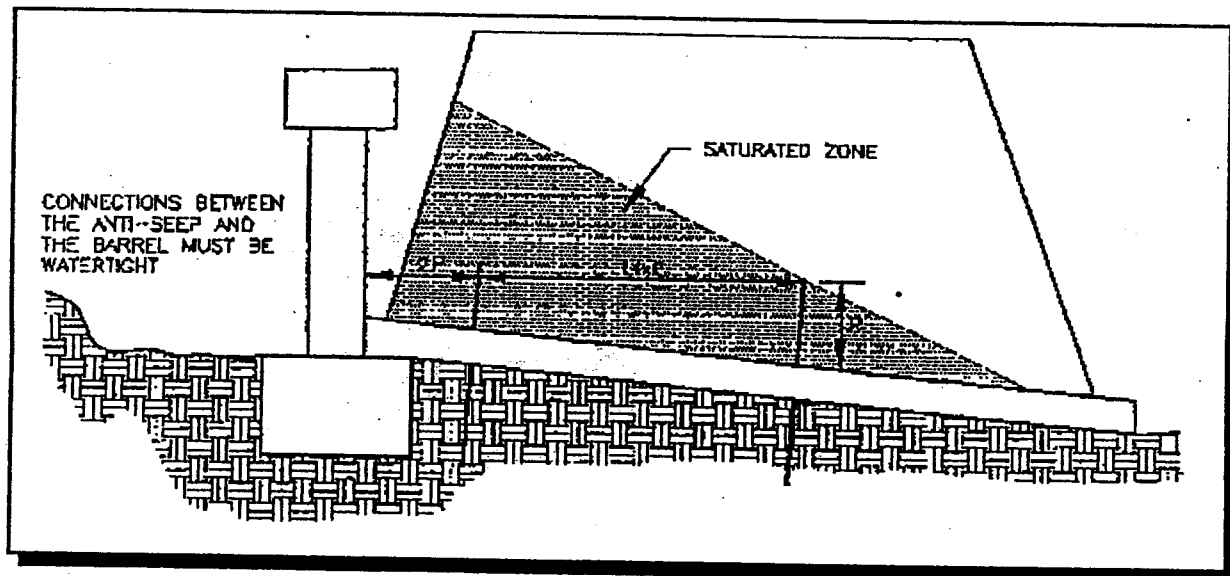


Plate 4.26e Location of Anti-seep Collars
Source: Virginia DSWC

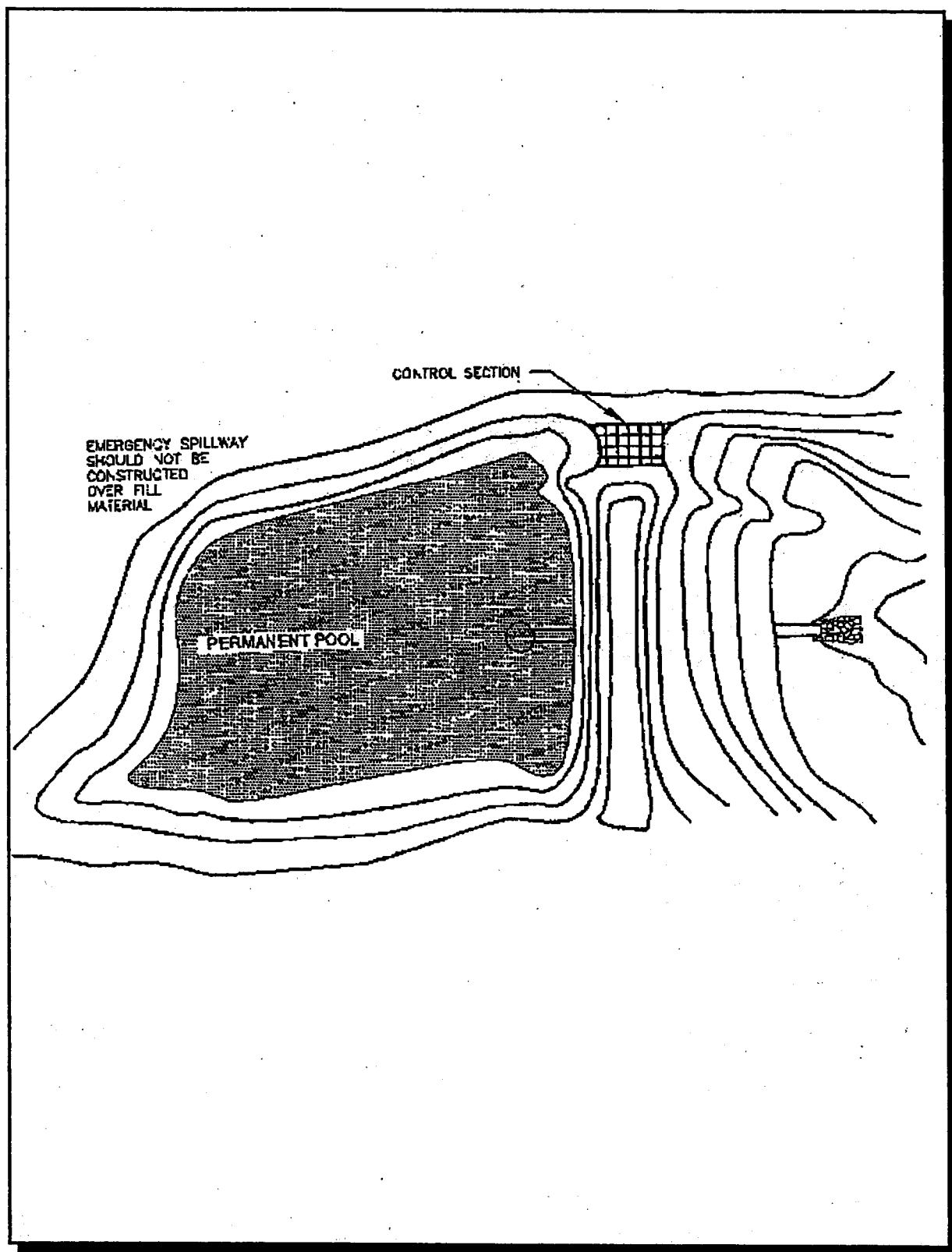


Plate 4.26f Emergency Spillway
Source: Virginia DSWC

Anti-seep collars

Anti-seep collars shall be used on the barrel of the principal spillway within the normal saturation zone of the embankment to increase the seepage length by at least 10%, if either of the following two conditions is met:

1. The settled height of the embankment exceeds 10 feet (3 m).
2. The embankment has a low silt-clay content (Unified Soil Classes SM or GM) and the barrel is greater than 10 inches (25 cm) in diameter.

The anti-seep collars shall be installed within the saturated zone. The maximum spacing between collars shall be 14 times the projection of the collar above the barrel. Collars shall not be closer than 2 feet (60 cm) to a pipe joint. Collars should be placed sufficiently far apart to allow space for hauling and compacting equipment. Connections between the collars and the barrel shall be watertight. See Plate 4.26e and Appendix 1.26A for design procedure and details.

Emergency Spillway

The emergency spillway shall consist of an open channel constructed next to the embankment over undisturbed material or properly compacted fill. The spillway shall have a control section at least 20 feet (6 m) in length. The control section is a level portion of the spillway channel at the highest elevation in the channel. (See Appendix 1.26A and Plate 4.26f). The primary spillway and the emergency spillway shall both discharge to stabilized outlets. (See Plate 4.26g).

Capacity

The emergency spillway shall be designed to carry the peak rate of runoff expected from a 10-year storm, less any reduction due to the flow through the principal spillway. See Appendix 1.26A for design details.

Design elevations

The design high water through the emergency spillway shall be at least one foot (30 cm) below the top of the embankment. The crest of the emergency spillway channel shall be at least one foot (30 cm) above the crest of the principal spillway.

Location

The emergency spillway channel shall be located to avoid fill material. If constructed on fill, the fill will be properly compacted in lifts. The channel shall be located so as to avoid sharp turns or bends. The channel shall return the flow of water to a defined channel downstream from the embankment.

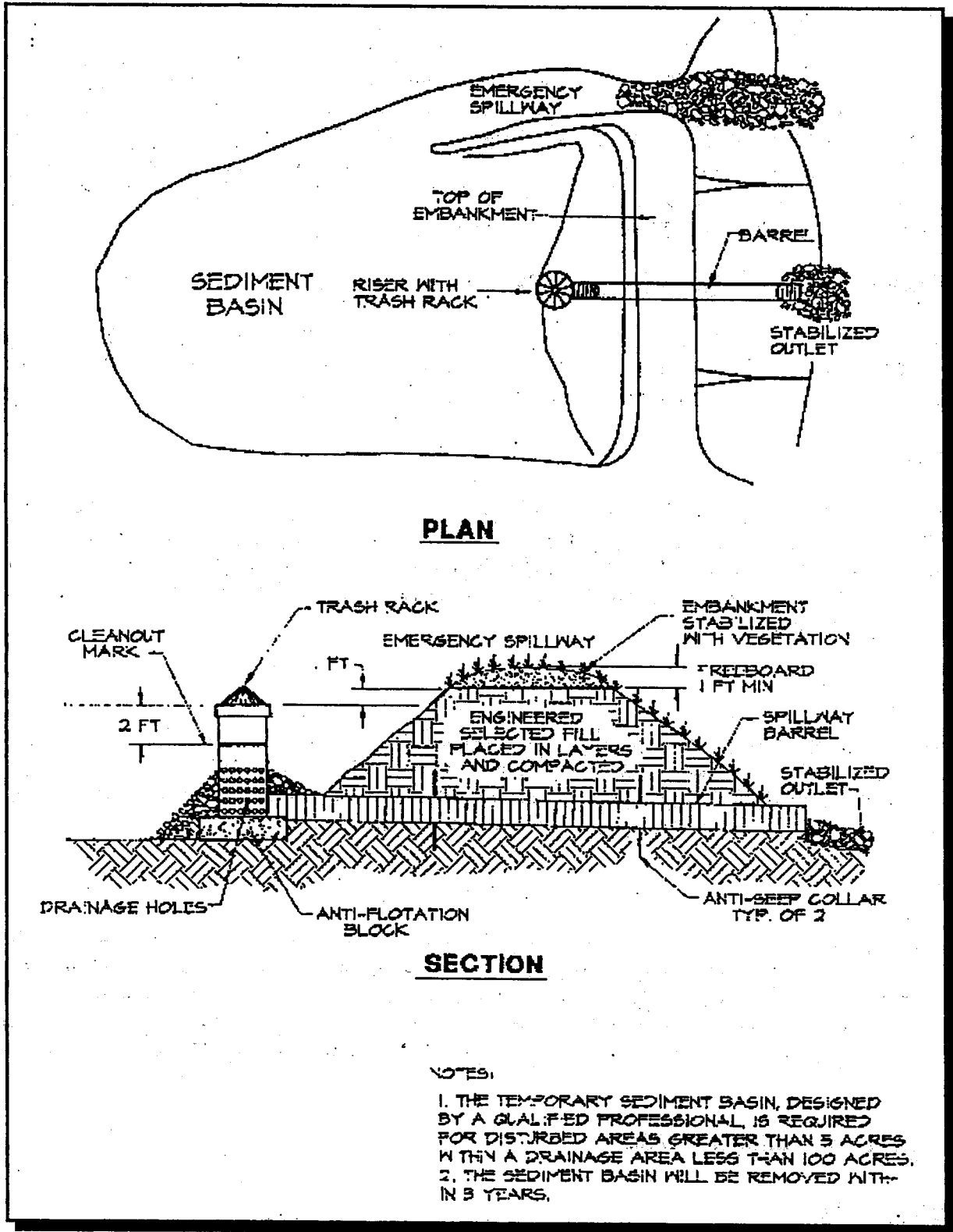


Plate 4.26g Sediment Basin

Source: Erosion Draw

Maximum velocities

The maximum allowable velocity in the emergency spillway channel will depend upon the type of lining used. For vegetated linings, allowable velocities are listed in Table 5.35a (STORMWATER CONVEYANCE CHANNEL - Section 5.35 - ES BMP 1.35). For non-erodible linings, such as concrete or asphalt paving and riprap, design velocities may be increased. However, the emergency spillway channel shall return the flow to the natural channel at a non-eroding velocity. See Appendix 1.26A for design details.

Stabilization of the Embankment and Basin

The embankment of the sediment basin shall be temporarily seeded within 15 days after its completion as per TEMPORARY SEEDING - Section 6.65 (ES BMP 1.65). If excavation is required in the basin, side slopes should not be steeper than 2:1.

Cleanout

Sediment shall be removed from the basin when the capacity is reduced to 55 cubic yards per acre ($104 \text{ m}^3/\text{ha}$) of drainage area. This elevation should be clearly marked, preferably on the riser. Plans for the sediment basin shall state the methods for disposing of sediment removed from the basin. Possible alternatives are the use of the material in fill areas on-site or removal to an approved off-site dump.

Final removal

Sediment basin plans shall show the final disposition of the sediment basin after the upstream drainage area is stabilized. The plans shall specify methods for the removal of excess water lying over the sediment, stabilization of the basin site, and the disposal of any excess material. Sediment shall not be flushed into the stream or drainageway.

Safety

Sediment basins are attractive to children and can be very dangerous. Therefore, they should be fenced or otherwise made inaccessible to persons or animals unless this is deemed unnecessary due to the remoteness of the site or other circumstances. Strategically placed signs around the impoundment reading "DANGER-QUICKSAND" should also be installed. In any case, local ordinances and regulations regarding health and safety must be adhered to.

Construction Specifications

Site Preparation

Areas under the embankment and any structural works shall be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots, or other objectionable material. In order to facilitate cleanout and restoration, the pool area (measured at the top of the principal spillway) will be cleared of all brush and trees.

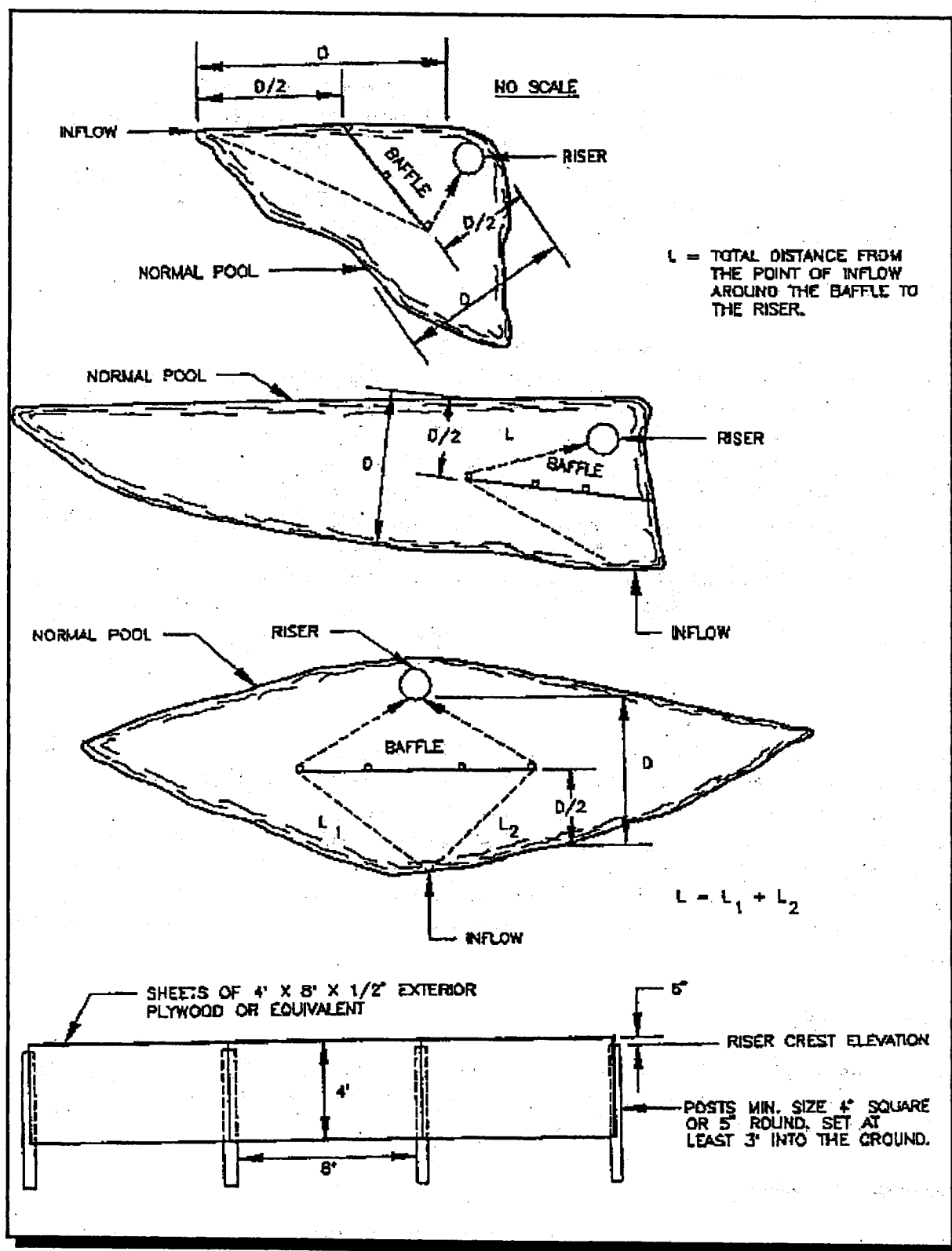


Plate 4.26h Example Plan Views of Baffle Locations in Sediment Basins
Source: NRCS

Cutoff Trench

For earth fill embankments, a cutoff trench shall be excavated along the centerline of the dam. The minimum depth shall be 2 feet (60 cm). The cutoff trench shall extend up both abutments to the riser crest elevation. The minimum bottom width shall be 4 feet (1.2 m), but wide enough to allow operation of compaction 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-compacting operations.

Embankment

The fill material shall be taken from approved borrow areas. It shall be clean mineral soil, free of roots, woody vegetation, oversized stones, rocks, or other objectionable material. Areas on which fill is to be placed shall be scarified prior to placement of fill. The fill material should contain sufficient moisture so that it can be formed by hand into a ball without crumbling. If water can be squeezed out of the ball, it is too wet for proper compaction. Fill material will be placed in 6 to 8 inch (15 to 20 cm) continuous layers over the entire length of the fill. Compaction shall be obtained by routing the hauling equipment over the fill so that the entire surface of the fill is traversed by at least one wheel or tread track of the equipment, or by using a compactor. The embankment shall be constructed to an elevation 10% higher than the design height to allow for settlement if compaction is obtained with hauling equipment. If compactors are used for compaction, the overbuild may be reduced to not less than 5%.

Principal Spillway

The riser of the principal spillway shall be securely attached to the barrel by a watertight connection. The barrel and riser shall be placed on a firm compacted soil foundation. The base of the riser shall be firmly anchored according to design criteria to prevent its floating. Pervious material such as sand, gravel or crushed stone shall not be used as backfill around the barrel or anti-seep collars. Fill material shall be placed around the pipe in 4 inch (10 cm) layers and compacted by hand at least to the same density as the embankment. A minimum of two feet (60 cm) of fill shall be hand-compacted over the barrel before crossing it with construction equipment.

Emergency Spillway

The emergency spillway should not be constructed over fill material. Design elevations, widths, entrance and exit channel slopes are critical to the successful operation of the spillway and should be adhered to closely during construction.

Vegetative Stabilization

The embankment and emergency spillway of the sediment basin shall be stabilized with temporary vegetation within 15 days of completion of the basin as per TEMPORARY SEEDING - Section 6.65 (ES BMP 1.65).

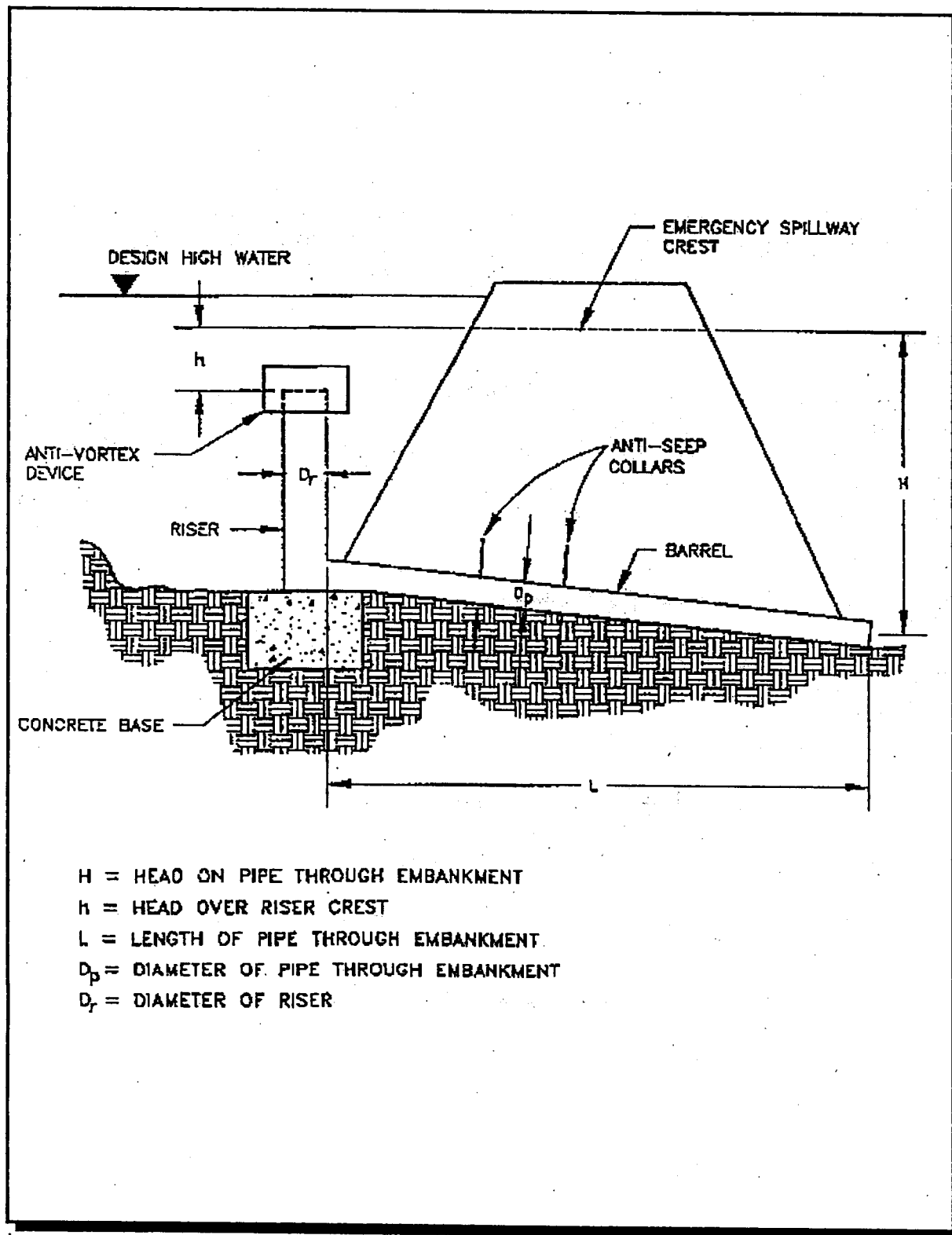


Plate 4.26i Principal Spillway Design

Source: Virginia DSWC

Erosion and Sediment Control

The construction of the sediment basin shall be carried out in a manner such that erosion and water pollution are minimized downstream.

Final Disposal

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 according to the approved pollution control plan.

Maintenance

The embankment of the basin should be checked regularly to ensure that it is structurally sound and has not been damaged by erosion or construction equipment. The emergency spillway should be checked regularly to ensure that its lining is well established and erosion-resistant. The basin should be checked after each runoff-producing rainfall for sediment cleanout. When the sediment reaches the cleanout level mark, it shall be removed and properly disposed of.

Information to be Submitted for Approval

Sediment Basin designs and construction plans submitted for review to the appropriate regulatory agency shall include:

1. Specific location of the dam.
2. Plan view of dam, storage basin and emergency spillway.
3. Cross-sections and profiles of dam, principal spillway and emergency spillway.
4. Details of pipe connections, riser to pipe connection, riser base, anti-seep collars, trash rack, and anti-vortex device.
5. Runoff calculations for 10-year frequency storm.
6. Storage Computations
 - a. Total required
 - b. Total available
 - c. Level of sediment at which cleanout shall be required; to be stated as a distance from the riser crest to the sediment surface.
7. Calculations showing design of pipe and emergency spillway.

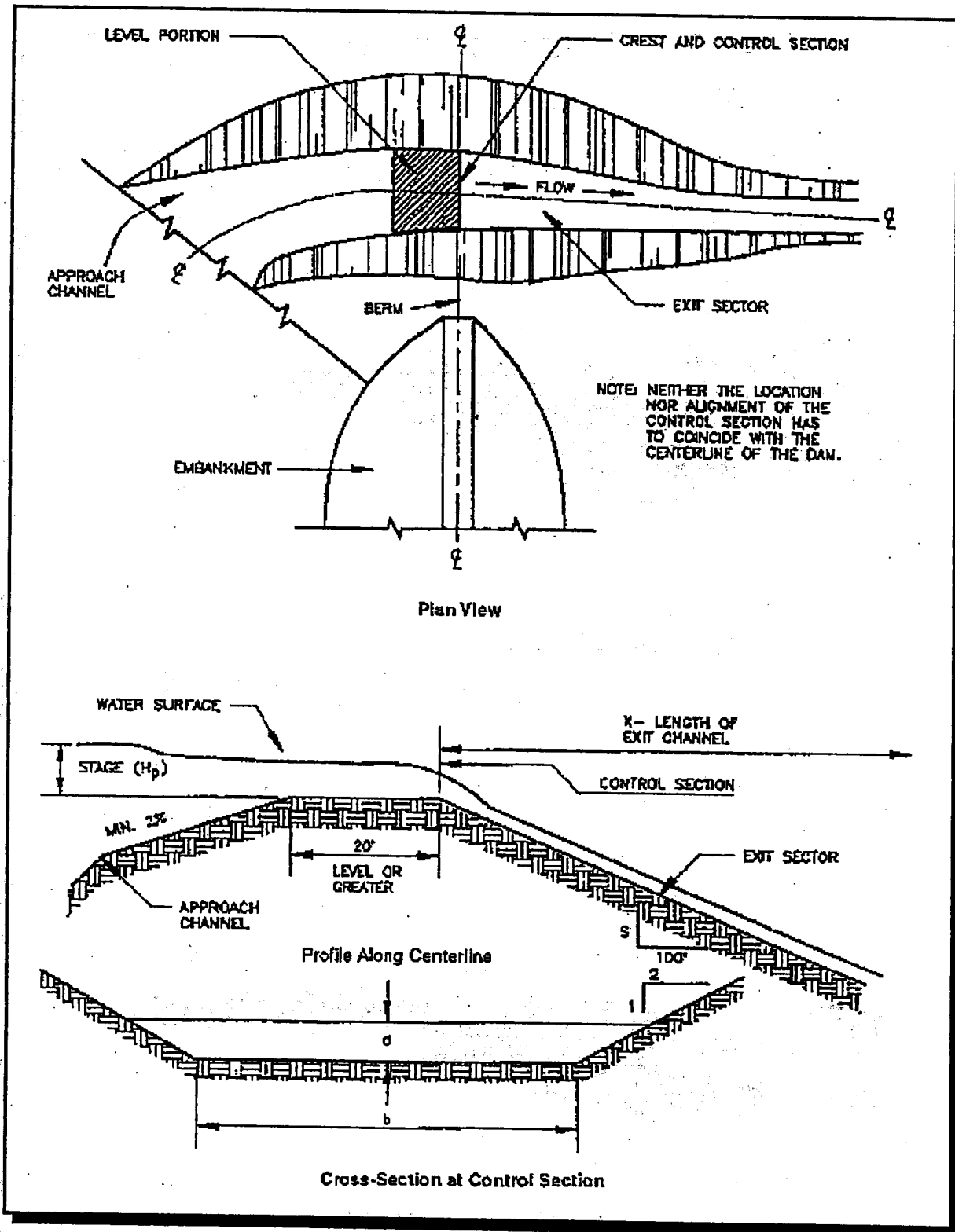


Plate 4.26j Excavated Earth Spillway

Source: NRCS

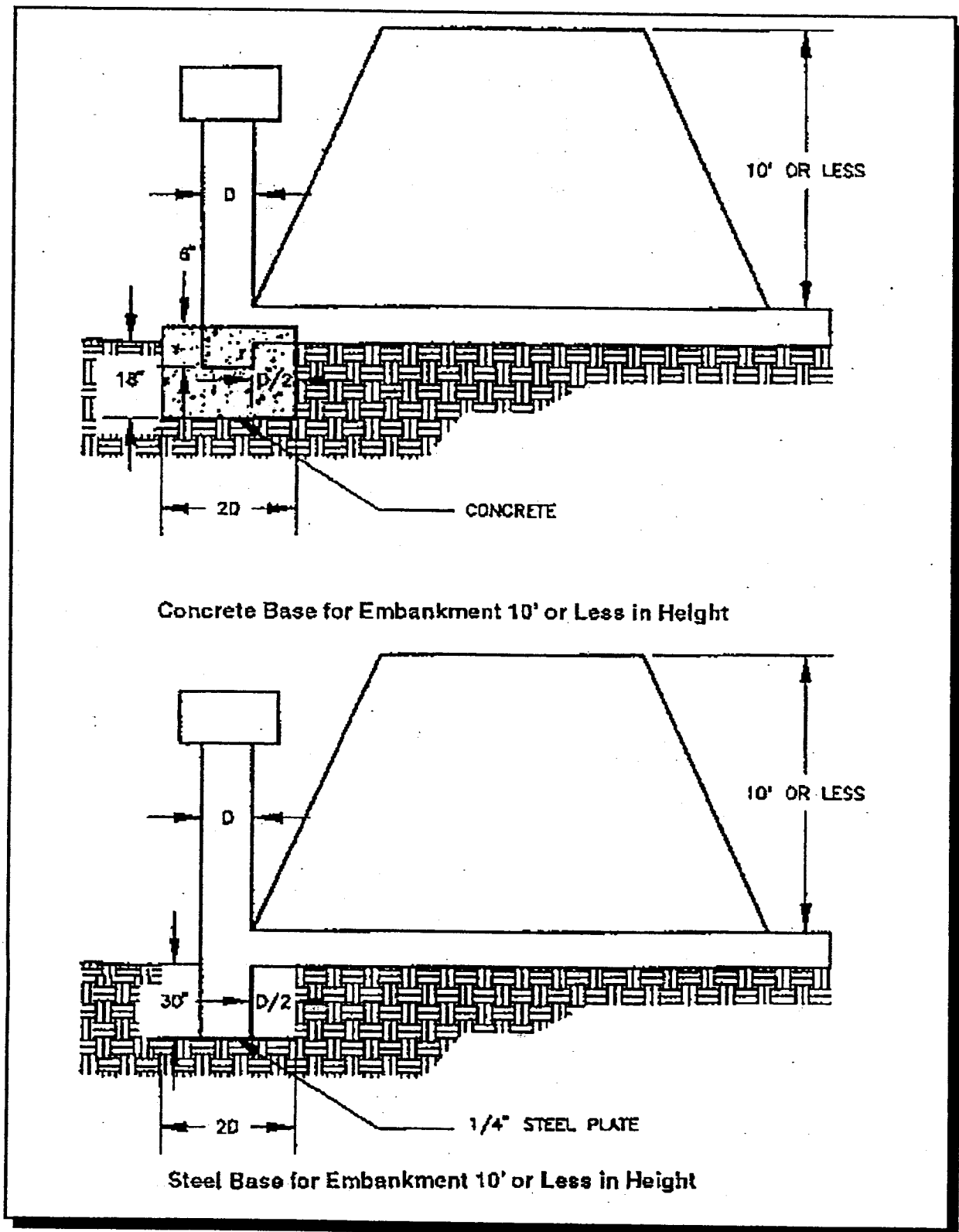


Plate 4.26k Riser Pipe Base Conditions for Embankments Less than 10 Feet High
Source: Virginia DSWC

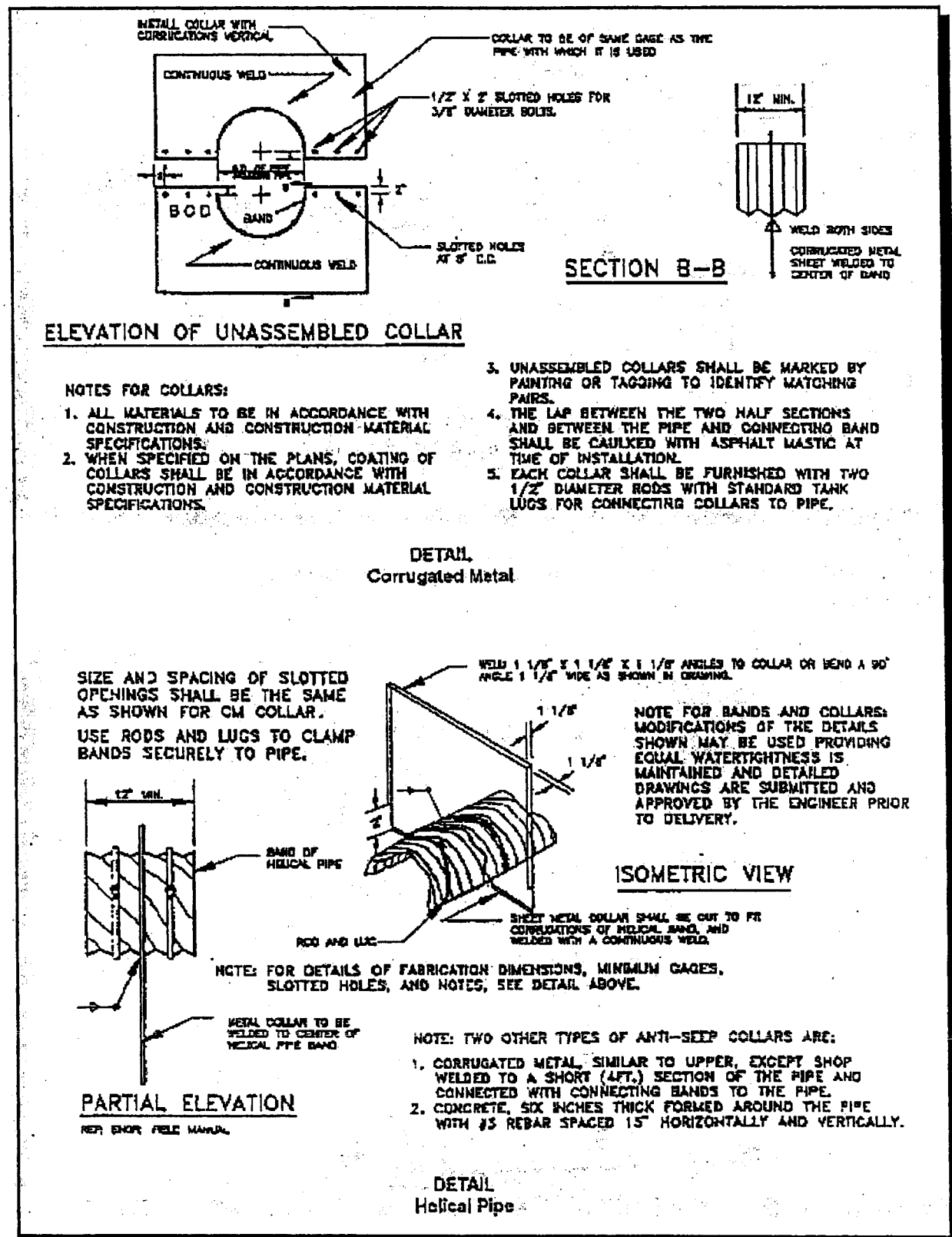


Plate 4.26L Anti-seep Collar Details -- Source: NRCS

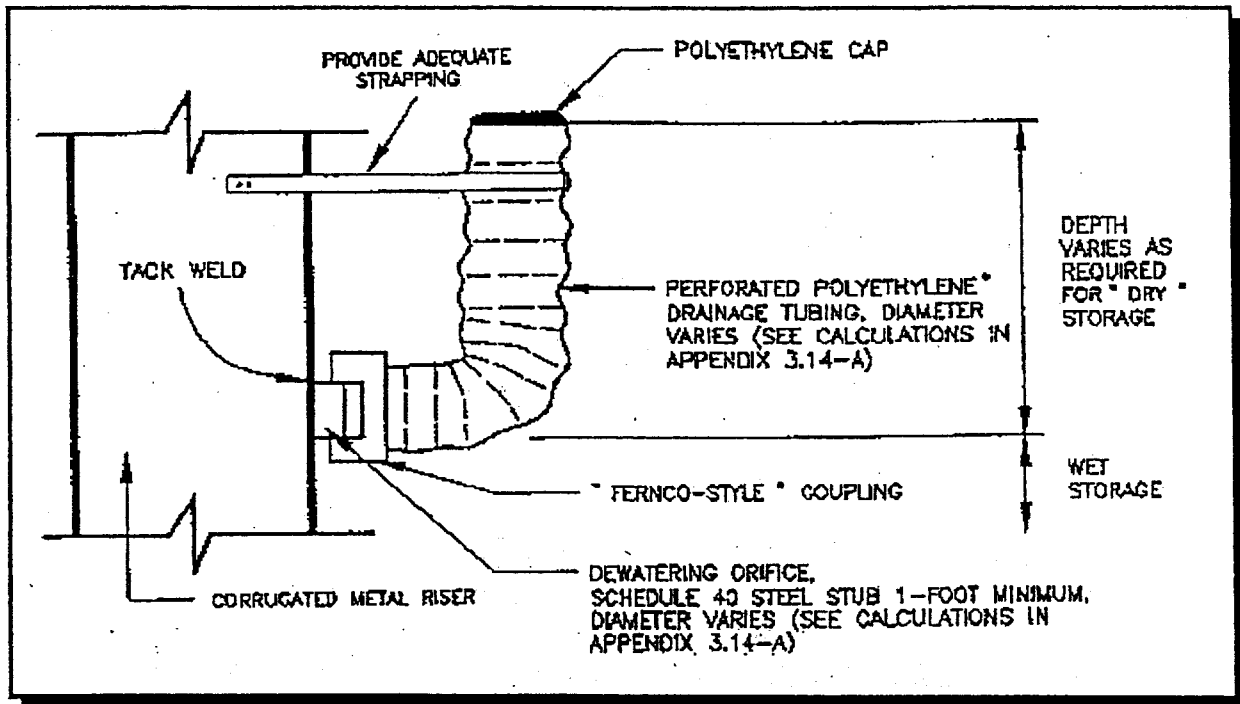


Plate 4.26m Perforated Pipe Sediment Basin Dewatering Device

Source: Virginia DSWC

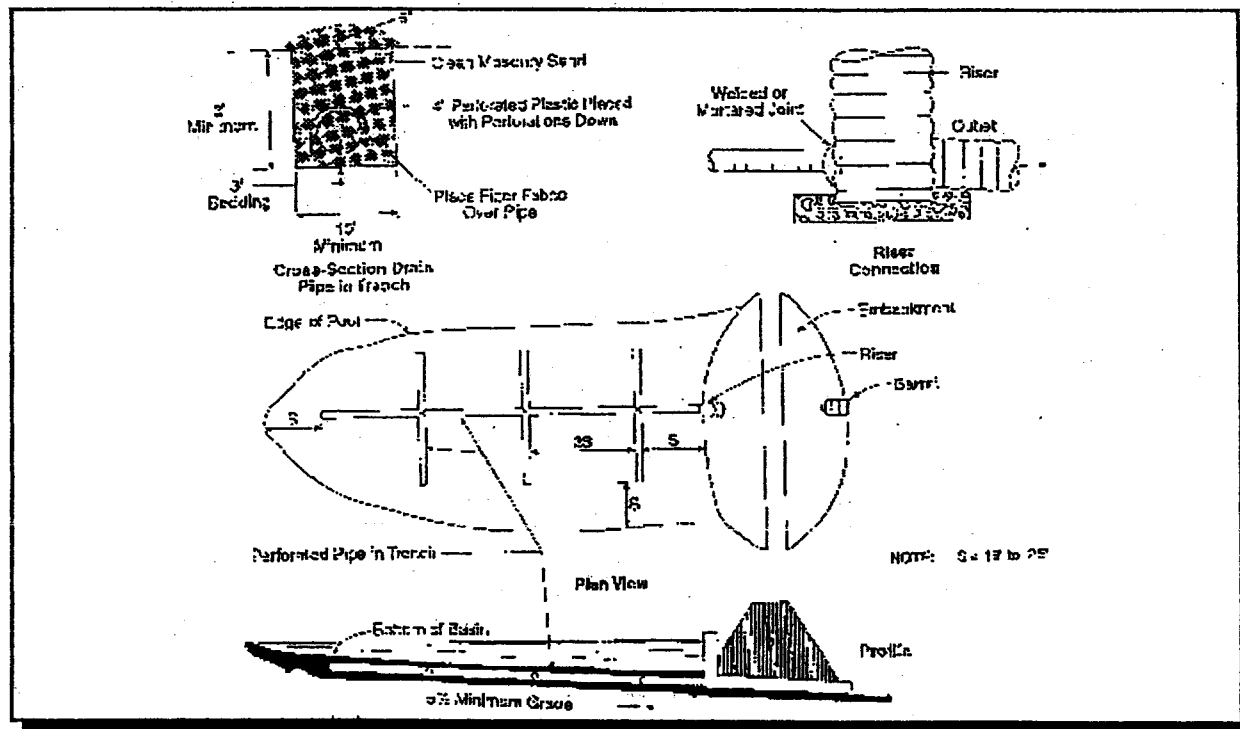
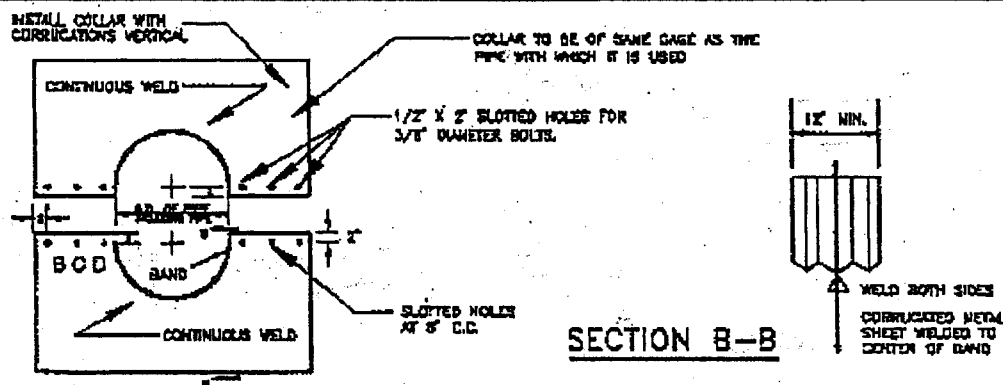


Plate 4.26n Dewatering a Sediment Basin with Subsurface Drain

Source: NRCS

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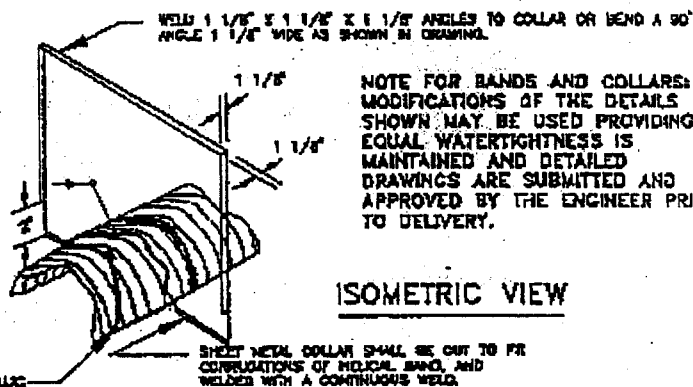
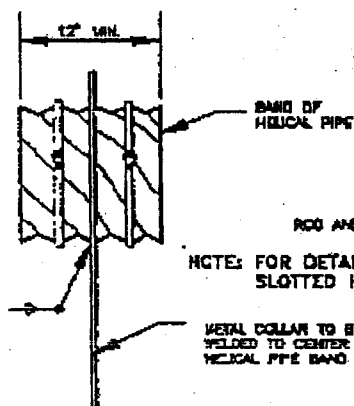
ELEVATION OF UNASSEMBLED COLLAR

NOTES FOR COLLARS:

1. ALL MATERIALS TO BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
2. WHEN SPECIFIED ON THE PLANS, COATING OF COLLARS SHALL BE IN ACCORDANCE WITH CONSTRUCTION AND CONSTRUCTION MATERIAL SPECIFICATIONS.
3. UNASSEMBLED COLLARS SHALL BE MARKED BY PAINTING OR TAGGING TO IDENTIFY MATCHING PAIRS.
4. THE LAP BETWEEN THE TWO HALF SECTIONS AND BETWEEN THE PIPE AND CONNECTING BAND SHALL BE CAULKED WITH ASPHALT MASTIC AT TIME OF INSTALLATION.
5. EACH COLLAR SHALL BE FURNISHED WITH TWO 1/2" DIAMETER RODS WITH STANDARD TANK LUGS FOR CONNECTING COLLARS TO PIPE.

DETAIL Corrugated Metal

SIZE AND SPACING OF SLOTTED OPENINGS SHALL BE THE SAME AS SHOWN FOR CM COLLAR. USE RODS AND LUGS TO CLAMP BANDS SECURELY TO PIPE.



NOTE FOR BANDS AND COLLARS: MODIFICATIONS OF THE DETAILS SHOWN MAY BE USED PROVIDING EQUAL WATERTIGHTNESS IS MAINTAINED AND DETAILED DRAWINGS ARE SUBMITTED AND APPROVED BY THE ENGINEER PRIOR TO DELIVERY.

NOTE: FOR DETAILS OF FABRICATION DIMENSIONS, MINIMUM GAGES, SLOTTED HOLES, AND NOTES, SEE DETAIL ABOVE.

NOTE: TWO OTHER TYPES OF ANTI-SEEP COLLARS ARE:

1. CORRUGATED METAL, SIMILAR TO UPPER, EXCEPT SHOP WELDED TO A SHORT (4FT.) SECTION OF THE PIPE AND CONNECTED WITH CONNECTING BANDS TO THE PIPE.
2. CONCRETE, SIX INCHES THICK FORMED AROUND THE PIPE WITH #5 REBAR SPACED 15" HORIZONTALLY AND VERTICALLY.

DETAIL Helical Pipe

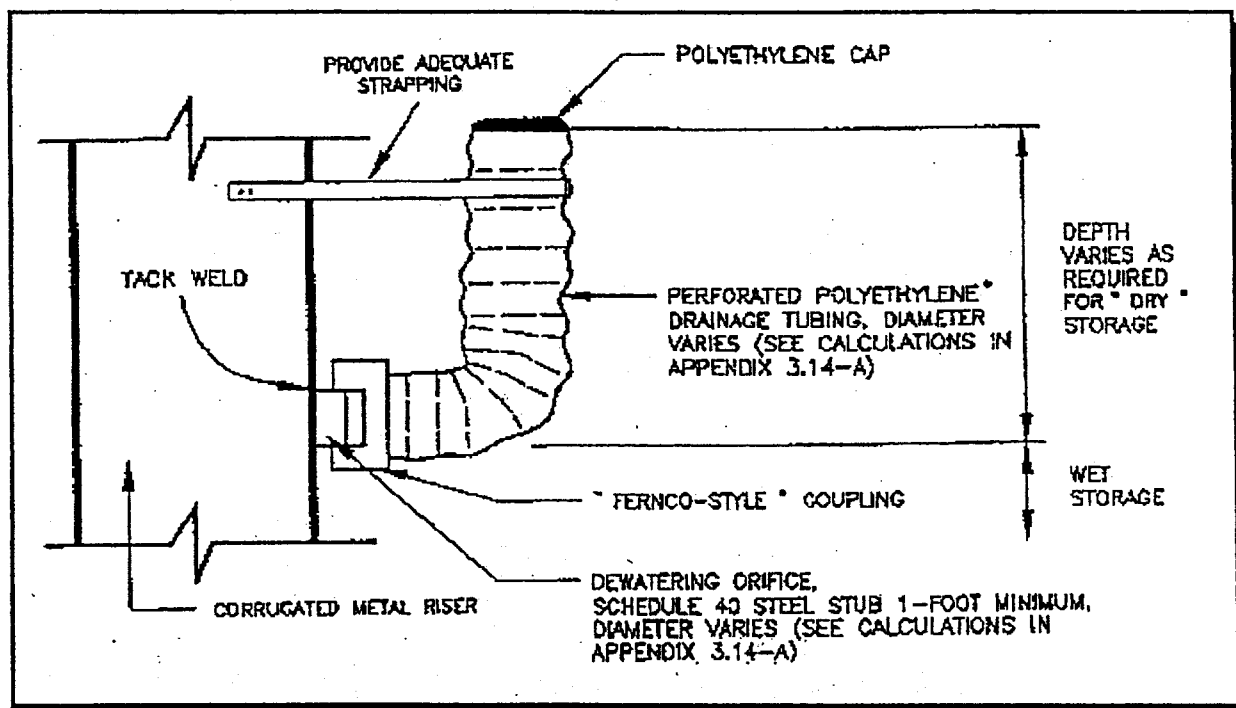


Plate 4.26m Perforated Pipe Sediment Basin Dewatering Device

Source: Virginia DSWC

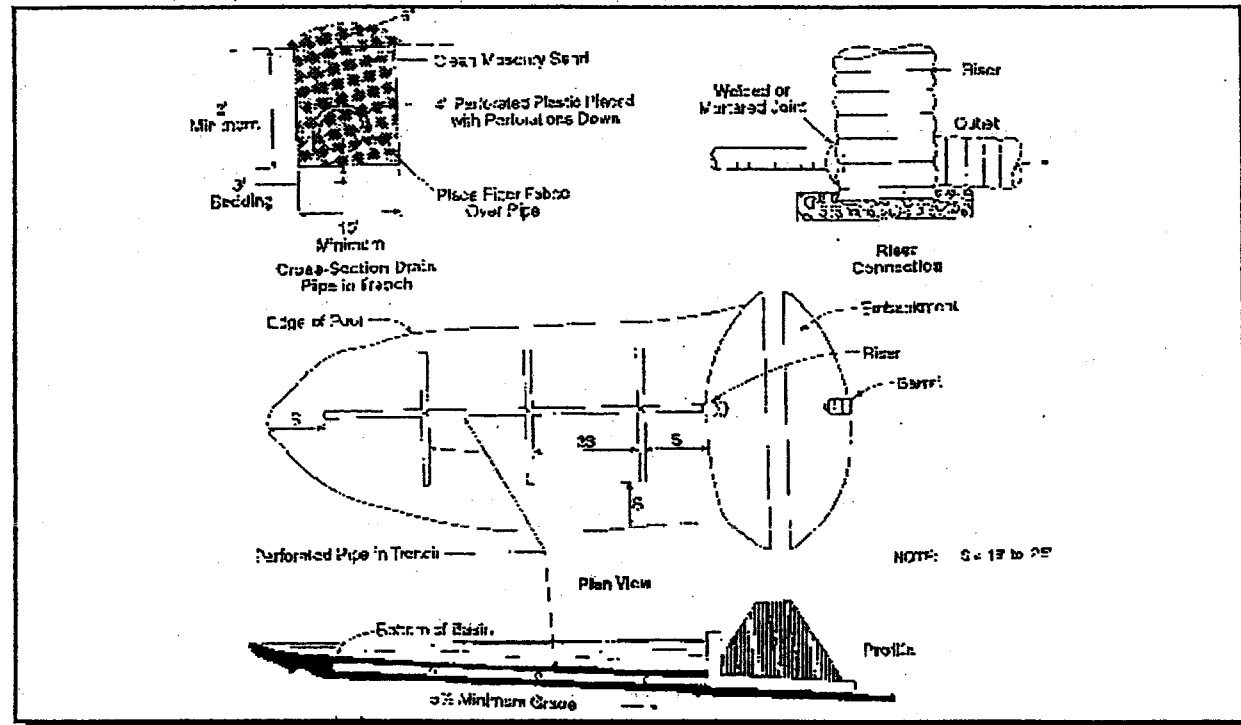


Plate 4.26n Dewatering a Sediment Basin with Subsurface Drain

Source: NRCS

4.30 TEMPORARY SLOPE DRAIN (ES BMP 1.30)

Definition

A flexible tubing or conduit extending from the top to the bottom of a cut or fill slope.

Purpose

To temporarily convey concentrated stormwater runoff safely down the face of a cut or fill slope without causing erosion problems on or below the slope.

Conditions Where Practice Applies

On cut or fill slopes before permanent stormwater drainage structures are installed.

Planning Considerations

There is often a significant lag between the time a cut or fill slope is completed and the time a permanent drainage system can be installed. During this period, the slope is usually not stabilized and is particularly vulnerable to erosion. This situation also occurs on slope construction which is temporarily delayed before final grade is reached. Temporary slope drains can provide valuable protection of exposed slopes until permanent drainage structures can be installed.

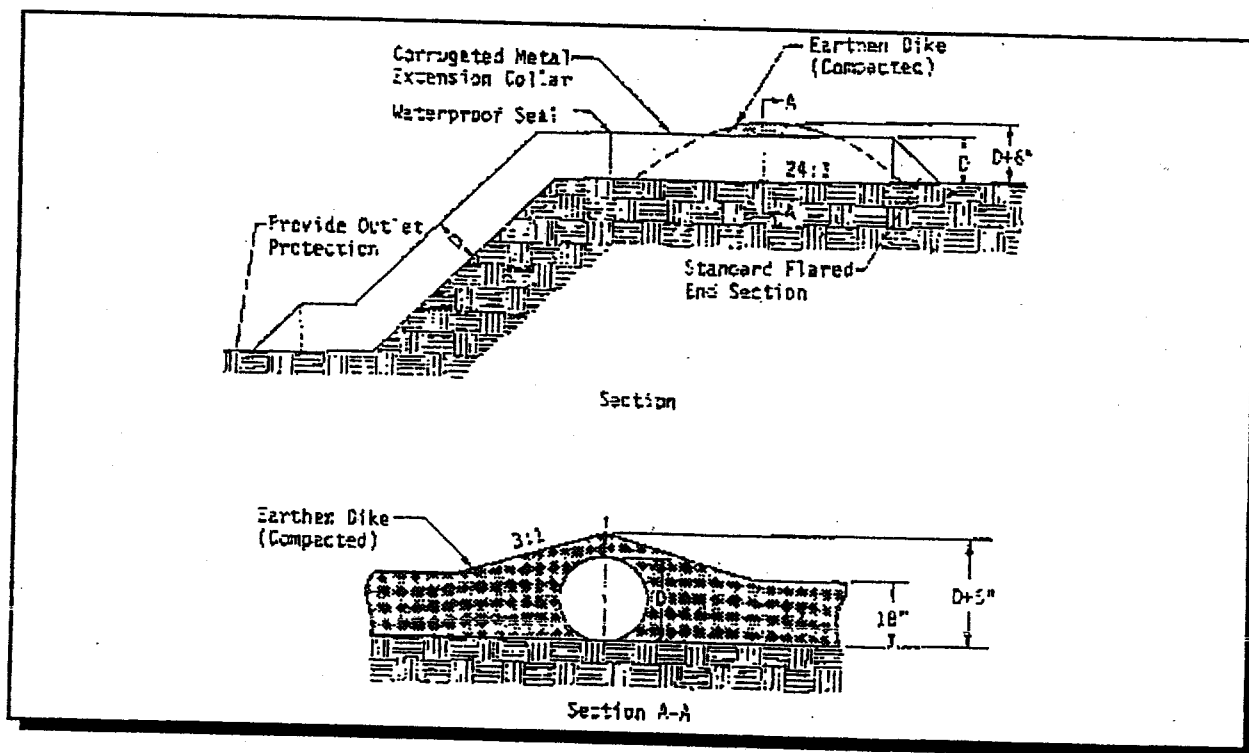


Plate 4.30a Temporary Slope Drain
Source: Virginia SWCC

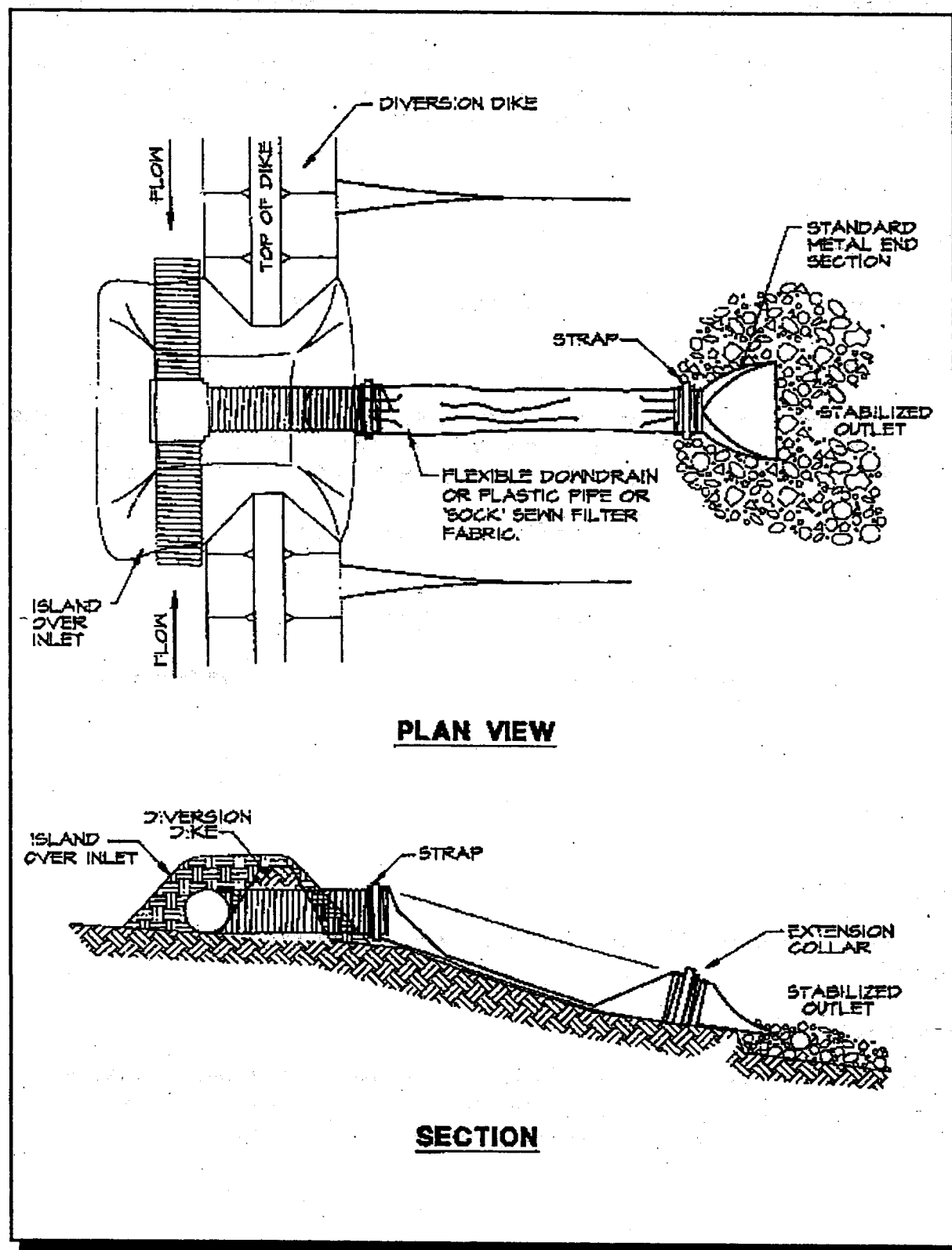


Plate 4.30b Slope Drain
Source: Erosion Draw

When used in conjunction with diversion dikes, temporary slope drains can be used to convey stormwater from the entire drainage area above a slope to the base of the slope without erosion. It is very important that these temporary structures be installed properly since their failure will often result in severe gully erosion. The entrance section must be securely entrenched, all connections must be watertight, and the conduit must be staked securely.

Design Criteria

Drainage Area

The maximum allowable drainage area per drain is 5 acres (2 ha).

Flexible Conduit

1. The slope drain shall consist of heavy duty flexible material designed for this purpose. The diameter of the slope drain shall be equal over its entire length. Reinforced hold-down grommets shall be spaced at 10 foot (3 m) maximum intervals.
2. Slope drains shall be sized according to the following table:

Table 4.30a
SIZE OF SLOPE DRAIN

<u>Maximum Drainage Area (Acres)</u>	<u>Pipe Diameter (in.)</u>
0.5	12
1.5	18
2.5	21
3.5	24
5.0	30

Overside drain

For small flows and/or short slopes, an open top chute may be used in place of a pipe. (See Plate 4.30c).

Entrance Sections

The entrance to the slope drain shall consist of a Standard FDOT "Flared End-Section for Metal Pipe Culverts." Extension collars shall consist of 12 inch (30 cm) long corrugated metal pipe. Watertight fittings shall be provided. (See Plates 4.30d & 4.30e).

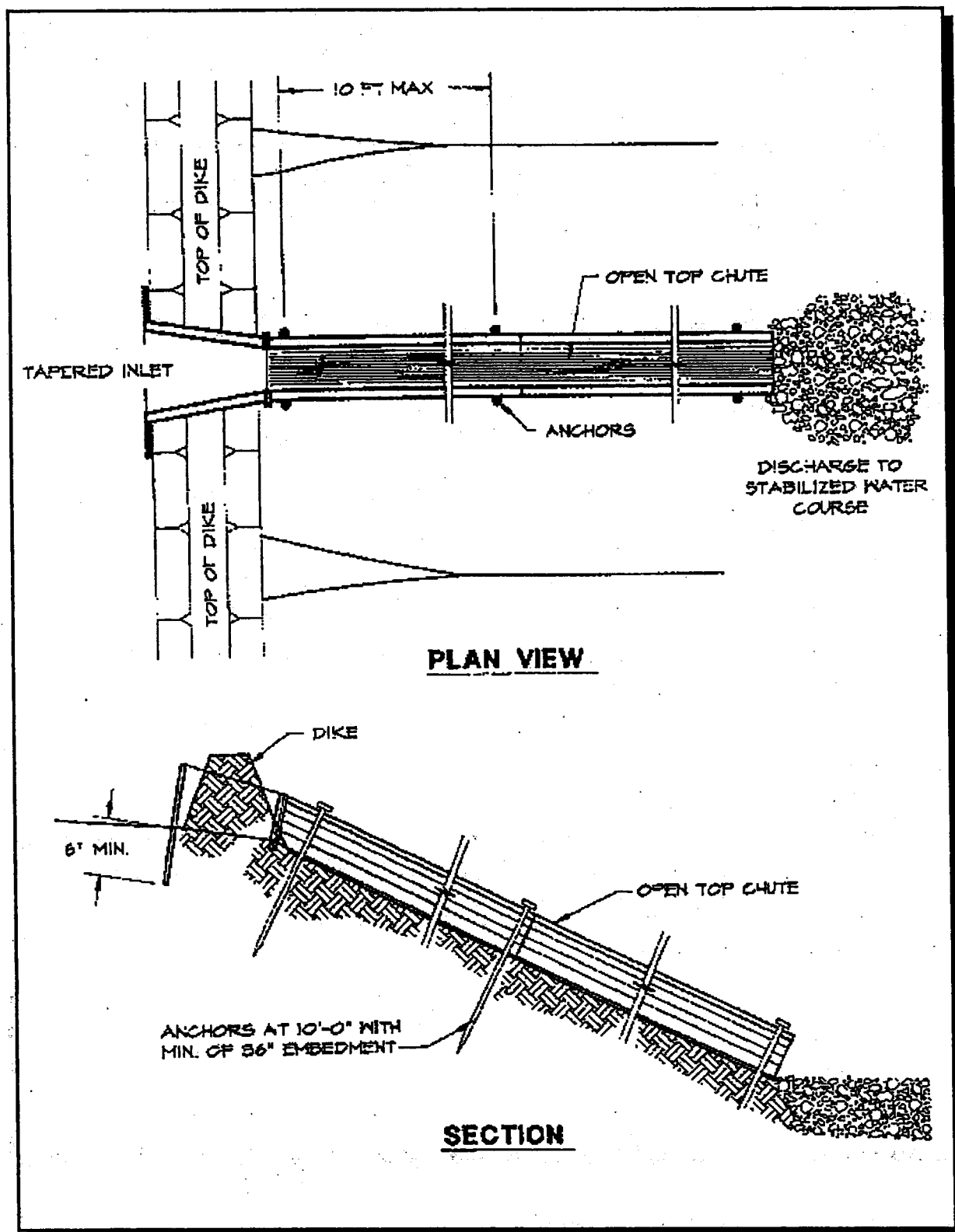


Plate 4.30c Overside Drain
Source: Erosion Draw

Dike Design

1. An earthen dike shall be used to direct stormwater runoff into the temporary slope drain and shall be constructed according to the practice entitled DIVERSION - Section 5.18 (ES BMP 1.18). (See Plate 4.30a)
2. The height of the dike at the centerline of the inlet shall be equal to the diameter of the pipe (D) plus 6 inches (15 cm). Where the dike height is greater than 18 inches (45 cm) at the inlet, it shall be sloped at the rate of 3:1 or flatter to connect with the remainder of the dike. (See Plate 4.30a)

Outlet Protection

The outlet of the slope drain shall be protected from erosion according to the practice entitled OUTLET PROTECTION - Section 5.36 (ES BMP 1.36). (See Plate 4.30b).

Construction Specifications

1. The measure shall be placed on undisturbed soil or well-compacted fill.
2. The entrance section shall slope toward the slope drain at the minimum rate of 1/2 inch per foot (4 cm/m).
3. The soil around and under the entrance section shall be hand-tamped in 8 inch (20 cm) lifts to the top of the dike to prevent piping failure around the inlet.
4. The slope drain shall be securely staked to the slope at the grommets provided.
5. The slope drain sections shall be securely fastened together and have watertight fittings.

Maintenance

The slope drain structure shall be inspected weekly and after every storm, and shall have repairs made if necessary. The contractor should avoid the placement of any material on and prevent construction traffic across the slope drain.

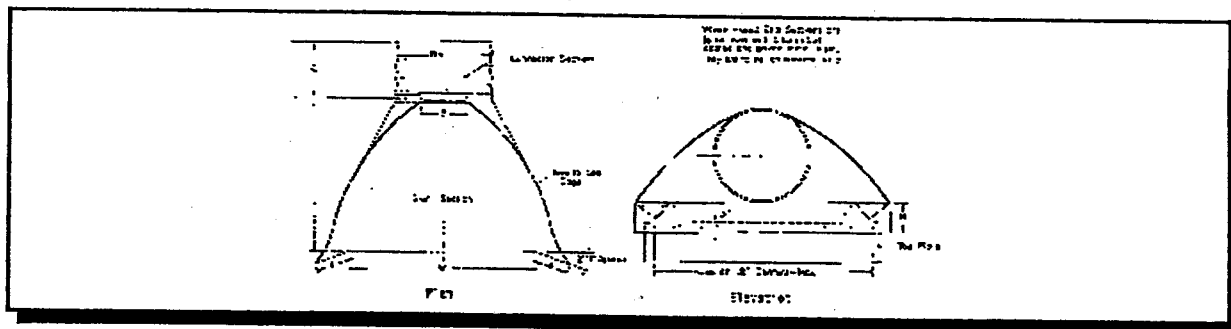
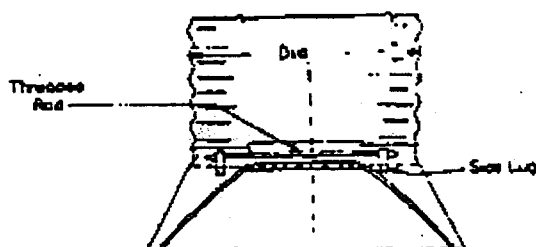


Plate 4.30d Flared End Section Schematic

Source: VDH&T Road Designs and Standards

Alternate Connection



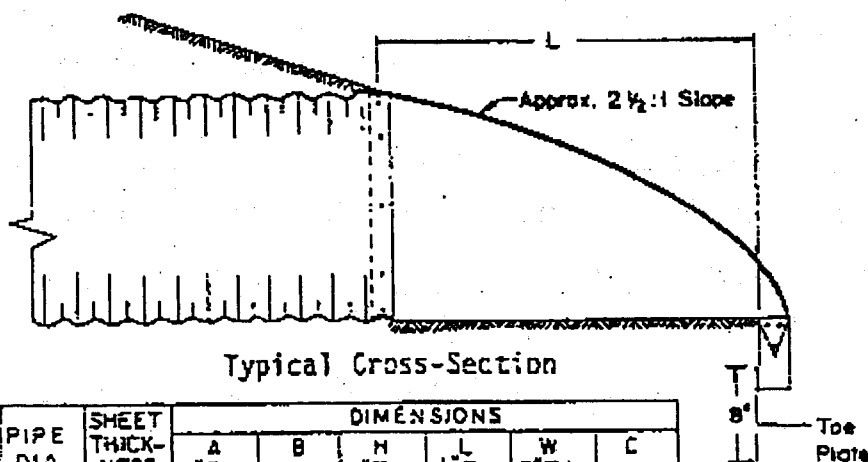
Toe plate, where needed, to be punched to match holes in skirt lip. 3/8" galv bolts to be furnished. Length of toe plate is $W + 10"$ for 12" to 30" dia. pipe and $W + 22"$ for 36" to 60" dia. pipe.

Skirt Section for 12" to 30" dia pipe to be made in one piece.

Skirt Section for 36" to 54" dia pipe may be made from two sheets joined by riveting or bolting on center line, 60" may be constructed in 3 pieces.

Connector Section, Corner Plate and Toe Plate to be same steel thickness as skirt.

End-sections and fittings are to be galvanized steel or aluminum alloy for use with like pipe.



Typical Cross-Section

PIPE DIA	SHEET THICKNESS	DIMENSIONS					
		A 1" Tol	B Max	H 1" Tol	L 1/2" Tol	W 2" Tol	C
12"	.064"	6"	6"	6"	21"	24"	24"
15"	.064"	7"	8"	6"	26"	30"	24"
18"	.064"	8"	10"	6"	31"	36"	24"
24"	.064"	10"	13"	6"	41"	48"	24"
30"	.079"	12"	16"	5"	51"	60"	24"
36"	.079"	14"	19"	9"	60"	72"	36"
42"	.109"	16"	22"	11"	69"	84"	36"
48"	.109"	18"	27"	12"	78"	90"	24"
54"	.109"	18"	30"	12"	84"	102"	36"
60"	.109"	18"	33"	12"	87"	114"	36"

FLARED END-SECTION (Continued)

Plate 4.30e Flared End Section Specifications

Source: VDH&T Road Designs and Standards

4.38 TEMPORARY CHECK DAMS

Definition

Small temporary dams constructed across a swale or stormwater conveyance channel.

Purpose

To reduce the velocity of concentrated stormwater flows, thereby reducing erosion of the swale or ditch. This practice also traps small amounts of sediment generated in the ditch itself. These sediments will require periodic removal. However, this is not a sediment trapping practice and should not be used as such.

Conditions Where Practice Applies

This practice is limited to use in small open channels which drain 10 acres (4 ha) or less. It should not be used in a live stream. This practice is especially applicable to sloping sites where the gradient of waterways is close to the maximum for a grass lining. Some specific applications include:

1. Temporary ditches or swales which, because of their short length of service, cannot receive a non-erodible lining but still need some protection to reduce erosion.
2. Permanent ditches or swales which for some reason cannot receive a permanent non-erodible lining for an extended period of time.
3. Either temporary or permanent ditches or swales which need protection during the establishment of grass linings.

Planning Considerations

Temporary check dams can be constructed of filter fence or straw bales for very short term applications; or either stone or logs for longer or permanent applications. Filter fence and straw bale check dams are economical to purchase and simple to install. Log check dams are economical as for material costs, since logs can usually be salvaged from clearing operations. However, log check dams require more time and hand labor to install. Stone for check dams, on the other hand, must generally be purchased. However, this cost is offset somewhat by the ease of installation.

Specifications

No formal design is required for a check dam; however, the following criteria should be adhered to when specifying check dams.

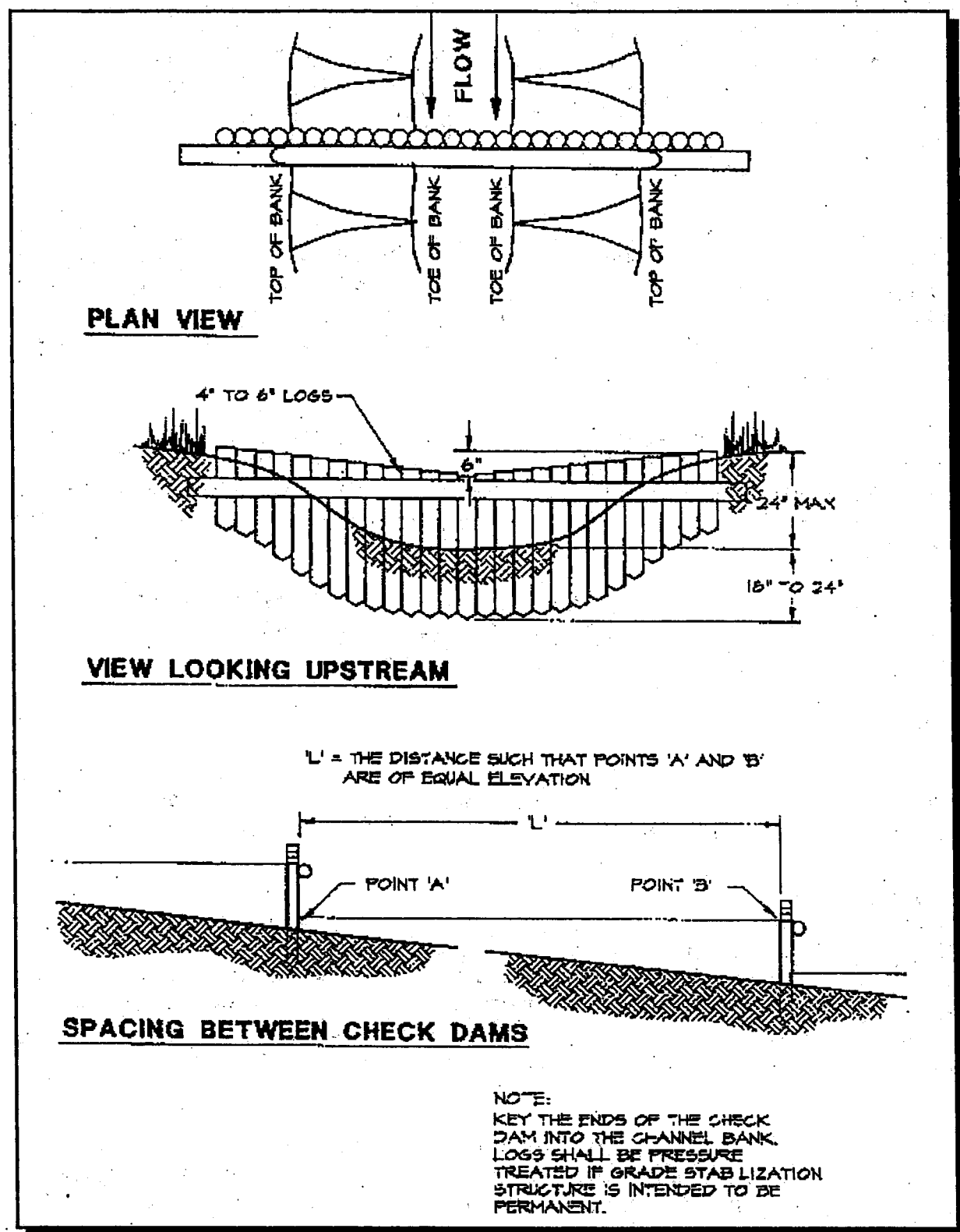


Plate 4.38a Log Check Dam
 Source: Erosion Draw

The drainage area of the ditch or swale being protected should not exceed 10 acres (4 ha). The maximum height of the check dam should be 2 feet (60 cm). The center of the check dam must be at least 6 inches (15 cm) lower than the outer edges. (See Plate 4.38a) The cross-sections of the dams should be as shown in Plates 4.38a through 4.38d, respectively, for logs, stone, straw bales, and filter fence. The maximum spacing between the dams should be such that the toe of the upstream dam is at the same elevation as the top of the downstream dam. (See Plate 4.38c).

Log check dams should be constructed of 4 to 6 inch (10 to 15 cm) logs salvaged from clearing operation site, if possible. The logs should be embedded into the soil at least 18 inches (45 cm). The 6 inch (15 cm) lower height required at the center can be achieved either by careful placement of the logs or by cutting the logs after they are in place. (See Plate 4.38a). Logs and/or brush should be placed on the downstream side of the dam to prevent scour during high flows.

Stone check dams should be constructed of FDOT No. 1 Coarse Aggregate (1.5 to 3.5 inch stone) (4 to 9 cm). The stone should be placed according to the configuration in Plate 4.38b. Hand or mechanical placement will be necessary to achieve complete coverage of the ditch or swale and to insure that the center of the dam is lower than the ends. (See Plates 4.38b & 4.38e)

Straw bale and filter fence check dams shall be installed as per STRAW BALE BARRIER - Section 4.05 (Channel Flow Applications) (See Plates 4.38c & 4.38f) and SILT FENCE - Section 4.06 (Channel Flow Applications) (See Plate 4.38d).

Sediment Removal

While this practice is not intended to be used primarily for sediment trapping, some sediment will accumulate behind the check dams. Sediment should be removed from behind the check dams when it has accumulated to half of the original height of the dam.

Removal

Check dams must be removed when their useful life has been completed. In temporary ditches and swales, check dams should be removed and the ditch filled in when it is no longer needed. In permanent structures, check dams should be removed when a permanent lining can be installed. In grass-lined ditches, check dams should be removed when the grass has matured sufficiently to protect the ditch or swale. The area beneath the check dams should be seeded and mulched or sodded (depending upon velocity) immediately after they are removed.

If stone check dams are used in grass-lined channels which will be mowed, care should be taken to remove all the stone from the dam when the dam is removed. This should include any stone which has washed downstream. Since log check dams are embedded in the soil, their removal will result in more disturbance of the soil than will removal of stone check dams. Consequently, extra care should be taken to restabilize the area when log dams are used in permanent ditches or swales.

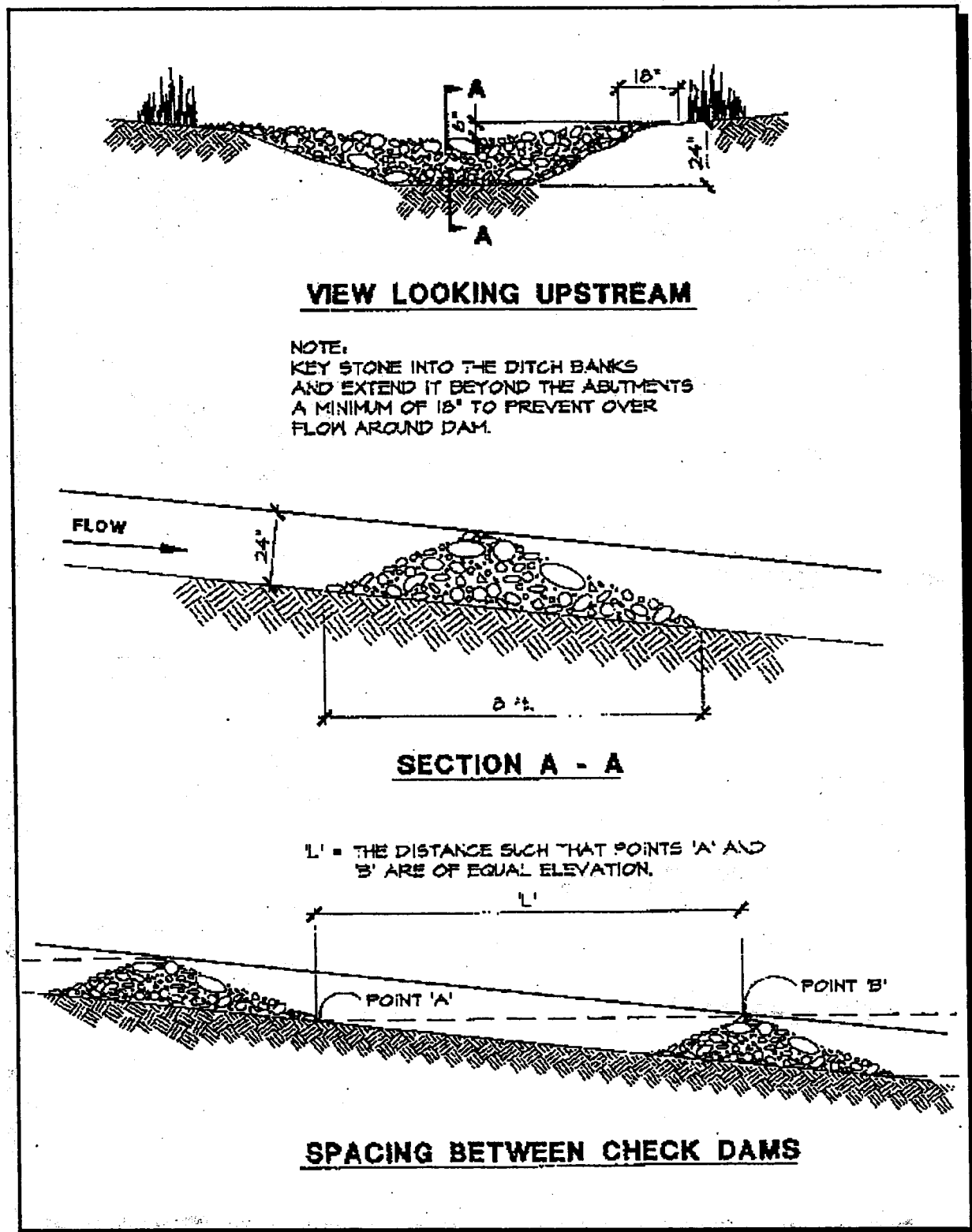


Plate 4.38b Rock Check Dam
Source: Erosion Draw

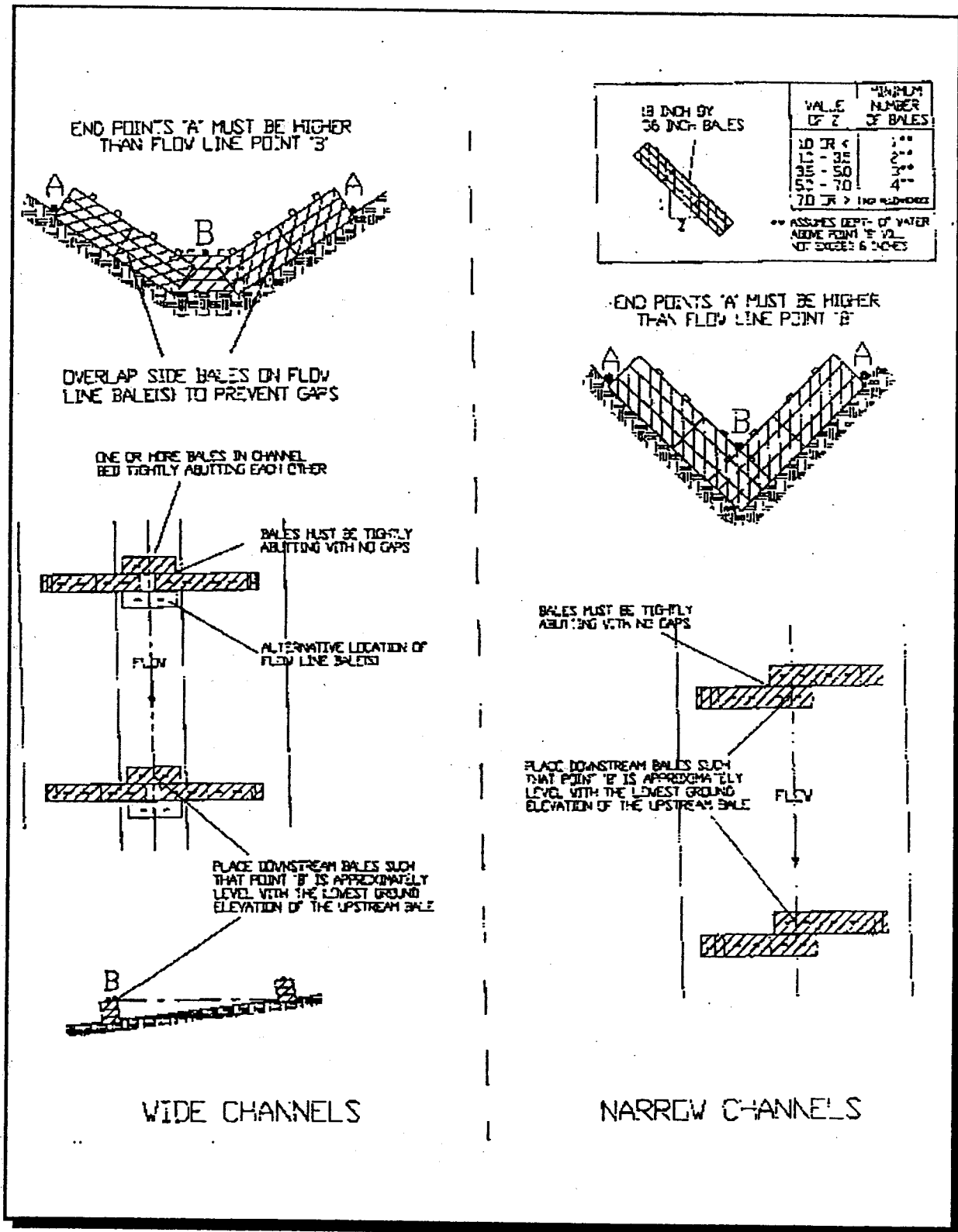
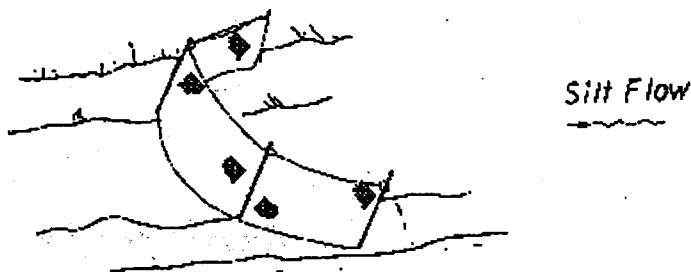


Plate 4.38c Straw Bale Check Dam
Source: HydroDynamics, Inc.

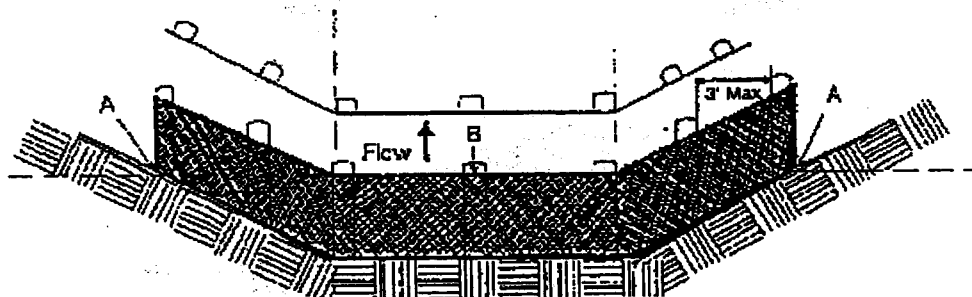
Maintenance

Check dams should be checked for sediment accumulation after each significant rainfall. Sediment should be removed when it reaches one-half of the original height or before. Regular inspections should be made to insure that the center of the dam is lower than the edges. Erosion caused by high flows around the edges of the dam should be corrected immediately.



Note: Spacing for Type III Fence to be in accordance with Chart I, Sheet 1 of 3 and ditch installations at drainage structures Sheet 2 of 3.

Type III Silt Fence



Points A Should be Higher than Point B

Drainageway Installation
(Front Elevation)

Plate 4.38d Silt Fence Check Dam

Source: Installation of Straw and Fabric Filter Barriers for Sediment Control Sherwood and Wyant

D-50 OF ROCK (INCHES)	DOWNSTREAM FLOWLINE SLOPE OF STRUCTURE (FT./FT.)					
	0.35	0.30	0.25	0.20	0.15	0.10
3	0.5	0.7	0.8	1.0	1.3	1.5
6	1.2	1.4	1.5	2.0	2.5	2.3

RECOMMENDED ROCK SIZE & FLOW DEPTHS

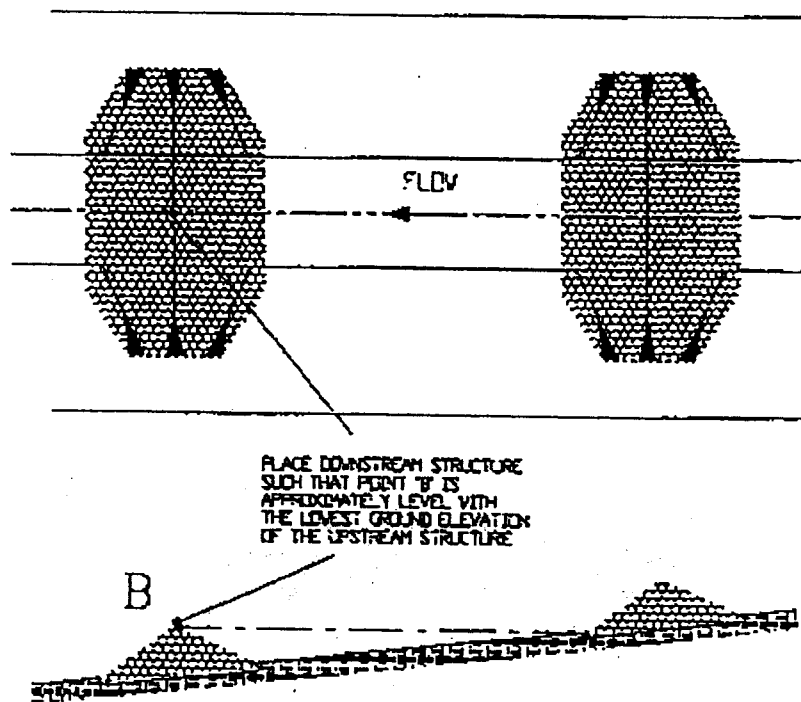
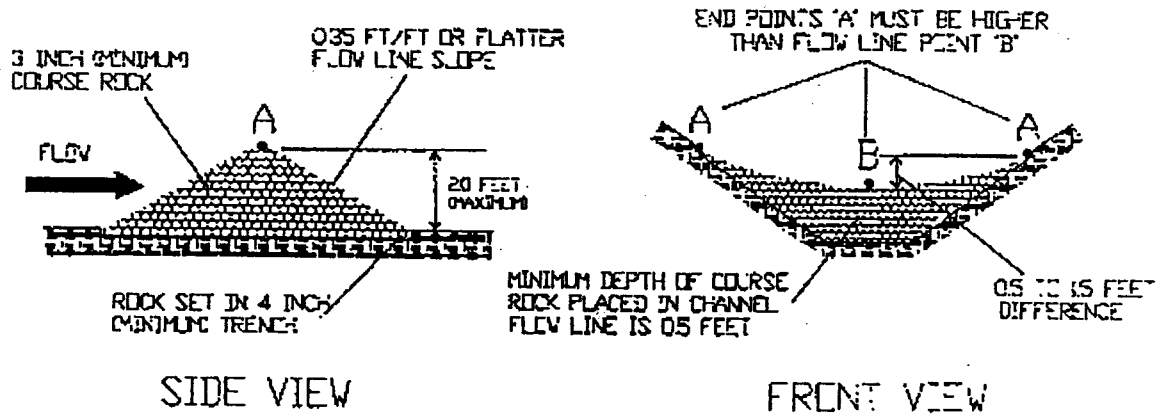


Plate 4.38e Rock Check Dam Details

Source: HydroDynamics, Inc.

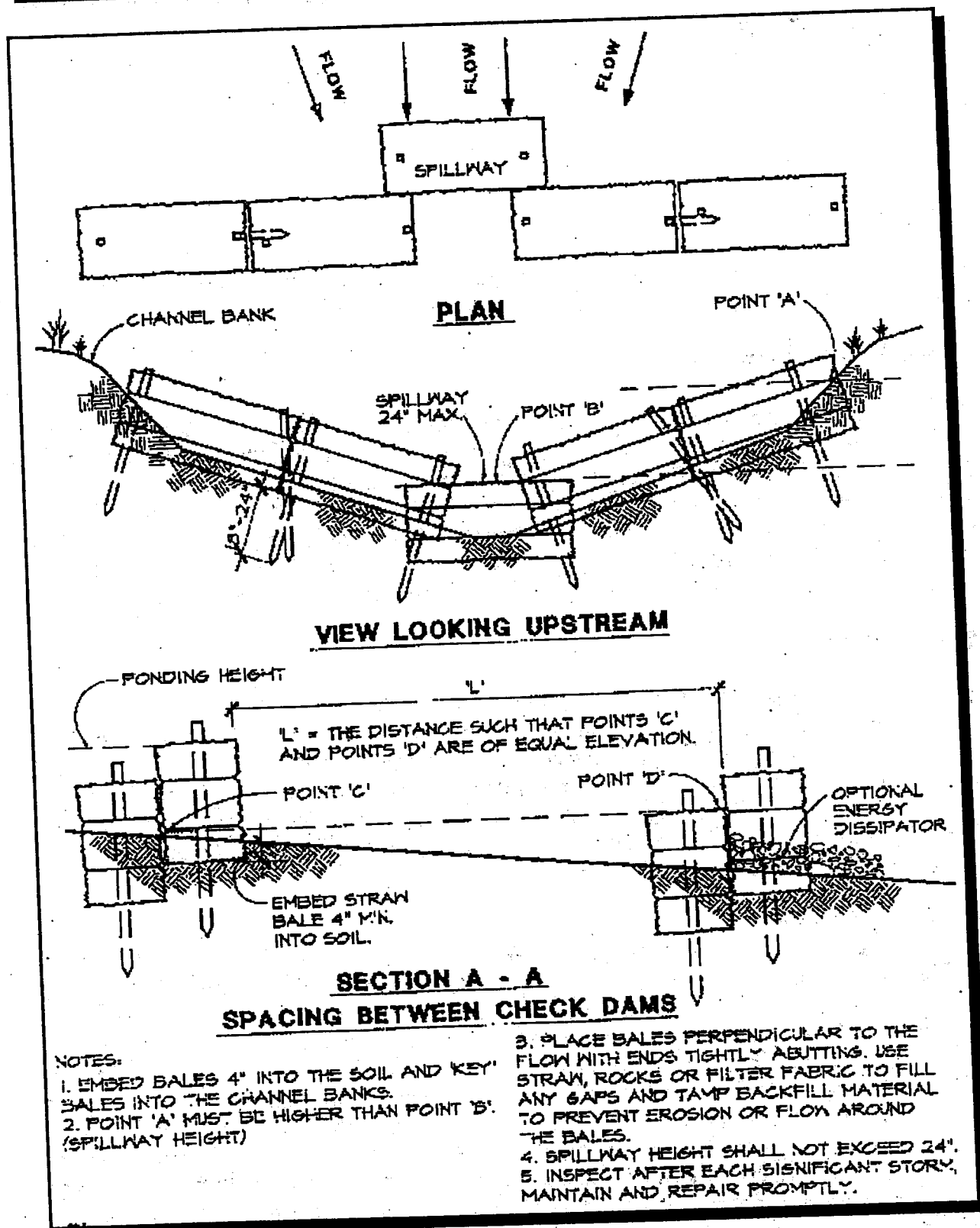


Plate 4.38f Straw Bale Check Dam Details

Source: Erosion Draw

4.40 DEWATERING

Definition

Lowering the water table by means of pumping.

Purpose

To allow the construction of structural and stormwater improvements by removing water from excavation areas and allowing construction by conventional "dry" methods.

Planning Considerations

The major planning consideration in dewatering is disposal of removed water. Volume, quality, and topography are the factors governing the method and destination of removed water. Discharge from well-point dewatering is relatively clear except for the initial discharge after installation or inactivity. Water pumped from a sump hole is thoroughly sediment laden and must always be treated. Turbid water must either be filtered before leaving the site or must be impounded onsite and allowed to settle. In flat terrain it is sometimes more economical to impound relatively clean water rather than pipe it long distances to a receiving water body.

Specifications

The two most common methods of dewatering used in Florida are well-point systems and sump pumps. A well-point system consists of one or more rows of small 2" (5 cm) collector pipes which are jetted vertically into the ground near the proposed excavation. The small pipes are connected by a larger 6" (15 cm) manifold pipe which is connected to the pump and discharge line. The sump method is simply a hole in the ground with a pump drawing all of the water flowing into the hole. Excess water is conveyed to the sump by open ditches or perforated pipes embedded in sand or gravel.

Sumps and Ditches

The water table is lowered by ditching and conveying water to a lowered sump hole. Water pumped from a sump hole is usually heavily laden with sediments. Water flowing over disturbed and saturated ground detaches and transports all sizes of soil particles into the sump pit to be sucked up by the pump. Saturated liquid soil (mud) is also drawn into the pump. The discharged water must be treated before release into a receiving water body or stormwater system. Placing haybales around the pump intake or outlet is not sufficient filtration by itself. Turbid water must either be impounded long enough for effective settling of fines, or filtered through a temporary filter or sediment tank. Initially the water may percolate freely into the ground, however this will diminish as the fine particles settle and clog the surface layer of soil. In situations which preclude the use of filtration or settlement facilities, and turbid water is discharged directly into a water body, a suitably designed floating turbidity barrier must be used. Note that this method does not remove any sediments, it merely allows for dilution to lower the turbidity level.

Chapter 4 - Best Management Practices for Erosion and Sediment Control

Horizontal Wells

This system also consists of a series of ditches leading to a sump hole or pump. The ditches are filled with sand or gravel surrounding a perforated pipe. A geotextile may also be used to prevent excessive migration of fines into the system. The discharged water must be treated before release as described above.

Well-point Systems

The well-point system is the preferred system for dewatering and should be used whenever possible. The initial discharge yields the sediments displaced by the installation of the small collector pipes. This can be directed into the excavation, a small settling or filtration facility, or larger temporary impoundment. Thereafter the water is generally clear ground water and may be discharged into a receiving water body provided that there is suitable conveyance.

Maintenance

1. Any water impoundment must be inspected daily to prevent failure of dikes, berms, or control structures. Minor problems should be repaired at once. Major problems will require a redesign and plan modification.
2. Any filtration device must be inspected and cleaned frequently. The discharge should be monitored daily and whenever the pumps are started. Inspection and maintenance of the system are best performed when the facility is dry. The first signs of diminished performance should be an alarm that maintenance is required. If the facility will no longer drain itself, the untreated water must be pumped back to its source, rather than by-passing the facility and discharging to the water body or stormwater system.
3. Floating turbidity barriers shall be maintained as per FLOATING TURBIDITY BARRIER - Section 4.45

4.45 FLOATING TURBIDITY BARRIER

Definition

A floating geotextile material which minimizes sediment transport from a disturbed area adjacent to or within a body of water.

Purpose

To provide sedimentation protection for a watercourse from up-slope land disturbance where conventional erosion and sediment controls cannot be used, or from dredging or filling within the watercourse.

Conditions Where Practice Applies

Applicable to non-tidal and tidal watercourses where intrusion into the watercourse by construction activities has been permitted and subsequent sediment movement is unavoidable.

Planning Considerations

Soil loss into a watercourse results in long-term suspension of sediment. In time, the suspended sediment may travel large distances and affect widespread areas. A turbidity curtain is designed to deflect and contain sediment within a limited area and provide enough residence time so that soil particles will fall out of suspension and not travel to other areas.

Turbidity curtain types must be selected based on the flow conditions within the water body, whether it be a flowing channel, lake, pond, or a tidal watercourse. The specifications contained within this practice pertain to minimal and moderate flow conditions where the velocity of flow may reach 5 feet (1.5 m) per second (or a current of approximately 3 knots). For situations where there are greater flow velocities or currents, a qualified engineer and product manufacturer should be consulted.

Consideration must also be given to the direction of water movement in channel flow situations. Turbidity curtains are not designed to act as water impoundment dams and cannot be expected to stop the flow of a significant volume of water. They are designed and installed to trap sediment, not to halt the movement of water itself. In most situations, turbidity curtains should not be installed across channel flows.

In tidal or moving water conditions, provisions must be made to allow the volume of water contained within the curtain to change. Since the bottom of the curtain is weighted and external anchors are frequently added, the volume of water contained within the curtain will be much greater at high tide versus low tide and measures must be taken to prevent the curtain from submerging. In addition to allowing slack in the curtain to rise and fall, water must be allowed to flow through the curtain if the curtain is to remain in roughly the same place and maintain the same shape. Normally, this is achieved by constructing part of the curtain from a heavy woven filter fabric. The fabric allows the water to pass through the curtain, but retains the sediment particles. Consideration should be given to the volume of water that must pass through the

fabric and sediment particle size when specifying fabric permeability.

Sediment which has been deflected and settled out by the curtain may be removed if so directed by the on-site inspector or the permitting agency. However, consideration must be given to the probable outcome of the procedure - will it create more of a sediment problem by resuspension of particles and by accidental dumping of the material by the equipment involved? It is, therefore, recommended that the soil particles trapped by a turbidity curtain only be removed if there has been a significant change in the original contours of the effected area in the watercourse. Regardless of the decision made, soil particles should always be allowed to settle for a minimum of 6-12 hours before their removal by equipment or before removal of a turbidity curtain.

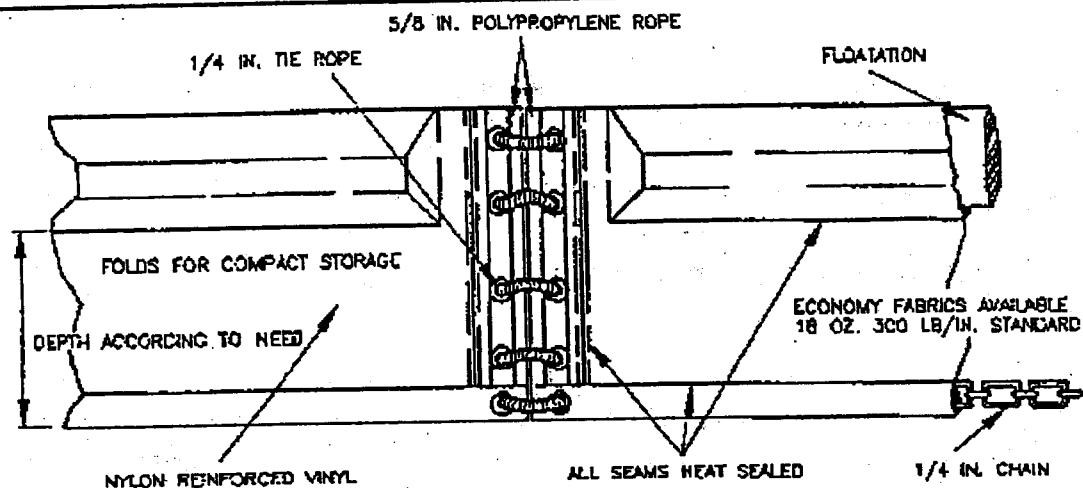
It is imperative that the intended function of the other controls in this chapter, to keep sediment out of the watercourse, be the strategy used in every erosion control plan. However, when proximity to the watercourse makes successfully mitigating sediment loss impossible, the use of the turbidity curtain during land disturbance is essential. ***Under no circumstances shall permitted land disturbing activities create violations of water quality standards!***

Design Criteria

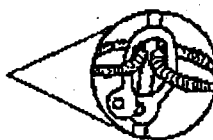
1. Type I configuration (see Plate 4.45a) should be used in protected areas where there is no current and the area is sheltered from wind and waves.
2. Type II configuration (see Plate 4.45a) should be used in areas where there may be small to moderate current running (up to 2 knots or 3.5 feet (1 m) per second) and/or wind and wave action can affect the curtain.
3. Type III configuration (see Plate 4.45b) should be used in areas where considerable current (up to 3 knots or 5 feet (1.5 m) per second) may be present, where tidal action may be present, and/or where the curtain is potentially subject to wind and wave action.
4. Turbidity curtains should extend the entire depth of the watercourse whenever the watercourse in question is not subject to tidal action and/or significant wind and wave forces. This prevents silt laden water from escaping under the barrier, scouring and resuspending additional sediments.
5. In tidal and/or wind and wave action situations, the curtain should never be so long a to touch the bottom. A minimum 1 foot (30 cm) "gap" should exist between the weighted lower end of the skirt and the bottom at "mean" low water. Movement of the lower skirt over the bottom due to tidal reverses or wind and wave action on the flotation system may fan and stir sediments already settled out.
6. In tidal and/or wind and wave action situations, it is seldom practical to extend a turbidity curtain depth lower than 10 to 12 feet (3 to 4 m) below the surface, even in deep water. Curtains which are installed deeper than this will be subject to very large loads with consequent strain on curtain materials and the mooring system. In addition, a curtain installed in such a manner can "billow up" toward the surface under the pressure of the moving water, which will result in an effective depth which is significantly less than the

skirt depth.

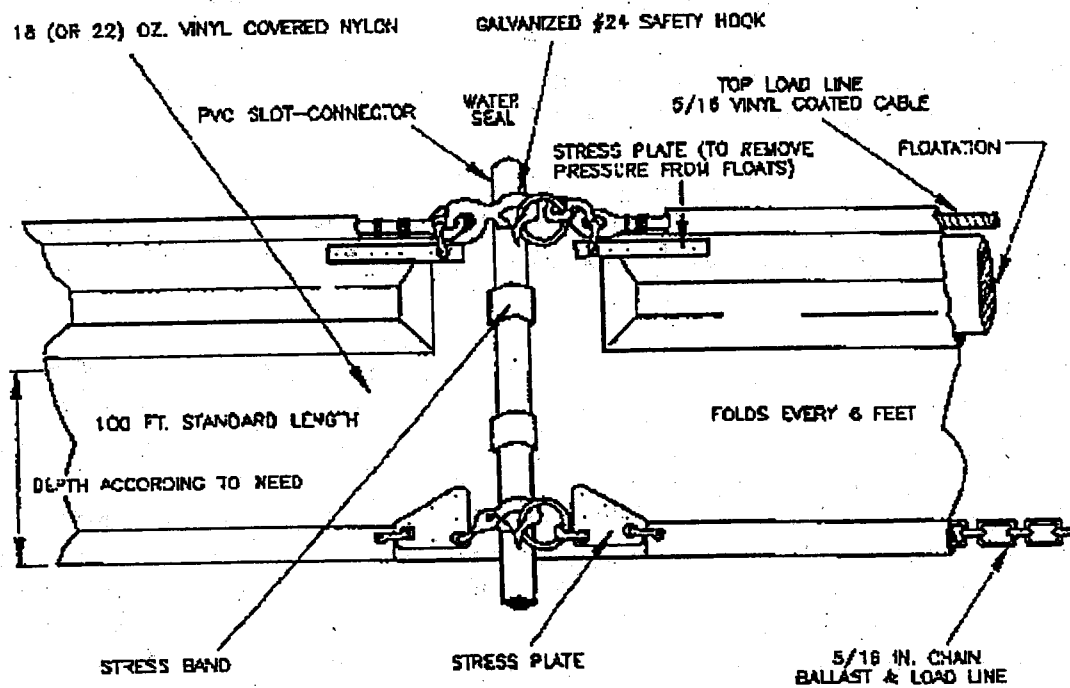
7. Turbidity curtains should be located parallel to the direction of flow of a moving body of water. Turbidity curtains should not be placed across the main flow of a significant body of moving water.
8. When sizing the length of the floating curtain, allow an additional 10 - 20% variance straight line measurements. This will allow for measuring errors, make installing easier and reduce stress from potential wave action during high winds.
9. An attempt should be made to avoid an excessive number of joints in the curtain; a minimum continuous span of 50 feet (15 m) between joints is a good "rule of thumb."
10. For stability reasons, a maximum span of 100 feet (30 m) between anchor or stake locations is also a good rule to follow.
11. The ends of the curtain, both floating upper and weighted lower, should extend well up into the shoreline, especially if high water conditions are expected. The ends should be secured firmly to the shoreline to fully enclose the area where sediment may enter the water.
12. When there is a specific need to extend the curtain to the bottom of the watercourse in tidal or moving water conditions, a heavy woven pervious filter fabric may be substituted for the normally recommended impervious geotextile. This creates a "flow-through" medium which significantly reduces the pressure on the curtain and will help to keep it in the same relative location and shape during the rise and fall of tidal waters.
13. Typical alignments of turbidity curtains can be seen in Plate 4.45c. The number a spacing of external anchors may vary depending on current velocities and potential wind and wave action; manufacturer's recommendations should be followed.
14. Be certain that the type, location, and installation of the barrier is as shown on the approved plan and permit. Additional permits may be required in navigable waterways, especially when the barrier creates an obstruction.



(BLOW-UP OF SHACKLE CONNECTION)



Type I



Type II

Plate 4.45a Type I and II Floating Turbidity Barriers

Source: American Boom and Barrier Corporation

Construction Specifications

Materials

1. Barriers should be a bright color (yellow or "international" orange are recommended) that will attract the attention of nearby boaters.
2. The curtain fabric must meet the minimum requirements noted in Table 3.27-A.
3. Seams in the fabric shall be either vulcanized welded or sewn, and shall develop the full strength of the fabric.
4. Floatation devices shall be flexible, buoyant units contained in an individual floatation sleeve or collar attached to the curtain. Buoyancy provided by the floatation units shall be sufficient to support the weight of the curtain and maintain a freeboard of at least 3 inches (8 cm) above the water surface level. (See Plate 4.45c)
5. Load lines must be fabricated into the bottom of all floating turbidity curtains. Type II and Type III must have load lines also fabricated into the top of the fabric. The top load line shall consist of woven webbing or vinyl-sheathed steel cable and shall have a break strength in excess of 10,000 pounds (4.5 t). The supplemental (bottom) load-line shall consist of a chain incorporated into the bottom hem of the curtain of sufficient weight to serve as ballast to hold the curtain in a vertical position. Additional anchorage shall be provided as necessary. The load lines shall have suitable connecting devices which develop the full breaking strength for connecting to load lines in adjacent sections (See Plates 4.45a and 4.45b which portray this orientation).
6. External anchors may consist of 2 x 4 inch (5 x 10 cm) or 2-1/2 inch (6 cm) minimum diameter wooden stakes, or 1.33 pounds/linear foot (2 kg/m) steel posts when Type I installation is used; when Type II or Type III installations are used, bottom anchors should be used.
7. Bottom anchors must be sufficient to hold the curtain in the same position relative to the bottom of the watercourse without interfering with the action of the curtain. The anchor may dig into the bottom (grappling hook, plow or fluke-type) or may be weighted (mushroom type) and should be attached to a floating anchor buoy via an anchor line. The anchor line would then run from the buoy to the top load line of the curtain. When used with Type III installations, these lines must contain enough slack to allow the buoy and curtain to float freely with tidal changes without pulling the buoy or curtain down and must be checked regularly to make sure they do not become entangled with debris. As previously noted, anchor spacing will vary with current velocity and expected wind and wave action; manufacturer's recommendations should be followed. See orientation of external anchors and anchor buoys for tidal installation in Plate 4.45b.

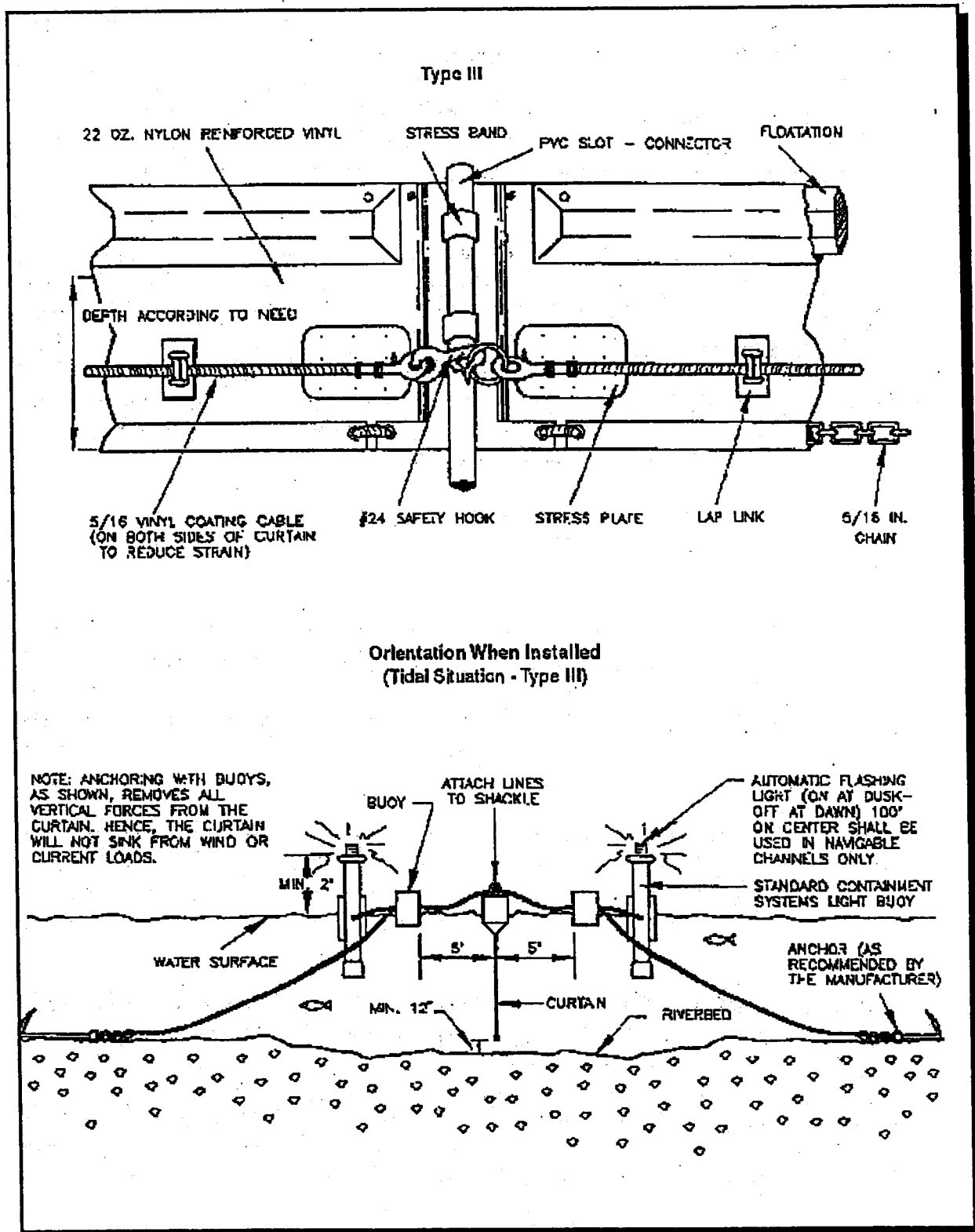


Plate 4.45b Type III Floating Turbidity Barrier

Source: American Boom and Barrier Corporation and VDOT Standard Sheets

Installation

1. In the calm water of lakes or ponds (Type I installation) it is usually sufficient to merely set the curtain end stakes or anchor points (using anchor buoys if bottom anchors are employed), then tow the curtain in the furled condition out and attach it to these stakes or anchor points. Following this, any additional stakes or buoyed anchors required to maintain the desired location of the curtain may be set and these anchor points made fast to the curtain. Only then, the furling lines should be cut to let the curtain skirt drop.
2. In rivers or in other moving water (Type II and Type III installations) it is important to set all the curtain anchor points. Care must be taken to ensure that anchor points are of sufficient holding power to retain the curtain under the expected current conditions, before putting the furled curtain into the water. Anchor buoys should be employed on all anchors to prevent the current from submerging the flotation at the anchor points. If the moving water into which the curtain is being installed is tidal and will subject the curtain to currents in both directions as the tide changes, it is important to provide anchors on both sides of the curtain for two reasons:
 - a) Curtain movement will be minimized during tidal current reversals.
 - b) The curtain will not overrun the anchors pull them out when the tide reverses.

When the anchors are secure, the furled curtain should be secured to the upstream anchor point and then sequentially attached to each next downstream anchor point until the entire curtain is in position. At this point, and before unfurling, the "lay" of the curtain should be assessed and any necessary adjustments made to the anchors. Finally, when the location is ascertained to be as desired, the furling lines should be cut to allow the skirt to drop.

3. Always attach anchor lines to the flotation device, not to the bottom of the curtain. The anchoring line attached to the flotation device on the downstream side will provide support for the curtain. Attaching the anchors to the bottom of the curtain could cause premature failure of the curtain due to the stresses imparted on the middle section of the curtain.
4. There is an exception to the rule that turbidity curtains should not be installed across channel flows; it occurs when there is a danger of creating a silt buildup in the middle of a watercourse, thereby blocking access or creating a sand bar. Curtains have been used effectively in large areas of moving water by forming a very long-sided, sharp "V" to deflect clean water around a work site, confine a large part of the silt-laden water to the work area inside the "V" and direct much of the silt toward the shoreline. Care must be taken, however, not to install the curtain perpendicular to the water current.
5. See Plate 4.45c for typical installation layouts.

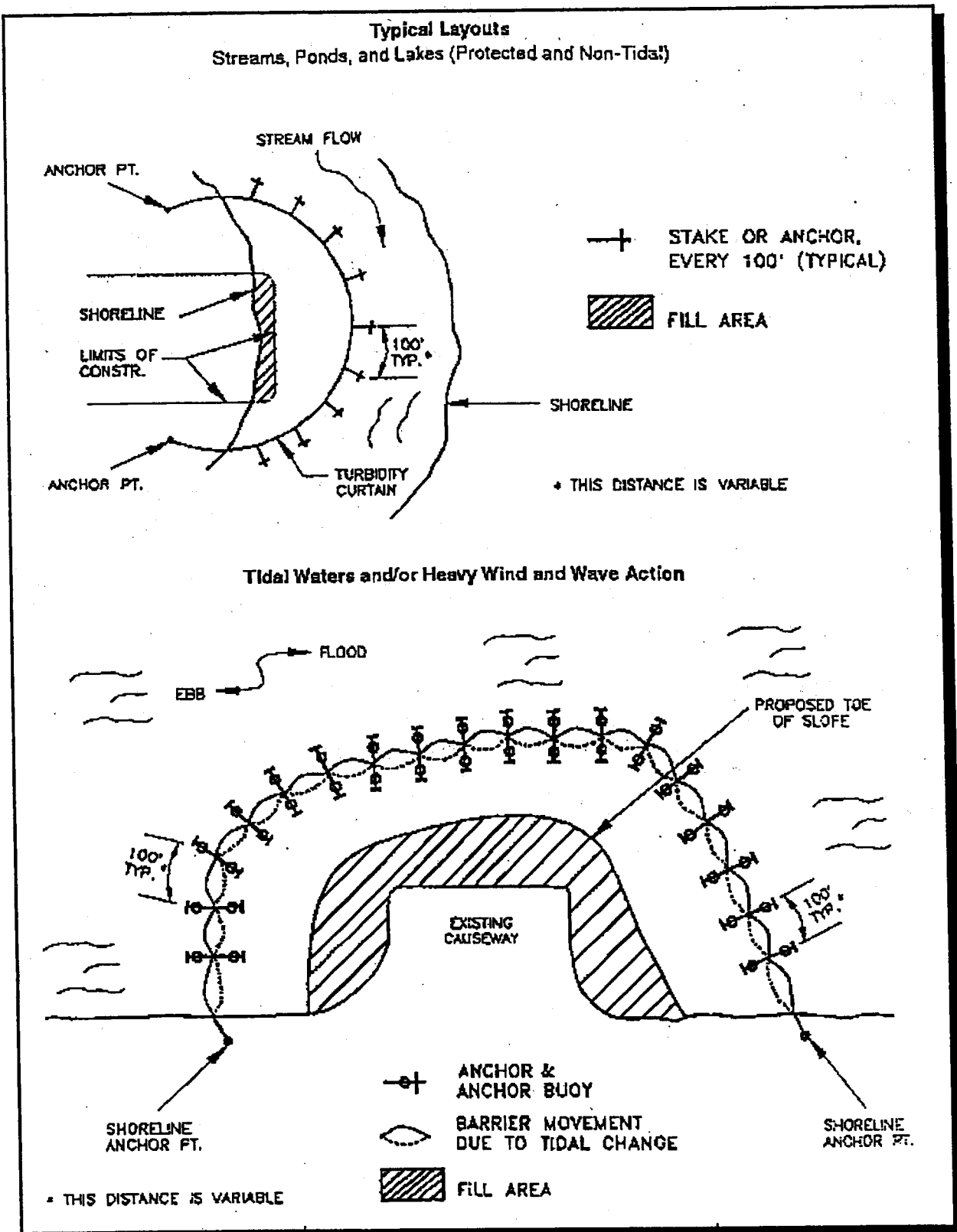


Plate 4.45c Typical Installation Layouts -- Source: FDOT Roadway and Traffic Design Standards

6. The effectiveness of the barrier can be increased by installing two parallel curtains, separated at regular intervals by 10' (3 m) long wooden boards or lengths of pipe.

Removal

1. Care should be taken to protect the skirt from damage as the turbidity curtain is dragged from the water.
2. The site selected to bring the curtain ashore should be free of sharp rocks, broken cement, debris, etc. so as to minimize damage when hauling the curtain over the area.
3. If the curtain has a deep skirt, it can be further protected by running a small boat along its length with a crew installing furling lines before attempting to remove the curtain from the water.

Maintenance

1. The developer/owner shall be responsible for maintenance of the filter curtain for the duration of the project to ensure the continuous protection of the watercourse.
2. Should repairs to the geotextile fabric become necessary, there are normally repair kits available from the manufacturers; manufacturer's instructions must be followed ensure the adequacy of the repair.
3. When the curtain is no longer required as determined by the inspector, the curtain and related components shall be removed in such a manner as to minimize turbidity. Sediment shall be removed and the original depth (or plan elevation) restored before removing the curtain. Remaining sediment shall be sufficiently settled before removing the curtain. Any spoils must be taken to an upland area and stabilized.

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REFERENCES

Florida Department of Environmental Regulation, 1988, The Florida Development Manual: A Guide to Sound Land and Water Management (Chapter 6). Tallahassee, FL



**INDIAN RIVER COUNTY - MEMORANDUM
STANDARD PLAT COMMENTS
FROM COUNTY SURVEYOR**

Date:

To: Current Development

Cc: Chris Kafer P.E. County Engineer, Dave Cox, David Hays

From: Michael O'Brien P.S.M., County Surveyor

Subject: **STANDARD PLAT COMMENTS**

Reference: *Comments below are intended to be a guide for future PLAT submittals. The comments below DO NOT include ALL platting requirements as stated in Florida Statutes and County Code.*

Miscellaneous: This Guide should be forwarded to the Platting Surveyor prior to future plat submittals. Additional requirement exist within Florida Statutes and Chapter 177 and I.R.C. Code 913.07

- For review and approval of FINAL Plat submittals: Said plats are required to conform to Florida Statutes Chapter 177 part 1 Platting (ss.177.011-177.151) and part III and Indian River County land development regulations Ch 913.07.
- A certified *Boundary Survey* shall accompany all Final Plat submittals. Said Boundary Survey shall adhere to all requirements within Chapter 177 & 472, Florida Statutes and Chapter 61G17, Florida Administrative Codes and shall be the basis for the Final Plat.
- For plat projects larger than 10 lots and to expedite the County surveyors reviews, an electronic (Auto CADD 14/2000) file (In State Plane) supplied on diskette or CD is **required** for the final stage of each plat (Mylar), prior to signatures by the County, for our records.
- County Surveyor reserves the right for additional comments
- There may be additional comments from other departments or agencies.
- A written response to all comments shall be supplied.

Below are comments regarding all "future" Final Plat submittals for this project.

1. As per Florida Statutes and I.R.C. Code **4 signed and sealed Boundary survey(s)** must accompany final plat submittals. Signed and Sealed Boundary Survey (s) of the platted lands that complies with Chapter 61G17-6.0031 Florida Administrative Code shall accompany all final plat applications. The Boundary survey(s) shall be performed within one year of application and prepared by a Professional Surveyor and Mapper registered in the State of Florida under the employment of the "Legal Entity" submitting the final plat application. (Florida Statutes 177.041). Relative to multi-phase subdivisions that are part of a parent tract, a boundary survey of the parent tract and the phase being platted shall be provided.
2. As applicable, plat shall provide information regarding Murphy Reservations and/or Releases as it affects adjoining/surrounding Rights-of-Ways.
3. Provide a "Metes and Bounds" description for final plat.
4. Any Change in an existing plat shall be labeled a "replat". (FS 177.051(2))
5. I.R.C. Code 913.07 requires State Plane coordinates to be established on at least two plat corners. You are reminded that if this plan is submitted for final approval, it must show State Plane Coordinates on two successive corners shown on the plan, these coordinates being the result of a survey tie to monuments in the Indian River County Horizontal Control Network. The GPS monuments used will be shown on the face of the plan. Supporting data relating to the establishment of state plane coordinates shall be supplied to the County Surveyor prior to Final Plat approval. *All state plane coordinates shall be to current adjusted values as provided by NGS.*

I.R.C. FINAL PLAT
STANDARD COMMENTS

6. All Section Lines and Quarter Section lines occurring within the subdivision shall be indicated by lines drawn upon the map or plat, with appropriate words and figures. If the description is by Metes and Bounds, all information called for, such as point of beginning, shall be indicated. If the platted lands are in a land grant or are not included in the subdivision or government surveys, then boundaries are to be defined by Metes and Bounds and courses. (F.S. 177.091 (14)).
7. All Contiguous properties shall be identified by subdivision title, plat book, and page, or; if unplatted, land shall be so designated. If the subdivision platted is a part or a whole of a previously recorded subdivision, sufficient ties shall be shown to controlling lines appearing on the earlier plat to permit an overlay to be made; the fact of it's being a replat shall be stated as a subtitle under the name of the plat on each sheet included. The subtitle must state the name of the subdivision being replatted and the appropriate recording reference (F.S. 177.091(17)).
8. A signed Boundary, Tract and Lot Closure report (Note closure must indicate error of closure) is now being required to be supplied directly to the County Surveyor for all final plat approvals. The County Surveyor will not review the application(s) without the mentioned report(s).
9. A Basis of Bearing (Bearing reference) shall be noted on plat and shall reference a well "Established" and "Monumented" line. (F.S. 177.091(6)). *Plat shall indicate a well "established" and "Monumented" line, and provide geometry to found and used horizontal control along Section/Tract lines or reference thereto.*
10. The initial point in the description shall be tied to the nearest government corner, (I.R.C. Code 913.07(6)(d)(10)(a)). And a second point shall be tied to a second government corner AND a certified corner report(s) must be submitted to the County Surveyor and D.E.P. (If applicable) (F.S. 177.507(1)) *"Plat corners are not Government Corners" and "Unless the corner is substantially as described in a previous filed corner record" a new corner report is required. Surveyor is responsible for verifying existing corner records or preparing a new one and advising the County Surveyor as such. Surveyor is responsible for verifying existing corner records or preparing a new one and advising the County Surveyor as to which corner record was verified OR supply a copy of newly prepared corner record that has been submitted to D.E.P. **Note: The county will inspect the current Certified Corner reports for accuracy (Accessories e.t.c.) at the time of plat PRM inspections. If all accessories are not substantially the same new reports will be required and may delay processing of the plat.***
11. As part of the "preliminary plat review" and continuing on to final plat the locations and dimensions of all known existing and proposed right-of-ways and easements and the purpose for which they were established on: The subject site, adjacent property, and on opposite sides shall be shown. (I.R.C. Code 913.07(4)(c)(12)(a-c)). *All "ultimate" Right-of-Way lines shall be provided on applicable sheets.*
12. Overall geometry for lines and Curve information along plat/boundary/tract lines shall be shown on the plat drawing (*I.E. not only to match lines*). Applicable curve (Arc/Radius/Delta) line data shall be provided on *actual drawing* and/or in conjunction with required curve/line table data.
13. Plats bordering on tidally affected navigable waters must comply fully with the requirements of Ch. 177, Part II, regarding establishment of a local tidal datum and the determination of the MHWL in the event that the MHWL is used to determine building or other setbacks required for development. The elevation and date of determination of the MHWL, as approved by the Florida Department of Environmental Protection (FDEP) Bureau of Surveying and Mapping, or its successor agency, must appear on the plat. A copy of written MHWL survey approval from the FDEP must be submitted to the County Surveyor and Mapper prior to plat recordation.
14. The county surveyor will no longer accept line and/or curve data in a table format that will "fit" (F.S. 177.091(20)), and/or can "possibly" and/or logistically placed along the plat/boundary/tract line itself. This applies to all dimensions on the plat drawing including Boundary/Tracts/Rights-of-Ways/lots e.t.c.
15. Curvilinear lot lines shall show the radii, arc, distances, central angles, chord distances and bearings. Radial line will be so designated. Direction of non-radial lines shall be indicated. A table format may be used coinciding with same page. (F.S. 177.091(20)), (I.R. Code 913.07 (4)(C)13(f)).

I.R.C. FINAL PLAT
STANDARD COMMENTS

16. I.R.C. Code (930.07 (2)(h) 2.) Requires that one or more **(Two Bench Marks placed on actual PRM's is required by County Surveyor)** NGVD 29 vertical datum "Bench Mark" be placed on a monument(s) *Further plat is to include the vertical control datum "published origin" description.*
17. Cover sheet shall have location sketch showing the existing zoning classification of the subject site and of the adjacent property; (I.R.C. Code 913.07(D)(11)).

18. The County Surveyor Certificate shall be as follows:

- ☐ "This Plat of (Name of Subdivision) has been reviewed by the undersigned Professional Surveyor and Mapper employed by the Board of County Commissioners of Indian River County for conformity to the requirements of Chapter 177, of the Florida Statutes."

Michael O'Brien, Indian River County Surveyor and Mapper
Registration NO. PSM 6118
Date: _____

19. The preparing Surveyor Certificate shall adhere to the following standards and statements as it applies:

- ☐ Certificate of surveyor. The plat shall contain:
- The signature, registration number and official seal of the land surveyor, certifying the survey data complied and shown on the plat complies with all of the requirements of Chapter 177, Florida Statutes, as amended, chapter in the following forms:

CERTIFICATE OF SURVEYOR

KNOW ALL MEN BY THESE PRESENTS, That the undersigned, being a licensed and registered Professional Surveyor and Mapper, does hereby certify that on _____ he completed the survey of the lands as shown in the forgoing plat; that said plat is a correct presentation of the lands therein described and platted or subdivided; that permanent reference monuments have been placed and each P.C.P. will be set as shown thereon as required by Chapter 177, Florida Statutes and Subdivisions and Platting, Chapter 913; and that said land is located in Indian River County, Florida.

Dated _____ Registration No. _____;

- A statement that permanent reference monuments, "P.R.M.," have been set in compliance with Chapter 177, Florida Statutes, as amended; and
- Each P.C.P. will be set under the direction and supervision of the surveyor within one year from the date the plat was recorded. When required improvements have been completed prior to the recording of a plat, the certification shall state that each P.C.P. has been set in compliance with the laws of the State of Florida and ordinances of Indian River County. When plats are recorded and improvements are to be accomplished under surety posted as provided for by this ordinance, the required improvements and surety shall include each P.C.P. In this case the certification will state that P.C.P. will be set and the surveyor will file an affidavit of record when set in place. (I.R.C. Code 913.07(6)(F)(4)(a,b,c)).

20. Ties to government corners and to IRCHCN monuments shall conform to FGCC Third Order Class I standards and shall be so certified on the face of the plat *under the certificate* of surveyor. (I.R.C. Code 913.07(6)(d)(10)(c)).

21. *Dedications*; The purpose of all the reserved areas shown or referred on the plat and the improvements shall be defined in the dedication. All areas reserved for use by the residents of the subdivision and all areas or facilities intended for public use, shall be specifically dedicated by the owner of the land at the time the plat is recorded. *Reference complete listing in (I.R.C. Code 913.07(F)(1)).*

22. All dedications to the County shall be "un-encumbered" unless prior agreements are established.
 23. Concurrency statement shall be provided on all sheets as applicable. 910.07(1)(b)(3)
 24. Preparation and revision dates shall be provided on all sheets as applicable.
 25. Monuments shall be set at all lot corners, points of intersection, and changes of direction of lines within the subdivision which do not require a P.R.M. or a P.C.P." (Florida Statute 177.09(9)) (I.R.C. Code 913.07 (6)(D)(4): In the event of posted surety or bond the monuments shall be set prior to expiration of the bond or at the time of transfer of said lots. Monuments shall be subject to inspections and approvals by the County prior to releases. On the plat a symbol shall be placed at lot corners, points of intersection, and changes of direction of lines. In the case of posted surety or bond, a note shall be placed on all sheets of the plat, similarly indicating that the lot corners shall be set by the preparing Surveyor or another Professional Surveyor and Mapper contracted with the subdivider, within the time allotted by the surety or bond and/or at the time of transfer of the lots whichever occurs first.
 26. In the case of posted surety and that PCP's are not set at time of recording and shall be set following improvements – the *surveyor's certificate shall state* that each PCP will be set and the surveyor will file an affidavit of record when set in place. (I.R.C. Code 913.07(6)(F)(4)(c)).
 27. The cost estimate (for survey services) should include not only establishment of all the sites P.R.M.'s, P.C.P.'S at time of *platting* but take in consideration maintenance and re-establishment of said points at the time of *Certificate of Completion* as these points are included in the sites improvement requirements. (Reference below)
 28. If the proposed improvements are not anticipated to be completed within "one year" of plat recording a bond/escrow is required for the setting of plats P.C.P.'s and Lot Corners. All P.C.P.'s and Lot Corners shall be set prior to one year following plat recording and/or prior the bond/escrow expiration. **A copy of approved bond with appropriate amounts for the establishment of the plats P.C.P'S AND LOT CORNERS shall be supplied to the County Surveyor.**
(Reference Florida Statutes 177.091(8) and Indian River County Code 913.07)
Furthermore as part of the *performance and maintenance requirements* during and following site improvements. The platted monuments and P.C.P.'s are required to be in good condition (or re-set) for inspection at the time of the site "Certificate of Completion" by the County. (Reference Indian River County Code 913.07, 913.10)
 29. An electronic (Auto CADD 14/2000) file (In State Plane) supplied on diskette or CD is ***required*** for the final stage of each plat (Mylar), prior to signatures by the County.
 30. Please advise County Surveyor in writing via fax or e-mail when corners (P.R.M.'s- P.C.P.'s) have been set and flagged for inspection prior to final plat approval. The County Surveyor will not inspect site or approve plat without proper notification 48 hrs in advance.
- Said plats are required to conform to Florida Statutes Chapter 177 part 1 Platting (ss.177.011-177.151) and part III and Indian River County land development regulations Ch 913.07. Prior to any reviews. If final Plat submittals do not conform to said standards the County Surveyor will not supply comments.

If you should have any questions please do not hesitate to contact me.

Michael O'Brien P.S.M.
Indian River County Surveyor
(772) 567-8000 Ext, 1386
(772) 778-9391 Fax
mobrien@ircgov.com



St. Johns River Water Management District

Kirby B. Green III, Executive Director • David W. Fisk, Assistant Executive Director

4049 Reid Street • P.O. Box 1429 • Palatka, FL 32178-1429 • (386) 329-4500
On the Internet at www.sjrwmd.com.

January 19, 2005

Indian River Co Board of County Commissioners
1840 25th St
Vero Beach, FL 32960

SUBJECT: Permit Number 40-061-96830-1
Fellsmere Sidewalk Phase 2

Dear Sir/Madam:

Enclosed is your general permit as authorized by the staff of the St. Johns River Water Management District on January 19, 2005.

This permit is a legal document and should be kept with your other important documents. The attached MSSW/Stormwater As-Built Certification Form should be filled in and returned to the Palatka office within thirty days after the work is completed. By so doing, you will enable us to schedule a prompt inspection of the permitted activity.

In addition to the MSSW/Stormwater As-Built Certification Form, your permit also contains conditions which require submittal of additional information. All information submitted as compliance to permit conditions must be submitted to the Palatka office address.

Permit issuance does not relieve you from the responsibility of obtaining permits from any federal, state and/or local agencies asserting concurrent jurisdiction for this work.

Please be advised that the District has not published a notice in the newspaper advising the public that it is issuing a permit for this proposed project. Publication, using the District form, notifies members of the public (third parties) of their rights to challenge the issuance of the general permit. If proper notice is given by publication, third parties have a 21-day time limit on the time they have to file a petition opposing the issuance of the permit. If you do not publish, a party's right to challenge the issuance of the general permit extends for an indefinite period of time. If you wish to have certainty that the period for filing such a challenge is closed, then you may publish, at your own expense, such a notice in a newspaper of general circulation. A copy of the form of the notice and a list of newspapers of general circulation is attached for your use.

In the event you sell your property, the permit will be transferred to the new owner, if we are notified by you within thirty days of the sale and if you provide the information required by 40C-1.612, F.A.C. Please assist us in this matter so as to maintain a valid permit for the new property owner.

GOVERNING BOARD

Ometrias D. Long, CHAIRMAN
APOPKA
W. Michael Branch
FERNANDINA BEACH

David G. Graham, VICE CHAIRMAN
JACKSONVILLE
John G. Sowinski
ORLANDO

William Kerr
MELBOURNE BEACH

R. Clay Albright, SECRETARY
OCALA

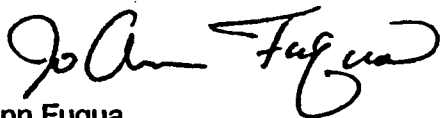
Ann T. Moore
BUNNELL

Duane Ottenstroer, TREASURER
JACKSONVILLE

Susan N. Hughes
JACKSONVILLE

Thank you for your cooperation, and if this office can be of any further assistance to you, please do not hesitate to contact us.

Sincerely,

A handwritten signature in black ink, appearing to read "Jo Ann Fuqua". The signature is fluid and cursive, with the first name "Jo Ann" and the last name "Fuqua" clearly distinguishable.

Jo Ann Fuqua
Service Center Data Mgt Supervisor
Division of Permit Data Services

Enclosures: Permit with As-built Certification Form
Notice of Rights
List of Newspapers for Publication

cc: District Permit File

Agent: Indian River Co Board of County Commissioners
1840 25th St
Vero Beach, FL 32960

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
Post Office Box 1429
Palatka, Florida 32178-1429

PERMIT NO. 40-061-96830-1
PROJECT NAME: Fellsmere Sidewalk Phase 2

DATE ISSUED: January 19, 2005

A PERMIT AUTHORIZING:

Construction of a Surface Water Management System with stormwater treatment by best management practices for Fellsmere Sidewalk Phase 2, a 4.80-acre project to be constructed as per plans received by the District on December 20, 2004.

LOCATION:

Section(s): 70 Township(s): 31S Range(s): 37E

Indian River County

Indian River Co Board of County Commissioners
1840 25th St
Vero Beach, FL 32960

Permittee agrees to hold and save the St. Johns River Water Management District and its successors harmless from any and all damages, claims, or liabilities, which may arise from, permit issuance. Said application, including all plans and specifications attached thereto, is by reference made a part hereof.

This permit does not convey to permittee any property rights nor any rights or privileges other than those specified therein, nor relieve the permittee from complying with any law, regulation or requirement affecting the rights of other bodies or agencies. All structures and works installed by permittee hereunder shall remain the property of the permittee.

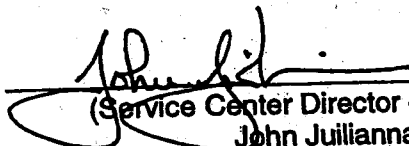
This permit may be revoked, modified or transferred at any time pursuant to the appropriate provisions of Chapter 373, Florida Statutes:

PERMIT IS CONDITIONED UPON:

See conditions on attached "Exhibit A", dated January 19, 2005

AUTHORIZED BY: St. Johns River Water Management District
Department of Resource Management

By:


(Service Center Director - Palm Bay)
John Juillianna

"EXHIBIT A"
CONDITIONS FOR ISSUANCE OF PERMIT NUMBER 40-061-96830-1
INDIAN RIVER CO BOARD OF COUNTY COMMISSIONERS
DATED JANUARY 19, 2005

1. All activities shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit.
2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications, shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.
3. Activities approved by this permit shall be conducted in a manner, which do not cause violations of state water quality standards.
4. Prior to and during construction, the permittee shall implement and maintain all erosion and sediment control measures (best management practices) required to retain sediment on-site and to prevent violations of state water quality standards. All practices must be in accordance with the guidelines and specifications in chapter 6 of the Florida Land Development Manual: A Guide to Sound Land and Water Management (Florida Department of Environmental Regulation 1988), which are incorporated by reference, unless a project specific erosion and sediment control plan is approved as part of the permit, in which case the practices must be in accordance with the plan. If site specific conditions require additional measures during any phase of construction or operation to prevent erosion or control sediment, beyond those specified in the erosion and sediment control plan, the permittee shall implement additional best management practices as necessary, in accordance with the specifications in chapter 6 of the Florida Land Development Manual: A Guide to Sound Land and Water Management (Florida Department of Environmental Regulation 1988). The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.
5. Stabilization measures shall be initiated for erosion and sediment control on disturbed areas as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased.
6. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District a Construction Commencement Notice Form No. 40C-4.900(3) indicating the actual start date and the expected completion date.
7. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an Annual Status Report Form No. 40C-4.900(4). These forms shall be submitted during June of each year.
8. For those systems which will be operated or maintained by an entity which will require an easement or deed restriction in order to provide that entity with the authority necessary to operate or maintain the system, such easement or deed restriction, together with any other final operation or maintenance documents as are required by subsections 7.1.1 through 7.1.4 of the Applicant's Handbook: Management and Storage of Surface Waters, must be submitted to the District for approval. Documents meeting the requirements set forth in these subsections of the Applicant's Handbook will be approved. Deed restrictions, easements and other operation and maintenance documents which require recordation either with the Secretary of State or the Clerk of the Circuit Court must be so recorded prior

to lot or unit sales within the project served by the system, or upon completion of construction of the system, whichever occurs first. For those systems, which are proposed to be maintained by county or municipal entities, final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local governmental entity. Failure to submit the appropriate final documents referenced in this paragraph will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system.

9. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by the portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of that phase or portion of the system to local government or other responsible entity.
10. Within 30 days after completion of construction of the permitted system, or independent portion of the system, the permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual as authorized by law, utilizing As Built Certification Form 40C-1.181(13) or 40C-1.181(14) supplied with this permit. When the completed system differs substantially from the permitted plans, any substantial deviations shall be noted and explained and two copies of as-built drawings submitted to the District. Submittal of the completed form shall serve to notify the District that the system is ready for inspection. The statement of completion and certification shall be based on on-site observation of construction (conducted by the registered professional engineer, or other appropriate individual as authorized by law, or under his or her direct supervision) or review of as-built drawings for the purpose of determining if the work was completed in compliance with approved plans and specifications. As-built drawings shall be the permitted drawings revised to reflect any changes made during construction. Both the original and any revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawing. All surveyed dimensions and elevations shall be certified by a registered surveyor. The following information, at a minimum, shall be verified on the as-built drawings:
 1. Dimensions and elevations of all discharge structures including all weirs, slots, gates, pumps, pipes, and oil and grease skimmers;
 2. Locations, dimensions, and elevations of all filter, exfiltration, or underdrain systems including cleanouts, pipes, connections to control structures, and points of discharge to the receiving waters;
 3. Dimensions, elevations, contours, or cross-sections of all treatment storage areas sufficient to determine state-storage relationships of the storage area and the permanent pool depth and volume below the control elevation for normally wet systems, when appropriate;
 4. Dimensions, elevations, contours, final grades, or cross-sections of the system to determine flow directions and conveyance of runoff to the treatment system;
 5. Dimensions, elevations, contours, final grades, or cross-sections of all conveyance systems utilized to convey off-site runoff around the system;
 6. Existing water elevation(s) and the date determined; and Elevation and location of benchmark(s) for the survey.

11. The operation phase of this permit shall not become effective until the permittee has complied with the requirements of general condition 9 above, the District determines the system to be in compliance with the permitted plans, and the entity approved by the District in accordance with subsections 7.1.1 through 7.1.4 of the Applicant's Handbook: Management and Storage of Surface Waters, accepts responsibility for operation and maintenance of the system. The permit may not be transferred to such an approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall request transfer of the permit to the responsible approved operation and maintenance entity, if different from the permittee. Until the permit is transferred pursuant to section 7.1 of the Applicant's Handbook: Management and Storage of Surface Waters, the permittee shall be liable for compliance with the terms of the permit.
12. Should any other regulatory agency require changes to the permitted system, the permittee shall provide written notification to the District of the changes prior implementation so that a determination can be made whether a permit modification is required.
13. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and chapter 40C-4 or chapter 40C-40, F.A.C.
14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the activities authorized by the permit or any use of the permitted system.
15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this permit or a formal determination under section 373.421(2), F.S., provides otherwise.
16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of the permitted system or the real property at which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of section 40C-1.612, F.A.C. The permittee transferring the permit shall remain liable for any corrective actions that may be required as a result of any permit violations prior to such sale, conveyance or other transfer.
17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.
18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the District.
19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.
20. This permit for construction will expire five years from the date of issuance.
21. All wetland areas or water bodies that are outside the specific limits of construction authorized by this permit must be protected from erosion, siltation, scouring or excess turbidity, and dewatering.

22. Prior to construction, the permittee must clearly designate the limits of construction on-site. The permittee must advise the contractor that any work outside the limits of construction, including clearing, may be a violation of this permit.
23. The project must be constructed in accordance with the plans received by the District on December 20, 2004.
24. The stormwater management system must be inspected by the operation and maintenance entity once within two years after the completion of construction and every two years thereafter to insure that the system is functioning as designed and permitted. If a required inspection reveals that the system is not functioning as designed and permitted, then within 14 days of that inspection the entity shall submit an Exceptions Report on form number 40C-42.900(6), Exceptions Report for Stormwater Management System Out of Compliance. The operation and maintenance entity must maintain a record of each required inspection, including the date of inspection, the name, address, and telephone number of the inspector, and whether the system was functioning as designed and permitted, and make such record available for inspection upon request by the District during normal business hours.

Notice Of Rights

- 1. A person whose substantial interests are or may be determined has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District), or may choose to pursue mediation as an alternative remedy under Sections 120.569 and 120.573, Florida Statutes, before the deadline for filing a petition. Choosing mediation will not adversely affect the rights to a hearing if mediation does not result in a settlement. The procedures for pursuing mediation are set forth in Sections 120.569 and 120.57, Florida Statutes, and Rules 28-106.111 and 28-106.401-.405, Florida Administrative Code. Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code, the petition must be filed at the office of the District Clerk at District Headquarters, P. O. Box 1429, Palatka, Florida 32178-1429 (4049 Reid St., Palatka, FL 32177) within twenty-six (26) days of the District depositing notice of District decision in the mail (for those persons to whom the District mails actual notice) or within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail actual notice). A petition must comply with Chapter 28-106, Florida Administrative Code.**
- 2. If the Governing Board takes action which substantially differs from the notice of District decision, a person whose substantial interests are or may be determined has the right to request an administrative hearing or may choose to pursue mediation as an alternative remedy as described above. Pursuant to District Rule 40C-1.1007, Florida Administrative Code, the petition must be filed at the office of the District Clerk at the address described above, within twenty-six (26) days of the District depositing notice of final District decision in the mail (for those persons to whom the District mails actual notice) or within twenty-one (21) days of newspaper publication of the notice of its final agency action (for those persons to whom the District does not mail actual notice). Such a petition must comply with Rule Chapter 28-106, Florida Administrative Code.**
- 3. A substantially interested person has the right to a formal administrative hearing pursuant to Section 120.569 and 120.57(1), Florida Statutes, where there is a dispute between the District and the party regarding an issue of material fact. A petition for formal must comply with the requirements set forth in Rule 28-106.201, Florida Administrative Code.**
- 4. A substantially interested person has the right to an informal hearing pursuant to Sections 120.569 and 120.57(2), Florida Statutes, where no material facts are in dispute. A petition for an informal hearing must comply with the requirements set forth in Rule 28-106.301, Florida Administrative Code.**
- 5. A petition for an administrative hearing is deemed filed upon delivery of the petition to the District Clerk at the District headquarters in Palatka, Florida.**
- 6. Failure to file a petition for an administrative hearing, within the requisite time frame shall constitute a waiver of the right to an administrative hearing (Section 28-106.111, Florida Administrative Code).**
- 7. The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, and Chapter 28-106, Florida Administrative Code and Section 40C-1.1007, Florida Administrative Code.**

Notice Of Rights

8. An applicant with a legal or equitable interest in real property who believes that a District permitting action is unreasonable or will unfairly burden the use of his property, has the right to, within 30 days of receipt of notice of the District's written decision regarding a permit application, apply for a special master proceeding under Section 70.51, Florida Statutes, by filing a written request for relief at the office of the District Clerk located at District headquarters, P. O. Box 1429, Palatka, FL 32178-1429 (4049 Reid St., Palatka, Florida 32177). A request for relief must contain the information listed in Subsection 70.51(6), Florida Statutes.
9. A timely filed request for relief under Section 70.51, Florida Statutes, tolls the time to request an administrative hearing under paragraph no. 1 or 2 above (Paragraph 70.51(10)(b), Florida Statutes). However, the filing of a request for an administrative hearing under paragraph no. 1 or 2 above waives the right to a special master proceeding (Subsection 70.51(10)(b), Florida Statutes).
10. Failure to file a request for relief within the requisite time frame shall constitute a waiver of the right to a special master proceeding (Subsection 70.51(3), Florida Statutes).
11. Any substantially affected person who claims that final action of the District constitutes an unconstitutional taking of property without just compensation may seek review of the action in circuit court pursuant to Section 373.617, Florida Statutes, and the Florida Rules of Civil Procedures, by filing an action in circuit court within 90 days of the rendering of the final District action, (Section 373.617, Florida Statutes).
12. Pursuant to Section 120.68, Florida Statutes, a person who is adversely affected by final District action may seek review of the action in the District Court of Appeal by filing a notice of appeal pursuant to the Florida Rules of Appellate Procedure within 30 days of the rendering of the final District action.
13. A party to the proceeding before the District who claims that a District order is inconsistent with the provisions and purposes of Chapter 373, Florida Statutes, may seek review of the order pursuant to Section 373.114, Florida Statutes, by the Florida Land and Water Adjudicatory Commission, by filing a request for review with the Commission and serving a copy on the Department of Environmental Protection and any person named in the order within 20 days of adoption of a rule or the rendering of the District order.
14. For appeals to the District Court of Appeal, a District action is considered rendered after it is signed on behalf of the District, and is filed by the District Clerk.
15. Failure to observe the relevant time frames for filing a petition for judicial review described in paragraphs #11 and #12, or for Commission review as described in paragraph #13, will result in waiver of that right to review.

Notice Of Rights

Certificate of Service

I HEREBY CERTIFY that a copy of the foregoing Notice of Rights has been sent by U.S.
Mail to:

Indian River Co Board of County Commissioners
1840 25th St
Vero Beach, FL 32960

At 4:00 p.m. this 19th day of January 2005.

A handwritten signature in black ink, appearing to read "Gloria Lewis", is written over a horizontal line.

Division of Permit Data Services
Gloria Lewis, Director

St. Johns River Water Management District
Post Office Box 1429
Palatka, FL 32178-1429
(386) 329-4152

Permit Number: 40-061-96830-1



St. Johns River

Water Management District

Kirby B. Green III, Executive Director • David W. Fisk, Assistant Executive Director • Mike Slayton, Deputy Executive Director
John Juillanna, Palm Bay Service Center Director, Regulatory

525 Community College Parkway S.E. • Palm Bay, FL 32909 • (321) 984-4940

January 13, 2004

Certified No.: 7004 1350 0000 6295 0514

Michelle A. Gentile, C.E.T.
Indian River County
1840 25th Street
Vero Beach, FL 32960

RECEIVED

JAN 14 2005

RE: Indian River Drive Sidewalk South
Permit No. 40-061-89085-1
Compliance No. 061-478014

INDIAN RIVER COUNTY
ENGINEERING DIVISION

Dear Ms. Gentile:

On August 26, 2004, the District received your written request to modify permit number 40-061-89085-1, by proposing minor changes to the location of the swale and sidewalk. This request was updated with additional information by a submittal received by the District on December 13, 2004. Specifically, staff understands that the proposed modification consists of the following:

The construction plans received on August 26, 2004, and again on December 13, 2004, show minor changes to the system design including moving the location of the swale to the east side of the roadway.

Based on the information provided, your request qualifies for a letter modification pursuant to Section 40C-4.331(1)(b), Fla. Admin. Code.

All of the terms and conditions of permit number 40-061-89085-1 will remain in effect.

Please be advised the District has not published a notice in the newspaper to advise the public that it is issuing this letter modification. If you do not publish notice in the newspaper, a party's right to challenge the issuance of this letter modification extends for an indefinite period of time. If you wish to have certainty that the period for filing such a challenge is closed, then you may publish, at your own expense, such a notice in a newspaper of general circulation within the area that includes the project to which the modification applies. A copy of the form of the notice is attached for your use. Pursuant to Section 40C-1.1007, Florida Admin. Code, please forward to the District an affidavit of publication from the newspaper within seven (7) days of publication.

GOVERNING BOARD

Duane Ottenstroer, CHAIRMAN
JACKSONVILLE

Ometrias D. Long, VICE CHAIRMAN
APOPKA

R. Clay Albright, SECRETARY
OCALA

David G. Graham, TREASURER
JACKSONVILLE

W. Michael Branch

John G. Sowinski

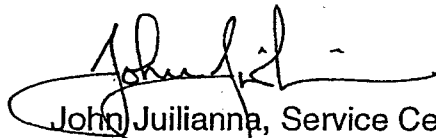
William Kerr

Ann T. Moore

Susan N. Hughes

Please feel free to contact me at (321) 984-4940 if you have any questions.

Sincerely,

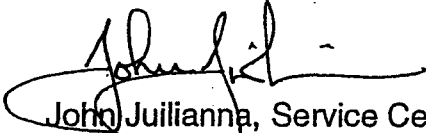
A handwritten signature in black ink, appearing to read "John Juillianna", with a large, sweeping flourish underneath.

John Juillianna, Service Center Director
Department of Water Resources

cc: PDS (Letter Modification)
Janice Unger
Mark Crosby

Please feel free to contact me at (321) 984-4940 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "John Julianna", with a stylized flourish extending from the end.

John Julianna, Service Center Director
Department of Water Resources

cc: PDS (Letter Modification)
Janice Unger
Mark Crosby



St. Johns River Water Management District

Kirby B. Green III, Executive Director • John R. White, Assistant Executive Director

Post Office Box 1429 • Palatka, FL 32178-1429 • (386) 329-4500

August 28, 2003

Indian River County
1840 25th Street
Vero Beach, FL 32960

SUBJECT: Permit Number 40-061-89085-1
Indian River Drive Sidewalk (South)

Dear Sir/Madam:

Enclosed is your general permit as authorized by the staff of the St. Johns River Water Management District on August 28, 2003.

This permit is a legal document and should be kept with your other important documents. The attached MSSW/Stormwater As-Built Certification Form should be filled in and returned to the Palatka office within thirty days after the work is completed. By so doing, you will enable us to schedule a prompt inspection of the permitted activity.

In addition to the MSSW/Stormwater As-Built Certification Form, your permit also contains conditions which require submittal of additional information. All information submitted as compliance to permit conditions must be submitted to the Palatka office address.

Permit issuance does not relieve you from the responsibility of obtaining permits from any federal, state and/or local agencies asserting concurrent jurisdiction for this work.

Please be advised that the District has not published a notice in the newspaper advising the public that it is issuing a permit for this proposed project. Publication, using the District form, notifies members of the public (third parties) of their rights to challenge the issuance of the general permit. If proper notice is given by publication, third parties have a 21-day time limit on the time they have to file a petition opposing the issuance of the permit. If you do not publish, a party's right to challenge the issuance of the general permit extends for an indefinite period of time. If you wish to have certainty that the period for filing such a challenge is closed, then you may publish, at your own expense, such a notice in a newspaper of general circulation. A copy of the form of the notice and a list of newspapers of general circulation is attached for your use.

In the event you sell your property, the permit will be transferred to the new owner, if we are notified by you within thirty days of the sale and if you provide the information required by 40C-1.612, F.A.C. Please assist us in this matter so as to maintain a valid permit for the new property owner.

GOVERNING BOARD

Duane O'Leary, Chairman
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Cynthia D. Long, Vice Chairman
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Ann T. Moore
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Catherine A. Weber
ALACHUA BEACH

Thank you for your cooperation, and if this office can be of any further assistance to you, please do not hesitate to contact us.

Sincerely,

Janet White
Data Management Specialist II
Division of Permit Data Services

Enclosures: Permit with As-built Certification Form
Notice of Rights
List of Newspapers for Publication

cc: District Permit File

Agent: Indian River County Engineering Division County Engineer
1840 25th Street
Gifford, FL 32960

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
Post Office Box 1429
Palatka, Florida 32178-1429

PERMIT NO. 40-061-89085-1

DATE ISSUED: August 28, 2003

PROJECT NAME: Indian River Drive Sidewalk (South)

A PERMIT AUTHORIZING:

Construction of a Surface Water Management System with stormwater treatment by swales for Indian River Drive Sidewalk (South), a 0.66-acre project to be constructed as per plans received by the District on July 14, 2003.

LOCATION:

Section(s): 7, 8

Township(s): 31S

Range(s): 38E

Indian River County

Indian River County
1840 25th Street
Vero Beach, FL 32960

Permittee agrees to hold and save the St. Johns River Water Management District and its successors harmless from any and all damages, claims, or liabilities which may arise from permit issuance. Said application, including all plans and specifications attached thereto, is by reference made a part hereof.

This permit does not convey to permittee any property rights nor any rights or privileges other than those specified therein, nor relieve the permittee from complying with any law, regulation or requirement affecting the rights of other bodies or agencies. All structures and works installed by permittee hereunder shall remain the property of the permittee.

This permit may be revoked, modified or transferred at any time pursuant to the appropriate provisions of Chapter 373, Florida Statutes:

PERMIT IS CONDITIONED UPON:

See conditions on attached "Exhibit A", dated August 28, 2003

AUTHORIZED BY: St. Johns River Water Management District
Department of Resource Management

By: _____
(Service Center Director - Palm Bay)
John Juillianna

"EXHIBIT A"
CONDITIONS FOR ISSUANCE OF PERMIT NUMBER 40-061-89085-1
INDIAN RIVER COUNTY
DATED AUGUST 28, 2003

1. All activities shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit.
2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications, shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.
3. Activities approved by this permit shall be conducted in a manner which do not cause violations of state water quality standards.
4. Prior to and during construction, the permittee shall implement and maintain all erosion and sediment control measures (best management practices) required to retain sediment on-site and to prevent violations of state water quality standards. All practices must be in accordance with the guidelines and specifications in chapter 6 of the Florida Land Development Manual: A Guide to Sound Land and Water Management (Florida Department of Environmental Regulation 1988), which are incorporated by reference, unless a project specific erosion and sediment control plan is approved as part of the permit, in which case the practices must be in accordance with the plan. If site specific conditions require additional measures during any phase of construction or operation to prevent erosion or control sediment, beyond those specified in the erosion and sediment control plan, the permittee shall implement additional best management practices as necessary, in accordance with the specifications in chapter 6 of the Florida Land Development Manual: A Guide to Sound Land and Water Management (Florida Department of Environmental Regulation 1988). The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.
5. Stabilization measures shall be initiated for erosion and sediment control on disturbed areas as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased.
6. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District a Construction Commencement Notice Form No. 40C-4.900(3) indicating the actual start date and the expected completion date.
7. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an Annual Status Report Form No. 40C-4.900(4). These forms shall be submitted during June of each year.
8. For those systems which will be operated or maintained by an entity which will require an easement or deed restriction in order to provide that entity with the authority necessary to operate or maintain the system, such easement or deed restriction, together with any other final operation or maintenance documents as are required by subsections 7.1.1 through 7.1.4 of the Applicant's Handbook: Management and Storage of Surface Waters, must be submitted to the District for approval. Documents meeting the requirements set forth in these subsections of the Applicant's Handbook will be approved. Deed restrictions, easements and other operation and maintenance documents which require recordation either with the Secretary of State or the Clerk of the Circuit Court must be so recorded prior

to lot or unit sales within the project served by the system, or upon completion of construction of the system, whichever occurs first. For those systems which are proposed to be maintained by county or municipal entities, final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local governmental entity. Failure to submit the appropriate final documents referenced in this paragraph will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system.

9. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by the portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of that phase or portion of the system to local government or other responsible entity.
10. Within 30 days after completion of construction of the permitted system, or independent portion of the system, the permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual as authorized by law, utilizing As Built Certification Form 40C-1.181(13) or 40C-1.181(14) supplied with this permit. When the completed system differs substantially from the permitted plans, any substantial deviations shall be noted and explained and two copies of as-built drawings submitted to the District. Submittal of the completed form shall serve to notify the District that the system is ready for inspection. The statement of completion and certification shall be based on on-site observation of construction (conducted by the registered professional engineer, or other appropriate individual as authorized by law, or under his or her direct supervision) or review of as-built drawings for the purpose of determining if the work was completed in compliance with approved plans and specifications. As-built drawings shall be the permitted drawings revised to reflect any changes made during construction. Both the original and any revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawing. All surveyed dimensions and elevations shall be certified by a registered surveyor. The following information, at a minimum, shall be verified on the as-built drawings:
 1. Dimensions and elevations of all discharge structures including all weirs, slots, gates, pumps, pipes, and oil and grease skimmers;
 2. Locations, dimensions, and elevations of all filter, exfiltration, or underdrain systems including cleanouts, pipes, connections to control structures, and points of discharge to the receiving waters;
 3. Dimensions, elevations, contours, or cross-sections of all treatment storage areas sufficient to determine state-storage relationships of the storage area and the permanent pool depth and volume below the control elevation for normally wet systems, when appropriate;
 4. Dimensions, elevations, contours, final grades, or cross-sections of the system to determine flow directions and conveyance of runoff to the treatment system;
 5. Dimensions, elevations, contours, final grades, or cross-sections of all conveyance systems utilized to convey off-site runoff around the system;
 6. Existing water elevation(s) and the date determined; and Elevation and location of benchmark(s) for the survey.

11. The operation phase of this permit shall not become effective until the permittee has complied with the requirements of general condition 9 above, the District determines the system to be in compliance with the permitted plans, and the entity approved by the District in accordance with subsections 7.1.1 through 7.1.4 of the Applicant's Handbook: Management and Storage of Surface Waters, accepts responsibility for operation and maintenance of the system. The permit may not be transferred to such an approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall request transfer of the permit to the responsible approved operation and maintenance entity, if different from the permittee. Until the permit is transferred pursuant to section 7.1 of the Applicant's Handbook: Management and Storage of Surface Waters, the permittee shall be liable for compliance with the terms of the permit.
12. Should any other regulatory agency require changes to the permitted system, the permittee shall provide written notification to the District of the changes prior implementation so that a determination can be made whether a permit modification is required.
13. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and chapter 40C-4 or chapter 40C-40, F.A.C.
14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the activities authorized by the permit or any use of the permitted system.
15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this permit or a formal determination under section 373.421(2), F.S., provides otherwise.
16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of the permitted system or the real property at which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of section 40C-1.612, F.A.C. The permittee transferring the permit shall remain liable for any corrective actions that may be required as a result of any permit violations prior to such sale, conveyance or other transfer.
17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.
18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the District.
19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.
20. This permit for construction will expire five years from the date of issuance.
21. At a minimum, all retention and detention storage areas must be excavated to rough grade prior to building construction or placement of impervious surface within the area to be served by those facilities. To prevent reduction in storage volume and percolation rates, all accumulated sediment must be removed from the storage area prior to final grading and

stabilization.

22. All wetland areas or water bodies that are outside the specific limits of construction authorized by this permit must be protected from erosion, siltation, scouring or excess turbidity, and dewatering.
23. Prior to construction, the permittee must clearly designate the limits of construction on-site. The permittee must advise the contractor that any work outside the limits of construction, including clearing, may be a violation of this permit.

The Surface Water Management System must be constructed and operated as per plans received by the District on July 14, 2003.

24.

Notice Of Rights

1. A person whose substantial interests are or may be determined has the right to request an administrative hearing by filing a written petition with the St. Johns River Water Management District (District), or may choose to pursue mediation as an alternative remedy under Sections 120.569 and 120.573, Florida Statutes, before the deadline for filing a petition. Choosing mediation will not adversely affect the rights to a hearing if mediation does not result in a settlement. The procedures for pursuing mediation are set forth in Sections 120.569 and 120.57, Florida Statutes, and Rules 28-106.111 and 28-106.401-405, Florida Administrative Code. Pursuant to Chapter 28-106 and Rule 40C-1.1007, Florida Administrative Code, the petition must be filed at the office of the District Clerk at District Headquarters, P. O. Box 1429, Palatka, Florida 32178-1429 (4049 Reid St., Palatka, FL 32177) within twenty-six (26) days of the District depositing notice of District decision in the mail (for those persons to whom the District mails actual notice) or within twenty-one (21) days of newspaper publication of the notice of District decision (for those persons to whom the District does not mail actual notice). A petition must comply with Chapter 28-106, Florida Administrative Code.
2. If the Governing Board takes action which substantially differs from the notice of District decision, a person whose substantial interests are or may be determined has the right to request an administrative hearing or may choose to pursue mediation as an alternative remedy as described above. Pursuant to District Rule 40C-1.1007, Florida Administrative Code, the petition must be filed at the office of the District Clerk at the address described above, within twenty-six (26) days of the District depositing notice of final District decision in the mail (for those persons to whom the District mails actual notice) or within twenty-one (21) days of newspaper publication of the notice of its final agency action (for those persons to whom the District does not mail actual notice). Such a petition must comply with Rule Chapter 28-106, Florida Administrative Code.
3. A substantially interested person has the right to a formal administrative hearing pursuant to Section 120.569 and 120.57(1), Florida Statutes, where there is a dispute between the District and the party regarding an issue of material fact. A petition for formal must comply with the requirements set forth in Rule 28-106.201, Florida Administrative Code.
4. A substantially interested person has the right to an informal hearing pursuant to Sections 120.569 and 120.57(2), Florida Statutes, where no material facts are in dispute. A petition for an informal hearing must comply with the requirements set forth in Rule 28-106.301, Florida Administrative Code.
5. A petition for an administrative hearing is deemed filed upon delivery of the petition to the District Clerk at the District headquarters in Palatka, Florida.
6. Failure to file a petition for an administrative hearing, within the requisite time frame shall constitute a waiver of the right to an administrative hearing (Section 28-106.111, Florida Administrative Code).
7. The right to an administrative hearing and the relevant procedures to be followed are governed by Chapter 120, Florida Statutes, and Chapter 28-106, Florida Administrative Code and Section 40C-1.1007, Florida Administrative Code.

Notice Of Rights

8. An applicant with a legal or equitable interest in real property who believes that a District permitting action is unreasonable or will unfairly burden the use of his property, has the right to, within 30 days of receipt of notice of the District's written decision regarding a permit application, apply for a special master proceeding under Section 70.51, Florida Statutes, by filing a written request for relief at the office of the District Clerk located at District headquarters, P. O. Box 1429, Palatka, FL 32178-1429 (4049 Reid St., Palatka, Florida 32177). A request for relief must contain the information listed in Subsection 70.51(6), Florida Statutes.
9. A timely filed request for relief under Section 70.51, Florida Statutes, tolls the time to request an administrative hearing under paragraph no. 1 or 2 above (Paragraph 70.51(10)(b), Florida Statutes). However, the filing of a request for an administrative hearing under paragraph no. 1 or 2 above waives the right to a special master proceeding (Subsection 70.51(10)(b), Florida Statutes).
10. Failure to file a request for relief within the requisite time frame shall constitute a waiver of the right to a special master proceeding (Subsection 70.51(3), Florida Statutes).
11. Any substantially affected person who claims that final action of the District constitutes an unconstitutional taking of property without just compensation may seek review of the action in circuit court pursuant to Section 373.617, Florida Statutes, and the Florida Rules of Civil Procedures, by filing an action in circuit court within 90 days of the rendering of the final District action, (Section 373.617, Florida Statutes).
12. Pursuant to Section 120.68, Florida Statutes, a person who is adversely affected by final District action may seek review of the action in the District Court of Appeal by filing a notice of appeal pursuant to the Florida Rules of Appellate Procedure within 30 days of the rendering of the final District action.
13. A party to the proceeding before the District who claims that a District order is inconsistent with the provisions and purposes of Chapter 373, Florida Statutes, may seek review of the order pursuant to Section 373.114, Florida Statutes, by the Florida Land and Water Adjudicatory Commission, by filing a request for review with the Commission and serving a copy on the Department of Environmental Protection and any person named in the order within 20 days of adoption of a rule or the rendering of the District order.
14. For appeals to the District Court of Appeal, a District action is considered rendered after it is signed on behalf of the District, and is filed by the District Clerk.
15. Failure to observe the relevant time frames for filing a petition for judicial review described in paragraphs #11 and #12, or for Commission review as described in paragraph #13, will result in waiver of that right to review.

Notice Of Rights

Certificate of Service

I HEREBY CERTIFY that a copy of the foregoing Notice of Rights has been sent by U.S.
Mail to:

Indian River County
1840 25th Street
Vero Beach, FL 32960

At 4:00 p.m. this 28th day of August, 2003.

Division of Permit Data Services
Gloria Lewis, Director

St. Johns River Water Management District
Post Office Box 1429
Palatka, FL 32178-1429
(386) 329-4152

Permit Number: 40-061-89085-1