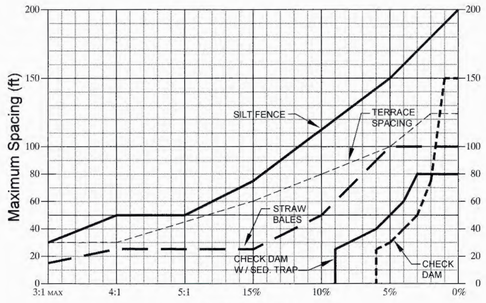
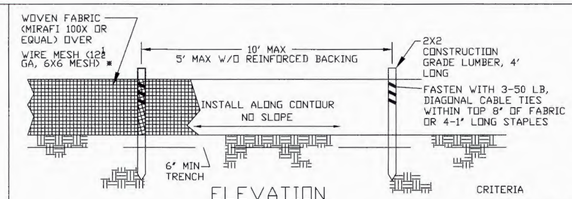


DESIGN CRITERIA

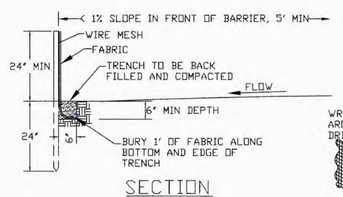
1. SILT FENCE FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
2. STRAW BALE BARRIERS FOR SHEET FLOW SHALL HAVE A MAXIMUM DRAINAGE AREA OF 1/4 ACRE PER 100 LF.
3. REFER TO INDIVIDUAL ESC FIGURE FOR INSTALLATION.
4. TERRACING INCLUDES LOGS, WATTLES & FILTER SOCKS.

CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

SPACING CHART FOR ESC DEVICES



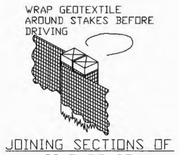
ELEVATION



SECTION

CRITERIA

1. SILT FENCE SHALL BE 24 INCHES HIGH.
2. SILT FENCE SHALL NOT BE USED FOR CONCENTRATED FLOWS.
3. GEOSYNTHETIC REINFORCED SILT FENCE BACKING MAY BE USED IN LIEU OF WIRE MESH.
4. WIRE MESH WILL BE USED AT LOCATIONS SHOWN ON THE APPROVED SWPPP.

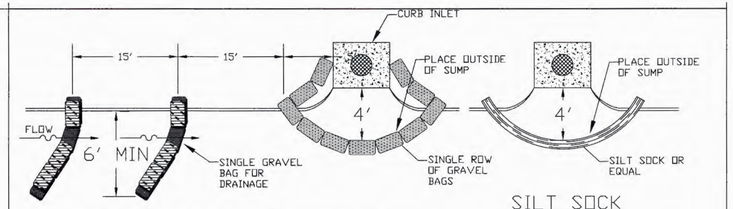


JOINING SECTIONS OF SILT FENCE

NOTE: IF FABRIC IS INSTALLED BY EQUIPMENT DESIGNED TO SLICE INTO THE GROUND, THE TRENCH IS NOT REQ'D.

CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

SILT FENCE INSTALLATION SHEET FLOW (ONLY)

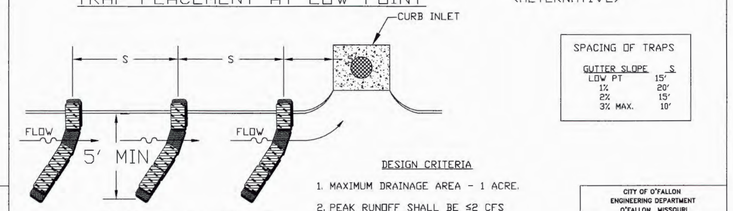


TRAP PLACEMENT AT LOW POINT

SILT SOCK (ALTERNATIVE)

SPACING OF TRAPS

GUTTER SLOPE	S
LOW PT	15'
1%	20'
2%	15'
3% MAX.	10'



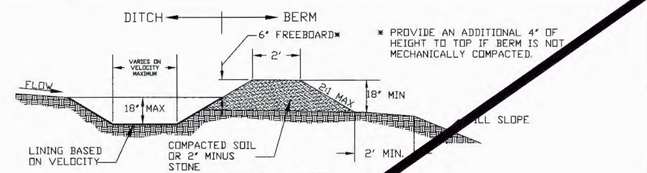
TRAP PLACEMENT AT INTERMEDIATE INLET

DESIGN CRITERIA

1. MAXIMUM DRAINAGE AREA - 1 ACRE.
2. PEAK RUNOFF SHALL BE ≤2 CFS BASED ON THE 6-MONTH STORM.
3. STACK GRAVEL BAGS DOUBLE HIGH. PROVIDE GAP FOR DRAINAGE.

CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

CURB INLET PROTECTION

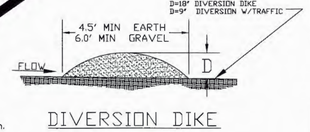


* PROVIDE AN ADDITIONAL 4" OF HEIGHT TO TOP IF BERM IS NOT MECHANICALLY COMPACTED.

DIVERSION BERM

DESIGN CRITERIA

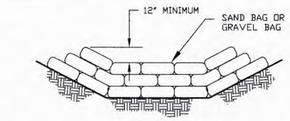
1. DIVERSIONS SHALL BE USED FOR DRAINAGE AREAS ≤ 3 ACRES.
2. DIVERSION CHANNELS SHALL BE DESIGNED TO CONVEY THE 6-MO STORM AT NON-EROSIVE VELOCITIES.
3. CRITICAL LOCATIONS SHALL BE DESIGNED FOR THE 15YR / 20Min. STORM.
4. MAXIMUM CHANNEL SLOPE IS 3% WITHOUT CHECK DAMS.
5. SWALE SEDIMENT TRAPS ARE TO BE USED IN HIGHLY EROSIVE AREAS.
6. CHANNELS SHALL BE PROTECTED USING APPROPRIATE CHANNEL LINERS.
7. CHANNEL OUTLETS MUST BE STABILIZED.
8. STORM SEWERS MAY BE USED IN LIEU OF OPEN CHANNELS.



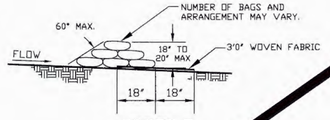
DIVERSION DIKE

CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

DIVERSION BERMS + DIKES

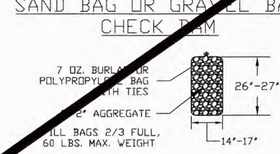


CROSS SECTION



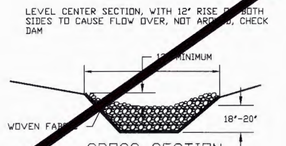
PROFILE

SAND BAG OR GRAVEL BAG CHECK DAM

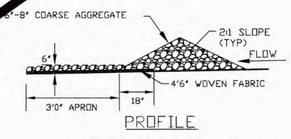


GRAVEL BAG

NOTE:
1. CHECK DAMS MAY BE CONSTRUCTED OF SEVERAL ESC CHECK DAM PRODUCTS.
2. SEE TABLE 60-12 AND ESC 1 FOR CHECK DAM SPACING.



CROSS SECTION

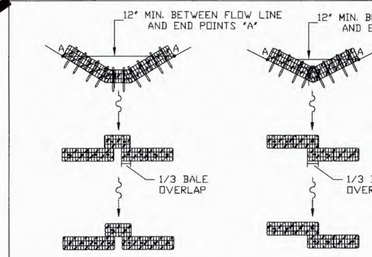


PROFILE

ROCK CHECK DAM

CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

CHECK DAMS



TRAPEZOIDAL DITCH

V-DITCH

CRITERIA FOR LOW CONCENTRATED FLOWS

1. DRAINAGE AREAS SHALL BE LESS THAN 1 ACRE.
2. INSTALL TWO STAKES PER BALE.
3. BALES WILL BE TRENCHED 4" DEEP INTO EARTH.
4. MAXIMUM CHANNEL SLOPE OF 3%.
5. SEDIMENTATION TRAPS TO BE USED IN HIGHLY EROSIVE AREAS.

CHECK DAM SPACING

Ditch Slope	Maximum Spacing
3%	50%
2%	75%

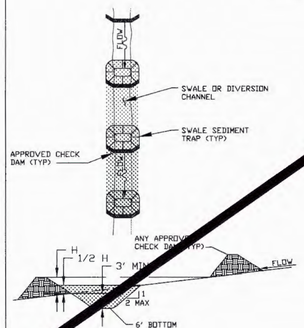
DITCH PROFILE

CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

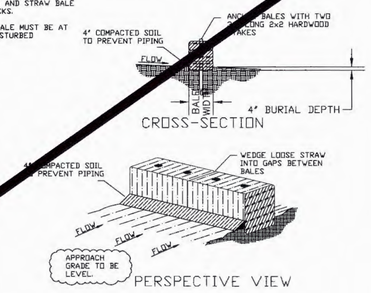
STRAW BALE CHECK DAM

CRITERIA

1. EXCAVATE TRENCH THE WIDTH OF THE BALE AT LEAST 4 INCHES DEEP AND LONG ENOUGH THAT THE END BALES ARE SOMEWHAT UPSLOPE.
2. REFER TO STRAW BALE CHECK DAM DETAIL FOR SPACING AND STRAW BALE USES AS DITCH CHECKS.
3. UPSLOPE FACE OF BALE MUST BE AT LEAST 5' FROM A DISTURBED EMBANKMENT.



DITCH PROFILE

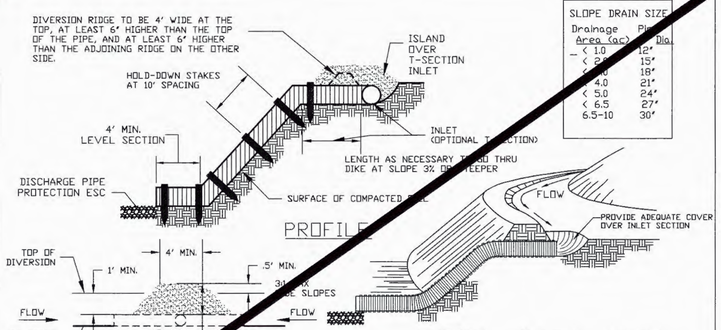


CROSS-SECTION

PERSPECTIVE VIEW

CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

SWALE SEDIMENT TRAP STRAW BALE BARRIER INSTALLATION



PROFILE

OPTIONAL T-SECTION ELEVATION

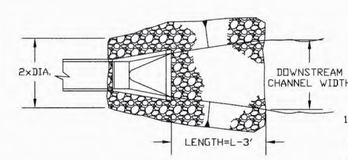
TYPICAL INSTALLATION

SLOPE DRAIN SIZE	
Drainage Area (ac)	Pipe Dia.
< 1.0	12"
< 2.0	15"
< 3.0	18"
4.0	21"
< 5.0	24"
< 6.5	27"
6.5-10	30"

NOTE:
1. PIPE CAN BE CMP, PVC, FLEXIBLE TUBING, OR SIMILAR.
2. THIS METHOD MUST BE USED IN CONJUNCTION WITH OTHER ESC DEVICES. THIS IS NOT A STAND ALONE CONTROL DEVICE.

CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

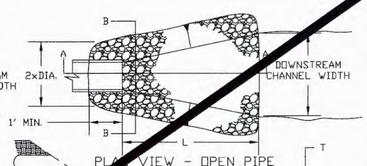
TEMPORARY SLOPE DRAIN



PLAN VIEW
W/FLARED END SECTION

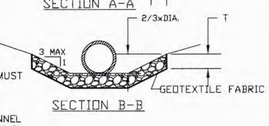
RIPRAP SIZE & APRON DIMENSION								
PIPE SIZE	VELOCITY < 5 FPS				VELOCITY < 10 FPS			
	ROCK SIZE		APRON DIM		ROCK SIZE		APRON DIM	
	dso	dmax	T	L	dso	dmax	T	L
(inch)	(inch)	(inch)	(inch)	(ft)	(inch)	(inch)	(inch)	(ft)
12	5	9	15	12	5	9	15	15
15	5	9	15	14	5	9	15	18
18-24	5	9	15	16	9	14	24	20
27-30	5	9	15	18	9	14	24	22
36-42	9	14	24	22	15	18	27	26
48-54	9	14	24	26	15	18	27	30
60-66	12	18	27	30	15	24	30	38
72-84	15	24	30	42	15	24	30	46
96	18	27	30	50	18	27	30	54

dso - NOMINAL DIAMETER
dmax - MAXIMUM DIAMETER
T - THICKNESS
L - LENGTH



PLAN VIEW - OPEN PIPE

SECTION A-A



SECTION B-B

DESIGN CRITERIA

1. FROUDE NUMBER MUST BE ≤ 2.50.
2. USE 3 TIMES PIPE DIAMETER FOR DOWNSTREAM CHANNEL WIDTH IF THERE IS NO DEFINED CHANNEL.
3. BANK PROTECTION HEIGHT TO BE 2/3 TIMES PIPE DIAMETER.
4. ROCK SLOPES SHALL BE NO STEEPER THAN 3:1.

CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

TEMPORARY OUTLET PIPE DISCHARGE PROTECTION

LAST SAVE: 10/5/2017 BY: MYERS
FILE LOCATION: \\VAULT\ENGR\CIVIL @ PROJECTS\2016 315 WEST TERRA\CONSTRUCTION\P+Z\2016_CON.DWG
LAST PLOT: 10/5/2017 BY: TONY MYERS

PROJECT TITLE:
EL TIO PEPE MEXICAN RESTAURANT
315 WEST TERRA LANE
O'FALLON, ST. CHARLES, MISSOURI 63366
Bax Project #97-9851A | Issue Date: 04/12/2017

ENGINEERING
PLANNING
SURVEYING
221 Point West Blvd.
St. Charles, MO 63301
636-928-5552
FAX 928-1718

REFERENCE DRAWING

REVISIONS

09/19/17	CITY COMMENTS
10/04/17	CITY COMMENTS

Developer / Owner:
WR HOLMAN, LLC
2 HICKORY HILL DRIVE
O'FALLON, MISSOURI 63366
(636) 734-1815

EROSION CONTROL DETAILS

P+Z No. 33-14.01

CUP No. 33-14.01.01

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