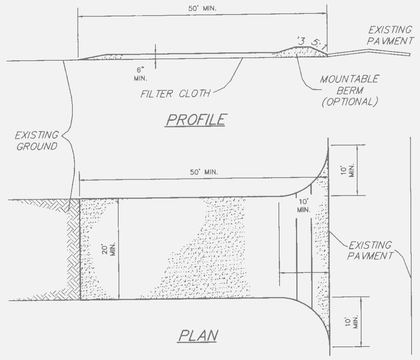
A DETAIL SHEET FOR
GRANT INDUSTRIAL PARK

01-11691B 10-5-07

11-5-07 CITY COMMENTS
1-28-08 REV. BASIN STRUCTURES
03-10-08 OVERALL GRADING



CONSTRUCTION SPECIFICATIONS:

1. Stone Size – Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length – As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness – Not less than six (6) inches.
4. Width – Twenty (20) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth – Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water – All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance – The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights–of–way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights–of–way must be removed immediately.
8. Washing – Wheels shall be cleaned to remove sediment prior to entrance onto public rights–of–way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

STABILIZED CONSTRUCTION ENTRANCE/WASHDOWN AREA

NOT TO SCALE

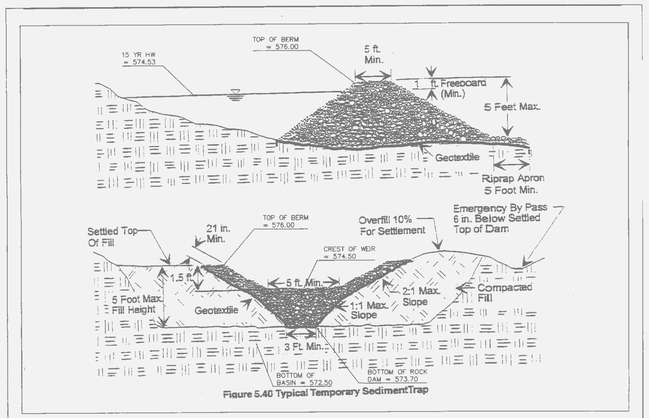


Figure 5.40 Typical Temporary SedimentTrap

- Sediment storage: A minimum of 1800 feet³ per disturbed acre
- Embankment:
  - Dam Height: Less than 5 feet
  - Top Width: At least 5 feet
  - Fill Slopes: 2.5:1 or flatter
  - Settlement: 10% or less
  - Fill Material: Locally available soil; machine compacted in 8-inch lifts; moist when compacted; free of organic material, tree roots and waste material
- Spillway: A rock-lined open channel spillway should be constructed in the embankment to safely pass stormwater runoff. As an option, a perforated outlet riser can be used as the principal spillway.
  - Capacity: Sufficient to safely pass runoff from the 2-year frequency, 24-hour duration or design storm event
  - Bottom Width: At least 5 feet
  - Crest: A minimum of 18 inches lower than the top of the embankment
  - Outlet: Include an apron at least 5 feet long to dissipate energy
  - Filter: Geotextile should be placed between the embankment soil and the rock in the spillway section.

SWALE TYPE 1

$$V = \frac{1.486}{n}\left(\frac{A}{WP}\right)^{2/3}(S)^{1/2}$$

WHERE	WORST CASE
Q=FLOW IN CFS	Q=6.00 fs
n=MANNING'S NUMBER	n=0.030
S=SLOPE IN FEET/ FOOT	S=0.015
D=DEPTH OF WATER IN SWALE	D=0.79
A=AREA OF WATER IN SWALE	A=1.90
WP=WETTED PERIMITER	WP=5.03
V=VELOCITY IN FPS	V=3.17 fps

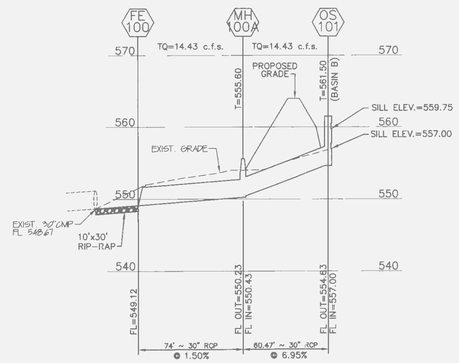
SWALE TO HAVE EROSION BLANKET IF 'V' = 2 to 5 fps
USE N.A.G. S75 OR EQUAL

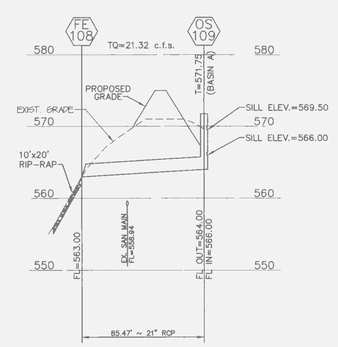
SWALE TYPE 2

$$V = \frac{1.486}{n}\left(\frac{A}{WP}\right)^{2/3}(S)^{1/2}$$

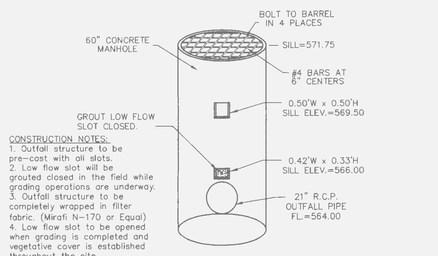
WHERE	WORST CASE
Q=FLOW IN CFS	Q=5.37 cfs
n=MANNING'S NUMBER	n=0.030
S=SLOPE IN FEET/ FOOT	S=0.020
D=DEPTH OF WATER IN SWALE	D=0.31
A=AREA OF WATER IN SWALE	A=1.85
WP=WETTED PERIMITER	WP=6.98
V=VELOCITY IN FPS	V=2.90 fps

SWALE TO HAVE EROSION BLANKET IF 'V' = 2 to 5 fps
USE N.A.G. S75 OR EQUAL





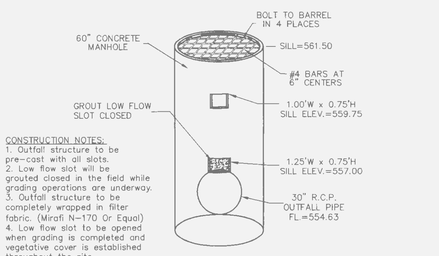
STORM SEWER PROFILES
SCALE:
HORIZ. 1"=50'
VERT. 1"=10'



CONSTRUCTION NOTES:
1. Outfall structure to be pre-cast with all slots.
2. Low flow slot will be grouted closed in the field while grading operations are underway.
3. Outfall structure to be completely wrapped in filter fabric. (Mirafi N-170 or Equal)
4. Low flow slot to be opened when grading is completed and vegetative cover is established throughout the site.

OVERFLOW STRUCTURE DETAIL (BASIN A)

FIGURE 1 NOT TO SCALE



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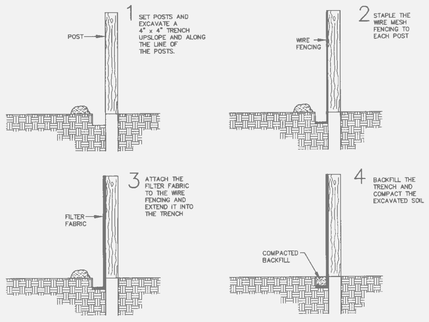
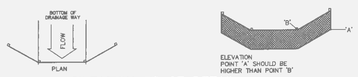
OVERFLOW STRUCTURE DETAIL (BASIN B)

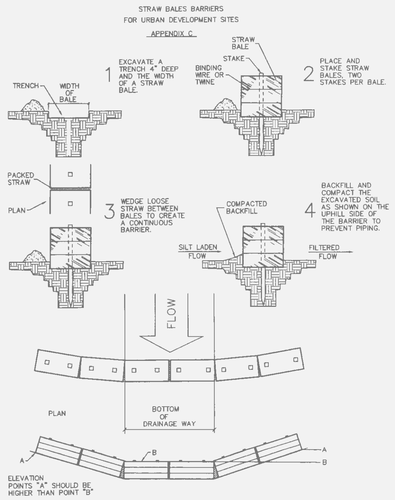
FIGURE 2 NOT TO SCALE



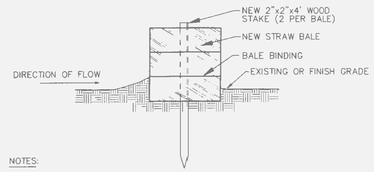
1. FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
2. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
3. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
4. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY HALF THE HEIGHT OF THE BARRIER.
5. 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.



SILTATION FENCE DETAIL



PLACEMENT AND CONSTRUCTION OF STRAW BAIL BARRIER



NOTES:
1. STRAW BALES, NOT HAY BALES SHALL BE USED
2. BUTT ENDS OF BALES TIGHTLY TOGETHER.
3. INSTALL BALES WITH BINDING AROUND SIDES, NOT TOP AND BOTTOM.
4. FILL ANY GAP BETWEEN BALES BY WEDGING LOOSE STRAW BETWEEN THEM.

SEDIMENT BARRIER

NOT TO SCALE