

SOIL EROSION & SEDIMENT CONTROL PRACTICES FOR SMALL SITES

STRAW BALES and SILT FENCE

- Install before any ground disturbance.
- Place on downslope side(s) of site with ends extended up sideslopes a distance of 10 feet.
- Place parallel to a contour (same elevation) on the land to allow water to pond behind fence.
- Entrench at least 8 inches deep.
- Leave no gaps between bales or sections of silt fence. Provide at least 6 inches of overlap.
- Inspect at least once each week and after every 2 inch or greater rainfall. Repair once a week as necessary, remove sediment and properly dispose if deposits are greater than 6 inches in depth.
- Maintain until permanent ground cover is 70% established.

SOIL STOCKPILES

- Locate away from any downslope street, driveway, stream, lake, wetland, ditch, or drainage way.
- To protect from erosion, temporarily seed. Annual rye is recommended for topsoil piles.

GRAVEL INGRESS/EGRESS

- Construct access drive(s) using 3 inch aggregate.
- Lay aggregate at least 6 inches deep, 10 to 30 feet wide, from the foundation to the street. Use geotextile fabric as necessary.
- Do not block any existing drainage patterns.
- Use to prevent tracking dirt onto adjacent roads by vehicles accessing the site.
- Maintain continuously to prevent tracked dirt from getting offsite.

ON AND OFF-SITE CLEANUP

- At the end of each work day or as conditions exist, scrape up and sweep soil/aggregate tracked onto the road.
- At the end of the next work day after a storm, clean up any sediment or debris washed offsite.

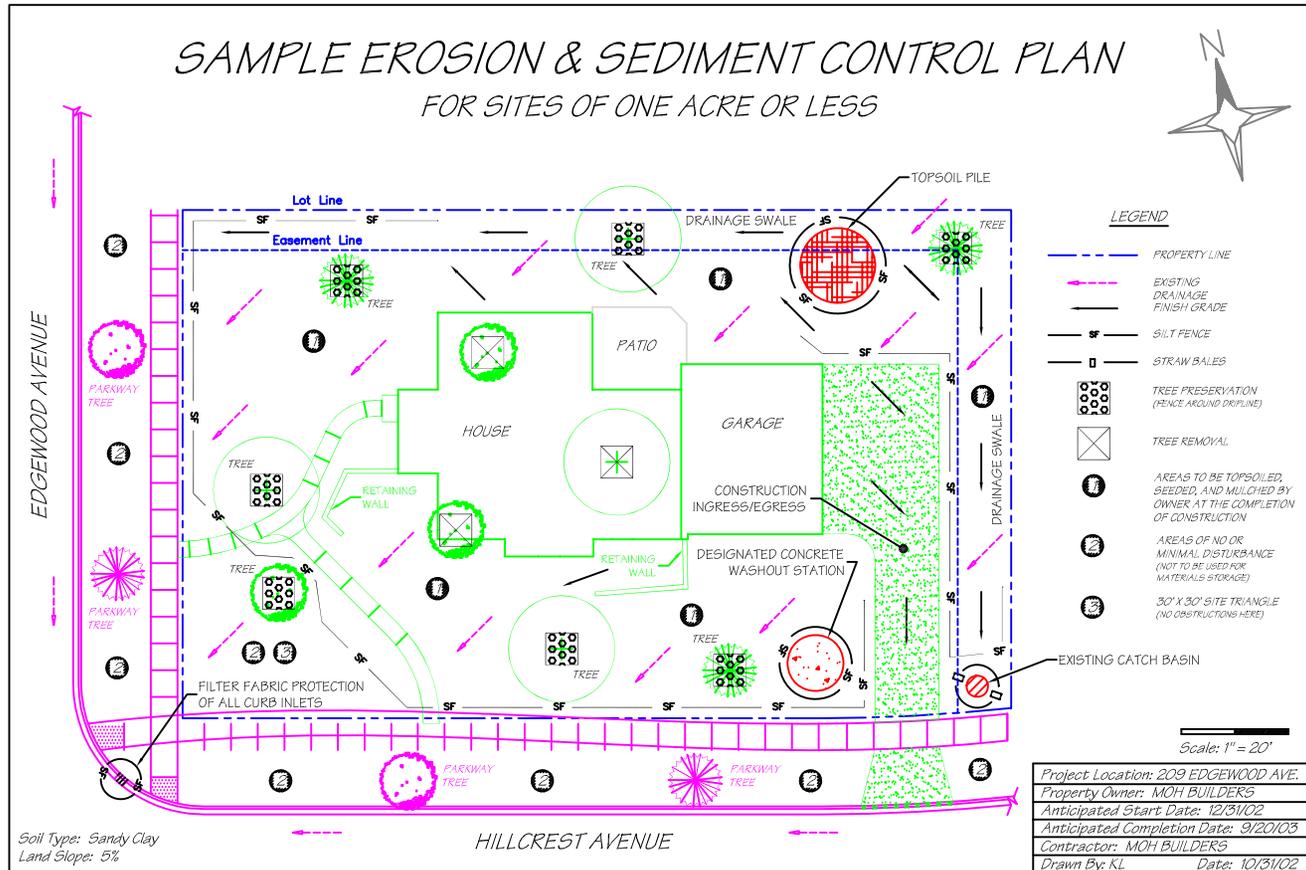
DOWNSPOUT EXTENDERS

- Not required, but highly recommended.
- Install as soon as gutters and downspouts are installed.
- Route water to a grassed or paved area, or to an energy dissipator.
- Maintain until permanent ground cover is 70% established.

PRESERVING VEGETATION

- Wherever possible, existing trees, shrubs, ground cover, turf, and other vegetation should be reserved.
- To prevent root damage, do not grade, place soil piles, or park vehicles within the dripline area of any trees marked for preservation.
- Place plastic mesh or snow fence barriers around trees to protect the dripline area below their branches.

SAMPLE EROSION & SEDIMENT CONTROL PLAN FOR SITES OF ONE ACRE OR LESS



WARNING! Additional measures may be required if your site:

- Is within 300 feet of a stream or wetland
- Is within 1000 feet of a lake
- Is steep (slopes > 10%)
- Receives runoff from 10,000 square feet or more of adjacent land
- Has more than one acre of disturbed ground

For more information, contact the Engineering Division at the Village of Addison or the Illinois Environmental Protection Agency.

TYPICAL LAWN SEED MIXTURES

Grass	Percent by Weight	
	Sunny Site	Shady Site
Kentucky Bluegrass	65%	15%
Fine Fescue	20%	70%
Perennial Ryegrass	15%	15%
Seeding Rate (pounds per 1000 square feet)	3-4	4-5

Source R.C. Newman, Lawn Establishment, UW-Extension, 1988

ALL CONTROL MEASURES MUST BE IMPLEMENTED AND MAINTAINED UNTIL SITE IS PERMANENTLY STABILIZED.

REVEGETATION/STABILIZATION

- In all locations practicable, create a minimum 10 foot buffer zone inside the sediment barrier by mulching, blanketing, or seeding any disturbed or bare soil within this zone.
- Plant final landscaping such as trees, shrubs, and ground cover or mulch bare soil as soon as possible.

SEEDING AND MULCHING

- Spread 4 to 6 inches of topsoil and remove any debris greater than 1 inch in diameter.
- Fertilize according to soil test or apply 10 pounds of 20-10-10 fertilizer per 1000 square feet.
- Seed with an appropriate mix for the site (see table below).
- Rake lightly to cover seed with 3 inch of soil. Roll lightly to firm soil.
- Mulch seeded areas with straw, 70-90 pounds or one bale per 1000 square feet, or excelsior blanket to retain moisture.
- Anchor mulch by punching 2 inches into the soil with a dull, weighted disk or by using netting or other measures on steep slopes.
- Water gently every day to keep soil moist. Less watering is necessary once new growth is 2 inches tall.
- As growth begins, reseed and mulch areas that are still bare.

SODDING

- Spread 4 to 6 inches of topsoil and remove any debris greater than 1 inch in diameter.
- Fertilize according to soil test or apply 10 pounds of 10-10-10 fertilizer per 1000 square feet.
- Lightly water sod.
- Lay sod. Tamp or roll lightly to level the sod.
- On slopes greater than 12%, lay sod starting at the bottom and work toward the top. Stake each piece down in several places.
- Initial watering should wet soil at least 6 inches deep (or until water stands 1 inch deep in a straight-sided container). Additional waterings should be applied every day for at least two weeks.

CONCRETE WASHOUT

- An onsite area must be designated and maintained for cleaning concrete truck chutes.
- Chute cleaning water is not allowed to run offsite onto paved surfaces or into sewers.
- Under no circumstances are chutes to be washed into storm sewer inlets or catch basins.

WINTER SHUTDOWN

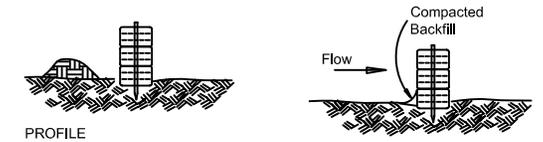
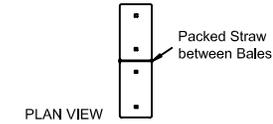
- If final grading is completed after September 15, seeding or sodding may be delayed. However, applying temporary seed (such as rye or winter wheat) and mulch is recommended, if weather permits. In all cases, erosion control blankets are to be installed and straw bales, silt fences, and ditch checks are to be maintained until permanent groundcover is established in the spring (by May 31), weather permitting.

STD. 1307.4A

NOT TO SCALE



- Excavate a trench 4" deep and a little wider than the width of a straw bale.
- Place and stake straw bales with two stakes per bale. Use 1/2"Ø 4' long reinforcing bars, or 2" x 2" 4' long hardwood stakes driven 2' into the ground.



- Wedge loose straw between bales to create a continuous barrier.
- Backfill and compact the excavated soil as shown on the uphill side of the barrier.

CONSTRUCTION NOTES

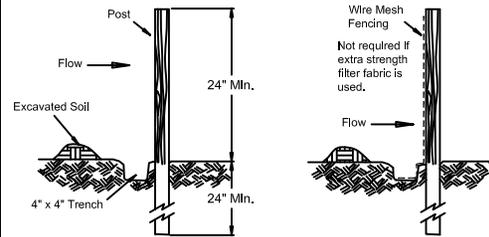
- Straw bales shall be placed in the excavated trench a little larger than the width of the bale and a minimum 4 inches deep.
- Straw bales shall be placed with the bindings oriented around the sides of the bale. This orientation will prevent early deterioration of the bindings.
- Straw bales shall be tightly placed in a row and butted against the adjacent bale, leaving no gaps.
- Straw bales shall be securely anchored in place by two stakes driven through the center of the bales. The first stake in each bale shall be driven toward the previously laid bale at an angle, forcing the bales together.
- Straw bales shall be regularly and frequently inspected by the contractor and promptly repaired or replaced as needed. If the contractor fails to properly control erosion and maintain sediment control, the Village reserves the right to place a "STOP WORK" order on the project, implement necessary corrective measures, and charge all costs to the contractor.
- Straw bales shall be removed when permanent erosion control and sediment measures (sod or seed and blanket) are at least 70% established.

REVISIONS	VILLAGE OF ADDISON
	APPROVED: 2/2/94
	<i>[Signature]</i>
	R. ESPEDIDO, P.E., VILLAGE ENGINEER

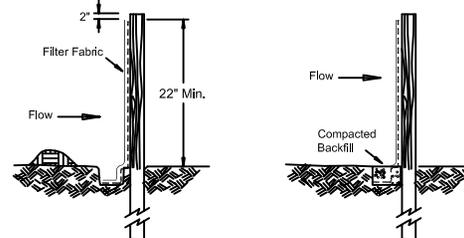
STRAW BALE INSTALLATION

STD. 1307.4B

NOT TO SCALE



- Drive posts and excavate a 4" by 4" trench upslope along the line of the posts.
- Staple wire mesh fencing to the posts.



- Attach filter fabric securely to the fence posts and extend the fabric a minimum 8 inches into the trench.
- Backfill trench and compact the excavated soil.

CONSTRUCTION NOTES

- Silt fence shall be installed prior to the start of any ground disturbance.
- When two sections of filter fabric are to be joined together, they shall be overlapped by a minimum of six inches, folded, and securely fastened to a common post.
- When two sections of a prefabricated unit are to be joined together, place the end post of one section inside the end post of the other section and rotate both posts to create a tight seal with the fabric material. Drive both posts into the ground.
- Maximum spacing between posts with wire mesh shall be ten feet, six feet without wire mesh, eight feet for prefabricated units.
- Silt fence shall be used to control sheet flows only. Silt fence is not to be used for concentrated stormwater flows. The maximum drainage area for sheet flow shall not exceed 1/2 acre or 150 feet of uncontrolled slope.
- When silt fence is installed along property lines or at the base of slopes, it shall be installed parallel to the contour lines with its ends flared uphill to prevent ponding.

MAINTENANCE NOTES

- Silt fence shall be inspected within 12 hours after each rainfall and at least once a day during prolonged rainfall. Any necessary repairs shall be made within 48 hours.
- Should the fabric decompose or become ineffective prior to the end of its expected useful life and is still necessary, the fabric shall be replaced within 48 hours.
- Silt fences should be inspected after each storm event. Deposits up to one quarter the height of the barrier or deposits causing the fabric to bulge shall be removed within 24 hours.
- Any sediment deposits remaining in place after the silt fence is no longer required shall be spread to conform with the existing grade, fertilized, seeded, and mulched.

SPECIFICATIONS

- Fence posts: 2 inch x 2 inch hardwood
- Wire mesh: 14 1/2 gauge w/ 6 inch maximum mesh opening
- Filter fabric: Filter X, MIRAFI 100x, STABILINKA T 140 N, or equal
- Prefabricated unit: Geofab, Envirofence, or equal

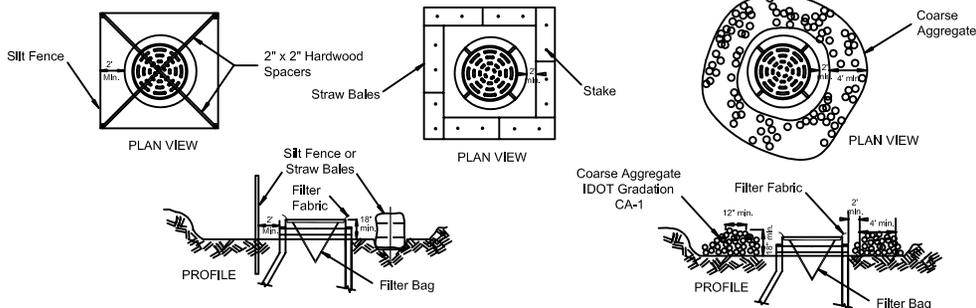
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SILT FENCE INSTALLATION

STD. 1307.7A

NOT TO SCALE

(See SILT FENCE INSTALLATION) (See STRAW BALE INSTALLATION)



CONSTRUCTION NOTES

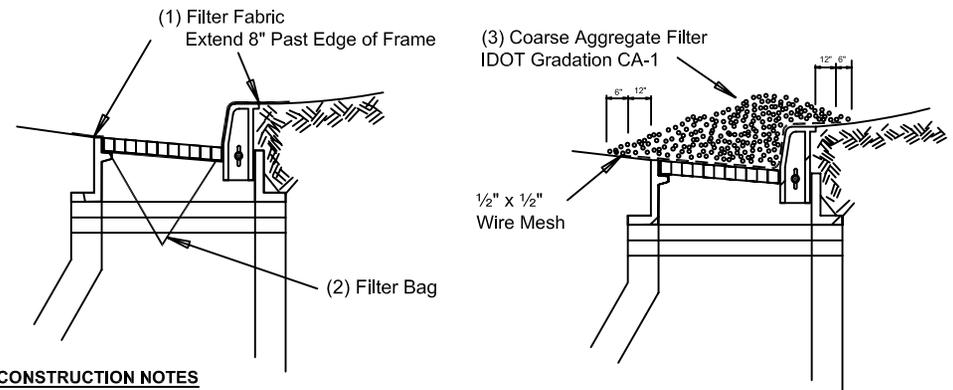
- All open lid storm structures shall be protected from sedimentation by silt fences, straw bales, or coarse aggregate and a manufactured filter bag insert (e.g. BMC StreamGuard, Marathon Catch-All, Ultratech DrainGuard, or equal) or enough filter fabric between the frame and grate to allow its removal without dropping collected sediment into the structure.
- All open lid storm structures shall be over excavated around its perimeter to create an 18 inch deep depression or sump for the collection of sediment before entering the structure.
- The manufactured bag insert or filter fabric shall be carefully removed, preventing sediment from dropping into the structure, and cleaned regularly.
- The sump shall regularly be reexcavated to its original dimensions when sediment has accumulated to 1/2 the original depth of the sump. Removed sediment shall be disposed of properly and in such a manner that will not erode back into the structure.
- Filter fabric shall be removed when permanent erosion control measures (sod or seed and blanket) are in place and at least 70% established.

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STORM STRUCTURE PROTECTION (UNPAVED AREAS)

STD. 1307.7C

NOT TO SCALE



CONSTRUCTION NOTES

- All drains in paved areas and in the street within 100 feet of the construction area shall be protected by (1) a manufactured filter bag (e.g. BMC StreamGuard, Marathon Catch-All, Ultratech DrainGuard, or equal), (2) enough filter fabric between the frame and grate to allow removal without dropping collected sediment into the structure, or (3) an aggregate filter.
- Filter bags shall be emptied, or filter fabric or aggregate filters shall be replaced when no longer effectively removing sediment from runoff. Removed sediment shall be disposed of properly and in such a manner that will not erode back into the structure.
- Sediment protection measures shall be removed after permanent erosion control measures (sod or seed and blanket) are at least 70% established.

NOTE: Coarse aggregate filter protection is applicable only at curb drains where ponding in front of the drain is not likely to cause inconvenience or damage to adjacent buildings, unprotected areas, or the motoring public.

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STORM STRUCTURE PROTECTION (STREET AND OTHER PAVED AREAS)