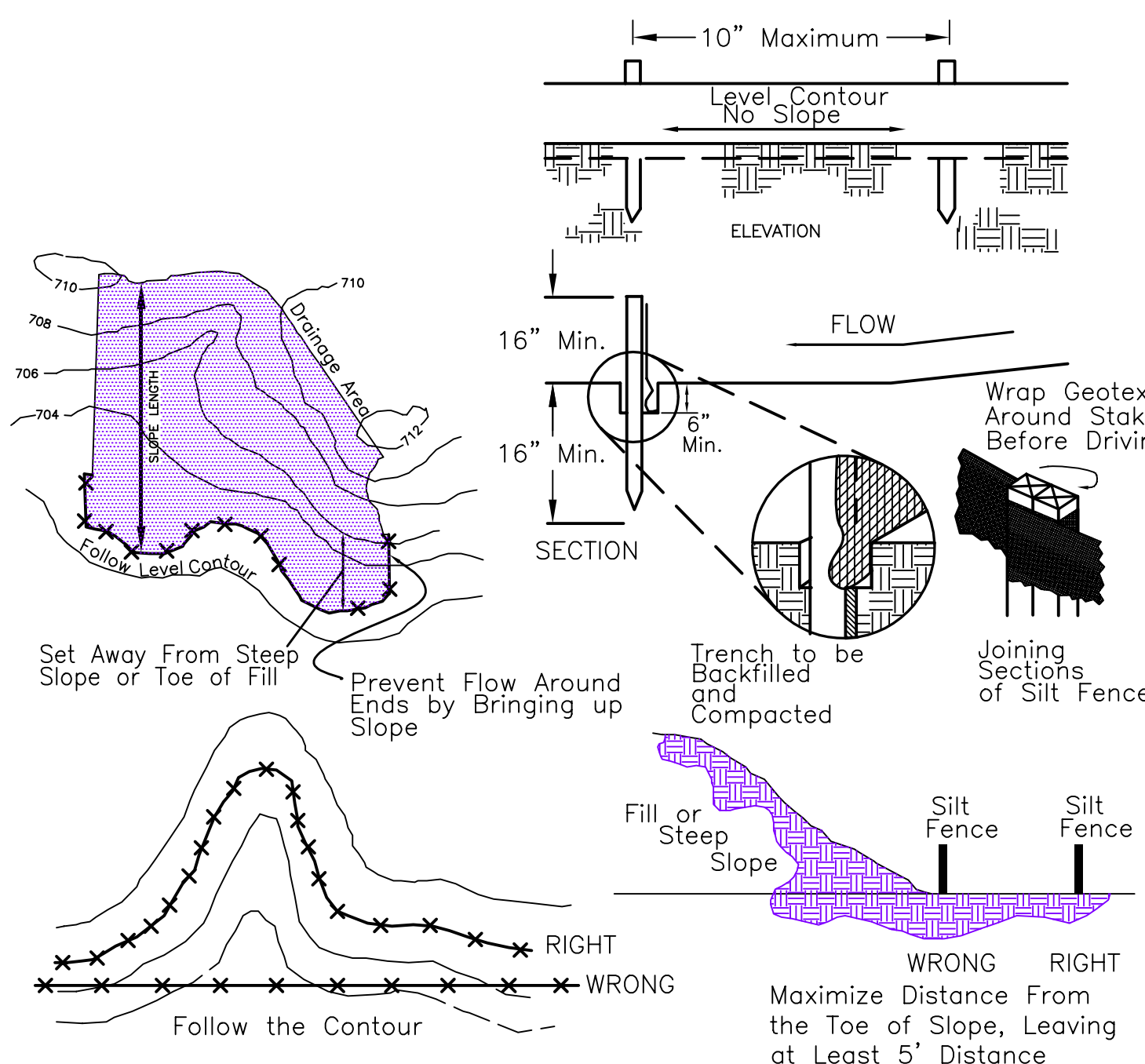


MEDINA COUNTY ENGINEER STORM WATER PERMIT NOTES FOR EROSION AND SEDIMENT CONTROL

1. THE IMPLEMENTATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL CONFORM TO THE OHIO DEPARTMENT OF NATURAL RESOURCES' RAINWATER AND LAND DEVELOPMENT MANUAL (1996), THE OHIO EPA'S NPDES PERMIT PROGRAM FOR THE DISCHARGE OF STORM WATER FROM CONSTRUCTION SITES, AND THE EROSION AND SEDIMENT CONTROL PRACTICES AND STANDARDS OF THE COUNTY OF MEDINA. IF CONFLICTS EXIST REGARDING THE EROSION AND SEDIMENT CONTROL PRACTICES, THE MORE RESTRICTIVE SHALL APPLY.
2. EROSION AND SEDIMENT CONTROL PRACTICES NOT ALREADY SPECIFIED ON THIS PLAN MAY BE NECESSARY DUE TO UNFORESEEN ENVIRONMENTAL CONDITIONS AND/OR CHANGES IN DRAINAGE PATTERNS CAUSED BY EARTH-MOVING ACTIVITY. ADDITIONAL PRACTICES SHALL BE IMPLEMENTED AT THE DEVELOPER'S EXPENSE AS DIRECTED BY THE OFFICE OF THE MEDINA COUNTY ENGINEER AND THE MEDINA COUNTY SOIL & WATER CONSERVATION DISTRICT.
3. THE DEVELOPER AND HIS/HER CONSTRUCTION SUPERINTENDENT SHALL HAVE OVERALL RESPONSIBILITY FOR THE IMPLEMENTATION OF THIS STORM WATER POLLUTION PREVENTION PLAN. THEY SHALL ALSO BE RESPONSIBLE FOR MAKING ALL CONTRACTOR AND SUB-CONTRACTORS AWARE OF THE PROVISIONS OF THIS PLAN.
4. REPAIRS TO ANY EROSION AND SEDIMENT CONTROL MEASURES, STRUCTURES, DEVICES, OR RELATED ITEMS SHALL BE MADE WITHIN 14 DAYS.
5. SEDIMENT BASINS/TRAPS AND PERIMETER SEDIMENT CONTROLS SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN SEVEN DAYS FROM THE START OF GRUBBING AND SHALL CONTINUE TO FUNCTION UNTIL UPLAND AREAS ARE PERMANENTLY STABILIZED.
6. STREAMS, INCLUDING BEDS AND BANKS, SHALL BE RESTABILIZED IMMEDIATELY AFTER IN-CHANNEL WORK IS COMPLETED, INTERRUPTED, OR STOPPED.

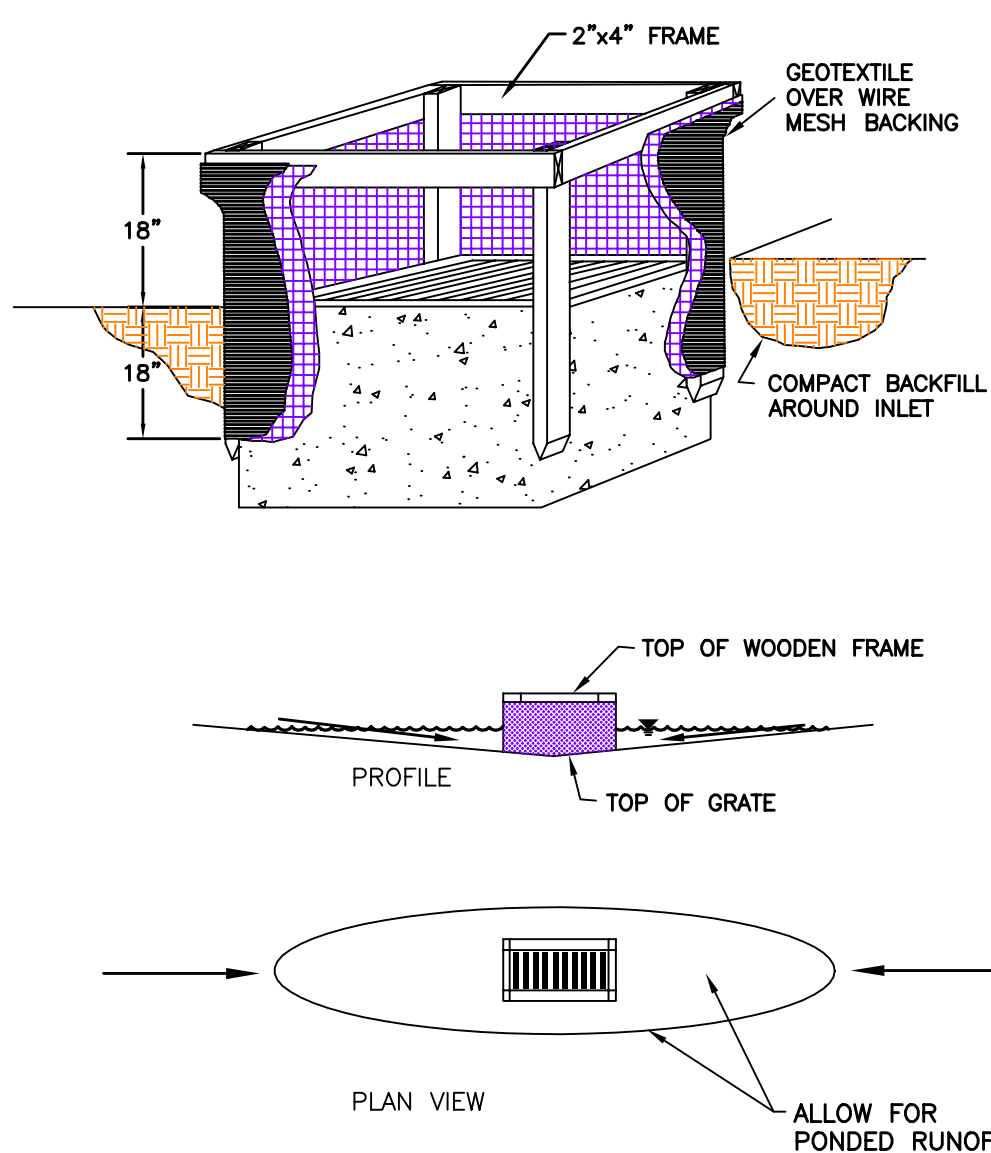
SPECIFICATIONS FOR SILT FENCE

1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
3. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.
4. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FEET (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
5. THE SILT FENCE SHALL BE PLACED SO THAT 8 INCHES OF CLOTH ARE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6-INCH DEEP TRENCH AND THE TRENCH SHALL BE BACKFILLED AND COMPACTED.
6. MAINTENANCE - SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.
7. FENCE POSTS SHALL BE A MINIMUM OF 32 INCHES IN LENGTH MADE OF 2-BY-2 INCH HARDWOOD OF SOUND QUALITY.
8. SILT FENCE FABRIC SHALL BE ODOT TYPE C GEOTEXTILE FABRIC OR EQUIVALENT.



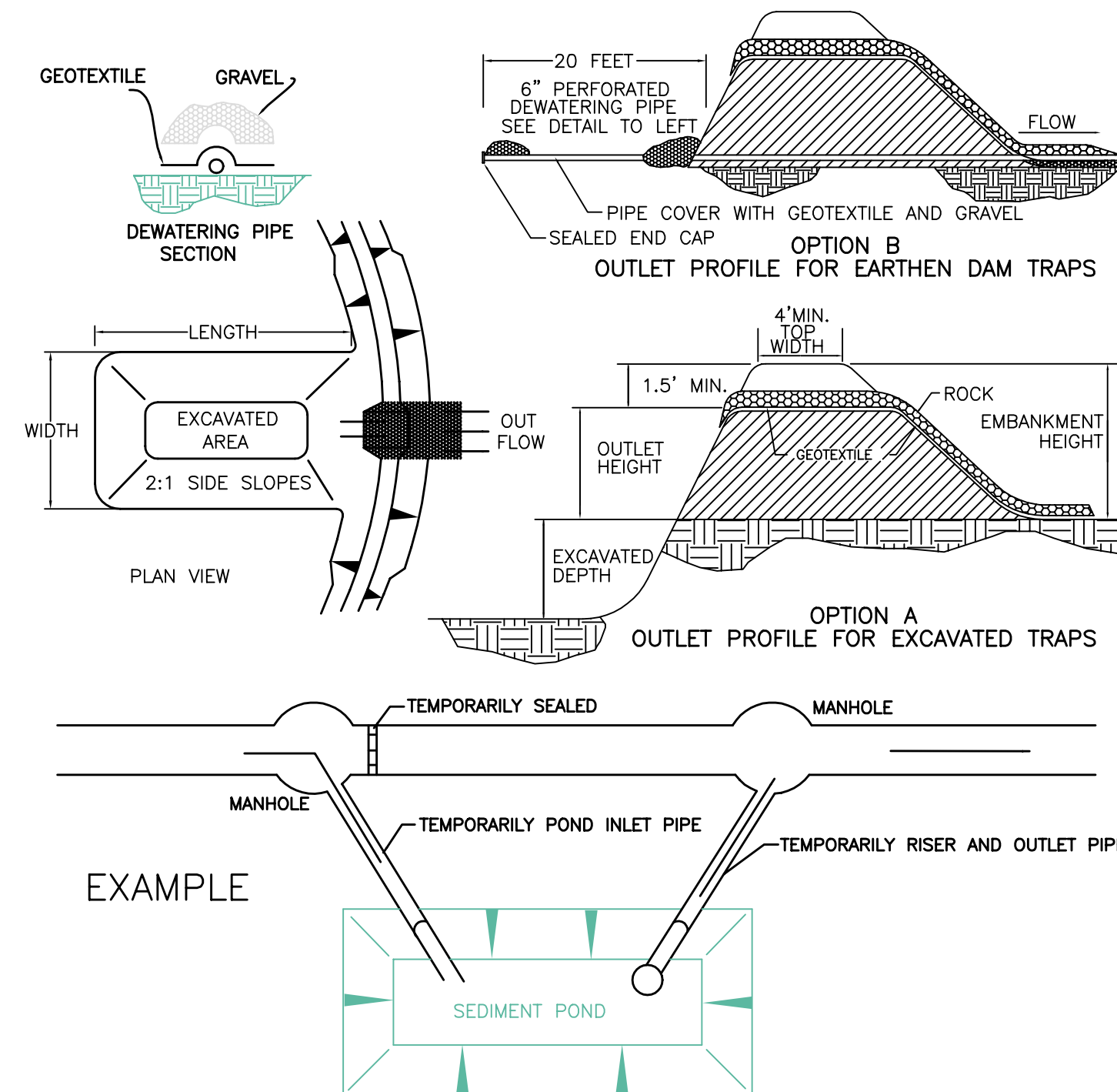
SPECIFICATIONS FOR INLET PROTECTION (YARD INLETS)

1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.
2. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH OF 18 INCHES.
3. THE TOP OF THE FRAME AS SHOWN SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADS IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.
4. GEOTEXTILE SHALL HAVE AN EQUIVALENT OPENING OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. THE FABRIC AND WIRE MESH SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY.
5. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6 INCH LAYERS UNTIL THE EARTH IS EVEN WITH THE TOP OF THE CATCH BASIN GRATE.
6. A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION AND IF RUNOFF BYPASSING THE INLET WILL NOT FLOW TO A SETTLING POND. THE TOP OF THE EARTH DIKE SHALL BE AT LEAST 6 INCHES HIGHER THAN THE TOP OF THE FRAME.
7. INLET PROTECTION TO BE USED WITH ONLY CATCH BASINS IN SUMP AREAS.



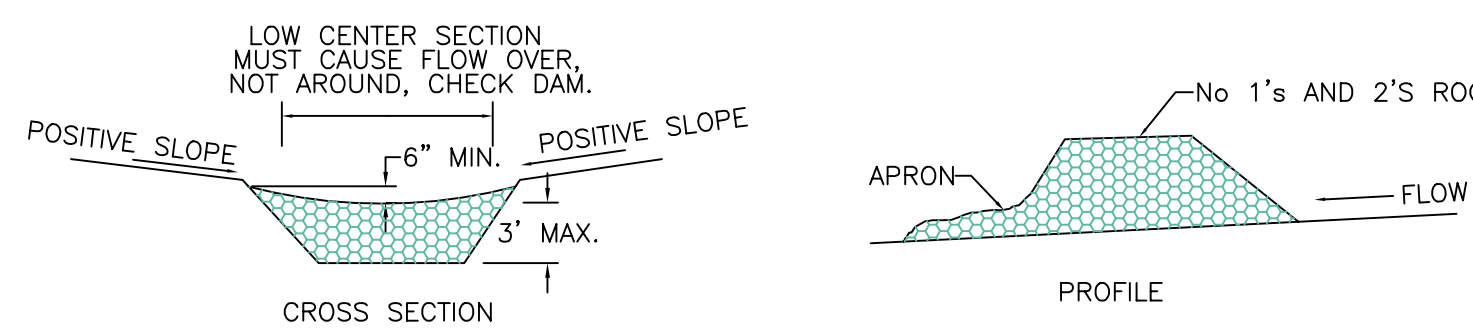
SPECIFICATIONS FOR SEDIMENT TRAP (< 10 AC. WATERSHED)

1. THE AREA UNDER THE EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED AS NEEDED TO FACILITATE SEDIMENT CLEANOUT.
2. FILL MATERIAL USED 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. MAXIMUM HEIGHT OF THE EMBANKMENT SHALL BE 5 FEET AS MEASURED FROM THE SURROUNDING GROUND.
3. DIKES DIRECTING WATER TO THE TRAP SHALL BE HIGHER THAN THE HEIGHT OF THE EMBANKMENT.
4. TEMPORARY SEEDING SHALL BE ESTABLISHED ON ALL NONSUBMERGED AREAS OF THE SEDIMENT TRAP.
5. THE STORAGE VOLUME AND OUTLET SPILLWAY SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN IN THE PLANS.
6. GEOTEXTILE SHALL BE PLACED OVER THE BOTTOM AND SLOPES OF THE OUTLET SPILLWAY AND SHALL CONTINUE DOWNSTREAM OF THE EMBANKMENT TO FORM AN APRON ON THE SURROUNDING GROUND. TO PREVENT RUNOFF FROM FLOWING UNDER THE GEOTEXTILE, THE SECTIONS PLACED NEAREST THE FRONT SHALL OVERLAP FOLLOWING SECTIONS AT LEAST 2 FEET.
7. ROCK USED IN THE OUTLET SPILLWAY SHALL BE PLACED 1 FOOT THICK ON THE GEOTEXTILE. THE ROCK SHALL BE BETWEEN TYPE C AND TYPE D ROCK WHERE D₅₀ IS ABOUT 8 INCHES.
8. SEDIMENT SHALL BE REMOVED AND THE SEDIMENT TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS FILLED ONE-HALF THE POND'S ORIGINAL DEPTH. REMOVED SEDIMENT SHALL BE SPREAD IN A SUITABLE AREA AND STABILIZED SO IT WILL NOT ERODE.



SPECIFICATIONS FOR CHECK DAMS

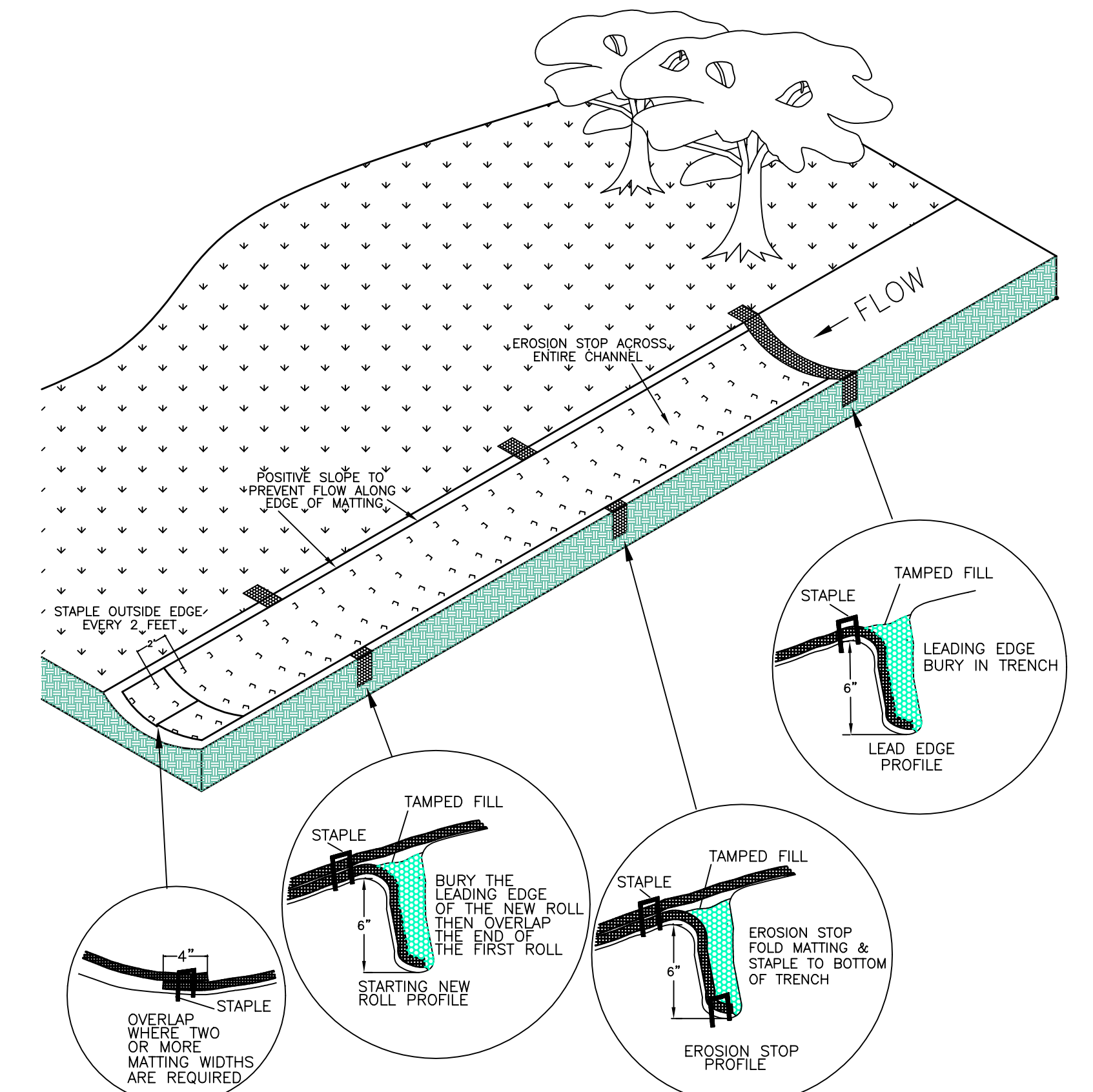
1. THE CHECK DAM SHALL BE CONSTRUCTED OF NO. 1'S AND 2'S STONE, PLACED SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL.
2. THE MAXIMUM HEIGHT OF THE CHECK DAM AT THE CENTER OF THE WEIR SHALL NOT EXCEED 3 FEET.
3. SPACING BETWEEN THE DAMS SHALL BE AS SHOWN IN THE PLANS.



SPECIFICATIONS FOR EROSION CONTROL MATTING

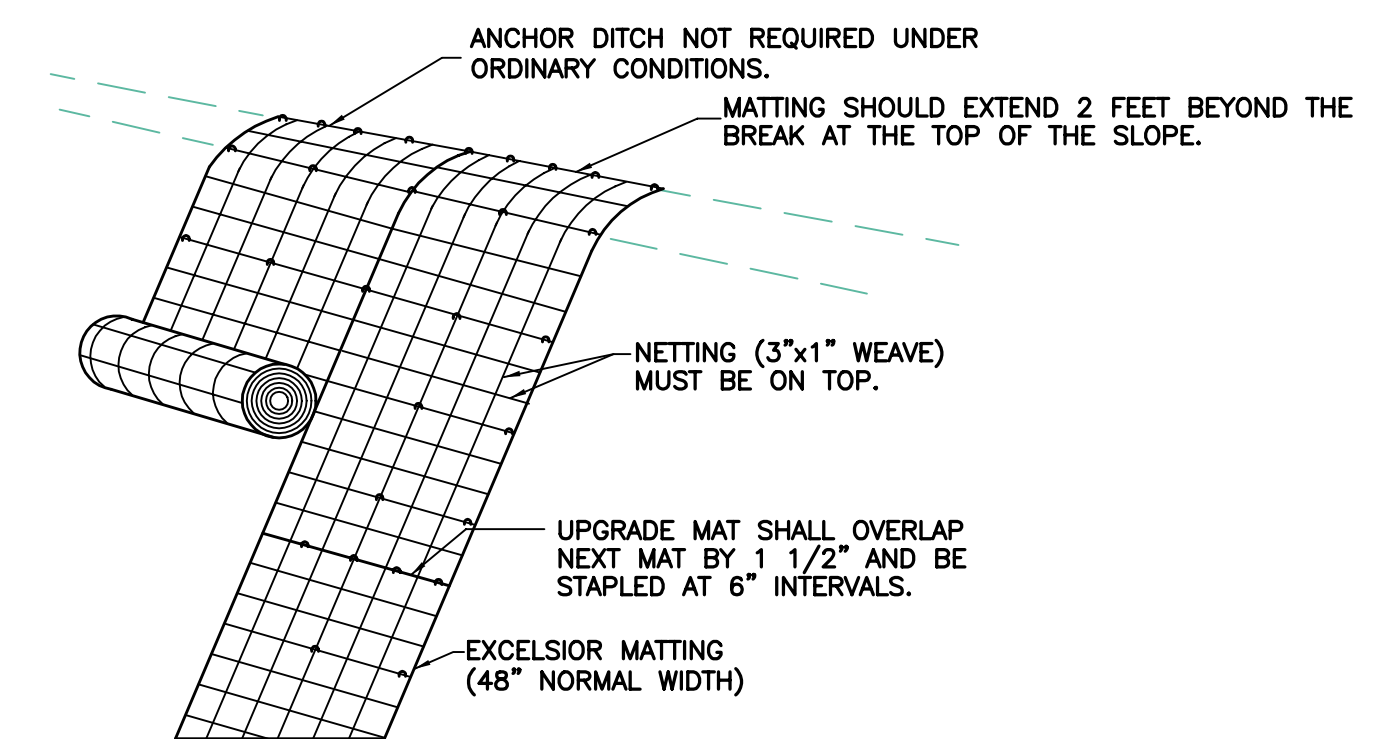
MATting IN CHANNELS INSTALLATION

1. SITE PREPARATION AFTER THE SITE HAS BEEN SHAPED AND GRADED, A SEEDBED SHALL BE PREPARED THAT IS RELATIVELY FREE OF FOREIGN MATERIAL, CLODS OR ROCKS THAT ARE GREATER THAN 1.5" IN DIAMETER. THE SITE SHALL BE PREPARED TO ENSURE THAT THE MATTING HAS GOOD SOIL CONTACT AND THAT THE MATTING WILL NOT "BRIDGE" OR "TENT".
2. PREPARE THE SEEDBED AND SEED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS; OR, FOR EXCELSIOR MATTING, SEED AREA TO BE PROTECTED BEFORE INSTALLATION; OR, WHEN USING JUTE MATTING, APPLY HALF THE SEED BEFORE AND HALF THE SEED AFTER INSTALLATION.
3. MATTING SHALL BE INSTALLED AS SPECIFIED BY THE MANUFACTURER AS APPROPRIATE FOR SITE CONDITIONS.



MATting ON SLOPES INSTALLATION

1. ON STEEP SLOPES APPLY MATTING BY BACKING DOWN HILL KEEPING EDGE OVERLAPPING ADJACENT MAT BY 1 1/2". ON SHORT GRADUAL SLOPES THE MATTING MAY BE APPLIED HORIZONTALLY.
2. EXCELSIOR MATTING IS ITS OWN MULCH AND NO EXTRA VEGETATIVE MULCH MATERIAL IS REQUIRED.



OHIO ENVIRONMENTAL PROTECTION AGENCY NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM NOTES

1. THIS CONTRACT DRAWING SHALL BE MADE AVAILABLE ON SITE AT ALL TIMES AND PRESENTED UPON REQUEST.
2. ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.50" OF RAIN PER 24-HOUR PERIOD. PERMANENT RECORDS OF MAINTENANCE AND INSPECTION MUST BE MAINTAINED FOR 2 YEARS AFTER THE NOTICE OF INTENT (NOI) PER THE OHIO EPA NPDES PERMIT AND SHOULD INCLUDE THE NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTION, CERTIFICATION OF COMPLIANCE, AND CORRECTIVE MEASURES TAKEN.
3. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF. SOLID, SANITARY AND TOXIC WASTE MUST BE DISPOSED OF IN A PROPER MANNER IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. IT IS PROHIBITED TO BURN, BURY OR POUR OUT ONTO THE GROUND OR INTO THE STORM SEWERS ANY SOLVENTS, PAINTS, STAINS, GASOLINE, DIESEL FUEL, USED MOTOR OIL, HYDRAULIC FLUID, ANTIFREEZE, CEMENT CURING COMPOUNDS, AND OTHER SUCH TOXIC AND HAZARDOUS WASTES. WASH OUT OF CEMENT TRUCKS SHOULD OCCUR IN A DIKED, DESIGNATED AREA WHERE THE WASHINGS CAN COLLECT AND BE DISPOSED OF PROPERLY WHEN THEY HARDEN. STORAGE TANKS SHOULD BE LOCATED IN DIKED AREAS AWAY FROM ANY DRAINAGE CHANNELS. THE DIKED AREA SHOULD HOLD A VOLUME 110% OF THE LARGEST TANK.
4. THE DEVELOPER SHALL ENSURE A NOTICE OF TERMINATION (NOT) IS FILED PER THE OHIO EPA NPDES PERMIT REQUIREMENTS.

VEGETATION STABILIZATION REQUIREMENTS

1. VEGETATION STABILIZATION IS THE MOST EFFECTIVE TYPE OF EROSION CONTROL PRACTICE. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO ESTABLISH VEGETATION ON EXCAVATED AREAS AS DIRECTED BY THE OFFICE OF THE MEDINA COUNTY ENGINEER AND THE MEDINA COUNTY SOIL & WATER CONSERVATION DISTRICT.
2. DISTURBED AREAS THAT WILL REMAIN UNWORKED FOR A PERIOD OF 45 DAYS OR GREATER SHALL BE STABILIZED WITH SEEDING AND MULCHING OR OTHER APPROPRIATE MEANS WITHIN SEVEN DAYS AFTER THE LAST DISTURBANCE.
3. FOR AREAS WITHIN 50 FEET OF ANY STREAM, SOIL STABILIZATION SHALL BE INITIATED WITHIN 2 DAYS ON ALL INACTIVE, DISTURBED AREAS.
4. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DISTURBED AREAS WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE.
5. THE DEVELOPER IS REQUIRED TO ESTABLISH A VEGETATIVE COVER WHICH ACHIEVES AT LEAST 70% COVER OF UNIFORM DENSITY TO THE SATISFACTION OF THE OFFICE OF THE MEDINA COUNTY ENGINEER AND THE MEDINA COUNTY SOIL & WATER CONSERVATION DISTRICT.
6. PRIOR TO SEEDING, SOIL TESTS SHOULD BE DONE TO DETERMINE NEED FOR LIME AND FERTILIZER APPLICATION. IN LIEU OF SOIL TESTS, LIME SHALL BE APPLIED AT 100 LB/1,000 FT² OR 2 TONS/ACRE AND FERTILIZER SHALL BE APPLIED AT 12 LB/1,000 FT² OF 10-10-10 OR 12-12-12 ANALYSIS. THE LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL A DEPTH OF 3 INCHES.
7. NO SEED SHALL BE PLANTED FROM OCTOBER 1 THROUGH NOVEMBER 20. DURING THIS PERIOD THE SEEDS ARE LIKELY TO GERMINATE BUT PROBABLY WILL NOT BE ABLE TO SURVIVE THE WINTER.
8. STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER. POSSIBLE ANCHORING METHODS ARE AS FOLLOWS:
 1. MECHANICAL DISK
 2. MULCH NETTING
 3. ASPHALT EMULSION
 4. SYNTHETIC BINDERS
 5. WOOD-CELLULOSE

DESCRIPTION	DATES	RECOMMENDED APPLICATION RATE (OR EQUIVALENT) AS SPECIFIED IN RAINWATER & LAND DEVELOPMENT
PERMANENT SEEDING	MARCH 1 - SEPT 30	GENERAL USE: MIX OF CREEPING RED FESCUE @ 20-40 LB/AC, DOMESTIC RYEGRASS @ 10-20 LB/AC, KENTUCKY BLUEGRASS @ 10-20 LB/AC
		STEEP BANKS: TALL FESCUE @ 40LB/AC
		ROAD DITCHES: TALL FESCUE @ 40LB/AC
TEMPORARY SEEDING	MARCH 1 - SEPT 30	MIX OF PERENNIAL RYEGRASS @ 40 LB/AC, TALL FESCUE @ 40 LB/AC, ANNUAL RYEGRASS @ 40 LB/AC
DORMANT SEEDING	OCT 1 - NOV 20	PREPARE SEEDBED, ADD LIME & FERTILIZER, THEN MULCH. FROM NOV 21 THROUGH MARCH 15, APPLY THE SELECTED SEED MIXTURE AT A 50% INCREASE IN RATE.
	NOV 20 - MARCH 15	PREPARE SEEDBED, ADD LIME & FERTILIZER, APPLY THE SELECTED SEED MIXTURE AT A 50% INCREASE IN RATE, THEN MULCH.
MULCH	ANYTIME OF THE YEAR	STRAW: 2 TONS/AC. OR 90 LB/1000FT
		HYDROSEED (WOOD CELLULOSE FIBER): 1 TON/AC. OR 46 LB/1000FT

THESE SPECIFICATIONS HAVE BEEN ADAPTED FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES' BOOKLET, RAINWATER AND LAND DEVELOPMENT, STANDARDS FOR STORMWATER MANAGEMENT, LAND DEVELOPMENT, AND URBAN STREAM PROTECTION, SECOND EDITION, 1996

OFFICE OF THE
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PROJECT: **EROSION AND SEDIMENT CONTROL DETAIL SHEET**

DESIGN ENGINEER WHOSE STAMP OR SIGNATURE IS AFFIXED TO THIS SET OF PLANS CERTIFIES UNDER THE PENALTY OF PERJURY THAT THE INFORMATION ON THIS SHEET HAS NOT BEEN MODIFIED FROM ITS ORIGINAL FORM UNLESS EXPRESSLY APPROVED BY THE MEDINA COUNTY ENGINEER'S OFFICE.

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