BENCHMARK #1:

BENCHMARK #2:

CORNER OF THE BUILDING.

AT SOUTHWEST SIDE OF BUILDING.

NW HEADBOLT ON HYDRANT (NEXT TO 'O' IN OPEN)

TOP OF VALVE STEM ON HYDRANT AT THE NORTHWEST

ELEV. = 965.44

ELEV. = 968.11

LEGEND

0	EX. MONUMENT BOX				
	PROP. MONUMENT BOX				
0	EX. MONUMENT (AS NOTED)				
•	5/8" BAR W/ H&A CAP (SET)				
•	BENCHMARK (AS NOTED)				
Æ	BOUNDARY LINE				
Q.	CENTER LINE				
LŁ	LOT LINE				
PL	PROPERTY LINE				
R/W	RIGHT OF WAY				
()	RECORD BEARINGS & DIST.				
E.O.P.	EDGE OF PAVEMENT				
F.F.	FINISH FLOOR				
	EX. CONTOUR LINE				
080	PROP. CONTOUR LINE				
-980-	CONTOUR LABEL				
(8)	BOLLARD (AS NOTED)				
* * * *	FENCE (AS NOTED)				
	GUARDRAIL				
<u> </u>	MAILBOX				
++++++	RAIL ROAD				
	SIGN				
Ġ.	H.C. PARKING SPACE				
£3	DECIDIOUS TREE (AS NOTED)				
₩	EVERGREEN TREE (AS NOTED)				
\odot	BUSH (AS NOTED)				
•	SOIL BORING				
<u> </u>	POLE ANCHOR				
Ф	GUY POLE				
Ø	GENERAL POLE				
F	FLAG POLE				
Ø	LIGHT POLE				
Ø	LIGHT & POWER POLE				
Ø	LIGHT, POWER, TELE POLE				
\$	LIGHT, POWER, TELE, TV POLE				
ø	POWER POLE				
Ø	TELEPHONE POLE				
Ø	TELEPHONE, LIGHT POLE				
$ \overline{\phi} $	TELEPHONE, POWER POLE				
P	PULL BOX				
\boxtimes	TRAFFIC CONTROL BOX				
=0					
	POLE W/ PED. SIGNAL				
0.5	POLE W/ TRAFFIC SIGNAL				
-OE-	OVERHEAD ELECTRIC LINE				
-UE-	UNDERGROUND ELECTRIC LINE				
	ELECTRIC LINE MARKER				
E	ELECTRIC BOX				
© E	ELECTRIC MANHOLE				
(E)	ELECTRIC METER				
-FO-	FIBER OPTIC LINE				
(F0)	FIBER OPTIC LINE MARKER				

-G-	GAS LINE		
©	GAS LINE MARKER		
©	GAS METER		
ß.	GAS VALVE		
	GAS TANK		
•©•	GAS WELL		
-S-	SANITARY SEWER LINE		
\$	SANITARY SEWER LINE MARKER		
0	SANITARY M.H./ C.O.		
M.H.	MANHOLE		
C.O.	CLEAN OUT		
-ST-	STORM SEWER LINE		
(3)	STORM SEWER LINE MARKER		
	STORM CATCH BASIN		
	STORM CURB INLET		
0	STORM MANHOLE		
0	STORM DOWNSPOUT		
-	STORM HEADWALL		
C.B.	CATCH BASIN		
C.I.	CURB INLET		
T/G	TOP OF GRATE		
T/C	TOP OF COVER		
T/CU	TOP OF CURB		
E_	FLOWLINE		
Y.D.	// YARD DRAIN		
D.S. 4	DOWNSPOUT		
-OT-	OVERHEAD TELEPHONE LINE		
-UT-	UNDERGROUND TELEPHONE LINE		
(1)	TELEPHONE LINE MARKER		
	TELEPHONE BOX		
① T) /	TELEPHONE MANHOLE		
-OTV-	OVERHEAD TV LINE		
-UTV-	UNDERGROUND TV LINE		
▼	TV LINE MARKER		
T T	TV/CABLE BOX		
TV/CABLE MANHOLE			
───── WATER LINE WATER LINE MARKER			
	WATER MANHOLE		
W	· · · · · · · · · · · · · · · · · · ·		
	WATER CARPING ED		
<u> </u>	WATER SPRINKLER		
Ö	FIRE HYDRANT		
MONITORING WELL			

ODOT STANDARD DRAWING LIST

SCD NUMBER	ITEM	DATE	
CB-1.1	ODOT 22B CATCH BASIN	1-18-13	
HW-2.1	HALF HEIGHT HEADWALL	7-20-13	
· · · · · · · · · · · · · · · · · · ·			

DRAWINGS FROM ODOT STANDARD ROADWAY CONSTRUCTION DRAWINGS MANUAL, DATED 1-21-11

FiberCorr Building Addition

O.L. 697 LOCATED IN THE CITY OF MASSILLON, STARK COUNTY, OHIO APRIL 2013

OWNER

FIBERCORR MILLS, LLC 670 17TH STREET NW MASSILLON, OH 44647-5343

ENGINEER / SURVEYOR

HAMMONTREE & ASSOCIATES, LIMITED 5233 STONEHAM ROAD NORTH CANTON, OHIO 44720

BRIAN A. BURKHART PE, CPESC PHONE-330-499-8817

bburkhart@hammontree-engineers.com

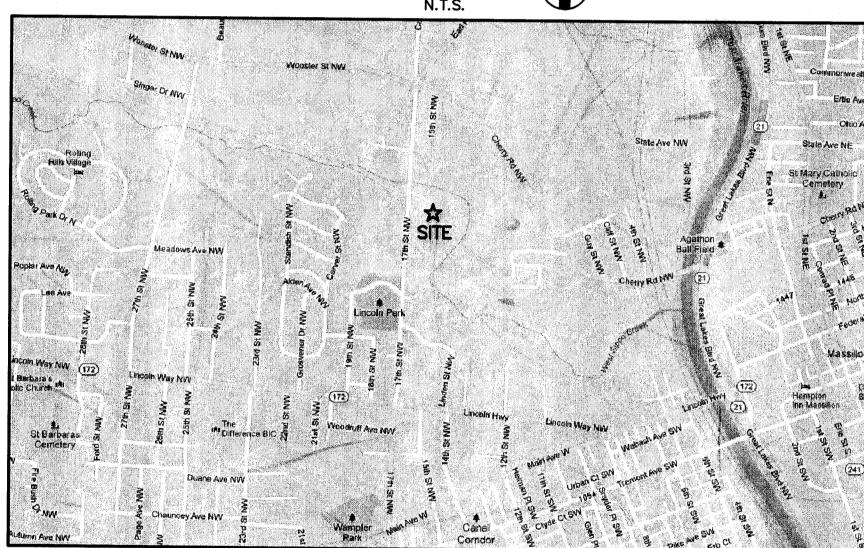
CONTRACTOR

RBS GENERAL CONTRACTING, LLC 1211 3RD STREET NW MASSILLON, OH 44647

> ATT- SEAN ROSEMAN PHONE- 330-830-4655

sean@rosemancontracting.com

VICINITY MAP N.T.S.



SITE ADDRESS:

SANITARY

UTILITY CONTACTS

ELECTRIC

TELEPHONE

CITY OF MASSILLON OHIO EDISON-FIRST ENERGY CITY ADMINISTRATION BUILDING 2600 SOUTH ERIE MASSILLON, OHIO 44646 151 LINCOLN WAY EAST MASSILLON, OHIO 44646 PHN: (330) 830-7056 PHN: (330) 830-1722 FAX: (330) 830-1786 FAX: (330) 830-7054

WATER

AQUA OHIO, INC. — MASSILLON OFFICE 870 3RD STREET NW MASSILLON, OH 44647

PHN: (330) 832-5764 FAX: (330) 832-5770

<u>GAS</u>

DOMINION EAST OHIO 320 SPRINGSIDE DRIVE, SUITE 320 AKRON, OHIO 44333

PHN: (330) 664-2409 FAX: (330) 266-2127

CABLE

MASSILLON CABLE TV, INC. 814 CABLE COURT NW MASSILLON, OH 44647-4284

PHN: (330) 833-4134 FAX: (330) 833-9775

AT&T 50 WEST BOWERY STREET AKRON, OHIO 44308

PHN: (330) 384-8057

APPROVALS

COVER SHEET

SITE DIMENSION PLAN

SITE UTILITY PLAN

SITE GRADING PLAN

SITE NOTES & DETAILS

EXISTING SITE / DEMOLITION PLAN

SITE DETENTION BASIN PLAN

STORMWATER POLLUTION PREVENTION NOTES STORMWATER POLLUTION PREVENTION PLAN

STORMWATER POLLUTION PREVENTION DETAILS C8.3 STORMWATER POLLUTION PREVENTION DETAILS C8.4

MASSILLON CITY ENGINEER

INDEX OF SHEETS

C1.1

C2.1

C3.1

C4.1

C5.1

C6.1

C7.1

KEITH A. DYLEWSKI, PE, PS

ONLY APPROVED SIGNED PLANS BY THE CITY ENGINEER ARE TO BE USED FOR CONSTRUCTION.

UNDERGROUND UTILITIES

2 WORKING DAYS BEFORE YOU DIG

CALL TOLL FREE 800-362-2764 CHO UTILITIES PROTECTION SERVICE NON-MEMBERS MUST BE CALLED DIRECTLY

* THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION

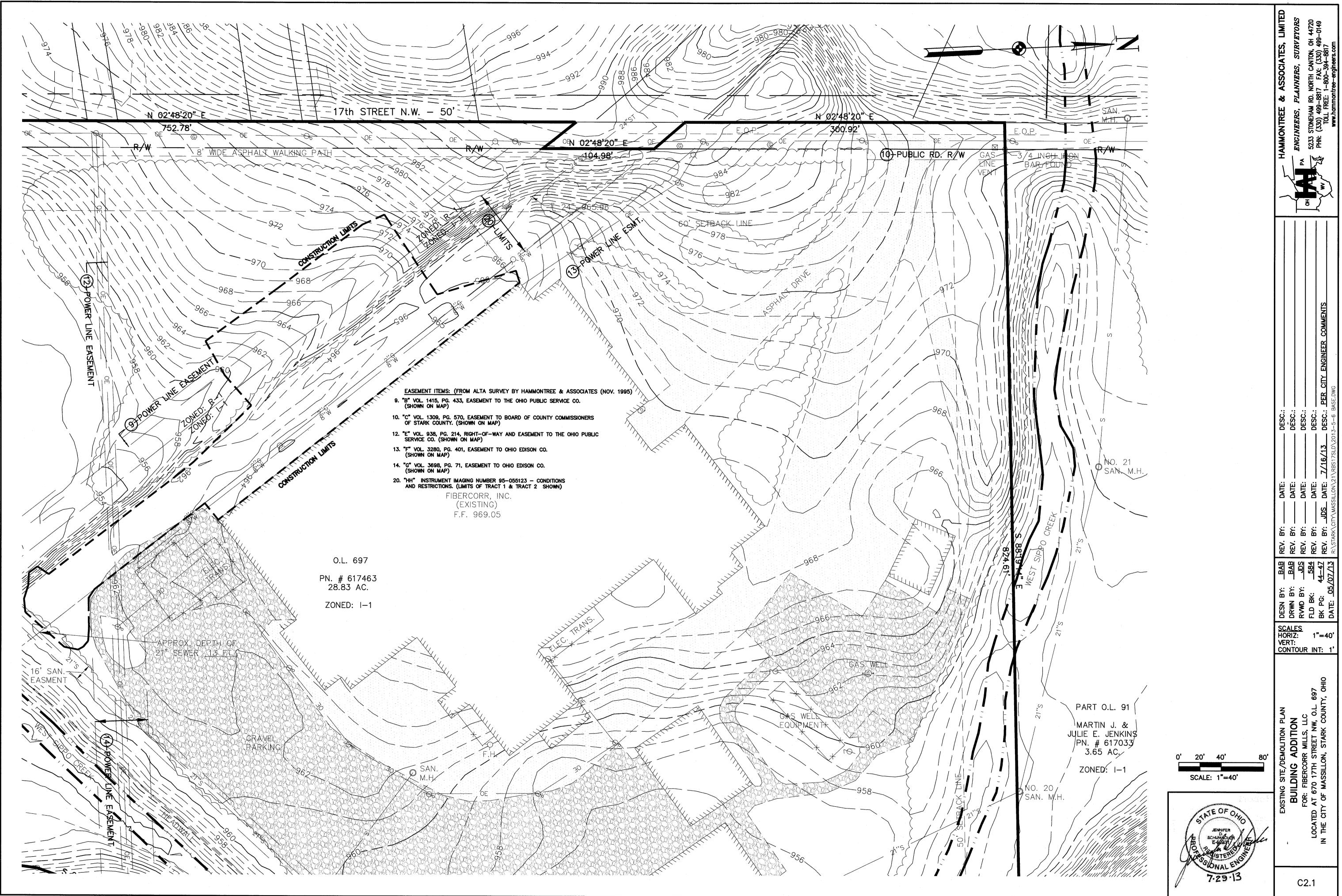


C1.1

SCALES HORIZ: VERT:

ISSUED DATE: 05-09-13

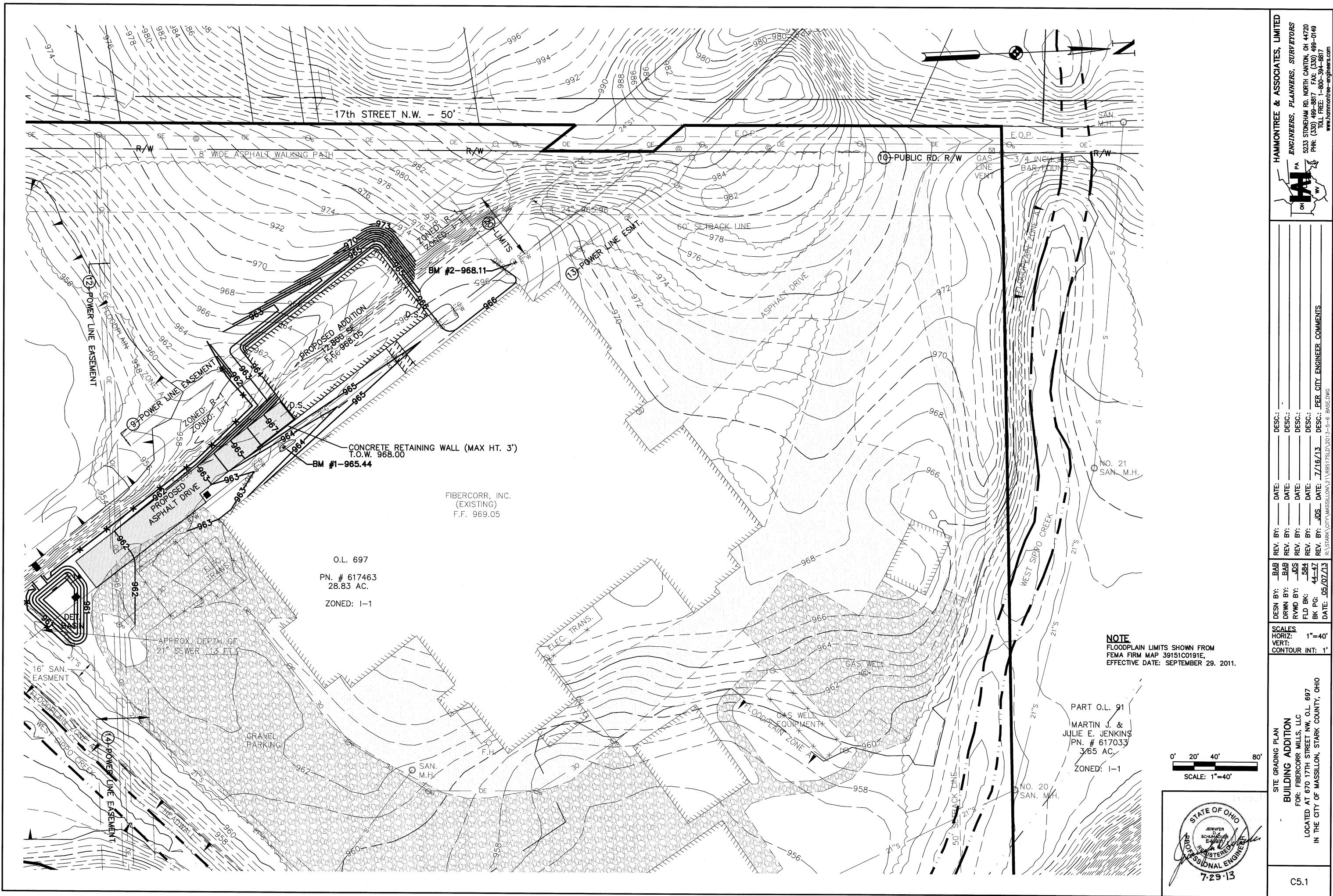
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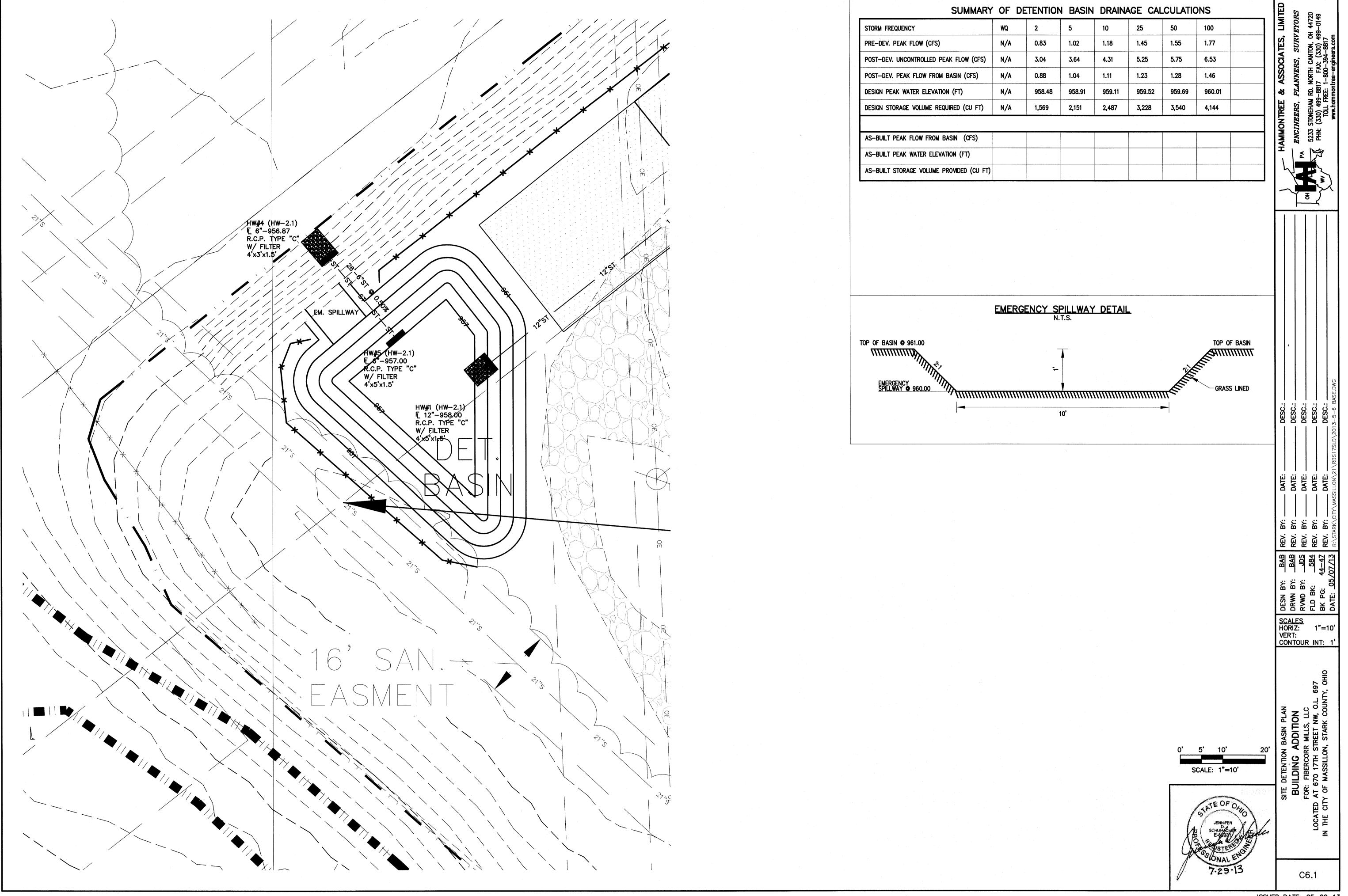
17th STREET N.W. - 50' 290' TO INTERSECTION OF CHERRY STREET— N 02'48'20" E N 02**°**48'20" E _752.78['] 300.92 [○] N 02'48'20" E 104.98' 10-PUBLIC RD. R/W GAS LINE VENT CHAIN LINK FENCE WITH GATE -OVERHEAD ENCLOSED BRIDGE/WALKWAY CONCRETE RETAINING WALL (MAX HT. 3') T.O.W. 968.00 NO. 21 SAN. M.H. FIBERCORR, INC. (EXISTING) F.F. 969.05 REV. REV. REV. REV. O.L. 697 **EASEMENTS** PN. # 617463 28.83 AC. XX SEE SHEET C2.1 FOR DESCRIPTION ZONED: I-1 **NOTES** BASIN PROPOSED BUILDING IS TO BE USED FOR STORAGE. NO NEW PARKING IS REQUIRED. SCALES HORIZ: 1"=40' TAPPROX DEPTH OF 21" SEWER 13 FT VERT: CONTOUR INT: SEE SHEET C7.1 FOR NOTES AND PAVEMENT DETAILS. 16' SAN. SEASMENT 3. PROPOSED REZONING OF R-1
PORTION TO I-1 INDUSTRIAL IS
PENDING AT CITY COUNCIL PART O.L. 91 MARTIN J. & CRAVEL JULIE E. JENKINS PN. # 617033 3.65 AC. PARKING ZONED: I-1 SCALE: 1"=40' C3.1

17th STREET N.W. - 50' 10-PUBLIC RD. R/W GAS LINE VENT BAR/FOU BM #2-968.11 **尼 8"(S) 963.31** -CONCRETE RETAINING WALL (MAX HT. 3') T.O.W. 968.00 -BM #1-965.44 NO. 21 SAN. M.H. FIBERCORR, INC. (EXISTING) CB #2 (ODOT 2-2B) T/G 962.75 --WINDOW (N) 962.25 匠 8" (N) 960.08 匠 12" (S) 959.75 F.F. 969.05 REV. REV. REV. REV. O.L. 697 PN. # 617463 28.83 AC. SEE SHEET C6.1 FOR PIPE AND HEADWALL DETAILS ZONED: I-1 | HW#1 (HW2k1) | 売 12" (N) 958.00 SCALES HORIZ: 1"=4 VERT: CONTOUR INT: 1"=40" **NOTES** HAPPROX DEPTHOOF 21" SEWER 13 FT SEE SHEET C7.1 FOR NOTES AND PAVEMENT DETAILS. 16' SAN. EASMENT H PROP. ADDITION (12.800 S.F.) WILL NOT REQUIRE WATER OR SAN. SEWER SERVICE. PART O.L. 91 MARTIN J. & JULIE E. JENKINS PN. # 617033 3.65 AC. EQUIPMENTX GRAVEL PARKING SAN. ZONED: I-1 SCALE: 1"=40' SAN. M.H. X 7.29.13 C4.1

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DEMOLITION NOTES:

- THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL (IN A LOCATION APPROVED BY THE GOVERNING AUTHORITIES) OF ALL STRUCTURES; SO THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS OUTLINED IN THESE PLANS OR GEOTECHNICAL REPORT. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS NEEDED FOR DEMOLITION
- 2. THE CONTRACTOR SHALL COORDINATE WITH THE RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. ALL EXISTING UTILITY CONNECTIONS ARE TO BE ABANDONED AS DIRECTED BY THE RESPECTIVE UTILITY OWNER.
- 3. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISCONNECTION OF UTILITY SERVICES TO THE EXISTING BUILDING(S) PRIOR TO START OF DEMOLITION. EXISTING UTILITY CONNECTIONS TO THE BUILDING ARE NOT SHOWN ON THIS SURVEY.
- 5. ALL POTENTIALLY HAZARDOUS/TOXIC MATERIALS MUST BE REMOVED FROM THE BUILDING(S) PRIOR TO DEMOLITION. POTENTIALLY HAZARDOUS/TOXIC MATERIALS THAT MUST BE REMOVED INCLUDE, BUT ARE NOT LIMITED TO, FLUORESCENT BULBS AND BALLASTS, MERCURY CONTAINING SWITCHES, ELECTRONIC EQUIPMENT (TELEVISIONS, COMPUTERS, ETC.), REFRIGERANTS, BATTERIES, CLEANING SUPPLIES, AND SMALL CONTAINERS OF PAINT, SOLVENTS,
- 6. IF ANY PAVEMENT IS DAMAGED OUTSIDE THE SAW-CUT LIMITS, THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND REPAIR OF THAT PAVEMENT.
- 7. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION OR CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATIONS OF ALL UTILITIES.

GENERAL NOTES:

- PRIOR TO THE COMMENCEMENT OF ANY PROJECT. A PRE- CONSTRUCTION MEETING WILL BE HELD AT THE CITY ENGINEER'S OFFICE. AT THIS TIME, THE PROJECT WILL BE DISCUSSED IN REGARD TO PROCEDURE, MATERIALS, INSPECTION, ETC...
- 2. THE GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES INVOLVED ON THE SITE NO MORE THAN TEN DAYS AND NO LESS THAN 48 HOURS IN ADVANCE OF EXCAVATION (ORC 3781.28).
- . THE CONTRACTOR IS RESPONSIBLE FOR PLACING AND MAINTAINING CONSTRUCTION FENCE, SIGNS, ETC. TO WARN & KEEP PEOPLE OFF SITE FOR THE DURATION OF THE PROJECT.
- 4. TRAFFIC SHALL BE MAINTAINED ON ALL ADJOINING STREETS IN ACCORDANCE WITH THE OHIO MANUAL OF TRAFFIC CONTROL DEVICES.
- 5. PAVEMENT MARKINGS SHALL COMPLY WITH THE REQUIREMENTS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS, JANUARY 1, 2005, ITEMS 641, 642 AND 740.
- 6. REFER TO THE FOUNDATION PLANS FOR DIMENSIONS OF THE BUILDING.
- 7. REFER TO SOILS REPORT FOR ALL SITE REQUIREMENTS ON COMPACTION, FILLING, FOUNDATION AND PAVEMENT INSTALLATION.

UTILITY NOTES:

- UTILITIES SHOWN WERE TAKEN FROM RECORDS OF RESPECTIVE UTILITY COMPANIES AND FROM A TOPOGRAPHIC SURVEY AND DO NOT NECESSARILY REPRESENT ALL UNDERGROUND OR OVERHEAD UTILITIES ADJACENT TO OR UPON THE PREMISES SHOWN ON THE PLAN. CALL OUPS PRIOR TO EXCAVATION.
- ANY UTILITIES FOUND DURING EXCAVATION, NOT SHOWN ON THESE PLANS, SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.
- EXISTING UTILITIES TO REMAIN, WHICH ARE CRUSHED OR DAMAGED DURING CONSTRUCTION, SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.
- 4. EACH SUBCONTRACTOR SHALL OBTAIN THEIR OWN PERMITS AND CONTACT THE UTILITY COMPANY FOR VERIFICATION AND LOCATION OF HOOK-UP PRIOR TO ANY WORK BEING DONE.
- 5. WATER:

ALL WATER SERVICE LATERALS 2 INCHES AND SMALLER SHALL BE TYPE "K" COPPER. SERVICE LATERALS LARGER THAN 2 INCHES SHALL BE DUCTILE IRON PIPE AND SHALL HAVE 5 FEET (MIN) OF COVER. ALL BACKFLOW PREVENTION DEVICES SHALL BE APPROVED BY THE LOCAL WATER DEPARTMENT.

THE MECHANICAL/PLUMBING DESIGNER IS TO ENSURE THAT ADEQUATE PRESSURE AND CAPACITY IS AVAILABLE TO SERVICE THE SITE. EXISTING WATER MAIN PRESSURE & CAPACITY IS UNKNOWN AT THIS TIME.

6. STORM:

ALL STORM SEWERS SHALL CONFORM TO ODOT ITEM 707.33 OR ITEM 706.02.

ALL CATCH BASINS SHALL BE CONSTRUCTED AS SHOWN ON THESE DRAWINGS AND DETAILED PER THE ODOT STANDARD DRAWINGS AND CURRENT CONSTRUCTION AND MATERIAL SPECIFICATIONS. CATCH BASIN GRATES WITHIN PAVEMENT TO BE TRAFFIC BEARING.

DOWNSPOUTS TO CONNECT DIRECTLY TO THE STORM SEWER SYSTEM WITH A MINIMUM 6" DIAMETER PIPE WITH A MINIMUM 1% SLOPE. REFER TO ARCHITECTAL PLANS FOR EXACT DOWNSPOUT LOCATION.

SANITARY:

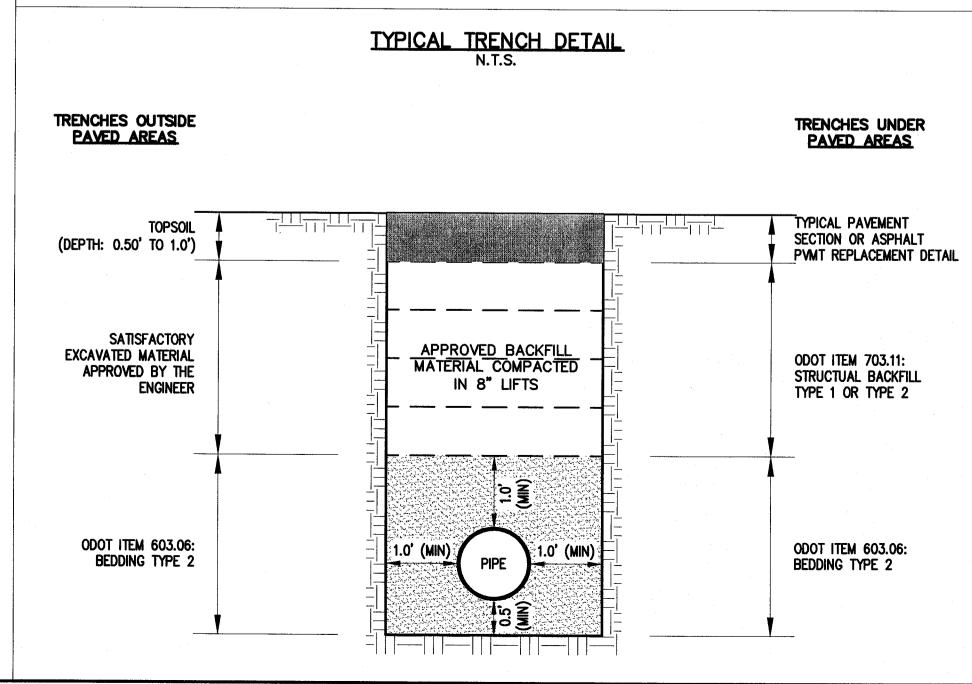
SANITARY LATERAL SHALL BE A MINIMUM 6" DIAMETER OF PVC PIPE, ASTM D3034, SDR35, WITH RUBBER GASKET JOINTS OR APPROVED EQUAL. LATERAL SHALL BE CONSTRUCTED WITH A MINIMUM OF 1% SLOPE (10% MAX), AND HAVE A MINIMUM OF 4 FOOT OF COVER.

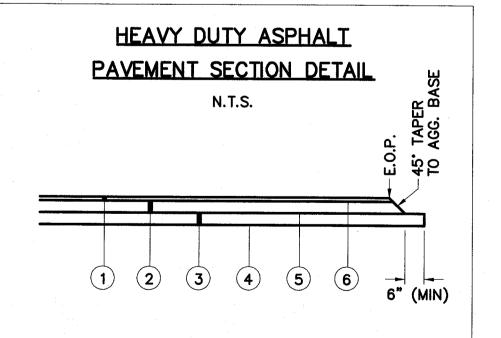
ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE

THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SLOPE OF BUILDING SEWERS TOWARDS THE LATERAL SEWER IN STRICT ACCORDANCE WITH THE GOVERNING AUTHORITIES.

CLEAN-OUTS TO BE INSTALLED AT ALL PIPE BENDS AND ANGLES, UNLESS A MANHOLE IS INDICATED.

- THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, INVERT ELEVATION, AND CONDITION OF ALL EXISTING UTILITIES AT THE POINT OF CONNECTIONS PRIOR TO ANY INSTALLATION. THE CONTRACTOR IS TO ENSURE EXISTING UTILITIES ARE IN GOOD WORKING ORDER. IF ELEVATIONS DIFFER FROM WHAT IS SHOWN ON THIS DRAWING, THE CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY PRIOR TO ANY CONSTRUCTION.
- 10 FT-HORIZONTAL AND 1.5 FT-VERTICAL (MINIMUM) CLEARANCE IS REQUIRED BETWEEN SANITARY & WATER LINES. ALL OTHER UTILITIES SHALL HAVE 5 FT-HORIZONTAL AND 1.0 FT-VERTICAL (MINIMUM) CLEARANCE BETWEEN
- 10. GAS, ELECTRIC, TELEPHONE & CABLE LINES SHOWN FOR REFERENCE ONLY AND ARE DESIGNED BY OTHERS. CONTRACTOR TO INSTALL PER RESPECTIVE UTILITY APPROVED SET OF PLANS.
- 11. COORDINATE UTILITY CONNECTIONS AT THE BUILDING WITH THE MECHANICAL DRAWINGS.





1) ITEM 448 1-1/2" ASPHALT CONCRETE, SURFACE 2-1/2" ASPHALT CONCRETE BASE

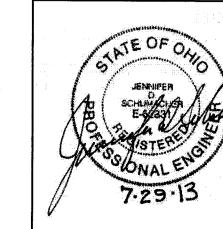
3) ITEM 304 8" AGGREGATE BASE

COMPACTED SUBGRADE & PROOF ROLL PRIME COAT (0.4 GAL./SQ. YD.)

TACK COAT (0.1 GAL./SQ. YD.) 6) ITEM 407 ALL ITEMS FROM STATE OF OHIO DEPARTMENT

OF TRANSPORTATION, CONSTRUCTION & MATERIAL

SPECIFICATIONS, JAN. 1, 2010. IF GEOTECHNICAL REPORT RECOMMENDS A DIFF. SECTION THEN THE GEOTECHNICAL CONSULTANTS RECOMMENDATIONS SHALL OVERRIDE THIS DETAIL.



REV. REV. REV. REV.

SCALES HORIZ:

VERT:

CONTOUR INT:

C7.1

ISSUED DATE: 05-09-13

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EROSION CONTROL NOTES

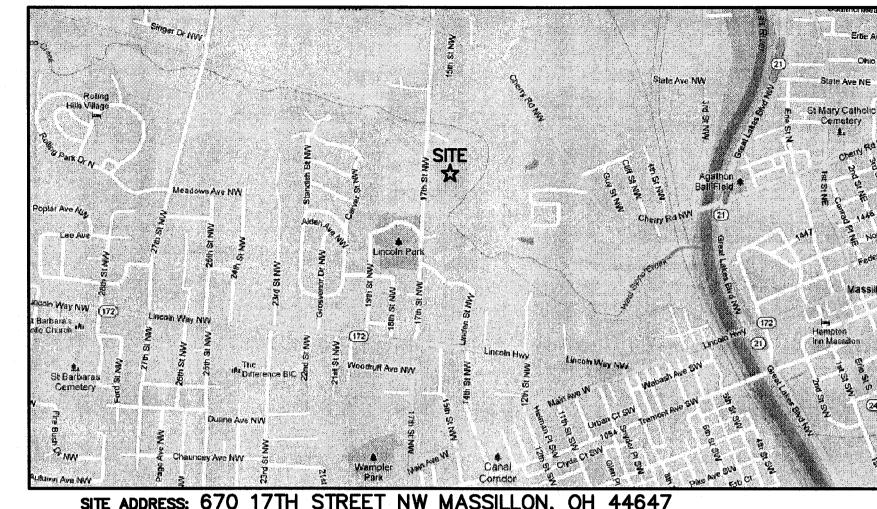
- ALL PROPERTIES ADJACENT TO THE SITE OF SOIL-DISTURBING ACTIVITY SHALL BE PROTECTED TO THE MAXIMUM EXTENT PRACTICABLE, FROM SOIL EROSION AND SEDIMENT RUNOFF AND DRAINAGE. INCLUDING, BUT NOT LIMITED TO PRIVATE PROPERTIES, NATURAL AND ARTIFICIAL WATERWAYS. WETLANDS, STORM SEWERS AND PUBLIC LANDS.
- CONSTRUCTION SITE EROSION AND SEDIMENT CONTROL PRACTICES USED TO SATISFY THIS REQUIREMENT SHALL CONFORM, AS A MINIMUM, TO STATE OF OHIO STANDARDS AS SET FORTH IN THE MOST-CURRENT EDITION OF THE RAINWATER AND LAND DEVELOPMENT MANUAL, DEFINED BY THE OHIO DEPARTMENT OF NATURAL RESOURCES DIVISION OF SOIL AND WATER CONSERVATION AND NATURAL RESOURCE CONSERVATION SERVICE AND SHALL CONFORM TO THE MOST CURRENT OHIO ENVIRONMENTAL PROTECTION AGENCY, OHIO REVISED CODE CHAPTER 6111
- EROSION AND SEDIMENT CONTROL PLAN APPROVALS ISSUED IN ACCORDANCE WITH THESE RULES DO NOT RELIEVE THE OWNER OF RESPONSIBILITY FOR OBTAINING ALL OTHER NECESSARY PERMITS AND OR APPROVALS FROM FEDERAL STATE, AND/OR COUNTY AGENCIES. IF REQUIREMENTS VARY, THE MOST STRINGENT REQUIREMENTS SHALL
- EROSION AND SEDIMENT CONTROL PRACTICES AT THE SITE, AND AS IDENTIFIED IN THE ESC PLAN SHALL COMPLY WITH THE FOLLOWING:
- A. AN APPROVED EROSION AND SEDIMENT CONTROL PLAN OR APPROVAL LETTER FROM THE LOCAL SWCD SHALL BE LOCATED ON SITE FOR REVIEW.
- B. LIMITS TO CLEARING AND GRADING SHALL BE SHOWN ON ESC PLANS. LIMITS TO CLEARING AND GRADING SHALL. BE CLEARLY MARKED ON SITE WITH SIGNAGE, FLAGGING, AND/OR FENCING ETC.
- C. INSTALL EROSION AND SEDIMENT PERIMETER CONTROLS AS A FIRST ACTION OF CONSTRUCTION AS SPECIFIED BY CONSTRUCTION SEQUENCE. THIS SHALL INCLUDE AND IS NOT LIMITED TO PROTECTIVE BMP'S FOR STREAM CORRIDORS AND CROSSINGS, WETLANDS, SITE ENTRANCE, SEDIMENT TRAPS & BASINS, BARRIERS, AND DIVERSION
- D. CONCENTRATED STORM WATER RUNOFF SHALL PASS THROUGH A SEDIMENT CONTROL DEVICE BEFORE EXITING THE SITE BOUNDARIES. CONCENTRATED RUNOFF FROM BARE SOIL AREAS SHALL BE DIVERTED INTO A SETTLING POND OR SEDIMENT CONTROL STRUCTURE, OR OTHER APPROVED SEDIMENT BARRIER BEFORE LEAVING THE SITE.
- E. EARTHEN STRUCTURES SUCH AS DAMS, BASINS, STREAM MODIFICATIONS AND WATER DIVERSIONS SHALL BE SEEDED AND MULCHED WITH IN SEVEN (7) DAYS OF THE COMPLETION OF INSTALLATION. DAMS SHALL CONFORM TO THE OHIO DAM LAWS (ORC 1521.06).
- F. STABILIZATION OF CRITICAL AREAS WITHIN 50 FEET OF ANY STREAM OR WETLAND SHALL BE TEMPORARILY STABILIZED WITHIN TWO (2) DAYS OF DISTURBANCE IF AREA WILL REMAIN INACTIVE FOR SEVEN (7) DAYS OR LONGER. CONSTRUCTION VÉHICLES SHALL AVOID STREAMS AND THE 50 FOOT BUFFER AREAS. IF AN ACTIVE DRAINAGE WAY MUST BE CROSSED BY CONSTRUCTION VEHICLES REPEATEDLY DURING CONSTRUCTION. A TEMPORARY STREAM CROSSING SHALL BE CONSTRUCTED ACCORDING TO THE SPECIFICATIONS IN THE RAINWATER & LAND DEVELOPMENT MANUAL. CONSTRUCTION OF BRIDGES. CULVERTS OR SEDIMENT CONTROL STRUCTURES SHALL NOT PLACE SOIL, DEBRIS AND OTHER FINE PARTICULATE MATERIAL INTO OR CLOSE TO THE WATER RESOURCE IN SUCH A MANNER THAT IT MAY SLOUGH, SLIP OR ERODE.
- G. STORM SEWER INLETS SHALL BE PROTECTED SO THAT SEDIMENT-LADEN RUNOFF WILL NOT ENTER THE STORM SEWER SYSTEM WITHOUT FIRST BEING FILTERED AND/OR TREATED. SANITARY SEWER MANHOLES SHALL BE PROTECTED SO THAT NO STORM RUNOFF WILL ENTER THE SANITARY SEWER SYSTEM.
- H. RE-VEGETATE SOIL. TEMPORARY SOIL STABILIZATION SHALL OCCUR WITHIN SEVEN (7) DAYS AFTER ROUGH GRADING IF THE AREA WILL REMAIN IDLE LONGER THAN FOURTEEN (14) DAYS. PERMANENT SOIL STABILIZATION SHALL BE INSTALLED WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. PERMANENT VEGETATION IS A GROUND COVER DENSE ENOUGH TO COVER 80% OF THE SOIL SURFACE AND MATURE ENOUGH TO SURVIVE WINTER WEATHER CONDITION.
- SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED TO PREVENT SOIL LOSS. STABILIZATION SHALL BE REQUIRED IF STOCKPILES ARE LOCATED WITHIN CRITICAL AREAS NEAR STREAMS OR WETLANDS, OR IF DETERMINED BY THE LOCAL SWCD THAT SEDIMENT FROM STOCKPILES WILL LEAVE THE SITE.
- J. UNSTABLE SOILS PRONE TO SLIPPING OR SLOUGHING SHALL NOT BE CLEARED, GRADED, EXCAVATED, FILLED OR HAVE LOADS IMPOSED UPON THEM UNLESS THE WORK IS PLANNED BY A QUALIFIED PROFESSIONAL ENGINEER AND INSTALLED IN ACCORDANCE WITH THE ESC PLAN. CUT AND FILL SLOPES SHOULD BE DESIGNED TO MINIMIZE
- ADEQUATE SLOPE DESIGN INCLUDES USE OF ROUGH SOIL SURFACE ALONG THE FACE OF THE SLOPE; WATER DIVERSION ALONG THE TOP OF THE SLOPE AWAY FROM THE FACE: TERRACES TO REDUCE SLOPE LENGTH: DELIVERY OF CONCENTRATED STORM WATER FLOWS TO THE BASE OF THE SLOPE VIA ADEQUATE CHANNEL OR PIPE; AND DRAINAGE FOR WATER SEEPS IN THE SLOPE THAT ENDANGER SLOPE STABILITY.
- K. SOIL SHALL BE REMOVED FROM PAVED SURFACES AND/OR PUBLIC ROADS AT THE END OF EACH DAY IN SUCH A MANNER THAT DOES NOT CREATE OFF-SITE SEDIMENTATION IN ORDER TO ENSURE SAFETY AND ABATE OFF-SITE SOIL LOSS. COLLECTED SEDIMENTS SHALL BE PLACED IN A STABLE LOCATION ON SITE OR TAKEN OFF-SITE TO A STABLE LOCATION.
- L. STABILIZE DISTURBED OR MODIFIED DRAINAGE WAYS. REDUCE EROSION EFFECTS OF STORM WATER BY USING AND/OR MAINTAINING GRASSED SWALES, INFILTRATION STRUCTURES, OR WATER DIVERSIONS.
- M. SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED ONCE EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL EVENT. A WRITTEN LOG OF THESE INSPECTIONS AND IMPROVEMENTS TO CONTROLS SHALL BE KEPT ON SITE. THE INSPECTIONS SHALL INCLUDE THE DATE OF INSPECTION. NAME OF INSPECTOR, WEATHER CONDITIONS, OBSERVATIONS, ACTIONS TAKEN TO CORRECT ANY PROBLEMS AND THE DATE CORRECTIVE ACTIONS WERE TAKEN.
- N. TRENCHES FOR UNDERGROUND UTILITY LINES AND PIPES SHALL BE TEMPORARILY STABILIZED WITHIN SEVEN (7) DAYS IF THEY ARE TO REMAIN INACTIVE FOR THIRTY (30) DAYS. TRENCH DEWATERING DEVICES SHALL DISCHARGE IN A MANNER THAT FILTERS SOIL-LADEN WATER BEFORE DISCHARGING IT TO A RECEIVING DRAINAGE DITCH OR POND. IF SEEDING, MULCHING, OR OTHER EROSION AND SEDIMENT CONTROL MEASURES WERE PREVIOUSLY INSTALLED. THESE PROTECTIVE MEASURES SHALL BE REINSTALLED.
- O. DISTURBED AREAS WHICH WILL REMAIN UNWORKED FOR A PERIOD OF 14 DAYS OR MORE SHALL BE STABILIZED WITH SEEDING AND MULCHING OR OTHER APPROPRIATE MEANS WITHIN 7 DAYS.
- P. 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 OR HAZARDOUS WASTES. 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.
- Q. OFF-SITE VEHICLE TRACKING SEDIMENT SHALL BE MINIMIZED. CONSTRUCTION VEHICLES ARE LIMITED TO THE CONSTRUCTION ACCESS ROAD(S) NOTED ON THE PLAN. OFFSITE SEDIMENT TRACKING SHALL BE CONTROLLED BY REGULARLY SCHEDULED SWEEPING OF OFFSITE ACCESS ROADS AND MAINTENANCE OF ROCK CONSTRUCTION
- R. ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST MEET THE STANDARDS AND SPECIFICATIONS OF THE OHIO RAINWATER AND LAND DEVELOPMENT HANDBOOK (2006).
- S. OTHER EROSION AND SEDIMENT CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS.
- T. WINTERIZATION ANY DISTURBED AREA THAT IS NOT GOING TO BE WORKED FOR 14 DAYS OR MORE MUST BE SEEDED AND MULCHED BY NOVEMBER 1 OR MUST HAVE A DORMANT SEEDING OR MULCH COVER APPLIED BETWEEN NOVEMBER 1 AND MARCH 1.
- U. CONCRETE CEMENT IS TO BE TAKEN BACK TO PLANT FOR WASHOUT AND RECYCLING OR DESIGNATED AREAS ON SITE FOR CONCRETE WASHOUT ARE TO BE USED.

ADDITIONAL CONSTRUCTION SITE POLLUTION CONTROLS

- CONSTRUCTION PERSONNEL, INCLUDING SUBCONTRACTORS WHO MAY USE OR HANDLE HAZARDOUS OR TOXIC MATERIALS, SHALL BE MADE AWARE OF THE FOLLOWING GENERAL GUIDELINES REGARDING DISPOSAL AND HANDLING OF HAZARDOUS AND CONSTRUCTION WASTES:
 - PREVENT SPILLS
 - FOLLOW LABEL DIRECTIONS FOR DISPOSAL
 - •REMOVE LIDS FROM EMPTY BOTTLES AND CANS WHEN DISPOSING IN TRASH
 - RECYCLE WASTES WHENEVER POSSIBLE
 - •DON'T POUR INTO WATERWAYS, STORM DRAINS OR ONTO THE GROUND
 - •DON'T BURY CHEMICALS OR CONTAINERS
 - DON'T POUR DOWN THE SINK, FLOOR DRAIN OR SEPTIC TANKS
 - DON'T BURN CHEMICALS OR CONTAINERS
 - DON'T MIX CHEMICALS TOGETHER
- 2. CONTAINERS SHALL BE PROVIDED FOR THE PROPER COLLECTION OF ALL WASTE MATERIAL INCLUDING CONSTRUCTION DEBRIS, TRASH, PETROLEUM PRODUCTS AND ANY HAZARDOUS MATERIALS USED ON-SITE. CONTAINERS SHALL BE COVERED AND NOT LEAKING. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THAT MATERIAL. CONSTRUCTION DEMOLITION AND DEBRIS (CD&D) WASTE MUST BE DISPOSED OF AT AN OHIO EPA APPROVED CD&D LANDFILL.
- NO CONSTRUCTION RELATED WASTE MATERIALS ARE TO BE BURIED ON-SITE. BY EXCEPTION, CLEAN FILL (BRICKS, HARDENED CONCRETE, SOIL) MAY BE UTILIZED IN A WAY WHICH DOES NOT ENCROACH UPON NATURAL WETLANDS, STREAMS OR FLOODPLAINS OR RESULT IN THE CONTAMINATION OF WATERS OF THE STATE.
- . HANDLING CONSTRUCTION CHEMICALS. MIXING, PUMPING, TRANSFERRING OR OTHER HANDLING OF CONSTRUCTION CHEMICALS SUCH AS FERTILIZER, LIME, ASPHALT, CONCRETE DRYING COMPOUNDS, AND ALL OTHER POTENTIALLY HAZARDOUS MATERIALS SHALL BE PERFORMED IN AN AREA AWAY FROM ANY WATERCOURSE, DITCH OR STORM DRAIN.
- 5. EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES OR STORM DRAINS, IN AN AREA DESIGNATED FOR THAT PURPOSE, THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SPILLS. SECONDARY CONTAINMENT SHALL BE PROVIDED FOR ALL FUEL OIL STORAGE TANKS. THESE AREAS MUST BE INSPECTED EVERY SEVEN DAYS AND WITHIN 24 HRS. OF A 0.5 INCH OR GREATER RAIN EVENT TO ENSURE THERE ARE NO EXPOSED MATERIALS WHICH WOULD CONTAMINATE STORM WATER. SITE OPERATORS MUST BE AWARE THAT SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) REQUIREMENTS MAY APPLY. AN SPCC PLAN IS REQUIRED FOR SITES WITH ONE SINGLE ABOVE GROUND TANK OF 660 GALLONS OR MORE, ACCUMULATIVE ABOVE GROUND STORAGE OF 1330 GALLONS OR MORE, OR 42,000 GALLONS OF UNDERGROUND STORAGE, CONTAMINATED SOILS MUST BE DISPOSED OF IN ACCORDANCE WITH ITEM 8.
- CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER CONVEYANCE. A SUMP OR PIT WITH NO POTENTIAL FOR DISCHARGE SHALL BE CONSTRUCTED IF NEEDED TO CONTAIN CONCRETE WASH WATER. FIELD TILE OR OTHER SUBSURFACE DRAINAGE STRUCTURES WITHIN 10 FT. OF THE SUMP SHALL BE CUT AND PLUGGED. FOR SMALL PROJECTS. TRUCK CHUTES MAY BE RINSED AWAY FROM ANY WATER CONVEYANCES.
- SPILL REPORTING REQUIREMENTS: SPILLS ON PAVEMENT SHALL BE ABSORBED WITH SAWDUST OR KITTY LITTER AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LANDFILL. HAZARDOUS OR INDUSTRIAL WASTES SUCH AS MOST SOLVENTS, GASOLINE, OIL-BASED PAINTS, AND CEMENT CURING COMPOUNDS REQUIRE SPECIAL HANDLING. SPILLS SHALL BE REPORTED TO OHIO EPA (1-800-282-9378). SPILLS OF 25 GALLONS OR MORE OF PETROLEUM PRODUCTS SHALL BE REPORTED TO OHIO EPA, THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MIN. OF THE DISCOVERY OF THE RELEASE. ALL SPILLS WHICH CONTACT WATERS OF THE STATE MUST BE REPORTED TO OHIO EPA.
- . CONTAMINATED SOILS. IF SUBSTANCES SUCH AS OIL, DIESEL FUEL, HYDRAULIC FLUID, ANTIFREEZE, ETC. ARE SPILLED, LEAKED, OR RELEASED ONTO THE SOIL, THE SOIL SHOULD BE DUG UP AND DISPOSED OF AT LICENSED SANITARY LANDFILL OR OTHER APPROVED PETROLEUM CONTAMINATED SOIL REMEDIATION FACILITY. (NOT A CONSTRUCTION) DEMOLITION DEBRIS LANDFILL). NOTE THAT STORM WATER RUN OFF ASSOCIATED WITH CONTAMINATED SOILS ARE NOT BE AUTHORIZED UNDER OHIO EPA'S GENERAL STORM WATER PERMIT ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- 9. OPEN BURNING. NO MATERIALS CONTAINING RUBBER, GREASE, ASPHALT, OR PETROLEUM PRODUCTS, SUCH AS TIRES, AUTOPARTS, PLASTICS OR PLASTIC COATED WIRE MAY BE BURNED (OAC 3745-19). OPEN BURNING IS NOT ALLOWED IN RESTRICTED AREAS. WHICH ARE DEFINED AS: 1) WITHIN CORPORATION LIMITS: 2) WITHIN 1000 FEET OUTSIDE A MUNICIPAL CORPORATION HAVING A POPULATION OF 1000 TO 10,000; AND 3) A ONE MILE ZONE OUTSIDE OF A CORPORATION OF 10,000 OR MORE. OUTSIDE OF RESTRICTED AREAS, NO OPEN BURNING IS ALLOWED WITHIN A 1000 FEET OF AN INHABITED BUILDING ON ANOTHER PROPERTY. OPEN BURNING IS PERMISSIBLE IN A RESTRICTED AREA FOR: HEATING TAR, WELDING, SMUDGE POTS AND SIMILAR OCCUPATIONAL NEEDS, AND HEATING FOR WARMTH OR OUTDOOR BARBEQUES. OUTSIDE OF RESTRICTED AREAS, OPEN BURNING IS PERMISSIBLE FOR LANDSCAPE OR LAND-CLEARING WASTES (PLANT MATERIAL, WITH PRIOR WRITTEN PERMISSION FROM OHIO EPA), AND AGRICULTURAL WASTES, EXCLUDING BUILDINGS.
- 10. DUST CONTROL OR DUST SUPPRESSANTS SHALL BE USED TO PREVENT NUISANCE CONDITIONS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND IN A MANNER, WHICH PREVENT A DISCHARGE TO WATERS OF THE STATE. SUFFICIENT DISTANCE MUST BE PROVIDED BETWEEN APPLICATIONS AND NEARBY BRIDGES. CATCH BASINS, AND OTHER WATERWAYS. APPLICATION (EXCLUDING WATER) MAY NOT OCCUR WHEN RAIN IS IMMINENT AS NOTED IN THE SHORT TERM FORECAST, USED OIL MAY NOT BE APPLIED FOR DUST CONTROL.
- 11. OTHER AIR PERMITTING REQUIREMENTS: CERTAIN ACTIVITIES ASSOCIATED WITH CONSTRUCTION WILL REQUIRE AIR PERMITS INCLUDING BUT NOT LIMITED TO: MOBILE CONCRETE BATCH PLANTS, MOBILE ASPHALT PLANTS, CONCRETE CRUSHERS, LARGE GENERATORS, ETC. THESE ACTIVITIES WILL REQUIRE SPECIFIC OHIO EPA AIR PERMITS FOR INSTALLATION AND OPERATION. OPERATORS MUST SEEK AUTHORIZATION FROM THE CORRESPONDING DISTRICT OF OHIO EPA. FOR DEMOLITION OF ALL COMMERCIAL SITES, A NOTIFICATION FOR RESTORATION AND DEMOLITION MUST BE SUBMITTED TO OHIO EPA TO DETERMINE IF ASBESTOS CORRECTIVE ACTIONS ARE REQUIRED.
- 12. PROCESS WASTE WATER/LEACHATE MANAGEMENT. OHIO EPA'S CONSTRUCTION GENERAL PERMIT ONLY ALLOWS THE DISCHARGE OF STORM WATER AND DOES NOT INCLUDE OTHER WASTE STREAMS/DISCHARGES SUCH AS VEHICLE AND/OR EQUIPMENT WASHING, ON-SITE SEPTIC LEACHATE CONCRETE WASH OUTS, WHICH ARE CONSIDERED PROCESS WASTEWATERS. ALL PROCESS WASTEWATERS MUST BE COLLECTED AND PROPERLY DISPOSED AT AN APPROVED DISPOSAL FACILITY. IN THE EVENT, LEACHATE OR SEPTAGE IS DISCHARGED; IT MUST BE ISOLATED FOR COLLECTION AND PROPER DISPOSAL AND CORRECTIVE ACTIONS TAKEN TO ELIMINATE THE SOURCE OF WASTE WATER.
- 13. A PERMIT TO INSTALL (PTI) IS REQUIRED PRIOR TO THE CONSTRUCTION OF ALL CENTRALIZED SANITARY SYSTEMS, INCLUDING SEWER EXTENSIONS, AND SEWERAGE SYSTEMS (EXCEPT THOSE SERVING ONE, TWO, AND THREE FAMILY DWELLINGS) AND POTABLE WATER LINES, PLANS MUST BE SUBMITTED AND APPROVED BY OHIO EPA. ISSUANCE OF AN OHIO EPA CONSTRUCTION GENERAL STORM WATER PERMIT DOES NOT AUTHORIZE THE INSTALLATION OF ANY SEWERAGE SYSTEM WHERE OHIO EPA HAS NOT APPROVED A PTI.

STORMWATER POLLUTION PREVENTION PLAN

SWPPP PREPARATION DATE: MAY 9, 2013



VICINITY MAP

INSTALL SILT FENCE AND CONSTRUCTION ENTRANCE AS SHOWN ON PLANS. (CONTRACTOR SHALL DESIGNATE THE AREA UTILIZED FOR CONSTRUCTION ENTRANCE.)

CONSTRUCTION SEQUENCE

- 2. CLEAR TREES, BRUSH AND STUMPS AS NECESSARY.
- 3. ALL PERIMETER BARRIERS TO BE CONSTRUCTED WITHIN 7 DAYS OF FIRST GRUBBING.
- 4. INSTALL TEMPORARY SEEDING TO ALL STRUCTURAL EROSION INSTALLATIONS PRIOR TO MASS GRADING OF SITE.
- 5. STRIP/STOCKPILE TOPSOIL. STOCKPILES THAT ARE INACTIVE FOR 14 DAYS OR LONGER SHALL BE SEEDED/STABILIZED WITHIN 7 DAYS OF LAST ACTIVITY.
- 6. MASS GRADING
- 7. INSTALL UNDERGROUND UTILITIES AND BUILDING.
- 8. INSTALL INLET PROTECTION.
- 9. BRING PAVEMENT AREAS TO SUB GRADE.
- 10. INSTALL PAVEMENT. AFTER INSTALLATION OF PAVEMENT REPLACE INLET PROTECTION.
- 11. FINISH GRADE, SEED AND MULCH ALL DISTRIBUTED AREAS AND MAINTAIN TEMPORARY EROSION CONTROLS AS REQUIRED.
- 12. UPON COMPLETION AND SITE STABILIZATION, REMOVE ACCUMULATED SEDIMENT AND DEBRIS FROM STORM SYSTEM AND REMOVE SOIL AND EROSION CONTROLS, EXCEPT FOR SILT FENCING. SILT FENCE TO BE REMOVED AFTER 80% OF SITE HAS BEEN STABILIZED.

ADDITIONAL PROVISIONS: 1. INSTALLATION OF SILT FENCING SHALL NOT OCCUR PRIOR TO THE INITIAL PRE-CONSTRUCTION MEETING.

- JUNE 2013

- 2. CONTINUOUSLY SWEEP DRIVES AND STREET AND MAINTAIN CONSTRUCTION ENTRANCE.
- 3. ALL AREAS AT FINAL GRADE OR WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR 14 DAYS OR LONGER SHALL BE STABILIZED WITHIN 7 DAYS OF LAST ACTIVITY.

SITE INFO

SITE DESCRIPTION

- WOODS, GRASS

- BUILDING/ DRIVE ADDITION

AREA OF SITE TO UNDER GO EXCAVATION - 0.99 AC.

PRE-CONSTRUCTION RUNOFF COEFFICIENT - 0.30 POST-CONSTRUCTION RUNOFF COEFFICIENT - 0.90

SCHEDULE OF MAJOR CONSTRUCTION

COMMENCEMENT

COMPLETION - DEC 2013

RECEIVING STREAM & SURFACE WATER ONSITE DRAINAGE FLOWS TO THE WEST SIPPO CREEK

SOILS

CpC2

OWNER/DEVELOPER

FIBERCORR MILLS, LLC 670 17TH STREET NW MASSILLON, OH 44647-5343

ENGINEER / SURVEYOR

HAMMONTREE & ASSOCIATES, LIMITED 5233 STONEHAM ROAD NORTH CANTON, OHIO 44720

BRIAN A. BURKHART PE. CPESC 330-499-8817

bburkhart@hammontree-engineers.com

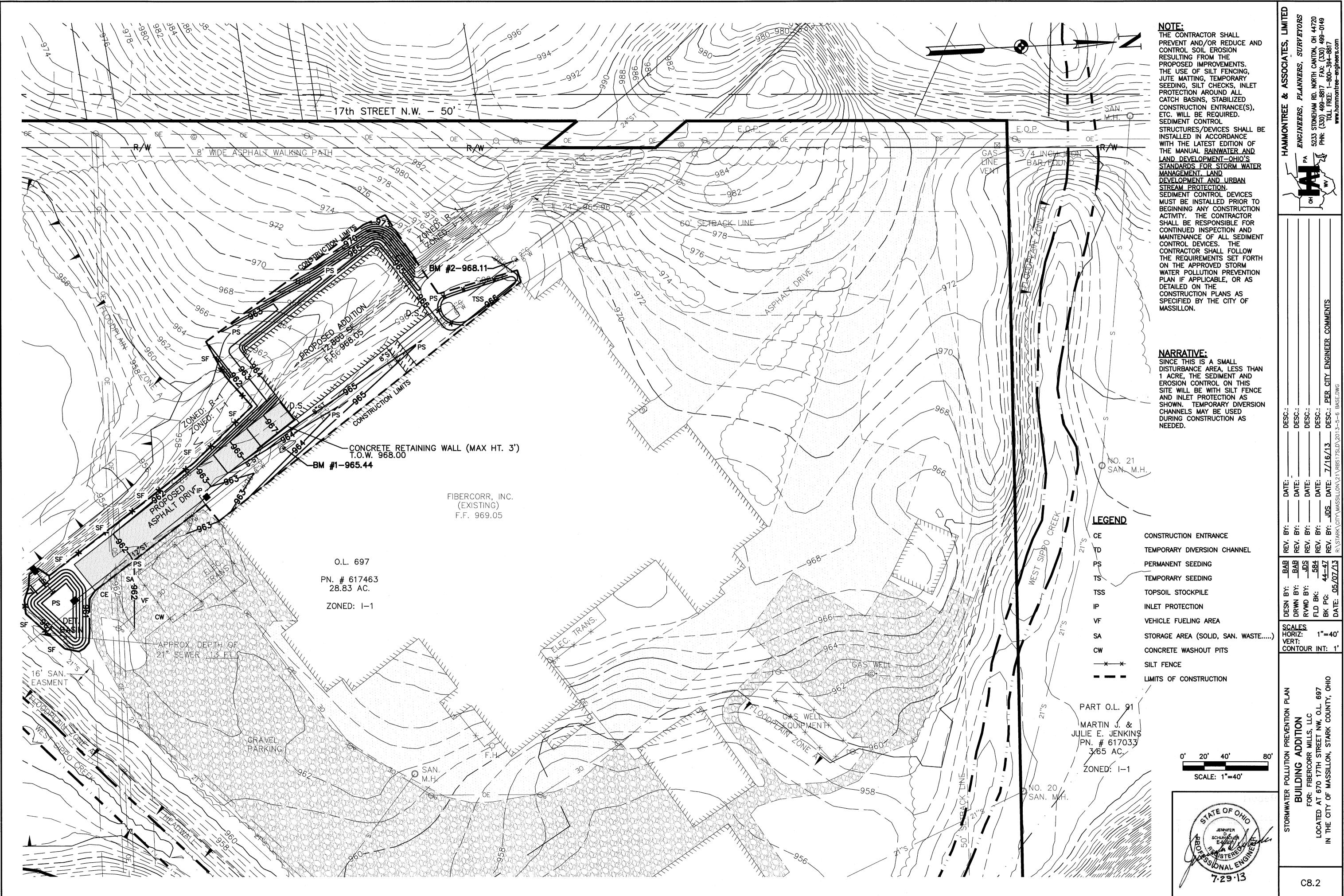


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CONTOUR INT:

ISSUED DATE: 05-09-13



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CONSTRUCTION ENTRANCE

- 1. STONE SIZE: ODOT # 2 (1.5-2.5 INCH) STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
- 2. THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 70 FT. (EXCEPTION: APPLY 30 FT. MINIMUM TO SINGLE RESIDUAL LOTS).
- 3. THICKNESS: THE STONE LAYER SHALL BE AT LEAST 18 INCHES THICK FOR LIGHT OR HEAVY DUTY USE.
- 4. THE ENTRANCE SHALL BE AT LEAST 20 FEET WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
- 5. GEOTEXTILE: A GEOTEXTILE SHALL BE LAID OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS AND MEET THE FOLLOWING SPECIFICATIONS:

GEOTEXTILE SPECIFICATION FOR CONSTRUCTION ENTRANCE

MINIMUM	TENSI	LE	STR	REN
MINIMUM	TEAR	SI	REN	GTH
MINIMUM	ELON	GA"	ΠΟΝ	
PERMITIV	ITY			

50 LBS.

1X10-3 CM/SEC.

MINIMUM PUNCTURE STRENGTH MINIMUM BURST STRENGTH **EQUIVALENT OPENING SIZE**

80 PSI. 320 PSI. EOS < 0.6 MM

- 6. TIMING: THE CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS SOON AS IS PRACTICABLE BEFORE MAJOR GRADING ACTIVITIES.
- 7. CULVERT: A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FROM FLOWING ACROSS THE ENTRANCE OR TO PREVENT RUNOFF FROM BEING DIRECTED OUT ONTO PAVED SURFACES.
- 8. WATER BAR: A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES.
- 9. MAINTENANCE: TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
- 10. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION—SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
- 11. REMOVAL: THE ENTRANCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ENTRANCE.

70 FT. (OR 30 FT FOR ACCESS TO INDIV. HOUSE LOT) 14 FT MIN AND NOT LESS THAN WIDTH OF INGRESS OR EGRESS RIGHT OF WAY DIVERSION AS NEEDED ROAD OR OTHER-PAVED SURFACE 18" OR SUFFICIENT TO DIVERT RUNOFF CULVERT AS NEEDED

TEMPORARY DIVERSION

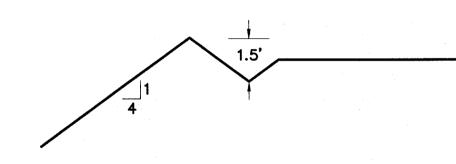
- DRAINAGE AREA SHOULD NOT EXCEED 10 ACRES. LARGER AREAS REQUIRE A MORE EXTENSIVE DESIGN.
- 2. THE CHANNEL CROSS SECTION MAY BE PARABOLIC OR TRAPEZOIDAL. DISK THE BASE OF THE DIKE BEFORE PLACING FILL. BUILD THE DIKE 10% HIGHER THAN DESIGNED FOR SETTLEMENT. THE DIKE SHALL BE COMPACTED BY TRAVERSING WITH TRACKED EARTH-MOVING EQUIPMENT.
- 3. THE MINIMUM CROSS SECTION OF THE LEVEE OR DIKE WILL BE AS FOLLOWS: (MINIMUM DESIGN FREEBOARD SHALL BE 0.3 FOOT.) WHERE CONSTRUCTION TRAFFIC WILL CROSS, THE TOP WIDTH MAY BE MADE WIDER AND THE SIDE SLOPES FLATTER THAN SPECIFIED ABOVE.

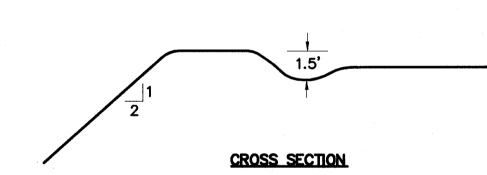
DIKE TOP WIDTH (FT.)	HEIGHT (FT.)	SIDE SLOPES	SHAPE
0	1.5	4.1	TRAPEZOIDAL
4	1.5	2.1	PARABOLIC

- 4. THE GRADE MAY BE VARIABLE DEPENDING UPON THE TOPOGRAPHY, BUT MUST HAVE A POSITIVE DRAINAGE TO THE OUTLET AND BE STABILIZED TO BE NON-EROSIVE.
- 5. OUTLET RUNOFF ONTO A STABILIZED AREA, INTO A PROPERLY DESIGNED WATERWAY, GRADE STABILIZATION STRUCTURE, OR SEDIMENT TRAPPING FACILITY.
- 6. DIVERSIONS SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH THE REQUIREMENTS IN PRACTICE STANDARDS TEMPORARY SEEDING (OR PERMANENT SEEDING) AND MULCHING AS SOON AS THEY ARE CONSTRUCTED OR OTHER SUITABLE STABILIZATION IN ORDER TO PRESERVE DIKE HEIGHT AND REDUCE MAINTENANCE.

TEMPORARY DIVERSION STABILIZATION TREATMENT

SLOPE	< 2 AC.	2 - 5 AC.	5 - 10 AC.
0 - 3%	SEED & STRAW	SEED & STRAW	SEED & STRAW
3 - 5%	SEED & STRAW	SEED & STRAW	MATTING
5 - 8%	SEED & STRAW	MATTING	MATTING
8 - 20%	SEED & STRAW	MATTING	ENGINEERED





NOTE: DIVERSIONS WITH STEEPER SLOPES OR GREATER DRAINAGE AREAS ARE BEYOND THE SCOPE OF THIS STANDARD AND MUST BE DESIGNED FOR STABILITY. SEED, STRAW AND MATTING USED SHALL MEET THE SPECIFICATIONS FOR TEMPORARY SEEDING, MULCHING AND MATTING.

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 THAT MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
- 3. ENDS OF THE SILT FENCES SHALL BE BROUGHT UPSLOPE SLIGHTLY SO THAT WATER PONDED BY THE SILT FENCE WILL BE PREVENTED FROM FLOWING AROUND THE ENDS.
- 4. SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
- 5. 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.
- 6. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- 7. THE SILT FENCE SHALL BE PLACED IN AN EXCAVATED OR SLICED TRENCH CUT A MINIMUM OF 6 INCHES DEEP. THE TRENCH SHALL BE MADE WITH A TRENCHER, CABLE LAYING MACHINE, SLICING MACHINE, OR OTHER SUITABLE DEVICE THAT WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
- 8. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE. A MINIMUM OF 8 INCHES OF GEOTEXTILE MUST BE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6-INCH DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED ON BOTH SIDES OF THE
- 9. SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST WITH A MINIMUM 6-IN. OVERLAP PRIOR TO DRIVING INTO THE GROUND, (SEE DETAILS).
- 10. MAINTENANCE--SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVER\FS20 TOPS THE SILT FENCE, FLOWS UNDER THE FABRIC OR AROUND THE FENCE ENDS, OR IN ANY OTHER WAY ALLOWS A CONCENTRATED FLOW DISCHARGE, 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.

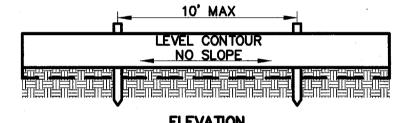
SEDIMENT DEPOSITS SHALL BE ROUTINELY REMOVED WHEN THE DEPOSIT REACHES APPROXIMATELY ONE-HALF OF THE HEIGHT OF THE SILT FENCE.

SILT FENCES SHALL BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING A PROLONGED RAINFALL. THE LOCATION OF EXISTING SILT FENCE SHALL BE REVIEWED DAILY TO ENSURE ITS PROPER LOCATION AND EFFECTIVENESS. IF DAMAGED. THE SILT FENCE SHALL BE REPAIRED IMMEDIATELY.

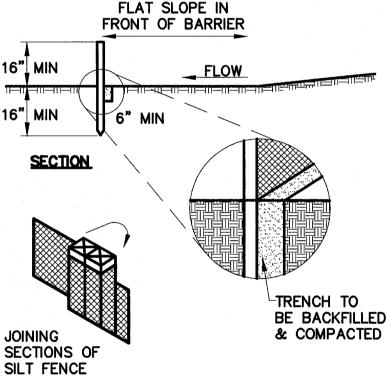
CRITERIA FOR SILT FENCE MATERIALS

- FENCE POST THE LENGTH SHALL BE A MINIMUM OF 32 INCHES. WOOD POSTS WILL BE 2-BY-2-IN. NOMINAL DIMENSIONED HARDWOOD OF SOUND QUALITY. THEY SHALL BE FREE OF KNOTS, SPLITS AND OTHER VISIBLE IMPERFECTIONS THAT WILL WEAKEN THE POSTS. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT. POSTS SHALL BE DRIVEN A MINIMUM 16 INCHES INTO THE GROUND, WHERE POSSIBLE. IF NOT POSSIBLE, THE POSTS SHALL BE ADEQUATELY SECURED TO PREVENT OVERTURNING OF THE FENCE DUE TO SEDIMENT/WATER LOADING.

2.	SILT FENCE FABRIC - SEE CHA	ART BELOW.	
	FABRIC PROPERTIES	VALUES	TEST METHOD
	MIN TENSILE STRENGTH	120 LBS	ASTM D 4632
	MAX. ELONGATION AT 60 LBS	50%	ASTM D 4632
	MIN. PUNCTURE STRENGTH	50 LBS	ASTM D 4833
	MIN. TEAR STRENGTH	40 LBS	ASTM D 4533
	APPARENT OPENING SIZE	0.84 MM	ASTM D 4751
	UV EXPOSURE STRENGTH	70%	ASTM G 4355
	MIN. PERMITIVITY	1X10-2SEC1	ASTM D 4491



ELEVATION



WRAP GEOTEXTILE AROUND STAKES BEFORE DRIVING

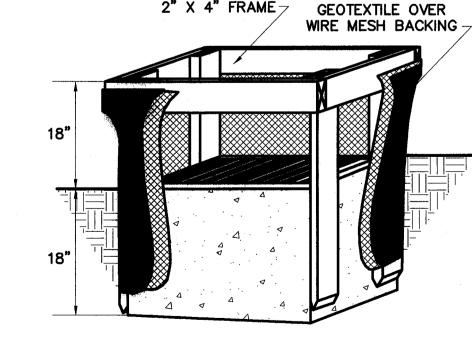
GEOTEXTILE INLET PROTECTION

LENGTH OF RIPRAP OUTLET PROTECTION 0% SLOPE ----ROCK RIPRAP APRON GEOTEXTILE OR GRAVEL BEDDING

ROCK OUTLET PROTECTION

- SUBGRADE FOR THE FILTER OR BEDDING AND RIPRAP SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES AS SHOWN ON THE PLAN. THE SUBGRADE SHALL BE CLEARED OF ALL TREES, STUMPS, ROOTS, SOD, LOOSE ROCK, OR OTHER MATERIAL.
- 2. RIPRAP SHALL CONFORM TO THE GRADING LIMITS AS SHOWN ON THE PLAN.
- 3. GEOTEXTILE SHALL BE SECURELY ANCHORED ACCORDING TO MANUFACTURERS' RECOMMENDATIONS.
- GEOTEXTILE SHALL BE LAID WITH THE LONG DIMENSION PARALLEL TO THE DIRECTION OF FLOW AND SHALL BE LAID LOOSELY BUT WITHOUT WRINKLES AND CREASES. WHERE JOINTS ARE NECESSARY, STRIPS SHALL BE PLACED TO PROVIDE A 12-IN. MINIMUM OVERLAP, WITH THE UPSTREAM STRIP OVERLAPPING THE DOWNSTREAM STRIP.
- 5. GRAVEL BEDDING SHALL BE ODOT NO. 67'S OR 57'S UNLESS SHOWN DIFFERENTLY ON THE DRAWINGS.
- RIPRAP MAY BE PLACED BY EQUIPMENT BUT SHALL BE PLACED IN A MANNER TO PREVENT SLIPPAGE OR DAMAGE TO THE GEOTEXTILE.
- RIPRAP SHALL BE PLACED BY A METHOD THAT DOES NOT CAUSE SEGREGATION OF SIZES. EXTENSIVE PUSHING WITH A DOZER CAUSES SEGREGATION AND SHALL BE AVOIDED BY DELIVERING RIPRAP NEAR ITS FINAL LOCATION WITHIN THE CHANNEL.
- CONSTRUCTION SHALL BE SEQUENCED SO THAT OUTLET PROTECTION IS PLACED AND FUNCTIONAL WHEN THE STORM DRAIN, CULVERT, OR OPEN CHANNEL ABOVE IT BECOMES OPERATIONAL.
- ALL DISTURBED AREAS WILL BE VEGETATED AS SOON AS PRACTICAL.

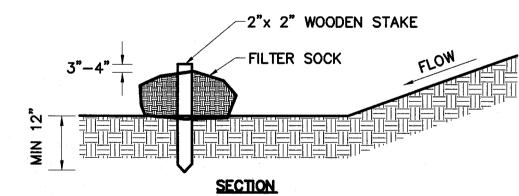
- INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE INLET BECOMES FUNCTIONAL.
- 2. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH AT LEAST 18 INCHES.
- 3. THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2-INCH BY 4-INCH CONSTRUCTION GRADE LUMBER. THE 2-INCH BY 4-INCH POSTS SHALL BE DRIVEN ONE (1) FT. INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2-INCH BY 4-INCH FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADS IF PONDED WATER WILL POSE A SAFETY HAZARD TO TRAFFIC.
- 4. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.



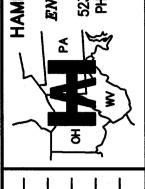
- 5. GEOTEXTILE MATERIAL SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM THE TOP OF THE FRAME TO 18 INCHES BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAP ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.
- 6. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6-INCH LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.
- 7. A COMPACTED EARTH DIKE OR CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION. THE TOP OF THE DIKE SHALL BE AT LEAST 6 INCHES HIGHER THAN THE TOP OF THE FRAME.

FILTER SOCK

- MATERIALS: COMPOST USED FOR FILTER SOCKS SHALL BE WEED, PATHOGEN AND INSECT FREE AND FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH. THEY SHALL BE DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER AND CONSIST OF A PARTICLES RANGING FROM 3/8" TO 2".
- 2. FILTER SOCKS SHALL BE 3 OR 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST PASSING THE ABOVE SPECIFICATIONS FOR COMPOST PRODUCTS.



- 3. FILTER SOCKS WILL BE PLACED ON A LEVEL LINE ACROSS SLOPES, GENERALLY PARALLEL TO THE BASE OF THE SLOPE OR OTHER AFFECTED AREA. ON SLOPES APPROACHING 2:1, ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND AS NEEDED MID-SLOPE.
- 4. FILTER SOCKS INTENDED TO BE LEFT AS A PERMANENT FILTER OR PART OF THE NATURAL LANDSCAPE, SHALL BE SEEDED AT THE TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION.
- 5. FILTER SOCKS ARE NOT TO BE USED IN CONCENTRATED FLOW SITUATIONS OR IN RUNOFF CHANNELS.
- 6. ROUTINELY INSPECT FILTER SOCKS AFTER EACH SIGNIFICANT RAIN, MAINTAINING FILTER SOCKS IN A FUNCTIONAL CONDITION AT ALL TIMES.
- REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE FILTER SOCKS WHEN THEY REACH 1/3 OF THE EXPOSED HEIGHT OF THE PRACTICE.
- WHERE THE FILTER SOCK DETERIORATES OR FAILS, IT WILL BE REPAIRED OR REPLACED WITH A MORE EFFECTIVE ALTERNATIVE.
- 9. REMOVAL: FILTER SOCKS WILL BE DISPERSED ON SITE WHEN NO LONGER REQUIRED IN SUCH AS WAY AS TO FACILITATE AND NOT OBSTRUCT SEEDINGS.



DESN DRWN RVWD FLD BH **SCALES** HORIZ:

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TEMPORARY SEEDING

SEEDING DATES	SPECIES	LB./1000 FT2	LB/ACRE
MARCH 1 TO			
AUGUST 15	OATS	3	128
	TALL FESCUE	1 1	40
	ANNUAL RYEGRASS	i	40
	PERENNIAL RYEGRASS	1	40
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	ANNUAL RYEGRASS	1.25	55
	PERENNIAL RYEGRASS	3.25	142
	CREEPING RED FESCUE	0.40	17
	KENTUCKY BLUEGRASS	0.40	17
	OATS	3	128
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
AUGUST 16TH			
TO NOVEMBER	RYE	3	112
	TALL FESCUE	1 1	40
	ANNUAL RYEGRASS	1	40
	WHEAT	3	120
•	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	PERENNIAL RYE	1	40
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	ANNUAL RYEGRASS	1.25	40
	PERENNIAL RYEGRASS	3.25	40
	CREEPING RED FESCUE	0.40	40
	KENTUCKY BLUEGRASS	0.40	
OVEMBER 1	1105 1411 011 0111 11		
O FEB. 29	USE MULCH ONLY OR DO	DRMANT SEEDING	

NOTE: OTHER APPROVED SPECIES MAY BE SUBSTITUTED.

- STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION SITE.
- TEMPORARY SEED SHALL BE APPLIED BETWEEN CONSTRUCTION OPERATIONS ON SOIL THAT WILL NOT BE GRADED OR REWORKED FOR 14 DAYS OR GREATER. THESE IDLE AREAS SHALL BE SEEDED WITHIN 7 DAYS AFTER GRADING.
- 3. THE SEEDBED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. TEMPORARY SEEDING SHOULD NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.
- 4. SOIL AMENDMENTS: TEMPORARY VEGETATION SEEDING RATES SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION, WHICH MAY REQUIRE THE USE OF SOIL AMENDMENTS. BASE RATES FOR LIME AND FERTILIZER SHALL BE USED.
- SEEDING METHOD: SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SPREADER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPED INTO PLACE USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON-SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT

GRADE TREATMENT

CUT SLOPES-GREATER THAN 3:1 SLOPES

- . STAIR-STEP GRADING MAY BE CARRIED OUT ON ANY MATERIAL SOFT ENOUGH TO BE RIPPED WITH A BULLDOZER. THE RATIO OF THE HORIZONTAL DISTANCE TO THE VERTICAL CUT DISTANCE SHALL BE FLATTER THAN 1:1 AND THE HORIZONTAL PORTION OF THE "STEP" SHALL SLOPE TOWARD THE VERTICAL WALL. INDIVIDUAL VERTICAL CUTS SHALL NOT BE MORE THAN 24 INCHES ON SOFT SOIL MATERIALS AND NOT MORE THAN 36 INCHES IN ROCKY MATERIALS.
- 2. GROOVING MAY BE MADE WITH ANY APPROPRIATE IMPLEMENT WHICH CAN BE SAFELY OPERATED ON THE SLOPE AND WHICH WILL NOT CAUSE UNDUE COMPACTION. SUGGESTED IMPLEMENTS INCLUDE DISCS, TILLERS, SPRING HARROWS, AND THE TEETH ON A FRONT-END LOADER BUCKET. SUCH GROOVES SHALL NOT BE LESS THAN 3 INCHES DEEP NOR FURTHER THAN 15 INCHES APART.

FILL SLOPES-GREATER THAN 3:1 SLOPES

- FILL SLOPES STEEPER THAN 3:1 SHALL BE GROOVED OR ALLOWED TO REMAIN ROUGH AS THEY ARE CONSTRUCTED UTILIZING METHOD (1) OR (2) BELOW.
- GROOVING MAY BE MADE WITH ANY APPROPRIATE IMPLEMENT WHICH CAN BE SAFELY OPERATED ON THE SLOPE AND WHICH WILL NOT CAUSE UNDUE COMPACTION SUCH AS DISCS, TILLERS, SPRING HARROWS, AND THE TEETH ON A FRONT-END LOADER BUCKET. GROOVES LEFT SHALL NOT BE LESS THAN 3 INCHES DEEP NOR FURTHER THAN 15 INCHES APART.
- 2. AS LIFTS OF THE FILL ARE CONSTRUCTED, SOIL AND ROCK MATERIALS MAY BE ALLOWED TO FALL NATURALLY ONTO THE SLOPE SURFACE. AT NO TIME SHALL SLOPES BE BLADED OR SCRAPED TO PRODUCE A SMOOTH, HARD SURFACE.

CUTS, FILLS, AND GRADED AREAS WHICH WILL BE MOWED

- MOWED SLOPES SHOULD NOT BE STEEPER THAN 3:1 AND SHALL AVOID EXCESSIVE ROUGHNESS. THESE AREAS MAY BE ROUGHENED WITH SHALLOW GROOVES SUCH AS THOSE, WHICH REMAIN AFTER TILLING, DISCING, HARROWING, RAKING, OR USE OF A CULTIPACKER-SEEDER. THE FINAL PASS OF ANY SUCH TILLAGE IMPLEMENT SHALL BE ON THE CONTOUR (PERPENDICULAR TO THE SLOPE).
- GROOVES FORMED BY IMPLEMENTS SHALL BE NOT LESS THAN 1 INCH DEEP AND NOT FURTHER THAN 12 INCHES APART. FILL SLOPES THAT ARE LEFT ROUGH DURING CONSTRUCTION MAY BE SMOOTHED WITH A CHAIN HARROW OR SIMILAR IMPLEMENT TO FACILITATE MOWING.

PERMANENT SEEDING

SEED MIX	SEEDING RATE		NOTES:
	LBS./ACRE	LBS./1,000 SQ. FEET	
	GENE	RAL USE	
CREEPING RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	20-40 10-20 20-40	1/2-1 1/4-1/2 1/2-1	FOR CLOSE MOWING & FOR WATERWAYS WITH <2.0 FT/SEC VELOCITY
TALL FESCUE TURF-TYPE (DWARF) FESCUE	40-50 90	1-1 1/4 2 1/4	
	STEEP BANKS	OR CUT SLOPES	
TALL FESCUE CROWN VETCH TALL FESCUE	40-50 10-20 20-30	1-1 1/4 1/4-1/2 1/2-3/4	DO NOT SEED LATER THAN AUGUST
FLAT PEA TALL FESCUE	20-25 20-30	1/2-3/4 1/2-3/4	DO NOT SEED LATER THAN AUGUST
	ROAD DITCHE	ES AND SWALES	
TALL FESCUE TURF-TYPE (DWARF) FESCUE KENTUCKY BLUEGRASS	40-50 80 5	1-1 1/4 2 1/4 0.1	
	L	AWNS	
KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	100-120	2 2	
KENTUCKY BLUEGRASS CREEPING RED FESCUE	100-120	2 1-1/2	FOR SHADED AREAS

1. SUBSOILER, PLOW, OR OTHER IMPLEMENT SHALL BE USED TO REDUCE SOIL COMPACTION AND ALLOW MAXIMUM INFILTRATION. (MAXIMIZING INFILTRATION WILL HELP CONTROL BOTH RUNOFF RATE AND WATER QUALITY.) SUBSOILING SHOULD BE DONE WHEN THE SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING SHALL NOT BE DONE ON SLIP-PRONE AREAS WHERE SOIL PREPARATION SHOULD BE LIMITED TO WHAT IS NECESSARY FOR ESTABLISHING VEGETATION.

- 2. THE SITE SHALL BE GRADED AS NEEDED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION AND SEEDING.
- 3. TOPSOIL SHALL BE APPLIED WHERE NEEDED TO ESTABLISH VEGETATION.

- 1. LIME: AGRICULTURAL GROUND LIMESTONE SHALL BE APPLIED TO ACID SOIL AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, LIME SHALL BE APPLIED AT THE RATE OF 100 POUNDS PER 1,000-SQ. FT. OR 2 TONS PER ACRE.
- FERTILIZER: FERTILIZER SHALL BE APPLIED AS RECOMMENDED BY A SOIL TEST. IN PLACE OF A SOIL TEST, FERTILIZER SHALL BE APPLIED AT A RATE OF 25 POUNDS PER 1,000-SQ. FT. OR 1000 POUNDS PER ACRE OF A 10-10-10 OR 12-12-12 ANALYSES.
- 3. THE LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL WITH A DISK HARROW, SPRING-TOOTH HARROW, OR OTHER SUITABLE FIELD IMPLEMENT TO A DEPTH OF 3 INCHES. ON SLOPING LAND, THE SOIL SHALL BE WORKED ON THE CONTOUR.

SEEDING DATES AND SOIL CONDITIONS:

SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 OR AUGUST 1 TO SEPTEMBER 30. IF SEEDING OCCURS OUTSIDE OF THE ABOVE-SPECIFIED DATES. ADDITIONAL MULCH AND IRRIGATION MAY BE REQUIRED TO ENSURE A MINIMUM OF 80% GERMINATION. TILLAGE FOR SEEDBED PREPARATION SHOULD BE DONE WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. FOR WINTER SEEDING, SEE THE FOLLOWING SECTION ON DORMANT SEEDING.

DORMANT SEEDINGS:

1. SEEDINGS SHOULD NOT BE MADE 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.

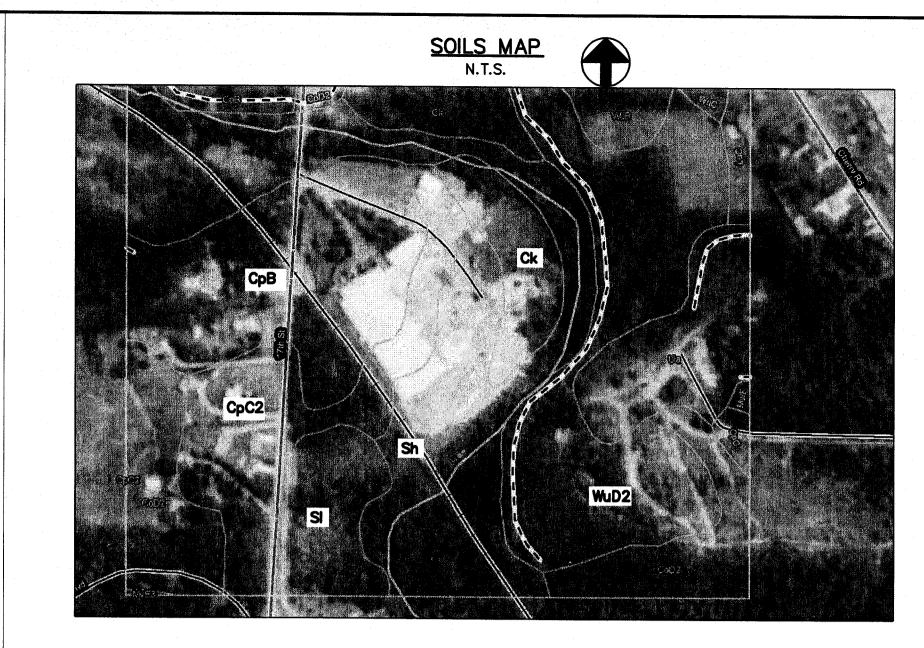
TOPSOILING

SALVAGING AND STOCKPILING:

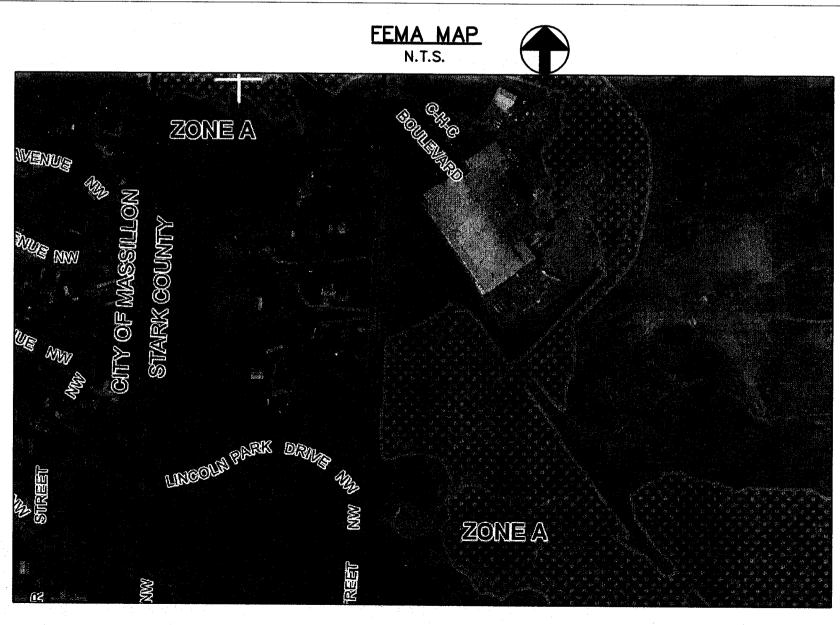
- DETERMINE THE DEPTH AND SUITABILITY OF TOPSOIL AT THE SITE. (FOR HELP, CONTACT YOUR LOCAL SWCD OFFICE TO OBTAIN A COUNTY SOIL SURVEY REPORT).
- 2. PRIOR TO STRIPPING TOPSOIL, INSTALL APPROPRIATE DOWNSLOPE EROSION AND SEDIMENTATION CONTROLS SUCH AS SEDIMENT TRAPS AND BASINS.
- REMOVE THE SOIL MATERIAL NO DEEPER THAN WHAT THE COUNTY SOIL SURVEY DESCRIBES AS "SURFACE SOIL" (IE. A OR AP HORIZON).
- 4. CONSTRUCT STOCKPILES IN ACCESSIBLE LOCATIONS THAT DO NOT INTERFERE WITH NATURAL DRAINAGE. INSTALL APPROPRIATE SEDIMENT CONTROLS TO TRAP SEDIMENT SUCH AS SILT FENCE IMMEDIATELY ADJACENT TO THE STOCKPILE OR SEDIMENT TRAPS OR BASINS DOWNSTREAM OF THE STOCKPILE. STOCKPILE SIDE SLOPES SHALL NOT EXCEED A RATIO OF 2:1.
- 5. IF TOPSOIL IS STORED FOR MORE THAN 21DAYS, IT SHOULD BE TEMPORARY SEEDED, OR COVERED WITH A TARP.

SPREADING THE TOPSOIL

- 1. PRIOR TO APPLYING TOPSOIL, THE TOPSOIL SHOULD BE PULVERIZED.
- 2. TO ENSURE BONDING, GRADE THE SUBSOIL AND ROUGHEN THE TOP 3-4 IN. BY DISKING.
- 3. DO NOT APPLY WHEN SITE IS WET, MUDDY, OR FROZEN, BECAUSE IT MAKES SPREADING DIFFICULT, CAUSES COMPACTION PROBLEMS, AND INHIBITS BONDING WITH SUBSOIL.
- 4. APPLY TOPSOIL EVENLY TO A DEPTH OF AT LEAST 4 INCHES AND COMPACT SLIGHTLY TO IMPROVE CONTACT WITH
- 5. AFTER SPREADING, GRADE AND STABILIZE WITH SEEDING OR APPROPRIATE VEGETATION.







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