GAS LINE MARKER

SANITARY SEWER LINE

SANITARY M.H./ C.O.

STORM SEWER LINE

STORM CATCH BASIN STORM CURB INLET

STORM MANHOLE

STORM HEADWALL

CATCH BASIN

TOP OF GRATE

TOP OF COVER TOP OF CURB

OVERHEAD TELEPHONE LINE

TELEPHONE LINE MARKER

TELEPHONE BOX

TELEPHONE MANHOLE

UNDERGROUND TV LINE

OVERHEAD TV LINE

TV LINE MARKER

TV/CABLE BOX

WATER MANHOLE

WATER METER

WATER VALVE

FIRE HYDRANT

WATER SPRINKLER

MONITORING WELL

WATER LINE

TV/CABLE MANHOLE

WATER LINE MARKER

UNDERGROUND TELEPHONE LINE

CURB INLET

FLOWLINE YARD DRAIN DOWNSPOUT

STORM DOWNSPOUT

STORM SEWER LINE MARKER

SANITARY SEWER LINE MARKER

GAS METER

GAS VALVE GAS TANK GAS WELL

MANHOLE CLEAN OUT

		LEGEND	
0	EX. MONUMENT BOX	G	_
	PROP. MONUMENT BOX	©	
0	EX. MONUMENT (AS NOTED)	©	_
•	5/8" BAR W/ H&A CAP (SET)	Ŋ.	_
•	BENCHMARK (AS NOTED)	©	_
B	BOUNDARY LINE	-©-	_
Ę.	CENTER LINE	SAN	_
LE.	LOT LINE	S	
P	PROPERTY LINE	0	_
R/W	RIGHT OF WAY	M.H.	_
()	RECORD BEARINGS & DIST.	C.O.	_
E.O.P.	EDGE OF PAVEMENT	ST	_
F.F.	FINISH FLOOR	5	_
one supplications constitution	EX. CONTOUR LINE		_
	PROP. CONTOUR LINE		_
-980-	CONTOUR LABEL	0	_
@	BOLLARD		_
- x	FENCE (AS NOTED)		_
0	GUARDRAIL	C.B.	_
D	MAILBOX	C.I.	_
++++++++	RAIL ROAD	T/G	_
_	SIGN	T/C	_
Ġ	H.C. PARKING SPACE	T/CU	_
£3	DECIDIOUS TREE (AS NOTED)	F.	_
*	EVERGREEN TREE (AS NOTED)	Y.D.	_
☆ •	BUSH (AS NOTED)	D.S.	_
-	SOIL BORING	ot	_
1	POLE ANCHOR	UT	_
ф	GUY POLE	□ □	_
ø	GENERAL POLE		_
F	FLAG POLE	(i)	_
ø	LIGHT POLE	OTV	_
	LIGHT & POWER POLE	UTV	_
<u>L</u>	LIGHT, POWER, TELE POLE	⊕	_
\$	LIGHT, POWER, TELE, TV POLE	₹	_
Ø	POWER POLE		_
Ø	TELEPHONE POLE	w	_
₹	TELEPHONE, LIGHT POLE		_
\$\bar{\beta}\$	TELEPHONE, POWER POLE	W	_
P	PULL BOX	W	_
	TRAFFIC CONTROL BOX	×	_
=○	POLE W/ PED. SIGNAL		_
0	POLE W/ TRAFFIC SIGNAL	8	_
— OE — -	OVERHEAD ELECTRIC LINE	<u> </u>	_
— UE — -	UNDERGROUND ELECTRIC LINE		_
(ELECTRIC LINE MARKER		_
E	ELECTRIC BOX		_
E	ELECTRIC MANHOLE		_
(E)	ELECTRIC METER		_
— FO — —	FIBER OPTIC LINE		
(F)	FIBER OPTIC LINE MARKER		_
			_

BE	ENCHMARK	Α			-	
+	CHISELED ON	NORTH	RIM	OF	WATER	MANHOL
±	6' SOUTH OF	SOUTH	EDG	E OF	PAVE	MENT
士	66' SE OF S	W CORNI	ER O	F PF	ROPERT	Υ
±	29' EAST OF	POWER	POLE	Ξ		
EL	EV. 1012.9	11				

BENCHMARK B RAILROAD SPIKE FOUND \pm 1' UP ON NE SIDE OF POWER POLE #2420-03 ON THE SOUTH SIDE OF OBERLIN RD. ± 50' SE OF SE CORNER OF PROPERTY

ELEV. 1002.13

NEW WAREHOUSE BUILDING GAS LINE

LOCATED O.L. 979 IN THE CITY OF MASSILLON, STARK COUNTY, OHIO OCTOBER 2021

ENGINEER / SURVEYOR

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

LEED-AP PHONE- 330-499-8817

JENNIFER D. SCHUMACHER, PE,

jschumacher@hammontree-engineers.com

OWNER/DEVELOPER

CHARLES & RITA STEINMETZ 4922 CHASE RD S.E. CARROLLTON, OHIO 44615

PHONE- 330-283-9464

EMAIL: acechuck@acecleaningexperts.com



SITE ADDRESS: 1350 OBERLIN AVE SW, MASSILLON, OH 44647

SANITARY

UTILITY CONTACTS

ELECTRIC

CITY OF MASSILLON MUNICIPAL GOVERNMENT ANNEX 151 LINCOLN WAY EAST MASSILLON, OH 44646

PH: 330-830-1722

OHIO EDISON 1910 W. MARKET ST, BLDG 1 AKRON, OH 44313 PH: 800-633-4766

WATER

AQUA OHIO 870 THIRD ST NW MASSILLON, OH 44647 ATTN: JACOB FLANARY

PH: 330-832-5764 X50650

<u>GAS</u>

DOMINION EAST OHIO 320 SPRINGSIDE DR, SUITE 320 AKRON, OH 44333

ATTN: BRYAN DAYTON PH: 330-664-2409

TELEPHONE

AT&T OHIO 50 W. BOWERY ST, 6TH FLOOR AKRON, OH 44308 ATTN: WAYNE PROUDFOOT PH: 330-384-3052

CABLE

MASSILLON CABLE TV 814 CABLE COURT MASSILLON, OH 44647 PH: 330-833-5509 INDEX OF SHEETS

	INDEX OF SHEETS	
COVER	C1.1	
GIS SITE PLAN	C2.1	
EXISTING SURVEY PLAN	C2.2	
SITE DIMENSION PLAN	C3.1	
SITE UTILITY PLAN	C4.1	
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SITE NOTES & DETAILS	C6.3	

APPROVALS

ONLY APPROVED SIGN PLANS BY THE CITY ENGINEER ARE TO BE USED FOR

APPROVED BY THE MASSILLON CITY ENGINEER THIS ________, 20 2(...

JASON M. POPIEL, P.E.

CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES, INCLUDING EARTHWORK. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNER AND ENGINEER DURING THE BIDDING PROCESS OF ANY QUANTITY DISCREPANCIES IN THE BID DOCUMENTS. ONCE THE CONSTRUCTION CONTRACT IS ISSUED, THE CONTRACTOR ACKNOWLEDGES THE CONTRACT PRICE COVERS ALL LABOR AND MATERIALS TO SUBSTANTIALLY COMPLETE THE PROJECT ACCORDING TO THE CONSTRUCTION DOCUMENTS.

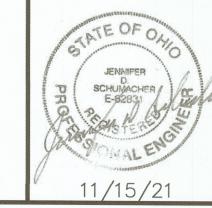
UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig



OHIO811, 8-1-1, or 1-800-362-2764(Non-members must be called directly)

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



C1.1

REV. REV. REV. REV. REV.

DESN BY:
DRWN BY:
RVWD BY:
FLD BK:
BK PG:

CONTOUR INT:

BUILDING
STEINMETZ
E CITY OF MA

WAREHOUSE | CHARLES & RITA SOUT LOT #979, THE STARK COUNTY,

SCALES HORZ:

© 2021 HAMMONTREE & ASSOCIATES, LIMITED - THESE DRAWINGS SHALL NOT BE USED BY ANY PERSON, FIRM OR CORPORATION WITHOUT SPECIFIC WRITTEN PERMISSION FROM HAMMONTREE & ASSOCIATES, LIMITED.

FINEFROCK ROAD S.W. (S.R. #241) S 86°52'21" W 102.79' MASTERS DEAN L PN 619071 1.30 AC OL 980 ZONED: MAS_I1 ASPHALT F.F. 1011.94 EXISTING BUILDING ASPHALT — F.F. 1012.11 5/8" REBAR W/ CAP FOUND & USED BUILDING (UNDER CONSTRUCTION) F.F. 1020.47 EXIST. GRAVEL EXIST. GRAVEL F.F. 1020.48 DATE: DATE: DATE: DATE: DATE: W CAP FOUND & USED STEINMETZ CHARLES M & RITA M TRUSTEES PN 619004 1.66 AC OL 979 REV. REV. REV. REV. REV. ZONED: MAS_I1 /EXIST. GRAVEL DESN BY:
DRWN BY:
RVWD BY:
FLD BK:
BK PG: - 5/8" REBAR W/ CAP FOUND & USED SCALES HORZ: X VERT: X CONTOUR INT: X N 89'01'20" W 450.92' 10" WATER LINE (PER PLAN) I T/C 1002.98
FL 10" VCP (E&W) 994.06
FL (S) 994.38 INV. 12" RCP 1009.38 10") WATER LINE (PER PLAN) I SANITARY MH EROM RECORD PAVED OVER --- SAN ---- ---- SAN -/ BENCHMARK A WATER M.H. BUILDIN STEINMET; E CITY OF T/C_1014.85 HJ HEINZ COMPANY LP
PN 618207
9.89 AC
OL 287
ZONED: MAS_I1 CONC. BENCHMARK B ELEV 1002.13 WAREHOUSE E
CHARLES & RITA S
DUT LOT #979, THE
STARK COUNTY, (HJ HEINZ COMPANY LP PN 618206 4.13 AC HJ HEINZ COMPANY LP PN 618205 2.62 AC OL 287 HJ HEINZ COMPANY LP PN 618208 OL 287 ZONED: MAS_1 ZONED: MAS_I1 5.8 AC OL 287 ZONED: MAS_11 SCALE: 1 INCH = 20' DATA USED CONTOURS: GIS 2018 © 2021 HAMMONTREE & ASSOCIATES, LIMITED - THESE DRAWNGS SHALL NOT BE USED BY ANY PERSON, FIRM OR BOUNDARY SURVEY BY H&A DATED 2006 CORPORATION WITHOUT SPECIFIC WRITTEN PERMISSION FROM HAMMONTREE & ASSOCIATES, LIMITED. C2.1

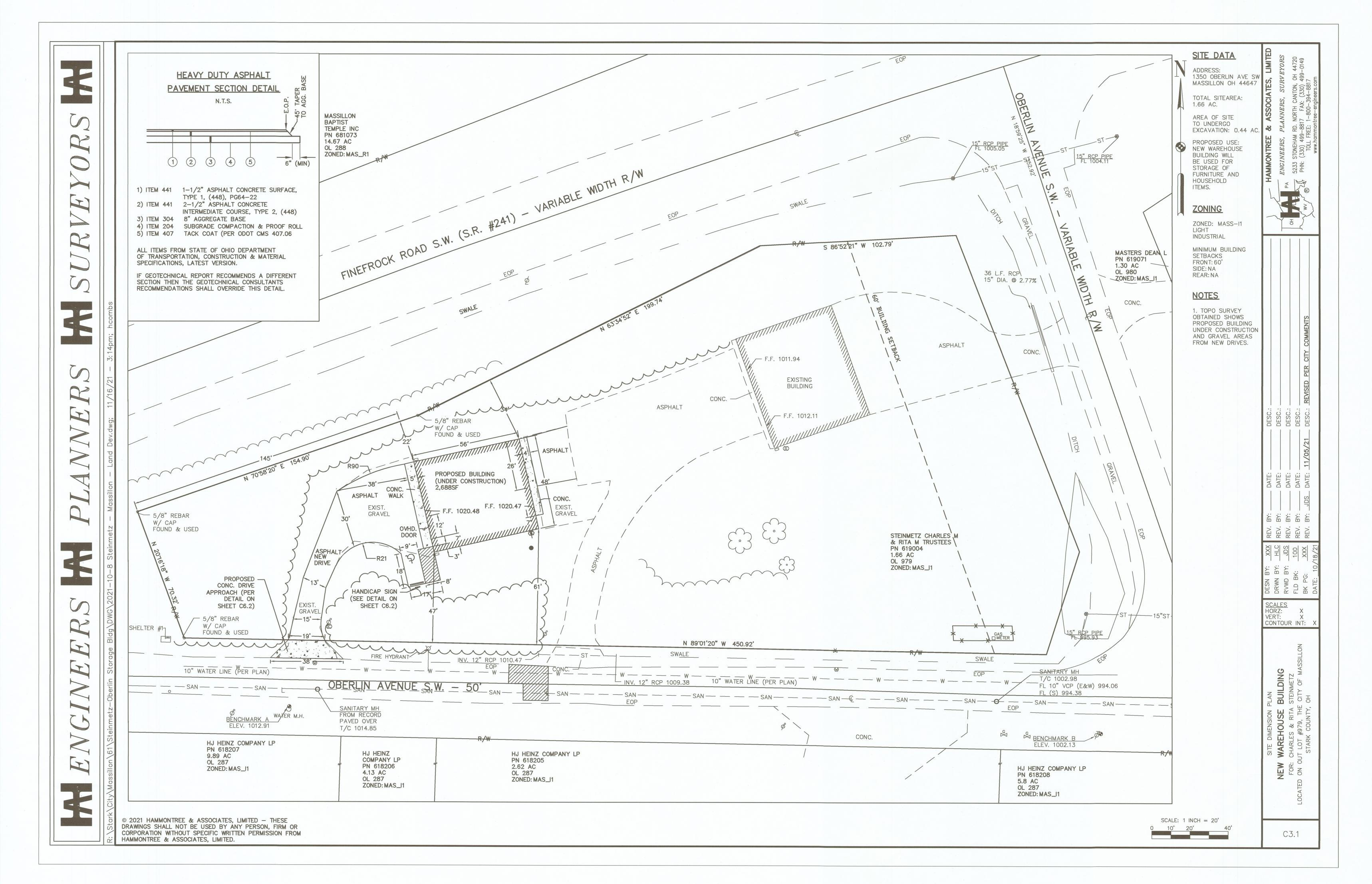
MASSILLON BAPTIST TEMPLE INC PN 681073 14.67 AC OL 288 ZONED: MAS_R1 I S 86'52'21" W 102.79' MASTERS DEAN L PN 619071 1.30 AC OL 980 ZONED: MAS_I1 36 L.F. RCP\ 15" DIA. @ 2.77% \ CONC. **ASPHALT** CONC. - F.F. 1011.94 EXISTING BUILDING CONC. 5/8" REBAR
W/ CAP
FOUND & USED — F.F. 1012.11 PROPOSED BUILDING (UNDER CONSTRUCTION) 2,688SF EXIST. GRAVEL EXIST. GRAVEL DATE: DATE: DATE: DATE: DATE: __ 5/8" REBAR W/ CAP FOUND & USED STEINMETZ CHARLES M & RITA M TRUSTEES PN 619004 1.66 AC OL 979 ZONED: MAS_I1 EXIST. W/ CAP FOUND & USED SHELTER #17 SCALES
HORZ: X
VERT: X
CONTOUR INT: N 89'01'20" W 450.92' MM 10" WATER LINE (PER PLAN) SANITARY MH 10" WATER LINE (PER PLAN) T/C 1002.98 I INV. 12" RCP 1009.38 FL 10" VCP (E&W) 994.06 FL (S) 994.38 I EXISTING SURVEY PLAN

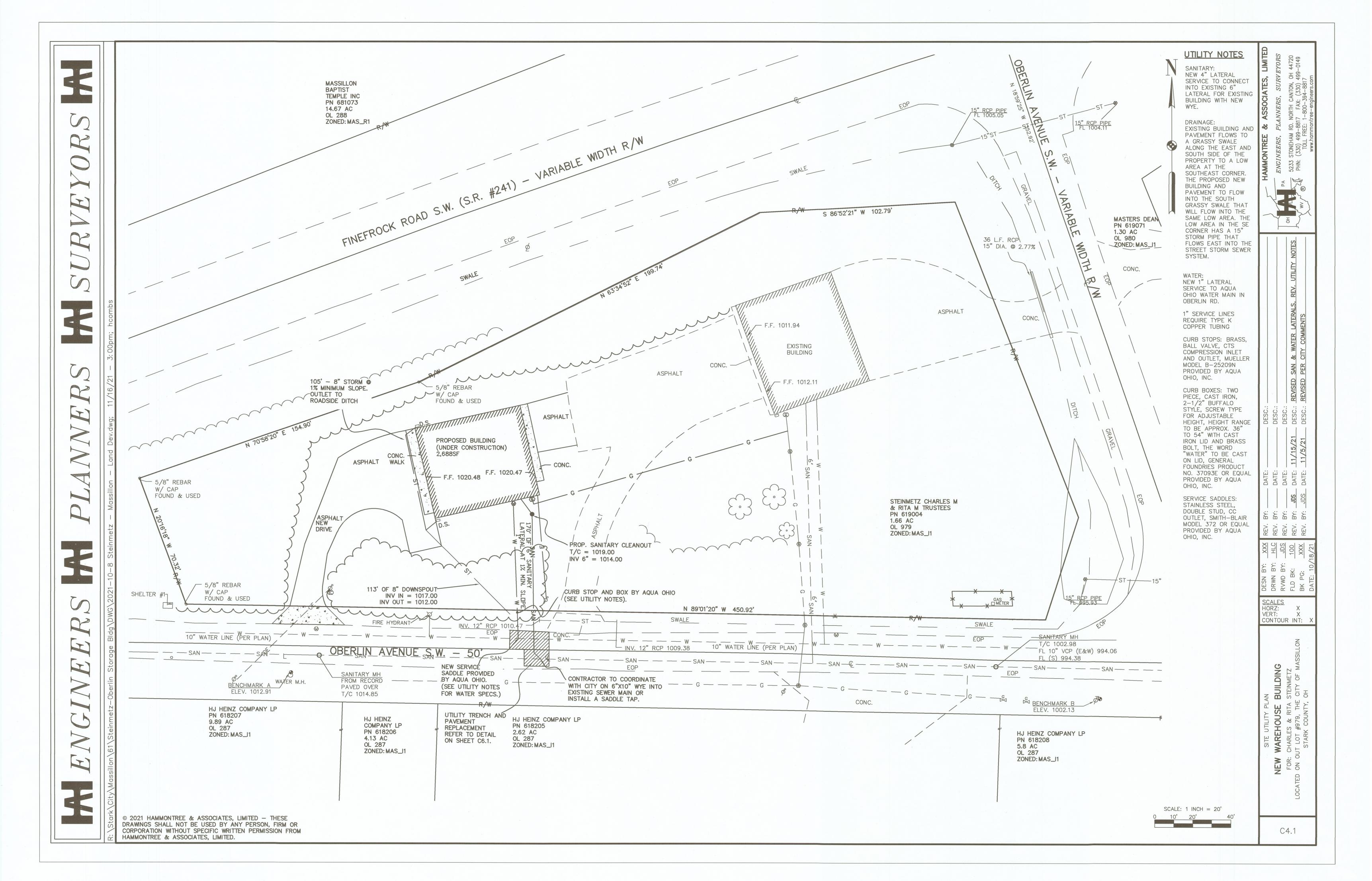
WAREHOUSE BUILDING

: CHARLES & RITA STEINMETZ

OUT LOT #979, THE CITY OF MAS

STARK COUNTY, OH SANITARY MH FROM RECORD BENCHMARK A WATER M.H.
ELEV. 1012.91 PAVED OVER T/C 1014.85 BENCHMARK B ELEV. 1002.13 CONC. HJ HEINZ COMPANY LP PN 618207 HJ HEINZ HJ HEINZ COMPANY LP 9.89 AC PN 618205 2.62 AC OL 287 COMPANY LP OL 287 ZONED: MAS_I1 PN 618206 HJ HEINZ COMPANY LP 4.13 AC PN 618208 OL 287 ZONED: MAS_I1 5.8 AC ZONED: MAS_I1 OL 287 ZONED: MAS_I1 I NEW FOR: SCALE: 1 INCH = 20' © 2021 HAMMONTREE & ASSOCIATES, LIMITED - THESE DRAWINGS SHALL NOT BE USED BY ANY PERSON, FIRM OR C2.2 CORPORATION WITHOUT SPECIFIC WRITTEN PERMISSION FROM HAMMONTREE & ASSOCIATES, LIMITED.





MASSILLON BAPTIST TEMPLE INC PN 681073 14.67 AC OL 288 ZONED: MAS_R1 **LEGEND** CONSTRUCTION ENTRANCE PS PERMANENT SEEDING TS TEMPORARY SEEDING TOPSOIL STOCKPILE STORAGE AREA (SOLID, SAN. WASTE) CONCRETE WASHOUT PITS SILT FENCE ----SF----LIMITS OF CONSTRUCTION I S 86°52'21" W 102.79' SEE SHEETS C6.2 & C6.3 FOR DETAILS OF THE ABOVE EROSION CONTROL ITEMS. 36 L.F. RCP\ 15" DIA. @ 2.77% ASPHALT CONC. — F.F. 1011.94 CONSTRUCTION LIMITS 0.44 ACRES DISTURBED EXISTING BUILDING **ASPHALT** F.F. 1012.11 PROPOSED BUILDING (UNDER CONSTRUCTION) 2,688SF ASPHALT WALK F.F. 1020.47 W/ CAP FOUND & USED STEINMETZ CHARLES M & RITA M TRUSTEES PN 619004 1.66 AC OL 979 ZONED: MAS_J1 ASPHALT NEW DRIVE DESN BY:
DRWN BY:
RVWD BY:
FLD BK:
BK PG: W/ CAP FOUND & USED SHELTER #17 SCALES
HORZ: X
VERT: X
CONTOUR INT: N 89°01'20" W 450.92' 10" WATER LINE (PER PLAN) SANITARY MH _T/C 1002.98 FL 10"VCP (E&W) 994.06 10" WATER LINE (PER PLAN) - INV. 12" RCP 1009.38 I FL (S) 994.38 I -- SAN --- -- SAN SANITARY MH FROM RECORD PAVED OVER SWPP PLAN

BUILDING

A STEINMETZ

HE CITY OF MAS

Y, OH ELEV. 1012.91 T/C 1014.85 CONC. HJ HEINZ COMPANY LP ELEV. 1002.13 WAREHOUSE I
WAREHOUSE I
CHARLES & RITA
DUT LOT #979, THE
STARK COUNTY, BENCHMARK A PN 618207 HJ HEINZ HJ HEINZ COMPANY LP 9.89 AC CHISELED ON NORTH RIM OF WATER MANHOLE COMPANY LP PN 618205 OL 287 ± 6' SOUTH OF SOUTH EDGE OF PAVEMENT PN 618206 2.62 AC ZONED: MAS_I1 HJ HEINZ COMPANY LP ± 66' SE OF SW CORNER OF PROPERTY 4.13 AC OL 287 PN 618208 ± 29' EAST OF POWER POLE OL 287 ZONED: MAS_I1 5.8 AC ELEV. 1012.91 ZONED: MAS_I1 OL 287 ZONED: MAS_11 BENCHMARK B I RAILROAD SPIKE FOUND \pm 1' UP ON NE SIDE OF POWER POLE #2420-03 ON THE SOUTH SIDE OF OBERLIN RD. ± 50' SE OF SE CORNER OF PROPERTY **FLOODPLAIN** ELEV. 1002.13 SUBJECT PROPERTY IS IN ZONE 'X' SCALE: 1 INCH = 20' AREA OF MINIMAL FLOODING PER FEMA MAP 39151C0193E. DATED © 2021 HAMMONTREE & ASSOCIATES, LIMITED - THESE 9/29/2011. DRAWINGS SHALL NOT BE USED BY ANY PERSON, FIRM OR C5.1 CORPORATION WITHOUT SPECIFIC WRITTEN PERMISSION FROM HAMMONTREE & ASSOCIATES, LIMITED.

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.
- 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; ALL WATER LATERALS 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.

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

7. SANITARY:

SANITARY LATERAL SHALL BE A MINIMUM 6" DIAMETER 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.

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.
- 9. 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 LINES.
- 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.

CITY OF MASSILLON SANITARY SEWER SPECIFICATIONS

SANITARY SEWER CONSTRUCTION PROPOSED FOR THIS PROJECT SHALL CONFORM TO THE LATEST CITY OF MASSILLON STANDARDS AND CONSTRUCTION AND MATERIALS SPECIFICATIONS, TEN STATE STANDARDS, AND THE LATEST EDITION OF THE ODOT CMS, OR MODIFIED BY THE CONTRACT DRAWINGS. IF A CONFLICT ARISES BETWEEN SAID STANDARDS IT SHALL BE AT THE DISCRETION OF THE CITY OF MASSILLON ENGINEER AS TO WHICH STANDARD SHALL GOVERN. THE PROJECT CONTRACT DRAWINGS SHALL GOVERN UNLESS NOTED OTHERWISE.

SANITARY GRAVITY SEWER PIPE AND FITTINGS SHALL BE PVC SDR 35 CONFORMING TO ASTM D-3034 UNLESS OTHERWISE NOTED. PVC COMPOUNDS SHALL CONFORM TO ASTM D-1784 PVC PIPE AND FITTINGS SHALL HAVE BELL AND SPIGOT TYPE JOINTS CONFORMING TO ASTM-3212 AND GASKETS CONFORMING TO ASTM F-477.

BACKFILL IN SEWER TRENCHES SHALL CONFORM TO ODOT ITEM 603.10 AND BE PLACED IN LAYERS SUFFICIENT TO MEET THE COMPACTION REQUIREMENT OF 100% OF MAXIMUM LABORATORY DRY DENSITY PER ASTM D-698 AND THOROUGHLY COMPACTED WITH MACHINE MOUNDED COMPACTION EQUIPMENT. THE PLACING OF BACKFILL MATERIAL SHALL BE CONTINUED UNTIL THE TRENCH IS ENTIRELY FILLED AND COMPACTED WITH THE APPROVED GRANULAR MATERIAL TO THE GRADE CALLED FOR ON THE CONTRACT DRAWINGS. EXCAVATED MATERIAL CONFORMING TO ODOT 203 SHALL BE USED FOR BACKFILLING EXISTING STRUCTURES (AFTER REMOVAL) ONLY. CRUSHED GRAVEL CONFORMING TO GRADATION REQUIREMENTS OF ODOT ITEM 304 OR APPROVED EQUAL AS SHOWN ON ODOT TABLE 703-1 SHALL BE USED FOR BACKFILLING ALL SEWER TRENCH AREAS SHOWN ON THE PLANS AND AS DIRECTED BY THE CITY OF MASSILLON ENGINEER. FLOODING, JETTING, OR PUDDLING OF BACKFILL MATERIAL WILL NOT BE PERMITTED UNLESS APPROVED BY THE CITY OF MASSILLON ENGINEER.

AQUA OHIO-WATER LINE NOTES

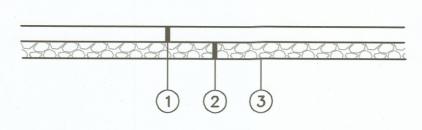
- WATERLINES AND APPURTENANCES SHALL BE CONSTRUCTED ACCORDING TO AQUA OHIO SPECIFICATIONS AND DETAILS IN EFFECT AT TIME OF CONSTRUCTION. ANY SITUATION REQUIRING A MODIFICATION TO SAID STANDARDS & SPECIFICATIONS MUST FIRST BE APPROVED BY AQUA OHIO.
- 2. PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH AQUA OHIO.
- 3. THE CONTRACTOR SHALL ALERT THE UTILITIES PROTECTION SERVICE AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.
- APPROVAL BY AQUA OHIO CONSTITUTES NEITHER EXPRESSED NOR IMPLIED WARRANTIES AS TO FITNESS, ACCURACY, OR SUFFICIENCY OF PLANS, DESIGNS OR SPECIFICATIONS.
- 5. ALL ROUGH GRADING TO WITHIN SIX (6) INCHES OF FINISHED GRADE SHALL BE COMPLETED WITHIN EASEMENTS AND RIGHTS-OF-WAY PRIOR TO WATERLINE CONSTRUCTION.
- 6. MINIMUM VERT. CLEARANCE BETWEEN WATERLINE AND SANITARY SEWER SHALL BE 18 INCHES. MINIMUM HORIZ. SEPARATION SHALL BE 10 FT, MINIMUM VERT. CLEARANCE BETWEEN WATERLINE AND STORM SEWER SHALL BE 12 INCHES. MINIMUM HORIZ. SEPARATION SHALL BE 4 FT.
- 7. WATER SERVICE LINES SHALL TERMINATE 5 FT. FROM THE BUILDING FOUNDATION.
- 8. DCIP WATER MAIN PIPE SHALL CONFORM TO AWWA C-151, AWWA C-111 FOR JOINTS.
- 9. WATER MAIN PRESSURE TESTING SHALL CONFORM TO AWWA C-600.
- 10. WATER MAIN DISINFECTION SHALL CONFORM TO AWWA C-651.
- 11. MINIMUM COVER OVER WATERLINES SHALL BE FOUR (4) FT.
- 12. HYDRANTS SHALL BE MUELLER A-423 CENTURION OR APPROVED EQUAL 3-WAY, WITH 4 1/2" NOZZLE CONNECTION FOR FIRE HOSE.
- 13. TYPE "II" HYDRANT REFERS TO 90 DEGREE TEE ASSEMBLY OFF OF MAIN LINE, COMPLETE WITH ALL VALVES AND APPURTENANCES. THE CONTRACTOR SHALL REFER TO AQUA OHIO SPECIFICATIONS AND DETAILS.
- 14. FIRE HYDRANTS SHALL BE FIELD PAINTED RED & YELLOW (2 COATS).
- 15. HYDRANTS, HYDRANT VALVES, MAINLINE VALVE BOXES AND CURB BOXES SHALL NOT BE LOCATED WITHIN SIDEWALKS, DRIVEWAYS, OR APRONS.
- 16. BLOW-OFF HYDRANTS SHALL HAVE 2" INLET, 2" OUTLET AND RISER PIPE, AND SHALL BE ECLIPSE NO. TF500, OR APPROVED EQUAL.
- 17. BACKFILLING BELOW OR WITHIN 3 FT OF EXISTING OR PROPOSED ROADWAY, DRIVEWAY, SIDEWALK OR WALL SHALL BE TYPE 1 OR TYPE 2 STRUCTURAL BACKFILL IN ACCORDANCE WITH THE BACKFILL REQUIRED FOR STORM SEWER, ODOT
- 18. ALL PIPE JOINTS WITHIN 40 LF OF ANY DEAD END SHALL BE RESTRAINED BY USING FIELD LOCK GASKETS, OR MEGA LUGS ON MECHANICAL JOINTS. ALL PIPE JOINTS WITHIN 40 LF OF ANY BEND, FITTING, VALVE OR TEE SHALL ALSO BE RESTRAINED BY USING FIELD LOCK GASKETS OR MEGA LUGS. IN ADDITION, POURED-IN-PLACE CONCRETE THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS, TEES AND PLUGS TO PREVENT MOVEMENT OF THE WATER LINE. BLOCKING SHALL BE CAREFULLY PLACED TO ENSURE IT IS POSITIONED PROPERLY TO WITHSTAND THE RESULTANT FORCES AT EACH BEND, FITTING, ETC. AND SHALL BEAR ON STABLE UNDISTURBED GROUND CAPABLE OF WITHSTANDING THE POTENTIAL LOAD.
- 19. A PRESSURE REDUCING VALVE WILL BE NEEDED AFTER EACH METER.

AQUA OHIO MATERIAL SPECIFICATIONS

- 1. DUCTILE IRON PIPE: PUSH-ON JOINTS, CEMENT LINED, PRESSURE CLASS 350 FOR 4 INCH THROUGH 12 INCH. THICKNESS CLASS 52 FOR 16 INCH, MANUFACTURING STANDARDS AWWA C150 AND C151. POLYETHYLENE ENCASEMENT SHALL BE INSTALLED ON ALL DUCTILE PIPE AND FITTINGS.
- 2. DUCTILE IRON FITTINGS (TEES, CROSSES, BENDS, REDUCERS, SLEEVES, COUPLINGS AND PLUGS.): MECHANICAL JOINT, TEES, CROSSES, BENDS AND REDUCERS ARE TO BE CEMENT LINED; WORKING PRESSURE RATING 250 PSI, MANUFACTURING STANDARDS ANSI A21.53, ANSI A21.4 AND ANSI A21.10. COMPACT STYLE IS ACCEPTABLE. RETAINER GLANDS SHALL BE INSTALLED WHEREVER THERE IS A POSSIBILITY OF JOINT SEPARATION.
- 3. FIRE HYDRANTS: POST TYPE, BREAKABLE FLANGE DESIGN FOR TRAFFIC COLLISIONS, 5 1/4" DIAMETER MAIN VALVE. ONE 4 1/2" PUMPER AND TWO 2 1/2" HOSE NOZZLES, 6" MJ INLET, MAIN VALVE TO OPEN LEFT, DIRECTION OF OPENING TO BE INDICATED WITH ARROW CAST ON HYDRANT, TO BE DESIGNED FOR 5 FOOT TRENCH, NATIONAL STANDARD THREADS ON NOZZLES, O-RING PACKING PREFERRED, TYPE 304 STAINLESS STEEL BOLTS AND NUTS, OPERATING NUT AND NUT ON CAPS: 1 1/2" PENTAGON, COLOR YELLOW PAINT ON BODY TRIMMED WITH RED PAINT ON BONNET AND CAPS, AWWA STANDARD C502, MUELLER CENTURION A423, US PIPE M-94, CLOW MEDALLION OR AMERICAN DARLING B-84-B.
- TAPPING VALVES: RESILIENT SEAT, IRON BODY, STAINLESS STEEL BONNET BOLTS AND NUTS, MECHANICAL JOINT ACCESSORIES, NON-RISING STEM, FOR UNDERGROUND SERVICE, O-RING PACKING PREFERRED, OPEN RIGHT (CLOCKWISE) 2 INCH SQUARE OPERATING NUT, MANUFACTURING STANDARDS AND PRESSURE RATINGS AWWA SPECIFICATION C500.
- 5. 4" THROUGH 12" GATE VALVES: RESILIENT SEAT, IRON BODY, STAINLESS STEEL BONNET BOLTS AND NUTS. MECHANICAL JOINT ACCESSORIES, NON-RISING STEM, FOR UNDERGROUND SERVICE, O-RING PACKING PREFERRED. OPEN RIGHT (CLOCKWISE), 2 INCH SQUARE OPERATING NUT, MANUFACTURING STANDARDS AND PRESSURE RATINGS AWWA C509, MUELLER A-2360 OR EQUAL.
- 6. VALVE BOXES: TWO PIECE, CAST IRON, SCREW TYPE FOR ADJUSTABLE HEIGHT, HEIGHT RANGE TO BE APPROXIMATELY 36 TO 60 INCHES. THEY ARE TO INCLUDE A WELL FITTING CAST IRON LID, THE WORD "WATER" TO BE CAST ON LID, B SIZE.
- 7. 2" WATER MAIN: 2" WATER MAIN SHALL BE SOFT DRAWN TYPE "K" COPPER TUBING OR HIGH DENSITY POLYETHYLENE PLASTIC (HDPE), COPPER TUBE SIZE, AS CALLED OUT ON THE PLAN. IF HDPE IS USED, IT SHALL BE 200 PSI, SDR 9 WITH MARKING TAPE AND A 12 GAUGE COPPER TRACER WIRE LAID IN THE TRENCH. BRASS COMPRESSION FITTINGS SHALL BE USED. STAINLESS STEEL STIFFENERS ARE NECESSARY AT EACH JOINT.
- 8. POLYETHYLENE ENCASEMENT: EIGHT MIL THICK POLYETHYLENE TUBE MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C105/A21.5. POLYETHYLENE ADHESIVE TAPE, 1 1/2" WIDE, IS TO SEAL JOINTS.
- 9. BLOW OFF ASSEMBLIES: KUPFERLE FOUNDRY TF500 OR APPROVED EQUAL. INSTALL IN VALVE BOX. INSTALL 2" CURB STOP WITH CURB BOX AHEAD OF EACH BLOW OFF.

SIDEWALK SECTION DETAIL

N.T.S.



1) ITEM 608 ** 4" CONCRETE WALK (5" THICK IN R/W) 2) ITEM 304 4" AGGREGATE BASE 3) ITEM 204 SUBGRADE COMPACTION

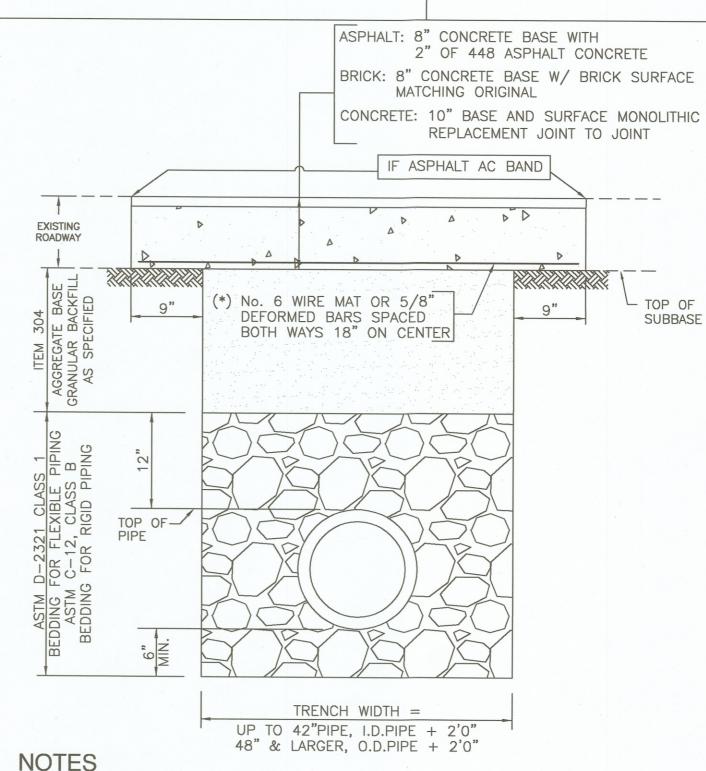
CONTRACTOR TO SUBMIT SHOP DRAWINGS OF PAVEMENT JOINT LOCATIONS.

ALL ITEMS FROM STATE OF OHIO DEPARTMENT OF TRANSPORTATION, CONSTRUCTION & MATERIAL SPECIFICATIONS, LATEST VERSION.

** IF SIDEWALK IS TO BE REINFORCED, MINIMUM THICKNESS SHALL BE 5". IF SIDEWALK IS PLACED ACROSS A DRIVE ACCESS, THE THICKNESS SHALL BE 6" (LIGHT DUTY) OR 8" (HEAVY DUTY).

Kathy Catazaro-Perry, Mayor CITY OF MASSILLON ENGINEERING 151 LINCOLN WAY EAST
MASSILLON, OHIO (330)830–1722
EAV. (330)830–1722 FAX: (330)830-1786

TRENCH DETAIL ROADWAY/DRIVEWAY



- (1) CONCRETE BASE SHALL BE OF 1:2:4, 6 BAG MIX, PORTLAND CEMENT CONCRETE USING HIGH EARLY STRENGTH CEMENT AND IT MUST BE CURED AT LEAST 48 HRS.
- (*) MUST BE USED WHEN WIDTH OF TRENCH IS GREATER AT THE SUBBASE. FIBER CONCRETE BASE MAY BE USED IN LIEU OF THE BARS.

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ACCESSIBLE PARKING SIGN N.T.S. DETAIL TO BE USED FOR SIGNS INSTALLED OUTSIDE PAVED AREAS. PARKING SIGNS ARE TO CONFORM WITH THE LATEST SPECIFICATIONS FROM THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND ODOT CMS ITEM 630. SIGNS SHALL COMPLY TO ALL ADA CODES. R7-H8bP-SIGNS WILL BE MOUNTED MINIMUM ON GALVANIZED POST OR ON WALL (WHERE APPLICABLE). *R7-8P-* ALL PARKING STALLS ACCESSIBLE DESIGNATED AS "VAN" AS SHOWN IN PLAN VIEW SHALL HAVE SIGN R7-8P. - GROUND MOUNTED SUPPORT, NO. 2 POST (U-CHANNEL **FINISHED** OR SQUARE) GRADE -WEXTEND POST TO A DEPTH OF 42" MIN. BELOW FINISHED GRADE

HANDICAPPED PARKING LOGO DETAIL N.T.S. 36" BACKGROUND WIDTH 24" SYMBOL WIDTH **©** PARKING STALL -BOTTOM EDGE OF SYMBOL BOX SHALL MATCH END OF STALL STRIPE AT DRIVE AISLE 1) SYMBOL - 4" WIDTH, WHITE (2) BACKGROUND (OPTIONAL) - BLUE (4" BORDER OPTIONAL)

DRIVEWAY APPROACH DETAIL CITY OF MASSILLON ENGINEERING 151 LINCOLN WAY FAST Massillon MASSILLON, OHIO (330)830-1722 FAX: (330)830-1786 ans Ma DRIVE WIDTH 1"/FT. MAX. L = 1/2 TREE LAWN WIDTH, 1'-6" MIN. (A)DRIVE WIDTH COMMERCIAL DRIVE WIDTH 40' MAX. -STANDARD 18" DROPPED CURB TRANSITION— DRIVE PLAN 5'-0" **VARIES** DRIVE APPROACH -3" RAD. -6" ABOVE CROWN 1/4"/FT. COMM. 9" CONCRETE WALK COMM. 9" PORTLAND CONCRETE CEMENT NOTE DRIVE PROFILE

ANY DEVIATION FROM THIS MUST BE APPROVED BY THE CITY ENGINEER.

CONCRETE SHALL BE 4000 PSI CLASS C

FILTER SOCK

3"-4"

1. 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.

7. REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE FILTER SOCKS WHEN THEY REACH 1/3 OF THE EXPOSED HEIGHT OF THE PRACTICE.

8. 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.

- 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.

SILT FENCE

- 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 FABRIC.
- 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.

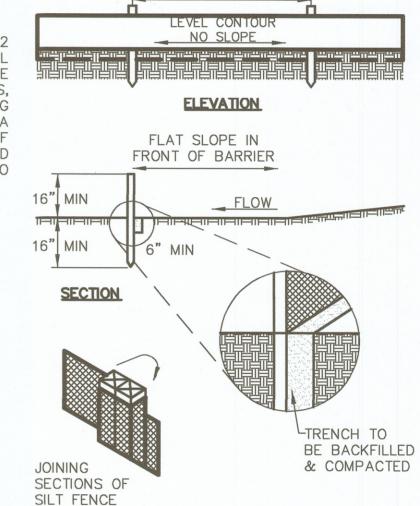
SILT FENCES SHALL BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING A PROLONGED RAINFALL. THE LOCATION OF EXISTING SILT FENCE SHALL BE REVIEWED DAILY TO ENSURE ITS PROPER LOCATION AND EFFECTIVENESS. IF DAMAGED, THE SILT FENCE SHALL BE REPAIRED IMMEDIATELY.

CRITERIA FOR SILT FENCE MATERIALS

1. 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 FARRIC - SEE CHART RELOW

۷.	SILI 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



WRAP GEOTEXTILE AROUND STAKES BEFORE DRIVING

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 TENSILE STRENGTH MINIMUM TEAR STRENGTH MINIMUM ELONGATION PERMITIVITY

50 LBS. 20% 1X10-3 CM/SEC.

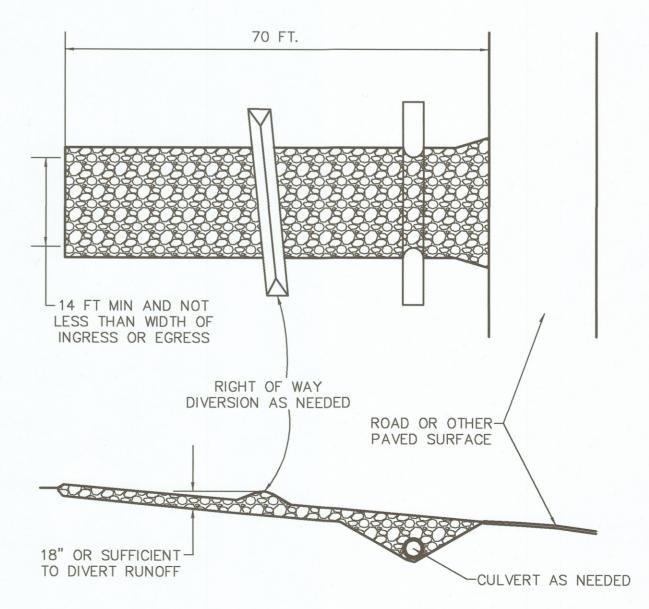
MINIMUM PUNCTURE STRENGTH MINIMUM BURST STRENGTH EQUIVALENT OPENING SIZE

∠2"x 2" WOODEN STAKE

SECTION

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.



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CONTOUR INT:

BUILDING
STEINMETZ
E CITY OF MA

WAREHOUSE
CHARLES & RITA
UT LOT #979

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FI

TEMPORARY SEEDING

SEEDING DATES	SPECIES	LB./1000 FT2	LB/ACRE
MARCH 1 TO AUGUST 15	OATS TALL FESCUE ANNUAL RYEGRASS	3 1 1	128 40 40
	PERENNIAL RYEGRASS TALL FESCUE ANNUAL RYEGRASS	1 1 1	40 40 40
	ANNUAL RYEGRASS PERENNIAL RYEGRASS CREEPING RED FESCUE KENTUCKY BLUEGRASS	1.25 3.25 0.40 0.40	55 142 17 17
	OATS TALL FESCUE ANNUAL RYEGRASS	3 1 1	128 40 40
AUGUST 16TH TO NOVEMBER	RYE TALL FESCUE ANNUAL RYEGRASS	3 1 1	112 40 40
	WHEAT TALL FESCUE ANNUAL RYEGRASS	3 1 1	120 40 40
	PERENNIAL RYE TALL FESCUE ANNUAL RYEGRASS	1 1 1	40 40 40
	ANNUAL RYEGRASS PERENNIAL RYEGRASS CREEPING RED FESCUE KENTUCKY BLUEGRASS	1.25 3.25 0.40 0.40	40 40 40
NOVEMBER 1 TO FEB. 29	USE MULCH ONLY OR DORMANT SEEDING		

NOTE: OTHER APPROVED SPECIES MAY BE SUBSTITUTED.

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- 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.
- 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.
- 5. 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 INTERRUPTION.

PERMANENT SEEDING

SEED MIX	SEED	ING 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	

. 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

- 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.

NECESSARY FOR ESTABLISHING 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.
- 2. 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.

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.

CONCRETE WASHOUT FACILITY

TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE LOCATED A MINIMUM OF 50 FT FROM STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES, AND WATERCOURSES. EACH FACILITY SHOULD BE LOCATED AWAY FROM CONSTRUCTION TRAFFIC OR ACCESS AREAS TO PREVENT DISTURBANCE OR TRACKING.

A SIGN SHOULD BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.

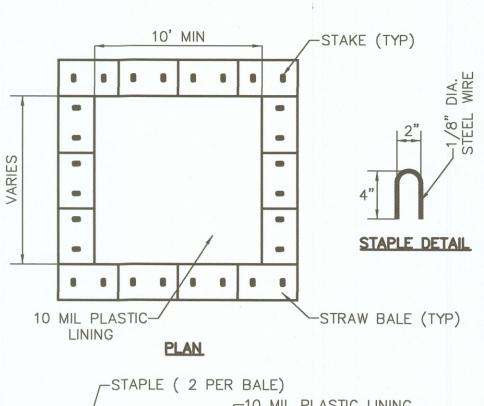
SHOULD BE CONSTRUCTED ABOVE GRADE OR BELOW GRADE AT THE OPTION OF THE CONTRACTOR. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.

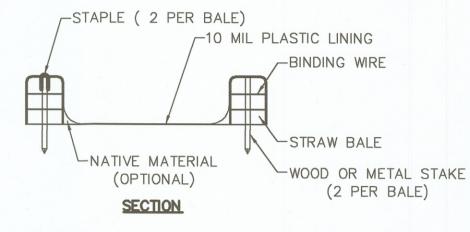
TEMPORARY CONCRETE WASHOUT FACILITIES

ONLY CONCRETE FROM MIXER TRUCK CHUTES SHOULD BE WASHED INTO CONCRETE WASH

CONCRETE WASHOUT FROM CONCRETE PUMPER BINS CAN BE WASHED INTO CONCRETE PUMPER TRUCKS AND DISCHARGED INTO DESIGNATED WASHOUT AREA OR PROPERLY DISPOSED OF OFFSITE.

ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE SHOULD BE BROKEN UP, REMOVED, AND DISPOSED OF ON A REGULAR BASIS.





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.
- 3. 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 SUBSOIL.
- 5. AFTER SPREADING, GRADE AND STABILIZE WITH SEEDING OR APPROPRIATE VEGETATION.

DE-WATERING

- 1. A DE-WATERING PLAN SHALL BE DEVELOPED PRIOR TO THE COMMENCEMENT OF ANY PUMPING ACTIVITIES.
- 2. THE DE-WATERING PLAN SHALL INCLUDE ALL PUMPS AND RELATED EQUIPMENT NECESSARY FOR THE DEWATERING ACTIVITIES AND DESIGNATE AREAS FOR PLACEMENT OF PRACTICES. OUTLETS FOR PRACTICES SHALL BE PROTECTED FROM SCOUR EITHER BY RIPRAP PROTECTION, FABRIC LINER, OR OTHER ACCEPTABLE METHOD OF OUTLET PROTECTION.
- 3. WATER THAT IS NOT DISCHARGED INTO A SETTLING/TREATMENT BASIN BUT DIRECTLY INTO WATERS OF THE STATE SHALL BE MONITORED HOURLY. DISCHARGED WATER SHALL BE WITHIN ±5° F OF THE RECEIVING WATERS.
- 4. SETTLING BASINS SHALL NOT BE GREATER THAN FOUR (4) FEET IN DEPTH. THE BASIN SHALL BE CONSTRUCTED FOR SEDIMENT STORAGE AS OUTLINED IN CHAPTER 6, SEDIMENT BASIN OR SEDIMENT TRAP. THE INLET AND OUTLET FOR THE BASIN SHALL BE LOCATED AT THE FURTHEST POINTS OF THE STORAGE. A FLOATING OUTLET SHALL BE USED TO ENSURE THAT SETTLED SOLIDS DO NOT RE-SUSPEND DURING THE DISCHARGE PROCESS. THE SETTLING BASIN SHALL BE CLEANED OUT WHEN THE STORAGE HAS BEEN REDUCED BY 50% OF ITS ORIGINAL CAPACITY.
- 5. ALL NECESSARY NATIONAL, STATE AND LOCAL PERMITS SHALL BE SECURED PRIOR TO DISCHARGING INTO WATERS OF THE STATE.

- CUT SLOPES-GREATER THAN 3:1 SLOPES
- 1. 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 STEEPER THAN 3:1 SHALL BE GROOVED OR ALLOWED TO REMAIN ROUGH AS THEY ARE CONSTRUCTED UTILIZING METHOD
- 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.
- 1. 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

GRADE TREATMENT

FILL SLOPES-GREATER THAN 3:1 SLOPES

- (1) OR (2) BELOW.
- 1. GROOVING MAY BE MADE WITH ANY APPROPRIATE IMPLEMENT WHICH CAN BE SAFELY OPERATED ON THE SLOPE AND

CUTS, FILLS, AND GRADED AREAS WHICH WILL BE MOWED

- CONTOUR (PERPENDICULAR TO THE SLOPE).
- 2. 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.

SCALES CONTOUR INT:

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REV. REV. REV. REV.

B.Y. B.Y. S. Y. S.

BUILDIN STEINMET WAREHOUSE
CHARLES & RITA
OUT LOT #979, THE NEW

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