

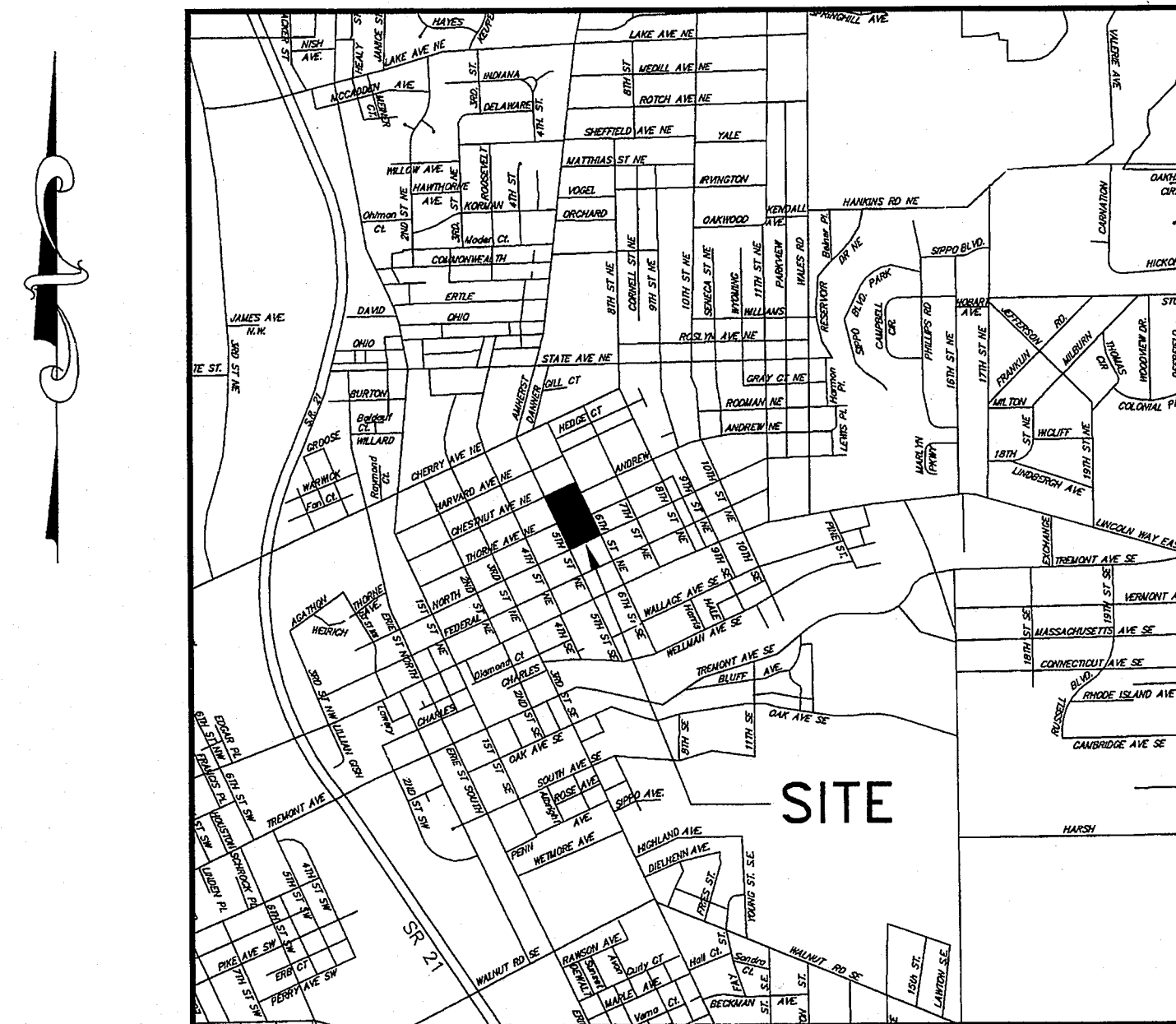
IMPROVEMENT PLANS FOR MASSILLON SALVATION ARMY

CITY OF MASSILLON, STARK COUNTY, OHIO

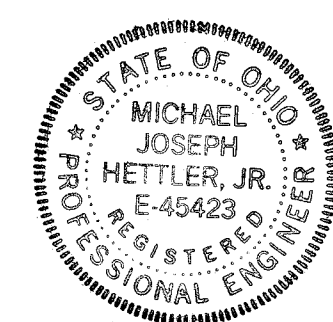
NOVEMBER 2009

SURVEYING SERVICES BY
BUCKEYE SURVEYING SERVICES, INC.
1050 LIBERTY LANE, N.W.
NORTH CANTON, OHIO 44720
330-966-5259

PROJECT ARCHITECT
LAWRENCE AND DYKES ARCHITECTS
125 VALLEYVIEW AVE, N.W.
CANTON, OHIO 44708
330-477-6247



LOCATION MAP



PREPARED AND SUBMITTED BY:

Hettler
Engineering LLC
Civil & Construction Consultants

1225 North Main Street • Suite A • North Canton, OH 44720
PH: 330-966-1776 • civileng@hettlerengineering.com

Michael J. Hettler, Jr.
MICHAEL J. HETTLER, JR., P.E. 11/3/09

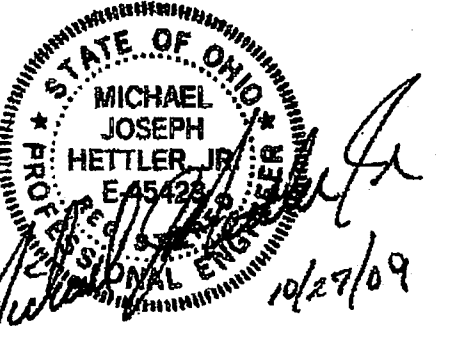
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APPROVED BY THE MASSILLON CITY ENGINEER THIS 13th
DAY OF JANUARY, 2010
Keith A. Dylewski
KEITH A. DYLEWSKI, PE

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

CALL 2 WORKING DAYS
BEFORE YOU DIG
1-800-362-2764
OHIO UTILITIES PROTECTION SERVICE
(CONTACT NON-MEMBERS DIRECTLY)



REV.	DATE

JOB NUMBER:
26019

DRAWN BY: LJP

JOB CAPTAIN:
M.J.H.

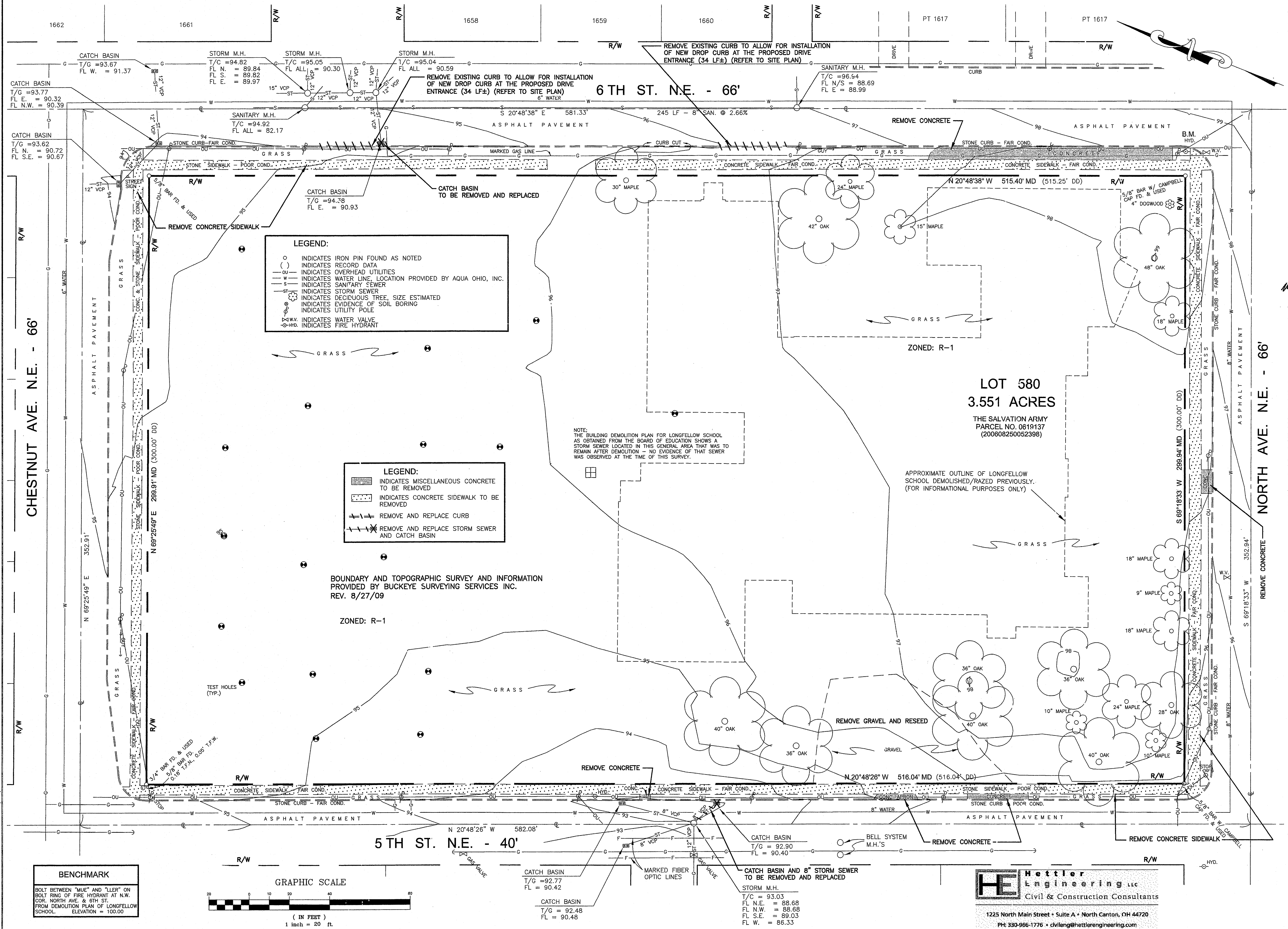
ISSUE DATE:
10/28/00

**PROPOSED FACILITY FOR
MASSILLON SALVATION ARMY
6TH STREET N.E. LOT NO. 580 MASSILLON, OHIO**

EXISTING AND REMOVALS

SCALE: 1" = 20'-0"

C2.1

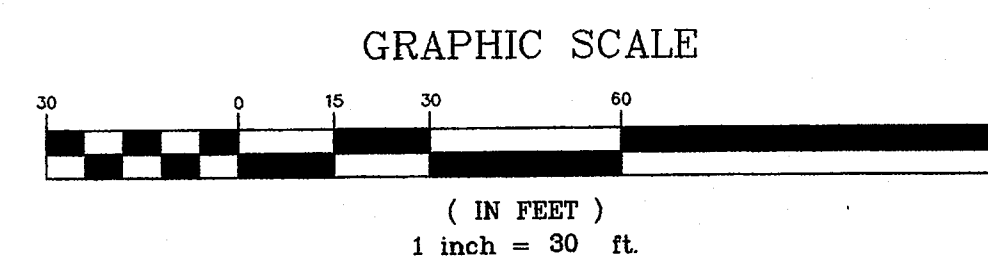


IF THE MULTI-PURPOSE BUILDING ADDITION ALTERNATE BID IS CHOSEN, CONTRACTOR SHALL MOVE DUMPSTER PAD, FENCE, BOLLARDS, AND CURB OPENING TO THE SOUTH 20 FEET AND ADJUST PARKING SPACES AS DIRECTED BY THE ENGINEER.

ISSUE DATE:
10/28/09

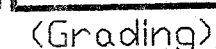
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C2.2

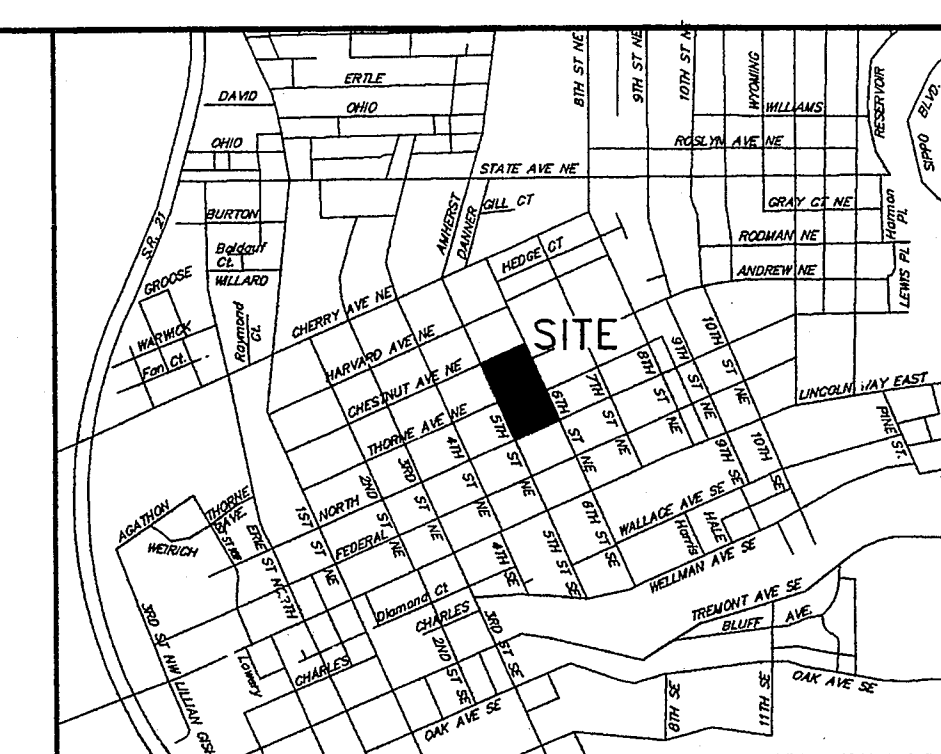
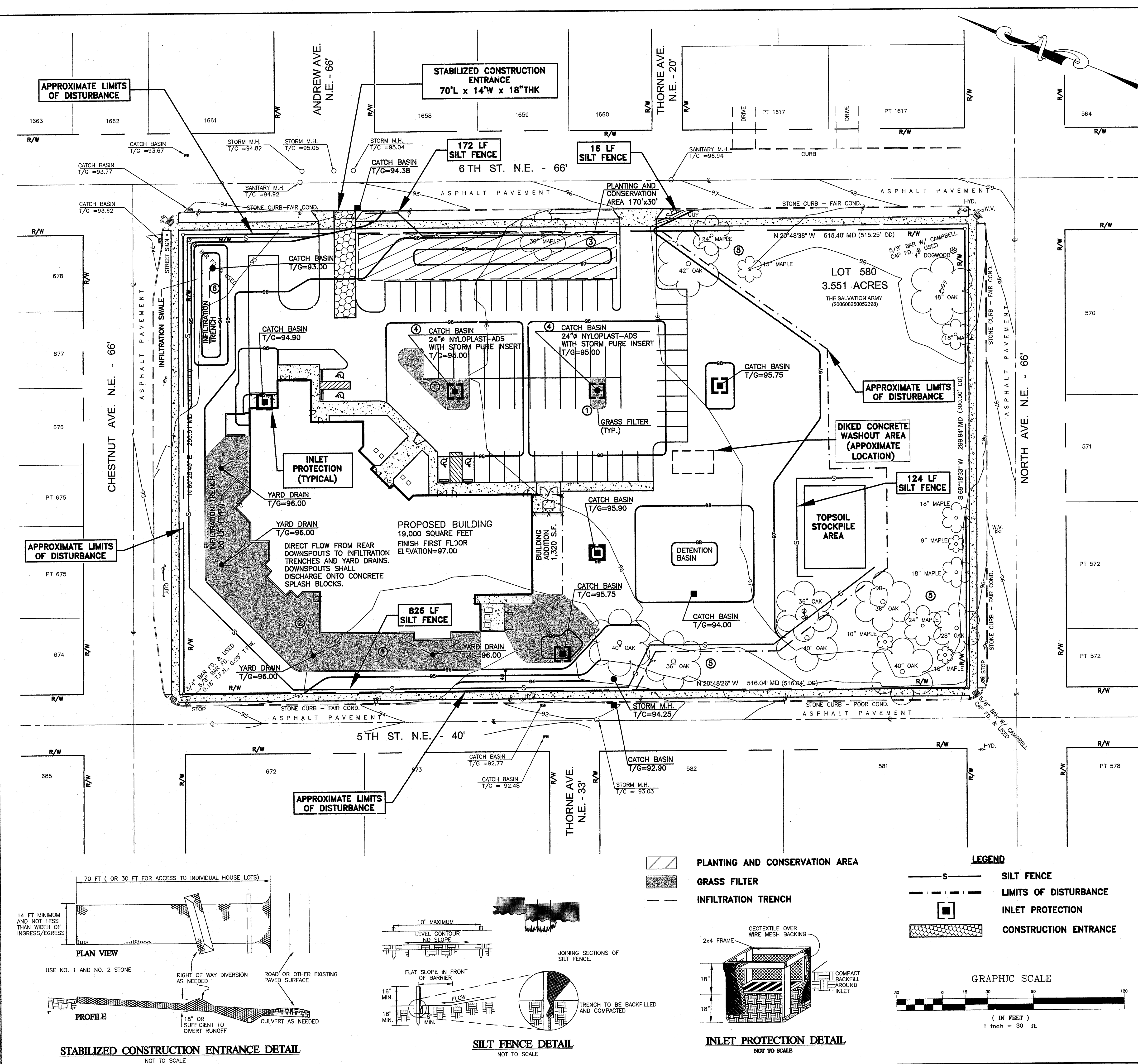


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C2.3





LOCATION MAP
NOT TO SCALE

GENERAL NOTES FOR STORM WATER POLLUTION PREVENTION PLAN:

1. TEMPORARY SOIL STABILIZATION (ODOT ITEM 207) SHALL OCCUR WITHIN SEVEN (7) DAYS AFTER ROUGH GRADING IF A DISTURBED AREA WILL REMAIN IDLE LONGER THAN TWENTY ONE (21) DAYS. PERMANENT SOIL STABILIZATION (ODOT ITEM 659) SHALL BE INSTALLED WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE (2 DAYS FOR AREAS WITHIN 50' OF STREAM). PERMANENT VEGETATION IS A GROUND COVER DENSE ENOUGH TO COVER 80% OF THE SOIL SURFACE AND MATURE ENOUGH TO SURVIVE WINTER WEATHER CONDITION.
2. ALL SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL. A WRITTEN LOG OF THESE INSPECTIONS MUST BE KEPT. (DATES OF INSPECTION, WEATHER CONDITIONS, OBSERVATIONS, ACTIONS TAKEN TO CORRECT PROBLEM, AND DATE INFORMATION WAS TAKEN.) WHEN SEDIMENT AND EROSION CONTROL STRUCTURES/DEVICES NEED REPAIRED/ALTERED, THE WORK SHALL BE COMPLETED WITHIN THREE (3) DAYS OF INSPECTION (SEDIMENT PONDS - REPAIR WITHIN 10 DAYS).
3. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF.
4. CONSTRUCTION VEHICLES ARE LIMITED TO THE CONSTRUCTION ACCESS ROAD NOTED ON THE PLAN. (STABILIZED CONSTRUCTION ENTRANCE).
5. OTHER EROSION CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS.
6. THE SOIL EROSION FOR THE SITE WILL BE CONTROLLED WITH THE USE OF SILT FENCE, INLET PROTECTION AND A CONSTRUCTION DRIVE ENTRANCE.
7. FOR DRAINAGE AREAS AND CALCULATIONS, SEE THE DRAINAGE REPORT FOR THIS PROJECT.

TOTAL SITE AREA = 3.551 ACRES
APPROXIMATE DISTURBED AREA = 2.82± ACRES

CONSTRUCTION SEQUENCE:

1. INSTALL ALL SEDIMENT CONTROL DEVICES (SILT FENCE, INLET PROTECTION, AND STABILIZED CONSTRUCTION ENTRANCE) AS PER THE OHIO STANDARDS FOR STORM WATER MANAGEMENT LAND DEVELOPMENT AND URBAN STREAM PROTECTION, RAINWATER AND LAND DEVELOPMENT MANUAL.
2. THE CITY OF MASSILLON MUST INSPECT AND APPROVE ALL SEDIMENT CONTROL DEVICES PRIOR TO ANY EARTH MOVING ACTIVITY. A PRE-CONSTRUCTION MEETING IS REQUIRED. CONTACT THE CITY OF MASSILLON ENGINEER AT (330) 830-1722 TO SCHEDULE PRE-CONSTRUCTION MEETING.
3. CLEAR AND GRADE THE PROJECT SITE LOCATED WITHIN THE LIMITS OF DISTURBANCE AS INDICATED ON THE CONSTRUCTION DRAWINGS. CONSTRUCT ALL PROPOSED IMPROVEMENTS AND ALL UTILITIES.
4. PERMANENTLY STABILIZE ALL DISTURBED AREAS (ODOT 659). THE CITY OF MASSILLON MUST APPROVE ALL STABILIZATION PRIOR TO THE REMOVAL OF ANY SEDIMENT CONTROL DEVICES.
5. INSTALL ALL POST CONSTRUCTION BMP'S AS SOON AS CONSTRUCTION IS COMPLETE AND STABILIZATION HAS OCCURRED AS REQUIRED.

POST CONSTRUCTION BMP'S: - TO BE INSTALLED AFTER SITE IS STABILIZED

1. GRASS FILTER AREAS
2. INFILTRATION TRENCHES
3. 170'x30' PERMANENT GREEN AREA
(GRASS, NATIVE PLANTS/TREES)
4. CATCH BASIN FILTER INSERTS
5. SAVE/MAINTAIN ALL EXISTING TREES
6. INFILTRATION SWALE

DISPOSAL OF SOLID, SANITARY AND TOXIC WASTE
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 INTO STORM SEWERS ANY SOLVENTS, PAINTS, OILS, ANTIFREEZE, CEMENT, STAINS, GASOLINE, DIESEL FUEL, USED MOTOR OIL, HYDRAULIC FLUID, ANTIFREEZE, CEMENT CURING COMPOUNDS AND OTHER SUCH TOXIC OR HAZARDOUS WASTES. WASH OUT OF CEMENT TRUCKS SHOULD BE DONE IN A DIKED, DESIGNATED AREA WHERE THE WASTE CAN BE COLLECTED AND DISPOSED OF PROPERLY WHEN THEY HARDEN. STORAGE TANKS SHOULD BE LOCATED IN DIKED AREAS AWAY FROM DRAINAGE CHANNELS. THE DIKED AREA SHOULD HOLD A VOLUME 110% OF THE LARGEST TANK.

PROJECT DESCRIPTION AND NARRATIVE
THE PROPOSED PROJECT CONSISTS OF THE CONSTRUCTION OF A NEW FACILITY FOR THE MASSILLON SALVATION ARMY. THE SITE WORK WILL INCLUDE REMOVALS, EARTHWORK, UTILITIES, GRADING, ASPHALT PAVEMENT, CONCRETE SIDEWALKS IN ADDITION TO THE CONSTRUCTION OF THE NEW BUILDING.

SEED, MULCH, FERTILIZE AND LIME REQUIREMENTS SHALL MEET THE OHIO DEPARTMENT OF TRANSPORTATION - CONSTRUCTION MATERIAL SPECIFICATIONS - ITEM 207 TEMPORARY SEDIMENT AND EROSION CONTROLS AND ITEM 659 SEEDING AND MULCHING. SEEDING METHODS SHALL BE PER ODOT 659.12 (INCLUDING SEEDING SCHEDULE INFORMATION).

SOIL TYPES

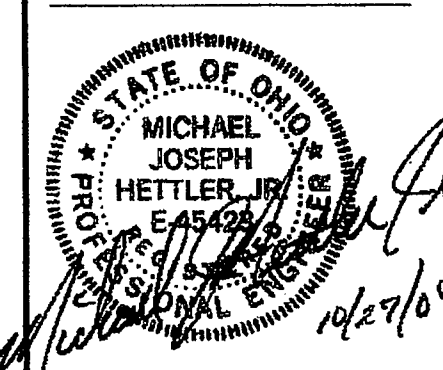
CuB - RAVENNA - CHIL-URBAN LAND COMPLEX, UNDULATING

ALL TREES SHALL BE PROTECTED DURING CONSTRUCTION. THE SITE CONTRACTOR SHALL PLACE AN APPROVED BARRIER AROUND ALL EXISTING TREES TO PREVENT VEHICLES AND MATERIALS FROM BEING PARKED OR STORED WITHIN THE CANOPY AREAS.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

THE CONTRACTOR SHALL PREVENT AND/OR REDUCE AND CONTROL SOIL EROSION RESULTING FROM THE PROPOSED IMPROVEMENTS. THE USE OF SILT FENCING, JULIE MATTING, TEMPORARY SEEDING, SOD, SILT CHECKS, INLET PROTECTION AROUND ALL CATCH BASINS, STABILIZED CONSTRUCTION ENTRANCE(S), ETC. WILL BE REQUIRED. SEDIMENT CONTROL STRUCTURES/DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUAL RAINWATER AND LAND DEVELOPMENT - OHIO'S STANDARDS FOR STORMWATER MANAGEMENT LAND DEVELOPMENT AND URBAN STREAM PROTECTION, THIRD EDITION DATED 2006. SEDIMENT CONTROL DEVICES MUST BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUED INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES. THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS SET FORTH ON THE APPROVED STORM WATER POLLUTION PREVENTION PLAN IF APPLICABLE, OR AS DETAILED ON THE CONSTRUCTION PLANS, AS SPECIFIED BY THE CITY OF MASSILLON.

SEAL



REV. DATE

JOB NUMBER:

26019

DRAWN BY:

LJP

JOB CAPTAIN:

MJH

ISSUE DATE:

10/28/09

PROPOSED FACILITY FOR
MASSILLON SALVATION ARMY
6TH STREET N.E.
LOT NO. 580
MASSILLON, OHIO

STORM WATER
POLLUTION

SCALE: 1" = 30'-0"

C2.5LAWRENCE
and
DYKES

* ARCHITECTS

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CANTON, OHIO 44708
TELE. (330) 477-6247
FAX (330) 477-6285
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L/D DESIGN GROUP, INC.

PROJECT SPECIFICATIONS

ALL WORK REQUIRED TO COMPLETE THIS IMPROVEMENT SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE DETAILED CONSTRUCTION DRAWINGS, THE LATEST EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, EXCEPT HEREIN AMENDED, AND PER THE CITY OF MASSILLON SPECIFICATIONS/REQUIREMENTS/STANDARDS. THE CONSTRUCTION DRAWINGS WILL TAKE PRECEDENCE OVER THE OTHER REQUIREMENTS. IN THE CASE OF A CONFLICT BETWEEN THE CITY OF MASSILLON AND THE OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS/REQUIREMENTS/STANDARDS, THE CITY OF MASSILLON SPECIFICATIONS WILL GOVERN, AS DETERMINED BY THE ENGINEER. STATE OF OHIO, DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION DRAWINGS SHALL APPLY TO THIS IMPROVEMENT.

PROJECT SAFETY

THE CONTRACTOR SHALL MAINTAIN A SAFE WORKING ENVIRONMENT AT THE PROJECT SITE AT ALL TIMES. THE CONTRACTOR SHALL PROPERLY SUPPORT AND/OR MAINTAIN ALL EXCAVATIONS PER APPLICABLE SAFETY REQUIREMENTS AND COMPLY WITH ALL O.S.H.A. REGULATIONS. THIS SHALL INCLUDE STRICT COMPLIANCE WITH ALL APPLICABLE REGULATIONS/REQUIREMENTS REGARDING TRAFFIC SAFETY, ADEQUATE BARRICADES, WARNING LIGHTS, SIGNS, FENCING, ETC. SHALL BE ERECTED AROUND THE CONSTRUCTION AREA DURING ALL NON-WORKING HOURS TO ALERT PERSONS OF THE POTENTIAL DANGER ASSOCIATED WITH THE AREA UNDER CONSTRUCTION AS WELL AS TO PREVENT ACCESS BY UNAUTHORIZED PERSONNEL TO THE CONSTRUCTION SITE/AREA. TRENCHES SHALL BE BACKFILLED AT THE END OF EACH WORK DAY OR PROPERLY SECURED AS APPROVED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE SAFETY OF THE GENERAL PUBLIC AS WELL AS ALL CONSTRUCTION PERSONNEL. PUBLIC STREETS SHALL BE KEPT CLEAN AND FREE OF DEBRIS (MUD, STONE, ETC.) AT ALL TIMES. THE CONTRACTOR SHALL ALERT ALL LOCAL EMERGENCY AGENCIES/SERVICES (FIRE, POLICE, AMBULANCE, ETC.) OF THE NATURE OF THE PROPOSED PROJECT PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY. ACCESS FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.

AT NO TIME SHALL ANY PERSONNEL ENTER EXISTING STRUCTURES/CHAMBERS WITHOUT PROPER SAFETY EQUIPMENT, INCLUDING BUT NOT LIMITED TO AIR PACKS, AIR MONITORS AND/OR AIR SENSORS, PROTECTIVE CLOTHING, BODY HARNESSES WITH POSITIVE MEANS OF REMOVING A PERSON FROM THE STRUCTURE/CHAMBER ETC. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH APPLICABLE O.S.H.A. REQUIREMENTS INCLUDING THOSE SPECIFIED FOR ENTERING CONFINED SPACES.

UNDERGROUND UTILITIES

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS WERE OBTAINED BY FIELD OBSERVATIONS, FROM EXISTING RECORDS, AND/OR FROM THE OWNERS OF THE RESPECTIVE UTILITIES. THE INFORMATION AS SHOWN IS BELIEVED TO BE CORRECT, HOWEVER, THE COMPLETENESS AND ACCURACY OF THIS INFORMATION CANNOT BE GUARANTEED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IDENTIFICATION OF HIS/HER UTILITY COMPANIES (PUBLIC AND PRIVATE) TO VERIFY THE EXISTENCE, LIMITS AND/OR LOCATION OF ANY UTILITIES WHICH MAY BE ALONG THE ROUTE OR WITHIN THE VICINITY OF THIS IMPROVEMENT.

UTILITY NOTIFICATION

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING OPERATIONS ON THIS PROJECT THE CONTRACTOR(S) SHALL NOTIFY THE ENGINEER, THE REGISTERED UTILITY PROTECTION AGENCY/SERVICE, AND THE OWNERS OF ANY OTHER UTILITIES (PUBLIC AND/OR PRIVATE) THAT MAY HAVE UTILITY LINES OR FACILITIES WITHIN THE VICINITY OF THIS PROJECT BUT WHO ARE NOT MEMBERS OF THE REGISTERED UTILITY PROTECTION SERVICE OF HIS/HER INTENTION TO BEGIN CONSTRUCTION ACTIVITY ON THIS PROJECT. THE OWNERS OF ANY UNDERGROUND UTILITY FACILITY SHALL, WITHIN 48 HOURS AFTER NOTICE IS RECEIVED, EXCLUDING SATURDAYS, SUNDAYS, AND OTHER LEGAL HOLIDAYS; STAKE, MARK OR OTHERWISE DESIGNATE THE EXISTENCE AND/OR LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE TOGETHER WITH THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING AND/OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO WORKING DAYS AHEAD OF THE PLANNED CONSTRUCTION. OHIO UTILITIES PROTECTION SERVICE: 1-800-362-2764 (CONTACT NON-MEMBERS DIRECTLY).

VERIFICATION OF UNDERGROUND UTILITIES

THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE EXISTENCE AS WELL AS THE ACTUAL LOCATION, ALIGNMENT, AND ELEVATIONS OF ALL EXISTING UTILITIES/FACILITIES WITHIN AND/OR ADJACENT TO THE GENERAL LIMITS OF THESE IMPROVEMENTS INCLUDING WATERLINES, SANITARY SEWERS, GAS LINES, COMMUNICATION LINES/BANKS, ELECTRIC LINES, ETC. PRIOR TO ORDERING MATERIALS OR BEGINNING WORK. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK UNTIL THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES WHICH COULD EFFECT COMPLETION OF THIS IMPROVEMENT HAVE BEEN FIELD CHECKED AND VERIFIED. THIS WILL LIKELY REQUIRE EXPLORATORY EXCAVATIONS TO BE PERFORMED BY THE CONTRACTOR FOR WHICH HE WILL NOT BE DIRECTLY REIMBURSED. THE CONTRACTOR SHALL NOT ASSUME THAT EXISTING UTILITIES/CONDUITS WERE INSTALLED AT TYPICAL/STANDARD DEPTHS OR AT UNIFORM SLOPES/GRADIENTS/DEPTHS BETWEEN ACCESS POINTS (CATCH BASINS, MANHOLES, JUNCTION CHAMBERS, ETC.) WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE, GRADE, AND ELEVATION BEFORE STARTING TO INSTALL THE PROPOSED CONDUIT. ANY CONFLICTS AND/OR DISCREPANCIES FROM THE PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER SO THAT THE APPROPRIATE ADJUSTMENTS IN ALIGNMENT AND/OR GRADE MAY BE MADE PRIOR TO THE START OF CONSTRUCTION. FALLING SHORT OF THE CONTRACTOR TO VERIFY AND/OR DETERMINE EXISTING INFORMATION AS INDICATED/REQUIRED WILL RESULT IN THE CONTRACTOR BEING RESPONSIBLE FOR ANY CHANGES NECESSARY TO COMPLETE THE WORK SPECIFIED WITHOUT ADDITIONAL COMPENSATION.

PROTECTION OF UTILITIES

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS/MEASURES NECESSARY TO PROTECT AND SUPPORT ANY EXISTING UTILITIES/LOCATED ALONG THE ROUTE OF THE PROPOSED IMPROVEMENTS, WITHIN THE GENERAL PROJECT LIMITS, AND/OR ENCOUNTERED DURING THE COMPLETION OF THE PROPOSED IMPROVEMENTS AS DIRECTED/APPROVED BY THE OWNERS OF THE RESPECTIVE UTILITIES AND THE ENGINEER. UTILITIES MUST BE KEPT IN SERVICE AT ALL TIMES.

THE CONTRACTOR SHALL BE RESPONSIBLE TO CLOSELY COORDINATE THEIR WORK WITH ALL UTILITY COMPANIES TO MINIMIZE/AVOID POSSIBLE DELAYS IN THE COMPLETION OF THE REQUIRED IMPROVEMENTS. DELAYS WILL NOT BE THE RESPONSIBILITY OF THE OWNER NOR THE ENGINEER.

DISPOSAL OF EXCESS OR UNSUITABLE MATERIALS

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DISPOSE OF ANY EXCESS, UNSUITABLE AND/OR UNUSABLE MATERIALS RESULTING FROM THE COMPLETION OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN WRITTEN PERMISSION FROM ANY PROPERTY OWNER PRIOR TO PLACEMENT OF ANY MATERIALS FROM THIS PROJECT ONTO OTHER PROPERTIES AND SHALL FURNISH THE OWNER/ENGINEER WITH COPIES OF THESE WRITTEN AGREEMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY AND ALL CLAIMS RESULTING FROM THE PLACEMENT/DISPOSAL OF EXCESS, UNSUITABLE, AND/OR UNUSABLE MATERIALS ONTO OTHER PROPERTIES, INCLUDING BUT NOT LIMITED TO ENVIRONMENTAL ISSUES. NO MATERIAL SHALL BE REMOVED FROM THE PROJECT SITE WITHOUT PERMISSION OF THE CONSTRUCTION MANAGER OR ENGINEER.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

THE CONTRACTOR SHALL PREVENT AND/OR REDUCE AND CONTROL SOIL EROSION RESULTING FROM THE PROPOSED IMPROVEMENTS. THE USE OF SILT FENCING, JUTE MATTING, TEMPORARY SEEDING, SOD, SILT CHECKS, INLET PROTECTION AROUND ALL CATCH BASINS, STABILIZED CONSTRUCTION ENTRANCES(S), ETC. WILL BE REQUIRED. SEDIMENT CONTROL STRUCTURES/DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL SWAMP AND LAND DEVELOPMENT - OHIO'S STANDARDS FOR STORMWATER MANAGEMENT LAND DEVELOPMENT AND URBAN STREAM PROTECTION, THIRD EDITION DATED 2006. SEDIMENT CONTROL DEVICES MUST BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUED INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES. THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS SET FORTH ON THE APPROVED STORM WATER POLLUTION PREVENTION PLAN IF APPLICABLE, OR ON THE DETAILED CONSTRUCTION PLANS.

MAINTAINING TRAFFIC

THE CONTRACTOR SHALL SAFELY AND PROPERLY MAINTAIN TRAFFIC ADJACENT TO, THROUGH, AND/OR ALONG THE PROJECT ROUTE/SITE AS DESCRIBED BELOW AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE OHIO DEPARTMENT OF TRANSPORTATION MANUAL OF CONSTRUCTION AND MATERIALS SPECIFICATIONS ITEM #14 MAINTAINING TRAFFIC. THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND REMOVE ALL SIGNS, FLAGS, FLAGMEN, WATCHMEN, BARRICADES, SIGN SUPPORTS, CONES, BARRELS, AND INCIDENTALS IN CONFORMANCE WITH THE MOST RECENT REVISIONS OF THE CURRENT EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. INTERFERENCE WITH VEHICULAR TRAFFIC SHALL BE KEPT TO A MINIMUM AT ALL TIMES. ALL OPEN TRENCHES AND EXCAVATIONS SHALL BE PROTECTED WITH DRUMS, BARRICADES, BARRIERS, ETC. ACCESS SHALL BE MAINTAINED AT ALL TIMES FOR EMERGENCY AND FIRE DEPARTMENT VEHICLES. ANY TEMPORARY ROADWAY CLOSING MUST BE APPROVED BY THE ENGINEER AND THE PUBLIC AGENCY HAVING JURISDICTION OF THE ROADWAY IN WRITING WITH PRIOR NOTIFICATION GIVEN TO FIRE, POLICE AND OTHER EMERGENCY AGENCIES. EMERGENCY AND LOCAL TRAFFIC MUST BE MAINTAINED AT ALL TIMES IN A SAFE MANNER.

MAINTENANCE OF UTILITY SERVICES

THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ALL UTILITY SERVICES TO THE FACILITIES LOCATED WITHIN/ON THE PROJECT SITE AS WELL AS ADJACENT PROPERTIES (WATER, STORM, SANITARY, GAS, ELECTRIC, TELEPHONE, ETC.) AT ALL TIMES. NO SHUT DOWN OF A UTILITY SERVICE SHALL OCCUR. EXISTING SERVICES SHALL BE MAINTAINED/PROVIDED WITHOUT INTERRUPTION.

RESTORATION OF DISTURBED AREAS

EXISTING DRIVES, BERMS, LAWNS, TELEPHONE/POWER POLES, PAVEMENTS, RETAINING WALLS, CURBS, SIDEWALKS, SIGNS, MAILBOXES, FENCING, PAPER BOXES, LANDSCAPING ITEMS/AREAS OR OTHER APPURTENANCES DISTURBED/DAMAGED DURING CONSTRUCTION BUT NOT SPECIFICALLY DESIGNATED FOR REMOVAL AND/OR REPLACEMENT SHALL BE RESTORED TO A CONDITION EQUAL TO THAT WHICH EXISTED PRIOR TO CONSTRUCTION AND TO THE COMPLETE SATISFACTION OF THE ENGINEER/OWNER. COST FOR THE RESTORATION OF THESE ITEMS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE IN THE PLANS/SPECIFICATIONS.

EASEMENTS AND RIGHTS-OF-WAY

THE CONTRACTOR SHALL STAY WITHIN THE PROPERTIES, EASEMENTS, AND RIGHTS-OF-WAY PROVIDED AT ALL TIMES. NO MATERIAL SHALL BE STORED NOR ANY WORK PERFORMED ON PRIVATE PROPERTY. DISTURBANCE OF EXISTING FEATURES AND/OR IMPROVEMENTS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AND AS APPROVED BY THE ENGINEER/OWNER.

INSPECTION

ALL WORK REQUIRED/ASSOCIATED WITH THE EXTENSION OR CONNECTION OF PROPOSED UTILITIES TO EXISTING PUBLIC/PRIVATE UTILITIES OR OTHER WORK REQUIRED WITHIN RIGHTS OF WAY OR WITHIN PUBLIC UTILITY EASEMENTS SHALL BE INSPECTED BY THE CITY OF MASSILLON OR THEIR DESIGNATED REPRESENTATIVE AND THE OWNER OF THE RESPECTIVE UTILITY IF DIFFERENT. THE CONTRACTOR SHALL GIVE A 48 HOUR NOTICE BEFORE STARTING ANY WORK ON THIS PROJECT AND SHALL KEEP THE CITY INFORMED OF HIS/HER CONSTRUCTION SCHEDULE. NO WORK AS SPECIFIED ABOVE SHALL BE PERFORMED UNLESS AN AUTHORIZED INSPECTOR IS PRESENT.

SUITABILITY OF SITE

THE ENGINEER/OWNER WILL NOT BE RESPONSIBLE FOR THE TYPE AND/OR SUITABILITY OF THE MATERIAL UNDERLYING THE PROJECT SITE. THE CONTRACTOR MUST APPRAISE HIMSELF OF ANY EXISTING SITE CONDITIONS WHICH MAY EFFECT HIS BID OR PERFORMANCE OF THE REQUIRED WORK. THE CONTRACTOR SHALL PERFORM WHATEVER INVESTIGATIONS AND/OR TESTING WHICH MAY BE NECESSARY TO ADEQUATELY DETERMINE/ESTIMATE TO THE SATISFACTION OF THE CONTRACTOR HIMSELF ANY AND ALL SITE CONDITIONS WHICH COULD EFFECT THE PERFORMANCE/COMPLETION OF THE PROPOSED IMPROVEMENTS. THIS COULD INCLUDE BUT NOT BE LIMITED TO UNSUITABLE AND/OR UNSTABLE SOIL/SUBSURFACE CONDITIONS, ROCK, WATER (PERCHED OR FREE), SPRINGS, ETC. IF THE CONTRACTOR IS UNSURE OR UNABLE TO DETERMINE THE NATURE OF THE SUBSURFACE CONDITIONS, HE SHALL ASSUME THE WORST CASE. NO ADDITIONAL COMPENSATION WILL BE GIVEN FOR UNANTICIPATED AND/OR UNFORESEEN CONDITIONS.

DUST CONTROL

THE CONTRACTOR SHALL BE RESPONSIBLE TO PROPERLY CONTROL DUST FROM THE PROJECT SITE AS NECESSARY/REQUIRED TO MAINTAIN SAFE VISIBILITY WITHIN AND/OR ADJACENT TO THE SITE AND TO AVOID IMPACT ON ADJACENT BUILDINGS AND/OR PROPERTIES. METHODS FOR DUST CONTROL MUST BE APPROVED BY THE ENGINEER.

CLEAN UP AT END OF PROJECT

PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL SWALES, DITCHES, STORM SEWERS, CATCH BASINS, STORM MANHOLES, SANITARY SEWERS, SANITARY MANHOLES, GUTTERS, AND OTHER IMPROVEMENTS ARE CLEAN AND FREE OF ANY AND ALL DEBRIS.

PROHIBITED CONNECTIONS TO SANITARY SEWERS

ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO SANITARY SEWERS ARE PROHIBITED.

STORM SEWERS

ALL PROPOSED STORM SEWERS SHALL MEET THE REQUIREMENTS OF AND BE INSTALLED PER O.D.O.T. ITEM 603 FOR TYPE B OR TYPE C CONDUITS EXCEPT AS SPECIFIED AND AS DIRECTED BY THE ENGINEER. STORM SEWERS SHALL BE BEDDED AND BACKFILLED PER THE APPLICABLE DETAIL. BEDDING MATERIAL SHALL MEET THE REQUIREMENTS/SPECIFICATIONS OF THE PIPE MANUFACTURER AND SHALL BE AS SPECIFIED AND APPROVED BY THE ENGINEER. SLAG IS NOT PERMITTED. STORM SEWER PIPE MATERIALS (EXCEPT AS SPECIFICALLY NOTED OTHERWISE) SHALL MEET THE REQUIREMENTS OF O.D.O.T. 706.02 (REINFORCED CONCRETE CIRCULAR PIPE), OR 707.33 (SMOOTH LINED CORRUGATED POLYETHYLENE). PIPE MEETING 707.33 SHALL HAVE BELL AND SPIGOT ENDS WITH A GASKET SEAL TO PROVIDE A WATERTIGHT JOINT. (ASTM F-477)

ALL STORM SEWER PIPES INSTALLED WITHIN THE CITY STREET RIGHT-OF-WAY OR WITHIN AN EASEMENT SHALL MEET THE REQUIREMENTS OF ODOT 706.02 REINFORCED CONCRETE CIRCULAR PIPE.

ALL DOWNSPOUT LINES AND/OR EXTENSIONS OF INTERIOR ROOF DRAINS/DOWNSPOUT LINES TO THE HEADER LINE OR DRAINAGE STRUCTURES (CATCH BASIN OR MANHOLE) SHALL BE POLYVINYL CHLORIDE PIPE, (PVC) SDR-35 MEETING THE REQUIREMENTS OF O.D.O.T. 707.45. STANDARD BENDS AND FITTINGS SHALL BE USED FOR CHANGES IN DIRECTION AND/OR ELEVATION OF THE DOWNSPOUT/INTERIOR ROOF DRAIN LINES AND FOR THE CONNECTION OF DOWNSPOUT LINES TO THE HEADER LINE.

BEDDING MATERIAL SHALL MEET THE REQUIREMENTS/SPECIFICATIONS OF THE PIPE MANUFACTURER AND SHALL BE AS SPECIFIED.

CATCH BASINS & STORM MANHOLES

ALL STORM SEWER CATCH BASINS AND MANHOLES SHALL MEET THE REQUIREMENTS OF O.D.O.T. ITEM 604. PIPE OPENINGS SHALL BE PRECAST INTO ALL CATCH BASINS AND MANHOLES. KNOCKOUT PANELS/SIDES ARE UNACCEPTABLE. CATCH BASINS SHALL BE CB 2-28. BICYCLE SAFE GRATES ARE REQUIRED. STORM MANHOLES SHALL BE TYPE MH-3.

TEMPORARY SEEDING AND MULCHING

THE CONTRACTOR SHALL BE RESPONSIBLE TO SEED AND MULCH WITHIN SEVEN (7) DAYS AFTER DISTURBED AREAS WHERE CONSTRUCTION ACTIVITY HAS OCCURRED BUT WILL TEMPORARILY REMAIN IDLE FOR A PERIOD OF MORE THAN 21 DAYS, AND OTHER DISTURBED AREAS WHERE EROSION MAY BECOME A PROBLEM AS DETERMINED BY THE ENGINEER. THE CONTRACTOR SHALL REFER TO THE STORM WATER POLLUTION PREVENTION PLAN FOR ADDITIONAL REQUIREMENTS.

DAMAGE TO EXISTING UTILITIES/SERVICES

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE AND/OR DISRUPTION TO EXISTING UTILITY LINES/MAINS AND SERVICES. ALL COSTS ASSOCIATED WITH THE REPAIR, REPLACEMENT, AND/OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. NO ADDITIONAL COMPENSATION WILL BE PROVIDED BY THE OWNER OR THE ENGINEER, ALL LIABILITY SHALL BE BORNE BY THE CONTRACTOR.

CONSTRUCTION LAYOUT

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, PLACING, AND MAINTAINING CONSTRUCTION LAYOUT STAKES NECESSARY FOR THE PROPER COMPLETION OF THE WORK ASSOCIATED WITH THIS PROJECT. THE OWNER AND/OR ENGINEER WILL NOT BE RESPONSIBLE FOR STAKING HORIZONTAL OR VERTICAL CONTROL. BENCH MARKS WILL BE PROVIDED WITHIN AND/OR ADJACENT TO THE PROJECT SITE. THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETE A BENCH CIRCUIT BETWEEN AT LEAST TWO (2) SEPARATE BENCH MARKS WHENEVER ELEVATIONS ARE BEING TRANSFERRED AND/OR SET. ANY DISCREPANCIES OUTSIDE NORMAL SURVEYING STANDARDS/LIMITS WITH THE BENCH MARK ELEVATIONS SHOWN SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.

EXAMINATION OF SITE

THE CONTRACTOR SHALL BE RESPONSIBLE TO CLOSELY EXAMINE THE PROJECT SITE AND ALL ADJACENT AREA(S) AND APPRISE HIMSELF OF ANY ITEMS AND/OR CONDITIONS THAT COULD AFFECT HIS/HER BID AND/OR ABILITY TO COMPLETE THE PROPOSED IMPROVEMENTS. THIS SITE INSPECTION/EVALUATION SHALL BE COMPLETED PRIOR TO SUBMITTING A PROPOSAL OR BID.

PRECONSTRUCTION MEETING

A PRECONSTRUCTION MEETING WITH THE ENGINEER, CITY OF MASSILLON, CONTRACTOR, AND THE STARK COUNTY SOIL AND WATER CONSERVATION DISTRICT IS REQUIRED FOR THIS PROJECT PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL CONTACT THE CITY OF MASSILLON SEVENTY-TWO (72) HOURS PRIOR TO THE ANTICIPATED MEETING DATE.

STABILIZATION

ALL AREAS DISTURBED DURING CONSTRUCTION (INCLUDING EXPOSED SURFACES OF THE EMBANKMENT, EXCAVATION, SPOIL AND BORROW AREAS, BERMS, ETC.), SHALL BE STABILIZED BY SEEDING, LIMING, FERTILIZING, MULCHING, ETC. IN ACCORDANCE WITH O.D.O.T. ITEM 659. SEEDING AND MULCHING AND AS SPECIFIED ON THE STORM WATER POLLUTION PREVENTION PLAN. STABILIZATION SHALL OCCUR WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF THE IMPROVEMENTS.

EARTHWORK

ALL SITE PREPARATION AND EARTHWORK ACTIVITIES INCLUDING THOSE REQUIRED TO COMPLETE THE PROPER CONSTRUCTION OF THE DETENTION BASIN SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, INCLUDING DIVISION 200 EARTHWORK AND THE RECOMMENDATIONS AND REQUIREMENTS OF THE PROJECT GEOTECHNICAL ENGINEER AS OUTLINED IN THE SUBSURFACE INVESTIGATION REPORT. THIS SHALL INCLUDE ALL REMOVALS, CLEARING AND GRUBBING, TOPSOIL REMOVAL/STRIP, PROOF ROLLING, SUBGRADE PREPARATION, SUITABILITY OF MATERIALS, PERFORMANCE OF ALL EXCAVATION(S), PLACEMENT OF EMBANKMENT AND BACKFILL, COMPACTON, SLOPE STABILITY, CORE TRENCH CONSTRUCTION, AND ALL OTHER RELATED AND/OR NECESSARY OPERATIONS/PROCEDURES. ALL EXCAVATION SHALL BE CONSIDERED AS UNCLASSIFIED EXCAVATION. ALL EARTHWORK ACTIVITY SHALL BE PERFORMED IN THE PRESENCE OF A QUALIFIED GEOTECHNICAL REPRESENTATIVE FURNISHED BY THE OWNER WHO WILL BE RESPONSIBLE TO DETERMINE COMPLIANCE WITH O.D.O.T. SPECIFICATIONS AND/OR THE GEOTECHNICAL RECOMMENDATIONS/REQUIREMENTS. IN CASE OF A CONFLICT BETWEEN THE O.D.O.T. SPECIFICATIONS AND THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS/REQUIREMENTS, THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS/REQUIREMENTS SHALL GOVERN.

COMPACTON REQUIREMENTS MAY VARY THROUGHOUT THE PROJECT SITE DEPENDENT UPON THE INTENDED USE/AREA (BUILDING AREA, ROADWAY, LAWN, ETC.).

WATER MAINS/SERVICES

ALL WATER MAINS, SERVICES AND APPURTENANCES SHALL BE CONSTRUCTED ACCORDING TO THE CITY OF MASSILLON WATER DEPARTMENT REQUIREMENTS AND SPECIFICATIONS IN EFFECT AT THE TIME OF CONSTRUCTION.

WATER MAINS SHALL BE CLASS 53, DUCTILE IRON MEETING AWWA C-151 WITH PUSH ON JOINTS. THE MINIMUM COVER OVER WATER MAINS SHALL BE 4'-6" FROM THE GROUND SURFACE TO THE BARREL OF THE PIPE. THE OUTSIDE SURFACE OF ALL DUCTILE IRON PIPE, FITTINGS, AND APPURTENANCES SHALL BE SHOP COATED WITH EITHER A COAL TAR OR ASPHALT BASE BITUMINOUS MATERIAL. IF THIS COATING MATERIAL IS FOUND TO BE DAMAGED PRIOR TO THE PIPE TRENCH BEING BACKFILLED, THE CONTRACTOR SHALL PROVIDE AN ADDITIONAL APPROVED MATERIAL AS REQUIRED TO REPAIR THE DAMAGES. THE CONTRACTOR SHALL SUPERVISE AND CONTROL THE COATING MATERIAL AT THE JOB SITE PRIOR TO LAYING THE PIPE. ALL DUCTILE IRON PIPE, INCLUDING FITTINGS AND APPURTENANCES BURIED UNDERGROUND, SHALL BE ENCASED WITH 8 MIL POLYETHYLENE FILM CONFORMING TO THE INTERIOR OF ALL PIPES AND FITTINGS SHALL BE LINED WITH DOUBLE CEMENT MORTAR AND SEAL COATED IN COMPLETE CONFORMANCE WITH AWWA C-104, OR THE LATEST REVISION. FITTINGS SHALL BE RATED FOR 250 PSI WORKING PRESSURE IN ACCORDANCE WITH AWWA C-110/AWWA C-153. PIPE LENGTHS MAY BE DEFLECTED AT THE JOINT IF REQUIRED, AT ONE-HALF THE DEFLECTION RECOMMENDED BY THE MANUFACTURER. WATER SERVICES WILL BE INSTALLED FROM THE WATER MAIN TO THE CURB BOX BY THE CITY OF MASSILLON AND PAID FOR BY THE OWNER/DEVELOPER. THE CONTRACTOR IS NOT TO MAKE ANY SERVICE TAPS ON THE WATER MAIN. THE MASSILLON WATER DEPARTMENT WILL MAKE SERVICE TAPS EXCEPT AS NOTED. DISINFECTION OF WATER MAINS SHALL BE IN ACCORDANCE WITH AWWA C-651. ALL WATERLINE PRESSURE TESTING SHALL CONFORM TO AWWA C-600.

WATER MAINS SHALL BE INSTALLED PER O.D.O.T. ITEM 638 AS TYPE B OR TYPE C CONDUITS AND AS DIRECTED BY THE ENGINEER. WATERLINES SHALL BE BEDDED AND BACKFILLED PER THE APPLICABLE DETAIL. BEDDING MATERIAL SHALL MEET THE REQUIREMENTS/SPECIFICATIONS OF THE PIPE MANUFACTURER AND SHALL BE AS SPECIFIED AND APPROVED BY THE ENGINEER. SLAG IS NOT PERMITTED.

ALL BENDS, FITTINGS, TEES, VALVE, DEAD ENDS, ETC. SHALL BE SECURED/ RESTRAINED USING MECHANICAL JOINT RESTRAINT, MEGALUG OR APPROVED EQUAL. POURED-IN-PLACE CONCRETE THRUST BLOCKS SHALL ALSO BE PROVIDED AT/ FOR EACH BEND, FITTING, TEE, DEAD END, ETC. THIS BLOCKING MUST 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 LOADING. IN ADDITION TO THE RESTRAINT OF ALL BENDS, FITTINGS, VALVES, DEAD ENDS, ETC. THE CONTRACTOR SHALL ALSO SECURE/RESTRAIN ALL JOINTS FOR AT LEAST THREE (3) PIPE JOINTS (50 LF MIN) BEYOND EACH DEAD END, BEND, FITTING, VALVE, TEE, ETC. UTILIZING MEGALUGS, FIELD LUG GASKETS, OR APPROVED EQUAL. THE RODS WHERE USED ARE TO BE 3/4" DIAMETER. TWO TIE RODS ARE REQUIRED FOR 8" PIPE.

THE CONTRACTOR SHALL PROVIDE 18" VERTICAL CLEARANCE BETWEEN PROPOSED WATERLINES AND SANITARY SEWERS. WHEN 18" CLEARANCE BETWEEN A WATERLINE AND SANITARY SEWER CANNOT BE OBTAINED, THE CONTRACTOR SHALL PROVIDE CONCRETE ENCASEMENT AS DIRECTED BY THE CITY. THE CONTRACTOR SHALL MAINTAIN TEN (10) FOOT HORIZONTAL CLEARANCE BETWEEN WATERLINES/SERVICES AND SANITARY SEWERS.

A FOUR FOOT MINIMUM HORIZONTAL SEPARATION (OUT TO OUT, CLEAR) WILL BE MAINTAINED BETWEEN THE WATERLINE AND STORM SEWERS.

A TWELVE INCH MINIMUM VERTICAL SEPARATION (OUT TO OUT, CLEAR) WILL BE MAINTAINED BETWEEN WATERLINE AND STORM SEWERS AT ALL CROSSINGS.

FIRE HYDRANTS SHALL BE MUELLER A423 MEETING THE CITY OF MASSILLON WATER DEPARTMENT STANDARDS AND REQUIREMENTS. ALL COSTS FOR THE 6" PIPING ASSOCIATED WITH THE INSTALLATION OF FIRE HYDRANTS SHALL BE INCLUDED WITH THE FIRE HYDRANT PAY ITEM. ALL HYDRANTS WILL BE INSTALLED WITH PUMPER NOZZLE FACING THE STREET.

ALL WATER SERVICES MUST BE INSTALLED BEFORE ANY PAVEMENT FOR THE PROPOSED ROADWAYS HAS BEEN PLACED.

WHEN AN EXISTING WATER MAIN MUST BE SHUT DOWN TO PERFORM REQUIRED WORK, THE PROPERTIES TO BE EFFECTED SHALL BE GIVEN A MINIMUM 24 HOUR NOTICE OF SAID SHUT DOWN. THE WORK WILL BE SCHEDULED AND COORDINATED TO MINIMIZE THE TIME THE MAIN IS OUT OF SERVICE.

THE CONTRACTOR SHALL NOTIFY THE CITY 48 HOURS IN ADVANCE OF ANY SHUTDOWN OF AN EXISTING MAIN. THE CONTRACTOR WILL NOT OPERATE ANY VALVES. VALVES WILL BE OPERATED BY MASSILLON WATER DEPARTMENT PERSONNEL ONLY. VALVES DAMAGED BY THE CONTRACTOR'S OPERATION WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

A MINIMUM OF 35 PSI SHALL BE MAINTAINED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS.

BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS.

ALL WATER MAINS WILL BE INSTALLED UNDER THE PAVEMENT WITH A MINIMUM OF 3 FEET FROM THE EDGE OF PAVEMENT OR THE CURB AND/OR GUTTER. IN EXISTING STREETS, A SAW CUT WILL BE MADE TO ENSURE A CLEAN EDGE.

ANY COMMERCIAL OR INDUSTRIAL WATER SERVICES MUST HAVE SITE AND PLUMBING PLANS SUBMITTED TO THE CANTON WATER DEPARTMENT ENGINEERING OFFICE FOR APPROVAL. THE MASSILLON WATER DEPARTMENT WILL REVIEW THE PLANS AND MAKE COMMENTS. CORRECTIONS MUST BE MADE AND RESUBMITTED. PRICE ESTIMATES WILL NOT BE ISSUED AND SERVICE TAPS WILL NOT BE MADE UNTIL THE PLANS HAVE BEEN APPROVED BY THE CANTON WATER DEPARTMENT.

POLYETHYLENE WATER MAIN AND SERVICE TUBING 2" AND UNDER SHALL BE COPPER TUBE SIZE AND MEET STANDARDS ASTM-D2737, PE3408, AND AWWA C906. THE ONLY ACCEPTED TUBING IS CP CHEM PERFORMANCE PIPE DISCOPEX 5100-ULTRA-LINE.

NEW SERVICE BRANCHES SHALL BE INSTALLED PER ODOT ITEM 638.16.

ALL VALVE BOXES SHALL BE ADJUSTED TO FINAL GRADE OF THE SURROUNDING IMPROVEMENTS ONCE THE PROJECT HAS BEEN COMPLETED.

EXISTING WATERLINES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORTING, BRACING, RESTRAINING, AND MAINTAINING ALL EXISTING WATERLINES DURING CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.

REMOVAL AND/OR DEMOLITION OF EXISTING IMPROVEMENTS AND/OR UTILITIES

THE CONTRACTOR SHALL REMOVE AND/OR DEMOLISH ALL EXISTING IMPROVEMENTS INCLUDING WALLS, BUILDINGS, STRUCTURES, PAVEMENTS, CONCRETE SLABS OR PADS, HEADWALLS, RAILINGS, LIGHT POLES AND BASES, UTILITIES, ETC. AS SPECIFIED AND/OR REQUIRED TO COMPLETE THE PROPOSED IMPROVEMENTS. EXISTING IMPROVEMENTS SHALL BE REMOVED COMPLETELY UNLESS OTHERWISE SPECIFIED BY THE PROJECT GEOTECHNICAL ENGINEER. ALL TRENCHES, EXCAVATIONS, VOIDS RESULTING FROM THE REMOVAL OR DEMOLITION SHALL BE BACKFILLED WITH APPROVED MATERIAL COMPACTED TO A MINIMUM DENSITY AS SPECIFIED/REQUIRED BY THE PROJECT GEOTECHNICAL ENGINEER (REFER TO GEOTECHNICAL REPORT). THE CONTRACTOR SHALL BE LIABLE AND RESPONSIBLE TO SUPPORT AND PROTECT ALL EXISTING STRUCTURES, BUILDINGS, FOUNDATIONS, UTILITIES, AND/OR OTHER IMPROVEMENTS DURING THE REMOVAL AND/OR REPLACEMENT OF ITEMS SPECIFIED OR REQUIRED TO BE REMOVED.

WORK IN THE ROAD RIGHT-OF-WAY

A PERMIT MAY BE REQUIRED FROM THE CITY PRIOR TO ANY WORK BEING PERFORMED INSIDE THE CITY'S RIGHT-OF-WAY. THE CONTRACTOR MUST NOTIFY THE CITY ENGINEER'S OFFICE 48 HOURS PRIOR TO ANY CONSTRUCTION INSIDE THE CITY'S RIGHT-OF-WAY OR WITHIN THE CITY UTILITY EASEMENTS IN ORDER TO COORDINATE INSPECTION.

INTENT

IT IS THE INTENT THAT THE WORK HEREIN REQUIRED SHALL BE COMPLETED IN EVERY RESPECT AND THAT ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED IN THE SPECIFICATIONS OR SHOWN ON THE DRAWINGS, BUT NECESSARY TO COMPLETE THE WORK, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR WITHOUT ADDITIONAL COMPENSATION.

THE COST OF MATERIALS, EQUIPMENT, AND/OR LABOR NECESSARY FOR THE PROPER COMPLETION OF THE PROPOSED IMPROVEMENTS BUT FOR WHICH NO SPECIFIC PAY ITEM HAS BEEN LISTED, SHALL BE INCLUDED WITH ONE OF THE OTHER PAY ITEMS LISTED.

SHOP DRAWINGS

THE CONTRACTOR SHALL REVIEW, APPROVE, AND SUBMIT TO THE ENGINEER SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND SIMILAR SUBMITTALS REQUIRED FOR THE COMPLETION OF THE PROPOSED IMPROVEMENTS WITH REASONABLE PROMPTNESS AND IN SUCH SEQUENCE AS TO CAUSE NO DELAY IN THE WORK. CONTRACTOR SHALL NOT BEGIN WORK NOR ORDER MATERIALS UNTIL ENGINEER HAS REVIEWED AND APPROVED REQUIRED SUBMITTALS.

SPECIAL EARTHWORK SEQUENCE

THE SITE CONTRACTOR SHALL COMPLETE ANY CLEARING, GRUBBING, AND/OR REMOVALS (TREES, TOPSOIL, PAVEMENT, ETC.) REQUIRED THROUGHOUT THE PROJECT SITE. HE SHALL THEN PROOF ROLL THE ENTIRE PROJECT SITE PRIOR TO BEGINNING ANY WORK ACTIVITY IN THE PRESENCE OF THE SITE SOILS/GEOTECHNICAL REPRESENTATIVE TO DETERMINE IF THE SITE AS IT EXISTS TODAY IS SUITABLE TO BEGIN FINAL EARTHWORK OPERATIONS. THE SITE SOILS/GEOTECHNICAL REPRESENTATIVE SHALL BE RESPONSIBLE TO APPROVE THE SITE INCLUDING THOSE AREAS WHERE BASEMENTS OR VOIDS EXISTED PREVIOUSLY.

AREAS OF THE SITE FOUND TO BE UNSATISFACTORY SHOULD BE CORRECTED BY THE SITE CONTRACTOR AS DIRECTED BY THE SOILS/GEOTECHNICAL REPRESENTATIVE. FINAL SITE EARTHWORK OPERATIONS SHALL NOT BEGIN UNTIL THE SITE HAS BEEN APPROVED AND/OR ACCEPTED.

SANITARY SEWERS

SANITARY SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF MASSILLON SPECIFICATIONS.

ALL SANITARY SEWERS AND LATERALS SHALL BE PVC SDR-35 MEETING REQUIREMENTS OF ASTM D-3034 WITH JOINTS MEETING ASTM D-3212. MINIMUM COVER OVER SANIARY SEWERS SHALL BE 4 FEET.

SANITARY SEWERS AND LATERALS SHALL BE INSTALLED PER O.D.O.T. ITEM 603 AS TYPE B OR TYPE C CONDUITS AND AS DIRECTED BY THE ENGINEER. SANITARY SEWERS AND LATERALS SHALL BE BEDDED AND BACKFILLED PER THE APPLICABLE DETAIL. BEDDING MATERIAL SHALL MEET THE REQUIREMENTS/SPECIFICATIONS OF THE PIPE MANUFACTURER AND SHALL BE AS SPECIFIED AND APPROVED BY THE ENGINEER. SLAG IS NOT PERMITTED.

DEFLECTION TESTING SHALL BE CONDUCTED 30 DAYS AFTER INSTALLATION AND BACKFILLING OF THE PIPE OR AS OTHERWISE DIRECTED BY THE ENGINEER. THE ALLOWABLE DEFLECTION RATE SHALL NOT EXCEED FIVE (5%) PERCENT.

EXFILTRATION TESTING (OR INFILTRATION IF APPLICABLE) SHALL NOT EXCEED A MAXIMUM ALLOWABLE LEAKAGE OF 100 GALLON/INCH OF PIPE DIAMETER/MILE/DAY. IN LIEU OF SAID WATER TESTS, A LOW PRESSURE AIR TEST MAY BE CONDUCTED PER RECOMMENDED STANDARDS FOR SEWAGE WORKS (ASTM C-1417). THE PROPOSED SANITARY SEWER SYSTEMS SHALL BE TESTED, APPROVED, AND ACCEPTED PRIOR TO BEING PUT INTO SERVICE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY MAINTAINING ANY EXISTING SANITARY FLOW DURING THE COMPLETION AND/OR TESTING OF THE PROPOSED IMPROVEMENTS.

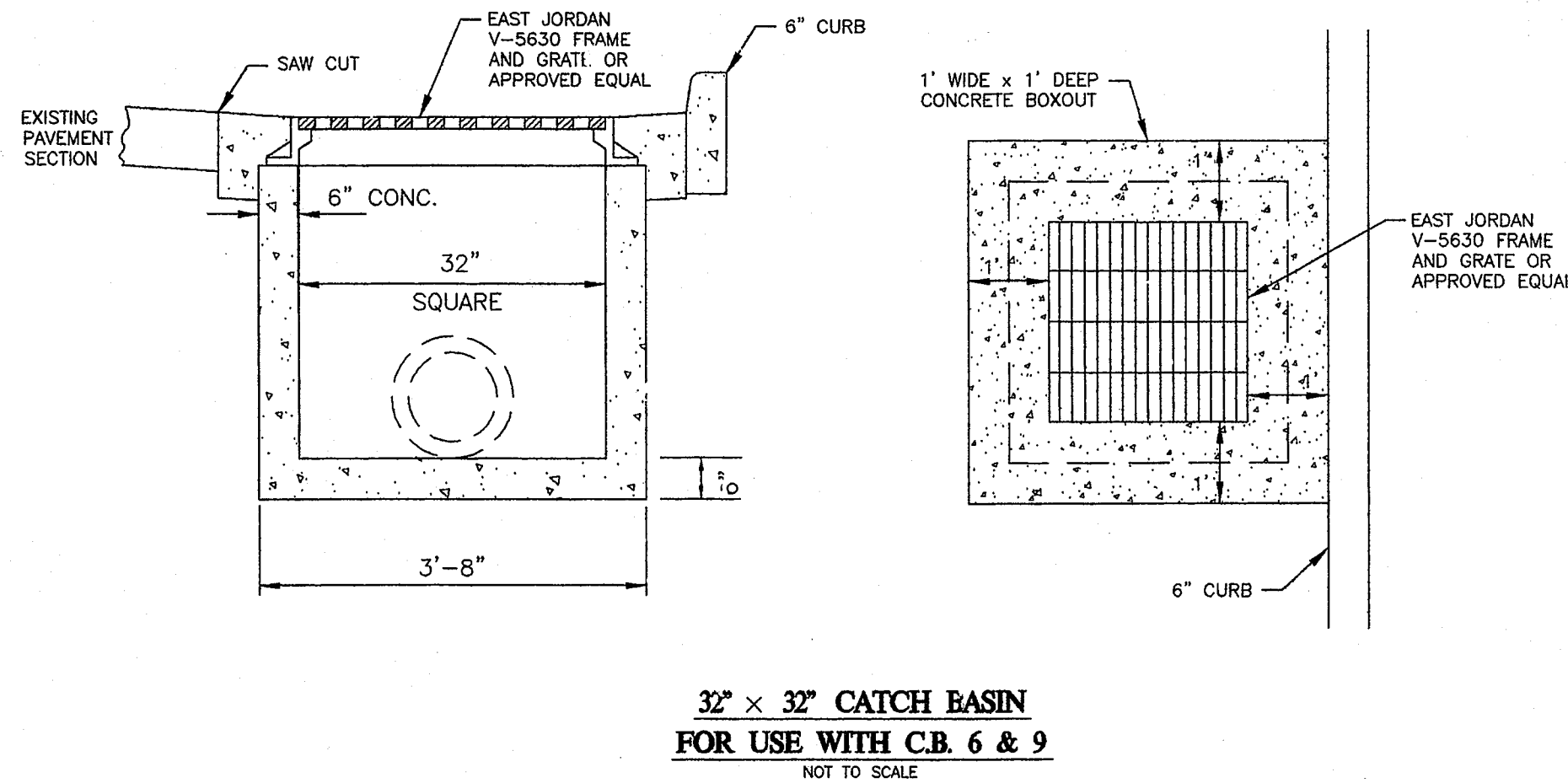
MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWERS AND WATERLINES SHALL BE 18 INCHES. MINIMUM HORIZONTAL SEPARATION (OUT TO OUT) SHALL BE 10 FEET.

SANITARY SEWER SERVICE LATERALS SHALL BE 6 INCH AND BE LAID AT NO LESS THAN 1.00% GRADE.

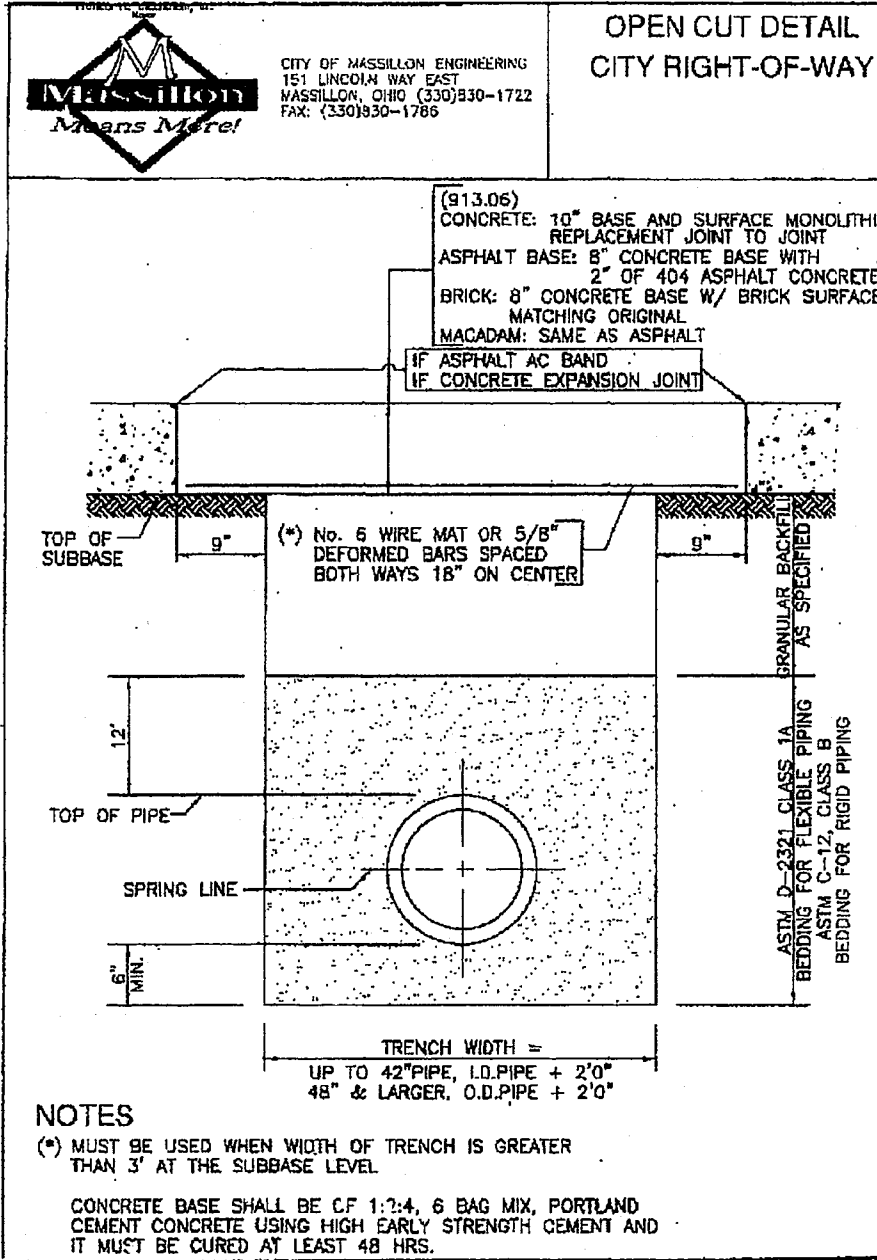
ALL SANITARY SEWERS, 8-INCH DIAMETER AND LARGER, MUST PASS AN INTERNAL TELEVISION INSPECTION PER THE CITY OF MASSILLON SPECIFICATIONS.

MANHOLE TOP OF CASTING ELEVATIONS MAY REQUIRE ADJUSTMENT DURING SITE GRADING. MANHOLE COVERS MAY NOT BE BURIED. UPON COMPLETION OF CONSTRUCTION AND RESTORATION, ALL MANHOLES, PROPOSED AND EXISTING, SHALL BE ADJUSTED TO MATCH FINISHED GRADE.

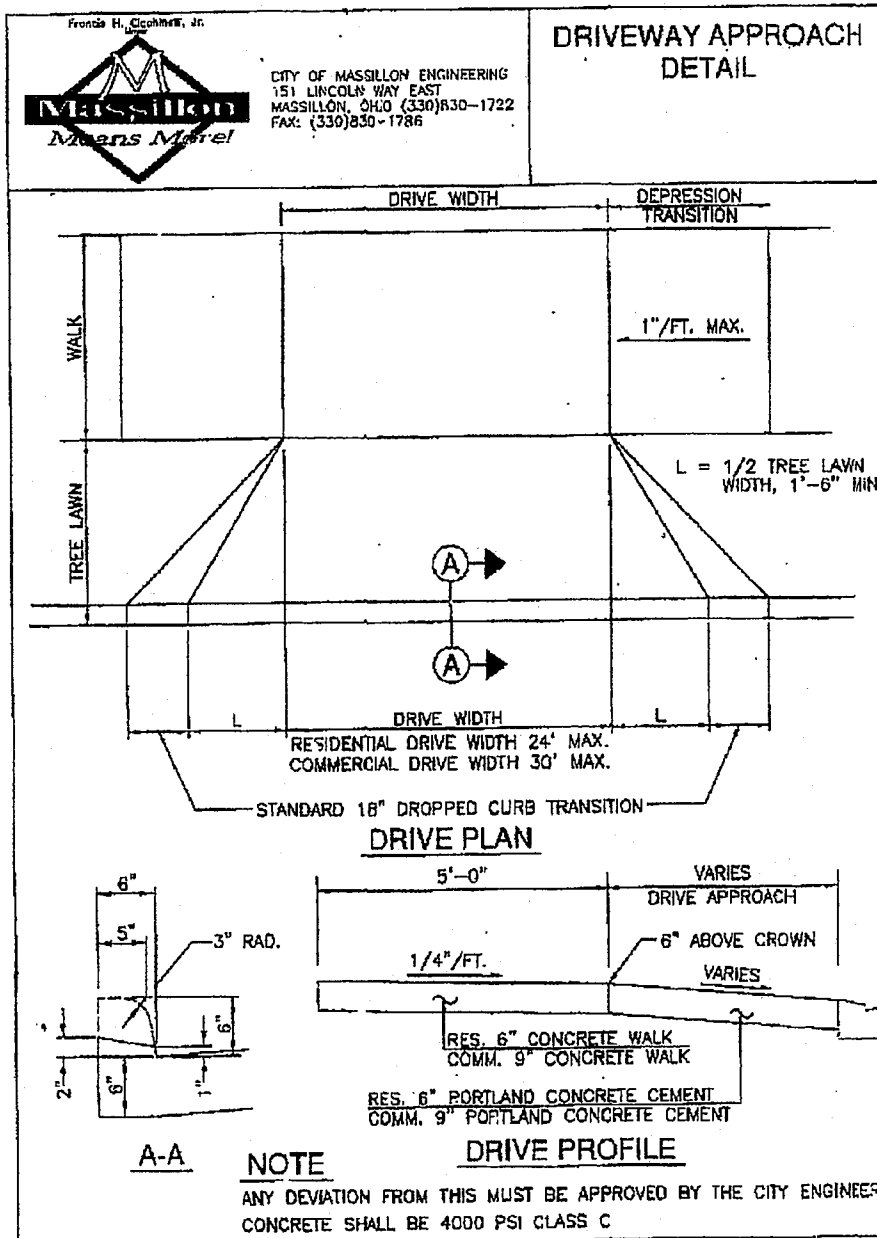
MANHOLE SHALL BE LEAKAGE TESTED IN ACCORDANCE WITH ASTM C-1244 AND PER THE CITY OF MASSILLON STANDARDS/REQUIREMENTS.



32" x 32" CATCH BASIN
FOR USE WITH C.B. 6 & 9
NOT TO SCALE



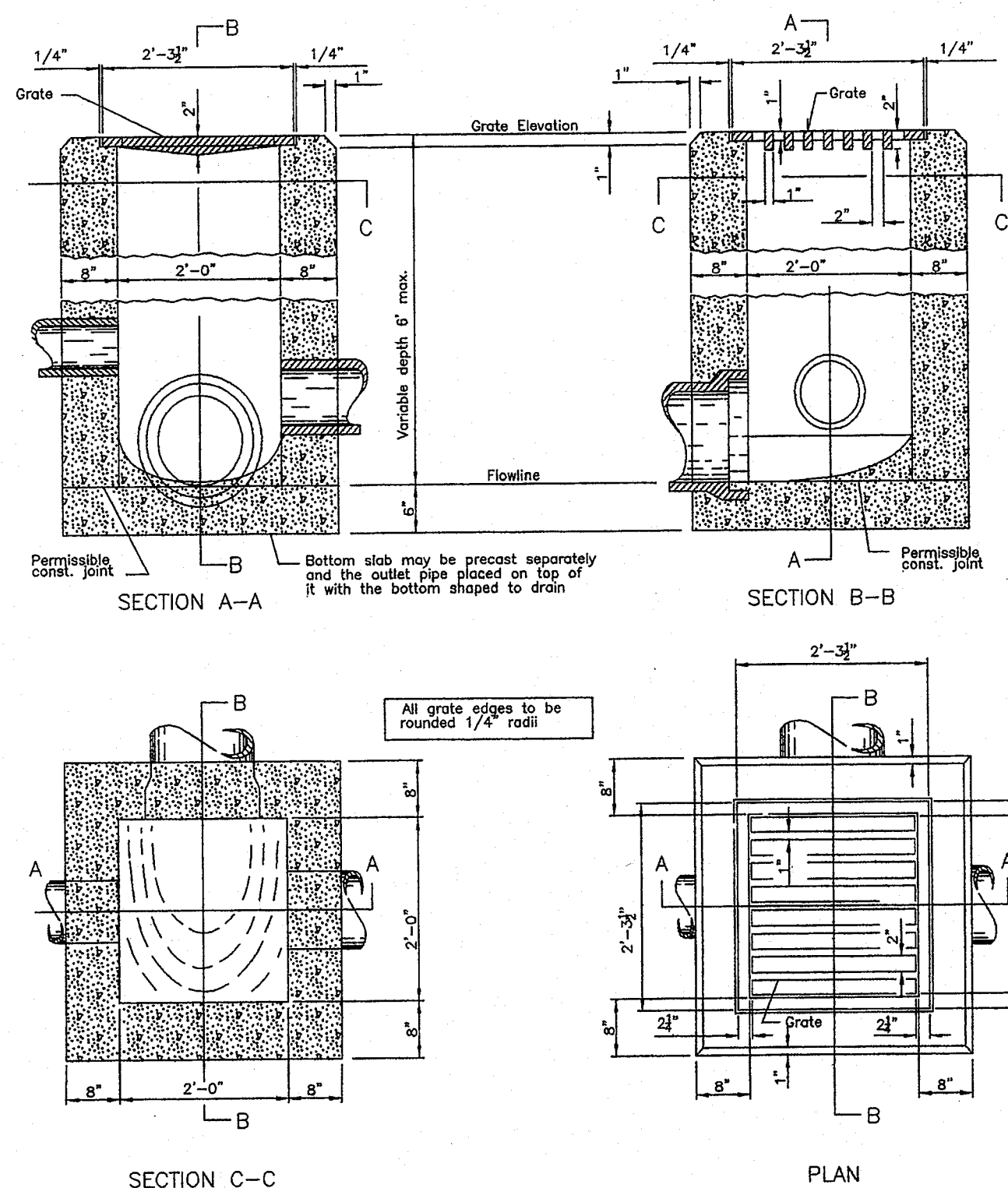
NOTES
(*) MUST BE USED WHEN WIDTH OF TRENCH IS GREATER THAN 3' AT THE SUBBASE LEVEL.
CONCRETE BASE SHALL BE OF 1:1.4, 6 BAG MAX. PORTLAND CEMENT HIGH STRENGTH CEMENT AND IT MUST BE CURED AT LEAST 48 HRS.



NOTE
ANY DEVIATION FROM THIS MUST BE APPROVED BY THE CITY ENGINEER. CONCRETE SHALL BE 4000 PSI CLASS C

LAWRENCE
and
DYKES

ARCHITECTS



CATCH BASIN No. 2-2B
NOT TO SCALE

NOTES

GRATE: The design shall be essentially the same and equally as strong as the one shown (see construction information table), or meet the requirements of CMS 711.14. Grate openings and dimensions shall not differ from those shown unless otherwise shown in the plans.

Grate safe grates shall be required in the plans. Bicycle safe grates shall be Henrich No. R-4824-C or East Jordan No. 5110 Type M3 or approved equal.

As of January 1, 2003, the following text shall be cast into the top of the grate:

"DUMP NO WASTE" and "DRAINS TO WATERWAY"

Text shall be printed in bold, capital letters with a minimum height of 1/2". "WATERWAY" may be substituted with "STREAM", "RIVER", "LAKE", etc. Actual placement and logo may vary per manufacturer.

WALLS: Brick or cast-in-place concrete shall have a nominal thickness of 8". Precast walls shall have a minimum thickness of 6" and be reinforced sufficiently to permit shipping and handling without damage.

CONCRETE: Cast-in-place concrete is to be Class C. All precast concrete shall meet the requirements of CMS 706.13 and be marked with the catch basin number.

PRECAST BASE: If a precast base is used, it shall be set deep enough so that the top can be placed on the base to provide the grate elevation specified in the plans. Layers of brick shall not be used to adjust the top elevation.

LOCATION AND ELEVATION: When given on the plans, location and elevation are at the top center of the grate. When side openings are provided, the elevation shall be at the flow line of the side inlet.

MINIMUM DEPTH: The minimum depth for CB No. 2-2B shall be the O.D. of the outlet pipe plus 4".

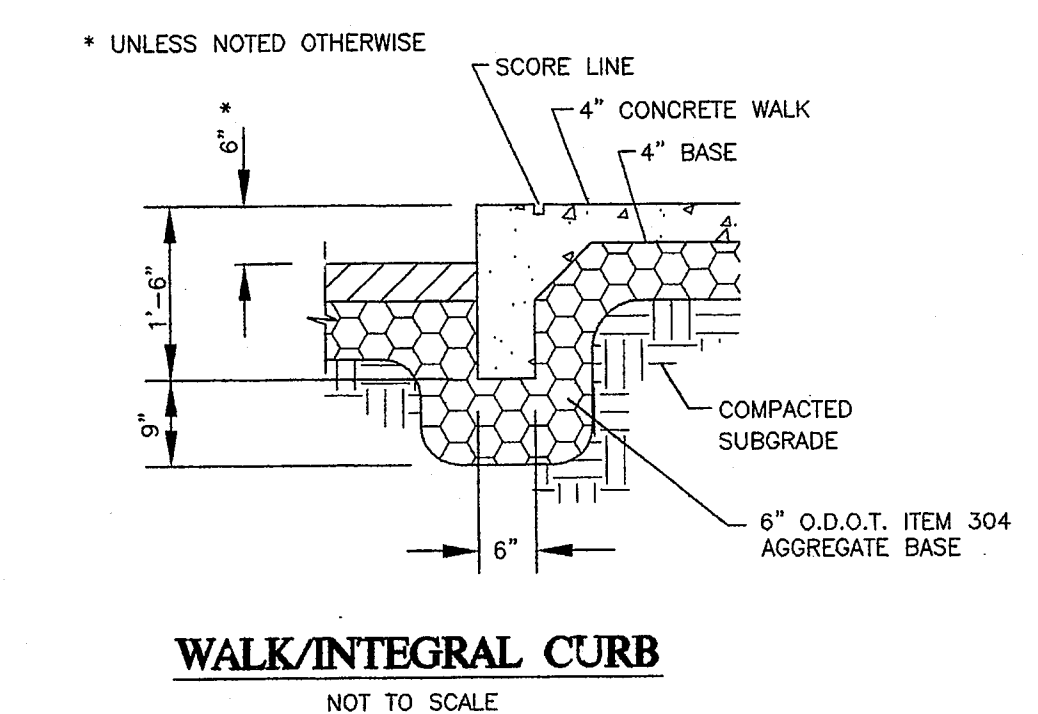
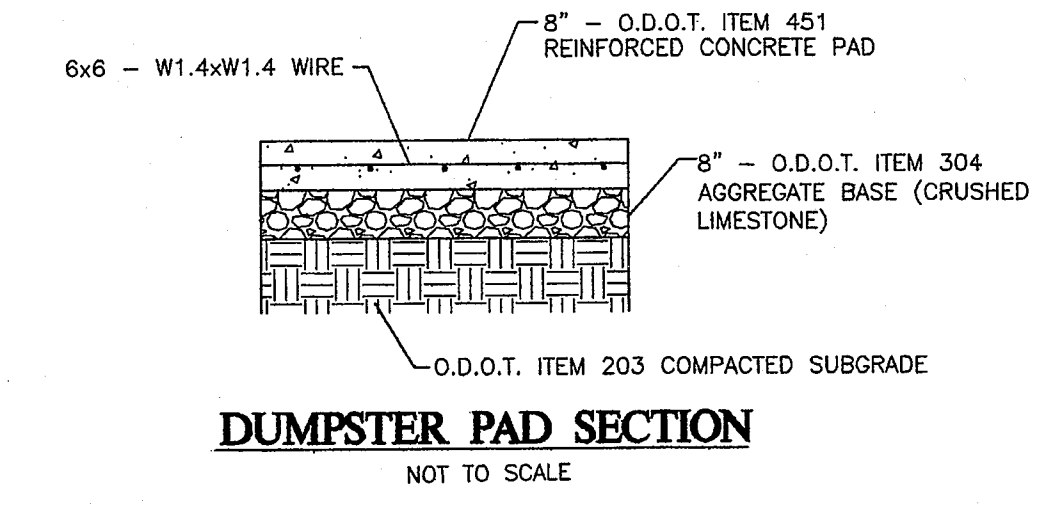
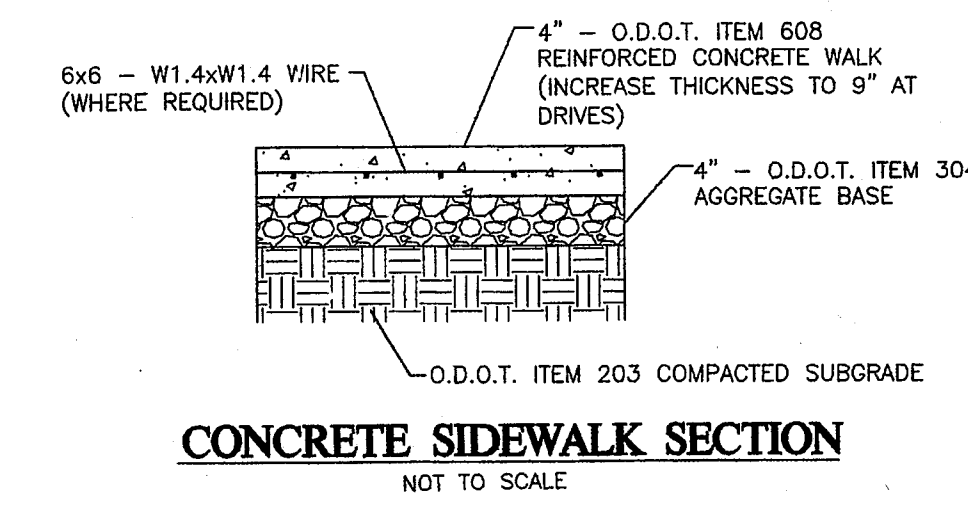
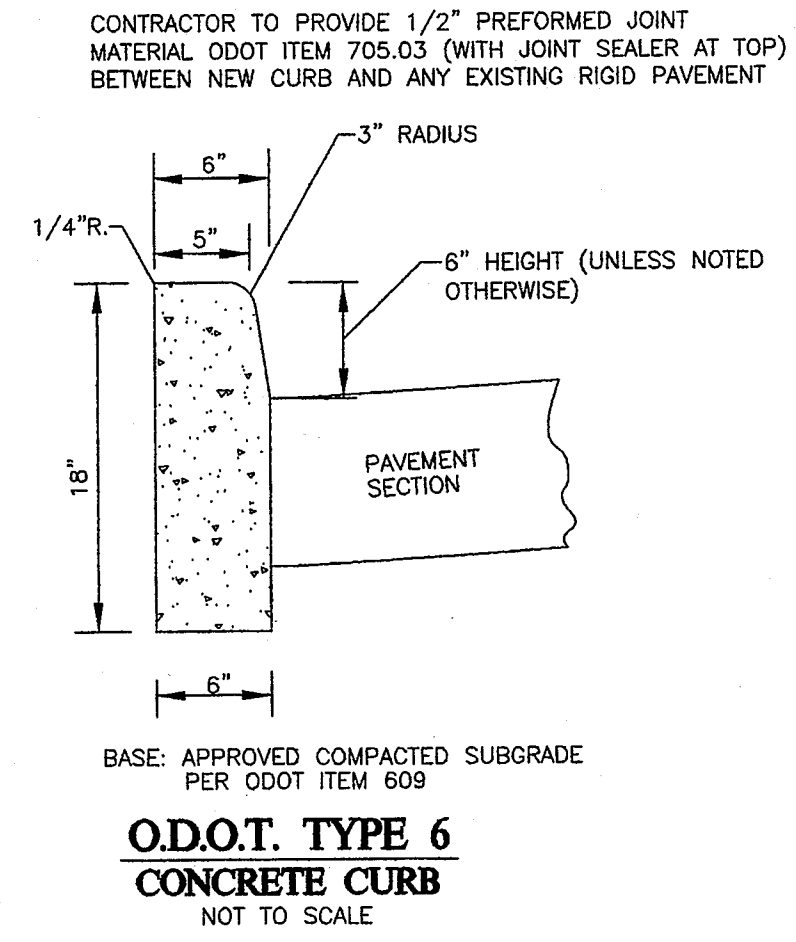
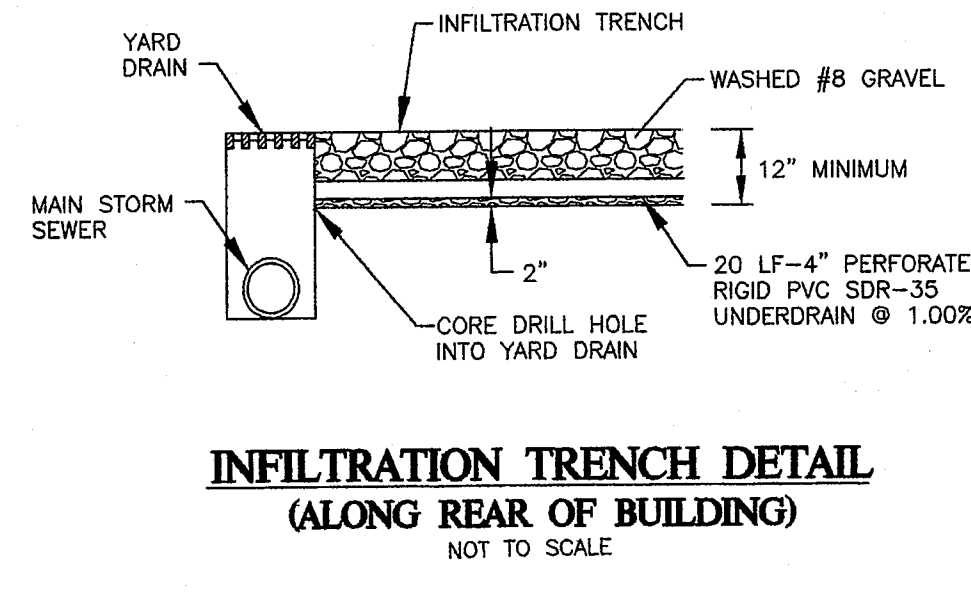
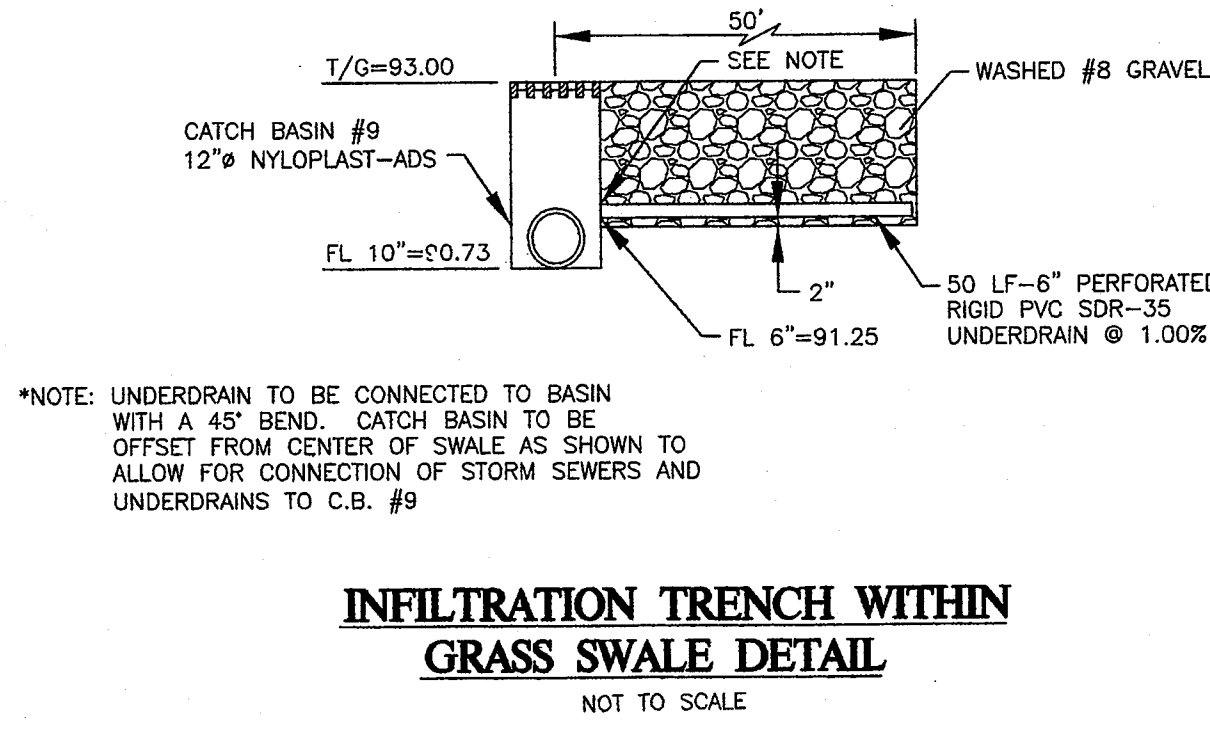
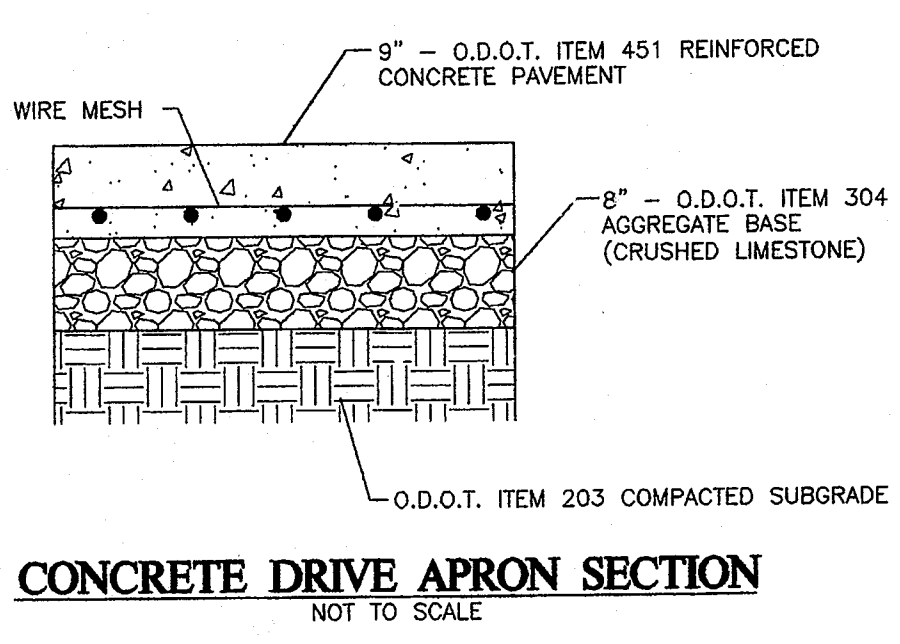
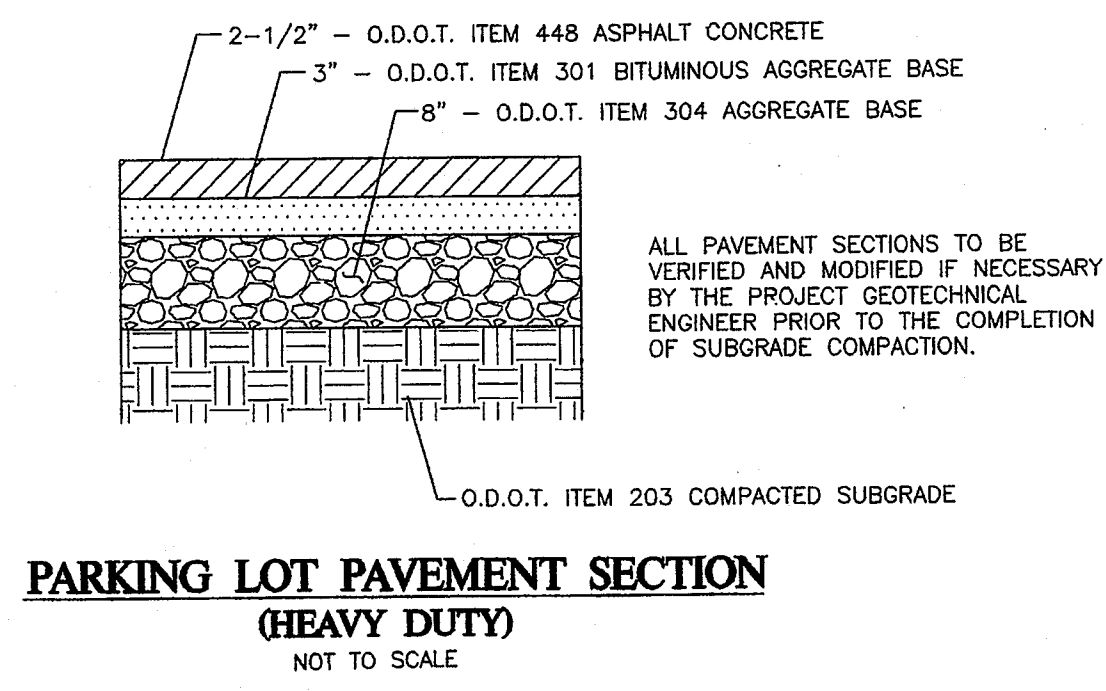
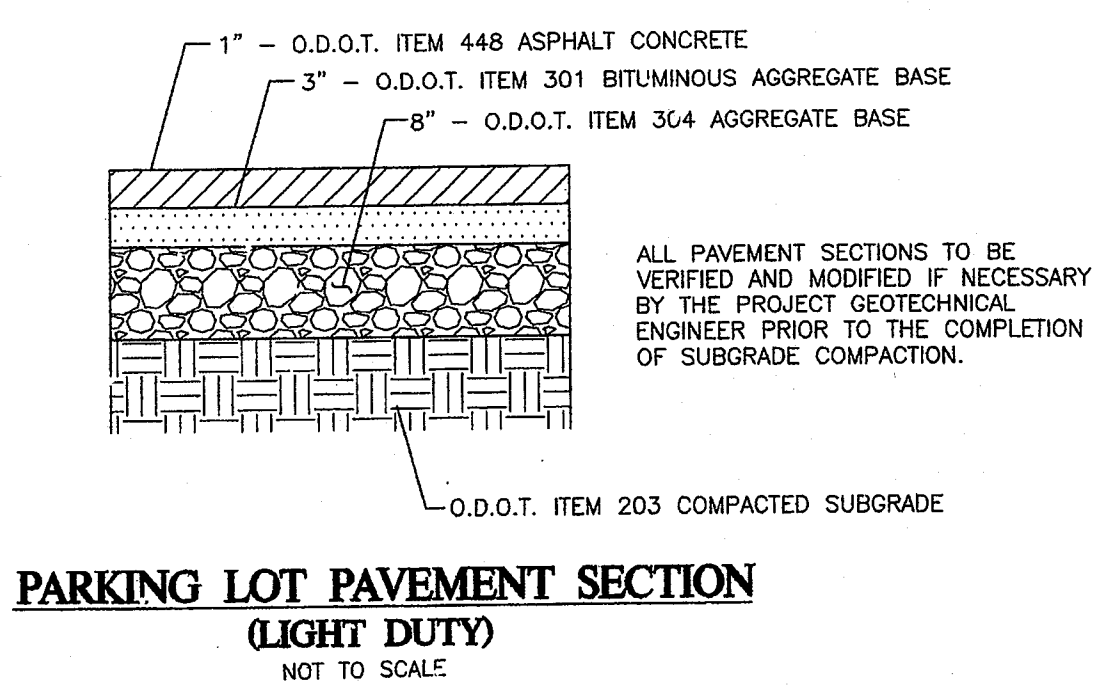
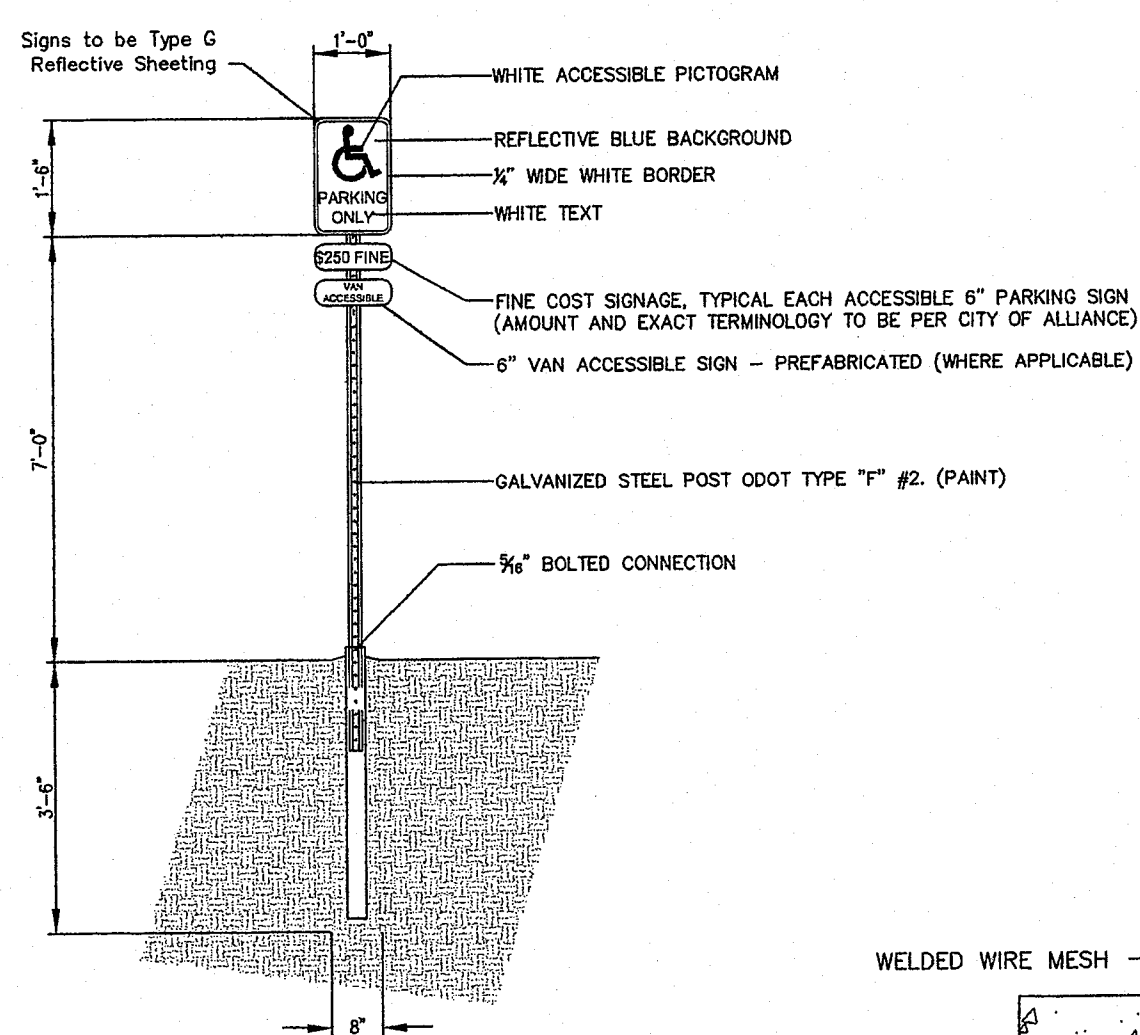
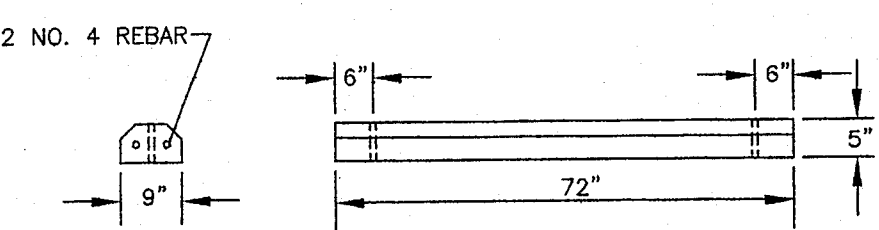
2-2B GRATE ELEVATION: Grate elevation is to be placed 4" to 6" below normal ditch returning to normal 10' to 15' each side of inlet.

OPENINGS: Pipe openings shall be the O.D. of the pipe being supplied plus 2" when fabricated or field cut. The interstitial space shall be filled with grout per CMS 601.

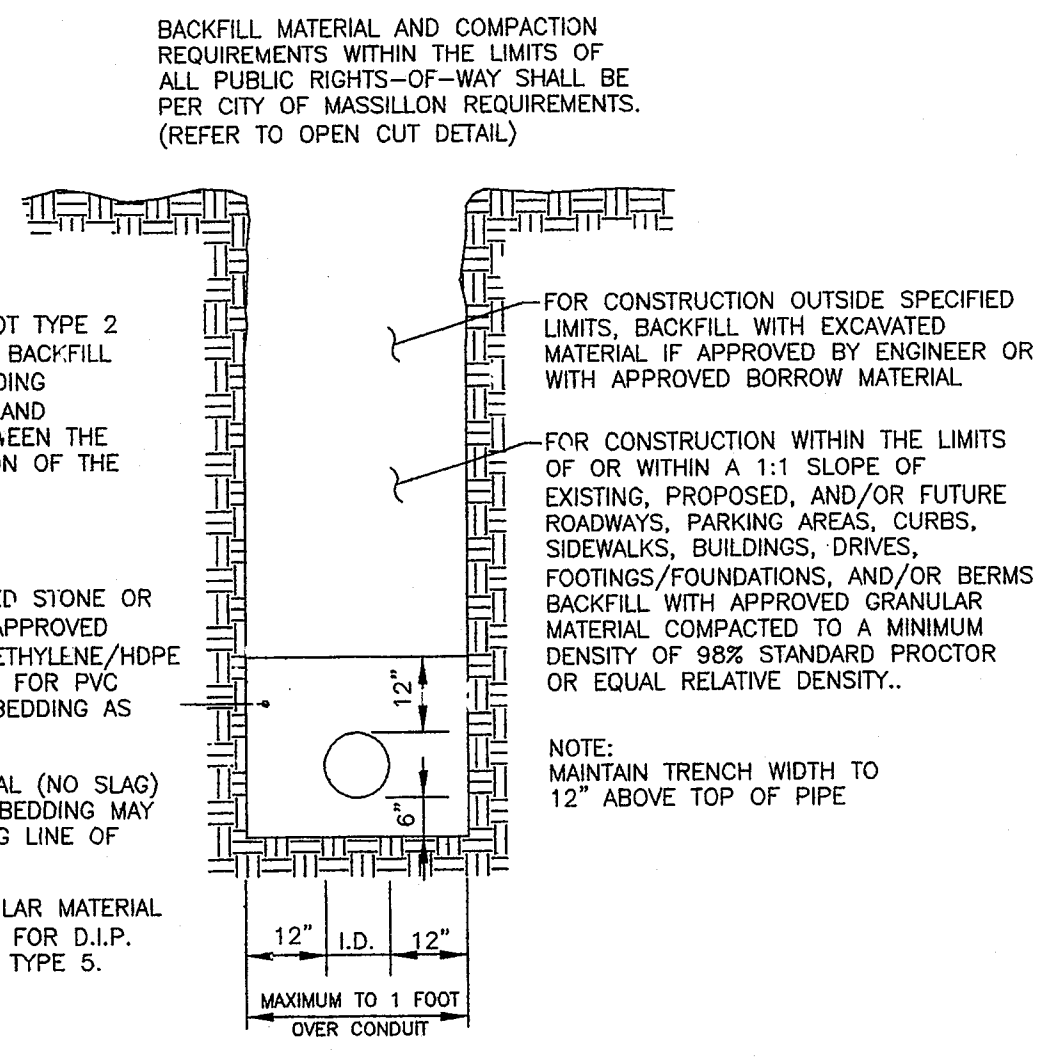
PAYMENT: All materials and labor, including excavation and backfilling, shall be paid for under item 604 - Catch Basin, No. 2-2B.

CONSTRUCTION INFORMATION	
Minimum weight of grate, 120 lbs.	

CATCH BASIN	OUTLET PIPE SIZE
2-2A	12" to 21"
2-2B	12" to 21"



REINFORCED PRECAST STORM MANHOLE
NOT TO SCALE



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SEAL

REV. DATE

JOB NUMBER: 26019
DRAWN BY: LJP
JOB CAPTAIN: MJH
ISSUE DATE: 10/28/09

PROPOSED FACILITY FOR MASSILLON SALVATION ARMY
6TH STREET N.E. LOT NO. 580 MASSILLON, OHIO

DETAILS

SCALE: C2.7