

CLEVELAND DIVISION OF WATER NOTES FOR NEW PVC WATER MAIN INSTALLATION GENERAL

- 1. ALL WATER WORK REQUIRED, WHETHER SHOWN ON THE PLANS OR AS DIRECTED BY THE CLEVELAND DIVISION OF WATER, SHALL BE AT THE EXPENSE OF THE PROJECT.
2. THE INFORMATION SHOWN ON THE CLEVELAND DIVISION OF WATER'S SUMMARY OF WORK/CHANGE LETTER AND STREET MARKS ARE TAKEN FROM EXISTING AVAILABLE RECORDS, AND THEIR ACCURACY IS NOT GUARANTEED.
3. CALL THE INSPECTION AND ENFORCEMENT UNIT AT 216-664-8342 TO SCHEDULE A PRECONSTRUCTION MEETING...
4. THE MUNICIPALITY SHALL REQUIRE THAT THE PROJECT'S PROFESSIONAL ENGINEER OBTAIN ACTUAL FIELD MEASUREMENTS OF THE MAIN DURING INSTALLATION...
5. FOR THE PURPOSES OF CHLORINATION AND BACTERIOLOGICAL TESTING OF THE WATER MAINS...
6. A TWO YEAR WARRANTY, COMMENCING FROM THE DATE OF ACCEPTANCE OF THE FINAL CHLORINATION OF THE WATER MAIN INSTALLATION...
7. USE BACKFILL MATERIAL AS SPECIFIED AND COMPACT SUFFICIENTLY IN THOSE AREAS WHERE EXISTING MAINS AND WATER SERVICE CONNECTIONS ARE EXPOSED.
8. ALL MATERIALS, INCLUDING BUT NOT LIMITED TO WATER MAINS, FIRE HYDRANTS, VALVES, CONNECTION MATERIALS AND OTHER WATER APPURTENANCES...
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING WATER MAINS AND APPURTENANCES...
10. ALL HYDROSTATIC PRESSURE TESTING SHALL BE DONE BY THE CONTRACTOR IN THE PRESENCE OF THE DIVISION OF WATER'S INSPECTOR...

WATER MAINS

- 11A. ALL PIPE, UNLESS OTHERWISE CALLED FOR, SHALL BE POLYVINYL CHLORIDE (PVC) PRESSURE PIPE IN ACCORDANCE WITH AWWA C-900-97 CLASS 200 OR C-909-98 200 PSI OR BETTER. JOINTS SHALL BE MADE UTILIZING A STAB TYPE RUBBER GASKETED BELL & SPIGOT, SOLVENT CEMENT TYPE JOINTS WILL NOT BE PERMITTED...
11B. ALL FITTINGS, UNLESS OTHERWISE CALLED FOR, SHALL BE APPROVED DUCTILE IRON, CLASS 3000 CEMENT LINER OR FUSION BONDED EPOXY COATED...
11C. ALL BOLTS AND NUTS ON ALL "RETAINED" MECHANICAL JOINTS SHALL HAVE FIELD APPLIED ONE (1) COAT OF BITUMASTIC PAINTING...
11D. WHERE SHOWN ON THE PLANS, OR WHEN OTHERWISE CALLED FOR, DUCTILE IRON PIPE AND FITTINGS SHALL HAVE AN APPROVED "TYPE I" OR "TYPE II" BOLLTLESS RESTRAINED PUSH-IN JOINTS...
11E. AT THE END OF EACH WORKDAY, THE CONTRACTOR SHALL PLUG ALL OPEN PIPE ENDS WITH WATER TIGHT PLUGS...
11F. ALL PVC PIPE SHALL BE INSTALLED WITH A CONTINUOUS RUN OF INSULATED #12 GAUGE COPPER WIRE TAPED TO THE TOP OF THE PIPE EVERY 5 FEET...
11G. ALL PIPES SHALL BE SUBMITTED ON A DAILY BASIS UNLESS OTHERWISE DEFINED BY THE CVD INSPECTOR OR ENGINEER...

PVC-011A

DATE: 12-17-2009 BY: RSK

HYDRANTS

- 12A. IN ALL HYDRANT INSTALLATIONS THE CONTRACTOR SHALL FACE ALL HYDRANTS 4' (STEAMER) NIDZLE TOWARD THE PAVEMENT PRIOR TO TESTING AND CHLORINATION OF WATER MAINS...
12B. HYDRANT ASSEMBLIES SHALL BE CONSTRUCTED OF DUCTILE IRON (CL 50) CEMENT LINED PIPE.
VALVES
13. ALL VALVES SHALL BE AN APPROVED MODEL, RESILIENT SEATED GATE VALVES AS PER THE MOST CURRENT VERSION OF AWWA C509 OR C515.

CONNECTIONS

- 14. WATER CONNECTIONS SHOWN ON THESE DRAWINGS ARE FOR REFERENCE ONLY AND ARE NOT PART OF THE WATER MAIN APPROVAL...
15. ONE INCH SERVICE CONNECTIONS SHALL BE PERMITTED TO SERVICE HOMES BASED ON THE FOLLOWING CRITERIA:
* PEAK FLOW DEMANDS DO NOT EXCEED 25 GPM FOR AN INDIVIDUAL HOME/UNIT...
* LENGTH OF ONE INCH CONNECTION DOES NOT EXCEED 50 FEET AS MEASURED FROM THE MAIN TO THE CURB VALVE...
16. ALL WATER MAIN CURB VALVE BOXES & METER VAULTS WILL BE INSTALLED IN GRASS AREAS WHEN POSSIBLE.
17. SERVICE SADDLES SHALL BE USED FOR ALL SERVICE CONNECTIONS...
18. IF A WATER MAIN OR SERVICE CONNECTION BREAK OCCURS DURING CONSTRUCTION AND EMERGENCY ASSISTANCE IS REQUIRED, PLEASE NOTIFY THE DIVISION OF WATER AT 216-664-3060.

PVC-011B

DATE: 2-4-2009 BY: RSK

SANITARY SEWERS

- 1. ALL SANITARY SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH CURRENT STANDARDS AND SPECIFICATIONS OF DEPARTMENT OF SANITARY SEWER SERVICES, (D.S.S.S.).
2. ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED...
3. APPROVAL BY THE D.S.S.S. OFFICE CONSTITUTES NEITHER EXPRESSED NOR IMPLIED WARRANTIES AS TO THE FITNESS, ACCURACY, OR SUFFICIENCY OF PLANS, DESIGNS OR SPECIFICATIONS.
4. THE DESIGN ENGINEER CERTIFIES THAT ALL UTILITIES IN EXISTING AND PROPOSED ROADS AND EASEMENTS ARE SHOWN.
5. ALL SANITARY SEWERS SHALL PASS THE AIR ACCEPTANCE TEST PRIOR TO ACCEPTANCE BY D.S.S.S.
6. ALL SANITARY SEWERS SHALL BE VIDEO TAPED BY THE OWNER AND FOUND TO BE FREE OF DEFECTS AND FOREIGN MATTER...
7. ALL MANHOLES SHALL BE SUPPLIED WITH SOLID COVERS EXCEPT IN EASEMENTS WHERE THE MANHOLE COVERS SHALL BE THE SOLID-LOOKING TYPE.
8. ALL SANITARY LATERALS SHALL BE EXTENDED TO NOT LESS THAN 15 FEET INTO PROPERTY.
9. ALL SANITARY LATERALS SHALL BE LAID AT NO LESS THAN 1% GRADE.
10. SANITARY SEWER MATERIALS SHALL CONFORM TO D.S.S.S. AND O.E.P.A. STANDARDS.
11. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DAMAGE TO THE EXISTING SEWERAGE SYSTEM RESULTING FROM NON-CONFORMANCE WITH SUMMIT COUNTY STANDARDS OR GENERAL NEGLIGENCE.
12. A 12" MAXIMUM MANHOLE GRADE ADJUSTMENT IS PERMITTED...
13. INTERNAL CHIMNEY SEALS SHALL BE INSTALLED IN ALL MANHOLES.
14. MANHOLE COVER INSERTS SHALL BE PROVIDED FOR ALL MANHOLES REGARDLESS OF THE TYPE OF COVER REQUIRED.
15. WHERE INLET AND OUTLET PIPES CONNECT TO MANHOLES, A FLEXIBLE WATERIGHT JOINT, AS APPROVED BY D.S.S.S., IS REQUIRED.
16. SANITARY SEWER MATERIAL SHALL BE PVC SDR-35 MEETING ASTM D3034 WITH JOINTS CONFORMING TO ASTM D3212...
17. THE OWNER (CONTRACTOR) MUST ALERT THE OHIO UTILITIES PROTECTION SERVICE AT 1-800-362-2764 AT LEAST 48 HOURS BEFORE ANY EXCAVATION HAS BEGUN.
18. ALL ROUGH GRADING (WITHIN 6" OF FINISHED GRADE) SHALL BE COMPLETED WITHIN THE EASEMENTS AND RIGHT-OF-WAY PRIOR TO SANITARY SEWER CONSTRUCTION.
19. NO SEWER CONSTRUCTION WILL BE PERMITTED UNTIL SUCH TIME THAT THE PLANS ARE APPROVED BY D.O.E.S. AND THE O.E.P.A., INCLUDING PAYMENT OF REVIEW, AND "PERMIT TO INSTALL" FEES REQUIRED BY THE O.E.P.A.

20. ALL SANITARY SEWERS CONTAINED HEREIN ARE TO BE (PRIVATELY/PUBLICLY) OWNED AND MAINTAINED. (AS APPLICABLE)

- 21. ALL UNDERGROUND LINES ENCOUNTERED BY CONSTRUCTION OF SANITARY SYSTEM ARE TO BE COMPLETELY RESTORED AT THE EXPENSE OF THE CONTRACTOR.
22. COST OF WYES AND STUBS TO BE INCLUDED IN PRICE BID PER LINEAR FOOT OF SANITARY SEWER.
23. COST OF ANY SHEETING OR DEWATERING NECESSARY FOR INSTALLATION OF RESPECTIVE SEWER SHALL BE INCLUDED IN PRICE BID PER LINEAR FOOT OF RESPECTIVE ITEMS.

SANITARY SEWER: (OHIO E.P.A. REQUIREMENTS)

- 1. ALL SANITARY SEWER SHALL PASS THE AIR ACCEPTANCE TEST. THE INFILTRATION LIMIT SHALL NOT EXCEED 100 GAL./INCH DIA./MILE/DAY AS REQUIRED BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY.
2. PRIOR TO ACCEPTANCE, ALL SANITARY SEWER MANHOLES SHALL PASS THE AIR TEST AS SPECIFIED BY ASTM C-1244.
3. A DEFLECTION TEST SHALL BE REQUIRED FOR ALL FLEXIBLE PIPE OF 8-INCH DIAMETER AND LARGER...
4. FLEXIBLE GASKETS ON SEWER LINE CONNECTIONS MUST MEET ASTM C-923 STANDARDS.

STORM SEWER SYSTEM

- 1. ALL STORM STRUCTURES SHALL MEET THE REQUIREMENTS OF ODOT ITEM 604, CONSTRUCTED PER THE ODOT STANDARD DRAWING REFERENCED IN THE PLANS, OR AS MODIFIED BY SPECIFIC DETAILS INCLUDED IN THIS PLAN.
2. ALL STORM GRATES SHALL BE "BICYCLE SAFE" AND "ADA COMPLIANT".
3. ALL STORM PIPES SHALL MEET THE REQUIREMENTS OF ODOT ITEM 603, OR AS MODIFIED BY SPECIFIC DETAILS INCLUDED IN THIS PLAN.
4. ALL STORM SEWERS UNDER PAVEMENT SHALL BE ODOT TYPE B. ALL DRIVE PIPES SHALL BE ODOT TYPE D. ALL CULVERTS SHALL BE ODOT TYPE A.
5. ALL UNDERDRAINS SHALL MEET THE REQUIREMENTS OF ODOT ITEM 605, OR AS MODIFIED BY SPECIFIC DETAILS INCLUDED IN THIS PLAN.
6. ALL ROOF DRAIN COLLECTORS SHALL MEET THE REQUIREMENTS OF ODOT ITEM 603, OR AS MODIFIED BY SPECIFIC DETAILS INCLUDED IN THIS PLAN.
7. BACKFILL FOR ALL PIPES WITHIN THE INFLUENCE LINE OF THE PAVEMENT (STREET, DRIVEWAYS, SIDEWALKS, ETC.) SHALL BE FULL DEPTH COMPACTED GRANULAR EMBANKMENT MEETING THE REQUIREMENTS OF ODOT ITEM 603 OR ODOT ITEM 605, AS APPLICABLE.
8. ALL EXISTING PIPES, ROOF DRAINS, DRAIN TILES, SUMP PUMP CONNECTIONS, SPRING DRAINS, OR FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE CONNECTED TO THE STORM SEWER SYSTEM OR ROOF DRAIN COLLECTOR SYSTEM.
9. ALL CONSTRUCTED HOUSES SHALL UTILIZE A SUMP PUMP FOR FOOTER DRAINS & DISCHARGE TO THE STORM LATERAL CONNECTION PROVIDED FOR THE LOT.
10. WALKOUT HOUSES MAY DISCHARGE REAR ROOF DRAINS TO THE REAR OF THE LOT. OUTLETS ARE REQUIRED TO UTILIZE ODOT ITEM 601 RIP RAP (2'Wx4'x1'D) AT THE END OF THE PIPE...

SCE GENERAL NOTES

- 1. ALL CONSTRUCTION AND MATERIALS INCLUDED ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE SPECIFICATIONS AND DETAIL OF THE SCE.
2. ANY DEFECTS IN THE CONSTRUCTION, INCLUDING MATERIALS OR WORKSMANSHIP, SHALL BE REPLACED OR CORRECTED BY REMOVAL AND REPLACEMENT OR OTHER APPROVED METHOD PRIOR TO ACCEPTANCE BY THE SCE.
3. THE SCE SHALL NOT BE HELD LIABLE FOR DAMAGES OF ANY TYPE WHICH MAY OCCUR AS A RESULT OF ERROR AND/OR OMISSIONS IN THE ENGINEERING DESIGN DATA.
4. THE DEVELOPER'S ENGINEER CERTIFIES THAT ALL DESIGN DATA AND CALCULATIONS PERTAINING TO THESE IMPROVEMENT PLANS, WHERE APPLICABLE, ARE CORRECT AND DO CONFORM TO THE CURRENT DESIGN CRITERIA.
5. THE SCE IN APPROVING THESE PLANS AND DEDICATION PLAT THEREOF, DOES NOT, IN ANY WAY, RELIEVE THE DEVELOPER'S ENGINEER OF HIS RESPONSIBILITY FOR ACCURATE AND COMPLETE ENGINEERING DESIGN RELATIVE TO THE PLANS.
6. ALL ROAD SURFACES, EASEMENTS OR RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION OF ANY PART OF THIS IMPROVEMENT ARE TO BE RESTORED COMPLETELY TO THE BEFORE CONSTRUCTION CONDITION OR BETTER WHEN DIRECTED BY THE SCE AND/OR THE SUMMIT COUNTY D.O.E.S.
7. THE LOCATIONS OF ALL BURIED UTILITY ARE TO BE DETERMINED BY THE CONTRACTOR.
8. A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED WITH THE SCE PRIOR TO THE START OF ANY CONSTRUCTION OPERATIONS.
9. THE CONTRACTOR OR DEVELOPER SHALL MAINTAIN LOCAL TRAFFIC AT ALL TIMES AND OBTAIN ALL NECESSARY PERMITS.
10. ANY DISTURBED SIGNS, GUARDRAIL, MAIL/PAPER BOXES, DRIVES, DRIVE CULVERTS, STORM SEWER PIPES, STRUCTURES, HOSE, LATERALS AND DITCHES SHALL BE REPLACED BY THE CONTRACTOR DURING AS DIRECTED BY THE SCE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SOIL EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH ODOT SUPPLEMENTAL SPECIFICATION 832.
12. ALL STORM SEWER LATERALS SHALL BE PVC (SDR 35). ALL PIPES SHALL HAVE PREFORMED WYES OF 1" DIAMETER HOUSE LATERAL CONNECTIONS.
13. WHERE SEWER AND/OR WATER MAIN INTERSECTIONS HAVE LESS THAN EIGHTEEN (18) INCH VERTICAL SEPARATION, ENCASE THE LOWER PIPE AND MONOLITHICALLY CRADLE THE UPPER PIPE IN CLASS C CONCRETE.
14. STORM SEWER LATERALS SHALL BE PVC (SDR 35). ALL PIPES SHALL HAVE PREFORMED WYES OF 1" DIAMETER HOUSE LATERAL CONNECTIONS.
15. EACH SUBLT MUST ROUTE ALL STORMWATER DRAINAGE FROM A CONDUIT TO THE STORM SEWER LATERAL THAT IS PROVIDED.
16. ALL SEWER/UTILITY TRENCH CONSTRUCTION, CONDUIT BEDDING, PIPE COVER, BACKFILL AND COMPACTION SHALL CONFORM TO THE UTILITY TRENCH DETAIL STANDARD DRAWING ON SHEET C107.
17. ALL INSPECTION AND TESTING SHALL BE DONE BY AN EXPERIENCED AND QUALIFIED FIRM ENGAGED IN THE TYPE OF WORK.
18. UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ODOT ITEM 605; CONDUIT SHALL BE A MINIMUM OF FOUR (4) INCH DIAMETER PIPE AND CONFORMING TO ODOT SPECIFICATION 707.33.
19. ALL PROPOSED STORM SEWER STRUCTURES (MANHOLES, HEADWALLS AND CATCH/INLET BASINS) SHALL ADHERE TO ODOT ITEMS 602 AND 611 AND THE CURRENT EDITION OF THE ODOT STANDARD CONSTRUCTION DRAWINGS.
20. WHEREVER UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED THAT ARE NOT INDICATED ON THE PLANS, THE WORK SHALL BE DISCONTINUED UNTIL THE SCE APPROVES THE METHOD AND MATERIAL TO BE INCORPORATED INTO THE WORK.
21. ALL FILLED AREAS, EXCLUDING TRENCHES, WITHIN RIGHT-OF-WAY AREAS SHALL BE COMPACTED IN ACCORDANCE WITH ODOT ITEM 203.
22. BEFORE ACCEPTANCE OF THE SUB-GRADE BY THE SCE, A FORTY (40) TON PROOF ROLL SHALL BE REQUIRED ON ALL AREAS TO BE PAVED.
23. FOR ODOT ITEMS 301 & 448, THE CONTRACTOR SHALL PROVIDE THE SCE WITH A JOB MIX FORMULA FOR REVIEW AND APPROVAL.
24. CURB AND GUTTER SHALL BE CONSTRUCTED IN ACCORDANCE WITH ODOT ITEM 609, CAST IN PLACE CONCRETE CURB AND GUTTER.
25. ALL MONUMENT BOXES, FURNISHED AND INSTALLED, SHALL BE IN CONFORMANCE WITH THE CURRENT EDITION OF THE ODOT STANDARD ROADWAY CONSTRUCTION DRAWINGS.
26. IT WILL BE THE RESPONSIBILITY OF THE DEVELOPER OR CONTRACTOR TO NOTIFY THE INSPECTOR WHEN WORK ON SITE IS BEING PERFORMED OR CANCELLED.
27. THE FINAL SUBLT GRADES SHALL BE WITHIN ONE FOOT (+/-) OF THE GRADES AND ELEVATIONS LISTED ON THE APPROVED FINAL GRADING PLAN SHEET.
28. IMMEDIATELY FOLLOWING THE COMPLETION OF GRADING OPERATIONS FOR A PROPOSED DETENTION/RETENTION BASIN, FINAL RESTORATION OF THE BASIN MUST BE COMPLETED TO ESTABLISH PROPER VEGETATION AND LIMIT SOIL EROSION.

OHIO E.P.A. WATER MAIN NOTES:

- 1. THE SYSTEM SHALL MAINTAIN A MINIMUM PRESSURE OF 20 PSI (140kpa) AT GROUND LEVEL AT ALL POINTS IN THE DISTRIBUTION SYSTEM UNDER ALL CONDITIONS OF FLOW.
2. BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS.
3. ALL WATERLINE DISINFECTION SHALL BE IN ACCORDANCE WITH AWWA C-651.
4. A 10'-FOOT MINIMUM HORIZONTAL CLEARANCE SHALL BE MAINTAINED FROM THE OUTSIDE EDGE OF ALL WATER MAIN PIPE TO THE OUTSIDE EDGE OF ALL STORM SEWER PIPE.
5. A 10'-FOOT MINIMUM HORIZONTAL CLEARANCE SHALL BE MAINTAINED FROM THE OUTSIDE EDGE OF ALL WATER MAIN PIPE TO THE OUTSIDE EDGE OF ALL SANITARY SEWER PIPE.
6. A 18-INCH MINIMUM VERTICAL CLEARANCE SHALL BE MAINTAINED FROM THE OUTSIDE EDGE OF ALL WATER MAIN PIPE TO THE OUTSIDE EDGE OF ALL STORM SEWER, SANITARY SEWER OR FORCE MAIN PIPE.

UTILITY CONTACTS

GAS
DOMINION EAST OHIO
2100 EASTWOOD AVE.
AKRON, OHIO 44305
330-798-7122

ELECTRIC
OHIO EDISON CO.
111 CASADE PLAZA
AKRON, OHIO 44308
330-255-1610

CABLE
TIME WARNER CABLE
12556 ROCKSIDE ROAD
GARFIELD HEIGHTS, OHIO 44125
216-663-4004

TELEPHONE
WINDSTREAM
800-347-1991

ENGINEERING
SUMMIT COUNTY ENGINEER
538 E SOUTH ST.
AKRON, OHIO 44311
ALLOTMENT ENGINEER
ANDY DUNCHUCK P.E.: 330-643-2850
DRAINAGE ENGINEER
TIM BOLEY P.E.: 330-643-2850

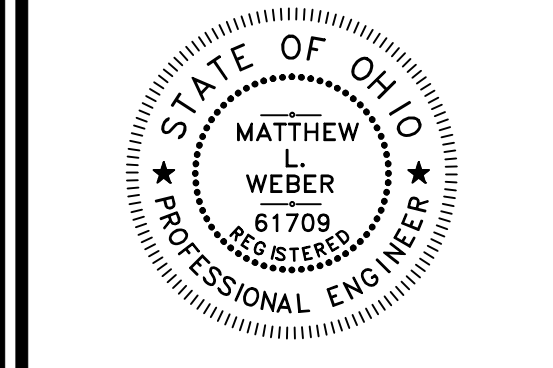
O.U.P.S.
OHIO UTILITIES PROTECTION SERVICE
1-800-362-2764

EROSION CONTROL
SUMMIT SOIL AND WATER CONSERVATION DISTRICT
1180 SOUTH MAIN STREET, SUITE 241
AKRON, OHIO 44301
330-929-2871

WATER
CITY OF CLEVELAND DIVISION OF WATER
1201 LAKESIDE AVE., 6th FLOOR
CLEVELAND, OHIO 44114
ED WAAG
216-664-2444

SUMMIT COUNTY DEPARTMENT OF SANITARY SEWER SERVICES
1180 SOUTH MAIN STREET
AKRON, OHIO 44301
330-643-2485

WEBER ENGINEERING SERVICES
2555 Harville Rd., Suite B
Roxstown, OH 44772
www.WeberEngineeringServices.com
330-329-2037
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Reg. No.: 61709

Dunham Land Properties Inc.
756 Ravenhill Drive
Sagamaw Hills, OH 44067
Paul Karnow
Ph.# (330) 468-2892
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Table with 2 columns: Issue Date, and a list of dates from 01-25-2016 to 03-27-2017.

HIDDEN RIDGE
RESIDENTIAL SUBDIVISION
DUNHAM ROAD

GENERAL NOTES

C101
Project No. 2014-226

OHIO Utilities Protection SERVICE
800-362-2764 or 8-1-1
www.oups.org
OGPUPS
800-925-0988 or 8-1-1
www.ogpups.org