

----- BASELINE



BENCHMARK No. 1: RAILROAD SPIKE SET 1' ± UP ON POWER/TELE POLE #2420C-7, 2" NORTH OF CENTERLINE OF DRIVE TO HOUSE #1333 AND 21' EAST OF THE CENTERLINE OF 17TH STREET S.W. ELEV. = 1049.58.

BENCHMARK No. 2: RAILROAD SPIKE SET 1' ± UP ON POWER POLE #D40747-223365, 26' EAST AND 30.5' SOUTH OF CONTROL POINT No. 3. ELEV. = 1061.58.

GENERAL NOTES

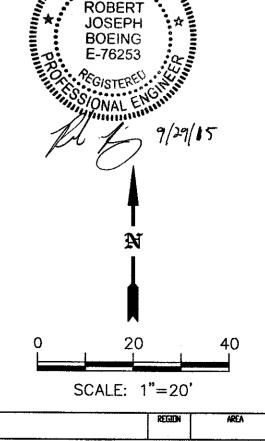
- CONSTRUCTION OF THE STATION SHALL COMPLY WITH THE LATEST VERSION OF THE FOLLOWING GENERAL SPECIFICATIONS: FE-CONST-1, SUBSTATION CONSTRUCTION FE-MNC-1, CONCRETE FE-STEEL, SUBSTATION STRUCTURAL AND TUBULAR STEEL
 - STRUCTURES FE-FENCE-1, SUBSTATION CHAIN LINK FENCE
 - FE-KGR-1, GROUNDING MATS FE-EROSIONCTRL-1, EROSION CONTROL AND OHIO'S RAINWATER AND LAND DEVELOPMENT STANDARDS
- 2. THE PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF MASSILLON, STARK COUNTY, AND OHIO EPA CONSTRUCTION REQUIREMENTS, STANDARDS, AND SPECIFICATIONS.
- 3. THE CONTRACTOR SHALL FIELD-VERIFY THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. INFORM OWNER OF ANY DISCREPANCIES.
- 4. THE CONTRACTOR SHALL STAKE THE LIMITS OF DISTURBANCE AND ALERT THE OHIO UTILITIES PROTECTION SERVICE AT 1-800-362-2764 AND OTHER APPROPRIATE ENTITIES AS NECESSARY AT LEAST 48 HOURS BEFORE ANY EXCAVATION OR CONSTRUCTION IS INITIATED TO ARRANGE FOR UTILITY VERIFICATION AND CONSTRUCTION INSPECTION SERVICES. RESPECTIVELY. INFORM OWNER OF ANY DISCREPANCIES.
- 5. REMOVE ALL TOPSOIL WITHIN SUBSTATION EXPANSION AREA (INCLUDES 5' BEYOND FENCE) AND STOCKPILE AT OWNER-DEFINED LOCATION. APPROXIMATE TOPSOIL DEPTH IS 1" TO 3" (REFER TO SOIL BORE DATA).
- 6. DO NOT USE SOD AND TOPSOIL CUT FROM PROPERTY AS STRUCTURAL FILL MATERIAL. REFER TO GENERAL SPECIFICATION FE-CONST-1.
- SUBSTATION PAD TO BE FINISHED WITH 6" OF STONE. 3" TOP COURSE TO BE AASHTO #57 WASHED LIMESTONE. 3" BOTTOM COURSE TO BE AASHTO #4 WASHED LIMESTONE.
- 8. SUBSTATION PAD STONE TO EXTEND 5' BEYOND FENCE.
- SUBSTATION FENCE TO BE 7' OF CHAIN LINK FABRIC WITH 3 STRANDS OF BARBED WIRE EXTENDING OUTWARD AT AN ANGLE OF 45-DEGREES TO AN OVERALL FENCE HEIGHT OF 8'. REFER TO GENERAL SPECIFICATION FE-FENCE-1.
- 10. THE CONTRACTOR SHALL MAINTAIN LOCAL TRAFFIC AT ALL TIMES IN ACCORDANCE WITH CITY OF MASSILLON AND/OR STARK COUNTY REQUIREMENTS.
- 11. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS.
- 12. THE OWNER AND/OR CONTRACTOR SHALL MEET WITH THE STARK SOIL AND WATER CONSERVATION DISTRICT (SWCD) FOR A PRE-CONSTRUCTION MEETING NO LESS THAN 7 DAYS PRIOR TO SOIL DISTURBING ACTIVITY AT THE SITE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE SWCD AT 330-830-7700, EXT. 103 TO SCHEDULE A MEETING DATE.

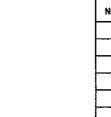
VOLUME

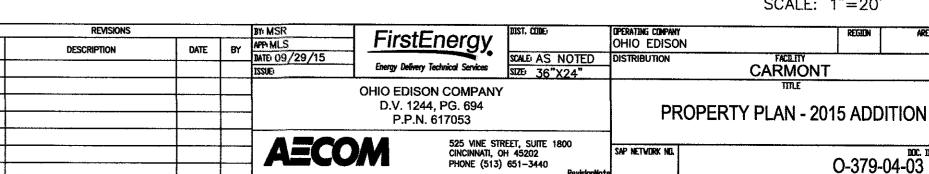
CUT 770 CY (NET AVAILABLE CUT - INCLUDES SOD AND TOPSOIL). FILL 670 CY (NET REQUIRED FILL - INCLUDES STRUCTURAL AND NON-STRUCTURAL).

APPROVED BY THE MASSILLON CITY ENGINEER THIS DAY OF OCTOBER , 20 15. KEITH A. DYLEWSKI, P.E., P.S.

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







O-379-04-03

RONDALE ST. S.W.

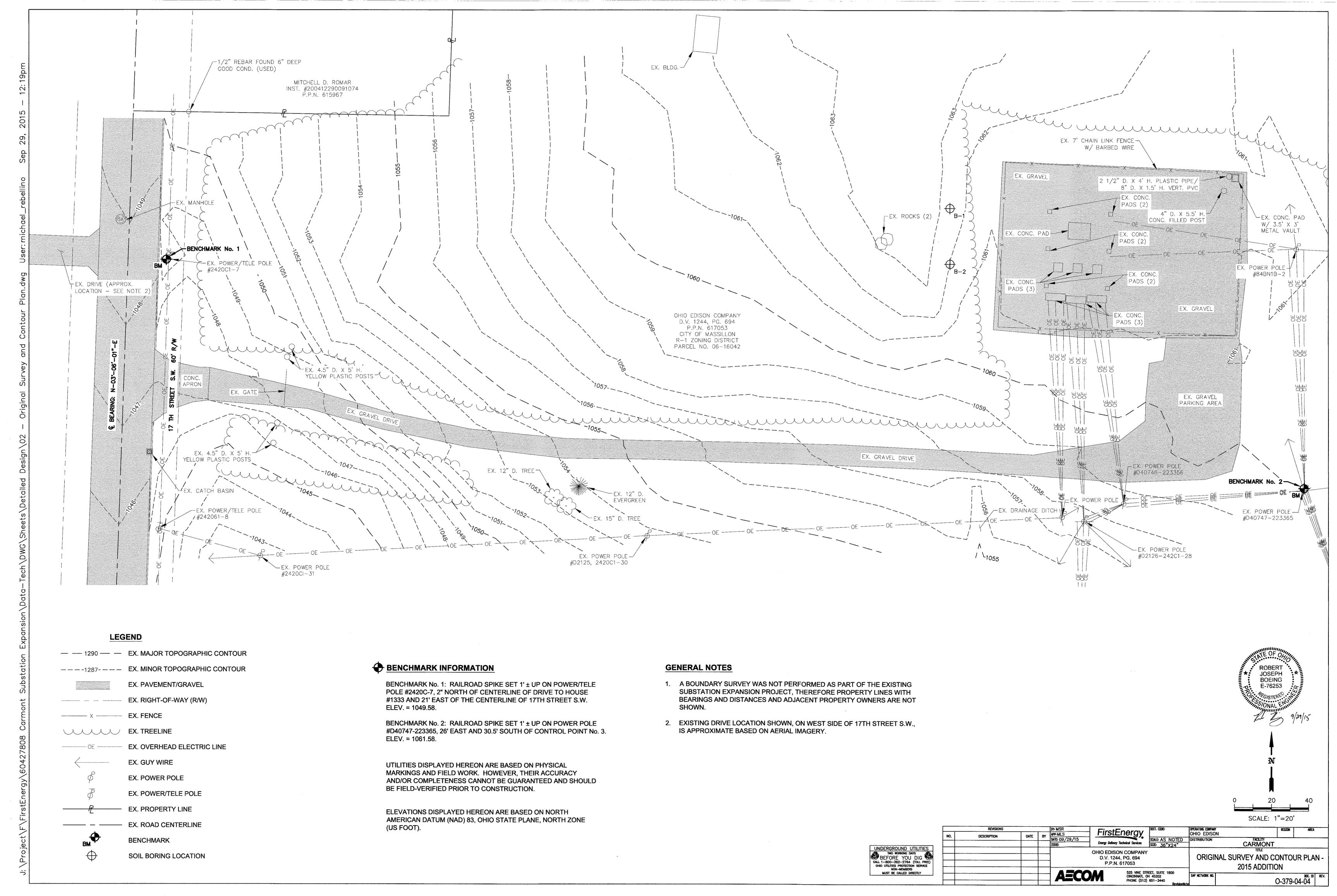
OBERLIN AVE. S.W.

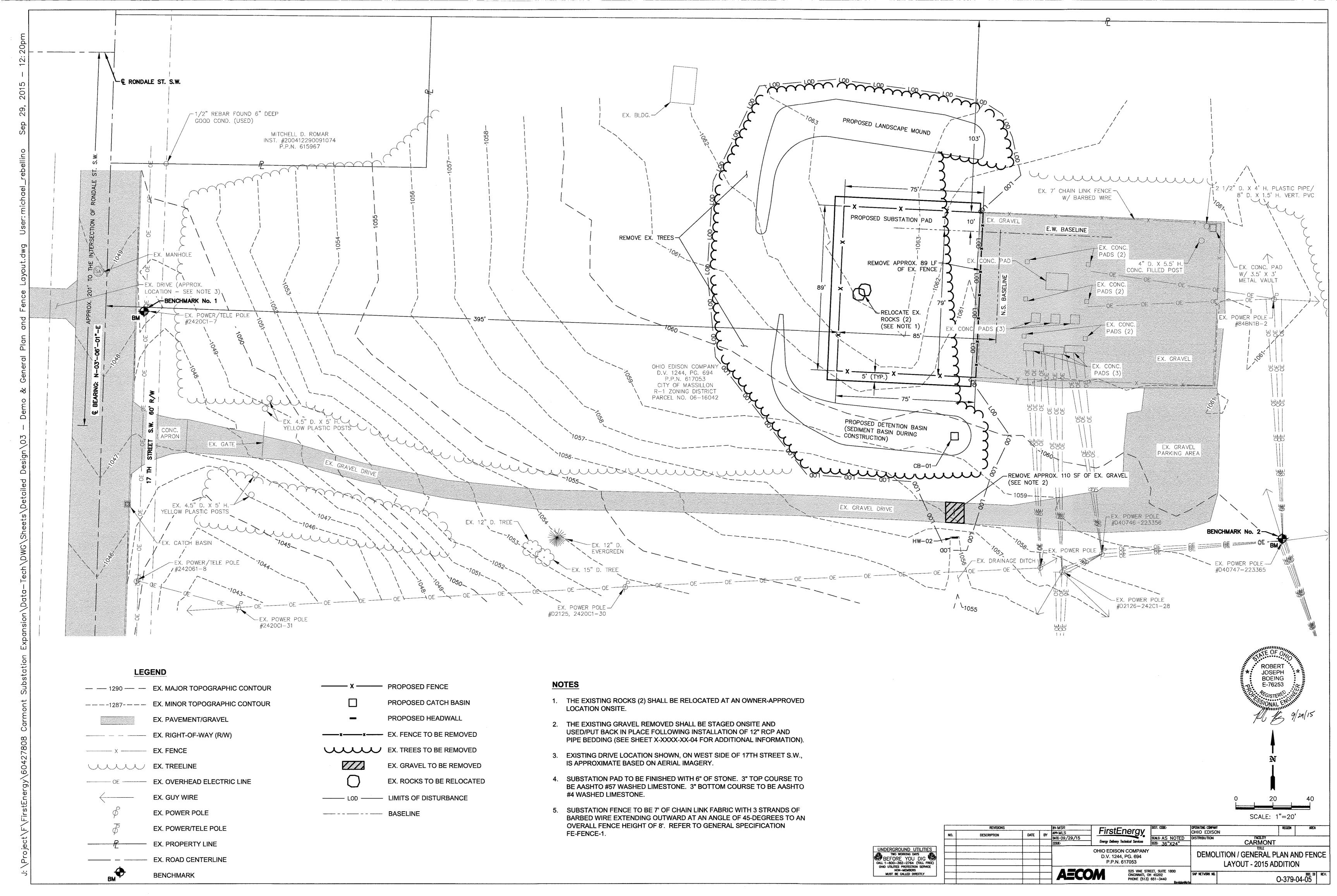
LOCATION MAP

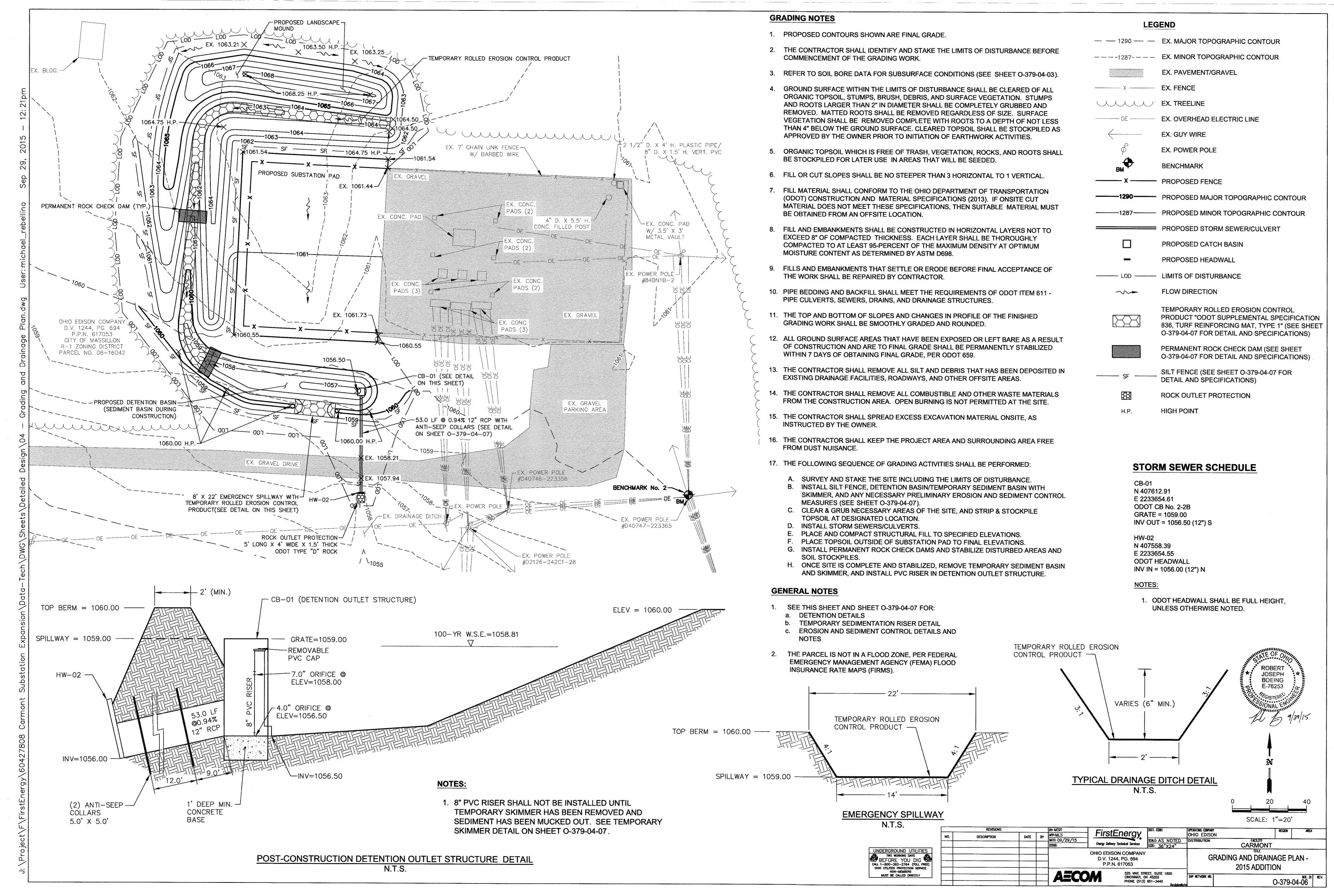
CARMONT SUBSTATION EXPANSION

1338 17TH ST. S.W., MASSILLON, OH 44647

CITY OF MASSILLON, STARK COUNTY







EROSION & SEDIMENT CONTROL NOTES

- THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS AS DETAILED ON THESE CONSTRUCTION PLANS.
- SEDIMENT/STORMWATER PONDS AND EROSION AND SEDIMENT CONTROLS SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF CLEARING/GRUBBING. UPON COMPLETION OF CONSTRUCTION OF PONDS, SEEDING AND MULCHING SHALL FOLLOW WITHIN 7 DAYS. ALL EROSION AND SEDIMENT CONTROLS SHALL CONTINUE TO FUNCTION UNTIL DISTURBED AREAS ARE RE-STABILIZED.
- UNLESS OTHERWISE DIRECTED BY THE OWNER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUED INSPECTION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL DEVICES. PERMANENT RECORDS OF MAINTENANCE AND INSPECTIONS SHALL BE KEPT THROUGHOUT THE CONSTRUCTION PERIOD. INSPECTION MUST BE MADE BY QUALIFIED PERSONNEL, A MINIMUM OF ONCE EVERY 7 DAYS AND AFTER EACH STORM EVENT GREATER THAN 0.5" OF RAIN IN A 24-HOUR PERIOD. NAME OF DESIGNATED INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTIONS, AND CORRECTIVE MEASURES TAKEN MUST BE NOTED ON ALL INSPECTIONS. THE OWNER SHALL MAINTAIN ALL INSPECTION RESULTS FOR 3 YEARS FOLLOWING FINAL STABILIZATION.
- PER THE OHIO EPA, ANY DISTURBED AREAS THAT WILL REMAIN DORMANT FOR A PERIOD OF 14 DAYS OR LONGER SHALL BE TEMPORARILY STABILIZED WITH SEEDING AND MULCHING, OR OTHER APPROPRIATE MEANS, WITHIN 7 DAYS AFTER EARTH-MOVING CEASES.
- THE USE OF SILT FENCING, TEMPORARY SEEDING, CHECK DAMS, ETC. WILL BE REQUIRED. EROSION AND SEDIMENT CONTROL STRUCTURES/DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF "RAINWATER AND LAND DEVELOPMENT - OHIO'S STANDARDS FOR STORMWATER MANAGEMENT LAND DEVELOPMENT AND URBAN STREAM PROTECTION", THE STARK COUNTY STORM WATER QUALITY REGULATIONS, AND THE CITY OF MASSILLON SITE PLAN CHECKLIST. THESE CONTROL STRUCTURES/DEVICES MUST BE INSTALLED PRIOR TO BEGINNING ANY SOIL-DISTURBING ACTIVITIES.
- EROSION AND SEDIMENT CONTROL MEASURES MUST BE PROVIDED AROUND ALL SOIL STOCKPILES AND OTHER TEMPORARILY DISTURBED AREAS.
- FERTILIZING, SEEDING, AND MULCHING FOR RESTORATION OF DISTURBED AREAS SHALL CONFORM TO SECTION 659 AS SPECIFIED IN THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIAL SPECIFICATIONS (LATEST EDITION).
- IF UNFORESEEN EROSION IS ENCOUNTERED DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES SHALL BE PROVIDED.

- 9. THE FOLLOWING SEQUENCE OF EROSION & SEDIMENT CONTROL ACTIVITIES SHALL BE PERFORMED:
- 9.1. INSTALL SILT FENCE.
- INSTALL DETENTION BASIN/TEMPORARY SEDIMENTATION BASIN WITH SKIMMER BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
- 9.3. CLEAR & GRUB NECESSARY AREAS OF THE SITE, AND STRIP & STOCKPILE TOPSOIL AT DESIGNATED LOCATION. PLACE SILT FENCE AROUND TOPSOIL STOCKPILE.
- INSTALL PERMANENT ROCK CHECK DAMS AND STABILIZE DISTURBED AREAS AND SOIL STOCKPILES IN ACCORDANCE WITH THE FOLLOWING STABILIZATION TABLE:

Table 1: Permanent Stabilization

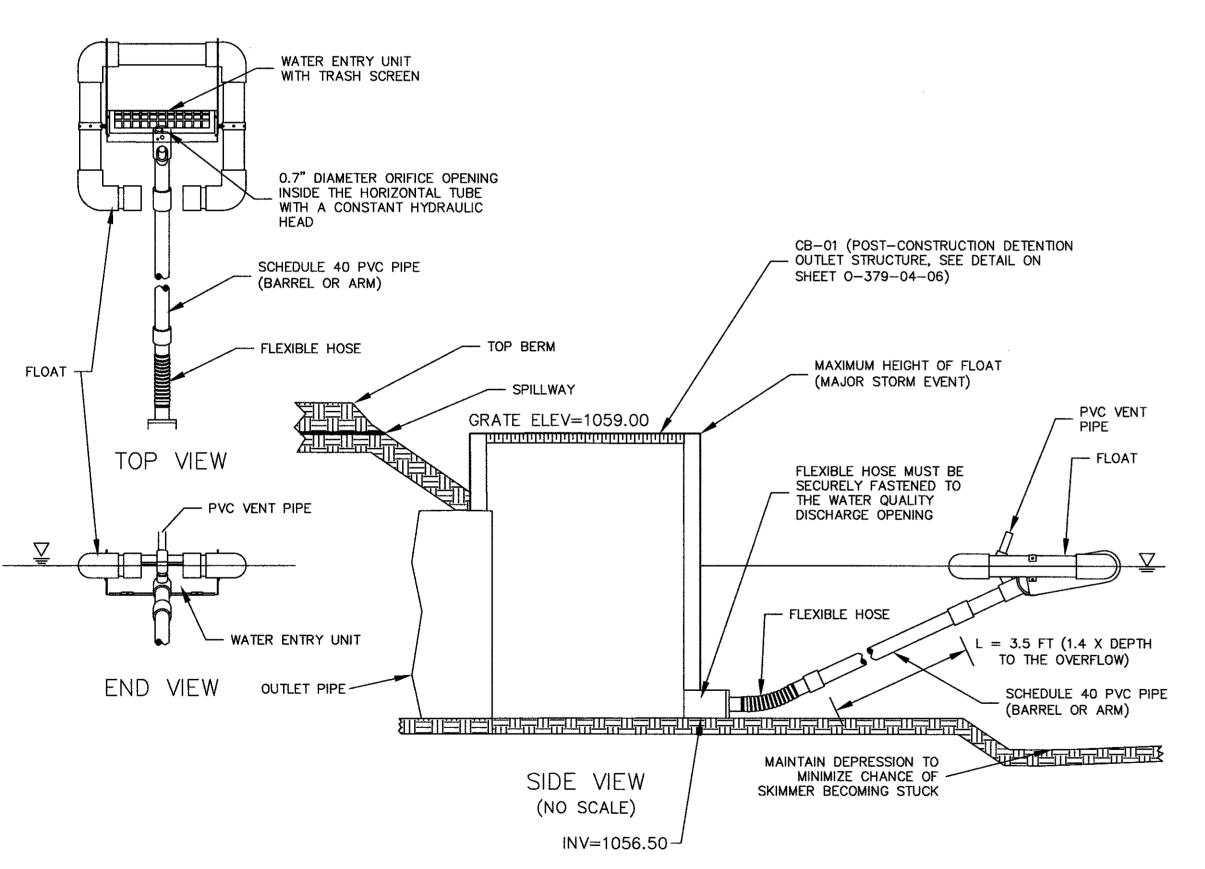
Area requiring permanent stabilization	Time frame to apply erosion controls
Any areas that will lie dormant for one year or more	Within seven days of the most recent disturbance
Any areas within 50 feet of a surface water of the state and at final grade	Within two days of reaching final grade
Any other areas at final grade	Within seven days of reaching final grade within that area

Table 2: Temporary Stabilization

Area requiring temporary stabilization	Time frame to apply erosion controls
Any disturbed areas within 50 feet of a surface water of the state and not at final grade	Within two days of the most recent disturbance if the area will remain idle for more than 14 days
For all construction activities, any disturbed areas that will be dormant for more than 14 days but less than one	Within seven days of the most recent disturbance within the area
year, and not within 50 feet of a surface water of the state	For residential subdivisions, disturbed areas must be stabilized at least seven days prior to transfer of permit coverage for the individual lot(s).
Disturbed areas that will be idle over winter	Prior to the onset of winter weather

otherwise unobtainable, alternative stabilization techniques must be employed, Permanent and temporary stabilization are defined in Part VII.

ONCE SITE WORK IS COMPLETE AND STABILIZED, REMOVE TEMPORARY SEDIMENTATION BASIN AND SKIMMER, AND INSTALL PVC RISER IN DETENTION OUTLET STRUCTURE.



TEMPORARY SEDIMENT BASIN VOLUME DEWATERING VOLUME = 814 CF (0.02 AC-FT) SEDIMENT STORAGE VOLUME = 450 CF (0.01 AC-FT) MAXIMUM SEDIMENT ELEVATION = 1057.93 MAXIMUM SEDIMENT DEPTH = 1.43'

J. W. FAIRCLOTH & SON INC. WWW.FAIRCLOTHSKIMMER.COM TELEPHONE: (919) 732-1244 FAX: (919) 732-1266 EMAIL: WARREN@FAIRCLOTHSKIMMER.COM

SEDIMENT MUST BE REMOVED FROM BASIN ONCE IT REACHES THE MAXIMUM HEIGHT. SEDIMENT MUST BE RESPREAD ONSITE

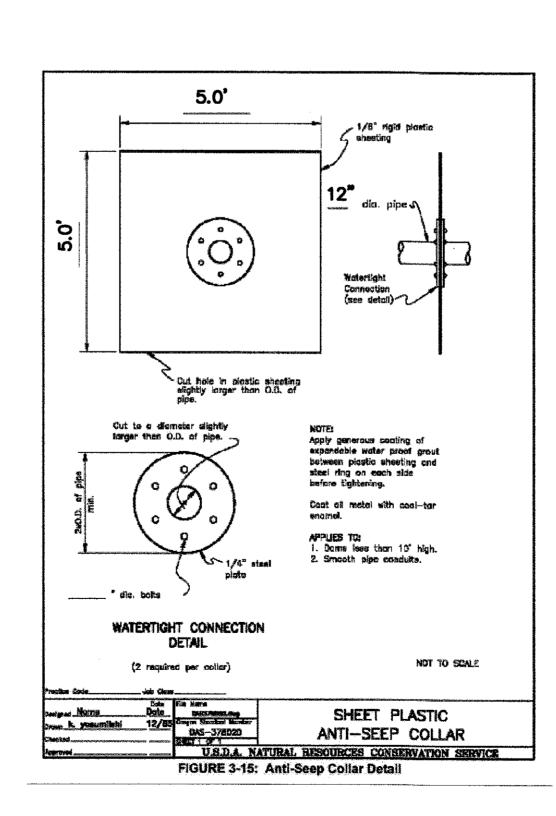
- FOR DISPOSAL. MAXIMUM HEIGHT MUST BE MARKED ON OUTLET STRUCTURE. 2. EMBANKMENT MUST BE COMPACTED TO DESIGN SPECIFICATIONS.
- 3. CONTRACTOR TO INSPECT SKIMMER SYSTEM REGULARLY TO ENSURE IT IS FUNCTIONING PROPERLY.
- 4. WHEN CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, THE CONTRACTOR SHALL REMOVE THE TEMPORARY FAIRCLOTH SKIMMER AND INSTALL PVC RISER IN DETENTION OUTLET STRUCTURE.

JOINING FENCE SECTIONS

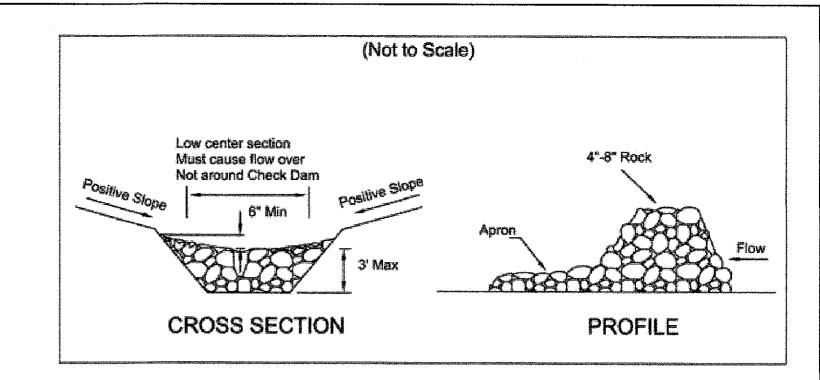
. SILT FENCE TO BE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) TYPE "C GEOTEXTILE FABRIC OR EQUIVALENT. - COMPACTED BACKFILL -TOE ANCHOR TRENCH

- 1. *STAKES SPACED @ 8' MAX. USE 2" X 2" WOOD OR EQUIVALENT STEEL STAKES. FILTER FABRIC FENCE MUST BE INSTALLED AT EXISTING LEVEL GRADE.
- 2. BOTH ENDS OF EACH FENCE SECTION MUST BE EXTENDED AT LEAST 8' UPSLOPE AT 45-DEGREES TO THE MAIN FENCE ALIGNMENT.
- 3. SEDIMENT MUST BE REMOVED WHERE ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FENCE.
- 4. ANY FENCE SECTION WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET.

SILT FENCE INSTALLATION DETAIL N.T.S.



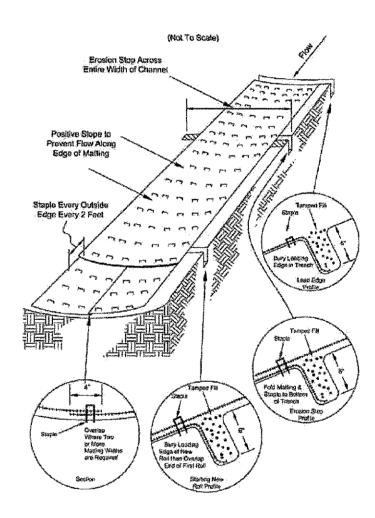
ANTI-SEEP COLLAR DETAIL N.T.S.



- 1. THE CHECK DAM SHALL BE CONSTRUCTED OF 4"-8" DIAMETER STONE, PLACED SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL. ODOT TYPE "C" ROCK IS ACCEPTABLE, BUT SHOULD BE UNDERLAIN WITH A GRAVEL FILTER CONSISTING OF ODOT NO. 3 OR 4 STONE OR SUITABLE FILTER FABRIC.
- 2. MAXIMUM HEIGHT OF CHECK DAM SHALL NOT EXCEED 3.0'.
- 3. THE MIDPOINT OF THE ROCK CHECK DAM SHALL BE A MINIMUM OF 6" LOWER THAN THE SIDES IN ORDER TO DIRECT FLOW ACROSS THE CENTER AND AWAY FROM THE CHANNEL SIDES.
- THE BASE OF THE CHECK DAM SHALL BE ENTRENCHED APPROXIMATELY 6".
- 5. SPACING OF CHECK DAMS SHALL BE IN A MANNER SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM.
- 6. A SPLASH APRON SHALL BE CONSTRUCTED WHERE CHECK DAMS ARE EXPECTED TO BE IN USE FOR AN EXTENDED PERIOD OF TIME. A STONE APRON SHALL BE CONSTRUCTED IMMEDIATELY DOWNSTREAM OF THE CHECK DAM TO PREVENT FLOWS FROM UNDERCUTTING THE STRUCTURE. THE APRON SHOULD BE 6" THICK AND ITS LENGTH TWO TIMES THE HEIGHT OF THE DAM.
- 7. STONE PLACEMENT SHALL BE PERFORMED EITHER BY HAND OR MECHANICALLY AS LONG AS THE CENTER OF THE CHECK DAM IS LOWER THAN THE SIDES AND EXTENDS ACROSS THE ENTIRE CHANNEL.
- 8. SIDE SLOPES SHALL BE A MINIMUM OF 2H:1V.

PERMANENT ROCK CHECK DAM DETAIL

N.T.S.



- CHANNEL/SLOPE SOIL PREPARATION: GRADE AND COMPACT AREA OF INSTALLATION, PREPARING SEEDBED BY LOOSENING 2"-3" OF TOPSOIL ABOVE FINAL GRADE. INCORPORATE AMENDMENTS SUCH AS LIME AND FERTILIZER INTO SOIL. REMOVE ALL ROCKS, CLODS, VEGETATION, OR OTHER DEBRIS SO THAT INSTALLED ROLLED EROSION CONTROL PRODUCT (RECP) WILL HAVE DIRECT CONTACT WITH SOIL
- CHANNEL/SLOPE SEEDING: APPLY SEED TO SOIL SURFACE PRIOR TO INSTALLATION. ALL CHECK SLOTS, ANCHOR TRENCHES, AND OTHER DISTURBED AREAS MUST BE RESEEDED. REFER TO THE PERMANENT SEEDING SPECIFICATION FOR SEEDING RECOMMENDATIONS.

CHANNEL INSTALLATION

ROBERT

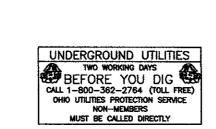
JOSEPH

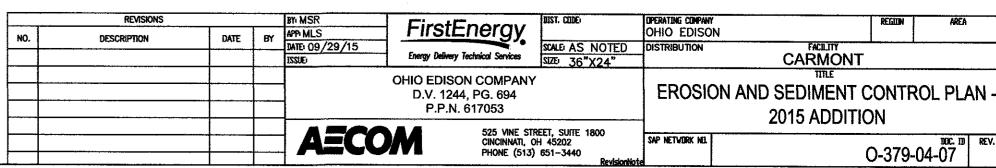
BOEING

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- 3. EXCAVATE INITIAL ANCHOR TRENCH (12" X 6") ACROSS THE LOWER END OF THE PROJECT AREA. 4. EXCAVATE INTERMITTENT CHECK SLOTS (6" X 6") ACROSS THE CHANNEL AT 30' INTERVALS ALONG THE
- EXCAVATE LONGITUDINAL CHANNEL ANCHOR SLOTS (4" X 4") ALONG BOTH SIDES OF THE CHANNEL TO BURY THE EDGES. WHENEVER POSSIBLE EXTEND THE RECP 2'-3' ABOVE THE CREST OF THE CHANNEL
- 6. INSTALL RECP IN INITIAL ANCHOR TRENCH (DOWNSTREAM) ANCHOR EVERY 12", BACKFILL AND COMPACT
- ROLL OUT RECP BEGINNING IN THE CENTER OF THE CHANNEL TOWARD THE INTERMITTENT CHECK SLOT. DO NOT PULL TAUT. UNROLL ADJACENT ROLLS UPSTREAM WITH A 3" MINIMUM OVERLAP (ANCHOR EVERY 18") AND UP EACH CHANNEL SIDE SLOPE.
- 8. AT THE TOP OF CHANNEL SIDE SLOPES INSTALL RECP IN THE LONGITUDINAL ANCHOR SLOTS, ANCHOR
- 9. INSTALL RECP IN INTERMITTENT CHECK SLOTS. LAY INTO TRENCH AND SECURE WITH ANCHORS EVERY 12", BACKFILL WITH SOIL AND COMPACT.
- 10. OVERLAP ROLL ENDS A MINIMUM OF 12" WITH UPSTREAM RECP ON TOP FOR A SHINGLING EFFECT. BEGIN ALL NEW ROLLS IN AN INTERMITTENT CHECK SLOT, DOUBLE ANCHORED EVERY 12". 11. INSTALL UPSTREAM END IN A TERMINAL ANCHOR TRENCH (12" X 6"), ANCHOR EVERY 12", BACKFILL AND
- COMPACT. 12. COMPLETE ANCHORING THROUGHOUT CHANNEL AT 2.5 TIMES PER SQUARE YARD USING SUITABLE GROUND ANCHORING DEVICES (U-SHAPED WIRE STAPLES, METAL GEOTEXTILE PINS, PLASTIC STAKES,
- AND TRIANGULAR WOODEN STAKES). ANCHORS SHOULD BE OF SUFFICIENT LENGTH TO RESIST PULLOUT. LONGER ANCHORS MAY BE REQUIRED IN LOOSE SANDY OR GRAVELLY SOILS.







FOR TEMPORARY SEDIMENT BASIN (DURING CONSTRUCTION)

1.5" FAIRCLOTH SKIMMER DISCHARGE SYSTEM WITH OUTLET STRUCTURE