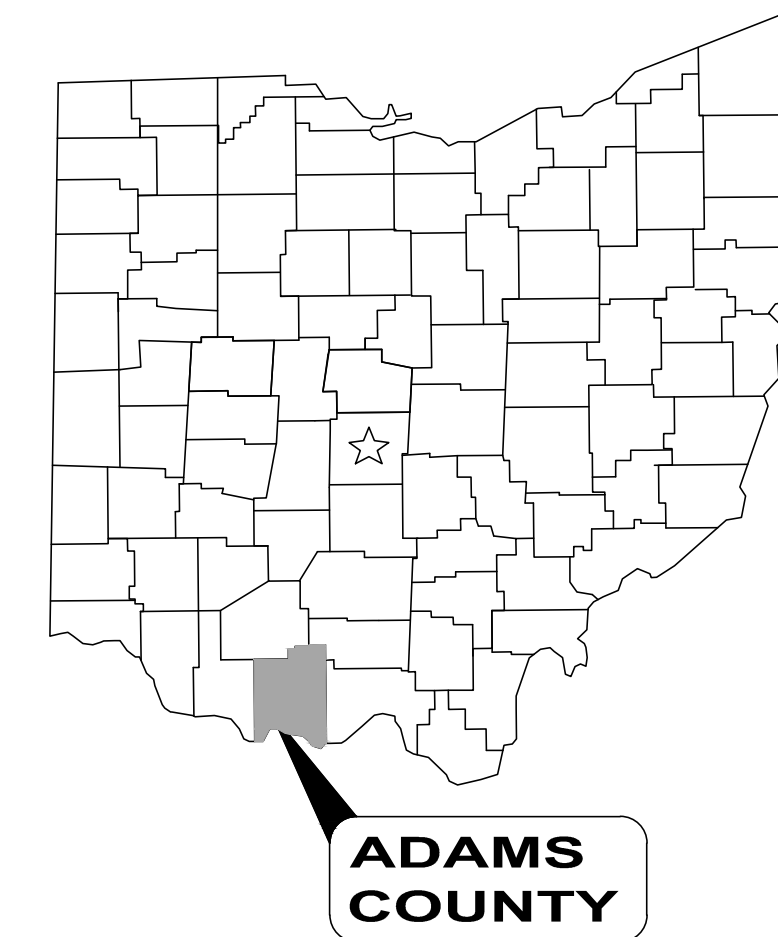


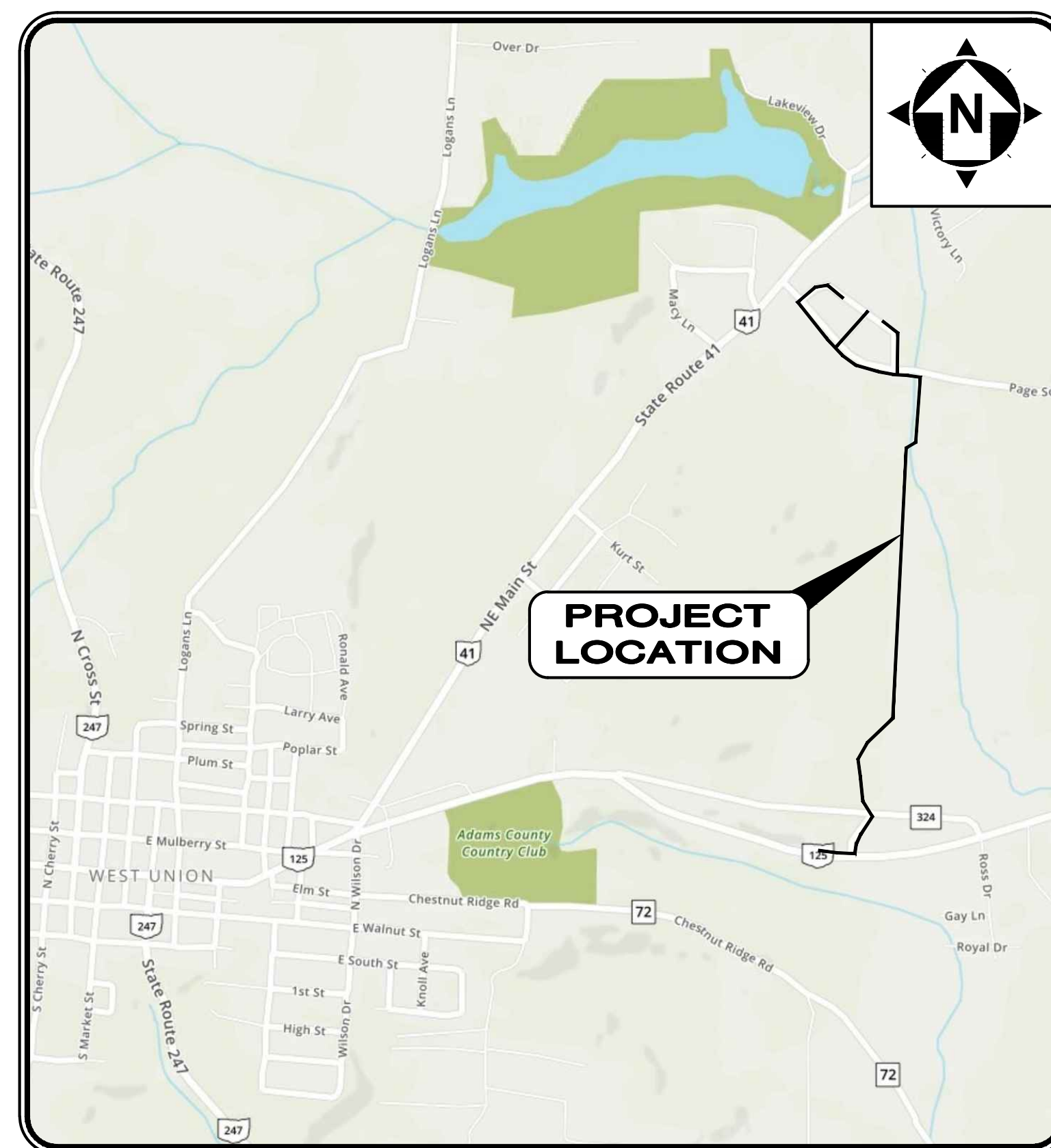
# VILLAGE OF WEST UNION

## CRACKEL SUBDIVISION SANITARY SEWER - PHASE 3

ADAMS COUNTY, OHIO



JANUARY 2020



LOCATION MAP  
NOT TO SCALE

**ADMINISTRATION:**

|                 |                       |
|-----------------|-----------------------|
| JASON BUDA      | MAYOR                 |
| JERRY KIRKER    | VILLAGE ADMINISTRATOR |
| TANYA JOHNSON   | VILLAGE CLERK         |
| SHELLEY GIFFORD | VILLAGE TREASURE      |

**COUNCIL:**

|                  |        |
|------------------|--------|
| MARK BREWER      | MEMBER |
| RANDY BREWER     | MEMBER |
| STEPHEN ROTHWELL | MEMBER |
| JASON FRANCIS    | MEMBER |
| JOHN LAFFERTY    | MEMBER |
| VACANT           | MEMBER |



- UNDERGROUND BUILDING SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE TO BUILDINGS.
- THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE @ 1-800-362-2764, THREE WORKING DAYS PRIOR TO CONSTRUCTION.

**APPROVALS:**

|                                      |           |
|--------------------------------------|-----------|
|                                      | DATE      |
| JASON BUDA - MAYOR                   | 1-16-2020 |
|                                      | DATE      |
| JERRY KIRKER - VILLAGE ADMINISTRATOR | 1-16-20   |

**OFFICE:**

WEST UNION UTILITY OFFICE  
11700 STATE ROUTE 41  
WEST UNION, OH 45693  
  
(937) 544-5217 PHONE

**ENGINEER:**

CT CONSULTANTS, INC.  
7965 NORTH HIGH STREET, SUITE 340  
COLUMBUS, OH 43235

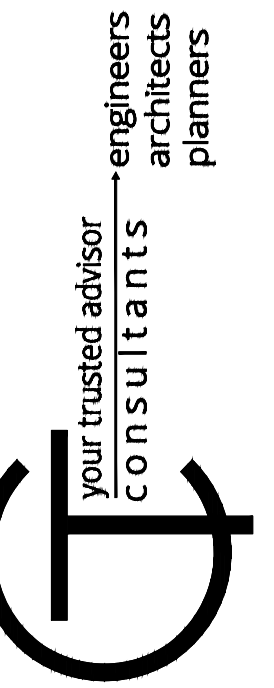
(614) 885-1700 PHONE  
(614) 885-1701 FAX

KENT A. BRYAN



P.E. No. E-57734

DATE  
1-16-20



| NO | REVISION | DATE |
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|    |          |      |
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CRACKEL SUBDIVISION  
SANITARY SEWER - PHASE 3  
- WEST UNION, OHIO -

COVER SHEET

|             |         |
|-------------|---------|
| PROJECT NO. | 190123  |
| DISCIPLINE  | GENERAL |
| SHEET NAME  | GEN-1   |
| SHEET       | OF      |
| 1           | 25      |



ENGINEER'S PROJECT No. 190123



**GENERAL NOTES:**

**BY SUBMITTING A BID OR STARTING CONSTRUCTION, THE CONTRACTOR CERTIFIES THAT:**  
THE CONTRACTOR SHALL VISIT THE SITE AND BE SATISFIED THAT HE UNDERSTANDS ALL SITE CONDITIONS THAT MAY HAVE AN EFFECT ON HIS PRICE AND CONSTRUCTION SCHEDULE.

THE CONTRACTOR FULLY UNDERSTANDS THE MAKE-UP, CONSTRUCTION, AND OPERATION OF ALL SYSTEMS AND EQUIPMENT HE IS CONSTRUCTING AND THAT HE HAS INCLUDED IN HIS PRICE ALL MATERIALS, SUPPLIES, ACCESSORIES, AND SERVICES NECESSARY TO MAKE THESE SYSTEMS COMPLETE AND OPERATIONAL, WHETHER SUCH MATERIALS, SUPPLIES, AND SERVICES ARE EXPLICITLY SHOWN ON THE DRAWINGS OR INCLUDED IN THESE SPECIFICATIONS, OR ONLY IMPLIED BY THE CLEAR INTENT OF THESE DOCUMENTS FOR THE CONTRACTOR TO PROVIDE A COMPLETE AND FULLY OPERATIONAL SYSTEM AS PART OF THE SCOPE OF WORK UNDERTAKEN BY THIS CONTRACTOR.

**CONTRACTOR:**  
THE TERM CONTRACTOR IN THESE DOCUMENTS REFERS TO THE GENERAL CONTRACTOR, ALL SUB CONTRACTORS, SUPPLIERS AND SERVICE SUPPLIERS; SUPPLYING SERVICES, OR MATERIAL OR LABOR DIRECTLY OR INDIRECTLY TO THIS PROJECT

**PERMITS:**  
OEPA PTI PERMITS AND BUILDING, ELECTRICAL AND PLUMBING PERMITS SHALL BE THE RESPONSIBILITY OF THE OWNER.

**RESPONSIBILITY:**  
THE OWNER DOES NOT SUPERVISE, NOR IS ENGAGED IN, CONSTRUCTION. THE OWNER HAS NO CONTROL OVER, OR CHARGE OF, AND THEREFORE IS NOT RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THESE ARE SOLELY THE CONTRACTOR'S RESPONSIBILITY UNDER THE CONTRACT FOR CONSTRUCTION.

**MSDS SHEETS:**  
MATERIAL SAFETY DATA SHEETS (MSDS'S) FOR ALL PRODUCTS AND/OR BUILDING MATERIALS THAT MAY CONTAIN HAZARDOUS OR TOXIC CHEMICALS SHALL BE MADE READILY AVAILABLE TO CONTRACTOR, EMPLOYEES AND OWNER'S PERSONNEL DURING CONSTRUCTION. MSDS'S TO BE FORWARDED TO THE ENGINEER AT START OF AND DURING CONSTRUCTION AND TO THE OWNER UPON COMPLETION OF PROJECT.

**MAINTAINING TRAFFIC:**  
THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND CONTROLLING TRAFFIC ON ALL STREETS AND ROADS AFFECTED BY CONSTRUCTION AND SHALL, PRIOR TO ANY CONSTRUCTION, SUBMIT A CONSTRUCTION SCHEDULE AND MAINTENANCE OF TRAFFIC PLAN TO THE OWNER FOR APPROVAL INDICATING DATES AND DURATION OF EACH PHASE OF CONSTRUCTION.

ALL CONSTRUCTION SIGNS AND TEMPORARY TRAFFIC CONTROL AND PROTECTION DEVICES SHALL BE ERECTED AND MAINTAINED IN ACCORDANCE WITH OHIO DEPARTMENT OF TRANSPORTATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND O.D.O.T. ITEM 614 - MAINTAINING TRAFFIC, PER OHIO REVISED CODE.

LOCAL TRAFFIC SHALL HAVE ACCESS TO THEIR RESPECTIVE PROPERTIES AT ALL TIMES, EXCEPT DURING PERIODS OF SEWER CONSTRUCTION OR PAVEMENT REPAIR WHICH TEMPORARILY OBSTRUCTS ACCESS.

THE CONTRACTOR SHALL GIVE SUFFICIENT PRIOR NOTICE TO PROPERTY OWNERS BEFORE CLOSING ANY PRIVATE DRIVE. NO PRIVATE DRIVE MAY BE CLOSED FOR MORE THAN SEVEN (7) CONSECUTIVE HOURS AND SHALL BE OPEN TO TRAFFIC AT THE END OF THIS WORKING DAY. NO SEPARATE PAYMENT WILL BE MADE.

**TEMPORARY SURFACES:**  
TEMPORARY SURFACES WHERE EXCAVATIONS ARE LOCATED IN STREETS, DRIVES AND PARKING AREAS SHALL BE FURNISHED AND PLACED BY THE CONTRACTOR AND SHALL BE FULLY MAINTAINED TO MINIMIZE INCONVENIENCE TO THE PUBLIC.

**SAFETY TRENCH PROTECTION AND BACKFILLING:**  
THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS, INCLUDING THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR SHALL ALSO ABIDE BY ALL ORDINANCES OF THE MUNICIPALITY.

BACKFILLING SHALL FOLLOW IMMEDIATELY BEHIND CONSTRUCTION AND ONLY THE MINIMUM LENGTH OF TRENCH REQUIRED FOR CONSTRUCTION SHALL BE OPEN AT ANY GIVEN TIME.

**UNDERGROUND UTILITIES:**  
THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.84 OF THE OHIO REVISED CODE AND TO THE BEST ABILITY OF THE ENGINEER. IT SHALL BE FINAL RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE UTILITY AS TO LINE AND GRADE BEFORE STARTING ANY OPERATION THAT INTERFERES WITH THE UTILITY.

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE REGISTERED UTILITY PROTECTION SERVICES AND THE OWNERS OF EACH UNDERGROUND UTILITY FACILITY SHOWN IN THE DRAWINGS.

THE FOLLOWING IS A PARTIAL LIST OF UTILITY OWNERS IDENTIFIED WITH THE PROJECT AREA. THE CONTRACTOR SHALL COMPLY WITH THE REGULATIONS SET FORTH BY THE RESPECTIVE PUBLIC SERVICE CORPORATIONS AS LISTED:

**OHIO UTILITIES PROTECTION SERVICE:** OHIO OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE:  
(800) 362-2764  
(614) 715-2984

**TELEPHONE:** ELECTRIC COMPANY:  
FRONTIER NORTH AEP OHIO  
7533 OH-125 3225 SCIOTO TRAIL  
WEST UNION, OHIO 45693 PORTSMOUTH, OH 45662  
(800) 921-8101 (800) 672-2231

**CABLE/DATA:** GAS COMPANY:  
SPECTRUM DUKE ENERGY  
(800) 892-4357 139 E. 4TH ST.  
(800) 544-6900 CINCINNATI, OH 45202

**WATER/SEWER:**  
VILLAGE OF WEST UNION  
11700 S.R. 41  
WEST UNION, OHIO 45693  
(800) 544-5217

**COOPERATION WITH UTILITIES:**  
THE CONTRACTOR SHALL MAINTAIN AND PROTECT ALL PUBLIC OR PRIVATE UTILITY FACILITIES DURING CONSTRUCTION. SHOULD IT BECOME NECESSARY TO MOVE, ADJUST, OR TEMPORARILY RELOCATE ANY SUCH FACILITY, THE WORK SHALL BE DONE BY THE OWNER OF THE UTILITY FACILITY. ANY DAMAGE TO UTILITY FACILITIES BY THE CONTRACTOR OR HIS SUBCONTRACTORS WILL BE REPAIRED BY THE OWNER OF SAID UTILITY, AND THE COST OF SAID REPAIRS WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR TO SEND PROOF OF PAYMENT TO THE UTILITY FOR THE REPAIR TO THE OWNER, PRIOR TO FINAL PAYMENT.

IT IS UNDERSTOOD AND AGREED THAT THE CONTRACTOR HAS CONSIDERED IN HIS BID ALL OF THE PERMANENT AND TEMPORARY UTILITY APPURTENANCES IN THEIR PRESENT OR RELOCATED POSITIONS AND THAT NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ANY DELAYS, INCONVENIENCE, OR DAMAGE SUSTAINED BY HIM DUE TO ANY INTERFERENCE FROM THE SAID UTILITY APPURTENANCES OR THE OPERATION OF MOVING THEM.

**SUBSURFACE CONDITIONS:**  
IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVESTIGATIONS OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS PROPOSAL. THE CONTRACTOR MAY EXAMINE ANY EXISTING RECORDS OF BORINGS, TEST EXCAVATIONS AND OTHER SUBSURFACE INVESTIGATIONS, FOR HIS OWN INFORMATION, ANY AVAILABLE RECORDS OF BORINGS, TEST EXCAVATIONS OR OTHER SUBSURFACE INVESTIGATIONS ARE CONSIDERED INCOMPLETE AND ARE NOT A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR AGREES THAT HE WILL MAKE NO CLAIM AGAINST THE OWNER OR THE ENGINEER, IF IN CARRYING OUT THE WORK, HE FINDS THAT THE ACTUAL SUBSURFACE CONDITIONS ENCOUNTERED DO NOT CONFORM TO THOSE INDICATED BY TEST EXCAVATIONS OR OTHER SUBSURFACE INVESTIGATIONS.

**DEWATERING:**  
THE CONTRACTOR SHALL, AT ALL TIMES DURING CONSTRUCTION, PROVIDE PROPER AND SATISFACTORY MEANS AND DEVICES FOR THE REMOVAL OF ALL WATER ENTERING THE EXCAVATIONS AND SHALL REMOVE ALL SUCH WATER AS FAST AS IT MAY COLLECT IN SUCH A MANNER AS SHALL NOT INTERFERE WITH THE PROSECUTION OF THE WORK OR THE PROPER PLACING OF MASONRY OR OTHER WORK.

**CONFLICTS WITH EXISTING WATER SERVICES:**  
THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING REPAIRS TO EXISTING WATER SERVICE LINES WHERE IT BECOMES NECESSARY TO RAISE OR LOWER SERVICES TO MAINTAIN 18" VERTICAL OR 10'-0" HORIZONTAL CLEARANCE WITH THE PROPOSED SANITARY SEWER/FORCE MAIN. REPAIRS SHALL BE MADE USING APPROVED PIPE, UNIONS, AND COUPLERS AND SHALL BE COMPLETED TO THE SATISFACTION OF THE OWNER. THE COST OF REPAIRING EXISTING WATER SERVICE LINES, INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY TO COMPLETE THE REPAIRS SHALL BE INCLUDED IN THE UNIT PRICES BID FOR SANITARY SEWER AND FORCE MAIN ITEMS.

**CLEANING STREETS AND ROADWAYS:**  
BEFORE THE WORK HEREIN SPECIFIED IS ACCEPTED, THE CONTRACTOR SHALL, UPON NOTICE FROM THE ENGINEER, THOROUGHLY CLEAN ALL STREETS, ROADS, SIDEWALKS, DRIVEWAYS AND LAWNS FREE FROM ALL DEBRIS AND DIRT ACCUMULATING FROM CONSTRUCTION WORK, AND ON ALL IMPROVED STREETS AND ROADS, AND SHALL COMPLETELY SHAPE UP THE ENTIRE ROADWAY WITHIN THE LIMITS OF THE HEREIN SPECIFIED WORK

THE NOTICE TO CLEAN AND SHAPE UP THE STREETS OR ROADWAYS WILL ORDINARILY BE GIVEN AS SOON AS SECTIONS OF THE WORK ARE COMPLETED AND TESTED. UPON COMPLETION OF SAID CLEAN UP TO THE SATISFACTION OF THE

OWNER, THE CONTRACTOR SHALL BE RELIEVED FROM FURTHER RESPONSIBILITY FOR THE CONDITION OF THE STREETS, EXCEPTING SUCH CONDITIONS AS MAY BE TRACEABLE TO THE SETTLEMENT OF THE FILL OVER THE WORK OR THEIR APPURTENANCES, OR FOR ANY DAMAGE TRACEABLE TO SUCH SETTLEMENT.

THE CONTRACTOR WILL BE REQUIRED TO REMOVE DIRT ACCUMULATING FROM HIS OPERATIONS UPON THE SAID STREET, OR UPON INTERSECTING STREETS, LAWNS OR SIDEWALKS, AS OFTEN AS MAY BE ORDERED BY THE OWNER. WHEN THE WORK IS FINALLY COMPLETED AND BEFORE ITS FINAL ACCEPTANCE, THE CONTRACTOR UPON WRITTEN ORDER FROM THE OWNER SHALL THOROUGHLY CLEAN THE WHOLE OF SAID STREET OR STREETS TO THE SATISFACTION OF THE OWNER. NO EXTRA PAYMENT WILL BE MADE FOR THE WORK INVOLVED IN THIS PRELIMINARY AND FINAL CLEANING OF PAVED OR UNPAVED STREETS, BUT THE COST OF THE SAME SHALL BE CONSIDERED AS INCLUDED IN THE PRICES STIPULATED FOR THE VARIOUS ITEMS OF WORK TO BE DONE UNDER THIS CONTRACT.

SHOULD THE COMPLETION OF THE WORK OCCUR AT SUCH A TIME THAT THE FINAL SHAPING AND CLEANING OF THE STREETS WOULD COME IN THE WINTER MONTHS, THE CLEANING AND SHAPING, BY THE PERMISSION OF THE OWNER, WOULD BE POSTPONED UNTIL THE FOLLOWING SPRING, AND THE AMOUNT SUFFICIENT TO DO THE WORK WILL BE RETAINED FROM THE MONEY DUE TO THE CONTRACTOR.

SHOULD THE CONTRACTOR FAIL TO DO THE SHAPING AND CLEANING OF THE STREETS, WITHIN THE LIMITS OF THE HEREIN SPECIFIED WORK WITHIN SEVEN (7) DAYS AFTER RECEIPT OF WRITTEN NOTICE FROM THE ENGINEER TO DO SO, THE OWNER WILL HAVE THE RIGHT TO HAVE SAID WORK DONE AND THE COST THEREOF DEDUCTED FROM THE MONIES DUE OR TO BECOME DUE TO THE CONTRACTOR.

**EXCESS EXCAVATION MATERIAL:**  
THE REMOVAL AND DISPOSAL OF ALL EXCAVATED MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL FURNISH THE OWNER A COPY OF WRITTEN PERMISSION FROM THE PROPERTY OWNER PRIOR TO DISPOSING OF ANY WASTE MATERIAL.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE RESTORATION OF ALL WASTE AREAS USED IN THE COURSE OF THIS PROJECT. THE RESTORATION WORK SHALL INCLUDE CLEANUP, SHAPING AND GRADING AND REESTABLISHMENT OF VEGETATIVE COVER BY SEEDING AND MULCHING IN ACCORDANCE WITH O.D.O.T. ITEM NO. 659. THE FINAL GRADING OF WASTE AREAS SHALL BE PROPERLY SLOPED TO PROVIDE DRAINAGE RUNOFF. ALL ROCKS, BOULDERS, CONCRETE CHUNKS, BROKEN PIPES, ETC. SHALL BE BURIED WITHIN THE WASTE AREA TO A DEPTH OF AT LEAST TWO (2) FEET AND SHALL NOT BE VISIBLE AT COMPLETION.

**MAINTENANCE OF SEWER FLOWS:**  
THE CONTRACTOR SHALL CONDUCT HIS OPERATION SO TO MAINTAIN AT ALL TIMES SANITARY SEWER FLOWS THROUGH EXISTING SEWERS TO REMAIN IN PLACE AND THROUGH EXISTING SEWERS TO BE REPLACED UNTIL NEW SEWERS ARE COMPLETED AND PLACED IN USE.

PAYMENT FOR ANY ADDITIONAL COSTS INVOLVED IN MAINTAINING THESE FLOWS BY PUMPING OR BY ANY OTHER MEANS APPROVED BY THE OWNER SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE RELATED ITEMS IN THE CONTRACT. NO SEPARATE PAYMENT WILL BE MADE.

**PIPE BEDDING AND BACKFILL:**  
ALL WATERLINE, SANITARY SEWER AND STORM SEWER PIPE SHALL BE INSTALLED UTILIZING APPROPRIATE BEDDING AND BACKFILL MATERIALS IN ACCORDANCE WITH THE DETAILS PRESENTED WITHIN THE DRAWINGS. TRENCHES UNDER DRIVES, PAVEMENT AND WALKS OR WITHIN THE RIGHT-OF-WAY SHALL UTILIZE ODOT ITEM 304 AGGREGATE BASE AS BACKFILL TO SUBGRADE.

**ABANDON EXISTING PIPES:**  
WHERE EXISTING PIPES ARE CALLED FOR ON THE DRAWINGS TO BE PLUGGED OR ABANDONED, THE CONTRACTOR SHALL INSTALL A CONCRETE OR VITRIFIED PLUG OR SHALL FILL THE END OF THE PIPE WITH CONCRETE AS DIRECTED BY THE ENGINEER. THE COST OF PLUGGING EXISTING PIPES SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE VARIOUS PIPE ITEMS. NO SEPARATE PAYMENT WILL BE MADE.

**GRANULAR BACKFILL:**  
EXCAVATIONS WITHIN FIVE FEET OF OR, AT LOCATIONS, STREETS, DRIVES, WALKS, PARKING AREAS AND OTHER ROADWAYS SHALL BE BACKFILLED AND COMPACTED WITH GRANULAR MATERIAL CONFORMING TO O.D.O.T. ITEM 304 AGGREGATE BASE. ADDITIONAL GRANULAR MATERIAL SHALL BE STOCK-PILED AT SELECT LOCATIONS (APPROVED BY OWNER) FOR USE WHEN SETTLEMENT OCCURS. ALL GRANULAR MATERIAL SHALL BE MECHANICALLY COMPACTED IN SIX (6) INCH LAYERS.

**MISCELLANEOUS STORM SEWERS:**  
THE CONTRACTOR SHALL CONNECT OR REPAIR ANY DRAIN PIPE AFFECTED BY THE EXECUTION OF THIS CONTRACT

THE LOCATION, TYPE, SIZE AND GRADE OF THE REPLACEMENTS OR CONNECTIONS SHALL BE DETERMINED BY THE OWNER DURING CONSTRUCTION AND PAYMENT SHALL BE MADE BASED ON THE FINAL MEASUREMENT OF THE ACTUAL LENGTH OF PIPE USED.

THE CONTRACTOR SHALL RESTORE ALL DRAINAGE TILE CROSSING NEW CONSTRUCTION TRENCHES WHICH ARE TO REMAIN.

**SHEETING AND SHORING:**  
ALL SHEETING AND SHORING REQUIRED TO SUPPORT TRENCHES AND EXCAVATIONS SHALL BE PROVIDED BY THE CONTRACTOR AND PAID FOR UNDER THE VARIOUS ITEMS. SEPARATE PAYMENT WILL NOT BE MADE.

**ABANDON ILLEGAL SANITARY CONNECTIONS:**  
CONTRACTOR SHALL REMOVE OR PLUG ALL PIPE CONNECTIONS TO ANY NON-SANITARY CONDUITS LEFT IN PLACE WHICH ARE OPENED WHEN INSTALLING LATERALS OR NEW MAIN LINE AND LATERALS. CONTRACTOR SHALL ENSURE ALL EXISTING SYSTEMS CONTINUE TO FUNCTION UNTIL PROPER TIE-INS CAN BE MADE.

THE CONTRACTOR SHALL PLUG ALL UPSTREAM ENDS OF EXISTING SANITARY CONNECTIONS LEFT IN PLACE WHICH ARE OPENED WHEN INSTALLING SEWERS OR REMOVING EXISTING MANHOLES.

**FINAL GRADING:**  
THE FINAL GRADING OF THE COMPLETED WORK ON THIS PROJECT SHALL BE ACCOMPLISHED IN SUCH A MANNER AS TO RESTORE ALL DISTURBED AREAS, INCLUDING LAWN AREAS, DITCHES AND OTHER AREAS ADJACENT TO BERMS AND ROADWAYS. THE DISTURBED AREAS SHALL BE FINE GRADED AND SHAPED TO A CONDITION SUITABLE TO BE SEEDED AND MULCHED. THE CONTRACTOR MUST OBTAIN THE OWNER'S APPROVAL OF THE FINAL GRADING PRIOR TO ANY SEEDING WORK. THE COST OF ALL WORK INVOLVED IN THE FINAL GRADING SHALL BE CONSIDERED INCIDENTAL TO OTHER VARIOUS ITEMS OF WORK IN THE CONTRACT.

**TOP OF CASTING ELEVATIONS:**  
THE EXACT TOP OF CASTING ELEVATION SHALL BE DETERMINED IN THE FIELD, BASED ON THE ELEVATIONS OF THE ADJACENT PAVEMENT AND THE SURROUNDING GROUND. TOP OF CASTING SHALL BE AT OR ABOVE GRADE.

**ROCK EXCAVATION REMOVAL AND DISPOSAL:**  
THE COST OF ALL ROCK REMOVAL AND DISPOSAL SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE VARIOUS ITEMS. BLASTING WILL NOT BE PERMITTED. NO SEPARATE PAYMENT WILL BE MADE FOR ROCK EXCAVATION.

**PROHIBITIONS:**  
ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.

**SALVAGEABLE MATERIALS:**  
THE OWNER SHALL DESIGNATE A LOCATION WITHIN THE PROJECT LIMITS FOR THE STOCK PILING OF ALL SALVAGEABLE MATERIALS.

**SEEDING AND MULCHING:**  
ALL GRASS AREAS DISTURBED ON THIS PROJECT SHALL BE RESTORED AND SEEDS PER ITEM 659 USING THE LAWN SEED MIXTURE AS CALLED FOR IN ODOT ITEM 659.

**ELEVATION DATUM:**  
ALL ELEVATIONS ARE BASED ON U.S.G.S. 1988 DATUM.

**WORK LIMITS:**  
THE CONTRACTOR SHALL CONFINE HIS ACTIVITIES TO THE PROJECT SITE UNDER DEVELOPMENT, THE EXISTING RIGHTS-OF-WAY, OR CONSTRUCTION AND PERMANENT EASEMENTS AND SHALL NOT TRESPASS UPON OTHER PRIVATE PROPERTY WITHOUT THE WRITTEN CONSENT OF THE OWNER.

**EROSION CONTROL:**  
EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF OHIO'S STANDARDS FOR STORM WATER MANAGEMENT, LAND DEVELOPMENT AND URBAN STREAM PROTECTION MANUAL "RAINWATER AND LAND DEVELOPMENT". EROSION CONTROL MEASURES UTILIZED ON THIS PROJECT SHALL BE BASED UPON THE BEST MANAGEMENT PRACTICES OUTLINES IN THE "RAINWATER AND LAND DEVELOPMENT MANUAL", CURRENT EDITION, AS PREPARED BY THE OHIO DEPARTMENT OF NATURAL RESOURCES.

**GRAVITY SEWER AND FORCE MAIN NOTES:**

A MINIMUM OF EIGHTEEN INCHES (18") VERTICAL AND TEN FOOT (10') HORIZONTAL CLEARANCE BETWEEN SANITARY SEWERS AND WATERLINES SHALL BE MAINTAINED.

CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS, TAPS, AND LABOR NECESSARY FOR CONDUCTING TESTING.

ALL BENDS, JOINT DEFLECTIONS AND FITTINGS SHALL BE BACKED WITH CONCRETE IN ACCORDANCE WITH THE BACKING DETAILS AND PROJECT SPECIFICATIONS.

FORCE MAIN SHALL BE INSTALLED WITH A MINIMUM OF 4'-6" OF COVER FROM FINISHED GRADE TO THE TOP OF THE FORCE MAIN.

UNLESS OTHERWISE APPROVED BY THE ENGINEER, FORCE MAINS SHALL BE DEFLECTED WITHOUT THE USE OF SPECIAL FITTINGS AND WITHOUT EXCEEDING THE MANUFACTURER'S ALLOWABLE DEFLECTION.

ALL FITTINGS SHALL BE DUCTILE IRON WITH MECHANICAL JOINTS UNLESS OTHERWISE NOTED.

THE COST FOR GRANULAR BEDDING AND BACKFILL SHALL BE INCLUDED IN THE FORCE MAIN BID ITEMS.

**PRESSURE SEWER MATERIAL STANDARDS:**  
ALL MATERIALS UTILIZED IN THE CONSTRUCTION OF FORCE MAIN PRESSURE SEWER IN THIS PROJECT SHALL CONFORM TO THE LATEST REVISION OF THE APPROPRIATE STANDARDS AS FOLLOWS:

- PIPE: HDPE, DR11, ASTM D3350
- JOINT:
- HDPE, DR11: ASTM F2620
- DIP: AWWA C111
- INSTALLATION: ASTM D2321

**GRAVITY SEWER MATERIAL STANDARDS:**  
ALL MATERIALS UTILIZED IN THE CONSTRUCTION OF GRAVITY SEWER IN THIS PROJECT SHALL CONFORM TO THE LATEST REVISION OF THE APPROPRIATE STANDARDS AS FOLLOWS:

- PIPE: PVC, SDR35, ASTM D3034
- JOINT: ASTM D3212
- INSTALLATION: ASTM D2321

**AS-BUILT DATA:**  
CONTRACTOR SHALL PROVIDE TO OWNER DATA REFLECTING THE AS CONSTRUCTED LOCATION OF THE FACILITIES INCLUDED WITHIN THIS PROJECT.

**FORCE MAIN TESTING:**

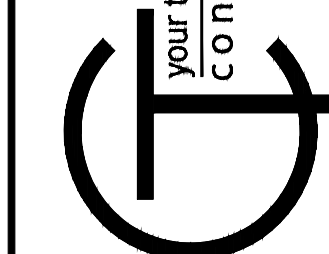
A HYDROSTATIC TEST AS REQUIRED IN APPLICABLE SECTIONS OF AWWA C600 FOR DUCTILE IRON PIPE AND AWWA C605 FOR PVC PIPE SHALL BE APPLIED TO THE WHOLE OR TO INDIVIDUALLY ISOLATED SECTIONS OF THE FORCE MAIN EITHER BEFORE OR AFTER THE TRENCH IS BACKFILLED. THE PRESSURE DURING THE TEST SHALL BE MAINTAINED AT 150 PSI OR ONE AND A HALF TIMES THE WORKING PRESSURE, WHICHEVER IS GREATER, IN ANY SECTION BEING TESTED. THE DURATION OF EACH PRESSURE TEST SHALL BE AT LEAST 2 HOURS. THE CONTRACTOR SHALL SUPPLY AND SITE OBSERVER VERIFY GAUGES FOR THE TEST. FURTHERMORE, THE CONTRACTOR SHALL FURNISH ALL MATERIALS, MAKE ALL TAPS REQUIRED AND FURNISH A PUMP, PIPING, ALL OTHER EQUIPMENT AND ALL ASSISTANCE NECESSARY FOR CONDUCTING THE TESTS. BEFORE APPLYING THE SPECIFIED PRESSURE, ALL AIR SHALL BE EXPELLED FROM THE PIPE. TO ACCOMPLISH THIS, TAPS SHALL BE MADE BY THE CONTRACTOR AT POINTS OF HIGHEST ELEVATION OR AS REQUIRED. TAPS SHALL BE OF THE SIZES AS SHOWN ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE CONTRACT ADMINISTRATOR.

LEAKAGE SHALL BE DEFINED AS THE QUANTITY OF WATER THAT MUST BE SUPPLIED INTO THE NEWLY LAID PIPE, OR ANY VALVE SECTION THEREOF, TO MAINTAIN PRESSURE WITHIN 5 PSI OF THE SPECIFIED TEST PRESSURE AFTER THE AIR IN THE PIPELINE HAS BEEN EXPELLED AND THE PIPE HAS BEEN FILLED WITH WATER. NO PIPE INSTALLATION WILL BE ACCEPTED UNTIL THIS LEAKAGE (EVALUATED ON A PRESSURE BASIS OF 150 PSI) IS LESS THAN 1.99 U.S. GALLONS PER HOUR PER 100 JOINTS OF 12 INCH NOMINAL DIAMETER PIPE AND CORRESPONDINGLY VARIED FOR OTHER SIZES OF PIPE AS PROVIDED IN THE AWWA SPECIFICATIONS.

ANY TESTING PERFORMED AGAINST EXISTING VALVES SHALL BE AT THE CONTRACTOR'S RISK AND IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT ADMINISTRATOR. IF UNABLE TO ACHIEVE THE REQUIRED TEST THE CONTRACTOR SHALL DISCONNECT FROM THE EXISTING VALVE, PLUG THE LINE AND RETEST UNTIL SATISFACTORY RESULTS ARE OBTAINED. ANY DAMAGE CAUSED TO EXISTING FACILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

THE FORCE MAIN TEST MAY BE DELETED UPON WRITTEN PERMISSION FROM ENGINEER.

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| 17          | PNP - FORCE MAIN 5                               |
| 18          | PNP - FORCE MAIN 6                               |
| 19          | CRACKEL LIFT STATION                             |
| 20          | EXISTING ST. RT. 125 LIFT STATION DEMO           |
| 21          | EXISTING ST. RT. 125 LIFT STATION PLAN & SECTION |
| 22          | SITE CONSTRUCTION DETAILS 1                      |
| 23          | SITE CONSTRUCTION DETAILS 2                      |
| 24          | SITE CONSTRUCTION DETAILS 3                      |
| 25          | EROSION CONTROL DETAILS                          |



| DATE | REVISION | NO | ISSUED FOR: | EPA REVIEW | ISSUE DATE: | SCALE:   | DESIGNED BY: | DRAWN BY: | CHECKED BY: |
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|      |          |    |             |            | 1/17/20     | AS SHOWN | ISC          | ISC       | NS          |

**CRACKEL SUBDIVISION  
SANITARY SEWER - PHASE 3  
- WEST UNION, OHIO -**

**GENERAL NOTES**

|             |         |
|-------------|---------|
| PROJECT NO. | 190123  |
| DISCIPLINE  | GENERAL |
| SHEET NAME  | GEN-2   |
| SHEET       | OF      |
| 2           | 25      |

**EXISTING PLAN LINETYPES:**

|  |                    |
|--|--------------------|
|  | RIGHT-OF-WAY       |
|  | PROPERTY LINE      |
|  | BUILDING OUTLINES  |
|  | FENCE - GENERAL    |
|  | FENCE - CHAIN LINK |
|  | FENCE - WOOD       |
|  | CONTOURS - MAJOR   |
|  | CONTOURS - MINOR   |
|  | PAVEMENT - GENERAL |
|  | WALK               |
|  | BRUSH LINE         |
|  | BUSH LINE          |
|  | TREE LINE          |
|  | CATV LINE          |
|  | COMM LINE          |
|  | ELECTRIC LINE      |
|  | ELECTRIC LINE - OH |
|  | ELECTRIC LINE - UG |
|  | ELECTRIC SERVICE   |
|  | FOC LINE           |
|  | GAS LINE           |
|  | GAS SERVICE        |
|  | UTILITY LINE       |
|  | SANITARY SERVICE   |
|  | STORM LINE         |
|  | STORM UNDERDRAIN   |
|  | TEL LINE - OH      |
|  | TEL LINE - UG      |
|  | TRAFFIC LINE       |
|  | WATER LINE         |
|  | WATER SERVICE      |

**PROPOSED PLAN LINETYPES:**

|  |                      |
|--|----------------------|
|  | CENTERLINE           |
|  | EASEMENT LINE        |
|  | WORK LIMITS          |
|  | CONSTRUCTION FENCE   |
|  | SILT FENCE           |
|  | FILTER FENCE (TRANS) |
|  | ELECTRIC LINE        |
|  | ELEC SERVICE         |
|  | SANITARY LINE        |
|  | SANITARY FORCE MAIN  |
|  | SANITARY SERVICE     |

**FUTURE PLAN LINE SYMBOLOLOGY:**

|  |         |               |
|--|---------|---------------|
|  | SAN-FUT | SANITARY LINE |
|  | SAN-FUT | SANITARY SERV |

**EROSION CONTROL:**

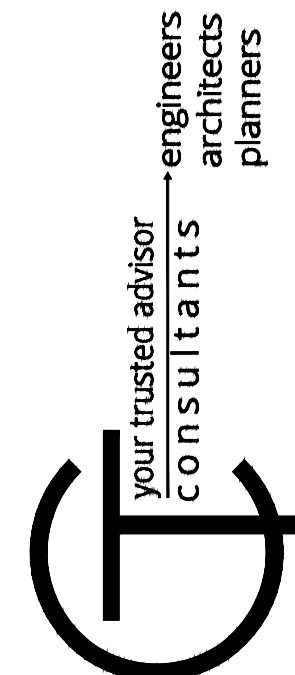
|            |                                   |
|------------|-----------------------------------|
| <b>EX:</b> | <b>PR:</b>                        |
|            | CONCRETE WASHOUT AREA             |
|            | CONSTRUCTION ENTRANCE             |
|            | DITCH PROTECTION - BEAVER DAM     |
|            | DITCH PROTECTION - STRAW BALE     |
|            | INLET PROTECTION - DANDYBAG - CB  |
|            | INLET PROTECTION - DANDYBAG - CI  |
|            | INLET PROTECTION - FLEXSTORM - CB |
|            | INLET PROTECTION - FLEXSTORM - CI |
|            | OUTLET PROTECTION - RCP           |

**SITE SYMBOLOLOGY:**

|            |                            |
|------------|----------------------------|
| <b>EX:</b> | <b>PR:</b>                 |
|            | BENCH MARK                 |
|            | NAIL - MAG                 |
|            | PIN - IRON                 |
|            | ELECTRIC CONTROL BOX       |
|            | ELECTRIC JUNCTION BOX      |
|            | ELECTRIC PULL BOX          |
|            | TELEPHONE PEDESTAL         |
|            | GAS METER                  |
|            | GAS VALVE W/TEXT           |
|            | POLE - POWER / LIGHT       |
|            | POLE - POWER / TELEPHONE   |
|            | POLE - POWER / TEL / CABLE |
|            | POLE - GUY                 |
|            | POLE - LIGHT               |
|            | POLE - TELEPHONE           |
|            | SANITARY MANHOLE - 48"     |
|            | SANITARY MANHOLE - 72"     |
|            | SANITARY STRUCTURE NO.     |
|            | CATCH BASIN - 2X2          |
|            | STORM DRAIN                |
|            | STORM MANHOLE - 48"        |
|            | STORM MANHOLE - 48" INLET  |
|            | WATER HYDRANT, FIRE        |
|            | WATER HYDRANT, FLUSH       |
|            | WATER METER                |
|            | WATER METER PIT            |
|            | WATER VALVE                |

**ESTIMATE OF QUANTITIES**

| ITEM | DESCRIPTION   | UNIT | TOTAL |
|------|---|------|-------|
| 1    | MOBILIZATION  | LS   | 1     |
| 2    | MAINTENANCE OF TRAFFIC  | LS   | 1     |
| 3    | GORMAN-RUPP LIFT STATION w/ CONCRETE WET WELL                         | LS   | 1     |
| 4    | 12" DIRECTIONAL DRILL - HDPE DR 9 - CREEK CROSSING                    | LF   | 120   |
| 5    | MANHOLE (COC, TYPE "C")   | EA   | 18    |
| 6    | 8" PVC (SDR 35) SANITARY SEWER  | LF   | 650   |
| 7    | 12" PVC (SDR 35) SANITARY SEWER                                       | LF   | 4050  |
| 8    | ABANDON SEPTIC TANK, AS PER PLAN                                      | EA   | 23    |
| 9    | 6" SANITARY SEWER LATERAL RECONNECTIONS                               | EA   | 23    |
| 10   | 6" SANITARY LATERAL SERVICE W/ CO TO SANITARY                         | LF   | 3300  |
| 11   | 6" SANITARY SEWER LATERAL, BORED OR JACKED, W/O CASING, AS PER PLAN   | EA   | 12    |
| 12   | 6" HDPE DR 11 FORCE MAIN  | LF   | 4170  |
| 13   | FORCE MAIN CONNECTION TO SANITARY MANHOLE, AS PER PLAN                | EA   | 1     |
| 14   | AIR RELEASE VALVE AND VAULT, CONFIGURATION A, AS PER PLAN             | EA   | 1     |
| 15   | AIR RELEASE VALVE, CLEANOUTS, AND VAULT, CONFIGURATION B, AS PER PLAN | EA   | 1     |
| 16   | LIFT STATION SITE ACCESS DRIVE  | SY   | 531   |
| 17   | LIFT STATION SITE ELECTRICAL ONLY                                     | LS   | 1     |
| 18   | ST. RT. 125 LIFT STATION REHABILITATION                               | EA   | 1     |
| 19   | FULL DEPTH PAVEMENT RECLAMATION W/ PORTLAND CEMENT (12")              | SY   | 4508  |
| 20   | ASPHALT DRIVE REPLACEMENT, AS PER PLAN                                | SY   | 333   |
| 21   | GRAVEL DRIVE REPLACEMENT, AS PER PLAN                                 | SY   | 111   |
| 22   | SEEDING AND MULCHING  | SY   | 4658  |
| 23   | EROSION CONTROL   | LS   | 1     |
| 24   | CONSTRUCTION LAYOUT STAKING   | LS   | 1     |



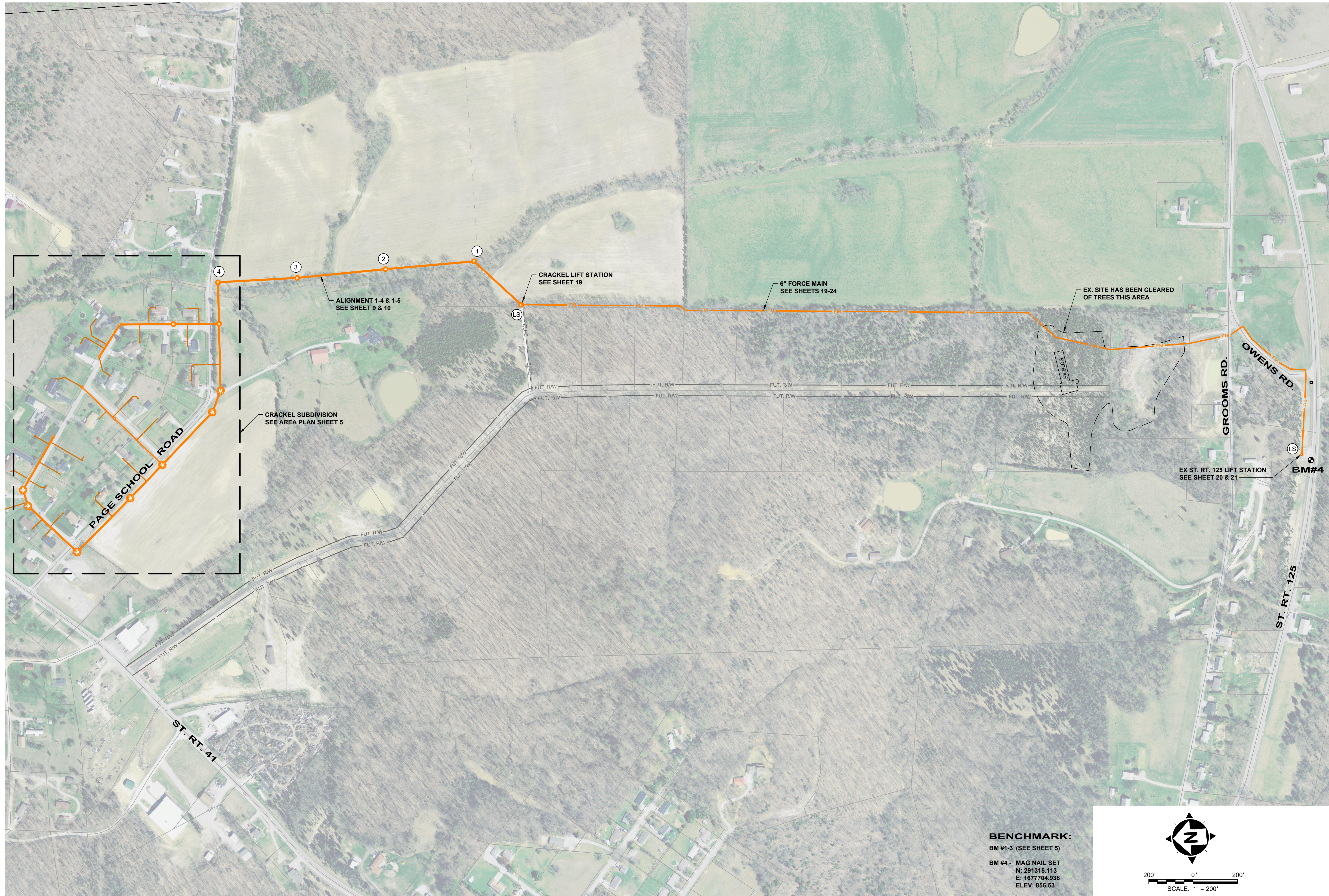
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| DRAWN BY:    | ISC        |      |
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|              |            |      |
|              |            |      |

**CRACKEL SUBDIVISION  
SANITARY SEWER - PHASE 3  
- WEST UNION, OHIO -**

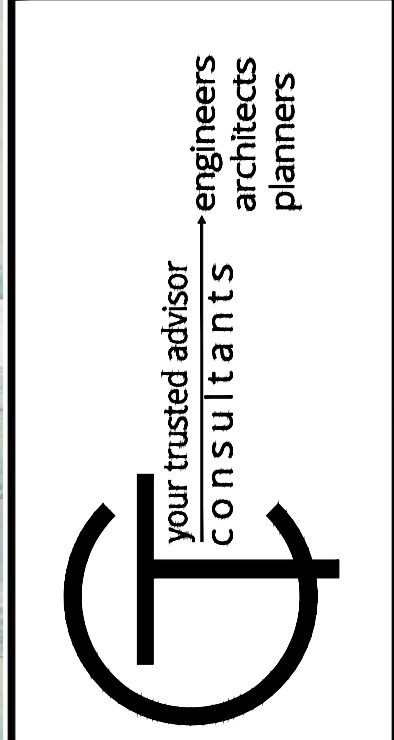
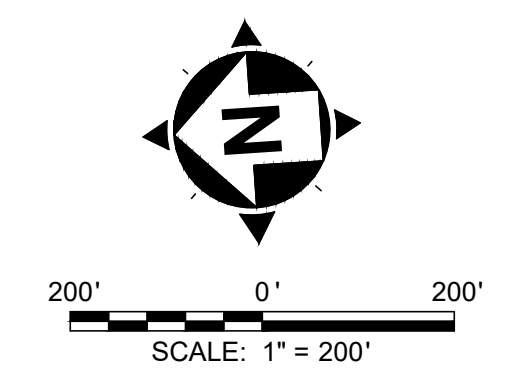
**LEGEND AND SHEET INDEX**

|             |         |    |    |
|-------------|---------|----|----|
| PROJECT NO. | 190123  |    |    |
| DISCIPLINE  | GENERAL |    |    |
| SHEET NAME  | GEN-3   |    |    |
| SHEET       | 3       | OF | 25 |





**BENCHMARK:**  
 BM #1-3 (SEE SHEET 5)  
 BM #4 - MAG NAIL SET  
 N: 291315.113  
 E: 1677704.938  
 ELEV: 856.53



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**CRACKEL SUBDIVISION  
 SANITARY SEWER - PHASE 3  
 - WEST UNION, OHIO -**

**OVERALL AREA PLAN**

|             |    |            |
|-------------|----|------------|
| PROJECT NO. |    | 190123     |
| DISCIPLINE  |    | CIVIL      |
| SHEET NAME  |    | SAN-AREA 1 |
| SHEET       | OF |            |
| 4           | 25 |            |