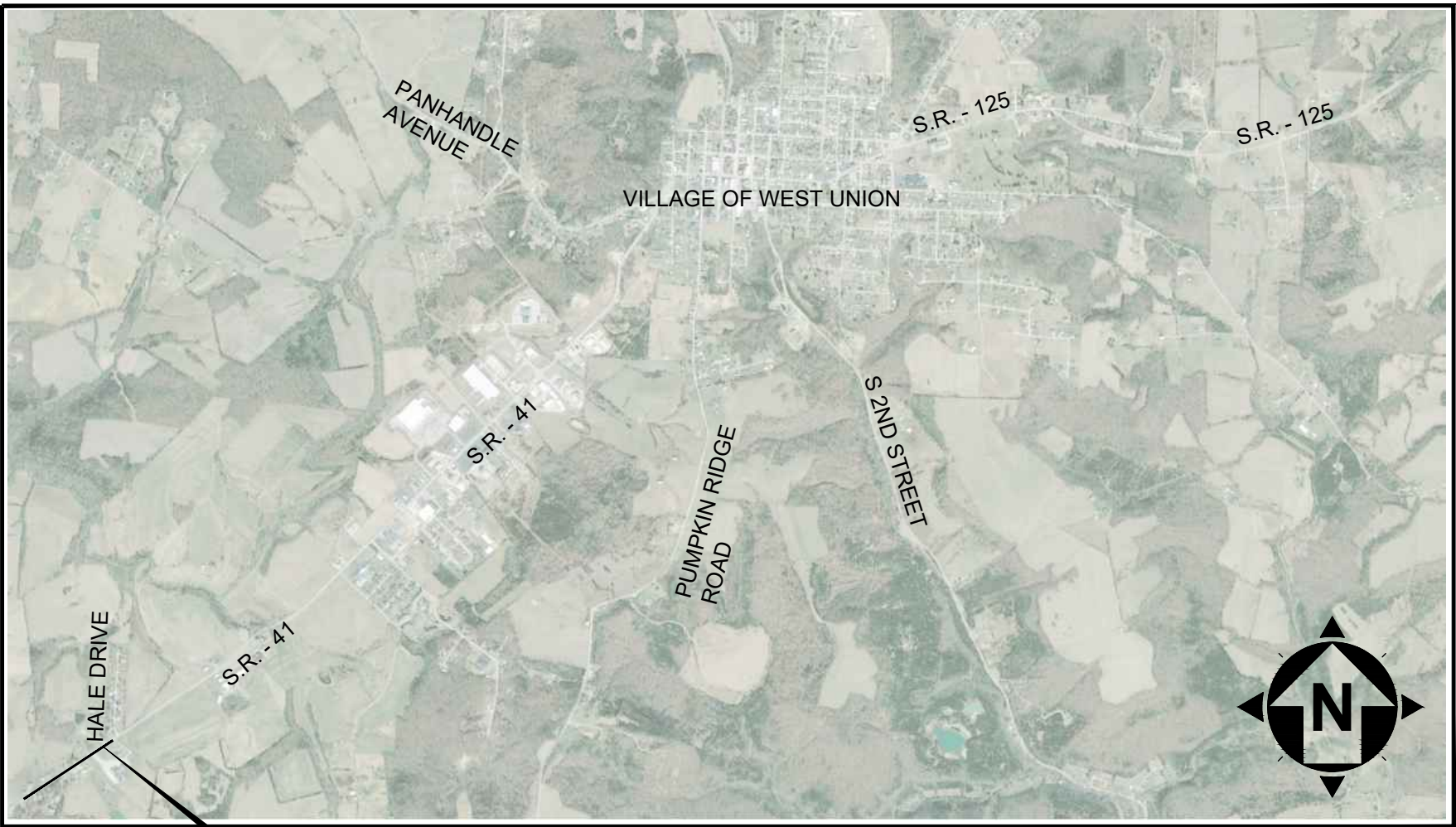
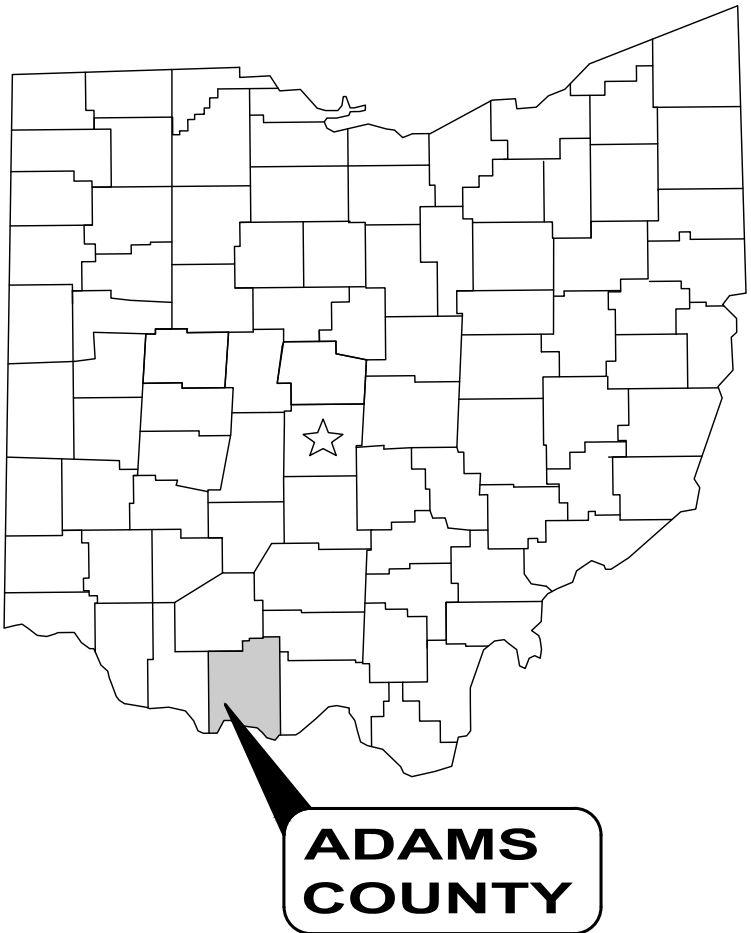


VILLAGE OF WEST UNION

S.R. 41 SEWER EXTENSION AT HALE DRIVE

ADAMS COUNTY, OHIO

2025



PROJECT
LOCATION - HALE

LOCATION MAP
NOT TO SCALE

ADMINISTRATION:

JASON BUDA	MAYOR
KENNY FERGUSON	VILLAGE ADMINISTRATOR
SHURI GROVES	FISCAL OFFICER

COUNCIL:

JASON FRANCIS	MEMBER
RACHAEL HAMILTON	MEMBER
DONNA YOUNG	MEMBER
JIMMY NICHOLS	MEMBER
RANDY BREWER	MEMBER
MARY JANE CAMPBELL	MEMBER



1-800-362-2764

CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

- 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.

verdantas

ENGINEER'S PROJECT No. 210164

APPROVALS:

	6-14-2022
JASON BUDA - MAYOR	DATE

OFFICE:

WEST UNION UTILITY OFFICE
11700 STATE ROUTE 41
WEST UNION, OH 45693

(937) 544-5217 PHONE

ENGINEER:

VERDANTAS
6397 EMERALD PARKWAY, SUITE 200
DUBLIN, OHIO 43016

(614) 793-8777 PHONE

	6/13/2022
KENT A. BRYAN	DATE
P.E. No. E-57734	

BID SET

verdantas

VILLAGE OF WEST UNION
SR 41 SEWER EXTENSION AT HALE DRIVE
- ADAMS COUNTY, OH -

COVER SHEET

PROJECT NO. 210164	
DISCIPLINE GENERAL	
SHEET NAME COVER	
SHEET 1	OF 13

MATERIALS AND SPECIFICATIONS

IN GENERAL, UNLESS SPECIFICALLY SET FORTH HEREIN, THE WORK AND MATERIALS SHALL CONFORM TO THE APPLICABLE DIVISIONS AND PARAGRAPHS OF THE MOST CURRENT EDITIONS OF THE: STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.

UNLESS OTHERWISE SPECIFIED, ALL MATERIALS SHALL BE NEW AND BOTH WORKMANSHIP AND MATERIALS SHALL BE OF PREMIUM QUALITY, PROPER AND SUFFICIENT FOR THE PURPOSE CONTEMPLATED. THE CONTRACTOR SHALL FURNISH, IF SO REQUIRED, SATISFACTORY EVIDENCE AS TO TYPE AND QUALITY OF MATERIALS AND WORKMANSHIP.

ALL ITEMS OF EQUIPMENT AND/OR MATERIAL PROPOSED BY THE CONTRACTOR FOR SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER IN WRITING AND SHALL BE EQUAL OR SUPERIOR TO THE ITEMS SPECIFIED IN THE CONTRACT DOCUMENTS. IF SAID SUBSTITUTION PROPOSED BY THE CONTRACTOR FOR A SPECIFIED ITEM REQUIRES ENGINEERING REVISIONS, THE TOTAL EXPENSE OF SAID REVISIONS SHALL BE PAID BY THE CONTRACTOR.

ANY ITEMS OF LABOR AND MATERIALS REQUIRED BUT NOT SHOWN AS A SEPARATE PAY ITEM IN THE PROPOSAL SHALL BE FURNISHED AND INSTALLED AS INCIDENTAL TO THE CONTRACT, EXCEPT AS NOTED IN THE PLANS AND SPECIFICATIONS.

PERMITS
OEPA PTI PERMITS, ODOT PERMITS, AND ANY BUILDING, ELECTRIC, OR PLUMBING PERMITS ARE THE RESPONSIBILITY OF THE OWNER.

RESPONSIBILITY
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.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM HIS WORK IN SUCH A MANNER AS NOT TO DAMAGE OR DESTROY ANY EXISTING FEATURE, (I.E. EXISTING INLETS, CONDUITS, ETC.) WHICH IS NOT MARKED FOR REPLACEMENT OR REMOVAL. IF ANY SUCH DAMAGE DOES OCCUR DUE TO THE OPERATIONS OF THE CONTRACTOR, HE SHALL REPLACE THE DAMAGED PORTION AT HIS EXPENSE.

THE CONTRACTOR SHALL EXERCISE DUE CARE DURING CONSTRUCTION SO AS NOT TO DESTROY ANY TREES, PLANTS, SHRUBS OR STRUCTURES OUTSIDE OF THE INDICATED WORK LIMITS AND THOSE NOT SPECIFICALLY MARKED FOR REMOVAL OR RELOCATION WITHIN THE WORK LIMITS.

IN SOME INSTANCES, THE CONTRACTOR WILL BE REQUIRED TO EXCAVATE UNDER AND AROUND THE EXISTING UTILITIES. EXTREME CARE SHOULD BE USED NOT TO DAMAGE THE UTILITY DURING THIS OPERATION.

UNDERGROUND UTILITIES
THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 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.

UTILITIES NOT UNDERGROUND ARE NOT INCLUDED ON THE PLAN.

THE UTILITY INFORMATION SHOWN ON THE PLANS IS BASED ON INFORMATION RECEIVED FROM OTHERS AND HAS NOT BEEN VERIFIED BY THE ENGINEER OR OWNER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF THE UTILITIES AND TO COORDINATE ANY IMPACT CAUSED BY THE PROPOSED WORK WITH ALL UTILITY OWNERS AND/OR THEIR CONTRACTORS. THE CONTRACTOR WILL BE REQUIRED TO DIG TEST HOLES AT ALL UTILITY CROSSINGS TO LOCATE THE UTILITY AS TO BOTH LOCATION AND ELEVATION AND CONTACT THE ENGINEER IN THE EVENT OF A CONFLICT. COST OF ALL THE ABOVE SHALL BE INCIDENTAL TO THE OVERALL CONTRACT PRICE.

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 ON 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
(800) 362-2764
(614) 715-2984

TELEPHONE:
FRONTIER NORTH
7533 SR 125
(800) 921-8101

CABLE:
SPECTRUM
(800) 892-4357
(800) 544-6900

GAS:
DUKE ENERGY
139 E. 4TH ST
CINCINNATI, OH. 45202

ELECTRIC:
AEP OHIO
3225 SCIO TO TRAIL
PORTSMOUTH, OH. 45662
(800) 672-2231

WATER/SEWER:
VILLAGE OF WEST UNION
11700 SR 41
(937) 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 THE 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.

CONSTRUCTION LAYOUT STAKING
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION LAYOUT STAKES FOR THIS PROJECT. WORK IN EXCESS OF THE SERVICES DESCRIBED SHALL BE PAID FOR BY THE CONTRACTOR TO THE ENGINEER.

DUST CONTROL
DUST SHALL BE KEPT TO A MINIMUM. COST OF EQUIPMENT AND MATERIAL REQUIRED TO PERFORM THIS ITEM SHALL BE INCIDENTAL TO THE OVERALL BID PRICE.

SAFETY:
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 OWNERS PERSONNEL DURING CONSTRUCTION. MSDS'S TO BE FORWARDED TO THE ENGINEER AT START OF AND DURING CONSTRUCTION AND TO THE OWNER UPON COMPLETION OF THE PROJECT.

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.

TRENCH EXCAVATION:
EXCAVATION SHALL BE LIMITED TO THE RIGHTS OF WAY AND EASEMENTS OF LANDS CONTROLLED BY THE OWNER.

THE LENGTH OF TRENCH TO BE OPENED OR THE AREA OF THE SURFACE TO BE DISTURBED AT ANY ONE TIME WILL BE LIMITED WITH REGARD TO BOTH EXPEDITIOUS CONSTRUCTION AND TO THE CONVENIENCE AND COMFORT OF THE PUBLIC RESIDING IN THE NEIGHBORHOOD OR FREQUENTING STREETS ADJACENT TO OR ALONG THE EXCAVATION, UNLESS OTHERWISE SPECIFICALLY PERMITTED BY THE ENGINEER. THE FOLLOWING LIMITATIONS TO LENGTH OF OPERATIONS WILL BE IMPOSED.

1. PLACEMENT OF PROPOSED CONDUIT AND BACKFILL MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF TRENCH, WHICH IS OPEN AT ANY ONE TIME, SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

2. IN PUBLIC AREAS, ALL UNCOMPLETED MAIN LINE, SERVICE LINE AND MANHOLE EXCAVATION, BACKFILL AND TEMPORARY SURFACING SHALL NOT EXCEED 100 FEET OR AS DIRECTED BY THE ENGINEER.

IF FOR ANY REASON THE WORK IS STOPPED ON THE WHOLE OR ANY PART OF THE TRENCH AND THE SAME IS LEFT OPEN FOR AN UNREASONABLE LENGTH OF TIME IN ADVANCE OF THE CONSTRUCTION OF THE CONDUIT, THE CONTRACTOR SHALL, WHEN SO DIRECTED, REFILL SUCH TRENCH OR PART THEREOF AND TEMPORARILY RESTORE THE SAME AT HIS OWN EXPENSE AND HE SHALL NOT AGAIN OPEN SUCH TRENCH OR PART THEREOF UNTIL HE IS READY TO PROCEED WITH THE CONSTRUCTION OF THE WORK.

ALL EXCAVATIONS WITHIN PUBLIC AREA LIMITS SHALL BE COMPLETELY CLOSED AT ALL TIMES WHEN THERE IS A DELAY IN THE PROGRESS OF THE WORK.

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.

ALL EXCESS EXCAVATED MATERIAL SHALL BE DISPOSED OF AT THE VILLAGE OF WEST UNION WASTEWATER TREATMENT PLANT. CONTRACTOR SHALL SPREAD, GRADE, AND WALK MATERIAL IN WITH THE TRACKS OF DOZER TO ACHIEVE COMPACTION.

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 ESTABLISHMENT OF VEGETATIVE COVER BY SEEDING AND MULCHING IN ACCORDANCE WITH ODOT ITEM 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 UPON COMPLETION.

CONTINGENCY QUANTITIES
THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR PLAN ITEMS SET UP TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

ENVIRONMENTAL NOTES:
PROPERLY INSTALL EROSION CONTROLS (E.G., SILT FENCES, STRAW BALES, ETC.) ON SLOPES, ALONG STREAMS AND DRAINAGE WAYS, AROUND DRAINAGE STRUCTURES, AND ANYWHERE ELSE THAT EXPOSED SOIL COULD RUN OFF. ALL SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO STARTING CONSTRUCTION.
ALL MATERIALS TO BE DISPOSED OF OFF-SITE MUST BE DISPOSED OF IN AN ENVIRONMENTALLY SOUND MANNER IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS AT A SITE APPROVED BY THE ENGINEER. NO EXCESS MATERIALS ARE TO BE DISPOSED OF IN ANY WETLAND, FLOODPLAIN, SURFACE WATER, OR OTHER ENVIRONMENTALLY SENSITIVE AREAS. EROSION CONTROL MEASURES AT THE DISPOSAL SITE MUST BE INSTALLED AND MAINTAINED UNTIL DISPOSAL IS COMPLETE AND THE DISPOSAL SITE IS PERMANENTLY STABILIZED. GIVING EXCAVATED SOIL AWAY DOES NOT RELIEVE THE CONTRACTOR OR ENGINEER OF THIS RESPONSIBILITY.
TREE REMOVAL WILL BE LIMITED TO THAT NECESSARY FOR CONSTRUCTION AND WILL BE LIMITED FURTHER TO THE PERMANENT EASEMENT WHENEVER POSSIBLE. IF THE PROJECT REQUIRES TREES MUST BE CUT, THIS MUST OCCUR BETWEEN OCTOBER 1 AND MARCH 31. INDIANA BATS ARE HIGHLY-DEPENDENT UPON TREES INCLUDING DEAD AND DYING TREES OF SPECIES WITH EXFOLIATING BARK, CREVICES, OR CAVITIES IN UPLAND AREAS OR RIPARIAN CORRIDORS AND LIVING TREES OF THE SPECIES LISTED ABOVE WITH EXFOLIATING BARK, CAVITIES, OR HOLLOW AREAS FORMED FROM BROKEN BRANCHES OR TOPS. IF SUITABLE TREES MUST BE CUT DURING THE PROHIBITED TIME PERIOD, A NET SURVEY MUST BE CONDUCTED TO DETERMINE THE PRESENCE OR ABSENCE OF INDIANA BATS PRIOR TO CUTTING.
IF DEWATERING IS NECESSARY, FLOWS SHOULD BE FILTERED WITH APPROPRIATE BALES OR SETTLED BEFORE ENTERING STORM DRAINS OR STREAMS.
DISPOSING OF EXCESS OR UNSUITABLE EXCAVATED MATERIAL, TREES, OR BRUSH IN WETLANDS OR FLOOD PLAINS EVEN WITH THE PERMISSION OF THE PROPERTY OWNER IS PROHIBITED.

MONUMENTS - BENCHMARKS
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE ALL EXISTING SURVEY MONUMENTATION AND BENCHMARKS. ANY MONUMENTATION (IRON PINS, CONCRETE MONUMENTS, ETC.), WHICH MAY BE DISTURBED DURING CONSTRUCTION, SHALL BE REFERENCED AND REPLACED UPON PROJECT COMPLETION. ALL MONUMENTATION REPLACED SHALL BE OF THE SAME MATERIAL AS ORIGINAL. MONUMENT AND SHALL BE REPLACED WITHIN CUSTOMARY LIMITS OF ACCURACY, UNDER THE DIRECTION OF A REGISTERED LAND SURVEYOR. FOR U.S.G.S. MONUMENTS AND/OR BENCHMARKS WHICH MAY BE DISTURBED DURING CONSTRUCTION, THE APPROPRIATE AGENCY SHALL BE GIVEN ADEQUATE PRIOR NOTIFICATION TO ALLOW PROPER REFERENCES AND RELOCATION OF THE MONUMENTS TO BE DONE BY THE AGENCY INVOLVED.

SOIL CONDITIONS / WATER TABLE
THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING / TESTING / DETERMINING SITE CONDITIONS AS IT RELATES TO SOIL CONDITIONS AND GROUND WATER TABLE. THE CONTRACTOR MAY EXAMINE ANY EXISTING RECORDS OF BORINGS, TEST EXCAVATIONS, AND OTHER SUBSURFACE INVESTIGATIONS, FOR HIS OWN INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR STABILIZING ALL TRENCH WORK, USING TEMPORARY SHORING (TRENCH BOXES OR OTHER) IF NECESSARY TO CONSTRUCT THE IMPROVEMENTS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR PUMPING / DEWATERING TRENCHES, IF NECESSARY.

PAYMENT FOR THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT ITEMS.

SEED, MULCH & FERTILIZER, AS PER PLAN
ALL SEEDING, MULCHING AND FERTILIZING SHALL BE DONE TO DAMAGED AREAS WITHIN THE CONSTRUCTION LIMITS. INCIDENTAL TO THE PROJECT. ALL DAMAGED AREAS REQUIRING RESTORATION OUTSIDE OF THE CONSTRUCTION LIMITS SHALL BE DONE AT THE EXPENSE OF THE CONTRACTOR.

THE ENGINEER SHALL DETERMINE ALL AREAS REQUIRING SEEDING, MULCHING AND FERTILIZER PERTINENT TO THIS CONTRACT.

MAINTENANCE OF TRAFFIC
THE CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES IN ACCORDANCE WITH THE REQUIREMENTS OF ODOT SPEC. 614 AND M.U.T.C.D. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE AND MAINTENANCE OF TRAFFIC PLAN TO THE OWNER FOR APPROVAL INDICATING DATES AND DURATION OF EACH PHASE OF CONSTRUCTION.

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) HOURS AND SHALL BE OPEN TO TRAFFIC AT THE END OF THIS WORKING DAY.

THE CONTRACTOR SHALL MAINTAIN ALTERNATING TWO WAY TRAFFIC ON ALL STREETS DURING CONSTRUCTION. ANY ROAD CLOSURES MUST BE APPROVED BY THE VILLAGE OR ENGINEER PRIOR TO BEGINNING CONSTRUCTION.

SPECIFIC ATTENTION WILL BE DIRECTED TOWARD THE PROPER USE OF FLAGMEN, LIGHTS, DRUMS, AND TEMPORARY PAVEMENT MARKINGS (IF NECESSARY). THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL NECESSARY SIGNS, AND PROVIDE TEMPORARY STRIPING (IF NECESSARY). THE CONTRACTOR SHALL ALSO PROVIDE ALL PLATING, TEMPORARY PAVEMENT AND TRAFFIC CONTROL MEASURES NECESSARY TO MAINTAIN TRAFFIC.

ALL COSTS FOR TRAFFIC MAINTENANCE SHALL BE INCIDENTAL TO THE CONTRACT.

MAINTENANCE OF TRAFFIC SHALL BE ONGOING THROUGH THE PROJECT, INCLUDING ALL PERIODS OF INACTIVITY BY THE CONTRACTOR, UNTIL FINAL ACCEPTANCE OF THE PROJECT.

OPEN EXCAVATIONS
ALL OPEN EXCAVATION SHALL BE PROPERLY DELINEATED FROM THE TRAVELED ROADWAY BY REFLECTIVE DRUMS. TRENCHES SHALL EITHER BE BACKFILLED OR COVERED FOR ANY EXTENDED PERIODS OF NO CONSTRUCTION.

MAINTENANCE OF EXISTING ROADWAY/DRIVEWAYS
THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING THE EXISTING ROADWAYS AND DRIVEWAYS IN GOOD CONDITION WITH RESPECT TO BOTH SAFETY AND SMOOTHNESS OF TRAVEL AS LONG AS IT IS NEEDED FOR MAINTENANCE OF TRAFFIC. THE COST OF ADDITIONAL WORK AND MATERIAL NECESSARY TO REPAIR AND MAINTAIN THE EXISTING ROADWAYS SHALL BE INCIDENTAL TO THE CONTRACT.

CONSTRUCTION SCHEDULE
IN DETAILING THE CONSTRUCTION SCHEDULE, THE CONTRACTOR SHALL PROVIDE THE LEAST POSSIBLE INCONVENIENCE TO THE PUBLIC DURING CONSTRUCTION. WORK SHALL NOT PROCEED ON THE PROJECT UNTIL SUCH TIME AS THE SCHEDULE IS APPROVED BY BOTH THE VILLAGE AND THE ENGINEER.

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 CONTRACTOR WILL BE REQUIRED TO REMOVE DIRT ACCUMULATING FROM HIS OPERATIONS UPON THE SAID STREETS 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 THE CLEANING OF THE PAVED OR UNPAVED STREETS, BUT THE COST OF THE SAME SHALL BE INCLUDED IN THE PRICES 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 THE CONTRACTOR.

SHOULD THE CONTRACTOR FAIL TO SHAPE OR CLEAN 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 TO THE CONTRACTOR.

NOISE CONTROL
CONSTRUCTION ACTIVITIES WILL BE LIMITED TO WEEKDAY DAYTIME HOURS UNLESS APPROVED 48 HOURS IN ADVANCE BY THE VILLAGE.

GROUNDWATER
THE CONTRACTOR SHOULD ASSUME THAT SOME GROUNDWATER WILL BE PRESENT IN ALL EXCAVATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE REMOVING AND DISPOSING OF GROUNDWATER THAT IS FREE OF SILT AND OTHER CONTAMINANTS OR SOLIDS.

CURB REPAIR
ANY CURB DISTURBED BY CONSTRUCTION SHALL BE REPLACED IN FULL SECTIONS, FROM JOINT TO JOINT.

- PIPING INFORMATION
1. PVC GRAVITY SEWER PIPE MUST MEET OR EXCEED SDR 35.
 2. FORCE MAIN SHALL BE HDPE SDR 21.

GENERAL NOTES

1. COST OF TRIMMING OR CLEARING ANY TREES, BUSHES, ETC. SHALL BE INCIDENTAL TO THE OVERALL CONTRACT PRICE AND SHALL BE APPROVED BY THE VILLAGE AND THE PROPERTY OWNER.
2. WATERLINES CROSSING UNDER OR OVER SEWER LINES (DEFINED AS ANY SANITARY/COMBINED SEWER, SEPTIC TANK OR SUBSOIL TREATMENT SYSTEM) MUST MAINTAIN A MINIMUM VERTICAL CLEARANCE OF 18" AND ONE FULL LENGTH OF PIPE SHALL BE LOCATED SO BOTH JOINTS ARE AS FAR FROM THE SEWER AS POSSIBLE. SPECIAL STRUCTURAL SUPPORT FOR THE WATER AND SEWER PIPES MAY BE REQUIRED.

3. CONTRACTOR IS RESPONSIBLE FOR KEEPING FIELD NOTES THAT PROVIDE SUFFICIENT DATA FOR PREPARING "RECORD DRAWINGS" UPON COMPLETION OF CONSTRUCTION.

4. ALL MATERIAL FOR THE PROP. SEWER INSTALLATION INCLUDING ALL FITTINGS, PIPE RESTRAINTS, ETC., SHALL BE INCLUDED IN THE CONTRACTOR'S UNIT PRICE.

5. COST OF ALL TRENCHING, PIPE RESTRAINT MATERIALS, AIR COCKS, PIPE BEDDING, BACKFILL, REMOVAL & REPLACEMENT OF LANDSCAPING/SIGNS SHALL BE PART OF THE COST OF INSTALLING SEWER.

YARD RESTORATION AND PAVEMENT, DRIVEWAY, CURB AND WALK RESTORATION SHALL BE PAID FOR UNDER SEPARATE BID ITEMS.

OTHER THAN THE YARD RESTORATION, ALL OTHER RESTORATION LISTED ABOVE SHALL BE LIMITED TO A 10 FOOT WIDTH ALONG THE SEWER TRENCH.

6. PRESSURE TESTING SHALL BE DONE AS PER THE SPECIFICATIONS. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS, TAPS AND LABOR NECESSARY FOR CONDUCTING TESTING.

7. THE PROPOSED SEWER SHALL HAVE A HORIZONTAL SEPARATION OF AT LEAST 3'-0" (MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE) FROM ANY GAS MAIN.

8. A 10' MINIMUM LATERAL SEPARATION BETWEEN WATER MAINS AND SEWERS (DEFINED AS ANY SANITARY/COMBINED SEWER, SEPTIC TANK OR SUBSOIL TREATMENT SYSTEM) AND SEWER MANHOLES, MEASURED FROM THE OUTSIDE DIAMETER TO OUTSIDE, MUST BE MAINTAINED, UNLESS OTHERWISE INDICATED ON THE PLANS.

9. THE LOCATION OF UTILITIES SHOWN IN PROFILE IS APPROXIMATE AND BASED ON AN ASSUMED UNIFORM COVER. THE UTILITY LOCATION IN THE FIELD MAY VARY AS TO LOCATION AND DEPTH. THE

CONTRACTOR SHALL BECOME FULLY RESPONSIBLE TO COORDINATE WITH ALL UTILITY OWNERS AND THEIR CONTRACTORS TO VERIFY THE LOCATION AND DEPTH OF THEIR UTILITY SERVICES. COST OF DOING SO SHALL BE INCIDENTAL TO OVERALL CONTRACT.

10. ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED. 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 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.

11. 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.

12. ALL WATERLINE, SANITARY SEWER, AND STORM SEWER PIPE SHALL BE INSTALLED UTILIZING APPROPRIATE BEDDING AND BACKFILL MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS AND 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.

13. EXCAVATIONS WITHIN FIVE FEET OF STREETS, DRIVES, WALKS, PARKING AREAS AND OTHER ROADWAYS SHALL BE BACKFILLED AND COMPACTED WITH GRANULAR MATERIAL CONFORMING TO ODOT ITEM 304 AGGREGATE BASE. ADDITIONAL GRANULAR MATERIAL SHALL BE STOCK-PILED AT SELECT LOCATIONS FOR USE WHEN SETTLEMENT OCCURS. ALL GRANULAR MATERIAL SHALL BE COMPACTED IN SIX (6) INCH LAYERS.

14. 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.

15. 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.

16. ROCK EXCAVATION AND REMOVAL - THE COST OF ALL ROCK REMOVAL AND DISPOSAL SHALL BE PAID IN THE UNIT PRICE BID FOR ROCK EXCAVATION, CONTINGENCY, AS DIRECTED. BLASTING WILL NOT BE PERMITTED.

17. 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.

18. 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 PRIVATE PROPERTY WITHOUT WRITTEN CONSENT OF THE OWNER.

19. 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 OUTLINED IN THE "RAINWATER AND LAND DEVELOPMENT MANUAL", CURRENT EDITION, AS PREPARED BY THE OHIO DEPARTMENT OF NATURAL RESOURCES.

20. ALL ELEVATIONS ARE BASED ON THE U.S.G.S. 1988 DATUM.

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

BID SET

verdantas

ISSUED FOR:	BIDDING	NO	REVISION	DATE
ISSUE DATE:	4/1/2025			
SCALE:	AS NOTED			
DESIGNED BY:	DSS			
DRAWN BY:	DSS			
CHECKED BY:	KAB			

VILLAGE OF WEST UNION SR 41 SEWER EXTENSION AT HALE DRIVE - ADAMS COUNTY, OH -	GENERAL NOTES
--------------------------------------------------------------------------------------	---------------

PROJECT NO. 210164	
DISCIPLINE GENERAL	
SHEET NAME GEN-NOTES	
SHEET 2	OF 13

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

SITE SYMBOLGY:

EX:	PR:
	TC TOP OF CASTING
	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

SANITARY STRUCTURE TABLE

STRUCTURE NAME:	NORTHING (PER PLAN)	EASTING (PER PLAN)	NORTHING (ASBUILT)	EASTING (ASBUILT)
S9	282250.26	1659442.59		
S10	282120.78	1659228.77		
S11	281912.04	1658887.55		
S12	281704.21	1658545.78		
S13	281528.48	1658256.71		

HALE DRIVE SANITARY LINE

Sheet List Table

Sheet #	Sheet Title
1	COVER SHEET
2	GENERAL NOTES
3	LEGEND & TABLES
4	AREA PLAN - STATE ROUTE 41
5	CONSTRUCTION DETAILS - 1
6	CONSTRUCTION DETAILS - 2
7	CONSTRUCTION DETAILS - 3
8	CONSTRUCTION DETAILS - 4
9	SEDIMENT & EROSION CONTROL DETAILS
10	PLAN & PROFILE - SR41 STA. 3+30.25 TO STA. 8+00
11	PLAN & PROFILE - SR41 STA. 8+00 TO STA. 13+00
12	PLAN & PROFILE - SR41 STA. 13+00 TO STA. 18+00
13	PLAN & PROFILE - SR41 STA. 18+00 TO STA. 19+80.66

BID SET

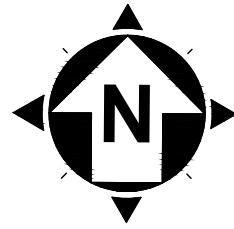
verdantas

ISSUED FOR:	BIDDING	NO	REVISION	DATE
ISSUE DATE:	4/1/2025			
SCALE:	AS NOTED			
DESIGNED BY:	DSS			
DRAWN BY:	DSS			
CHECKED BY:	KAB			

VILLAGE OF WEST UNION
SR 41 SEWER EXTENSION AT HALE DRIVE
- ADAMS COUNTY, OH -

LEGEND & TABLES

PROJECT NO. 210164	
DISCIPLINE GENERAL	
SHEET NAME LGN-TBLS	
SHEET 3	OF 13

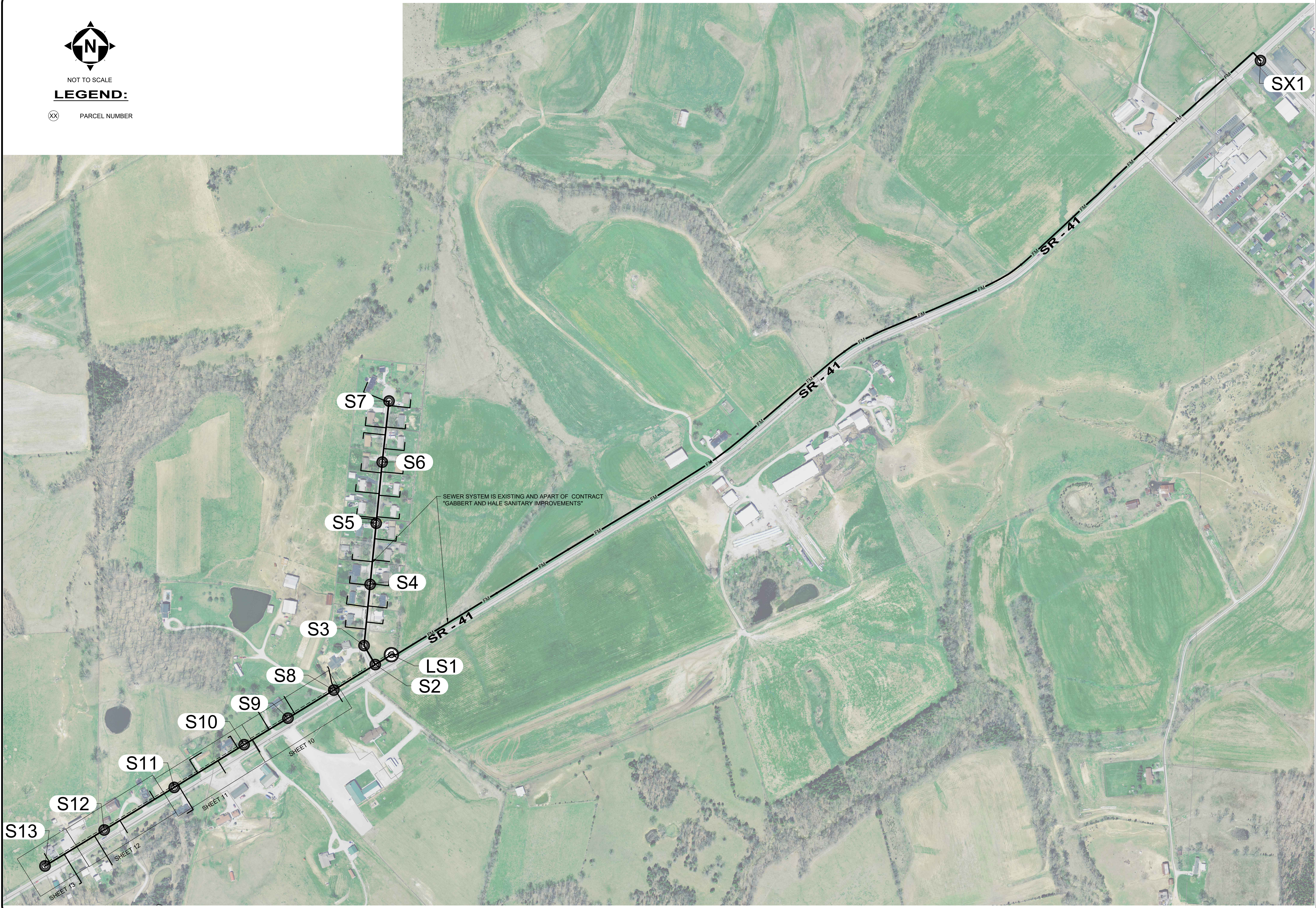


NOT TO SCALE

LEGEND:



PARCEL NUMBER



BID SET

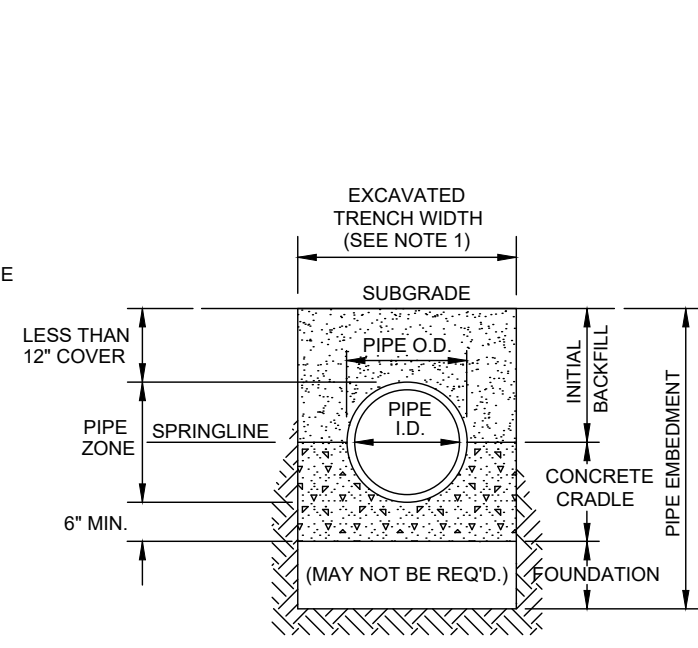
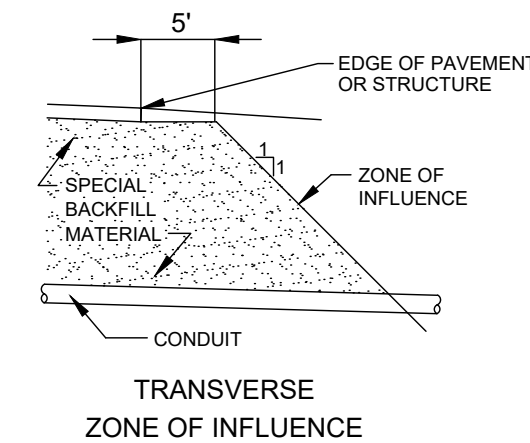
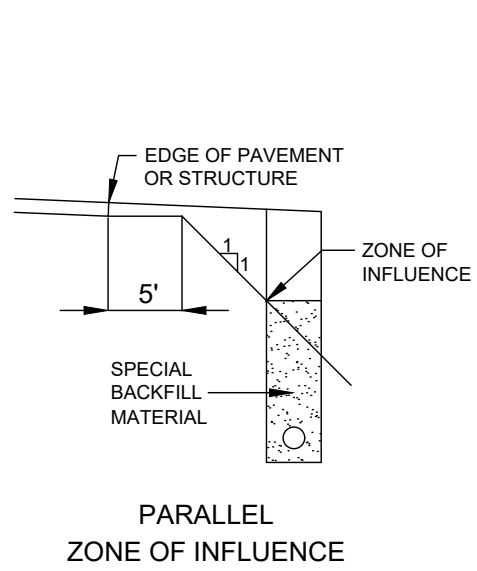
verdantas

ISSUED FOR	BIDDING	NO	REVISION	DATE
ISSUE DATE:	4/1/2025			
SCALE:	AS NOTED			
DESIGNED BY:	DSS			
DRAWN BY:	DSS			
CHECKED BY:	KAB			

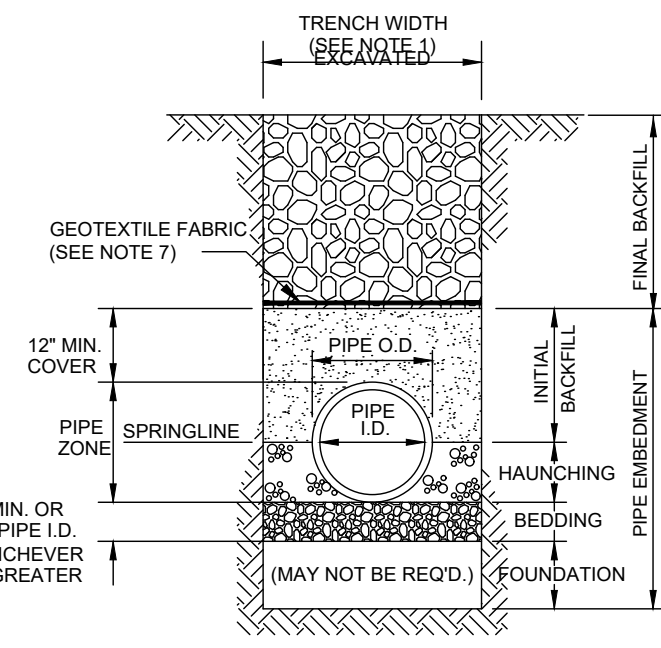
VILLAGE OF WEST UNION
SR 41 SEWER EXTENSION AT HALE DRIVE
- ADAMS COUNTY, OH -

AREA PLAN - STATE ROUTE 41

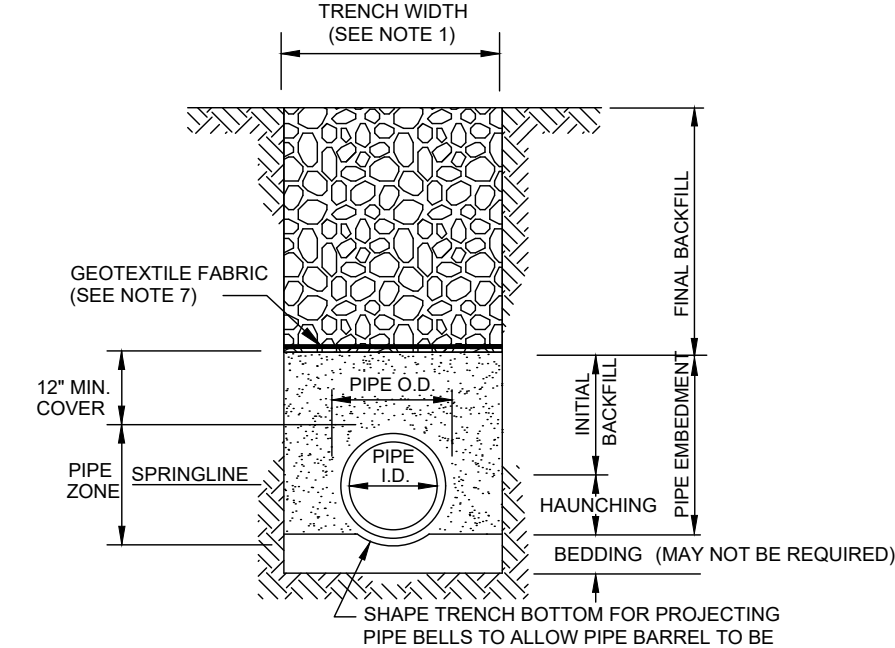
PROJECT NO.	
210164	
DISCIPLINE	
CIVIL	
SHEET NAME	
AR-PLN 3	
SHEET	OF
4	13



CLASS 'A' PIPE EMBEDMENT



CLASS 'B' PIPE EMBEDMENT



CLASS 'C' PIPE EMBEDMENT

NOTES:

1. MAXIMUM EXCAVATED TRENCH WIDTH: THE MAXIMUM EXCAVATED TRENCH WIDTH FROM THE BOTTOM OF THE TRENCH TO 12" OVER THE TOP OF THE PIPE (WITHIN PIPE EMBEDMENT) SHALL BE O.D. + 24" FOR ALL PIPES UP TO AND INCLUDING 24" I.D. + 30" FOR PIPE FROM 24" I.D. TO 54" I.D. AND O.D. + 48" FOR PIPES SIZES 60" I.D. AND OVER.
2. FOUNDATION: WHERE AN UNSTABLE TRENCH BOTTOM CONDITION IS ENCOUNTERED, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH MATERIAL AS DIRECTED BY THE ENGINEER.
3. PIPE EMBEDMENT:
CLASS A: CLASS A PIPE EMBEDMENT SHALL BE USED FOR ALL PIPING UNDER PAVEMENT OR STRUCTURES WITH LESS THAN 12 INCHES OF PIPE COVER TO THE SUBGRADE. THE CONCRETE CRADLE SHALL BE IN ACCORDANCE WITH ODOT ITEM 499, CLASS "C". THE INITIAL BACKFILL SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT.

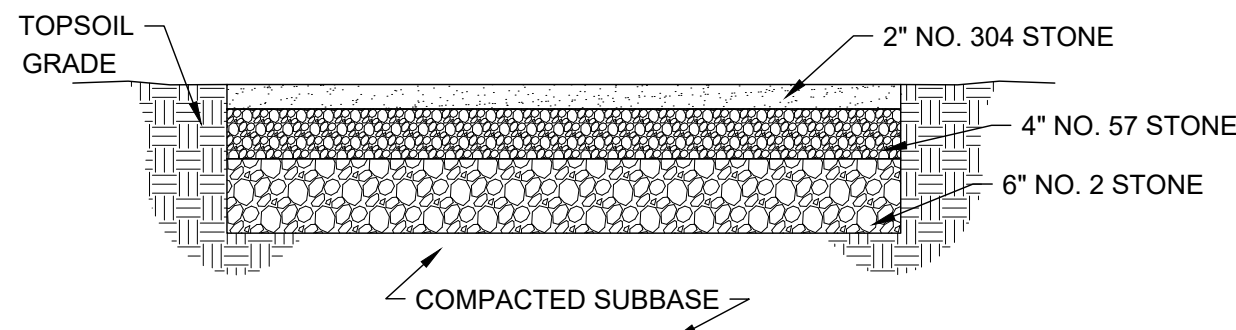
CLASS B: CLASS B PIPE EMBEDMENT SHALL BE USED FOR ALL PIPING UNLESS OTHERWISE NOTED ON THE PLANS OR AUTHORIZED BY THE ENGINEER. THE BEDDING AND HAUNCHING SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT. IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE AASHTO NO. 57 OR NO. 67 STONE GRANULAR PIPE EMBEDMENT. IN ALL AREAS OUTSIDE OF PAVEMENT, STRUCTURES OR THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL APPROVED BY THE ENGINEER FOR ONLY REINFORCED CONCRETE PIPE AND DUCTILE IRON PIPE. THE INITIAL BACKFILL FOR ALL OTHER PIPES SHALL BE AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT.

CLASS C: CLASS C PIPE EMBEDMENT SHALL ONLY BE USED FOR DUCTILE IRON WATER MAIN, DUCTILE IRON FORCE MAINS OR AS AUTHORIZED BY THE ENGINEER. THE PIPE EMBEDMENT SHALL BE SUITABLE ON-SITE MATERIAL APPROVED BY THE ENGINEER IN ALL AREAS OUTSIDE OF PAVEMENT, STRUCTURES OR THE ZONE OF INFLUENCE. WHERE ROCK OR SHALE IS ENCOUNTERED, A MINIMUM 6-INCHES OF AASHTO NO. 57 OR NO. 67 GRANULAR PIPE BEDDING OR SAND BEDDING SHALL BE PLACED AS DIRECTED BY THE ENGINEER.

4. FINAL BACKFILL: IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE THE FINAL BACKFILL SHALL BE SPECIAL BACKFILL MATERIAL. IN ALL AREAS OUTSIDE OF PAVEMENT, STRUCTURES OR THE ZONE OF INFLUENCE, THE FINAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL APPROVED BY THE ENGINEER.
5. SPECIFICATIONS: ALL TRENCHING, PIPE EMBEDMENT AND BACKFILL MATERIALS SHALL BE IN ACCORDANCE WITH SPECIFICATION 310000CT - EARTHWORK.
6. CLAY TRENCH DAMS: CLAY TRENCH DAMS SHALL BE REQUIRED AS SHOWN ON PLANS OR WHEN AND WHERE NECESSARY AS DIRECTED BY THE ENGINEER.
7. GEOTEXTILE FABRIC: INSTALL A GEOTEXTILE FABRIC IN ACCORDANCE WITH ODOT 712.09, TYPE A, AFTER ALL INITIAL BACKFILL CONSISTING OF AASHTO NO. 57 OR NO. 67 GRANULAR PIPE EMBEDMENT.
8. DETECTOR TAPE: IF REQUIRED IN THE SPECIFICATIONS, INSTALL DETECTABLE WARNING TAPE ABOVE UTILITIES, 12" BELOW FINISHED GRADE, EXCEPT 6 INCHES BELOW SUBGRADE UNDER PAVEMENT AND SLABS.

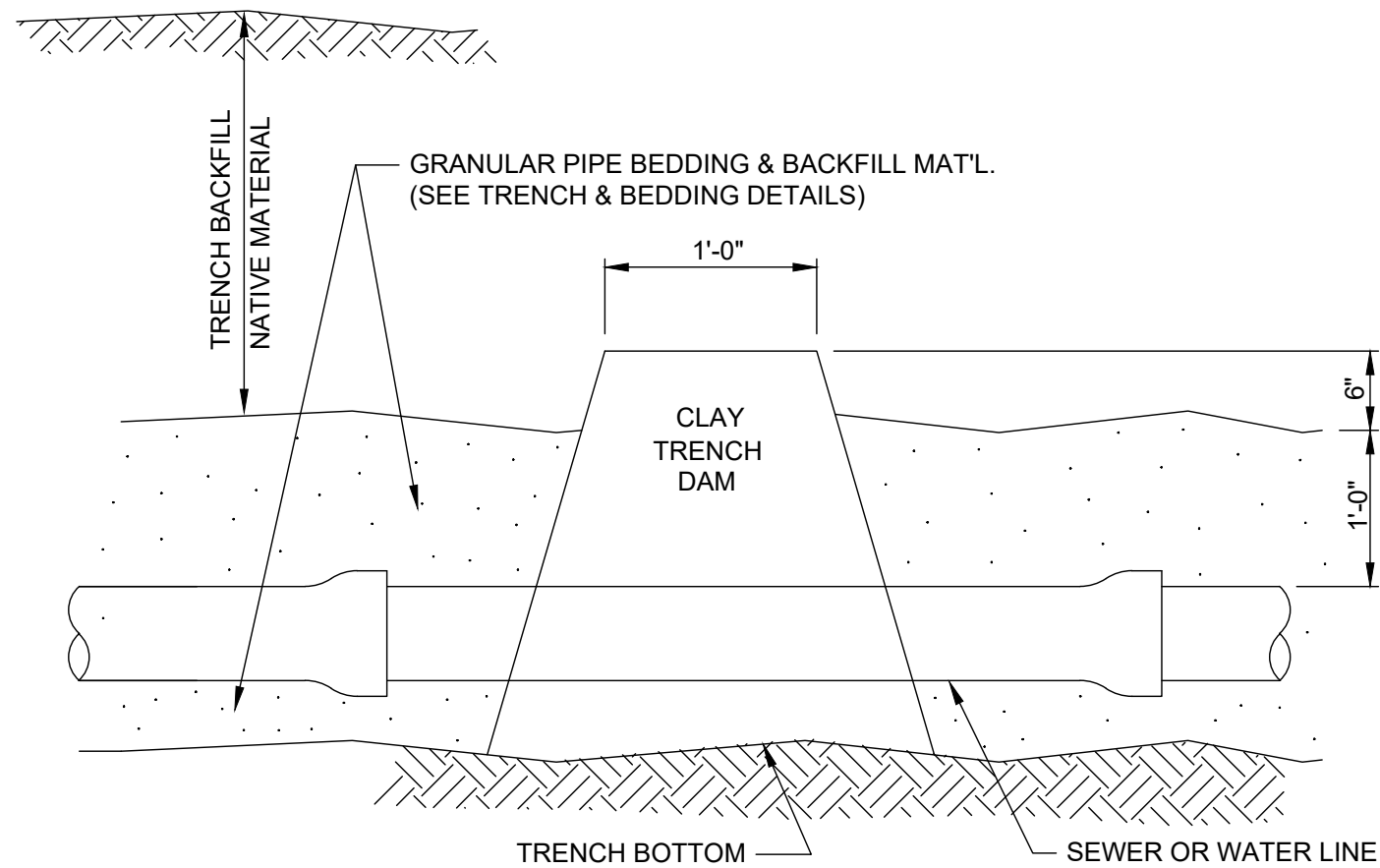
TRENCHING, EMBEDMENT AND BACKFILL DETAIL

NOT TO SCALE



GRAVEL PAVEMENT DETAIL

NOT TO SCALE

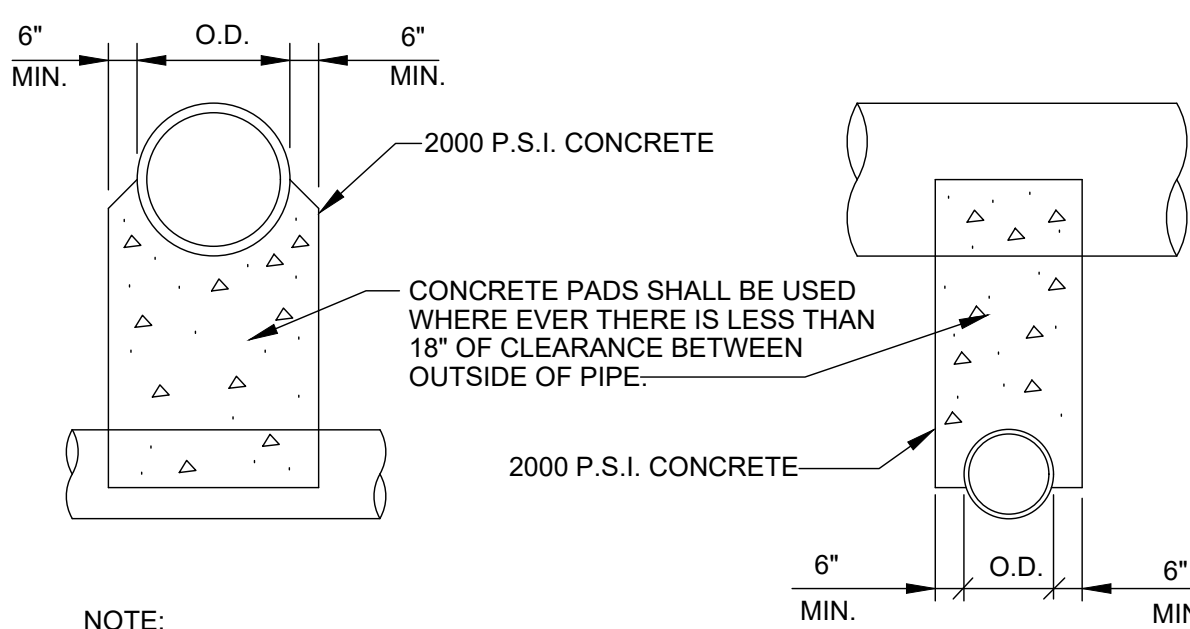


TRENCH DAM DETAIL

NOT TO SCALE

NOTE:

1. FULL-DEPTH CLAY DAMS ARE TO BE INSTALLED ON SANITARY SEWER LINES AT MINIMUM INTERVALS OF 150' AND WITH A MINIMUM OF ONE DAM BETWEEN EACH PAIR OF MANHOLES.

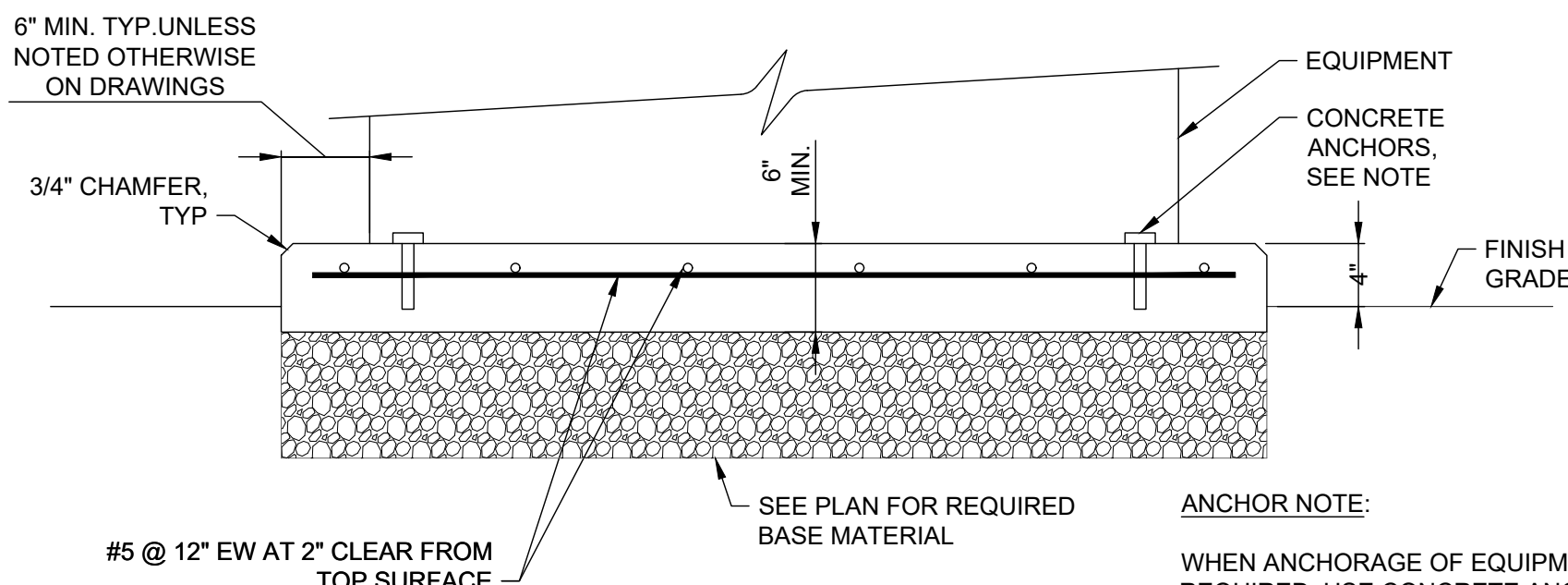


NOTE:

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, WHERE TWO PIPES (SEWER & WATER) CROSS EACH OTHER, A CONCRETE PAD AND CRADLE SEPERATOR SHALL BE PLACED BETWEEN THEM AS INDICATED ABOVE. WHERE PERMISSION IS GRANTED TO OMIT THE CONCRETE PADS, GRANULAR BACKFILL SHALL BE TAMPED IN 6" LAYERS AROUND BOTH PIPES. SUCH TAMPED BACKFILL SHALL BE CONTINUOUS FROM THE CRADLE OF THE LOWER PIPE TO THE TOP OF THE UPPER PIPE AND AT THE BOTTOM SHALL EXTEND IN BOTH DIRECTIONS, FOR THE FULL WIDTH OF THE TRENCH.

PIPE CROSSING DETAIL

NOT TO SCALE



LIGHT DUTY

ANCHOR NOTE:

WHEN ANCHORAGE OF EQUIPMENT TO PAD IS REQUIRED, USE CONCRETE ANCHORS SPECIFIED.

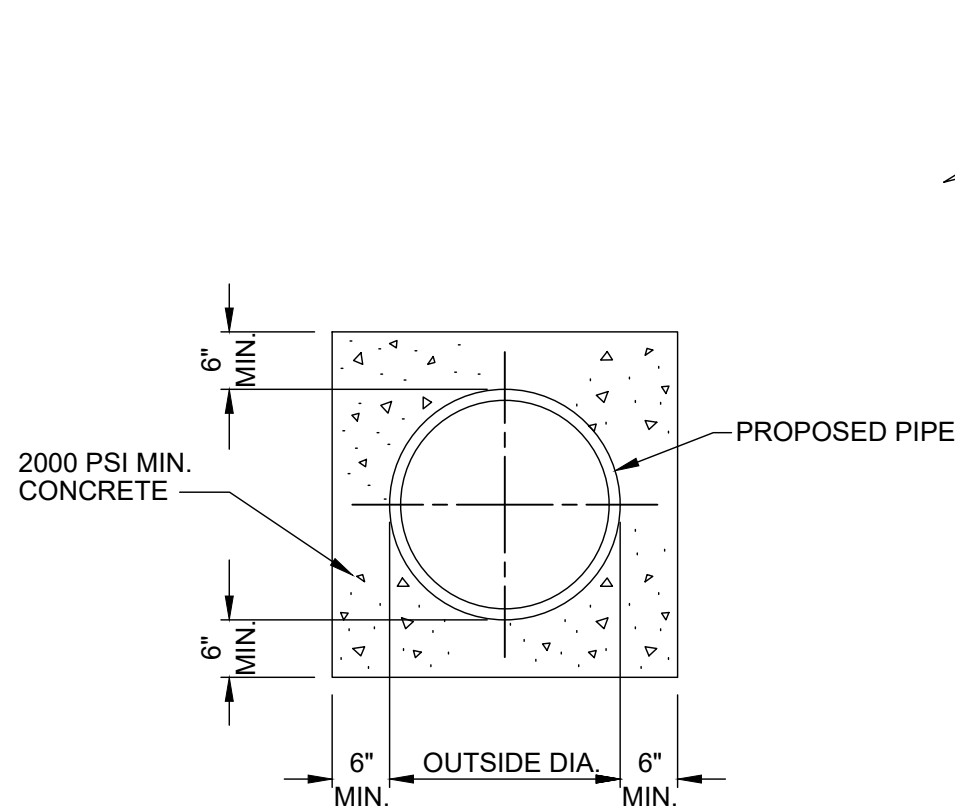
NOTES:

1. PAD SIZE SHALL BE MINIMUM INDICATED OR AS SHOWN ON THE DRAWINGS OR AS INDICATED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER.
2. THE SIZE, NUMBER, TYPE, LOCATION, AND THREAD PROJECTION OF THE ANCHOR BOLTS SHALL BE DETERMINED BY THE EQUIPMENT MANUFACTURER AND AS APPROVED BY THE ENGINEER. ANCHOR BOLTS SHALL BE HELD IN POSITION WITH A TEMPLATE OR OTHER ACCEPTABLE MEANS, MATCHING THE BASE PLATE, WHILE PAD IS BEING PLACED.
3. ANCHOR BOLT SLEEVES SHALL BE USED TO PROVIDE MINIMUM ANCHOR BOLT MOVEMENT OF 1/2" IN ALL HORIZONTAL DIRECTIONS. THE MINIMUM SLEEVE LENGTH SHALL BE 8 TIMES THE BOLT DIAMETER.
4. ANCHOR BOLT SLEEVES SHALL HAVE A MINIMUM INTERNAL DIAMETER 1" GREATER THAN BOLT DIAMETER AND A MAXIMUM INTERNAL DIAMETER 3" GREATER THAN ANCHOR BOLT DIAMETER. SLEEVES SHALL BE FILLED WITH NON-SHRINK GROUT AFTER BOLTS ARE ALIGNED.
5. EQUIPMENT BASES SHALL BE INSTALLED LEVEL UNLESS INDICATED OTHERWISE.
6. WEDGES, SHIMS, OR LEVELING NUTS SHALL BE USED TO SUPPORT THE BASE WHILE THE NON-SHRINK GROUT IS PLACED. WEDGES OR SHIMS THAT ARE LEFT IN PLACE SHALL NOT BE EXPOSED TO VIEW.
7. HEIGHT OF PADS SHALL BE MINIMUM REQUIRED FOR ANCHOR BOLT CLEARANCE TO KEEP ANCHOR BOLT ABOVE SUPPORTING SLAB (SEE TABLE BELOW). WHERE EQUIPMENT OR PIPING ELEVATION REQUIRE A PAD HEIGHT LESS THAN THE MINIMUM SHOWN, USE TYPE "B" EQUIPMENT PAD WITH BLOCKOUT.
8. AT CONTRACTOR'S OPTION, CONCRETE ANCHORS MAY BE USED IN LIEU OF CAST-IN-PLACE ANCHOR BOLTS FOR EQUIPMENT ANCHOR BOLTS LESS THAN 3/4" DIAMETER WHEN APPROVED BY THE EQUIPMENT MANUFACTURER AND APPROVED BY THE ENGINEER. ANCHORS SHALL BE INSTALLED WITH 4" MINIMUM EDGE DISTANCE IN EACH DIRECTION.
9. PAD SURFACE SHALL BE BEVELED SO THAT WATER DOES NOT POOL UNDER EQUIPMENT.

AB DIA (IN.)	1/2	5/8	3/4	7/8	1	1 1/4	1 3/8	1 1/2	1 3/4	2
MIN PAD HT (IN.)	7	8 1/2	10	11	12 1/2	15	16 1/2	18	21	24

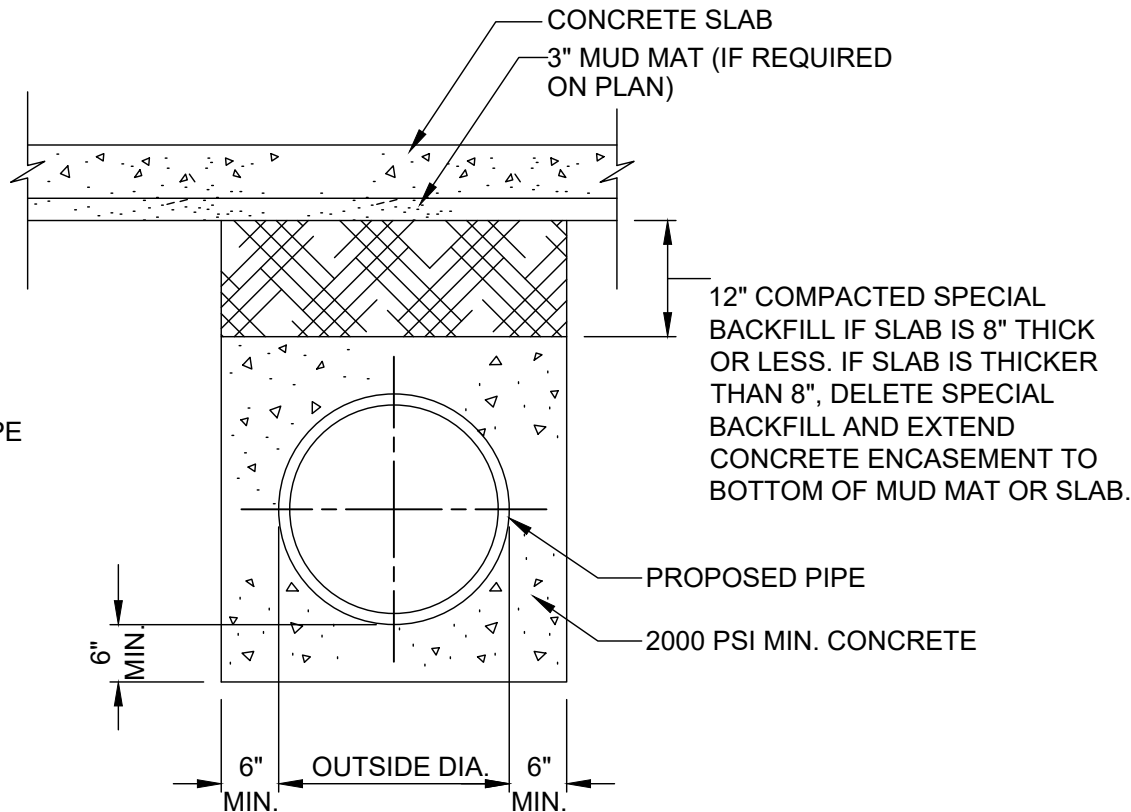
CONCRETE EQUIPMENT PAD

NOT TO SCALE



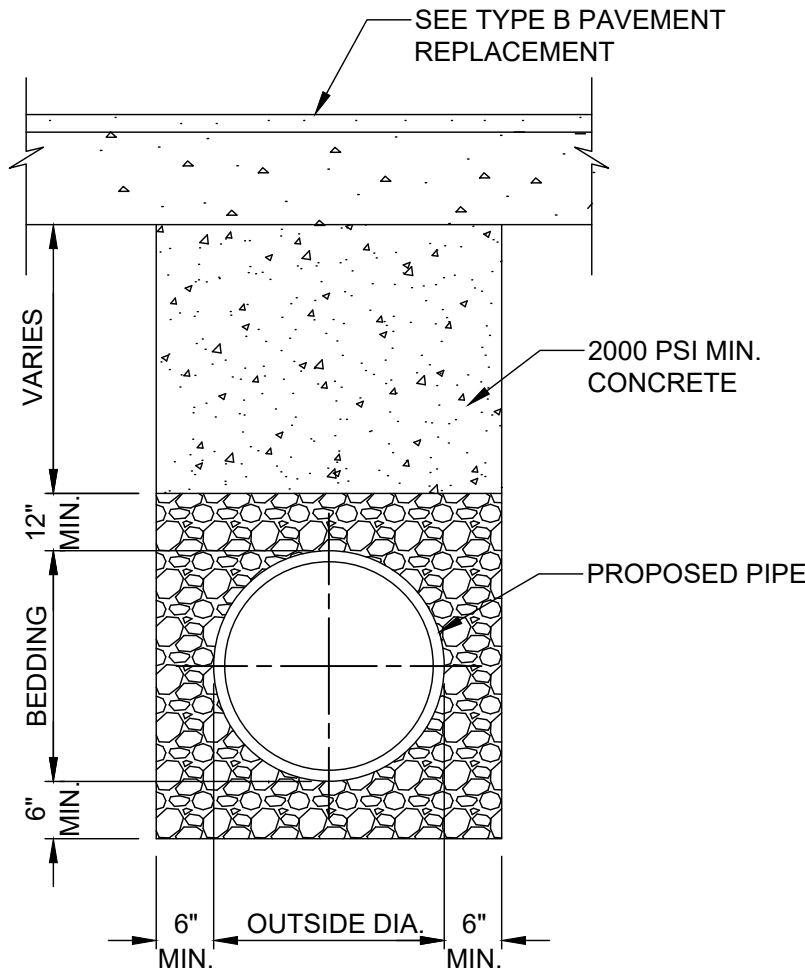
TYPICAL PIPE ENCASEMENT

NOT TO SCALE



TYPICAL PIPE ENCASEMENT UNDER STRUCTURES

NOT TO SCALE



TYPICAL PIPE ENCASEMENT UNDER STATE ROUTE

NOT TO SCALE

BID SET

verdantas

ISSUED FOR:	BIDDING	NO	REVISION	DATE
SR 41 SEWER EXTENSION AT HALE DRIVE	4/1/2025			
ADAMS COUNTY, OH	AS NOTED			
	DSS			
	DSS			
	KAB			

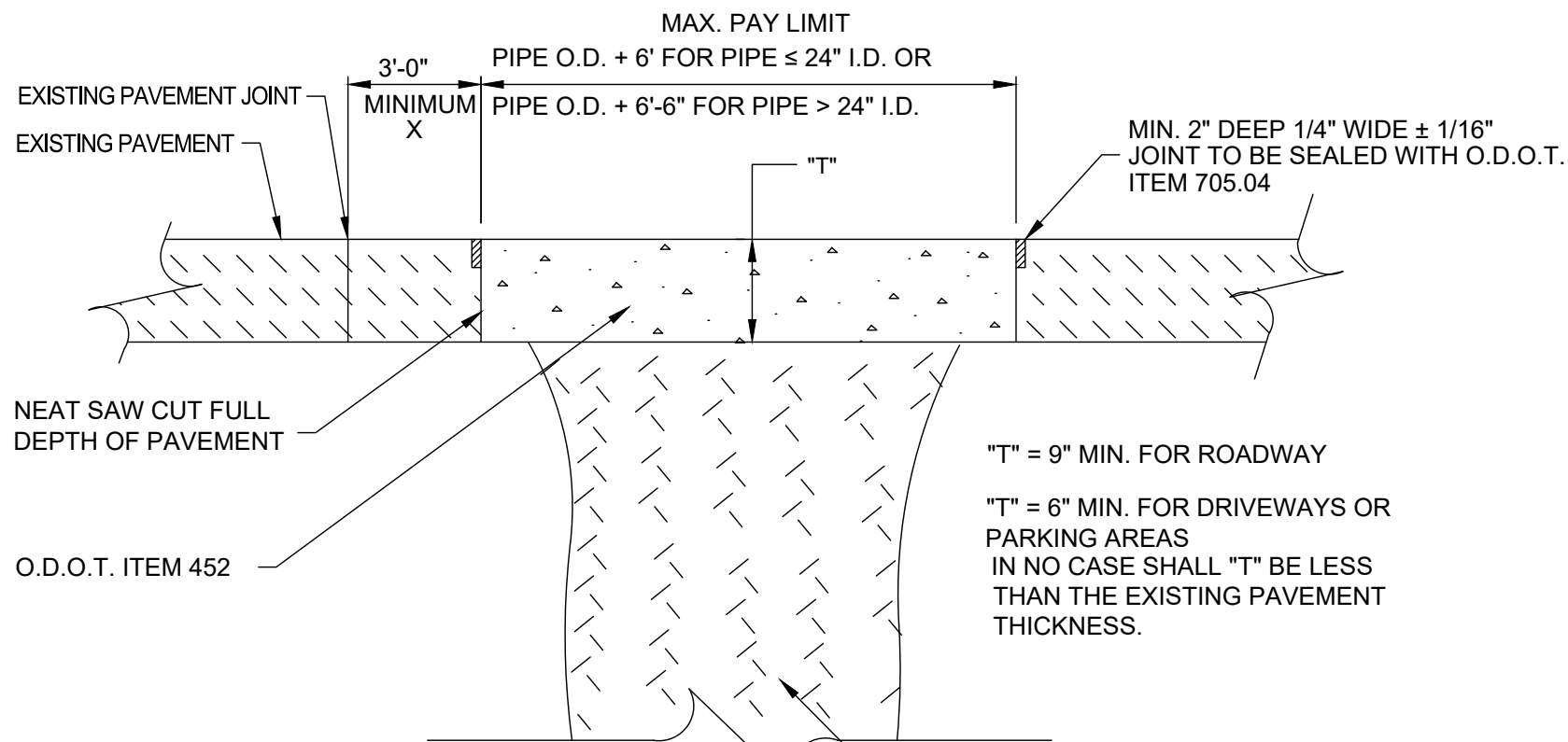
VILLAGE OF WEST UNION

SR 41 SEWER EXTENSION AT HALE DRIVE

ADAMS COUNTY, OH

CONSTRUCTION DETAILS - 1

PROJECT NO.	210164
DISCIPLINE	CIVIL
SHEET NAME	CONSTDET - 1
SHEET	OF
5	13

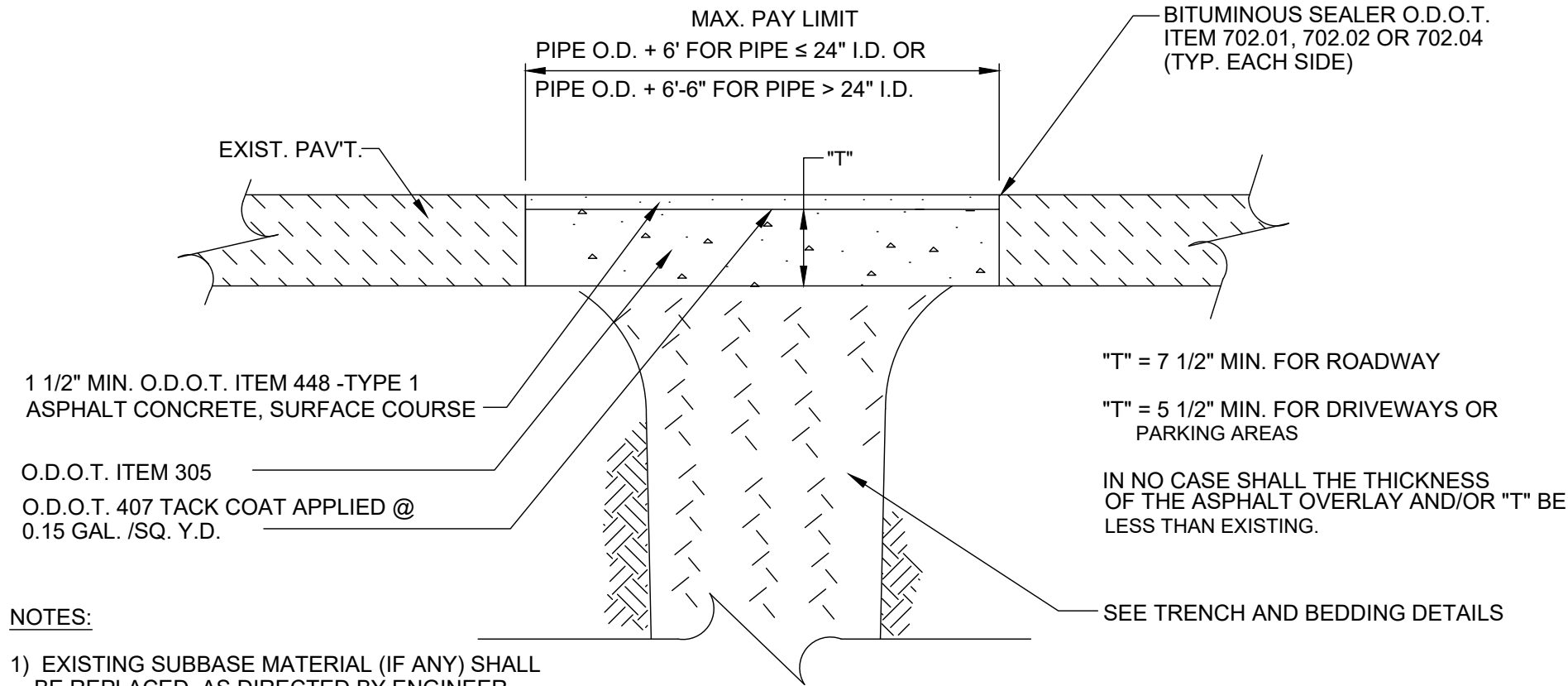


NOTES:

- EXISTING SUBBASE MATERIAL (IF ANY) SHALL BE REPLACED, AS DIRECTED BY ENGINEER.
- REPLACEMENT SHALL BE REINFORCED AS PER O.D.O.T. ITEM 709.10 OR 709.12 IF EXISTING PAVEMENT IS REINFORCED.
- 5/8"Ø HOOKBOLT @ 30" O.C. MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.

**TYPE A PAVEMENT REPLACEMENT
(CONCRETE)**

NOT TO SCALE

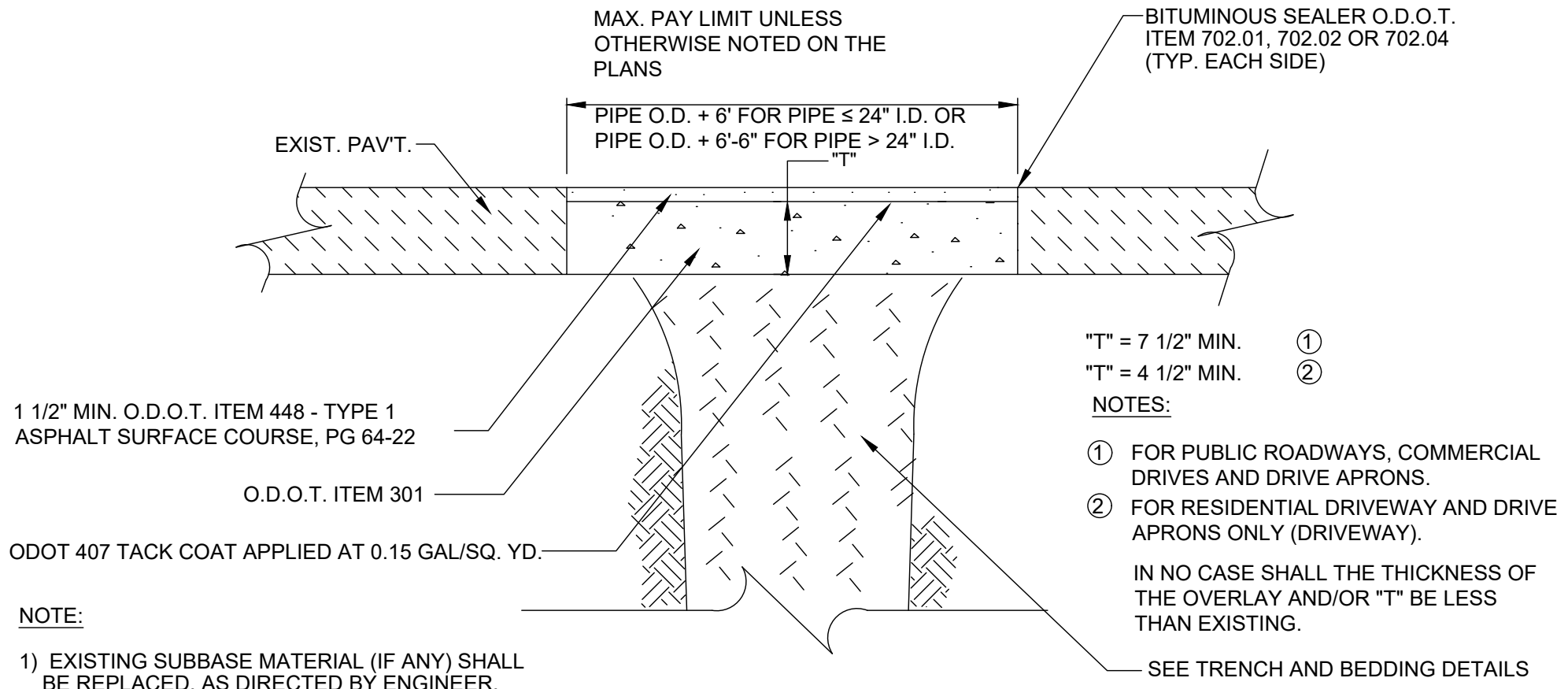


NOTES:

- EXISTING SUBBASE MATERIAL (IF ANY) SHALL BE REPLACED, AS DIRECTED BY ENGINEER.
- REPLACEMENT SHALL BE REINFORCED AS PER O.D.O.T. ITEM 709.10 OR 709.12 IF EXISTING PAVEMENT IS REINFORCED.
- 5/8"Ø HOOKBOLT @ 30" O.C. MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.

**TYPE B PAVEMENT REPLACEMENT
(ASPHALT OVER CONCRETE)**

NOT TO SCALE

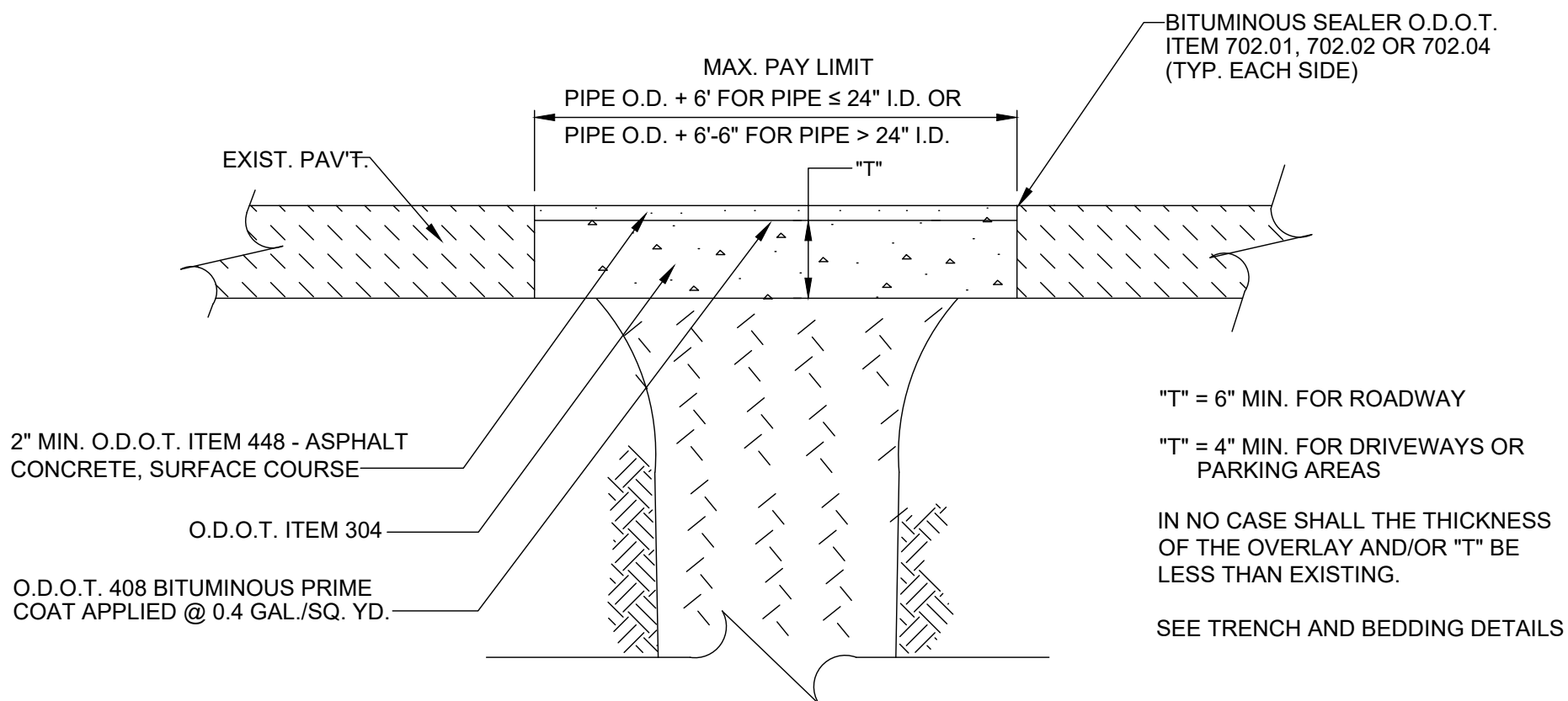


NOTE:

- EXISTING SUBBASE MATERIAL (IF ANY) SHALL BE REPLACED, AS DIRECTED BY ENGINEER.

**TYPE C PAVEMENT REPLACEMENT
(ASPHALT)**

NOT TO SCALE

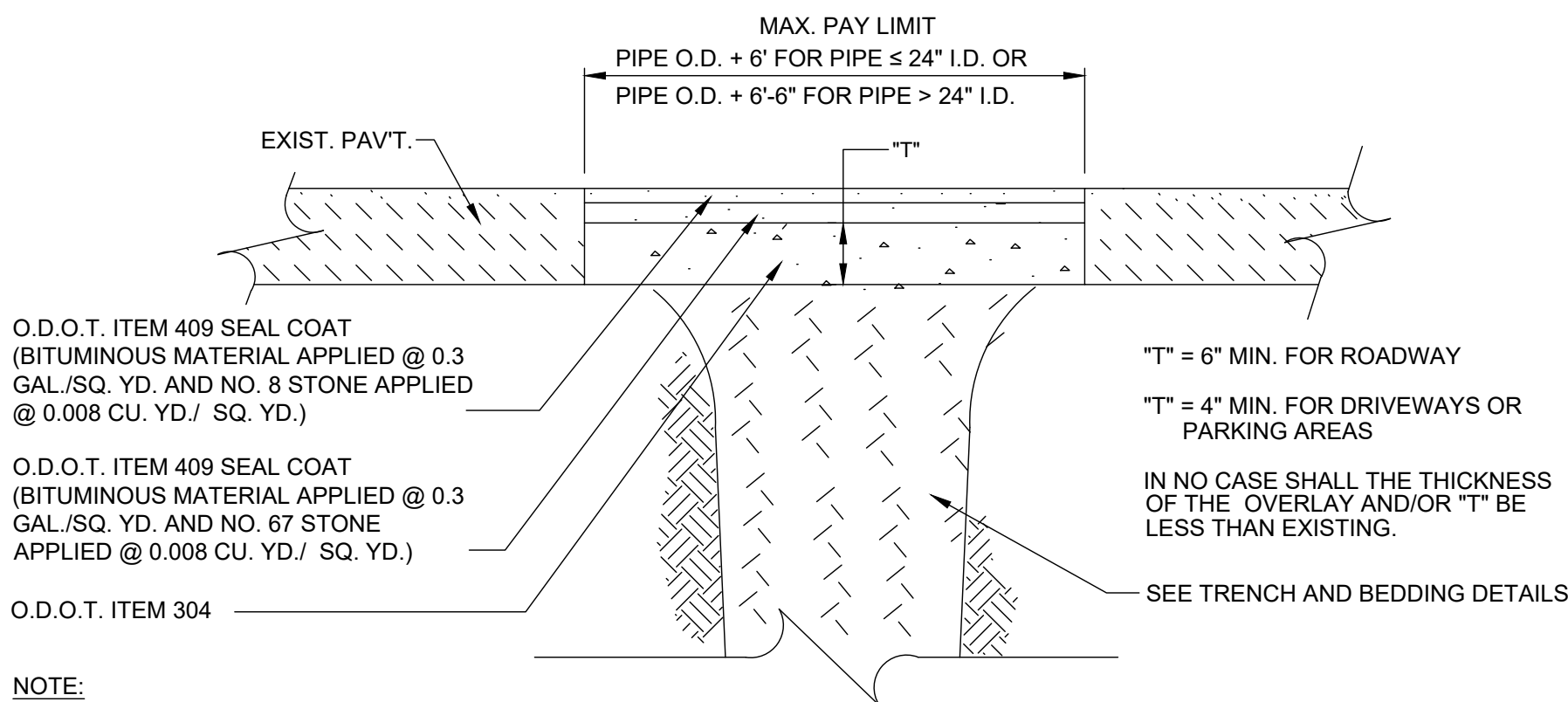


NOTE:

- EXISTING SUBBASE MATERIAL (IF ANY) SHALL BE REPLACED, AS DIRECTED BY ENGINEER.

**TYPE D PAVEMENT REPLACEMENT
(ASPHALT OVER STONE BASE)**

NOT TO SCALE

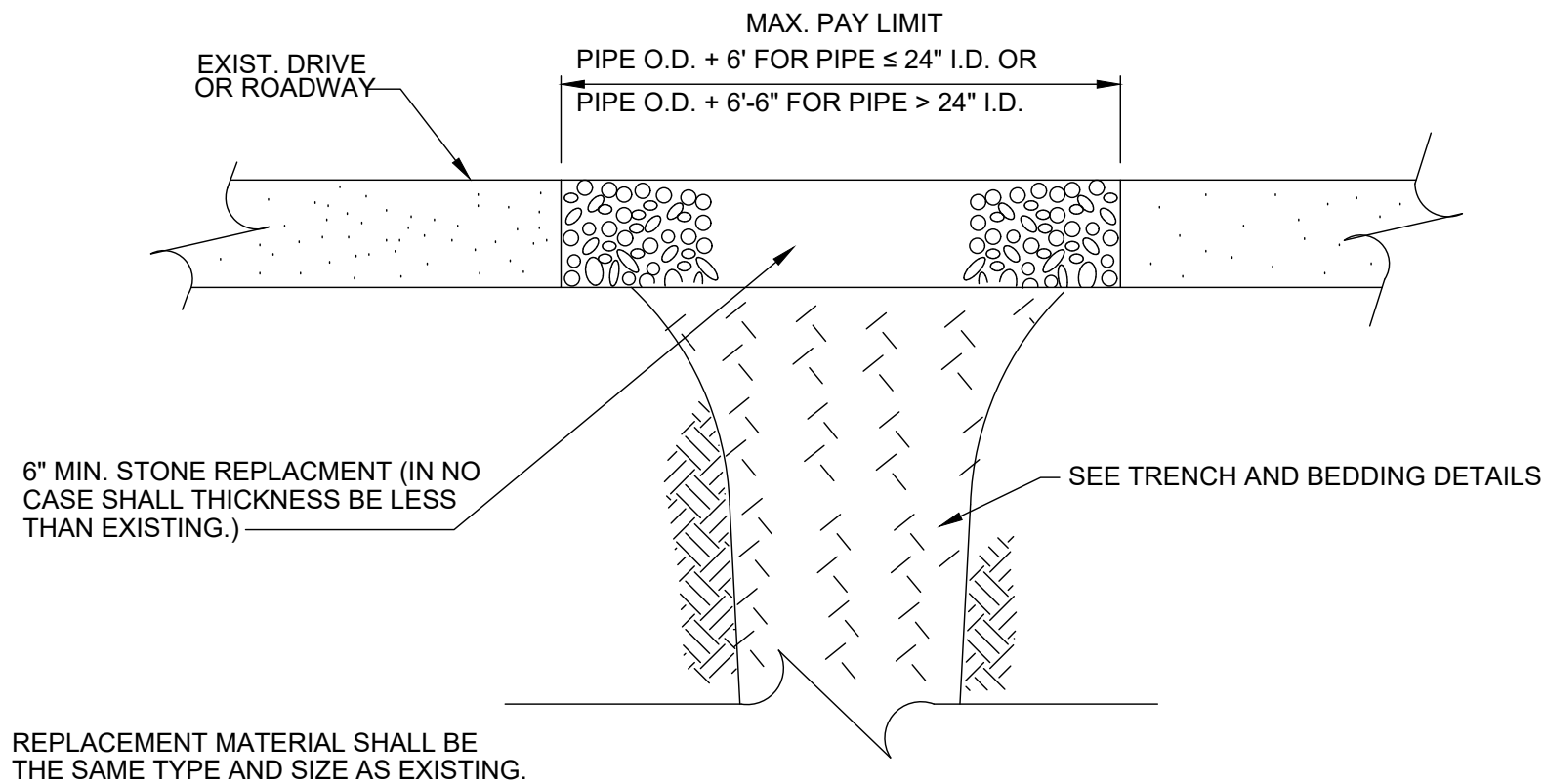


NOTE:

- EXISTING SUBBASE MATERIAL (IF ANY) SHALL BE REPLACED, AS DIRECTED BY ENGINEER.

**TYPE E PAVEMENT REPLACEMENT
(SEAL COAT OVER STONE BASE)**

NOT TO SCALE



REPLACEMENT MATERIAL SHALL BE THE SAME TYPE AND SIZE AS EXISTING.

**TYPE F PAVEMENT REPLACEMENT
(STONE)**

NOT TO SCALE

BID SET

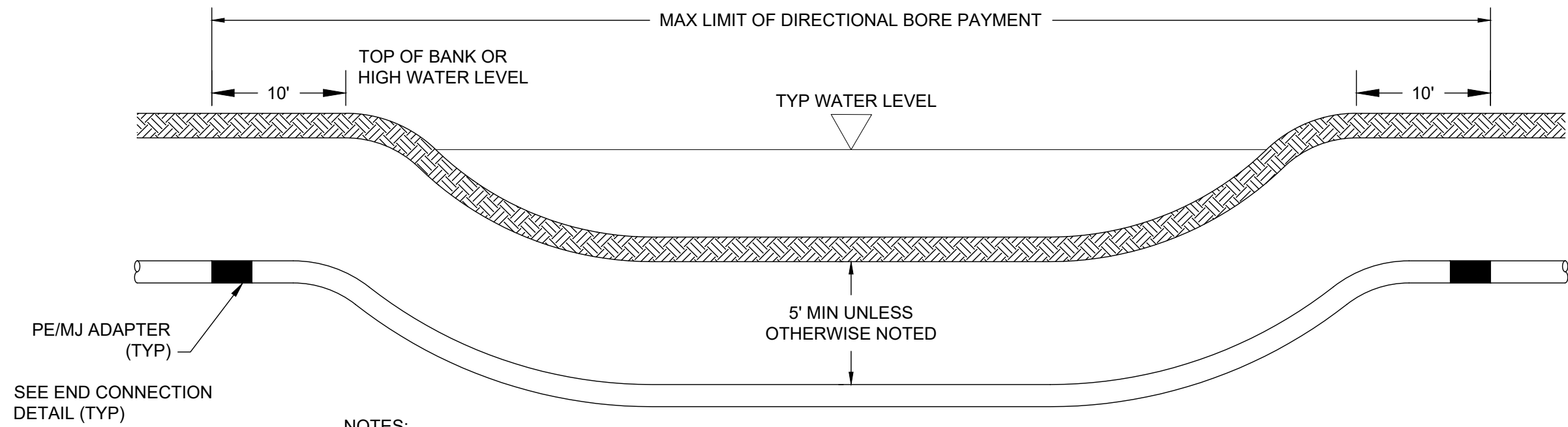
verdantas

ISSUED FOR:	ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
BIDDING	4/1/2025	AS NOTED	DSS	DSS	KAB
NO	REVISION	DATE			

VILLAGE OF WEST UNION
SR 41 SEWER EXTENSION AT HALE DRIVE
- ADAMS COUNTY, OH -

CONSTRUCTION DETAILS - 2

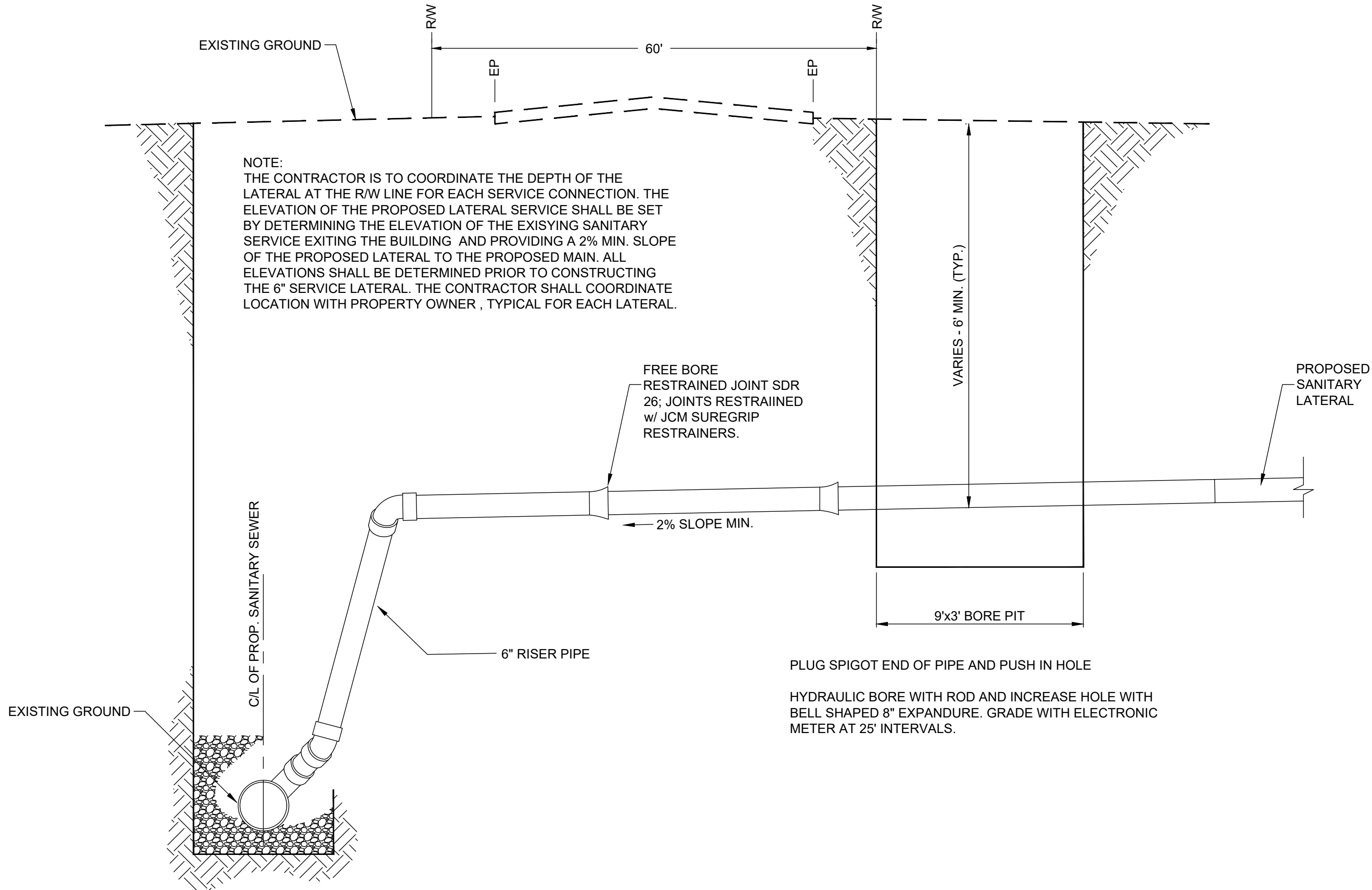
PROJECT NO.	210164
DISCIPLINE	CIVIL
SHEET NAME	CONSTDET - 2
SHEET	OF
6	13



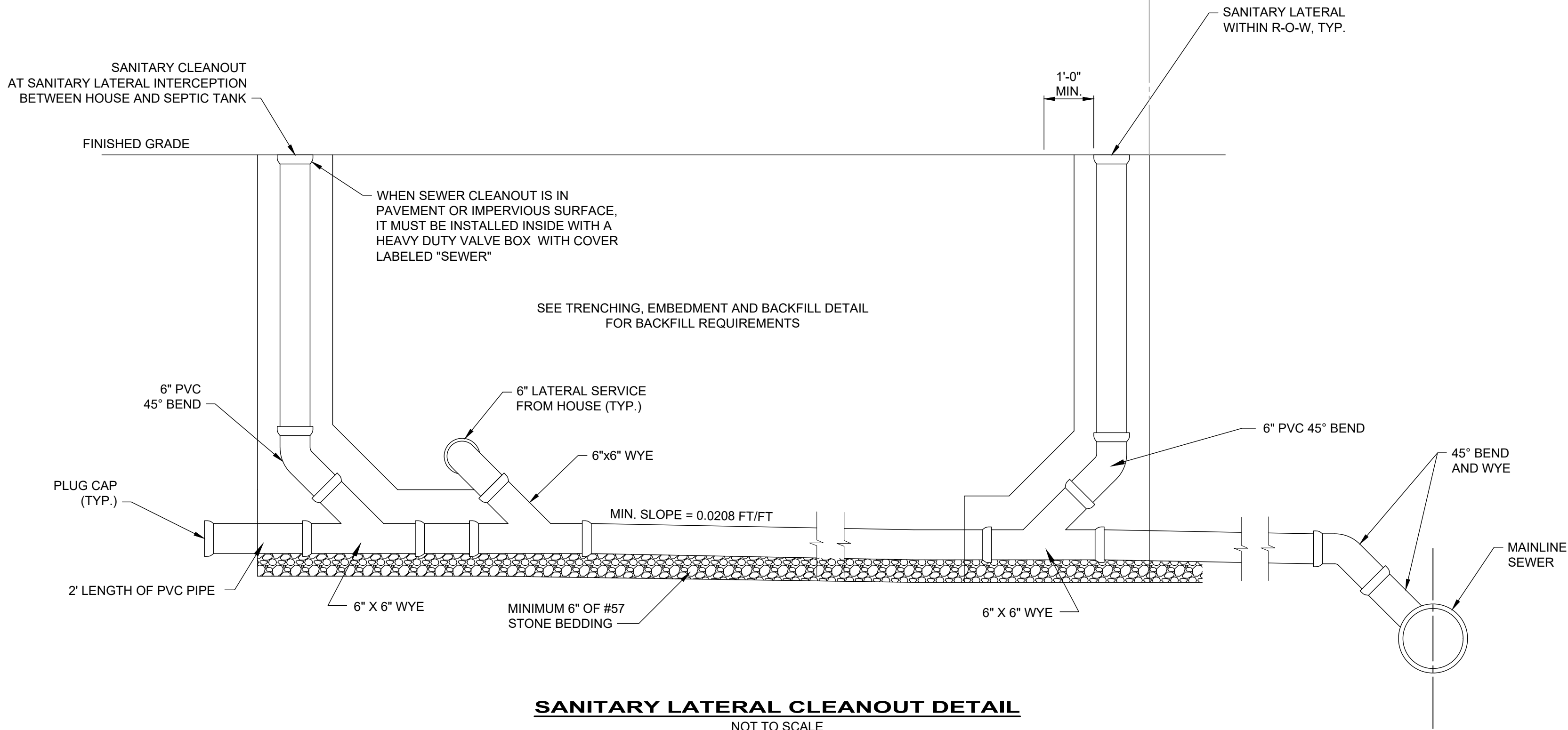
NOTES:

- WHERE DIRECTIONAL BORE INCORPORATES RESTRAINED JOINT PVC PIPE, OMIT PE/MJ ADAPTER.
- DIRECTIONAL BORE SHALL INCORPORATE TWO INSULATED NO 12 GAUGE, SOLID, COPPER WIRES INSTALLED WITH THE PIPE FOR LOCATING PURPOSES. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

HORIZONTAL DIRECTIONAL DRILLING @ STREAM/CREEK CROSSING
NOT TO SCALE



SANITARY LATERAL DETAIL - DIRECTIONAL BORE
NOT TO SCALE



SANITARY LATERAL CLEANOUT DETAIL
NOT TO SCALE

NOTES:

- CONCRETE ENCASEMENT AND BLOCKING REQUIRED IF DEPTH OF CONNECTION IS 12" OR GREATER.
- EACH SANITARY LATERAL MUST BE IN SEPARATE TRENCHES
- FOR CLEANOUTS THAT TERMINATE IN PAVED AREAS, A FRAME AND COVER SHALL BE USED IN ADDITION TO MANUFACTURES CAP/PLUG
- INSTALLATIONS BY CONTRACTOR BEYOND THE PROPERTY LINE WILL REQUIRE AN INSPECTION FROM THE OWNER OR ENGINEER. DO NOT BACKFILL TRENCH PRIOR TO INSPECTION.

BID SET

verdantas

ISSUED FOR:	BIDDING	NO	REVISION	DATE
ISSUE DATE:	4/1/2025			
SCALE:	AS NOTED			
DESIGNED BY:	DSS			
DRAWN BY:	DSS			
CHECKED BY:	KAB			

VILLAGE OF WEST UNION SR 41 SEWER EXTENSION AT HALE DRIVE - ADAMS COUNTY, OH -	CONSTRUCTION DETAILS - 4
----------------------------------------------------------------------------------------------------	---------------------------------

PROJECT NO.	210164
DISCIPLINE	CIVIL
SHEET NAME	CONSTDET - 4
SHEET	8
OF	13

1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
2. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES AND DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
3. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.
4. WHERE AVAILABLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
5. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FT. (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.

7. THE SILT FENCE SHALL BE PLACED IN A TRENCH A MINIMUM OF 6 INCHES DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE MACHINE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.

9. SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.

CRITERIA FOR SILT FENCE MATERIALS

2. SILT FENCE SHALL BE ODOT TYPE C GEOTEXTILE FABRIC OR AS DESCRIBED BY THE CHART BELOW:



EROSION AND SEDIMENTATION CONTROL PRACTICES MUST BE INSTALLED TO NATURAL RESOURCES CONSERVATION SERVICE OR EQUIVALENT STANDARDS AND SPECIFICATIONS FOR PARTICULAR TECHNIQUES. THE PRACTICES ARE TO BE MAINTAINED IN EFFECTIVE WORKING CONDITION DURING CONSTRUCTION AND UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.

PROPERLY INSTALLED SEDIMENT CONTROL BARRIERS (E.G., SILT FENCES, STRAW BALES, ETC.) MUST BE LOCATED ON SLOPES, ALONG STREAMS AND DRAINAGE WAYS, AROUND DRAINAGE STRUCTURES, AND ANYWHERE ELSE THAT EXPOSED SOIL COULD RUN OFF AND CREATE SEDIMENT PROBLEMS. ALL SEDIMENT CONTROL MEASURES, (INCLUDING SEDIMENT BASINS AND DIVERSION CHANNELS), MUST BE IN PLACE PRIOR TO STARTING CONSTRUCTION.

STAGING AREAS MUST NOT BE SITED IN LOCATIONS THAT REQUIRE EXCESSIVE CLEARING OR THAT ARE CLOSE TO STREAM BANKS, WETLANDS OR OTHER WATER RESOURCES. IF THIS SITUATION IS UNAVOIDABLE, APPROVAL OF THE STAGING AREA BY OHIO EPA, DIVISION OF ENVIRONMENTAL AND FINANCIAL ASSISTANCE IF NECESSARY.

EXISTING TOPSOIL THAT IS TO BE REUSED MUST BE STOCKPILED AND REPLACED UPON FINAL GRADING. STOCKPILED TOPSOIL MUST BE PROTECTED WITH SILT BARRIERS AND TEMPORARY SEEDING OR A COVERING SUCH AS ANCHORED STRAW MULCH.

AS CONSTRUCTION IS COMPLETED, PERMANENT STABILIZE EACH DISTRIBUTED AREA WITH PERENNIAL VEGETATION. IF FINAL GRADING AND SEEDING WILL NOT OCCUR WITHIN 30 DAYS, ALL DISTURBED AREAS MUST BE TEMPORARILY SEEDED AND/OR MULCHED IMMEDIATELY.

ALL MATERIALS TO BE DISPOSED OF OFF-SITE MUST BE DISPOSED OF IN AN ENVIRONMENTALLY SOUND MANNER IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. NO EXCESS MATERIALS ARE TO BE DISPOSED OF IN ANY WETLAND, FLOOD PLAIN, OR OTHER ENVIRONMENTALLY SENSITIVE AREAS. EROSION CONTROL MEASURES AT THE DISPOSAL SITE MUST BE INSTALLED AND MAINTAINED UNTIL DISPOSAL IS COMPLETE AND THE DISPOSAL SITE IS PERMANENTLY STABILIZED. GIVING EXCAVATED SOIL AWAY DOES NOT RELIEVE THE CONTRACTOR OR ENGINEERS OF THIS RESPONSIBILITY.

SHOULD ANY OF THE ABOVE ENVIRONMENTAL PROTECTION NOTES BE IN CONFLICT WITH ANY OTHERS NOTES LISTED, THE ENVIRONMENTAL PROTECTION NOTES ARE TO TAKE PRECEDENCE.

PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO THE DISTURBED AREAS ACCORDING TO TABLE 1 AND/OR TABLE 2 AFTER FINAL/ROUGH GRADE IS REACHED ON ANY PORTION OF THE SITE.

ALL STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING FOR ALL SITES.

ALL STORM SEWER, SANITARY SEWER, WATER MAIN AND SERVICE TRENCHES SHALL BE MULCHED AND SEEDED WITHIN 14 DAYS AFTER BACKFILL, IF INSTALLATION IS THROUGH STABILIZED AREAS.

ALL TEMPORARY DIVERSIONS, SEDIMENT BASIN EMBANKMENTS AND EARTH STOCKPILES SHALL BE SEEDED AND MULCHED FOR TEMPORARY VEGETATIVE COVER WITHIN 7 DAYS AFTER GRADING. STRAW, HAY MULCH OR EQUIVALENT IS REQUIRED.

ALL STORM SEWER INLETS SHALL BE PROTECTED BY SEDIMENT TRAPS (INLET PROTECTION) WHICH WILL BE MAINTAINED AND MODIFIED AS REQUIRED AS CONSTRUCTION PROGRESSES. SEDIMENT TRAPS ARE TO BE REMOVED AFTER SEEDING AND MULCHING IS ESTABLISHED.

ANY DISTURBED AREA NOT STABILIZED WITH SEEDING, SODDING, PAVING OR BUILT ON BY NOVEMBER 1ST, OR AREAS DISTURBED AFTER THAT DATE, SHALL BE MULCHED IMMEDIATELY WITH HAY OR STRAW AT THE RATE OF 2 TONS PER ACRE AND OVER-SEEDED BY APRIL 15TH.

AT THE COMPLETION OF CONSTRUCTION, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED.

ADDITIONAL EROSION AND SEDIMENTATION CONTROL MANAGEMENT PRACTICES MAY BE REQUIRED DUE TO UNFORESEEN CONDITIONS. THESE ADDITIONAL ITEMS SHALL BE INSTALLED AS DIRECTED BY THE VILLAGE OF WEST UNION ENGINEER.

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREAS THAT LIE DORMANT FOR ONE YEAR OR MORE	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE
ANY AREAS WITHIN 50 FEET OF A STREAM 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

AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY DISTURBED AREAS WITHIN 50 FEET OF A STREAM AND NOT AT FINAL GRADE	WITHIN TWO DAYS OF THE MOST RECENT DISTURBANCE IF THE AREA WILL REMAIN IDLE FOR MORE THAN 21 DAYS
FOR ALL CONSTRUCTION ACTIVITIES, ANY DISTURBED AREAS THAT WILL BE DORMANT FOR MORE THAN 21 DAYS BUT LESS THAN ONE YEAR, AND NOT WITHIN 50 FEET OF A STREAM	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA
	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

WHERE VEGETATIVE STABILIZATION TECHNIQUES MAY CAUSE STRUCTURAL INSTABILITY OR ARE OTHERWISE UNOBTAINABLE, ALTERNATIVE STABILIZATION TECHNIQUES MUST BE EMPLOYED

1. THE OWNER WILL PROVIDE ON-SITE PLACE FOR EXCESS DIRT PERMANENT DISPOSAL.
2. ALL CONCRETE DEBRIS SHALL BE BROKEN DOWN TO MANAGEABLE PIECES FOR ON-SITE DISPOSAL PER OWNER DIRECTIONS.

NOTES:

1. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
2. MAINTENANCE - TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OF TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
3. BEDDING - A GEOTEXTILE FABRIC SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL HAVE A GRAB TENSILE STRENGTH OF AT LEAST 200 LBS. AND A MULLEN BURST STRENGTH OF AT LEAST 190 LBS.

N.T.S.



ISSUED FOR:	BIDDING	NO	REVISION	DATE
ISSUE DATE:	4/1/2025			
SCALE:	AS NOTED			
DESIGNED BY:	DSS			
DRAWN BY:	DSS			
CHECKED BY:	KAB			

VILLAGE OF WEST UNION
SR 41 SEWER EXTENSION AT HALE DRIVE
- ADAMS COUNTY, OH -

- ADAMS COUNTY, OH -

SEDIMENT & EROSION CONTROL DETAILS

PROJECT NO.	
210164	
DISCIPLINE	
CIVIL	
SHEET NAME	
SEC-DET	
SHEET	OF
9	13

