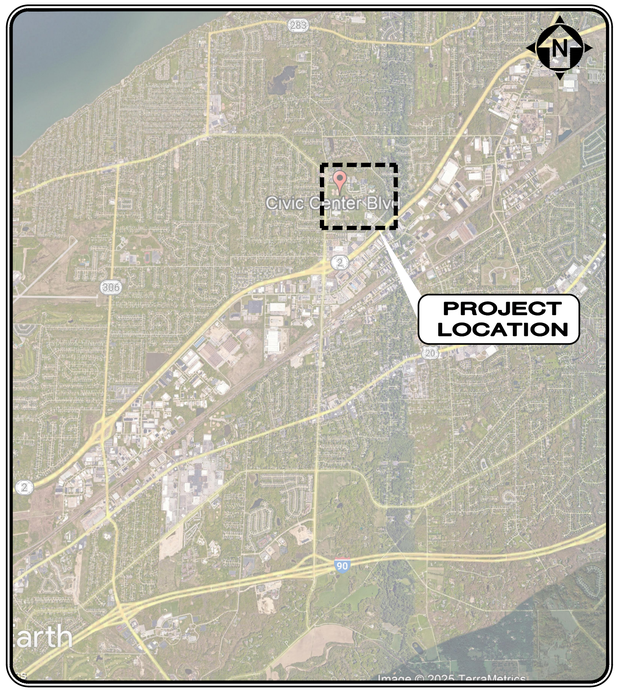
CITY OF MENTOR

CIVIC CENTER PARK IMPROVEMENTS

LAKE COUNTY, OHIO

APRIL, 2025

Sheet List Table	
Sheet Number	**Sheet Title**
1	COVER SHEET
2	GENERAL NOTES
3	ELECTRICAL NOTES
4	EXISTING CONDITIONS PLAN
5	DEMOLITION PLAN SOUTH
6	DEMOLITION PLAN NORTH
7	OVERALL LAYOUT PLAN
8	ENLARGED LAYOUT PLAN SOUTH
9	ENLARGED LAYOUT PLAN NORTH
10	COURT LAYOUT PLAN
11	OVERALL GRADING PLAN
12	ENLARGED GRADING PLAN SOUTH
13	ENLARGED GRADING PLAN NORTH
14	UTILITY PLAN OVERVIEW
15	UTILITY PLAN SOUTH
16	UTLITY PLAN NORTH & COURTS
17	STORMWATER POLLUTION PREVENTION PLAN NOTES
18	STORMWATER POLLUTION PREVENTION PLAN SOUTH
19	STORMWATER POLLUTION PREVENTION PLAN NORTH & COURTs
20	STORMWATER POLLUTION PREVENTION PLAN DETAILS 1
21	STORMWATER POLLUTION PREVENTION PLAN DETAILS 2
22	STORMWATER POLLUTION PREVENTION PLAN LOGS
23	SITE LIGHTING PLAN
24	SITE LIGHTING PLAN COURTS
25	SITE LANDSCAPING PLAN
26	COURT DETAILS
27	PARKING LOT AND SITE DETAILS
28	UTILITY DETAILS
29	STORMWATER DETAILS
30	DETENTION BASIN DETAILS
31	TIMBER GUARDRAIL DETAILS



INDEX MAP
NTS

MENTOR CITY COUNCIL MEMBERS

SEAN P. BLAKE	PRESIDENT, WARD 1
JOHN A. KRUEGER	VICE PRESIDENT, WARD 4
MATTHEW E. DONOVAN	COUNCILPERSON, WARD 2
MARK T. FREEMAN	COUNCILPERSON, WARD 3
SCOTT J. MARN	COUNCILPERSON–AT–LARGE
JANET A. DOWLING	COUNCILPERSON–AT–LARGE
RAY KIRCHNER	COUNCILPERSON–AT–LARGE

OFFICIALS

CITY MANAGER. . . . . KENNETH J. FILIPIAK
LAW DIRECTOR. . . . . JOSEPH P. SZEMAN
CITY ENGINEER. . . . . DAVID A. SWIGER, P.E.
DIRECTOR OF PUBLIC WORKS. . . . . LORNE VERNON
FINANCE DIRECTOR. . . . . DAVID W. MALINOWSKI
CHIEF OF POLICE. . . . . KENNETH GUNSCH
FIRE CHIEF. . . . . RONALD A. ZAK
PARKS, RECREATION AND PUBLIC FACILITIES DIRECTOR. . . . . KENN KAMINSKI
DIRECTOR OF ECONOMIC DEVELOPMENT & INTERNATIONAL TRADE. . . KEVIN MALECEK
PLANNING DIRECTOR. . . . . KATHY CANTANZRITI

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG
CALL
1–800–362–2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON–MEMBERS
MUST BE CALLED DIRECTLY
OIL & GAS PRODUCERS PROTECTIVE
SERVICE CALL: 1-800-925-0988

OUPS TICKET NUMBER

A503402956 / A503402955

1. THE SURVEY SHOWN ON THESE PLANS WAS OBSERVED IN THE FIELD FOR CONSTRUCTION PURPOSES ONLY AND MAY NOT BE SUITABLE FOR PROPERTY LINE SURVEYS OR ANY OTHER PURPOSES.
2. UNDERGROUND BUILDING SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAIN AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE TO BUILDINGS
3. THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE @ 1–800–362–2764, THREE WORKING DAYS PRIOR TO CONSTRUCTION.

ENGINEER'S PROJECT No. 32272

DESIGN ENGINEER:

THIS IS TO CERTIFY THAT GOOD ENGINEERING PRACTICES HAVE BEEN UTILIZED IN THE DESIGN OF THIS PROJECT AND THAT ALL MINIMUM STANDARDS FOR FAIRFIELD COUNTY, INCLUDING THOSE STANDARDS GREATER THAN MINIMUM WHERE, IN OUR OPINION, THEY ARE NEEDED TO PROTECT THE SAFETY OF THE PUBLIC. ANY VARIANCES TO THE ABOVE STANDARDS ARE CONSISTENT WITH SOUND ENGINEERING PRACTICES AND ARE NOT DETRIMENTAL TO THE PUBLIC SAFETY AND CONVENIENCE.

LENE C. HILL
OHIO P.E. No. E–66017

4.22.2025
DATE

STATE OF OHIO
LENE C. HILL
E–66017
REGISTERED
PROFESSIONAL ENGINEER

verdantas

NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

COVER SHEET

PROJECT NO.	32272
DISCIPLINE	CIVIL
SHEET NAME	G-1
SHEET	1
OF	31

GENERAL NOTES

1. ALL WORK REQUIRED TO COMPLETE THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIAL SPECIFICATIONS OR THE SPECIFICATIONS/REQUIREMENTS OF CITY OF MENTOR, LAKE COUNTY UTILITIES DEPARTMENT AND AQUA OHIO EXCEPT AS HEREIN AMENDED.
2. MATERIAL SPECIFICATIONS CALLED FOR ON THE PLANS REPRESENT THE MINIMUM REQUIRED FOR EACH APPLICATION. THE OWNER MAY REQUEST OR THE CONTRACTOR MAY DESIRE TO SUBSTITUTE ALTERNATE MATERIALS. ANY SUCH SUBSTITUTIONS MUST BE EQUIVALENT IN QUALITY TO THE MATERIAL CALLED FOR AND MUST BE APPROVED IN WRITING BY THE APPROVING AGENCIES AND THE ENGINEER.
3. ALL WORK INCLUDING PERMITS REQUIRED FOR REMOVAL, RELOCATION OR NEW CONSTRUCTION FOR PRIVATE OR PUBLIC WORK SHALL BE DONE BY AND AT THE EXPENSE OF THE CONTRACTOR AND INCLUDED IN THE BID PRICES FOR THE VARIOUS WORK ITEMS.
4. BEFORE RECEIVING A PERMIT FOR ANY WORK REQUIRING EXCAVATION IN ANY STREET OR PUBLIC ROAD RIGHT-OF-WAY, THE CONTRACTOR SHALL OBTAIN FROM THE PROPER AUTHORITY THE REQUIRED PERMIT FOR SUCH WORK AND SHALL AGREE TO COMPLY WITH ALL REQUIREMENTS OF THE AUTHORITY ISSUING SUCH "ROAD OPENING PERMIT". IF NO "ROAD OPENING PERMIT" IS REQUIRED BY THE AUTHORITY HAVING JURISDICTION, A WRITTEN STATEMENT TO THAT EFFECT MUST BE OBTAINED FROM THE AUTHORITY.WHEN SPECIFIED ON THE PLANS OR IN THE SPECIFICATIONS, CONTINGENCY QUANTITIES SHALL BE PERFORMED ONLY UNDER WRITTEN DIRECTION OF THE OWNER. THE CONTRACTOR SHALL NOT ORDER ANY CONTINGENCY MATERIAL OR PERFORM ANY CONTINGENCY WORK UNTIL DIRECTED. THE ACTUAL WORK LOCATION AND QUANTITIES FOR SUCH ITEMS SHALL BE DOCUMENTED BY THE CONTRACTOR.
5. THE CONTRACTOR SHALL REVIEW THE GEOTECHNICAL ENGINEERING REPORT PREPARED BY VERDANTAS DATED APRIL 2025, AND ANY SUBSEQUENT REVISIONS. A COPY OF THIS REPORT WILL BE MADE AVAILABLE TO THE CONTRACTOR THROUGH THE OWNER OR DESIGN ENGINEER. THE CONTRACTOR SHALL ADHERE TO ALL ASPECTS AND RECOMMENDATIONS OF THE REPORT.
6. WHEN SPECIFIED ON THE PLANS OR IN THE SPECIFICATIONS,CONTINGENCY QUANTITIES SHALL BE PERFORMED ONLY UNDER WRITTEN DIRECTION OF THE OWNER. THE CONTRACTOR SHALL NOT ORDER ANY CONTINGENCY MATERIAL OR PERFORM ANY CONTINGENCY WORK UNTIL DIRECTED. THE ACTUAL WORK LOCATION AND QUANTITIES FOR SUCH ITEMS SHALL BE DOCUMENTED BY THE CONTRACTOR.
7. THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONSTRUCTION DRAWINGS ON SITE AT ALL TIMES.
8. THE CONTRACTOR SHALL SUBMIT A PLAN OF OPERATIONS FOR REVIEW AND APPROVAL BY THE OWNER THAT WILL INDICATE EQUIPMENT STAGING AREAS, STOCKPILE LOCATIONS, CONSTRUCTION TRAILERS AND SANITATION FACILITIES.
9. THE CONTRACTOR SHALL MAINTAIN A SAFE WORKING ENVIRONMENT AT THE PROJECT SITE AT ALL TIMES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DESIGNING AND CONSTRUCTING STABLE, TEMPORARY EXCAVATIONS PER APPLICABLE LOCAL, STATE AND FEDERAL SAFETY REGULATIONS INCLUDING OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS. NEITHER THE OWNER NOR THE DESIGN ENGINEER ASSUMES RESPONSIBILITY FOR CONSTRUCTION SAFETY OR THE CONTRACTOR'S OR OTHER PARTIES' COMPLIANCE WITH SAFETY REGULATIONS; SUCH RESPONSIBILITY IS NOT BEING IMPLIED AND SHOULD NOT BE INFERRED.
10. APPROPRIATE BARRICADES, WARNING LIGHTS, SIGNS, FENCING, ETC. SHALL BE ERECTED AROUND THE CONSTRUCTION AREA DURING ALL NON-WORKING HOURS TO ALERT PERSONS OF THE POTENTIAL DANGER ASSOCIATED WITH THE AREA UNDER CONSTRUCTION AS WELL AS TO PREVENT ACCESS BY UNAUTHORIZED PERSONNEL TO THE CONSTRUCTION SITE. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE SAFETY OF THE GENERAL PUBLIC AS WELL AS ALL CONSTRUCTION PERSONNEL. THE CONTRACTOR SHALL ALERT ALL LOCAL EMERGENCY AGENCIES (FIRE, POLICE, AMBULANCE, ETC.) OF THE NATURE OF THE PROPOSED PROJECT PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY.
11. THE CONTRACTOR SHALL FURNISH AND ERECT TEMPORARY PROJECT SAFETY FENCING AT THE WORK SITE PRIOR TO START OF ANY WORK. THE SAFETY FENCING SHALL BE A HIGH VISIBILITY ORANGE COLORED, HIGH DENSITY POLYETHYLENE GRID, A MINIMUM OF 42 INCHES HIGH, SUPPORTED AND TIGHTLY SECURED TO STEEL POSTS LOCATED ON MAXIMUM 10 FOOT CENTERS. THE CONTRACTOR SHALL MAINTAIN THE SAFETY COMPLETION AND ACCEPTANCE OF THE WORK, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE REMOVED FROM THE WORK SITE. REGULAR INSPECTION AND MAINTENANCE SHALL BE PROVIDED FOR TEMPORARY PROJECT SAFETY FENCING INCLUDING IF CONSTRUCTION ACTIVITIES HAVE BEEN TEMPORARILY SUSPENDED (I.E. DURING WINTER MONTHS). INSPECTIONS SHALL BE MADE A MINIMUM OF 1 TIME PER MONTH, OR WITHIN 24 HOURS OF NOTIFICATION BY THE OWNER.
12. ANY EXISTING ROADWAY, DRIVEWAY, DRIVE CULVERT, LAWN, CURB, SIDEWALK, SIGN, MAILBOX, FENCE, RETAINING WALL, GUARDRAIL, LAWN IRRIGATION SYSTEM COMPONENT, LANDSCAPING ITEM, OR OTHER APPURTENANCE DISTURBED DURING CONSTRUCTION BUT NOT DESIGNATED FOR REMOVAL/REPLACEMENT SHALL BE RESTORED BY THECONTRACTOR WITHOUT ADDITIONAL COMPENSATION TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO DISTURBANCE AND TO THE SATISFACTION OF THE OWNER.
13. THE FOLLOWING PRACTICES ARE PROHIBITED WITHIN PROTECTION ZONES:
    a) STORAGE OF CONSTRUCTION MATERIALS, DEBRIS OR EXCAVATED MATERIAL
    b) PARKING VEHICLES OR EQUIPMENT
    c) FOOT TRAFFIC
    d) ERECTION OF SHEDS OR STRUCTURES
    e) IMPOUNDMENT OF WATER
    f) EXCAVATION OR OTHER DIGGING
    g) ATTACHMENT OF SIGNS TO OR WRAPPING MATERIALS AROUND TREES OR PLANTS
14. THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL BENCHMARKS, PROPERTY LINE REFERENCES (E.G., PINS, PIPES, MONUMENTS), AND ANY OTHER SURVEY REFERENCE. IN CASE OF DISTURBANCE, THE CONTRACTOR SHALL ENGAGE A REGISTERED SURVEYOR TO REPLACE THEM AT THE CONTRACTOR'S EXPENSE AND SHALL BE RESPONSIBLE FOR ANY ERRORS THAT MAY BE CAUSED BY THEIR LOSS OR DISTURBANCE. ALL NOTES AND CALCULATIONS USED IN RESETTING OF PROPERTY PINS, MONUMENTS, REFERENCE POINTS, OR ANY OTHER SURVEY REFERENCE SHALL BE STAMPED, SIGNED AND DATED BY THE REGISTERED SURVEYOR AND COPIES PROVIDED TO THE OWNER.
15. THE CONTRACTOR SHALL DESIGNATE AND MAINTAIN A PERSON IN RESPONSIBLE CHARGE (SUPERVISOR) WITH A WORKING CELL PHONE AT THE CONSTRUCTION SITE DURING ALL CONSTRUCTION ACTIVITIES.
16. COORDINATE ALL SEQUENCING AND SCHEDULING OF WORK WITH THE CITY ADMINISTRATOR. CONTRACTOR TO PROVIDE SCHEDULE OF WORK AND EXPECTED COMPLETION WITH SUBMISSION OF BID.
17. CONTRACTOR SHALL COORDINATE ALL USE OF PREMISES AND ADJACENT PROPERTIES, INCLUDING PARKING OF VEHICLES, WITH ADMINISTRATOR.
18. CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY TOILET FACILITIES AND COORDINATE LOCATION WITH THE OWNER AND FACILITIES STAFF.
19. THE OWNER WILL NOT BE RESPONSIBLE FOR THE LOSS OR DAMAGE TO ANY OF CONTRACTOR'S EQUIPMENT OR SUPPLIES STORED ON THE PREMISES

UTILITIES:

1. THE LOCATION OF ALL EXISTING UTILITY FACILITIES ARE SHOWN ON THE PLANS FROM DATA AVAILABLE AT THE TIME OF THE FIELD SURVEY IN ACCORDANCE WITH SECTION 153.64 OF THE OHIO REVISED CODE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF THE EXISTING UTILITY OWNERS AND UTILITY PROTECTION SERVICE LISTED BELOW IN ACCORDANCE WITH SECTION 154.64 OF THE ORC AND AS OUTLINED IN THE PROJECT SPECIFICATIONS.

THE UTILITY OWNERSHIPS ARE AS FOLLOWS:

OHIO UTILITY PROTECTION SERVICE
106 WEST RYEN, ROOM 427
YOUNGSTOWN, OHIO 44051
PHONE: (800) 362-2746

ENBRIDGE GAS OHIO
320 SPRINGSIDE DRIVE, SUITE 320
AKRON, OHIO 44333
PHONE: (330) 664-2409

CITY OF MENTOR
8500 CIVIC CENTER BOULEVARD
MENTOR, OHIO 44060
PHONE: (440) 255-1100

AQUA OHIO INC.
8644 STATION STREET
MENTOR, OHIO 44060
PHONE: (440) 255-3984

ILLUMINATING CO.
6896 MILLER ROAD
BRECKSVILLE, OHIO 44141
PHONE: (440) 717-6845

CHARTER COMM
7820 DIVISION DRIVE
MENTOR, OHIO 44060
PHONE: (440) 974-3401

LAKE COUNTY DEPT. OF UTILITIES
105 MAIN STREET
PAINESVILLE, OHIO 44077
PHONE: (440) 350-2652

AT&T
13630 LORAIN AVE. ROOM 400
CLEVELAND, OHIO 44111
PHONE: (216) 476-6142

NORTHEAST OHIO NATURAL GAS
8470 STATION STREET
MENTOR, OHIO 44060
PHONE: (440) 701-5115

2. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE EXISTENCE AS WELL AS THE ACTUAL LOCATION, ALIGNMENT, AND ELEVATIONS OF ALL EXISTING UTILITIES/FACILITIES WITHIN AND/OR ADJACENT TO THE GENERAL LIMITS OF THESE IMPROVEMENTS INCLUDING WATERLINES, SANITARY AND STORM SEWERS, GAS LINES, COMMUNICATION LINES/BANKS, ELECTRIC LINES, ETC. THIS MAY REQUIRE EXPLORATORY EXCAVATIONS TO BE PERFORMED BY THE CONTRACTOR FOR WHICH HE WILL NOT BE REIMBURSED. THE CONTRACTOR SHALL NOT ASSUME THAT EXISTING UTILITIES/CONDUITS WERE INSTALLED AT TYPICAL/STANDARD DEPTHS OR AT UNIFORM SLOPES/GRADES/DEPTHS BETWEEN ACCESS POINTS (CATCH BASINS, MANHOLES, JUNCTION CHAMBERS, ETC.)
3. ANY UTILITY TO BE REMOVED, RELOCATED, SHUT-OFF, AND/OR RECONNECTED BY THE RESPECTIVE UTILITY COMPANY SHALL BE COORDINATED BY THE CONTRACTOR.

VIDEO TAPING

1. THE CONTRACTOR SHALL PROVIDE ABOVE GROUND VIDEOTAPING OF ALL WORK AREAS PRIOR TO THE BEGINNING OF THE WORK. THE CONTRACTOR SHALL NOT START WORK UNTIL SUCH TIME AS THE ENGINEER HAS BEEN PROVIDED A COPY OF THE COMPLETE VIDEO.

SITE RESTORATION

1. THE AREA SHALL BE GRADED, TOPSOIL SPREAD FINE GRADED AND SEEDED IN ALL AREAS DISTURBED BY CONSTRUCTION..
2. PERMANENT SEEDING SHALL NOT BE CONSIDERED ESTABLISHED FOR AT LEAST 1 FULL YEAR FROM THE TIME OF PLANTING. DURING THIS PERIOD, INSPECT FOR SOIL EROSION OR PLANT LOSS AND REPAIR BARE OR SPARSE AREAS, FILL GULLIES, RE-FERTILIZE, RE-SEED OR RE-MULCH AS NEEDED.
3. ADEQUATE PERMANENT VEGETATION SHALL BE GROUND COVER DENSE ENOUGH TO COVER 80% OF THE SOIL SURFACE BASED ON VISUAL INSPECTION, AND MATURE ENOUGH TO SURVIVE WINTER WEATHER CONDITIONS.

DRAINAGE, SOIL EROSION, SEDIMENT AND DUST CONTROL:

1. POSITIVE DRAINAGE OF ALL CONSTRUCTION AREAS SHALL BE MAINTAINED AT ALL TIMES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SOIL EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH ODOT ITEM 670 AND AS REQUIRED BY THE LOCAL COUNTY SOIL AND WATER CONSERVATION DISTRICT.
3. THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY, SUCH AS CALCIUM CHLORIDE, WATER OR A MOTORIZED DUST-FREE STREET SWEEPING DEVICE PERFORMED DAILY OR AS DIRECTED BY THE CITY, TO MAINTAIN ALL PAVED AREAS AFFECTED BY THE CONSTRUCTION.
4. THE CONTRACTOR SHALL PRIOR TO CONSTRUCTION INSTALL & MAINTAIN THE FOLLOWING TEMPORARY EROSION & SEDIMENT CONTROLS THROUGHOUT CONSTRUCTION:
   -INLET PROTECTION
   -SILT SOCKS AROUND PERIMETER OF DISTURBED AREAS AND STOCK PILES.
   -CONCRETE WASHOUT PIT
   -DAILY SWEEPING
   -CONSTRUCTION ENTRANCE (IF NON PAVED AREAS ARE USED)
   -TEMPORARY & PERMANENT SEEDING.
5. PAYMENT FOR ALL SOIL EROSION, SEDIMENT AND DUST CONTROL MEASURES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OTHER VARIOUS ITEMS.

EXISTING CONDITION AND DEMOLITION NOTES:

1. THE CONTRACTOR MUST CONTACT THE OHIO UTILITIES PROTECTION SERVICE (OUPS) AT 1-800-362-2764 AND THE OHIO OIL AND GAS ASSOCIATION (OGPUPS) AT 1-800-925-0988 AT LEAST 48 HOURS, BUT NO MORE THAN 10 WORKING DAYS, BEFORE BEGINNING ANY DIGGING, EXCLUDING SATURDAYS, SUNDAYS AND OTHER LEGAL HOLIDAYS. NON-MEMBER UTILITIES MUST BE CONTACTED DIRECTLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE WRITTEN REQUIREMENTS OF OUPS AND OGPUPS. THE CONTRACTOR SHALL COORDINATE THE MARKING AND/OR LOCATING TO STAY A MINIMUM OF TWO WORKING DAYS AHEAD OF PLANNED CONSTRUCTION ACTIVITIES.
2. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE CONSTRUCTION PLANS WERE OBTAINED BY FIELD OBSERVATIONS, FROM EXISTING RECORDS, AND/OR FROM THE OWNERS OF THE RESPECTIVE UTILITIES. THE INFORMATION AS SHOWN IS BELIEVED TO BE CORRECT; HOWEVER, THE COMPLETENESS AND ACCURACY OF THIS INFORMATION CANNOT BE GUARANTEED. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT ALL THE VARIOUS UTILITY COMPANIES (PUBLIC AND PRIVATE) TO VERIFY THE EXISTENCE, LIMITS AND/OR LOCATION OF ANY UTILITIES WHICH MAY BE ALONG THE ROUTE OR WITHIN THE VICINITY OF THIS IMPROVEMENT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE EXISTENCE AS WELL AS THE ACTUAL LOCATION, ALIGNMENT, AND ELEVATIONS OF ALL EXISTING UTILITIES/FACILITIES WITHIN AND/OR ADJACENT TO THE GENERAL LIMITS OF THESE IMPROVEMENTS INCLUDING WATERLINES, SANITARY AND STORM SEWERS, GAS LINES, COMMUNICATION LINES/BANKS, ELECTRIC LINES, ETC. THIS MAY REQUIRE EXPLORATORY EXCAVATIONS TO BE PERFORMED BY THE CONTRACTOR FOR WHICH HE WILL NOT BE REIMBURSED. THE CONTRACTOR SHALL NOT ASSUME THAT EXISTING UTILITIES/CONDUITS WERE INSTALLED AT TYPICAL/STANDARD DEPTHS OR AT UNIFORM SLOPES/GRADES/DEPTHS BETWEEN ACCESS POINTS (CATCH BASINS, MANHOLES, JUNCTION CHAMBERS, ETC.)
4. CLEARING AND GRUBBING SHALL BE PERFORMED WHERE EARTHWORK IS REQUIRED. THIS WORK SHALL INCLUDE CLEARING, GRUBBING, SCALPING, TREE AND STUMP REMOVAL, AND THE REMOVAL AND DISPOSAL OF ALL VEGETATION AND DEBRIS WITHIN THE LIMITS OF WORK.
5. THE CONTRACTOR SHALL REMOVE ALL SURPLUS MATERIAL, DEMOLISHED MATERIALS AND WASTE MATERIALS INCLUDING TREES, STUMPS, BRUSH, TRASH AND DEBRIS, FROM THE PROJECT LIMITS AND LEGALLY DISPOSE OF OFF-SITE.
6. PAVEMENT TO BE REMOVED SHALL BE SAWCUT IN A NEAT AND STRAIGHT LINE PRIOR TO EXCAVATION AND REMOVED FULL DEPTH AT LIMITS OR EXISTING JOINTS AS SHOWN IN THE PLANS. ADDITIONAL SAWCUTS MAY BE DESIRED TO FACILITATE THE REMOVAL OF THE EXISTING PAVEMENT, BUT THERE WILL BE NO EXTRA PAYMENT. PAVEMENT SHALL BE REMOVED WITHOUT DAMAGING OR UNDERMINING THE PAVEMENT TO REMAIN. IF ADJACENT PAVEMENT IS DAMAGED, THE CONTRACTOR SHALL MAKE ADDITIONAL SAWCUTS, REMOVE THE DAMAGED AREAS AND REPAIR AS NECESSARY WITH NO ADDITIONAL COMPENSATION.
7. ANY ITEM NOT MARKED TO BE REMOVED SHALL REMAIN IN PLACE UNDISTURBED AND BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
8. NO ATTEMPT HAS BEEN MADE TO NOTE ALL LOCATIONS OR SPECIFIC EXTENT OF DEMOLITION WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL DEMOLITION NECESSARY TO EXECUTE THE NEW PLAN INCLUDING COORDINATION OF DEMOLITION WORK WITH NEW WORK SO AS NOT TO CREATE CONFLICTS OF NEW INSTALLATION.
9. THE CONTRACTOR SHALL REMOVE ALL SURPLUS, DEMOLISHED AND WASTE MATERIALS INCLUDING TREES, STUMPS AND BRUSH FROM THE PROJECT AND DISPOSE OF OFF-SITE.
10. ALL DEMOLISHED ITEMS SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF PROPERLY.
11. ANY UTILITY TO BE REMOVED, RELOCATED, SHUT-OFF, AND/OR RECONNECTED BY THE RESPECTIVE UTILITY COMPANY SHALL BE COORDINATED BY THE CONTRACTOR.
12. ALL EXCAVATIONS RESULTING FROM UTILITY REMOVALS SHALL BE BACKFILLED WITH PREMIUM GRANULAR MATERIAL MEETING ODOT ITEM 304 TO WITHIN 8" OF SURFACE. TOP WITH TOPSOIL IN LAWN AREAS.
13. EXISTING ASPHALT AND CONCRETE PAVEMENT AND SIDEWALK TO BE REMOVED SHALL BE SAW CUT IN A NEAT AND STRAIGHT LINE PRIOR TO EXCAVATION AND REMOVED FULL DEPTH AT NEAREST EXISTING JOINTS OR AT LIMITS AS SHOWN ON THE CONSTRUCTION PLANS. PAVEMENT SHALL BE REMOVED WITHOUT DAMAGING OR UNDERMINING THE PAVEMENT TO REMAIN. IF ADJACENT PAVEMENT IS DAMAGED, THE CONTRACTOR SHALL MAKE ADDITIONAL SAW CUTS, REMOVE THE DAMAGED AREAS AND REPAIR AS NECESSARY WITH NO ADDITIONAL COMPENSATION.

MAINTENANCE OF TRAFFIC NOTES:

1. THE CONTRACTOR SHALL MAINTAIN TRAFFIC ADJACENT TO THE PROJECT. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL SIGNS, FLAGS, FLAG PERSONS, BARRICADES, SIGN SUPPORTS, CONES, BARRELS AND INCIDENTALS IN CONFORMANCE WITH THE MOST RECENT REVISED EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. INTERFERENCE WITH TRAFFIC SHALL BE KEPT MINIMAL AT ALL TIMES. ALL OPEN TRENCHES AND EXCAVATIONS SHALL BE PROTECTED WITH DRUMS, BARRICADES, OR BARRIERS AT ALL TIMES.

GRADING NOTES:

1. ALL EXCAVATION IS CONSIDERED UNCLASSIFIED AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS, METHODS AND MATERIALS OF CONSTRUCTION TO COMPLETE CONSTRUCTION AS DESIGNED. THE OWNER NOR THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE TYPE AND/OR SUITABILITY OF THE MATERIAL UNDERLYING THE PROJECT SITE. THE BIDDER SHALL PERFORM ANY INVESTIGATIONS AND/OR TESTING NECESSARY TO ADEQUATELY DETERMINE OR ESTIMATE TO THEIR SATISFACTION ANY EXISTING SITE CONDITION WHICH COULD AFFECT HIS BID OR THE PERFORMANCE OF THE PROPOSED IMPROVEMENTS. THIS COULD INCLUDE, BUT NOT BE LIMITED TO, UNSUITABLE AND/OR UNSTABLE SOIL/SUBSURFACE CONDITIONS, ROCK, WATER (PERCHED OR FREE), SPRINGS, OBSTRUCTIONS, ETC.
2. THE CONTRACTOR SHALL PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS AND OTHER FACILITIES TO REMAIN FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT, AND OTHER HAZARDS CREATED BY EARTH MOVING OPERATIONS.
3. THE INTENT OF THIS PROJECT IS TO UTILIZE ALL USEABLE MATERIALS EFFICIENTLY. ACTUAL FIELD CONDITIONS MAY REQUIRE DECISIONS ON MATERIAL HANDLING AND USAGE. THE CONTRACTOR IS RESPONSIBLE FOR MONITORING AND MAINTAINING SITE CONDITIONS.
4. THE CONTRACTOR SHALL STRIP TOPSOIL FROM AREAS TO BE GRADED AND STOCKPILE IT PRIOR TO SITE GRADING OPERATIONS. TOPSOIL SHALL BE STRIPPED TO WHATEVER DEPTH ENCOUNTERED IN A MANNER TO PREVENT INTERMINGLING WITH UNDERLYING SUBSOIL OR OTHER WASTE MATERIALS.
5. DO NOT STOCKPILE SOIL MATERIALS NEAR THE EDGE OF EXCAVATIONS OR WITHIN DRIP LINES OF TREES TO REMAIN.
6. EXCESS MATERIAL GENERATED FROM TRENCH EXCAVATION OPERATIONS SHALL BE INCORPORATED IN THE UNIT PRICE BID FOR EXCAVATION INCLUDING EMBANKMENT CONSTRUCTION.
7. THE CONTRACTOR SHALL PERFORM EXCAVATION AND EMBANKMENT OPERATIONS AS NECESSARY TO CONSTRUCT THE PROPOSED IMPROVEMENTS AND ACHIEVE THE FINISHED GRADES SHOWN ON THE PLANS, EXCEPT AS NOTED:
   a. STRUCTURAL FILL SHALL BE PLACED AND COMPACTED UNDER ALL BUILDING SLABS, FOOTINGS AND PAVEMENT.
   b. ENGINEERED FILL SHALL BE PLACED AND COMPACTED UNDER ALL DRIVES, WALKS, STEPS AND RAMPS.
   c. STRUCTURAL AND ENGINEERED FILL SHALL BE WETTED OR DRIED TO NEAR ITS OPTIMUM MOISTURE CONTENT, PLACED IN LIFTS AND COMPACTED TO A MINIMUM PERCENT COMPACTION, ALL UNDER THE OBSERVATION AND TESTING OF A GEOTECHNICAL ENGINEER.
   d. SOIL OBTAINED ON-SITE MAY BE USED AS FILL MATERIAL PROVIDED IT IS FREE OF ORGANIC MATTER, DEBRIS, EXCESSIVE MOISTURE, AND ROCK FRAGMENTS 6" AND LARGER.
   e. NO SLAG, RIVER GRAVEL, RECYCLED PORTLAND CEMENT CONCRETE, RECLAIMED ASPHALT CONCRETE PAVEMENT OR RECLAIMED BITUMINOUS AGGREGATE BASE MAY BE USED.
   f. THE CONTRACTOR SHALL DISPOSE OFF-SITE ANY EXCESS OR UNSUITABLE MATERIAL UNABLE TO BE PLACED ON-SITE.
   g. UNSUITABLE MATERIAL ENCOUNTERED DURING INSTALLATION OF PROPOSED IMPROVEMENTS (I.E. BUILDINGS, UTILITIES, PAVEMENT, ETC.) SHALL BE UNDERCUT AND REPLACED WITH COMPACTED FILL OR STABILIZED IN-PLACE UTILIZING CONVENTIONAL MEASURES SUCH AS DISCING, AERATION OR RECOMPACTION. OTHER MEANS OF STABILIZATION SHALL BE AT THE DISCRETION OF THE OWNER OR GEOTECHNICAL ENGINEER.
8. IT IS THE INTENT OF THE SLOPES AND SPOT GRADES NOTED ON THE PLANS TO PROVIDE POSITIVE DRAINAGE TO STORM WATER COLLECTION POINTS. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES IMMEDIATELY TO THE DESIGN ENGINEER FOR RESOLUTION.
9. EXPOSED PAVEMENT SUBGRADE AREAS SHALL BE MAINTAINED IN SUCH CONDITION THAT IT WILL BE WELL DRAINED AT ALL TIMES TO PREVENT PONDING OF WATER AFTER RAINS.
10. ALL EXISTING AND PROPOSED MANHOLE COVERS, VALVE BOXES, ETC., LOCATED WITHIN PEDESTRIAN RIGHT-OF-WAYS OR SIDEWALKS SHALL BE FLUSH MOUNTED WITH THE WALKING SURFACE.
11. BEFORE ACCEPTANCE OF THE SUB-GRADE UNDER BUILDING SLABS OR PAVEMENT, A PROOF ROLL TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING SHALL BE PERFORMED IN THE PRESENCE OF THE DESIGN ENGINEER USING A PNEUMATIC-TIRED AND LOADED 10-WHEEL, TANDEM-AXLE DUMP TRUCK WEIGHING NOT LESS THAN FIFTEEN (15) TONS AT A MAXIMUM VEHICLE SPEED OF 3 MPH. DO NOT PROOF-ROLL WET OR SATURATED SUBGRADES. THE CONTRACTOR SHALL EXCAVATE SOFT SPOTS, UNSATISFACTORY SOILS AND AREAS OF EXCESSIVE PUMPING OR RUTTING, AS DETERMINED BY THE DESIGN ENGINEER, AND REPLACE WITH COMPACTED BACKFILL, AS DIRECTED BY THE DESIGN ENGINEER OR GEOTECHNICAL ENGINEER. AUTHORIZED ADDITIONAL EXCAVATION AND REPLACEMENT MATERIAL SHALL BE PAID ACCORDING TO THE CONTRACT UNIT PRICES.
12. THE CONTRACTOR SHALL RECONSTRUCT ANY SUBGRADE DAMAGED BY FREEZING TEMPERATURES, FROST, RAIN, ACCUMULATED WATER OR CONSTRUCTION ACTIVITIES WITHOUT ADDITIONAL COMPENSATION.
13. CONTRACTOR SHALL REFER TO TENNIS COURT SPECIFICATIONS FOR EARTHWORK, SUBGRADE AND PAVEMENT REQUIREMENTS.

LAYOUT NOTES

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
2. ALL DIMENSIONS ARE TO FACE OF CURB OR FACE OF BUILDING UNLESS OTHERWISE NOTED.
3. PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE ODOT SPECIFICATIONS AND/OR CITY STANDARD DRAWINGS AND SPECIFICATIONS, UNLESS OTHERWISE SPECIFIED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT STAKING INCLUDING HORIZONTAL AND VERTICAL CONTROL. THESE PLANS HAVE BEEN DEVELOPED FOR ELECTRONIC LAYOUT STAKING. ANY DISCREPANCIES DISCOVERED IN THE PLAN INFORMATION, OR BETWEEN THE PLAN AND ELECTRONIC DATA, SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE DESIGN ENGINEER SO THE APPROPRIATE ADJUSTMENTS MAY BE MADE PRIOR TO THE START OF CONSTRUCTION OR THE CONTINUATION OF THE SAME. THE DESIGN ENGINEER MAKES NO REPRESENTATION REGARDING FITNESS FOR ANY PARTICULAR PURPOSE, OR SUITABILITY FOR USE WITH ANY SOFTWARE OR HARDWARE. DUE TO THE EASILY ALTERABLE NATURE OF ELECTRONIC DOCUMENTS, THROUGH EITHER UNINTENTIONAL OR INTENTIONAL MEANS, THE DESIGN ENGINEER DOES NOT MAKE ANY EXPRESS OR IMPLIED WARRANTY FOR THE ACCURACY OR COMPLETENESS OF THIS INFORMATION AND THEREFORE, ACCEPTS NO LIABILITY FOR THE COMPLETENESS, CORRECTNESS OR READABILITY OF THE ELECTRONIC DATA. HARD COPIES (I.E., PRINTS, PAPER COPIES, ETC.) SHALL PREVAIL IN ANY DISPUTE OVER ACCURACY OR SUFFICIENCY OF ELECTRONIC DOCUMENTS.

UTILITY NOTES:

1. THE CONTRACTOR SHALL PROTECT, SUPPORT AND SHORE UP ANY EXISTING UTILITY ENCOUNTERED DURING CONSTRUCTION AND COORDINATE ALL WORK TO BE PERFORMED WITH EACH RESPECTIVE UTILITY COMPANY, INCLUDING WORK BEING PERFORMED DIRECTLY BY THE UTILITY COMPANIES, FOR MAIN OR SERVICE CONNECTIONS, DISCONNECTIONS, RELOCATIONS, DEMOLITION AND INSPECTIONS. THE CONTRACTOR SHALL SECURE AND PAY FOR ANY PERMITS, FEES AND UTILITY COMPANY CHARGES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE THE NECESSARY LEVELS OF PROTECTION AND SAFEGUARDING OF ALL OPEN TRENCHES, WHEN WORK IS EITHER ACTIVE, COMPLETED AT THE END OF THE DAY OR SUSPENDED FOR ANY OTHER REASON. THIS INCLUDES TRENCH PROTECTION SUCH AS TRENCH BOXES, WOOD SHEETING AND BRACING, OR ANY OTHER METHOD DETERMINED BY THE CONTRACTOR TO MAINTAIN A SAFE WORKING ENVIRONMENT. ALL EXCAVATIONS SHALL COMPLY WITH APPLICABLE LAWS AND REGULATIONS (FEDERAL, STATE AND LOCAL).
3. WHERE THE PLANS PROVIDE FOR NEW CONDUIT TO BE CONNECTED TO OR CROSS OVER OR UNDER AN EXISTING UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING UTILITY BOTH AS TO LINE AND GRADE BEFORE BEGINNING TO LAY THE NEW CONDUIT.
4. THE CONTRACTOR SHALL JET-CLEAN ALL STORM SEWERS AND VACUUM CLEAN ALL MANHOLES AND CATCH BASINS BEFORE ACCEPTANCE BY THE OWNER.
5. ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
6. THE CONTRACTOR SHALL INCLUDE THE COST OF GRANULAR BACKFILL MATERIAL UNDER ALL EXISTING AND PROPOSED PAVEMENTS IN THE PRICE BID PER LINEAR FOOT OF PIPE.
7. SLAG SHALL NOT BE USED FOR BEDDING OR BACKFILL.
8. STORM SEWERS

   STORM MAIN SEWERS SHALL BE ONE OF THE FOLLOWING:

   a. POLYVINYL CHLORIDE PIPE (PVC) 4" - 15" DIAMETER
      - ALL POLYVINYL CHLORIDE PIPE IN THIS SIZE RANGE SHALL CONFORM TO ASTM D-3034 SDR 35, SHALL BE INTEGRAL BELL AND SPIGOT TYPE, WITH JOINTS CONFORMING TO ASTM D-3212 AND ELASTOMERIC SEALS CONFORMING TO ASTM F-477.
      - ALL PIPE AND FITTINGS SHALL BE MARKED OR STENCILED IN CONFORMANCE WITH ASTM D-3034. ALL GASKETS SHALL BE MARKED OR STENCILED WITH THE ASTM SPECIFICATION DESIGNATION, NAME OR TRADEMARK OF THE MANUFACTURER, AND PIPE SIZE.
   b. POLYVINYL CHLORIDE PIPE (PVC) 18" - 27” DIAMETER
      - ALL LARGE DIAMETER POLYVINYL CHLORIDE PIPE SHALL CONFORM TO ASTM F-679, SHALL BE INTEGRAL BELL AND SPIGOT TYPE, WITH JOINTS CONFORMING TO ASTM D-3212 AND ELASTOMERIC SEALS CONFORMING TO ASTM F-477.
      - ALL PIPE AND FITTINGS SHALL BE MARKED OR STENCILED IN CONFORMANCE WITH ASTM F-679. ALL GASKETS SHALL BE MARKED OR STENCILED WITH THE ASTM SPECIFICATION DESIGNATION, NAME OR TRADEMARK OF THE MANUFACTURER, AND PIPE SIZE.
   c. CORRUGATED POLYETHYLENE PIPE 12" DIAMETER AND LARGER
      - ALL CORRUGATED POLYETHYLENE PIPE IN THIS SIZE RANGE SHALL BE SMOOTH LINED CONFORMING TO ODOT 707.33. ALL PIPE AND FITTINGS SHALL BE MARKED OR STENCILED WITH THE APPROPRIATE CLASSIFICATION.
   d. HIGH-DENSITY POLYETHYLENE PERFORATED PIPE 8"-15" DIAMETER
      - ALL PERFORATED HDPE PIPE SHALL ONLY BE USED FOR SYNTHETIC TURF FIELD SUBDRAINAGE SYSTEM, NOT FOR ANY OTHER STORM IMPROVEMENTS.
9) ALL STORM SEWER JOINTS AND PIPES SHALL BE WATERTIGHT.

LENE C. HILL
E-66017

verdantas

NO	REVISION	DATE

ISSUED FOR: BID
ISSUE DATE: 4/22/25
SCALE: AS SHOWN
DESIGNED BY: RW, CZ
DRAWN BY: CZ, GA, LE
CHECKED BY: LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

GENERAL NOTES

PROJECT NO.
32272
DISCIPLINE
CIVIL
SHEET NAME
G-2
SHEET 2 OF 31

ELECTRICAL GENERAL NOTES

THE CONTRACTOR SHALL APPLY FOR AND SECURE ALL COSTS AND CHARGES FOR PERMITS, CONSTRUCTION, AND MISCELLANEOUS WORK ASSOCIATED WITH AND REQUIRED FOR THE COMPLETION OF THE PROJECT ELECTRICAL WORK.

THE CONTRACTOR SHALL ARRANGE FOR ALL INSPECTIONS OF ELECTRICAL WORK BY ALL INSPECTION AUTHORITIES HAVING JURISDICTION. COPIES OF INSPECTION REPORTS SHALL BE MADE AVAILABLE TO THE OWNER UPON REQUEST, AND THREE (3) COPIES OF THE APPROVED FINAL INSPECTION REPORT SHALL ACCOMPANY THE REQUEST FOR FINAL PAYMENT.

ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, OHIO BUILDING CODE, LOCAL CODES AND ORDINANCES WHERE APPLICABLE, AND REQUIREMENTS OF O.S.H.A..

ALL MATERIALS AND EQUIPMENT FURNISHED AND INSTALLED BY THE CONTRACTOR SHALL BE NEW, U.L. LISTED OR LABELED, AND CONFORM TO NEMA AND ANSI STANDARDS WHERE APPLICABLE.

THE CONTRACTOR SHALL BE HELD TO HAVE VISITED THE SITE AND TO FULLY FAMILIARIZED HIMSELF WITH ALL CONDITIONS WHICH AFFECT HIS WORK. COORDINATE AND SCHEDULE WORK WITH OTHER TRADES TO ENSURE SATISFACTORY PERFORMANCE, AVOID DELAYS AND DUPLICATIONS AND MEET THE OWNER'S COMPLETION SCHEDULE.

ALL WORK SHALL BE INSTALLED BY WORKMEN FULLY SKILLED IN THE WORK TO BE PERFORMED. REPAIR OR REPLACE EXISTING EQUIPMENT OR PROPERTY OF THE OWNER DAMAGED BY ELECTRICAL TRADES WORKMEN.

THE CONTRACTOR SHALL GUARANTEE MATERIALS AND WORKMANSHIP PROVIDED BY HIM FOR A PERIOD OF TWO (2) YEARS FROM THE DATE OF OWNER'S FINAL ACCEPTANCE. REPAIR OR REPLACE ANY DEFECTIVE MATERIALS OR EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER WITHIN THE GUARANTEE PERIOD.

IDENTIFY PANELBOARDS AND USAGE OF PANELBOARD CIRCUIT BREAKERS WITH PLASTIC LAMINOID NAMEPLATES. NAMEPLATES SHALL INDICATE PANEL DESIGNATION, VOLTAGE, AND USE.

PROVIDE TYPEWRITTEN PANELBOARD CIRCUIT DIRECTORY IN PANELBOARD DOOR IDENTIFYING ALL ACTIVE CIRCUITS AND SPARES. ACTIVE CIRCUITS SHALL DESIGNATE EQUIPMENT SERVED.

WIRING BETWEEN LIGHT POLES SHALL BE 2 SINGLE CONDUCTOR #10, 5KV IN 2" CONDUIT DIRECTLY BURIED.(SEE PRICES TO INCLUDE FOR ITEM SPECIFIC MATERIALS TO BE USED)

THE DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO DESCRIBE THE WORK REQUIRED. THE CONTRACTOR SHALL ACCURATELY FIELD MEASURE AND LAY OUT HIS WORK TO EFFECTIVELY ACHIEVE A STRUCTURALLY COORDINATED INSTALLATION WITH THE EXISTING CONDITIONS AND OTHER TRADES.

COORDINATE ALL SERVICE ENTRANCE REQUIREMENTS WITH THE LOCAL ELECTRIC AND TELEPHONE UTILITY COMPANIES TO ENSURE COMPLIANCE TO UTILITY COMPANY REQUIREMENTS. PROVIDE A COMPLETE GROUNDING SYSTEM.

DISCONNECTION, RECONNECTION, AND RELOCATION OF EQUIPMENT SHALL BE COORDINATED SO AS TO CAUSE MINIMAL DISRUPTION OF SERVICE.

LIGHTING FIXTURES SHALL BE AS SCHEDULED ON THE DRAWINGS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND ALL APPLICABLE PROVISIONS OF NATIONAL ELECTRICAL CODE.

LIGHTING NOTES

THESE NOTES ARE SUPPLEMENTAL TO ITEMS 625 AND 725 OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.

IN ADDITION TO THE REQUIREMENTS OF THE ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, POWER SERVICES SHALL BE AS FOLLOWS:

THE POWER SUPPLYING AGENCY FOR THIS PROJECT SHALL BE AS SHOWN ON THE ELECTRICAL PLANS:

PARKING LOT LIGHTING: THE LOCAL UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE ELECTRICAL SERVICE CONNECTION FOR THE PARKING LOT LIGHTING WITH THE LOCAL UTILITY COMPANY. THE LIGHTS SHALL BE CONTROLLED VIA PHOTOCELLS.

NEW PICKLEBALL COURT LIGHTING: CITY OF MENTOR CIVIC CENTER POOL CONCESSION BUILDING POWER SOURCE. CONTRACTOR TO COORDINATE AND INVESTIGATE PANEL CONNECTION WITH THE CITY POOL MAINTENANCE STAFF. THE LIGHTS SHALL BE INSTALLED WITH A TIMER SYSTEM OR TIED INTO THE EXISTING TIMER TO MATCH THE EXISTING COURT LIGHTING.

POWER SUPPLIED SHALL BE 120/208 VOLT, SINGLE PHASE, 3 WIRE, GROUNDED NEUTRAL.

ITEM 625 – LIGHT POLE, FOUNDATIONS, CONDUIT AND PULLBOXED

IN ADDITION TO THE REQUIREMENTS OF THE ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LIGHT POLES FOR CONVENTIONAL LIGHTING THE CONTRACTOR SHALL REFER TO THE PRICES TO INCLUDE SECTION OF THE CONTRACT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

725.11. – LAMPS

LIGHT SOURCE WILL BE LED AS NOTED ON THE ELECTRICAL PLANS.

ITEM 625 – PLASTIC CAUTION TAPE

THE LOCATION OF UNDERGROUND CONDUIT AND BURIED ELECTRICAL CABLES SHALL BE MARKED BY THE USE OF A CONTINUOUS IDENTIFYING TAPE BURIED IN THE TRENCH ABOVE THE LINE. THE IDENTIFYING TAPE SHALL BE AN INERT MATERIAL, APPROXIMATELY 6 INCHES WIDE COMPOSED OF POLYETHYLENE PLASTIC, HIGHLY RESISTANT TO ALKALIS, ACIDS, OR OTHER CHEMICAL COMPONENTS LIKELY TO BE ENCOUNTERED IN SOILS. THE TAPE SHALL BE BRIGHT RED WITH IDENTIFYING PRINTING "ELECTRIC" IN BLACK LETTERS, ONE SIDE ONLY. TAPE SHALL BE SUPPLIED IN CONTINUOUS ROLLS WITH THE IDENTIFYING LETTERING REPEATED CONTINUOUSLY THE FULL LENGTH OF THE TAPE. IDENTIFYING TAPE SHALL BE BURIED ON THE ELECTRIC LINE TRENCH WITH ONE STRIP APPROXIMATELY 6 TO 10 INCHES BELOW THE FINAL FINISHED GRADE. THE TAPE SHALL BE PLACED IN THE TRENCH WITH THE PRINTED SIDE UP AND SHALL BE ESSENTIALLY PARALLEL WITH THE FINISHED SURFACE. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO INSURE THAT THE TAPE IS NOT PULLED, DISTORTED, OR OTHERWISE MISPLACED IN COMPLETING THE TRENCH BACKFILL. THE TAPE SHALL BE PAID FOR PER FOOT OF ITEM 625 TRENCHING.

725.051 POLYVINYL CHLORIDE PLASTIC CONDUIT

CONDUIT FURNISHED UNDER THIS SPECIFICATION SHALL CONFORM TO NEMA STANDARDS PUBLICATION NO. TC-6 WITH THE EXCEPTION THAT CONDUIT AND CONDUIT FITTINGS COMPOSED OF ACRYLONITRILE-BUTADIENE-STYRENE (ABS) SHALL NOT BE ACCEPTABLE.

LIGHT POLE FOUNDATION GENERAL NOTES AND SPECIFICATIONS

THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS DATED JANUARY 1, 2023, SHALL BE CONSIDERED A PART OF THE SPECIFICATIONS FOR THIS PROJECT.

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING DRILLED SHAFTS OF THE KIND AND SIZE CALLED FOR ON THE PLANS AND IN THE FOLLOWING SPECIFICATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH ALL LABOR, MATERIALS, TESTS AND APPURTENANCES REQUIRED TO COMPLETE THE WORK AS SPECIFIED.

THE CONTRACTOR IS EXPECTED TO FURNISH THE PROPOSED DRILLED SHAFTS AS PER THESE PLAN REQUIREMENTS WITH THE UNDERSTANDING THAT THE ESTIMATED LENGTH SHOWN ON THE PLANS MAY BE DIFFERENT FROM THE LENGTH DETERMINED TO BE NECESSARY AT THE TIME OF CONSTRUCTING THE DRILLED SHAFTS.

CASING

A CASING WILL BE NECESSARY FOR THE CONSTRUCTION OF EACH DRILLED SHAFT. SEE CASING NOTE BELOW.

THE CASING SHALL BE WATER-TIGHT AND SHALL BE OF AMPLE STRENGTH TO WITHSTAND HANDLING STRESSES AND TEMPORARY EXTERNAL SUBSURFACE PRESSURES. THE CASING SHALL BE SEATED TO SEAL OFF POSSIBLE GROUND WATER. THE CASING LENGTH SHALL BE AS NECESSARY TO CONSTRUCT EACH DRILLED SHAFT. THE CASING SHALL BE LEFT IN PLACE, BUT IT SHALL BE REMOVED ABOVE THE FINISHED GRADE.

CONTRACTOR QUALIFICATION

THE CONTRACTOR SHALL SUBMIT INFORMATION TO DOCUMENT THAT HIS PERSONNEL ARE EXPERIENCED IN THE CONSTRUCTION OF DRILLED SHAFTS OF THE TYPE AND SIZE DESCRIBED BY THE PLANS. THIS INFORMATION SHALL BE SUBMITTED AT THE PRECONSTRUCTION CONFERENCE.

DEVIATION FROM PLAN

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS INVOLVED WHEN MAKING CORRECTIONS TO HIS UNAUTHORIZED DEVIATIONS FROM THE PLANS.

EXCAVATION

EXCAVATION FOR THE DRILLED SHAFTS SHALL BE PERFORMED BY ROTARY DRILLING METHODS USING PRACTICAL METHODS AND MACHINERY ACCEPTABLE TO THE ENGINEER. WHEN OBJECTS SUCH AS LARGE BOULDERS ARE ENCOUNTERED, THEY SHALL BE REMOVED. BLASTING METHODS MAY NOT BE USED.

BOTTOM CLEANOUT

THE BOTTOM OF THE DRILLED SHAFT EXCAVATION SHALL BE FLUSHED AS CLEAN AS PRACTICABLE.

APPROVAL BEFORE CONCRETE PLACEMENT

ITEM 625 – LIGHT POLE FOUNDATION, 24" X 8' DEEP

THE CONTRACTOR SHALL SUBMIT TO THE PROJECT ENGINEER A WRITTEN REPORT OF STEPS AND PROCEDURES THAT HE PROPOSES TO FOLLOW WHEN PLACING AND MONITORING THE CONCRETE PLACEMENT. CONCRETE SHALL NOT BE PLACED IN ANY DRILLED SHAFT EXCAVATION WITHOUT PRIOR APPROVAL FROM THE ENGINEER. THE DRILLED SHAFT EXCAVATION SHALL BE INSPECTED IMMEDIATELY BEFORE THE CONCRETE IS PLACED. NO CONCRETE SHALL BE PLACED DURING INCLEMENT WEATHER CONDITIONS WHICH PROHIBIT A THOROUGH INSPECTION.

DEWATERING

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING ANY INCOMING WATER TO THE EXTENT THAT THE SHAFT EXCAVATION IS MAINTAINED DRY ENOUGH FOR PERFORMANCE OF THE REQUIRED INSPECTION AND CONCRETING OPERATIONS. THE PREFERRED METHOD OF CONSTRUCTION IS TO PLACE THE CONCRETE IN A CLEAN, DRY EXCAVATION. THE CONTRACTOR IS EXPECTED TO MAKE A REASONABLE ATTEMPT TO SEAL WATER OUT OF THE DRILLED SHAFT EXCAVATION.

CONCRETE PLACEMENT

THE CONCRETE FOR THE DRILLED SHAFTS SHALL BE PLACED AS PER ITEM 511 EXCEPT AS MODIFIED BY THE PLANS. THE CONCRETE PLACEMENT OPERATION SHOULD BE CONTINUOUS FROM START TO FINISH. THE CONCRETE SHALL BE PLACED AGAINST THE CASING SOIL AND SHALL BE PLACED PROMPTLY AFTER THE FINAL INSPECTION OF THE SHAFT. IF PRACTICABLE, THE CONCRETE SHALL BE PLACED IN A DRY EXCAVATION. CARE SHALL BE TAKEN TO ENSURE THAT CONCRETE IS NOT BEING PLACED IN MOVING WATER. THE CONCRETE CAN BE PLACED IN A DRY, DRILLED SHAFT EXCAVATION BY THE FREE FALL METHOD PROVIDED THE CONCRETE FALLS TO ITS FINAL POSITION THROUGH AIR WITHOUT STRIKING THE SIDES OF THE HOLE, THE REINFORCING STEEL CAGE OR ANY OTHER OBSTRUCTION. THE FREE FALL METHOD ALLOWS THE CONCRETE TO BE DROPPED FROM THE TOP THROUGH A CENTERING CHUTE TO THE CONCRETE'S FINAL POSITION.

CONCRETE

CONCRETE FOR ALL DRILLED SHAFTS SHALL BE CLASS S CONCRETE AND SHALL BE IN ACCORDANCE WITH ITEM 511, EXCEPT AS MODIFIED AND SUPPLEMENTED HEREIN. THE REQUIRED SLUMP IS SIX INCHES (6") TO SEVEN INCHES (7"). THE MAXIMUM WATER TO CEMENT RATIO SHALL BE 0.50. THE TOP 5 FEET OF THE DRILLED SHAFTS ARE REQUIRED TO BE VIBRATED. ONLY A MINIMAL VIBRATORY EFFORT IS NECESSARY. SPECIAL CARE SHALL BE TAKEN NOT TO OVER-VIBRATE THE DRILLED SHAFT CONCRETE.

REINFORCING STEEL

REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF ITEM 509. THE REINFORCING STEEL SHALL BE GRADE 60, EPOXY COATED ASTM A615. SEE DETAILS FOR REINFORCING REQUIREMENTS.

SAFETY PROVISIONS

THE CONTRACTOR SHALL HAVE AT THE JOB SITE ALL EQUIPMENT AND MATERIALS NEEDED TO PROVIDE SAFE CONSTRUCTION AND INSPECTION OF THE DRILLED SHAFTS AS REQUIRED BY CITY, STATE AND FEDERAL SAFETY REQUIREMENTS. WHERE UTILITY OUPS MARKINGS SHOW POTENTIAL CONFLICT, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO DETERMINE A NEED TO ADJUST THE LOCATION. THE CONTRACTOR SHOULD EXPECT TO POT-HOLE LOCATIONS WHICH APPEAR TO HAVE OUPS MARKINGS ADJACENT TO PROPOSED POLE LOCATIONS IN ORDER TO DETERMINE CLEARANCES. PAYMENT SHOULD BE INCLUDED IN THE LIGHT POLE FOUNDATION BID ITEM.

STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

ELECTRICAL NOTES

PROJECT NO.
32272
DISCIPLINE
CIVIL
SHEET NAME
G-3
SHEET 3 OF 31

NOTES:

1. THE PROJECT CONTROL COORDINATE SYSTEM IS BASED UPON THE FOLLOWING:
   - HORIZONTAL DATUM - OHIO COUNTY COORDINATE SYSTEM (OCCS), LAKE COUNTY, ON THE NORTH AMERICAN DATUM OF 1983, (2011 ADJUSTMENT). ESTABLISHED BY GNSS/RTK OBSERVATIONS UTILIZING THE OHIO DEPARTMENT OF TRANSPORTATION'S CONTINUOUSLY OPERATING REFERENCE STATION NETWORK.
   - VERTICAL DATUM - NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). ESTABLISHED BY GNSS/RTK OBSERVATIONS UTILIZING THE OHIO DEPARTMENT OF TRANSPORTATION'S CONTINUOUSLY OPERATING REFERENCE STATION NETWORK.
2. ALL DIMENSIONS GIVEN ARE EXPRESSED IN US SURVEY FEET AND DECIMAL PARTS THERE OF. BEARINGS ARE USED TO DENOTE ANGLES ONLY.

RIGHT OF WAY RESOLUTION NOTES:

1. PLOTTED RECORD GEOMETRY FROM *1980 COLPETZER-WOODS CONSULTANTS, INC DEDICATION PLAT.*
2. MOVED GEOMETRY TO POINT #11, ROTATED TO POINT #13

CONTROL TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	290433.0956	141558.7484	625.90	Iron Pin (Set)
2	290899.3124	141750.2118	625.74	Iron Pin (Set)
3	290718.6266	142216.6362	628.21	Iron Pin (Set)
4	290377.1339	142303.5056	628.38	Iron Pin (Set)
5	290253.9843	142084.3290	628.69	Iron Pin (Set)
10	289522.0945	142134.2871	0.00	Monument Box (Fnd) 5/8 IPIN
11	290025.9833	142135.8718	0.00	Monument Box (Fnd) 5/8 IPIN
12	290253.0453	142032.5770	0.00	Monument Box (Fnd) 5/8 IPIN
13	290387.7095	141877.9843	0.00	Monument Box (Fnd) 5/8 IPIN
14	290461.1060	141682.3314	0.00	Monument Box (Fnd) 5/8 IPIN
2053	290461.0615	141682.6594	625.75	Benchmark (Set)
2054	290315.0824	142264.4426	629.14	Benchmark (Set)
5049	290771.4310	141876.5430	627.78	Benchmark (Set)

BAR SCALE

40' 20' 0' 40'

SCALE: 1"= 40'

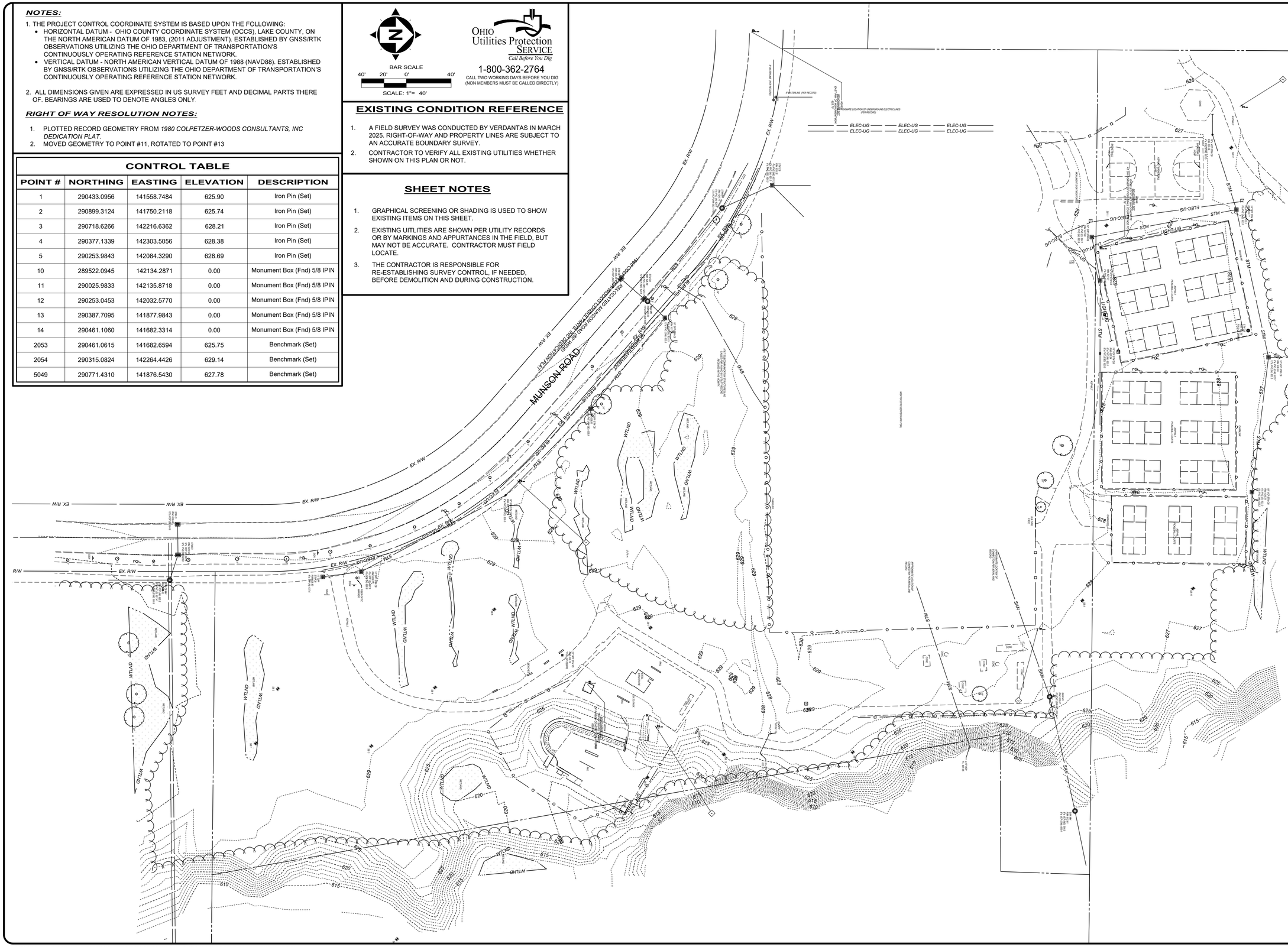
OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

EXISTING CONDITION REFERENCE

1. A FIELD SURVEY WAS CONDUCTED BY VERDANTAS IN MARCH 2025. RIGHT-OF-WAY AND PROPERTY LINES ARE SUBJECT TO AN ACCURATE BOUNDARY SURVEY.
2. CONTRACTOR TO VERIFY ALL EXISTING UTILITIES WHETHER SHOWN ON THIS PLAN OR NOT.

SHEET NOTES

1. GRAPHICAL SCREENING OR SHADING IS USED TO SHOW EXISTING ITEMS ON THIS SHEET.
2. EXISTING UITLITIES ARE SHOWN PER UTILITY RECORDS OR BY MARKINGS AND APPURTANCES IN THE FIELD, BUT MAY NOT BE ACCURATE. CONTRACTOR MUST FIELD LOCATE.
3. THE CONTRACTOR IS RESPONSIBLE FOR RE-ESTABLISHING SURVEY CONTROL, IF NEEDED, BEFORE DEMOLITION AND DURING CONSTRUCTION.



STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

NO	REVISION	DATE

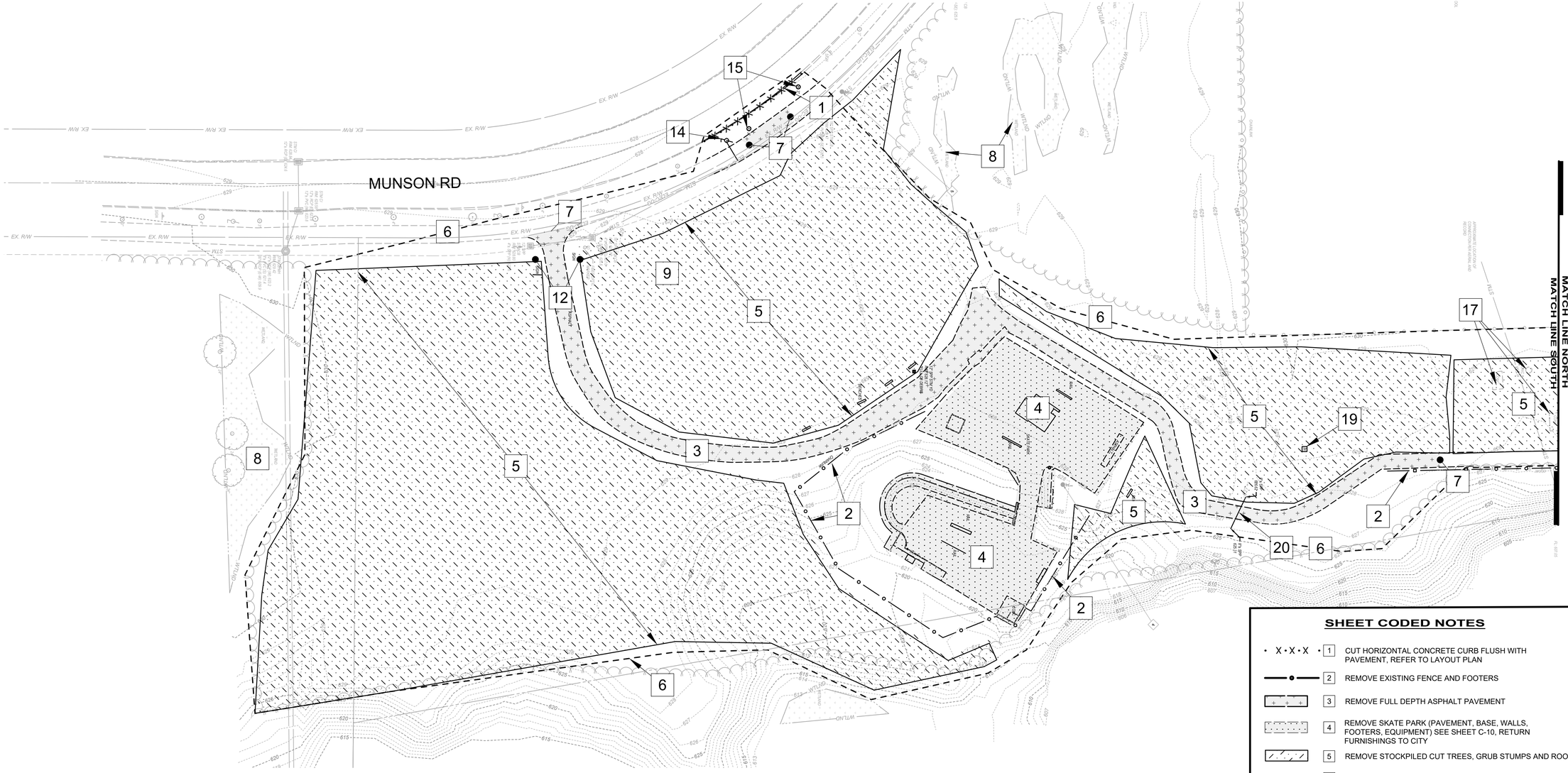
ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

EXISTING CONDITIONS PLAN

PROJECT NO.
32272
DISCIPLINE
CIVIL
SHEET NAME
C-1
SHEET 4 OF 31

Z:\PROJECT FILES\MA-NZ\MENTOR\32272 - CIVIC CENTER PARK IMPROVEMENTS\CAD\DWG\SHEETS\C-32272 - EXISTING CONDITIONS PLAN.DWG - C-1 - 4/16/2025 9:30:31 AM - LENE HILL



SHEET CODED NOTES

1. CUT HORIZONTAL CONCRETE CURB FLUSH WITH PAVEMENT, REFER TO LAYOUT PLAN
2. REMOVE EXISTING FENCE AND FOOTERS
3. REMOVE FULL DEPTH ASPHALT PAVEMENT
4. REMOVE SKATE PARK (PAVEMENT, BASE, WALLS, FOOTERS, EQUIPMENT) SEE SHEET C-10, RETURN FURNISHINGS TO CITY
5. REMOVE STOCKPILED CUT TREES, GRUB STUMPS AND ROOTS
6. CONSTRUCTION LIMITS
7. SAW CUT FULL DEPTH ASPHALT PAVEMENT
8. WETLANDS TO REMAIN UNDISTURBED
9. REMOVE EXISTING LIGHT POLE, FOOTER AND WIRING TO SOURCE, RETURN TO CITY
10. REMOVE TRASH CAN AND PICNIC TABLE, RETURN TO CITY
11. REMOVE BASKETBALL POLE, RETURN TO CITY
12. SIGNS TO BE REMOVED, RETURNED TO CITY
13. PROTECT EXISTING YARD DRAIN
14. EXISTING LIGHT POLE TO BE RELOCATED
15. EXISTING STREET TREE TO BE RELOCATED
16. EXISTING LIGHT POLE AND WIRING TO REMAIN
17. REMOVE MISC. CONCRETE STRUCTURES
18. EXISTING HANDHOLE TO REMAIN, VERIFY LOCATIONS
19. EXISTING VALVE BOX TO BE REMOVED AND STUBBED AT SOURCE
20. EXISTING CULVERT TO BE REMOVED

BAR SCALE
30' 15' 0' 30'
SCALE: 1"= 30'

OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

SHEET NOTES

1. GRAPHICAL SCREENING OR SHADING IS USED TO DE-EMPHASIZE EXISTING ITEMS AND HIGHLIGHT SELECTED TRADE WORK.
2. AMY ITEMS NOT MARKED TO BE REMOVED SHALL REMAIN IN PLACE UNDISTURBED AND BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
3. EXISTING LIGHT POLE AND SITE FURNISHING (BENCHES, PICNIC TABLES, ETC.) TO BE CAREFULLY REMOVED AND RETURNED TO CITY.
4. THE EXISTING TREES HAVE BEEN CUT DOWN BY THE CITY AND STOCKPILED ON SITE. ALL OF THE CUT MATERIAL, STUMPS AND ROOTS NEED TO BE GRUBBED AND REMOVED FROM THE SITE BY THE CONTRACTOR.

STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

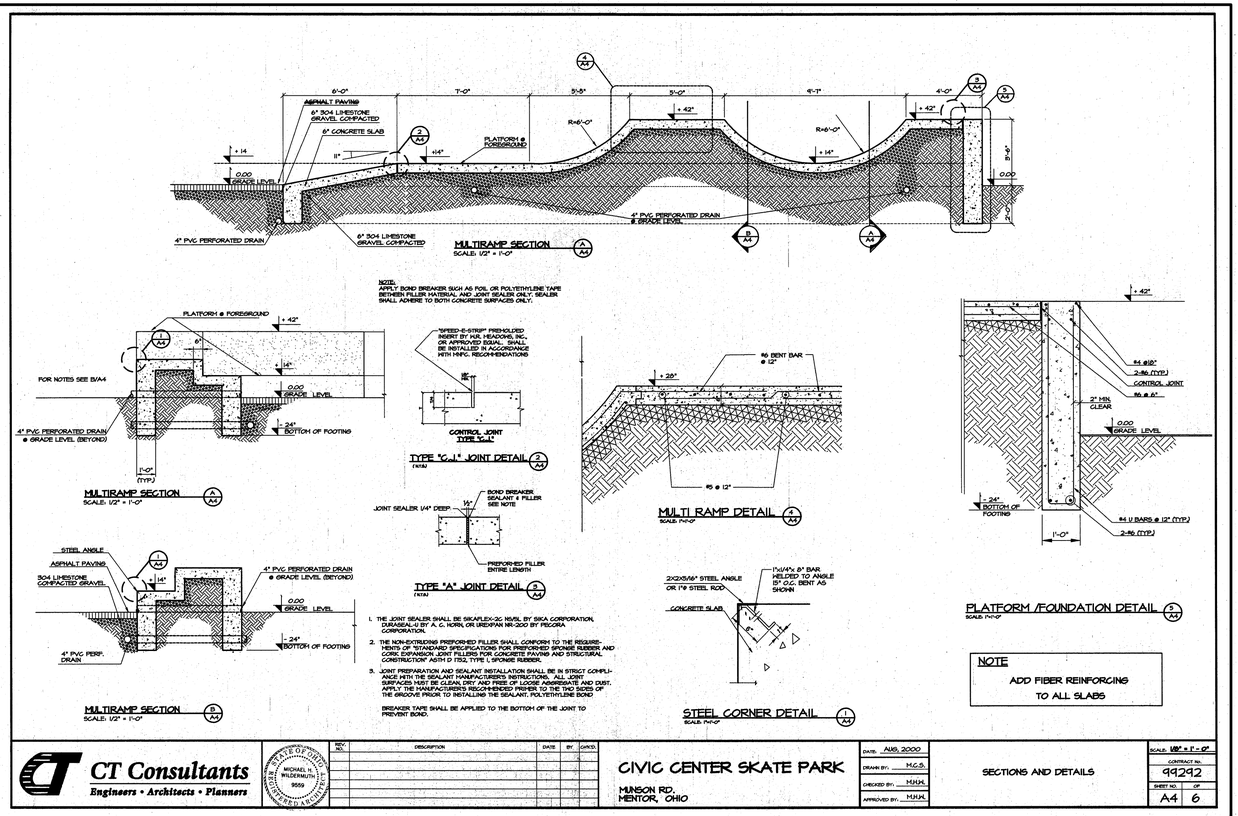
NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

DEMOLITION PLAN SOUTH

PROJECT NO.	
32272	
DISCIPLINE	
CIVIL	
SHEET NAME	
C-9	
SHEET	OF
5	31



NOTE: THE ABOVE ORIGINAL SKATEPARK IMPROVEMENT PLANS ARE SHOWN FOR CONTRACTOR'S REFERENCE. ADDITIONAL PLANS ARE AVAILABLE UPON REQUEST.

EXISTING SKATE PARK

NOT TO SCALE

BAR SCALE
30' 15' 0' 30'
SCALE: 1"= 30'

OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG (NON MEMBERS MUST BE CALLED DIRECTLY)

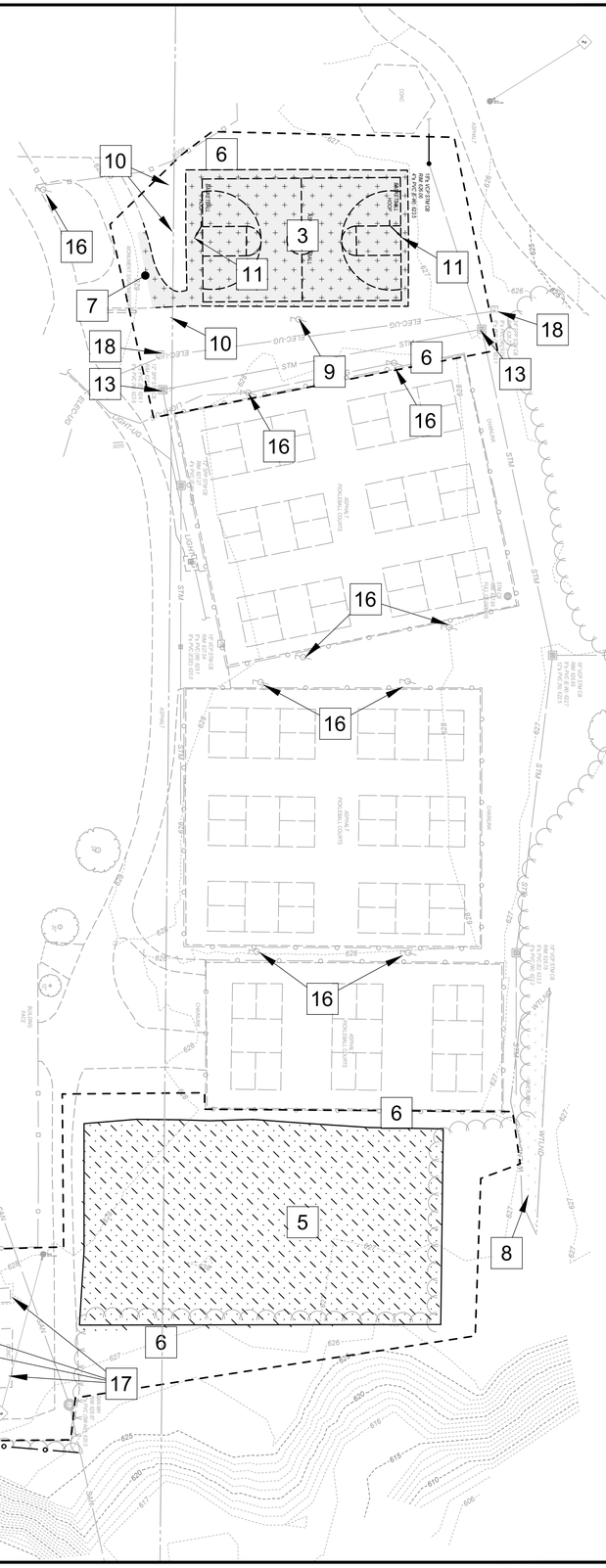
PROTECTION OF TREES

1) TREE PROTECTION MEASURES SHALL BE INSTALLED AS SPECIFIED PRIOR TO THE START OF CONSTRUCTION.
2) SPECIAL CARE SHALL BE TAKEN TO AVOID DAMAGE TO TREES AND THEIR ROOT SYSTEMS WHICH ARE NOT CALLED FOR REMOVAL. THE OPERATION OF ALL EQUIPMENT SHALL BE CONDUCTED IN A MANNER WHICH WILL NOT INJURE TREES, TRUNKS, BRANCHES OR THEIR ROOTS UNLESS SUCH TREES ARE DESIGNATED FOR REMOVAL. THE STORAGE OF MATERIALS, AND THE DEPOSITION OF EXCAVATION SHALL BE PROHIBITED WITHIN THE TREE CANOPY OF ANY TREE TO BE SAVED.
3) SHOULD THE CONTRACTOR'S OPERATIONS DAMAGE ANY TREE TO SUCH AN EXTENT THAT IT, IN THE OPINION OF THE CITY OF MENTOR, WILL NOT LIVE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH REMOVING THE TREE AND ALL PAYMENTS TO THE PROPERTY OWNER FOR THE VALUE OF THE REMOVED TREE, AS DETERMINED BY AN ARBORIST MUTUALLY AGREED UPON BY THE CITY OF MENTOR AND THE CONTRACTOR.
4) PRIOR TO CONSTRUCTION, TREE PROTECTIVE BARRIERS SHALL BE PLACED AROUND ALL TREES TO BE PRESERVED AND ANY OTHER VEGETATION LOCATED NEAR CONSTRUCTION ACTIVITY WHICH IS TO BE SAVED. THESE BARRIERS WILL BE LOCATED JUST OUTSIDE OF THE TREE'S CANOPY.
5) PROTECTIVE BARRIERS SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE AND FINAL ACCEPTANCE HAS BEEN ISSUED BY THE CITY OF MENTOR.

   AREAS WITHIN THE PROTECTIVE BARRIERS SHALL BE FREE OF ALL BUILDING MATERIALS, DIRT, CHEMICALS (INCLUDING GAS, OIL AND CONTAMINATED WATER), CONSTRUCTION DEBRIS, VEHICLES, AND DEVELOPMENT ACTIVITIES.
6) NO DISTURBANCE SHALL OCCUR WITHIN THE PROTECTIVE AREA OF A TREE DESIGNATED TO BE PRESERVED.
7) THE COST TO PROTECT TREES AND PROVIDE BARRIERS SHALL BE INCIDENTAL TO THE TOTAL PROJECT COST.
8) TREE PROTECTIVE BARRIERS WILL BE FLORESCENT POLYETHYLENE LAMINAR SAFETY FENCING, MINIMUM FOUR (4) FEET IN HEIGHT OR A SECURELY INSTALLED POST AND RAIL WOODEN FENCE, MINIMUM FOUR (4) FEET IN HEIGHT WITH A MINIMUM TWO (2) INCH X FOUR (4) INCH RAIL. THE FENCE SHALL BE MADE HIGHLY VISIBLE WITH A FLORESCENT ORANGE OR YELLOW PAINT. SUCH BARRIERS SHALL REMAIN INTACT THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS, AND IF DISTURBED MUST BE RESTORED PRIOR TO THE END OF THE WORKING DAY.

SHEET CODED NOTES

1. CUT HORIZONTAL CONCRETE CURB FLUSH WITH PAVEMENT, REFER TO LAYOUT PLAN
2. REMOVE EXISTING FENCE AND FOOTERS
3. REMOVE FULL DEPTH ASPHALT PAVEMENT
4. REMOVE SKATE PARK (PAVEMENT, BASE, WALLS, FOOTERS, EQUIPMENT) SEE SHEET C-10, RETURN FURNISHINGS TO CITY
5. REMOVE STOCKPILED CUT TREES, GRUB STUMPS AND ROOTS
6. CONSTRUCTION LIMITS
7. SAW CUT FULL DEPTH ASPHALT PAVEMENT
8. WETLANDS TO REMAIN UNDISTURBED
9. REMOVE EXISTING LIGHT POLE, FOOTER AND WIRING TO SOURCE, RETURN TO CITY
10. REMOVE TRASH CAN AND PICNIC TABLE, RETURN TO CITY
11. REMOVE BASKETBALL POLE, RETURN TO CITY
12. SIGNS TO BE REMOVED, RETURNED TO CITY
13. PROTECT EXISTING YARD DRAIN
14. EXISTING LIGHT POLE TO BE RELOCATED
15. EXISTING STREET TREE TO BE RELOCATED
16. EXISTING LIGHT POLE AND WIRING TO REMAIN
17. REMOVE MISC. CONCRETE STRUCTURES
18. EXISTING HANDHOLE TO REMAIN, VERIFY LOCATIONS
19. EXISTING VALVE BOX TO BE REMOVED AND STUBBED AT SOURCE



LENE C. HILL E-66017 REGISTERED PROFESSIONAL ENGINEER
STATE OF OHIO

verdantas

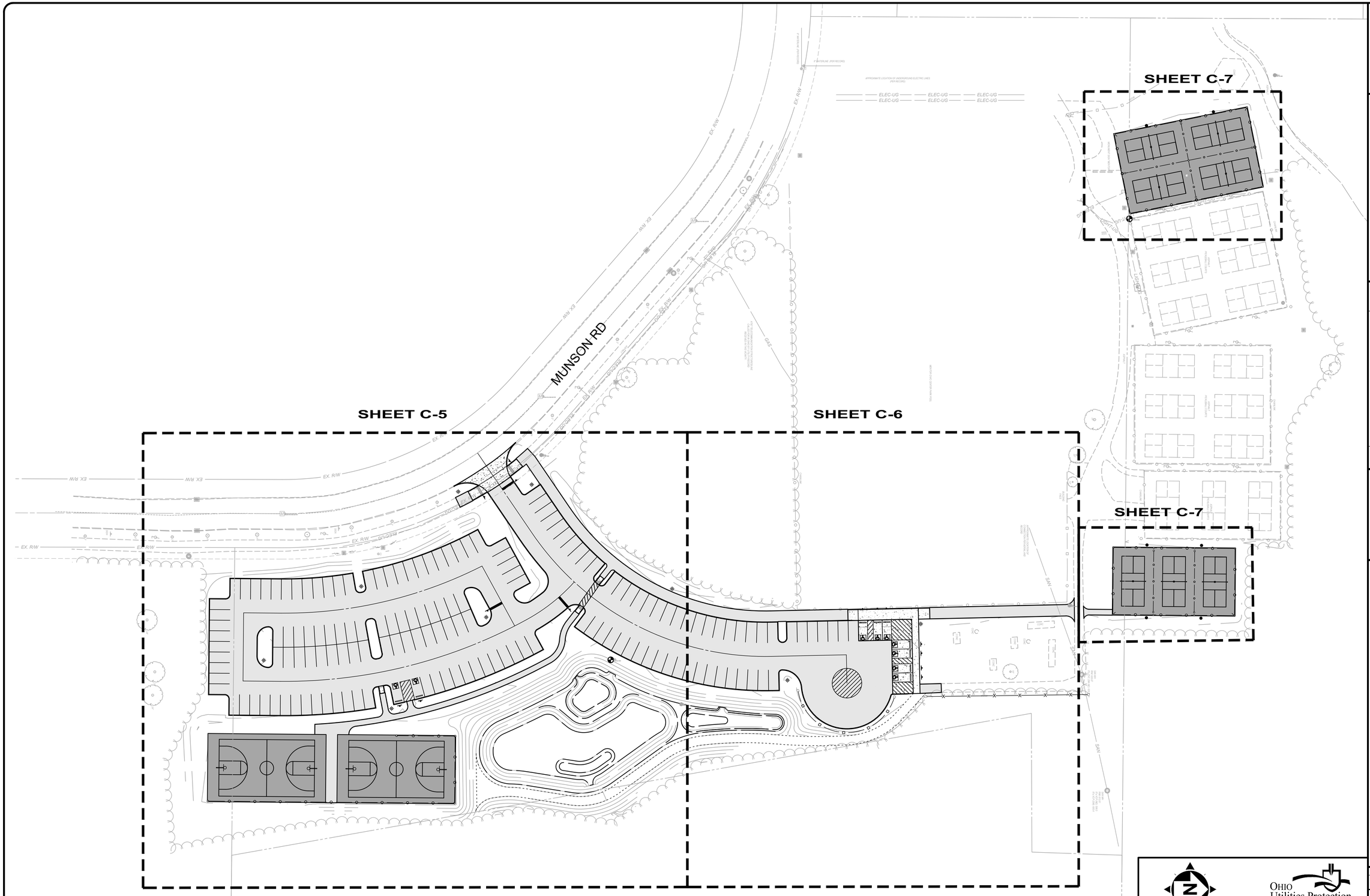
NO	REVISION	DATE

ISSUED FOR: BID
ISSUE DATE: 4/22/25
SCALE: AS SHOWN
DESIGNED BY: RW, CZ
DRAWN BY: CZ, GA, LE
CHECKED BY: LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

DEMOLITION PLAN NORTH

PROJECT NO. 32272
DISCIPLINE CIVIL
SHEET NAME C-10
SHEET 6 OF 31



STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

OVERALL LAYOUT PLAN

BAR SCALE
40' 20' 0' 40'
SCALE: 1"= 40'

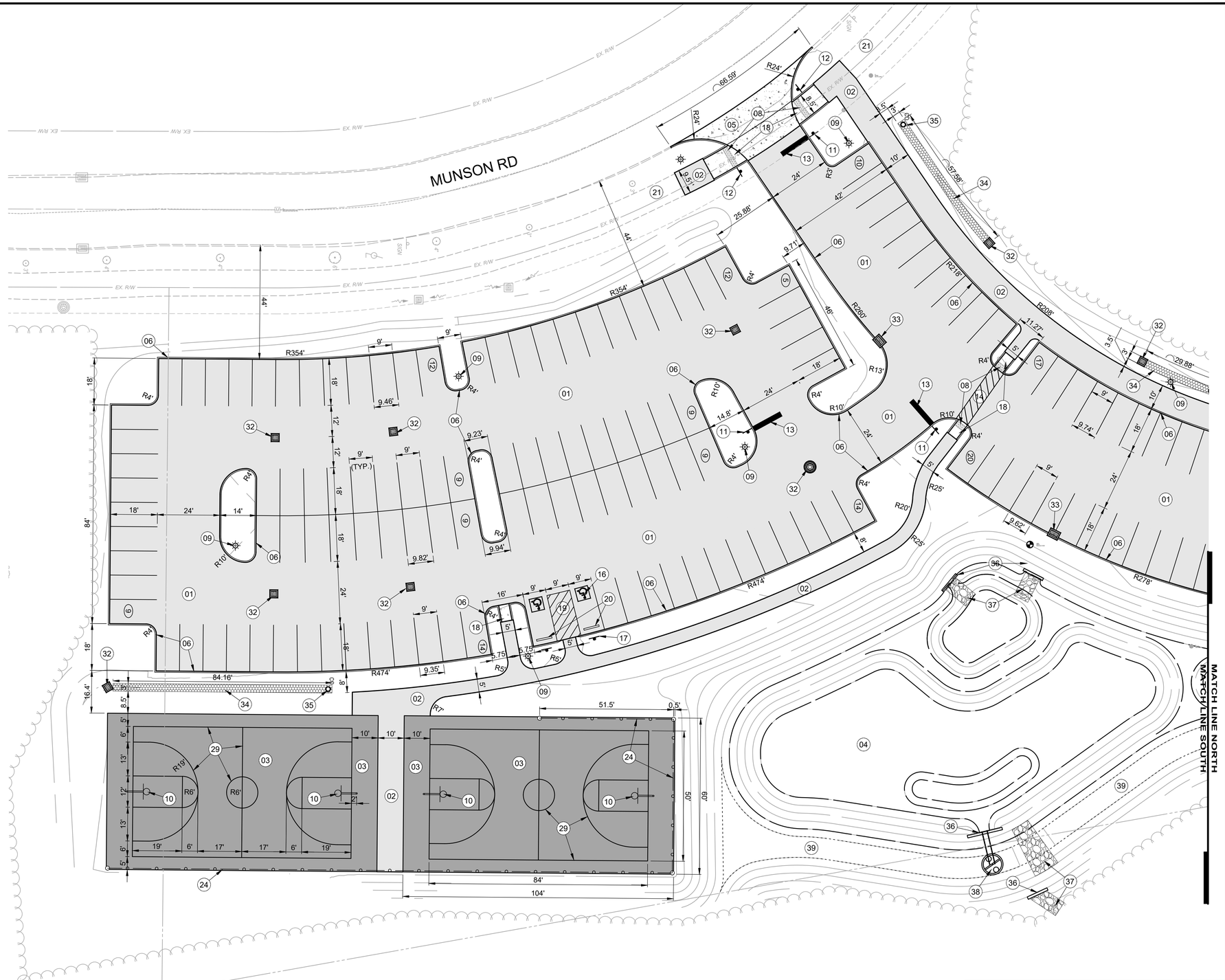
OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

PROJECT NO.	32272
DISCIPLINE	CIVIL
SHEET NAME	C-4
SHEET	7
OF	31

Z:\PROJECT FILES\MA-NZ\MENTOR\32272 - CIVIC CENTER PARK IMPROVEMENTS\CAD\DWG\SHEETS\C_32272 - LAYOUT PLAN.DWG - C-4 - 4/22/2025 5:32:37 PM - LENE HILL

CODED NOTES & LEGEND

01	STANDARD DUTY ASPHALT PAVEMENT	
02	ASPHALT PATH	
03	COLOR COATED ASPHALT COURT	
04	STORMWATER BASIN	
05	CONCRETE APRON	
06	CONCRETE CURB	
07	CONCRETE PAVEMENT	
08	ADA DETECTABLE WARNING SURFACE (TYP.)	
09	LIGHT POLE, REFER TO LIGHTING PLANS	
10	BASKETBALL GOAL POST	
11	STOP SIGN (TYP.)	
12	BIKE PATH STOP SIGN	
13	STOP BAR	
14	CROSSWALK PAVEMENT MARKING	
15	CONCRETE PAVMENT FLUSH WITH PARKING	
16	ACCESSIBLE PARKING SYMBOL	
17	HANDICAP PARKING SIGN (TYP.)	
18	CONCRETE WALK RAMP	
19	ISLAND PAVEMENT MARKING (TYP.)	
20	CONCRETE BUMPER BLOCK	
21	EXISTING WALK	
22	2 RAIL SPLIT RAIL FENCE	
23	COURT LIGHTS, REFER TO LIGHTING PLANS	
24	10' CHAINLINK FENCE	
25	PICKLEBALL NET & POST	
26	4' CHAINLINK FENCE	
27	3' WIDE GATE	
28	3' FENCE OPENING	
29	COURT LINE STRIPING	
30	DETENTION BASIN 8' WIDE ACCESS ROUTE	
31	GUARDRAIL	
32	CATCH BASIN/MANHOLE, REFER TO UTILITY PLANS	
33	CURB INLET	
34	FRENCH DRAIN	
35	FRENCH DRAIN CLEAN-OUT	
36	HEADWALL	
37	RIPRAP	
38	STORMWATER OUTLET CONTROL STRUCTURE	
39	DETENTION BASIN 8' WIDE ACCESS ROUTE	
40	DECORATIVE ROCK INFILL BETWEEN COURTS	
41	EXISTING FENCE TO REMAIN	



STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

ENLARGED LAYOUT PLAN SOUTH

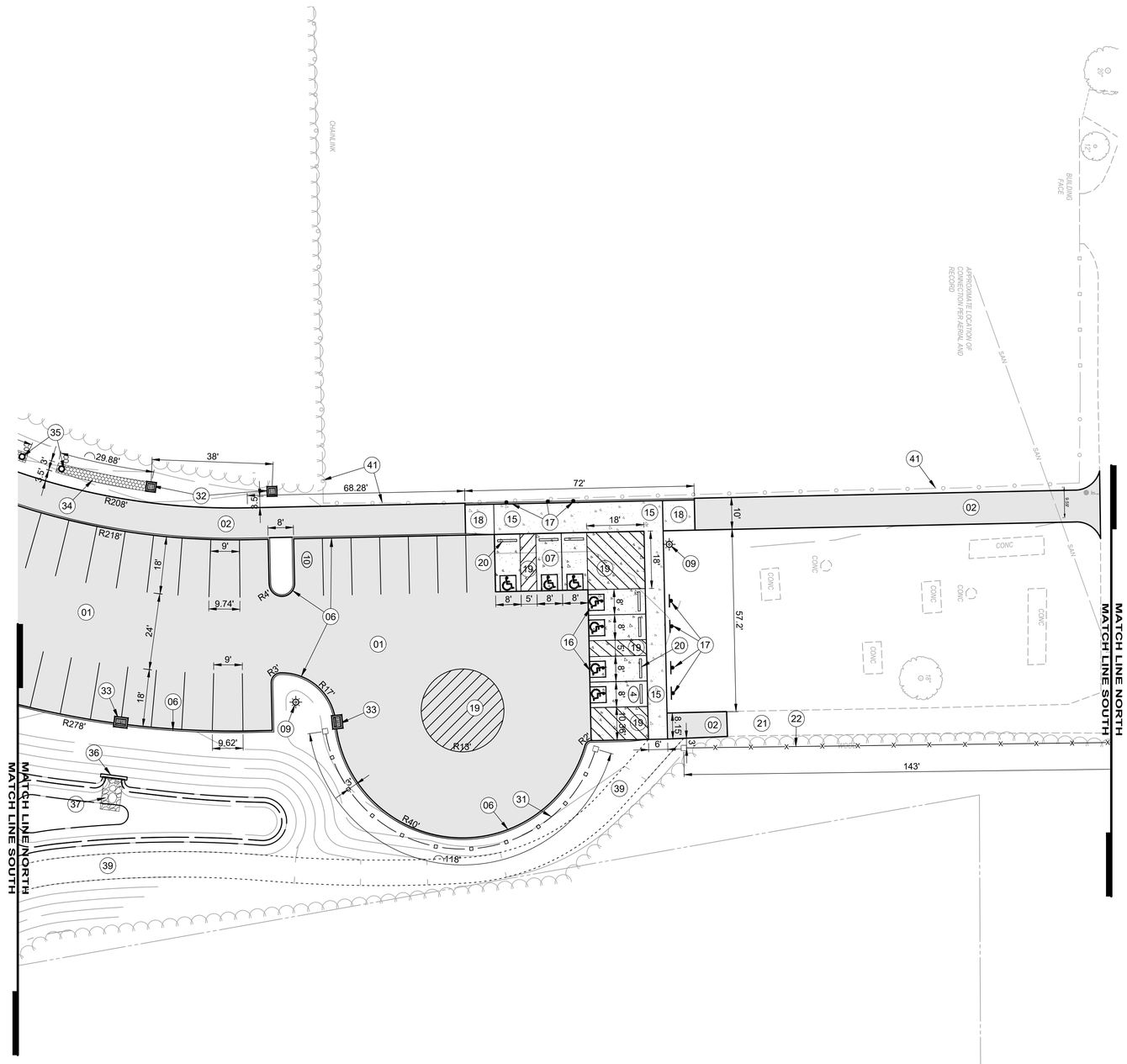
BAR SCALE
20' 10' 0' 20'
SCALE: 1"= 20'

OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

PROJECT NO.	
32272	
DISCIPLINE	
CIVIL	
SHEET NAME	
C-5	
SHEET	OF
8	31

CODED NOTES & LEGEND

01 STANDARD DUTY ASPHALT PAVEMENT
02 ASPHALT PATH
03 COLOR COATED ASPHALT COURT
04 STORMWATER BASIN
05 CONCRETE APRON
06 CONCRETE CURB
07 CONCRETE PAVEMENT
08 ADA DETECTABLE WARNING SURFACE (TYP.)
09 LIGHT POLE, REFER TO LIGHTING PLANS
10 BASKETBALL GOAL POST
11 STOP SIGN (TYP.)
12 BIKE PATH STOP SIGN
13 STOP BAR
14 CROSSWALK PAVEMENT MARKING
15 CONCRETE PAVMENT FLUSH WITH PARKING
16 ACCESSIBLE PARKING SYMBOL
17 HANDICAP PARKING SIGN (TYP.)
18 CONCRETE WALK RAMP
19 ISLAND PAVEMENT MARKING (TYP.)
20 CONCRETE BUMPER BLOCK
21 EXISTING WALK
22 2 RAIL SPLIT RAIL FENCE
23 COURT LIGHTS, REFER TO LIGHTING PLANS
24 10' CHAINLINK FENCE
25 PICKLEBALL NET & POST
26 4' CHAINLINK FENCE
27 3' WIDE GATE
28 3' FENCE OPENING
29 COURT LINE STRIPING
30 DETENTION BASIN 8' WIDE ACCESS ROUTE
31 GUARDRAIL
32 CATCH BASIN/MANHOLE, REFER TO UTILITY PLANS
33 CURB INLET
34 FRENCH DRAIN
35 FRENCH DRAIN CLEAN-OUT
36 HEADWALL
37 RIPRAP
38 STORMWATER OUTLET CONTROL STRUCTURE
39 DETENTION BASIN 8' WIDE ACCESS ROUTE
40 DECORATIVE ROCK INFILL BETWEEN COURTS
41 EXISTING FENCE TO REMAIN



STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

ENLARGED LAYOUT PLAN NORTH

BAR SCALE
20' 10' 0' 20'
SCALE: 1"= 20'

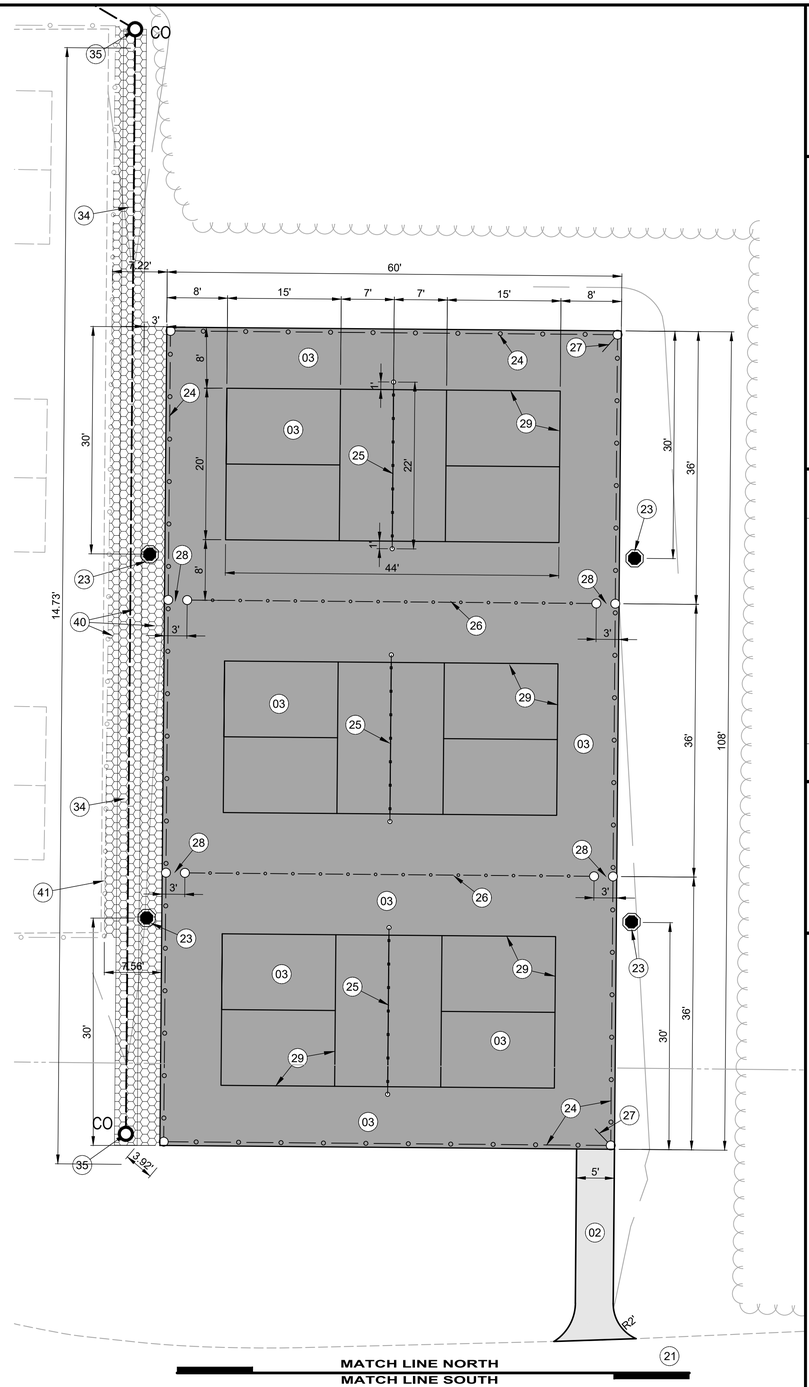
OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

PROJECT NO.	32272
DISCIPLINE	CIVIL
SHEET NAME	C-6
SHEET	9
OF	31

CODED NOTES & LEGEND

01 STANDARD DUTY ASPHALT PAVEMENT
02 ASPHALT PATH
03 COLOR COATED ASPHALT COURT
04 STORMWATER BASIN
05 CONCRETE APRON
06 CONCRETE CURB
07 CONCRETE PAVEMENT
08 ADA DETECTABLE WARNING SURFACE (TYP.)
09 LIGHT POLE, REFER TO LIGHTING PLANS
10 BASKETBALL GOAL POST
11 STOP SIGN (TYP.)
12 BIKE PATH STOP SIGN
13 STOP BAR
14 CROSSWALK PAVEMENT MARKING
15 CONCRETE PAVMENT FLUSH WITH PARKING
16 ACCESSIBLE PARKING SYMBOL
17 HANDICAP PARKING SIGN (TYP.)
18 CONCRETE WALK RAMP
19 ISLAND PAVEMENT MARKING (TYP.)
20 CONCRETE BUMPER BLOCK
21 EXISTING WALK
22 2 RAIL SPLIT RAIL FENCE
23 COURT LIGHTS, REFER TO LIGHTING PLANS
24 10' CHAINLINK FENCE
25 PICKLEBALL NET & POST
26 4' CHAINLINK FENCE
27 3' WIDE GATE
28 3' FENCE OPENING
29 COURT LINE STRIPING
30 DETENTION BASIN 8' WIDE ACCESS ROUTE
31 GUARDRAIL
32 CATCH BASIN/MANHOLE, REFER TO UTILITY PLANS
33 CURB INLET
34 FRENCH DRAIN
35 FRENCH DRAIN CLEAN-OUT
36 HEADWALL
37 RIPRAP
38 STORMWATER OUTLET CONTROL STRUCTURE
39 DETENTION BASIN 8' WIDE ACCESS ROUTE
40 DECORATIVE ROCK INFILL BETWEEN COURTS
41 EXISTING FENCE TO REMAIN

NORTH PICKLE BALL COURT



MATCH LINE NORTH
MATCH LINE SOUTH

SOUTH PICKLE BALL COURT

BAR SCALE
10' 5' 0' 10'
SCALE: 1"= 10'

OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

COURT LAYOUT PLAN

PROJECT NO.	
32272	
DISCIPLINE	
CIVIL	
SHEET NAME	
C-7	
SHEET	OF
10	31

EARTHWORK VOLUMES

EARTHWORK VOLUMES ARE APPROXIMATE AND WERE CALCULATED WITH AN ASSUMED FILL COMPACTION FACTOR OF 1.07 (7%). ACTUAL COMPACTION WILL DIFFER DEPENDING ON SOIL TYPES, WEATHER AND OTHER CONDITIONS AT THE TIME OF CONSTRUCTION. THE FOLLOWING QUANTITIES ARE ESTIMATED BY THE DESIGN ENGINEER FOR THE PURPOSE OF BIDDING AND ARE FOR INFORMATIONAL PURPOSES ONLY; THE BIDDER IS RESPONSIBLE FOR VERIFYING THE QUANTITIES PRIOR TO SUBMITTING A BID. IF SIGNIFICANT DISCREPANCIES ARE DISCOVERED, THE DESIGN ENGINEER SHALL BE NOTIFIED AT LEAST 5 DAYS PRIOR TO THE BID DUE DATE SO THE APPROPRIATE ADJUSTMENT MAY BE MADE.

DESCRIPTION (STRUCTURAL)	CUT	FILL
EXCAVATION & EMBANKMENT	6,250 CY	1,850 CY
STORM SEWER TRENCH	750 CY	
	7,000 CY	1,850 CY
SUB-TOTAL	5,150 CY	

DESCRIPTION (NON-STRUCTURAL)	CUT	FILL
TOPSOIL STRIP (8"±)	3,200 CY	
TOPSOIL STRIP (6"±)	200 CY	
TOPSOIL REQUIRED (4")		700 CY
	3,400 CY	700 CY
SUB-TOTAL	2,700 CY	

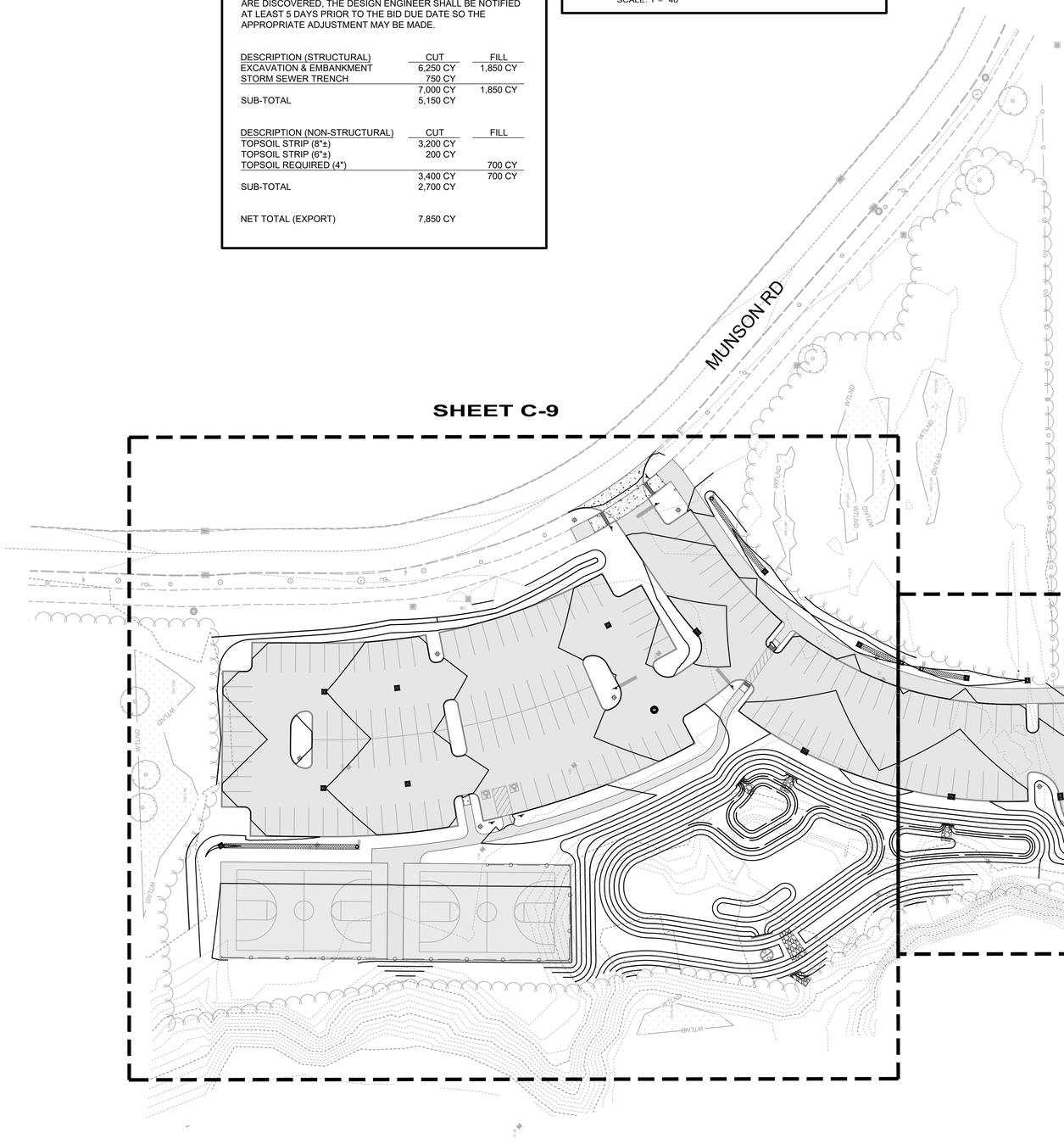
NET TOTAL (EXPORT) 7,850 CY

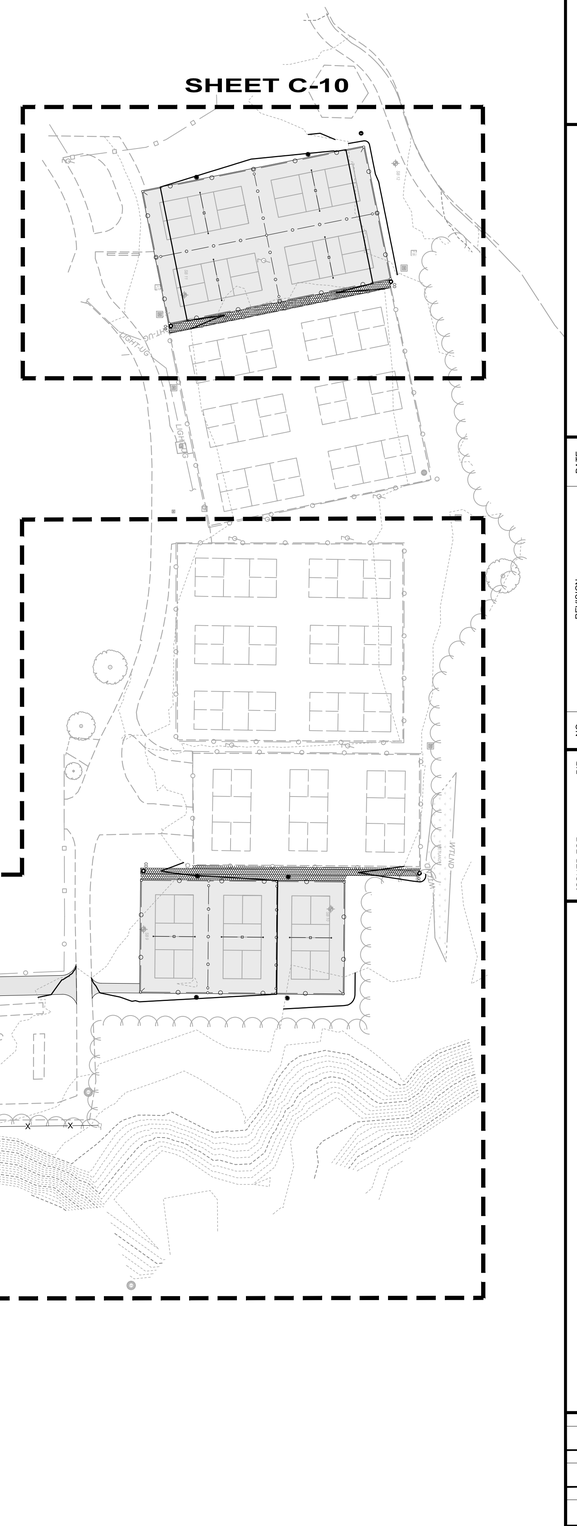
BAR SCALE

40' 20' 0' 40'

SCALE: 1"= 40'

OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)





STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

OVERALL GRADING PLAN

PROJECT NO.	
32272	
DISCIPLINE	
CIVIL	
SHEET NAME	
C-8	
SHEET	OF
11	31

BAR SCALE

20' 10' 0' 20'

SCALE: 1"= 20'

OHIO Utilities Protection SERVICE
Call Before You Dig

1-800-362-2764

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

SHEET NOTES

1. GRAPHICAL SCREENING AND SHADING IS USED TO DE-EMPHASIZE EXISTING ITEMS AND SOME NEW IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK.
2. PROPOSED DEMOLITION PLAN ITEMS ARE NOT SHOWN FOR CLARITY PURPOSES.
3. SEE GENERAL NOTES SHEET FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
4. CONTOURS SHOWN IN PAVED AREAS ARE TO THE TOP OF THE PROPOSED PAVEMENT.
5. IT IS THE INTENT OF THE SLOPES AND SPOT GRADES SHOWN ON THE PLANS TO PROVIDE POSITIVE DRAINAGE TO STORM WATER COLLECTION POINTS. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES IMMEDIATELY TO THE DESIGN ENGINEER FOR RESOLUTION.

SHEET CODED NOTES

850.00	PROPOSED ELEVATION
850.00(ME)	MATCH EXISTING ELEVATION
850.50BC 850.00EP	BACK OF CURB ELEVATION EDGE OF PAVEMENT ELEVATION
850.50BC 850.00SW	BACK OF CURB ELEVATION SIDEWALK ELEVATION
1.0%	PROPOSED SLOPE
650	CONTOUR - MAJOR
649	CONTOUR - MINOR
650	CONTOUR - MAJOR
649	CONTOUR - MINOR
	GRADING LIMIT
HP RIDGE	HIGH POINT RIDGE IN PAVEMENT

STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

ENLARGED GRADING PLAN SOUTH

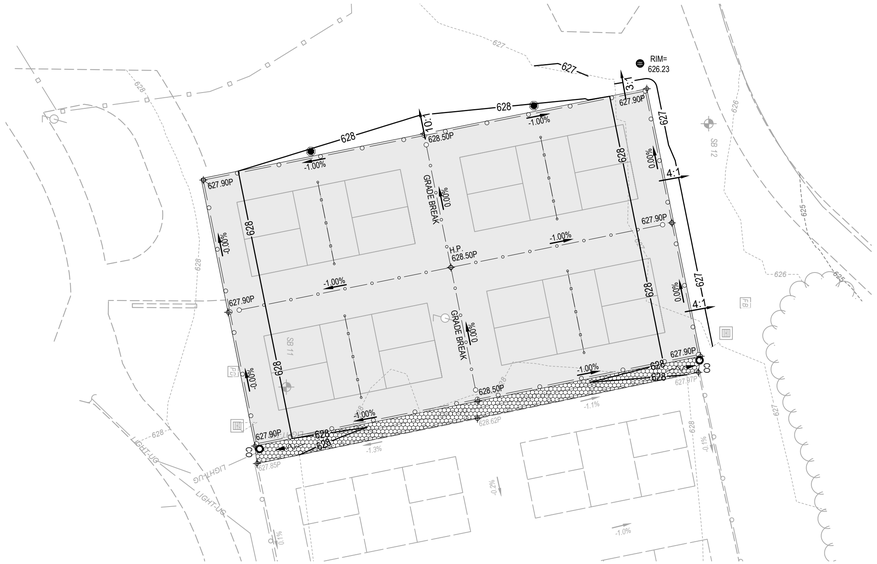
PROJECT NO.
32272

DISCIPLINE
CIVIL

SHEET NAME
C-9

SHEET 12 OF 31

Z:\PROJECT FILES\MA-NZ\MENTOR\32272 - CIVIC CENTER PARK IMPROVEMENTS\CAD\DWG\SHEETS\C-32272 - SITE GRADING PLAN.DWG - C-9 - 4/22/2025 5:44:51 PM - LENE HILL



NORTHWEST COURTS

BAR SCALE

20' 10' 0' 20'

SCALE: 1"= 20'

OHIO Utilities Protection SERVICE
Call Before You Dig

1-800-362-2764

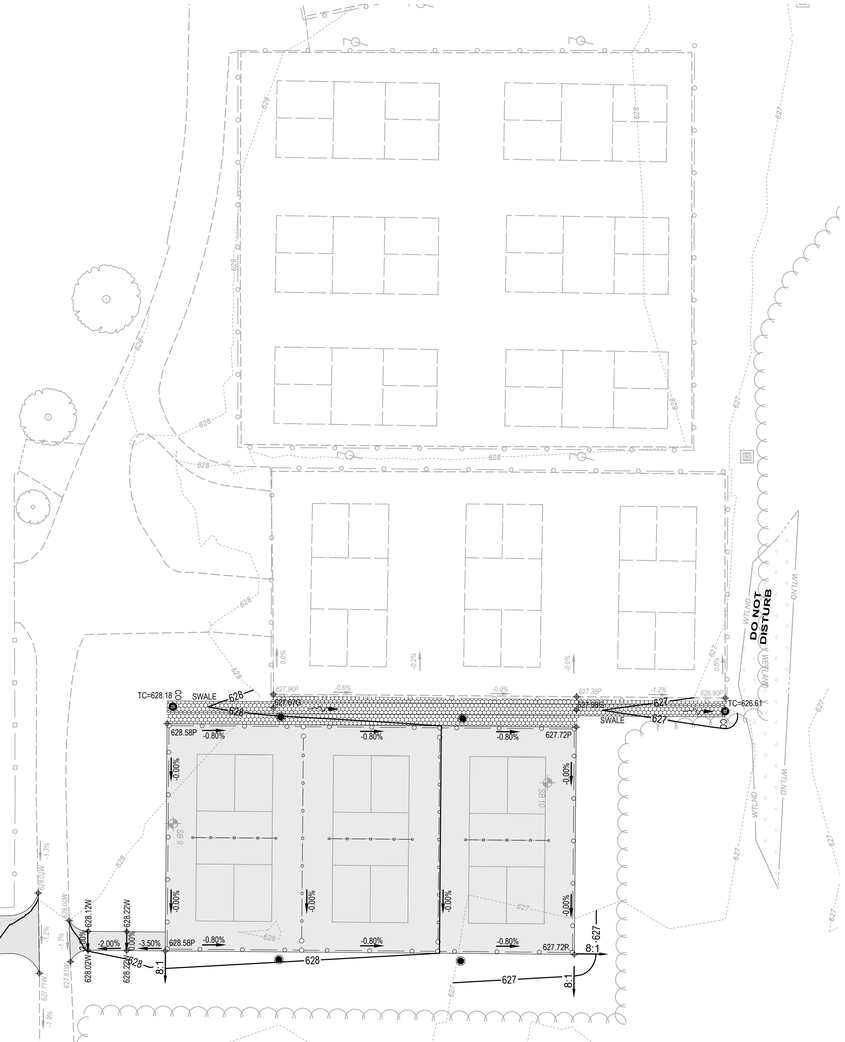
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

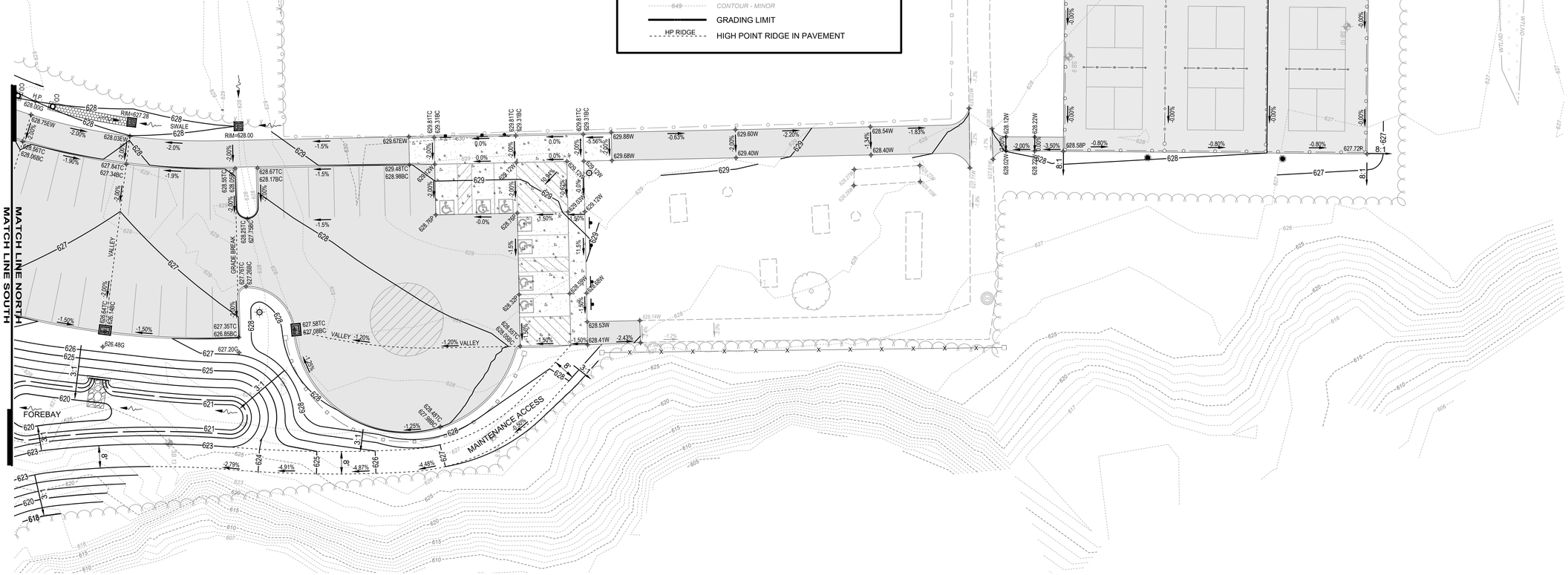
SHEET NOTES

1. GRAPHICAL SCREENING AND SHADING IS USED TO DE-EMPHASIZE EXISTING ITEMS AND SOME NEW IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK.
2. PROPOSED DEMOLITION PLAN ITEMS ARE NOT SHOWN FOR CLARITY PURPOSES.
3. SEE GENERAL NOTES SHEET FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
4. CONTOURS SHOWN IN PAVED AREAS ARE TO THE TOP OF THE PROPOSED PAVEMENT.
5. IT IS THE INTENT OF THE SLOPES AND SPOT GRADES SHOWN ON THE PLANS TO PROVIDE POSITIVE DRAINAGE TO STORM WATER COLLECTION POINTS. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES IMMEDIATELY TO THE DESIGN ENGINEER FOR RESOLUTION.

SHEET CODED NOTES

850.00	PROPOSED ELEVATION
850.00(ME)	MATCH EXISTING ELEVATION
850.50BC 850.00EP	BACK OF CURB ELEVATION EDGE OF PAVEMENT ELEVATION
850.50BC 850.00SW	BACK OF CURB ELEVATION SIDEWALK ELEVATION
1.0%	PROPOSED SLOPE
650	CONTOUR - MAJOR
649	CONTOUR - MINOR
650	*CONTOUR - MAJOR*
649	*CONTOUR - MINOR*
	GRADING LIMIT
HP RIDGE	HIGH POINT RIDGE IN PAVEMENT





STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

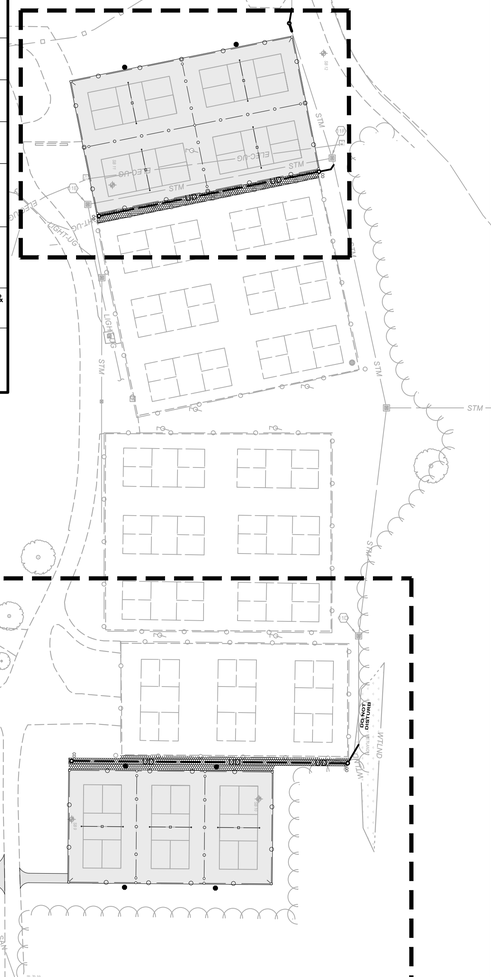
NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

ENLARGED GRADING PLAN NORTH

PROJECT NO.	
32272	
DISCIPLINE	
CIVIL	
SHEET NAME	
C-10	
SHEET	OF
13	31



STORM CODED NOTES

1	STORM HEADWALL INV = 618.00 (24" E)
2A	STORM HEADWALL W/ ROCK CHANNEL PROTECTION 10 LF ODOT ITEM 601.08 18" TYPE "C" (6' WIDE) INV = 620.44 (15" SW)
2B	STORM HEADWALL W/ ROCK CHANNEL PROTECTION 10 LF ODOT ITEM 601.08 18" TYPE "C" (6' WIDE) INV = 620.99 (12" NW)
2C	STORM HEADWALL W/ ROCK CHANNEL PROTECTION (SKEW) 10 LF ODOT ITEM 601.08 18" TYPE "C" (6' WIDE) INV = 617.66 (12" SW)
2D	STORM HEADWALL W/ ROCK CHANNEL PROTECTION 10 LF ODOT ITEM 601.08 18" TYPE "C" (6' WIDE) INV = 621.40 (12" W)
3A	STORM CATCH BASIN (2' X 2') RIM = 628.02 INV = 624.02 (12" N)
3B	STORM CATCH BASIN (2' X 2') RIM = 627.23 INV = 624.73 (4" SW, NW, & NE) INV = 623.17 (12" S & E)
3C	STORM CATCH BASIN (2' X 2') RIM = 627.38 INV = 624.88 (4" NW, SW, & NE) INV = 623.38 (12" NE)
3D	STORM CATCH BASIN (2' X 2') RIM = 627.28 INV = 624.78 (6" SW) INV = 622.28 (12" NE)
3E	STORM CATCH BASIN (2' X 2') RIM = 627.87 INV = 625.37 (6" N) INV = 623.87 (12" NW)
3F	STORM CATCH BASIN (2' X 2') RIM = 628.02 INV = 623.13 (12" SE & N)
3G	STORM CATCH BASIN (2' X 2') RIM = 627.28 INV = 624.78 (6" N) INV = 621.72 (12" SW & SE)
3H	STORM CATCH BASIN (2' X 2') RIM = 627.28 INV = 624.78 (6" S) INV = 622.28 (12" E & N)
3I	STORM CATCH BASIN (2' X 2') RIM = 628.00 INV = 623.00 (12" S)
4A	STORM CATCH BASIN (3' X 3') RIM = 627.23 INV = 624.73 (4" SW, SE, & NE) INV = 622.70 (12" W) INV = 622.60 (12" S & N)
4B	STORM MANHOLE (4') W/ OPEN GRATE RIM = 627.38 INV = 624.88 (4" SW & SE) INV = 622.54 (12" SW) INV = 621.95 (12" NW) INV = 621.16 (12" S) INV = 620.96 (15" NE)
5A	STORM CURB INLET (2' X 3') TC = 627.00 GUT = 626.50 INV = 624.50 (4" SW) INV = 622.50 (12" SE)
5B	STORM CURB INLET (2' X 3') TC = 626.64 GUT = 626.14 INV = 624.14 (4" W & N) INV = 621.14 (12" NW & SE)
5C	STORM CURB INLET (2' X 3') TC = 626.64 GUT = 626.14 INV = 624.14 (4" SE & NE) INV = 621.53 (12" W, N, & E)
5D	STORM CURB INLET (2' X 3') TC = 627.70 GUT = 627.20 INV = 624.70 (4" W & N) INV = 625.20 (4" E) INV = 623.20 (12" S)
6A	STORM CLEANOUT (4"Ø) RIM = 628.46 INV = 625.96 (6" NE)
6B	STORM CLEANOUT (4"Ø) RIM = 628.76 INV = 626.26 (6" S)
6C	STORM CLEANOUT (4"Ø) RIM = 627.87 INV = 625.37 (6" S)
6D	STORM CLEANOUT (4"Ø) RIM = 627.87 INV = 625.37 (6" N)
6E	STORM CLEANOUT (4"Ø) RIM = 628.18 INV = 625.68 (6" N)
6F	STORM CLEANOUT (4"Ø) RIM = 626.61 INV = 624.11 (6" S & NW)
6G	STORM CLEANOUT (4"Ø) RIM = 627.81 INV = 625.31 (6" N)
6H	STORM CLEANOUT (4"Ø) RIM = 627.79 INV = 624.13 (6" S & N)
6I	EXTEND EX. STORM PIPE: 5' - 4" PVC STORM @ 1.00%
6J	RECONNECT EX. UNDERDRAIN PIPE AS REQUIRED: 10' - 4" PVC STORM @ 1.00%
7	20' - 4" PERFORATED PVC SDR 35 FINGER DRAIN (MULTIPLE LOCATIONS PER PLAN)
8A	103' - 4" PERFORATED PVC SDR 35 UNDER DRAIN
8B	94' - 4" PERFORATED PVC SDR 35 UNDER DRAIN
8C	94' - 4" PERFORATED PVC SDR 35 UNDER DRAIN
8D	116' - 4" PERFORATED PVC SDR 35 UNDER DRAIN
9A	56' - 6" PERFORATED PVC SDR 35 FRENCH DRAIN @ 2.11%
9B	29' - 6" PERFORATED PVC SDR 35 FRENCH DRAIN @ 2.03%
9C	85' - 6" PERFORATED PVC SDR 35 FRENCH DRAIN @ 1.10%
9D	29' - 6" PERFORATED PVC SDR 35 FRENCH DRAIN @ 2.03%
9E	147' - 6" PERFORATED PVC SDR 35 FRENCH DRAIN @ 1.07%
9F	118' - 6" PERFORATED PVC SDR 35 FRENCH DRAIN @ 1.00%
10A	45' - 12" HDPE STORM @ 1.90%
10B	60' - 12" HDPE STORM @ 0.77%
10C	74' - 12" HDPE STORM @ 1.00%
10D	53' - 12" HDPE STORM @ 1.00%
10E	190' - 12" HDPE STORM @ 0.90%
10F	60' - 12" HDPE STORM @ 1.40%
10G	55' - 12" HDPE STORM @ 1.00%
10H	75' - 12" HDPE STORM @ 0.75%
10I	70' - 15" HDPE STORM @ 0.75%
10J	75' - 12" HDPE STORM @ 0.77%
10K	18' - 12" HDPE STORM @ 1.00%
10L	13' - 24" HDPE STORM @ 1.00%
10M	21' - 12" HDPE STORM @ 1.00%
10N	38' - 12" HDPE STORM @ 1.89%
10O	11' - 6" PVC SDR 35 STORM @ 1.00%
10P	75' - 12" HDPE STORM @ 1.00%
10Q	68' - 12" HDPE STORM @ 2.67%
10R	18' - 12" HDPE STORM @ 0.75%
11A	*Storm Catch Basin* *Rim = 628.17* ADJUST RIM = 628.69 *Inv = 626.0 (8" NW & SE)*
11B	*Storm Catch Basin* *Rim = 628.8* *Inv = 627.6 (4" N)*
11C	*Storm Catch Basin* *Rim = 628.76* *Inv = 627.6 (4" S)* *Inv = 626.6 (8" N)*
11D	*Storm Catch Basin* *Rim = 628.78* *Inv = 623.3 (6" E)* *Inv = 623.2 (8" W)*
11E	*Storm Catch Basin* *Rim = 627.08* *Inv = 624.1 (4" E)* *Inv = 623.8 (6" N)*
11F	*Storm Catch Basin* *Rim = 626.77* *Inv = 623.3 (8" W)* *Inv = 623.1 (8" S & E)*
11G	*Storm Catch Basin* *Rim = 626.06* *Inv = 623.5 (4" E & W)*
12A	*Storm Curb Inlet* *Rim = 628.84* *Inv = 624.6 (12" E)*
12B	*Storm Curb Inlet* *Rim = 628.58* *Inv = 623.8 (12" E & W)*
13	*Storm Catch Basin Manhole* *Rim = 629.42* *Inv = 623.2 (12" W)* *Inv = 621.4 (8" S)* *Inv = 609.9 (30" E&W)*
14	STORM MANHOLE (7' Ø) STORMWATER MANAGEMENT OUTLET CONTROL STRUCTURE (SEE SPECIAL DETAIL)
15	CORE DRILL EX. STORM SEWER & CONNECT
16	STORM YARD INLET (18" Ø) RIM = 626.06 INV = 623.55± (4"± E & W)

STATE OF OHIO
LENE
C.
HILL
E-66017
REGISTERED
PROFESSIONAL ENGINEER

verdantas

DATE	REVISION	NO

ISSUED FOR: BID
ISSUE DATE: 4/22/25
SCALE: AS SHOWN
DESIGNED BY: RW, CZ
DRAWN BY: CZ, GA, LE
CHECKED BY: LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

UTILITY PLAN OVERVIEW

PROJECT NO.
32272
DISCIPLINE
CIVIL
SHEET NAME
C-11
SHEET 14 OF 31

BAR SCALE
20' 10' 0' 20'
SCALE: 1"= 20'

OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

SHEET NOTES

1. GRAPHICAL SCREENING AND SHADING IS USED TO DE-EMPHASIZE EXISTING ITEMS AND SOME NEW IMPROVEMENTS TO HIGHLIGHTED SELECTED TRADE WORK.
2. PROPOSED DEMOLITION PLAN ITEMS ARE NOT SHOWN FOR CLARITY PURPOSES.
3. EXISTING AND PROPOSED TOPOGRAPHY ARE SHOWN FOR REFERENCE PURPOSES ONLY TO AID IN UNDERSTANDING DEPTH AND COVER OF EXISTING AND PROPOSED UTILITIES. DO NOT USE THIS SHEET FOR GRADING PURPOSES; SEE GRADING PLAN SHEETS FOR ACTUAL PROPOSED GRADING INFORMATION.
4. SEE GENERAL NOTES SHEET FOR ADDITIONAL INFORMATION, SPECIFICATIONS AND OTHER REQUIREMENTS.
5. SEE GENERAL ABBREVIATIONS, LINETYPES & SYMBOLS SHEET FOR COMMONLY USED ABBREVIATIONS, LINETYPES AND SYMBOLS.

SHEET CODED NOTES

1. SEE SITE UTILITY PLAN OVERVIEW SHEET C-11 FOR ALL CODED NOTES

STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

NO.	REVISION	DATE

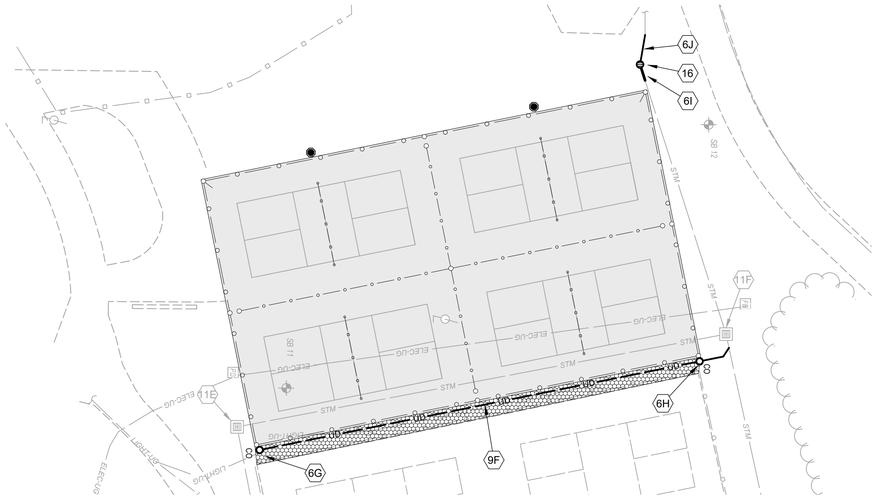
ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

UTILITY PLAN SOUTH

PROJECT NO.
32272
DISCIPLINE
CIVIL
SHEET NAME
C-12
SHEET 15 OF 31

Z:\PROJECT FILES\MA-NZMENTOR\32272 - CIVIC CENTER PARK IMPROVEMENTS\CAD\DWG\SHEETS\C-32272 - SITE UTILITY PLAN.DWG - C-12 - 4/22/2025 5:07:35 PM - LENE HILL



NORTHWEST COURTS

BAR SCALE
20' 10' 0' 20'
SCALE: 1"= 20'

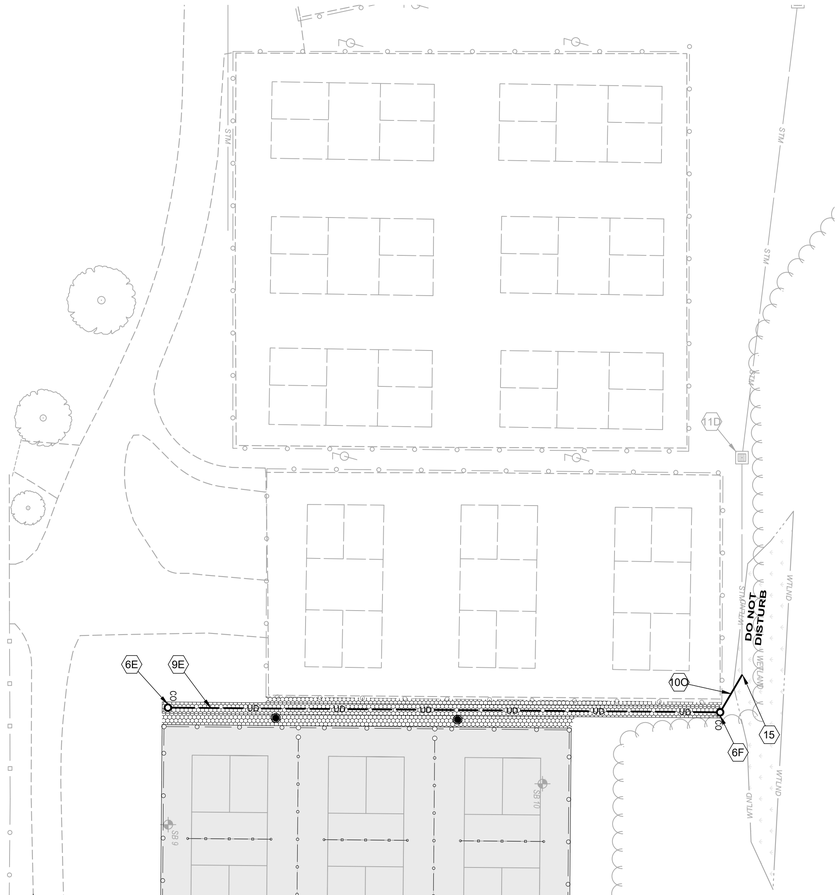
OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

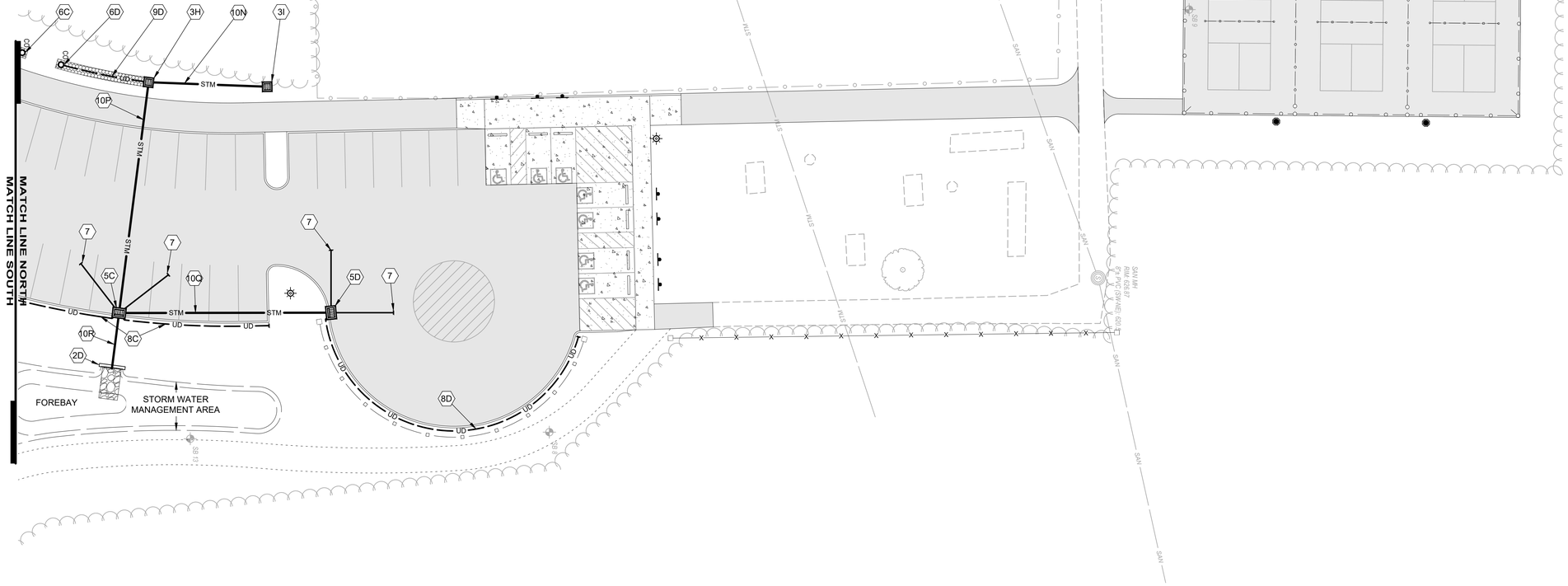
SHEET NOTES

1. GRAPHICAL SCREENING AND SHADING IS USED TO DE-EMPHASIZE EXISTING ITEMS AND SOME NEW IMPROVEMENTS TO HIGHLIGHTED SELECTED TRADE WORK.
2. PROPOSED DEMOLITION PLAN ITEMS ARE NOT SHOWN FOR CLARITY PURPOSES.
3. EXISTING AND PROPOSED TOPOGRAPHY ARE SHOWN FOR REFERENCE PURPOSES ONLY TO AID IN UNDERSTANDING DEPTH AND COVER OF EXISTING AND PROPOSED UTILITIES. DO NOT USE THIS SHEET FOR GRADING PURPOSES; SEE GRADING PLAN SHEETS FOR ACTUAL PROPOSED GRADING INFORMATION.
4. SEE GENERAL NOTES SHEET FOR ADDITIONAL INFORMATION, SPECIFICATIONS AND OTHER REQUIREMENTS.
5. SEE GENERAL ABBREVIATIONS, LINETYPES & SYMBOLS SHEET FOR COMMONLY USED ABBREVIATIONS, LINETYPES AND SYMBOLS.

SHEET CODED NOTES

1. SEE SITE UTILITY PLAN OVERVIEW SHEET C-11 FOR ALL CODED NOTES





STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

NO	REVISION	DATE

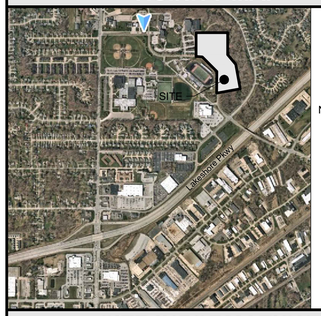
ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

UTLITY PLAN NORTH & COURTS

PROJECT NO.	
32272	
DISCIPLINE	
CIVIL	
SHEET NAME	
C-13	
SHEET	OF
16	31

VICINITY MAP



NOT TO SCALE

SITE INFORMATION

PROJECT INFORMATION:
CIVIC CENTER REC AREA IMPROVEMENTS
CITY OF MENTOR, LAKE COUNTY, OHIO 44060
LATITUDE: 41.696594 LONGITUDE: -81.329883

OWNER INFORMATION:
CITY OF MENTOR
8500 MUNSON RD, MENTOR, OH 44060
CONTACT: KENNETH J. FILIPIAK
PHONE: 440-974-5790

CIVIL ENGINEER INFORMATION:
VERDANTAS
8150 STERLING COURT
MENTOR, OHIO 44060
CONTACT: GENE ARTERS, PE
PHONE: 440-951-9000

TYPE OF CONSTRUCTION:
(X) NEW ( ) MAINTENANCE () REDEVELOPMENT

TYPE OF PROJECT:
( ) RETAIL ( ) COMMUNITY ( ) MIXED USE
( ) OFFICE (X) RECREATION ( ) RESIDENTIAL
( ) MEDICAL ( ) PUBLIC SAFETY ( ) RESTAURANT
( ) UTILITY ( ) EDUCATION ( ) APARTMENT
( ) ROAD ( ) INDUSTRIAL ( ) MANUFACTURING

DESCRIPTION OF PROJECT:
DEVELOP A NEW PARKING LOT, PAVED PATHS, TWO NEW BASKETBALL COURTS, TWO NEW PICKLE BALL COURTS, AND A DETENTION POND.
SOIL DISTURBING ACTIVITIES INCLUDE:
EROSION AND SEDIMENT CONTROL, VEGETATION REMOVAL, TOPSOIL MANAGEMENT, EARTH GRADING, STORM DRAINAGE UTILITIES INSTALLATION, AND THE PREPARATION OF SOIL SUBBASE FOR NEW PAVEMENTS.
DESCRIPTION OF PRIOR LAND USE:
WOODED LAND, A SKATEBOARD PARK AND A BASKETBALL COURT.

SITE AREA INFORMATION:

TOTAL PROPERTY AREA:	4.24	AC.
PROJECT LIMIT/CONSTRUCTION AREA:	4.24	AC.
AREA OF SOIL DISTURBANCE:	4.24	AC.
EXISTING IMPERVIOUS AREA:	0.53	AC.
PROPOSED IMPERVIOUS AREA:	3.14	AC.
PROPOSED DEVELOPED AREA OF SITE:	4.24	%
INCREASE/DECREASE OF IMPERVIOUS AREA:	492	%

NAME OF RECEIVING STREAM, SURFACE WATER OR MS4:
MARSH CREEK TO LAKE ERIE

QUALITY OF STORM WATER DISCHARGE FROM SITE:
UNKNOWN

ESTIMATED CONSTRUCTION START DATE: 06/01/2025
ESTIMATED CONSTRUCTION COMPLETION DATE: 12/31/2025

EROSION CONTROL TIMETABLE

	2025											
STABILIZATION	J	F	M	A	M	J	J	A	S	O	N	D
TEMP. SEEDING				○	○	⊗	⊗	⊗	⊗	○	○	
PERM. SEEDING					○	⊗	⊗	⊗	⊗	○	○	
SODDING			⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	
MULCHING	○	○	○	○	○	○	○	○	○	○	○	○
PAVING						○	○	○	○	○	○	

⊗ IRRIGATION NEEDED

SOIL TYPES

NAME	DESCRIPTION	%
Or	Urban land - Orrville silt loam	0%
CtA	Urban land - Conneaut silt loam, 0 to 1 percent slopes	100%

GENERAL NOTES

1) THIS SWP3 HAS BEEN PREPARED SHOWING THE ITEMS LISTED BELOW, BUT THE CONTRACTOR MAY NEED TO MOVE OR ADD ITEMS AS CONSTRUCTION PROGRESSES OR DURING THE VARIOUS STAGES OF CONSTRUCTION. SOME ITEMS MAY ALREADY BE SHOWN ON THE SWP3, BUT MOVED TO BETTER SUIT THE CONTRACTOR'S MEANS AND METHODS.
   - LIMITS OF EARTH DISTURBING ACTIVITY
   - CONSTRUCTION ENTRANCE(S)
   - EROSION AND SEDIMENT CONTROL MEASURES
   - INLET PROTECTIONS
   - CONCRETE WASHOUT PIT(S)
   - EQUIPMENT STAGING
   - FUEL STORAGE AND VEHICLE FUELING AREA
   - CONSTRUCTION TRAILER(S)
   - SANITATION FACILITY
   - MATERIAL STOCKPILE LOCATION(S)
   - CHEMICAL COMPOUND MIXING AND STORAGE AREA
   - ANY OTHER EROSION CONTROL REQUIRED
2) ALL WORK REQUIRED TO IMPLEMENT THE SWP3 INCLUDING INSPECTION FEES, MAINTENANCE AND REPAIRS SHALL BE DONE BY AND AT THE EXPENSE OF THE CONTRACTOR.
3) THE CONTRACTOR SHALL AMEND THE SWP3 WHEN THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION OR MAINTENANCE THAT REQUIRES INSTALLATION OF BMPS OR MODIFICATION TO EXISTING BMPS.
4) ADDITIONAL OR DIFFERENT BMPS MAY BE NEEDED AS CONSTRUCTION PROGRESSES OR AS REQUIRED BY THE OWNER, SWCD OR OHIO EPA.
5) PHASE CONSTRUCTION ACTIVITIES TO MINIMIZE LAND DISTURBED AT ANY ONE TIME AND LEAVE EXISTING VEGETATION IN PLACE AS LONG AS POSSIBLE.

ADMINISTRATIVE NOTES

1) AN OHIO EPA NPDES PERMIT IS REQUIRED WHERE CONSTRUCTION ACTIVITIES DISTURB 1 OR MORE ACRES OF LAND, OR SMALLER SITES LESS THAN 1 ACRE THAT ARE PART OF A LARGER COMMON DEVELOPMENT. DISTURBED LAND IS LAND IN WHICH VEGETATION HAS BEEN CLEARED AND SOILS ARE EXPOSED TO STORM WATER. A NOI IS REQUIRED FOR THIS PROJECT AND MUST BE FILED WITH THE OHIO EPA AT LEAST 21 DAYS PRIOR TO THE START OF CONSTRUCTION BECAUSE THE TOTAL LAND DISTURBANCE IS GREATER THAN 1 ACRE.
2) THE CONTRACTOR SHALL FOLLOW THE PRACTICES AND REQUIREMENTS PROVIDED IN THE OHIO EPA NPDES CONSTRUCTION SITE STORM WATER GENERAL PERMIT OHC000006 AND THE ODNR RAINWATER AND LAND DEVELOPMENT MANUAL, AND BE RESPONSIBLE FOR ALL NPDES TERMS AND CONDITIONS UNTIL A NOT IS FILED.
3) NO CONSTRUCTION ACTIVITIES MAY BEGIN UNTIL ALL OF THE FOLLOWING OCCUR:
   - OHIO EPA NPDES AUTHORIZATION LETTER RECEIVED
   - THE CONTRACTOR FILES A CO-PERMITTEE APPLICATION TO THE OHIO EPA
   - THE CONTRACTOR ATTENDS A PRE-CONSTRUCTION MEETING WITH THE SWCD TO DISCUSS OHIO EPA NPDES PERMIT REQUIREMENTS
4) ELECTRONIC VERSIONS OF OHIO EPA FORMS INCLUDING NOI, NOT, CO-PERMITTEE NOI/NOT, INDIVIDUAL LOT NOI/NOT AND TRANSFER ARE AVAILABLE THROUGH THE OHIO EPA AND CAN BE SUBMITTED ELECTRONICALLY. VISIT THE OHIO EPA ELECTRONIC BUSINESS SERVICES WEBSITE AT WWW.EPA.OHIO.GOV/DSW/STORM/INDEX FOR MORE INFORMATION AND GUIDANCE.
5) THE CONTRACTOR SHALL SELECT INDIVIDUALS TO BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND COMPLETING INSPECTION AND MAINTENANCE REPORTS. THE CONTRACTOR SHALL COMPLETE A "DELEGATION OF AUTHORITY FOR STORM WATER POLLUTION PREVENTION PLAN" AND PROVIDE A COPY TO THE OWNER AND SWCD.
6) THE CONTRACTOR SHALL HAVE SUBCONTRACTORS THAT ARE ENGAGED IN ACTIVITIES THAT COULD IMPACT STORM WATER COMPLETE A "SUBCONTRACTOR AGREEMENT FOR EROSION AND SEDIMENT CONTROL", AND THEN PROVIDE A COPY TO THE OWNER AND SWCD.
7) THE CONTRACTOR SHALL KEEP ON-SITE COPIES OF THE NOI, NPDES, SWP3 AND INSPECTION LOGS/REPORTS.
8) ALL EROSION AND SEDIMENT CONTROL WORK SHALL BE SUBJECT TO INSPECTION BY THE SWCD AND OHIO EPA.
9) THE CONTRACTOR SHALL KEEP ALL RECORDS FOR 3 YEARS AFTER CONSTRUCTION HAS COMPLETED.

EROSION CONTROL NOTES

1) SPECIAL MEASURES SHALL BE TAKEN TO STABILIZE DRAINAGE CHANNELS AND STORM WATER OUTFALLS.
2) DIVERT SURFACE RUNOFF AWAY FROM DISTURBED AREAS AND STEEP SLOPES WHEREVER PRACTICABLE.
3) STABILIZATION OF DISTURBED AREAS SHALL BE INITIATED WITHIN THE TIME FRAMES IN THE FOLLOWING TABLES:

AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY CONTROLS
AREA WITHIN 50 FEET OF A SURFACE WATER, NOT AT FINAL GRADE AND TO REMAIN IDLE MORE THAN 14 DAYS	WITHIN 2 DAYS OF MOST RECENT DISTURBANCE
ANY OTHER AREA TO BE DORMANT MORE THAN 14 DAYS, BUT LESS THAN 1 YEAR	WITHIN 7 DAYS OF MOST RECENT DISTURBANCE
AREA TO REMAIN IDLE OVER WINTER	PRIOR TO ONSET OF WINTER WEATHER
AREA TO BE PAVED	STABILIZE WITH STONE SUBBASE UNTIL PAVED

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY CONTROLS
AREA TO BE DORMANT FOR 1 YEAR OR MORE	WITHIN 7 DAYS OF MOST RECENT DISTURBANCE
AREA WITHIN 50 FEET OF A SURFACE WATER AND AT FINAL GRADE	WITHIN 2 DAYS OF REACHING FINAL GRADE
ANY OTHER AREA AT FINAL GRADE	WITHIN 7 DAYS OF REACHING FINAL GRADE

SEDIMENT CONTROL NOTES

1) INLET PROTECTION AND SEDIMENT BARRIERS MUST BE INSTALLED PRIOR TO CLEARING AND GRUBBING.
2) PERIMETER SEDIMENT BARRIERS SHALL BE INSTALLED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF CLEARING AND GRUBBING.
3) SEDIMENT PONDS, TEMPORARILY MODIFIED PERMANENT PONDS AND PERIMETER SEDIMENT BARRIERS MUST BE INSTALLED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF CLEARING AND GRUBBING, AND CONTINUE TO FUNCTION UNTIL ALL DISTURBED UPLAND AREAS ARE STABILIZED.
4) SEDIMENT CONTROLS MUST POND RUNOFF TO BE CONSIDERED FUNCTIONAL.
5) SEDIMENT-LADEN TRENCH OR GROUND WATER MUST PASS THROUGH A SEDIMENT-SETTLING POND OR BE DEWATERED IN-PLACE USING A SUMP PIT, FILTER BAG OR OTHER COMPARABLE METHOD, PRIOR TO DISCHARGE FROM THE SITE.
6) TRENCH AND GROUND WATER FREE FROM SEDIMENT OR OTHER POLLUTANTS MAY BE DISCHARGED WITHOUT TREATMENT, PROVIDED THIS WATER DOES NOT BECOME POLLUTANT-LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES.
7) SETTLED MATERIAL SHALL BE DISPOSED OF IN A STABILIZED LOCATION WHERE IT WILL NOT BE CARRIED OFF-SITE OR INTO A STORM SEWER BY RAINFALL.

OTHER WASTE CONTROL NOTES

1) SOIL STOCKPILES SHALL BE RINGED WITH SILT FENCE ALONG THE BOTTOM FOOTPRINT. IF THE STOCKPILE WILL BE INACTIVE FOR 14 DAYS OR MORE, THE SURFACE SHALL BE SEEDED OR STABILIZED WITHIN 7 DAYS OF LAST DISTURBANCE.
2) CONCRETE TRUCKS ARE NOT PERMITTED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ONTO THE GROUND OR INTO STORM INLETS, DITCHES, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS. ALL EXCESS CONCRETE AND CONCRETE WASHOUT, INCLUDING FROM HAND MIXERS AND LIGHT EQUIPMENT, MUST BE DISPOSED OF IN A CONCRETE WASHOUT AREA TO COLLECT AND HARDEN.
3) OFF-SITE TRACKING OF SEDIMENT BY CONSTRUCTION VEHICLES MUST BE MINIMIZED. THE CONTRACTOR SHALL SWEEP ALL ADJACENT ROADS TO REMOVE MUD, DIRT OR ROCK TRACKED FROM THE SITE AT THE END OF EACH WORK DAY OR AS REQUIRED DURING THE DAY. DUMP TRUCKS HAULING MATERIAL FROM THE SITE SHALL BE COVERED WITH A TARPAULIN.
4) IT IS PROHIBITED TO BURN, BURY OR POUR ONTO THE GROUND OR INTO STORM INLETS, DITCHES, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS SOLID OR LIQUID WASTE INCLUDING TRASH, CONSTRUCTION DEBRIS, SOLVENTS, PAINT, DIESEL FUEL, GASOLINE, MOTOR OIL, HYDRAULIC FLUID, CEMENT CURING COMPOUND, ANTIFREEZE OR OTHER TOXIC OR HAZARDOUS WASTE. WASTE MATERIALS SHALL BE COLLECTED IN A SECURELY LIDDED DUMPSTER, DISPOSED OF IN AN APPROVED LANDFILL AND EMPTIED AS NECESSARY.
5) FUEL TANKS, DRUMS AND OTHER CONTAINERS HOLDING CHEMICALS MUST BE STORED WITHIN A DIKED AREA WITH A VOLUME OF AT LEAST 110% OF THE LARGEST TANK. A DIKED AREA IS NOT NECESSARY IF A SELF-CONTAINED SPILL PROOF TANK IS USED.
6) THE CONTRACTOR SHALL PROVIDE TEMPORARY SANITARY FACILITIES AT THE SITE. SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS 1 TIME PER WEEK, OR MORE OFTEN IF NECESSARY.
7) ANY TOXIC OR HAZARDOUS MATERIAL SPILL, REGARDLESS OF SIZE, MUST BE REPORTED WITHIN 30 MINUTES TO THE LOCAL FIRE DEPARTMENT AND OHIO EPA.
8) CONTAMINATED SOIL, SOIL WHERE CONSTRUCTION CHEMICALS HAVE BEEN SPILLED OR HAZARDOUS WASTE MATERIALS MUST BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.
9) STORM WATER THAT COMES IN CONTACT WITH CONTAMINATED SOIL OR HAS A VISIBLE SHEEN MUST BE COLLECTED BY A VACUUM TRUCK AND DISPOSED OF AS A WASTE WATER.

TMDLS AND BMPS SELECTED

1) APPLICABLE TMDLS FOR THE SITE:
( ) PHOSPHORUS ( ) AMMONIA ( ) HABITAT
( ) NITROGEN ( ) BACTERIA ( ) FLOW
(X) SEDIMENT/TOTAL SUSPEND SOLIDS
( ) DISSOLVED OXYGEN/ORGANIC ENRICHMENT

2) THE FOLLOWING BMPS ARE SELECTED TO ADDRESS APPLICABLE TMDLS FOR THE PROJECT:

CONSTRUCTION SITE:
(X) DEMARCATE PROTECTED AREA BEFORE CONSTRUCTION
(X) MAINTAIN PORTABLE TOILET AND EMPTY W/OUT SPILL
(X) PROPER STORAGE OF LANDSCAPE FERTILIZER
(X) MS4 MONTHLY INSPECTIONS DURING CONSTRUCTION
(X) RESOLVE NON-COMPLIANCE SWP3 INSPECTION ITEMS
(X) FINAL INSPECTION TO ENSURE BMP IMPLEMENTATION

TEMPORARY EROSION CONTROL:
( ) CHECK DAMS ( ) TEMPORARY DIVERSION
( ) SLOPE DRAIN ( ) STREAM UTILITY CROSSING
( ) DEWATERING ( ) STREAM CROSSING

TEMPORARY SEDIMENT CONTROL:
( ) SEDIMENT BASIN (X) SEDIMENT TRAP
(X) SILT FENCE (X) INLET PROTECTION
(X) FILTER SOCK ( ) FILTER BERM

SOIL STABILIZATION:
(X) DUST CONTROL ( ) PHASED DISTURBANCE
(X) MULCHING (X) CLEARING AND GRUBBING
( ) SODDING (X) TEMPORARY SEEDING
(X) TOPSOILING (X) PERMANENT SEEDING
( ) GRADE TREATMENT (X) CONSTRUCTION ENTRANCE
( ) TEMPORARY ROLLED EROSION CONTROL PRODUCTS
( ) TURF REINFORCEMENT MATTING
(X) TREE AND NATURAL AREA PRESERVATION

PERMANENT EROSION CONTROL:
( ) GRASSED SWALE ( ) ROCK LINED CHANNEL
( ) LEVEL SPREADER ( ) ROCK OUTLET PROTECTION
( ) DIVERSION ( ) SUBSURFACE DRAIN

POLLUTION PREVENTION AND GOOD HOUSEKEEPING:
(X) ROUTINE FACILITY INSPECTIONS
(X) VISUAL ASSESSMENT OF STORM WATER DISCHARGE
(X) ANNUAL COMPREHENSIVE SITE INSPECTION
(X) SWEEP PARKING LOT AND DRIVE LANES
(X) CLEAN CATCH BASINS
(X) STORE WASTE IN LIDDED CONTAINERS
( ) LOCATE SNOW DISPOSAL AREAS AWAY FROM BMPS
(X) ESTABLISH "PICK-UP PET WASTE" STATION

POST-CONSTRUCTION:
( ) WETLAND SETBACK ( ) STREAM SETBACK
(X) WATER QUALITY POND ( ) PERMEABLE PAVEMENT
( ) GRASS FILTER STRIP ( ) INFILTRATION TRENCH
( ) TREE BOX FILTER ( ) SAND FILTER
( ) GREEN ROOF ( ) LTMA
( ) RAIN GARDEN AREA ( ) CISTERN
( ) RAIN GARDEN WITH INTERNAL WATER STORAGE
( ) OPEN CHANNEL SWALES
( ) WET EXTENDED DETENTION BASIN
(X) DRY EXTENDED DETENTION BASIN WITH FOREBAY
( ) RETROFIT SWMF TO TREAT WQV
( ) RETROFIT SWMF TO INCREASE INFILTRATION
( ) RETROFIT SWMF POND TO FUNCTION AS WETLAND
( ) AS-BUILT POST-BMPS
( ) SUBMIT LTMA ANNUAL MAINTENANCE REPORT TO MS4
() REDUCE IMPERVIOUS SURFACES
( ) DECREASE QUANTITY OF PARKING SPACES
( ) LOW IMPACT DEVELOPMENT
( ) CONSERVATION DEVELOPMENT
( ) DISCONNECT DOWNSPOUT AND REDIRECT TO BMP
( ) VEGETATE MAINTENANCE/STORAGE YARD OPEN AREAS
(X) IMPLEMENT LOW-MOW OR NO-MOW PRACTICES
( ) PEST MANAGEMENT PROGRAM

PERMIT CLOSURE REQUIREMENTS

1) FINAL STABILIZATION REQUIRES THE CONTRACTOR TO REMOVE ALL TEMPORARY SEDIMENT AND EROSION CONTROLS FROM THE SITE AND ALL SEDIMENT TRAPPED BY THOSE CONTROLS BE PERMANENTLY STABILIZED.
2) THE CONTRACTOR SHALL COMPLETE A "FINAL CERTIFICATION AND NOTIFICATION FOR EROSION AND SEDIMENT CONTROL" UPON PROJECT COMPLETION AND PROVIDE A COPY TO THE OWNER AND SWCD.
3) ONCE CONSTRUCTION ACTIVITIES HAVE CEASED AND THE SITE REACHES FINAL STABILIZATION, THE CONTRACTOR MUST TERMINATE THE NPDES PERMIT COVERAGE BY FILING A NOT WITH THE OHIO EPA WITHIN 45 DAYS OF FINAL STABILIZATION. FINAL STABILIZATION IS DEFINED AS AN ESTABLISHED VEGETATIVE GROUND COVER OF AT LEAST 70% GROWTH DENSITY, OR OTHER MEANS OF PERMANENT STABILIZATION, OVER ALL AREAS DISTURBED DURING CONSTRUCTION.
4) THE CONTRACTOR MUST MAINTAIN ALL REPORTS FOR 3 YEARS AFTER THE NOT IS FILED, AND PROVIDE DIGITAL COPIES TO THE OWNER AND SWCD.

MAINTENANCE REQUIREMENTS

1) BMPS SHALL BE MAINTAINED IN GOOD WORKING ORDER UNTIL UPSLOPE AREAS THEY CONTROL ARE STABILIZED.
2) THE CONTRACTOR SHALL PROVIDE A QUALIFIED PERSON KNOWLEDGEABLE IN THE PRINCIPLES AND PRACTICES OF EROSION AND SEDIMENT CONTROLS, POSSESS THE TECHNICAL SKILLS TO ASSESS SITE CONDITIONS THAT COULD IMPACT STORM WATER QUALITY, AND CAN ASSESS THE EFFECTIVENESS OF ANY BMP SELECTED.
2) A QUALIFIED PERSON MUST INSPECT BMPS AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL IN A 24-HOUR PERIOD TO DETERMINE IF THE SWP3 WAS PROPERLY IMPLEMENTED.
3) THE QUALIFIED PERSON MUST PREPARE A WRITTEN REPORT AFTER EACH INSPECTION SUMMARIZING INSPECTION RESULTS INCLUDING THE FOLLOWING:
   - DATE OF INSPECTION
   - NAME AND QUALIFICATION OF THE INSPECTOR
   - WEATHER CONDITIONS
   - LOCATIONS WHERE IN-STREAM OR OFF-SITE SEDIMENTATION OR OTHER POLLUTANTS WERE OBSERVED.
   - LOCATIONS OF BMPS NEEDING MAINTENANCE.
   - LOCATIONS OF BMPS FAILING TO OPERATE CORRECTLY OR PROVIDE ADEQUATE PROTECTION.
   - LOCATION OF AREAS IN NEED OF ADDITIONAL BMPS NOT IN PLACE AT THE TIME OF INSPECTION.
   - CORRECTIVE ACTIONS REQUIRED, CHANGES TO THE SWP3 AND IMPLEMENTATION DATES.
   - GRADING AND STABILIZATION ACTIVITY LOG
   - EROSION AND SEDIMENT CONTROL AMENDMENT LOG
4) ALL INCIDENCES OF NON-COMPLIANCE MUST BE IDENTIFIED IN THE REPORT. IF A REPORT DOES NOT IDENTIFY INCIDENCES OF NON-COMPLIANCE, IT MUST CONTAIN A CERTIFICATION THE SITE IS IN COMPLIANCE AT THE TIME OF INSPECTION.
5) BMP MAINTENANCE OR REPAIR MUST BE COMPLETED WITHIN 3 DAYS, AND SEDIMENT POND MAINTENANCE OR REPAIR WITHIN 10 DAYS, OF THE INSPECTION THAT REVEALED A DEFICIENCY.
6) WHEN AN INSPECTION REVEALS A BMP IS NOT EFFECTIVE AND A MORE APPROPRIATE BMP IS REQUIRED, THE SWP3 SHALL BE AMENDED, THE NEW BMP INSTALLED WITHIN 10 DAYS OF THE INSPECTION THAT REVEALED THE DEFICIENCY, AND THE "STORM WATER POLLUTION PREVENTION PLAN AMENDMENT LOG" FORM COMPLETED.
7) WHEN AN INSPECTION REVEALS A BMP HAS NOT BEEN INSTALLED, BUT IS REQUIRED TO PROVIDE ADEQUATE CONTROL, IT MUST BE INSTALLED PRIOR TO THE NEXT STORM EVENT WHICH PRODUCES RUNOFF, BUT IN NO CASE LATER THAN 10 DAYS FROM THE INSPECTION THAT REVEALED THE DEFICIENCY.
8) THE INSPECTION FREQUENCY MAY BE REDUCED TO 1 TIME PER MONTH IF THE ENTIRE SITE IS TEMPORARILY STABILIZED OR RUNOFF IS UNLIKELY DUE TO WINTER WEATHER (I.E. SUSTAINED SNOW COVER OR FROZEN GROUND CONDITIONS). A WAIVER OF INSPECTION REQUIREMENTS IS AVAILABLE UNTIL 1 MONTH BEFORE THAWING CONDITIONS ARE EXPECTED IF ALL THE FOLLOWING CONDITIONS ARE MET:
   - FROZEN CONDITIONS ARE ANTICIPATED TO CONTINUE FOR EXTENDED PERIODS OF TIME (I.E. MORE THAN 1 MONTH).
   - SOIL DISTURBANCE ACTIVITIES HAVE BEEN SUSPENDED.
   - THE BEGINNING AND ENDING DATES OF THE WAIVER PERIOD ARE DOCUMENTED IN THE SWP3.
9) ONCE A DEFINABLE AREA HAS BEEN FULLY STABILIZED, IT MAY BE MARKED ON THE SWP3 AND NO FURTHER INSPECTION REQUIREMENTS ARE REQUIRED FOR THAT AREA OF THE SITE.
10) INSPECTIONS SHALL BE PERFORMED UNTIL A NOT IS FILED WITH THE OHIO EPA.

SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES

1) HOLD A PRE-CONSTRUCTION MEETING TO DISCUSS OHIO EPA NPDES PERMIT REQUIREMENTS.
2) CONTRACTOR SUBMITS CONSTRUCTION SCHEDULE FOR CONSTRUCTION ACTIVITIES.
3) BEGIN INSPECTION, MAINTENANCE, RECORD KEEPING AND SITE POSTING OF BMPS.
4) ESTABLISH STAGING AREA AND NON-SEDIMENT BMPS.
5) INSTALL SILT FENCE, INLET PROTECTION AND CONSTRUCTION ENTRANCE.
6) INSTALL OTHER TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS AS SOON AS POSSIBLE, BUT NO LATER THAN 7 DAYS AFTER FIRST SOIL DISTURBANCE. INSPECT AND MAINTAIN BMPS FOR THE PROJECT DURATION UNTIL UPSLOPE AREAS ARE PERMANENTLY STABILIZED.
7) BEGIN SITE CLEARING AND CONSTRUCTION.
8) INSTALL DEWATERING MEASURES.
9) BEGIN EARTHWORK OPERATIONS.
10) APPLY TEMPORARY SEED.
11) INSTALL STORM SEWERS AND INLETS.
12) INSTALL PAVING.
13) INSPECT AND CLEAN EXISTING AND NEW STORM SEWERS AND INLETS.
14) APPLY PERMANENT SEED.
15) INSTALL LANDSCAPING.
16) CONTINUE INSPECTIONS, MAINTENANCE, RECORD KEEPING, AND SITE POSTING UNTIL FINAL STABILIZATION ACHIEVED.
17) REMOVE TEMPORARY BMPS FROM STORM SEWER AND INLETS, AND OPEN GUTTERS AND DITCHES TO OBTAIN FREE DRAINAGE.
18) DISPOSE OF ALL DEBRIS AND WASTE MATERIAL.

STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

NO	REVISION	DATE

ISSUED FOR: BID
ISSUE DATE: 4/22/25
SCALE: AS SHOWN
DESIGNED BY: RW, CZ
DRAWN BY: CZ, GA, LE
CHECKED BY: LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

STORMWATER POLLUTION PREVENTION NOTES

PROJECT NO. 32272
DISCIPLINE CIVIL
SHEET NAME SWP-1
SHEET 17 OF 31

Z:\PROJECT FILES\MA-NZ\MENTOR\32272 - CIVIC CENTER PARK IMPROVEMENTS\CAD\DWG\SHEET\SC_32272 - SWPPP.DWG - SWP-1 - 4/22/2025 5:36:34 PM - LENE HILL

BAR SCALE

20' 10' 0' 20'

SCALE: 1"= 20'

OHIO Utilities Protection SERVICE
Call Before You Dig

1-800-362-2764

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

SWP3 LEGEND

- CE — CONSTRUCTION ENTRANCE
- CW — CONCRETE WASHOUT PIT
- SF — FILTER SOCK
- CF / WB — WETLAND BARRIER
- LIMITS OF DISTURBANCE
- SOIL BOUNDARY LINE
- ES — EQUIP. STAGING
- FSA — FUEL STORAGE & VEHICLE FUELING AREA
- MS — MATERIAL STOCKPILE LOCATION(S)
- IP — STORM INLET PROTECTION
- ST — SEDIMENT TRAP

MATCH LINE NORTH
MATCH LINE SOUTH

CtA

Or

LENE C. HILL E-66017 REGISTERED PROFESSIONAL ENGINEER
STATE OF OHIO

verdantas

NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

STORMWATER POLLUTION PREVENTION PLAN SOUTH

PROJECT NO.
32272

DISCIPLINE
CIVIL

SHEET NAME
SWP-2

SHEET 18 OF 31

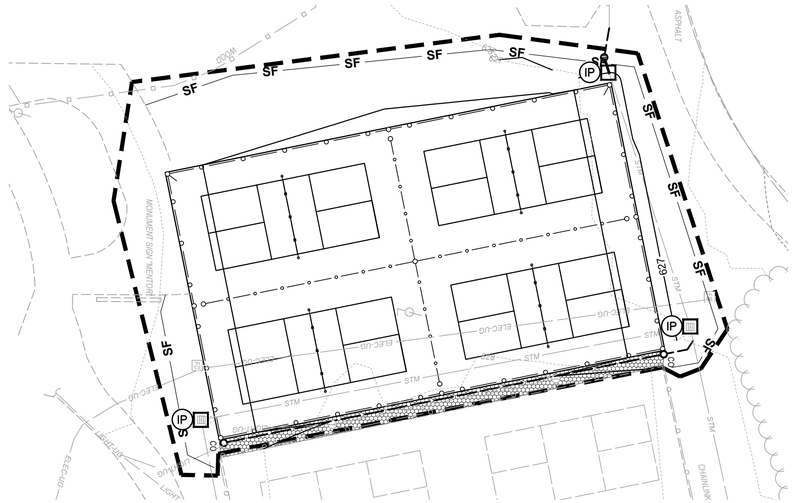
Z:\PROJECT FILES\MA-NZ\MENTOR\32272 - CIVIC CENTER PARK IMPROVEMENTS\CAD\DWG\SHEETS\C_32272 - SWPPP.DWG - SWP-2 - 4/22/2025 5:36:34 PM - LENE HILL

BAR SCALE
20' 10' 0' 20'
SCALE: 1"= 20'

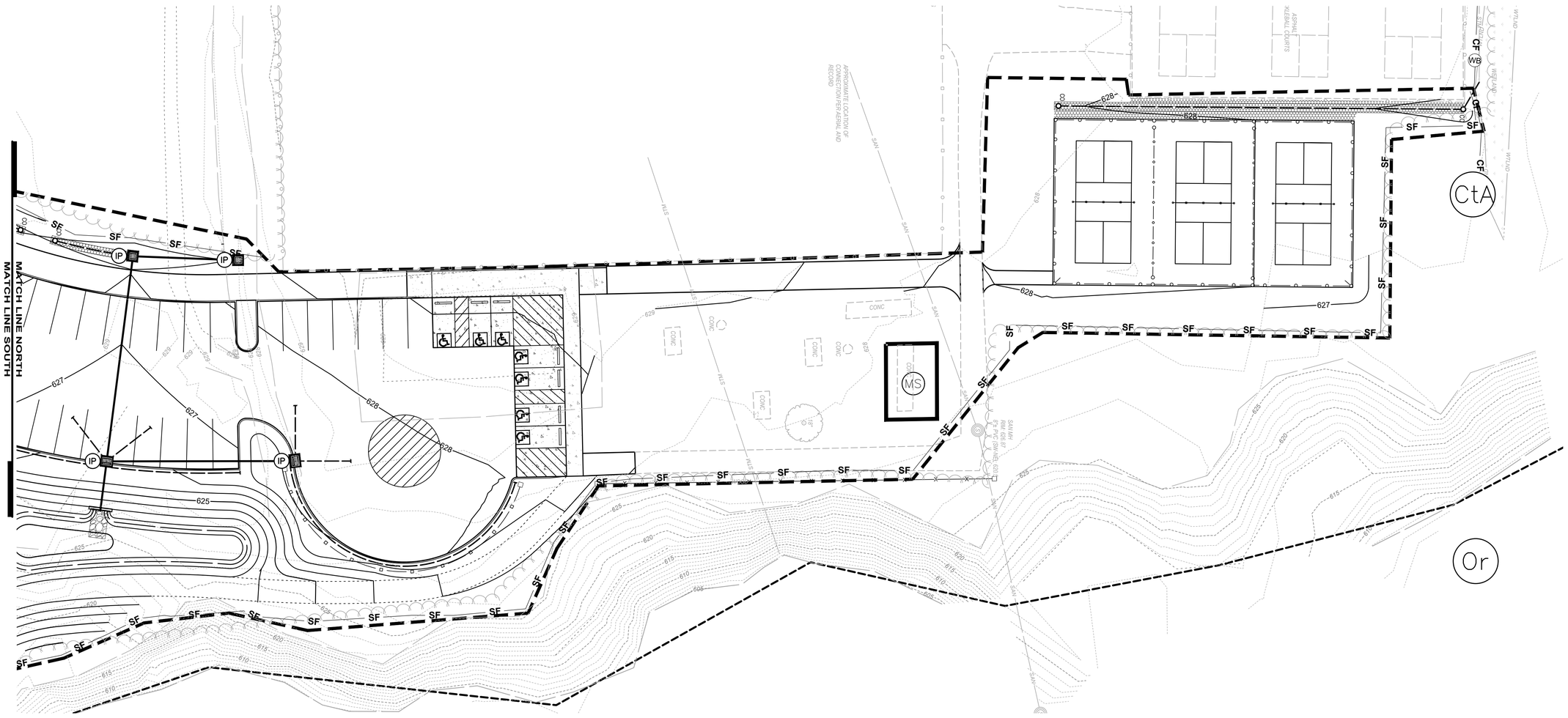
OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

SWP3 LEGEND

- CE — CONSTRUCTION ENTRANCE
- CW — CONCRETE WASHOUT PIT
- SF — FILTER SOCK
- CF WB — WETLAND BARRIER
- LIMITS OF DISTURBANCE
- SOIL BOUNDARY LINE
- ES — EQUIP. STAGING
- FSA — FUEL STORAGE & VEHICLE FUELING AREA
- MS — MATERIAL STOCKPILE LOCATION(S)
- IP — STORM INLET PROTECTION



NORTHWEST COURTS



STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

STORMWATER POLLUTION PREVENTION PLAN NORTH & COURTS

PROJECT NO.
32272
DISCIPLINE
CIVIL
SHEET NAME
SWP-3
SHEET 19 OF 31

Z:\PROJECT FILES\MA-NZ\MENTOR\32272 - CIVIC CENTER PARK IMPROVEMENTS\CAD\DWG\SHEETS\C_32272 - SWPPP.DWG - SWP-3 - 4/22/2025 5:36:34 PM - LENE HILL

Step 1 - Sediment Basin Volume Requirements

For Statewide Watersheds

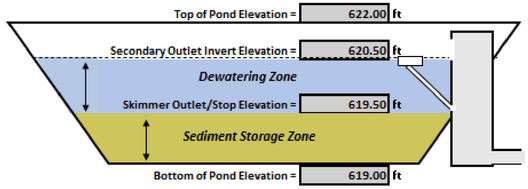
Minimum Sediment Storage Volume, Vsediment =	4000	ft3	=	148	yd3	= 0.092	acre-ft
Minimum Dewatering Zone Volume, Vdewatering =	7200	ft3	=	267	yd3	= 0.165	acre-ft

Requirement: Minimum Sediment Volume = 1000 ft3/acre of disturbed drainage area
Requirement: Minimum Dewatering Volume = 1800 ft3/acre of total drainage area

Step 2 - Basin Stage-Storage Relationship

	Elevation ft	Area ft²	Increments Volume ft³	Cumulative Volume ft³
Bottom of Sediment Storage (Pond) =	619.00	8,700		
	619.50	9,800	4,622	4,622
	620.00	10,890	5,170	9,792
IMPORTANT: Must include the exact Skimmer	620.50	12,000	5,720	15,513
Outlet/Skimmer Stop Elevation and the Secondary	621.00	13,067	6,265	21,777
Outlet Invert Elevation in the Stage-Storage Table	622.00	15,145	14,093	35,871

Basin Schematic

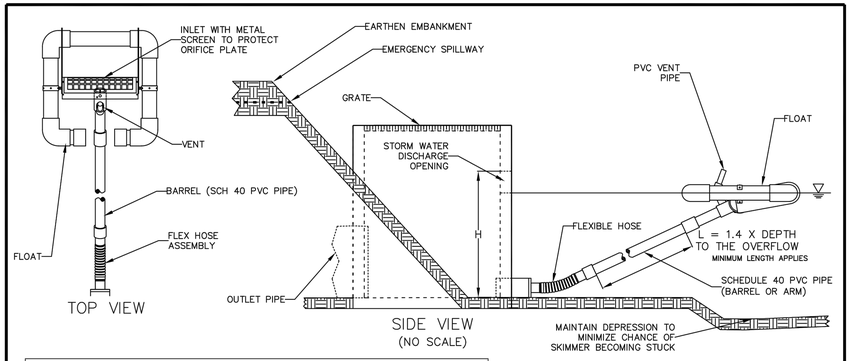


Note: The basin dewatering discharge calculation in this worksheet assumes a free discharge from the outlet (i.e., no tailwater). The skimmer outlet elevation may need to be adjusted upward to account for tailwater as appropriate. Tailwater is common to low gradient ditches or water bodies with prolonged increases in water level

Step 3 - Outlet Elevations and Storage Volumes

Skimmer Outlet Invert/Skimmer Stop Elevation =	619.50	ft	OKAY
Secondary Outlet Invert Elevation =	620.50	ft	OKAY
Provided Sediment Storage Volume =	4,622	ft³	OKAY
Provided Dewatering Volume =	10,890	ft³	OKAY

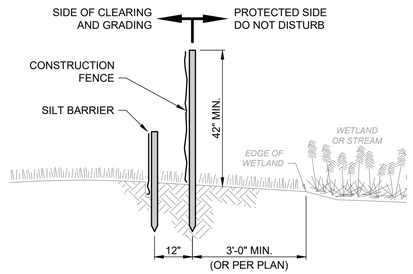
The invert of the Skimmer Outlet/Skimmer Stop (e.g. stone pad) corresponds to the top of the sediment storage zone/permanent pool and the bottom of the Dewatering Volume. It cannot be below the bottom of the pond.
The invert elevation for the next (usually peak discharge or flood control) outlet. This elevation must exceed that of the Skimmer Outlet Invert Elevation and be below the top of the pond. *Check - The difference between the skimmer outlet invert/skimmer stop elevation and the secondary outlet invert elevation (dewatering zone depth) must not exceed 5ft.
The Sediment Storage Volume must exceed the requirement listed above in Step 1
The Dewatering Volume must exceed the requirement listed above in Step 1
ERROR Check - The Step 2 Stage Storage Table above must include the exact Skimmer Outlet/Skimmer Stop Elevation and the Secondary Outlet Invert Elevation provided in Step 3



MENTOR CIVIC CENTER					
Name	**Skimmer Size**	**Orifice Dia.**	**Orifice RAD**	**Required Basin Volume**	**Days to Drain**
Civic Center	2 1/2"	2 5/16"	1 3/16"	10890	2

GENERAL NOTES:
1. FAIRCLOTH SKIMMER® FLOW RATES WERE USED AS THE BASIS OF DESIGN WHEN DETERMINING DRAINAGE CALCULATIONS. UTILIZING A PRODUCT FROM AN ALTERNATIVE MANUFACTURER WILL CREATE A SIGNIFICANT DEVIATION TO THE DESIGN AND MUST BE APPROVED AND RECALCULATED BY THE DESIGN ENGINEER.
2. PROPER ORIFICE OPENING MUST BE SELECTED TO ENSURE POND DRAINS IN CORRECT AMOUNT OF TIME. MODIFICATIONS MAY BE REQUIRED IF FIELD CONDITIONS WARRANT A CHANGE.
3. BARREL PIPE SHOULD BE 1.4 X DEPTH OF THE BASIN TO ENSURE PROPER FUNCTION.

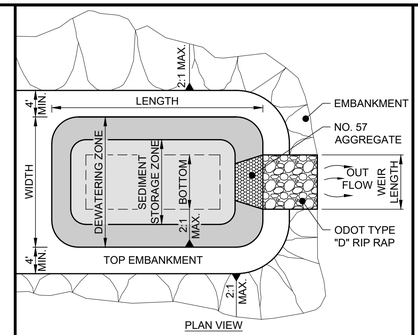
DRAWN BY T. R. EVANS 08/24



NOTES:
1. THE CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY BARRIERS AROUND NON-IMPACTED WETLANDS AND STREAMS TO PREVENT DISTURBANCE OR CONSTRUCTION ACTIVITIES WITHIN THE PROTECTED AREAS AND, UPON COMPLETION OF THE PROJECT, BE REMOVED.
2. CONSTRUCTION FENCE SHALL BE HIGH VISIBILITY, ORANGE COLOR, HIGH DENSITY POLYETHYLENE GRID SECURED TO STEEL POSTS LOCATED ON MAXIMUM 10' CENTERS.
3. THE FOLLOWING ACTIVITIES ARE PROHIBITED WITHIN OR THROUGH NON-IMPACTED WETLANDS AND STREAMS:
   A. EXCAVATION OR OTHER DIGGING
   B. IMPOUNDMENT OF WATER
   C. STORAGE OF CONSTRUCTION MATERIALS, DEBRIS OR EXCAVATED MATERIAL
   D. OPERATING OR PARKING VEHICLES OR EQUIPMENT
   E. FOOT TRAFFIC
   F. ATTACHMENT OF SIGNS TO OR WRAPPING MATERIALS AROUND TREES
   G. ANYTHING THAT WOULD DISTURB THE GROUND

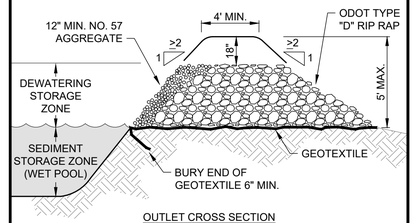
WETLAND BARRIER DETAIL

SCALE: NONE



PLAN VIEW

DRAINAGE AREA	WEIR LENGTH
≤ 1 AC.	4 FT.
≤ 2 AC.	6 FT.
≤ 3 AC.	8 FT.
≤ 4 AC.	10 FT.
≤ 5 AC.	12 FT.



OUTLET CROSS SECTION

NOTES:
1. WORK SHALL CONSIST OF INSTALLATION, MAINTENANCE AND REMOVAL OF SEDIMENT TRAP.
2. SEDIMENT TRAP MUST BE CONSTRUCTED AND OPERATIONAL PRIOR TO UPSLOPE LAND DISTURBANCE.
3. THE AREA BENEATH THE EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF VEGETATION TO A MINIMUM DEPTH OF 6". THE POOL SHALL BE CLEARED AS NEEDED TO FACILITATE SEDIMENT CLEANOUT.
4. EMBANKMENT FILL SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION, LARGE ROCKS, ORGANICS OR OTHER OBJECTIONABLE MATERIALS. FILL MATERIAL SHALL BE PLACED IN 6" LIFTS AND COMPACTED. CONSTRUCTION SHALL NOT BE PERMITTED IF THE FILL OR COMPACTION SURFACE IS FROZEN.
5. DIKES DIRECTING WATER TO THE TRAP SHALL BE HIGHER THAN THE HEIGHT OF THE EMBANKMENT.
6. 67 C.Y. OF STORAGE VOLUME IS REQUIRED BELOW THE OUTLET CREST FOR EACH 1 AC. OF CONTRIBUTING DRAINAGE AREA. THIS STORAGE VOLUME IS ACHIEVED BY THE DIMENSIONS SHOWN ON THE PLANS.
7. ESTABLISH TEMPORARY SEEDING ON ALL NON-SUBMERGED AREAS AND MAINTAIN OVER THE LIFE OF THE SEDIMENT TRAP.
8. WHERE GEOTEXTILE IS USED, OVERLAPS SHALL BE 2' MINIMUM WITH THE UPPER MOST LAYER PLACED LAST.
9. WARNING SIGNS AND SAFETY FENCE SHALL BE PLACED AROUND THE ENTIRE SEDIMENT TRAP AND MAINTAINED UNTIL THE SEDIMENT TRAP IS REMOVED.
10. REMOVE SEDIMENT AND RESTORE THE SEDIMENT TRAP TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS FILLED 40% OF THE TRAP'S ORIGINAL DEPTH. SPREAD REMOVED SEDIMENT IN A SUITABLE AREA AND STABILIZED SO IT WILL NOT ERODE.
11. AFTER UPSLOPE SEDIMENT PRODUCING AREAS HAVE BEEN PERMANENTLY STABILIZED, THE SEDIMENT TRAP AND ALL SEDIMENT SHALL BE REMOVED, BACKFILLED AND SEEDED.

SEDIMENT TRAP DETAIL

SCALE: NONE

WATER QUALITY VOLUME (WQv)

TYPE OF CONSTRUCTION:
(X) NEW ( ) REDEVELOPMENT

TYPE OF EXTENDED DETENTION POST-CONSTRUCTION PRACTICE:
(X) DRY EXTENDED DETENTION BASIN WITH FOREBAY & MICROPOOL

PER OHIO EPA NPDES CGP #OHC000006, WATER QUALITY VOLUME FOR POST-CONSTRUCTION BMPS SHALL BE DETERMINED USING EQUATIONS:
$WQv = Rv * P * A_{TOT} / 12$
$Rv = 0.05 + (0.9 * i)$

STEP 1: DETERMINE PRE-VOLUMETRIC RUNOFF COEFFICIENT
A_{TOT} = 20.50 AC
A_{IMP} = 0.00 AC
I = A_{IMP} / A_{TOTAL}
= 0.00 AC / 20.50 AC = 0.0000
RV = 0.05 + (0.9 * I)
= 0.05 + [0.9 * 0.0000] = 0.0500

STEP 2: DETERMINE POST-VOLUMETRIC RUNOFF COEFFICIENT
A_{TOT} = 4.00 AC
A_{IMP} = 2.73 AC
I = A_{IMP} / A_{TOTAL}
= 2.73 AC / 4.001 AC = 0.68
RV = 0.05 + (0.9 * I)
= 0.05 + [0.9 * 0.6823] = 0.66

STEP 3: DETERMINE WATER QUALITY VOLUME
WQv = Rv * P * A_{TOT} / 12
= 0.66 * 0.90 IN * [(4.00 AC) / (12 IN/FT)]
= 0.199 AC-FT = 8,680 CF

STEP 4: DETERMINE SEDIMENT STORAGE VOLUME
V_{SED} = 0.20 * WQv
= 0.20 * 8,680 CF = 1,736 CF

STEP 5: DETERMINE TOTAL WATER QUALITY VOLUME
WQv_{TOT} = WQv + V_{SED}
= 8,680 CF + 1,736 CF = 10,416 CF

STEP 6: DETERMINE FOREBAY VOLUME
V_{FORE} = 0.10 * WQv
= 0.10 * 8,680 CF = 868 CF

STEP 7: DETERMINE MICROPOOL VOLUME
V_{MICRO} = 0.10 * WQv
= 0.10 * 8,680 CF = 868 CF

STEP 8: DETERMINE WATER QUALITY VOLUME AVERAGE RELEASE RATE
Q_{AVG} = WQv / t_D
= 8,680 CF / [(48 HR) * (3,600 S/HR)]
= 0.05 CFS

STEP 9: ESTIMATE OUTLET ORIFICE AREA
H_{AVG} = H_{MAX} / 2
= 1.18 FT / 2
= 0.59 FT
C = 0.6 (SHARP-EDGE ORIFICE)
A_{ORIF} = $Q_{AVG} / [C * (2 * g * H_{AVG})^{0.5}]$
= (0.05 CFS) *144 / [0.6 * (2 * 32.2 FT/S² * 0.59 FT)$^{0.5}$]
= 1.96 SQ IN

STEP 10:DETERMINE ORIFICE DIMENSIONS FOR CIRCULAR ORIFICE:
D_{ORIF} = $[(4 * A_{ORIF}) / \pi]^{0.5}$
= [(4 * 1.96 SQ IN) / 3.14159] $^{0.5}$
= 1.58 IN
USE D_{ORIF} =1.6 IN

WHERE:

A_{IMP}	= IMPERVIOUS AREA DRAINING INTO BMP (AC)
A_{ORIF}	= ORIFICE AREA (SF)
A_{TOT}	= TOTAL AREA DRAINING INTO BMP (AC)
C	= COEFFICIENT OF DISCHARGE
D_{ORIF}	= ORIFICE DIAMETER (IN)
g	= ACCELERATION OF GRAVITY (32.2 FT/S²)
H_{AVG}	= H_{MAX} / 2 = AVERAGE HYDRAULIC HEAD (FT)
H_{MAX}	= (BRIMFUL WQv ELEVATION) - (WQv OUTLET ELEVATION)
i	= FRACTION OF POST-CONSTRUCTION IMPERVIOUS AREA
i	= IMPERVIOUS FRACTION
P	= PRECIPITATION DEPTH (0.90 IN)
Q_{AVG}	= AVERAGE DISCHARGE RATE (CFS)
Rv	= VOLUMETRIC RUNOFF COEFFICIENT
t_D	= MINIMUM DRAIN TIME (HR)
V_{FORE}	= FOREBAY VOLUME (CF)
V_{MICRO}	= MICROPOOL VOLUME (CF)
V_{SED}	= SEDIMENT STORAGE VOLUME (CF)
WQv	= WATER QUALITY VOLUME (AC-FT)
WQv_{TOT}	= TOTAL WATER QUALITY VOLUME WITH 20% SEDIMENT (AC-FT)

STATE OF OHIO PROFESSIONAL ENGINEER — LENE C. HILL E-66017 REGISTERED

verdantas

NO	REVISION	DATE

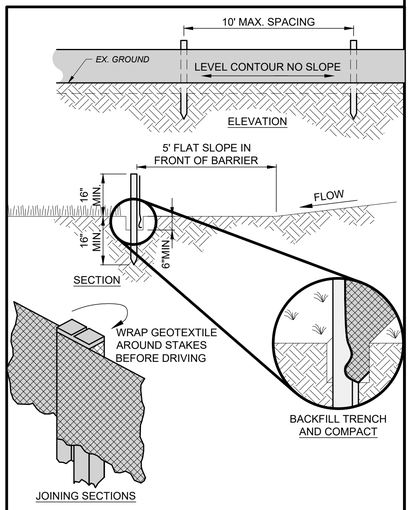
ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

STORMWATER POLLUTION PREVENTION DETAILS

PROJECT NO. 32272
DISCIPLINE: CIVIL
SHEET NAME: SWP-4
SHEET 20 OF 31

Z:\PROJECT FILES\MA-NZ\MENTOR\32272 - CIVIC CENTER PARK IMPROVEMENTS\CAD\DWG\SHEETS\C_32272 - SWPPP.DWG - SWP-4 - 4/22/2025 5:36:34 PM - LENE HILL



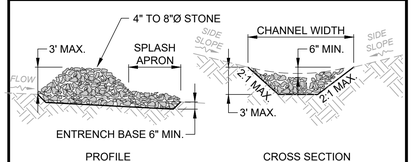
NOTES:

1. PRESERVE VEGETATION FOR 5 FEET OR AS MUCH AS POSSIBLE UPSLOPE FROM SILT FENCE. IF VEGETATION IS REMOVED, RE-ESTABLISHED WITHIN 7 DAYS FROM SILT FENCE INSTALLATION.
2. SILT FENCE MAY ONLY PASS RUNOFF AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, THEN CHANGE THE LAYOUT OF THE SILT FENCE, REMOVE ACCUMULATED SEDIMENT OR INSTALL OTHER PRACTICES.
3. SILT FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, VERIFICATION FABRIC IS SECURELY ATTACHED TO FENCE POSTS, AND VERIFICATION FENCE POSTS ARE FIRMLY IN THE GROUND. BUILT UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED 1/3 THE FENCE HEIGHT.
4. THE MAXIMUM DRAINAGE AREA PER 100 FEET OF SILT FENCE IS 1/2 ACRE AND IS DEPENDENT ON SLOPE PER CHART BELOW:

MAX. DRAINAGE AREA PER 100-FT SILT FENCE	RANGE OF SLOPE PER INDIVIDUAL DRAINAGE AREA
0.50 AC.	<2% (50H:1V)
0.25 AC.	≥2% (50H:1V) BUT <20% (5H:1V)
0.125 AC.	≥20% (5H:1V) BUT <50% (2H:1V)

SILT FENCE DETAIL

SCALE: NONE



NOTES:

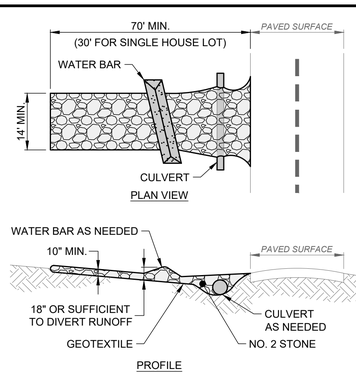
1. STONE MUST COVER THE FULL CHANNEL WIDTH.
2. ODOT TYPE 'D' STONE IS ACCEPTABLE, BUT MUST BE UNDERLAIN WITH NO. 3 OR 4 STONE OR FILTER FABRIC.
3. THE MIDPOINT OF THE CHECK DAM SHALL BE A MINIMUM OF 6" LOWER THAN THE SIDES TO DIRECT WATER ACROSS THE CENTER AND AWAY FROM CHANNEL SIDES.
4. SPACE CHECK DAMS SO TOE OF UPSTREAM DAM IS AT SAME ELEVATION AS TOP OF DOWNSTREAM DAM, OR AS FOLLOWS:

CHECK DAM HEIGHT	CHANNEL SLOPE			
	< 5%	5% - 10%	10% - 15%	15% - 20%
1 FT.	65 FT.	30 FT.	20 FT.	15 FT.
2 FT.	130 FT.	65 FT.	40 FT.	30 FT.
3 FT.	200 FT.	100 FT.	65 FT.	50 FT.

5. IF CHECK DAMS TO REMAIN IN USE FOR EXTENDED PERIOD OF TIME, INSTALL SPLASH APRON 6" MINIMUM THICK WITH LENGTH 2 TIMES CHECK DAM HEIGHT.

CHECK DAM DETAIL

SCALE: NONE



NOTES:

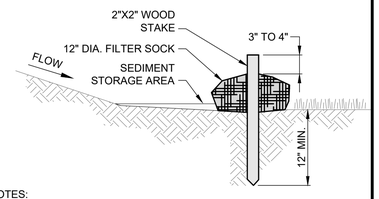
1. GEOTEXTILE SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS MEETING THE FOLLOWING:

TENSILE STRENGTH	200 LB
PUNCTURE STRENGTH	80 PSI
TEAR STRENGTH	50 LB
BURST STRENGTH	320 PSI
ELONGATION	20%
EQUIVALENT OPENING SIZE	< 0.6 MM
PERMITTIVITY	0.001 CM/SEC.

2. INSTALL WATER BAR, AS NEEDED, TO PREVENT SURFACE RUNOFF FROM FLOWING OUT ONTO PAVEMENT.
3. APPLY ADDITIONAL STONE AS CONDITIONS DEMAND, REPLENISH STONE WHEN THE DEPTH IS LESS THAN 6", AND REPLACE IF STONES BECOMES MUD-LADEN.
4. IMMEDIATELY REMOVE MUD DROPPED, WASHED OR TRACKED ONTO ROADS OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS BY SCRAPING OR SWEEPING.
5. CONSTRUCTION ENTRANCE SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES OR PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
6. CONSTRUCTION ENTRANCE SHALL REMAIN UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY.

CONSTRUCTION ENTRANCE DETAIL

SCALE: NONE

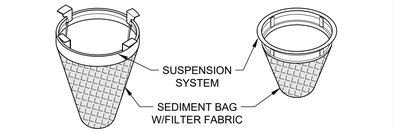


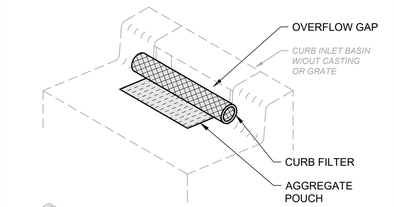
NOTES:

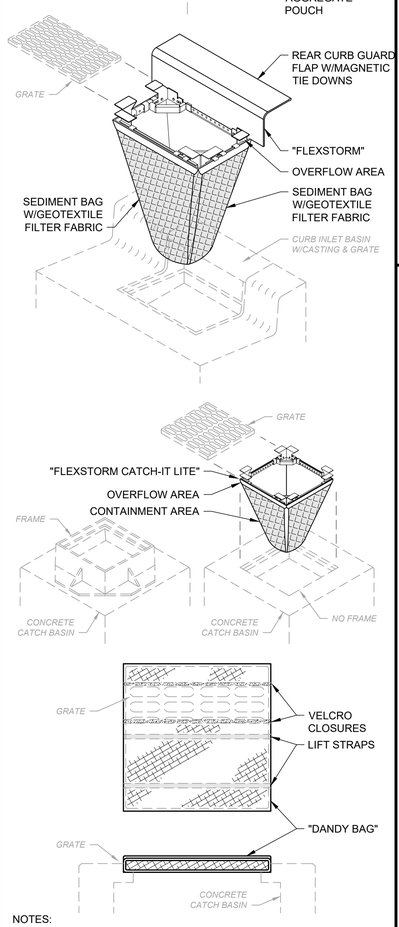
1) FILTER SOCKS SHALL BE 3 OR 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST.
2) COMPOST SHALL BE WEED, PATHOGEN AND INSECT FREE, FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH, BE DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER, AND CONSIST OF PARTICLES RANGING FROM 3/8" TO 2".
3) FILTER SOCKS SHALL BE PLACED ON A LEVEL LINE ACROSS SLOPES PARALLEL TO THE BASE OF THE SLOPE. ON SLOPES APPROACHING 2:1, ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND MID-SLOPE.
4) FILTER SOCKS SHALL BE PLACED AT LEAST 5' FROM THE TOE OF SLOPE FOR SEDIMENT DEPOSIT.
5) BUILT UP SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED 1/3 THE FILTER SOCK HEIGHT.
6) WHEN A FILTER SOCK IS NO LONGER REQUIRED, IT SHALL BE DISPERSED ON-SITE.
7) THE MAXIMUM DRAINAGE AREA PER 100 FEET OF FILTER SOCK IS 1/2 ACRE AND IS DEPENDENT ON THE SLOPE FOLLOWING THE GUIDANCE CHART BELOW:

FILTER SOCK DETAIL (ALT. TO SILT FENCE)

SCALE: NONE







NOTES:

1. ALL NEW AND EXISTING STORM INLET BASINS WITHIN THE WORK LIMITS SHALL HAVE INLET PROTECTION INSTALLED.
2. INLET PROTECTION SHALL BE INSTALLED AS EACH STORM INLET IS CONSTRUCTED.
3. NOT ALL ITEMS SHOWN MAY APPLY OR DIFFERENT TYPES OR CONFIGURATIONS MAY BE REQUIRED. THE CONTRACTOR SHALL MEASURE EACH INLET TO CONFIGURE AND ASSEMBLE CUSTOMIZED INLET FILTERS.

INLET PROTECTION DETAIL

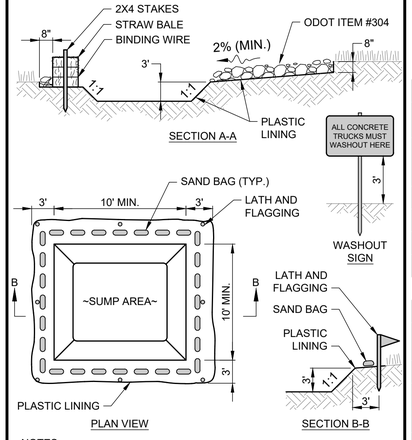
SCALE: NONE

NOTES:

1. THE SEED BED SHALL BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION.
2. SOIL AMENDMENTS MAY BE REQUIRED TO ESTABLISH VEGETATION. PERFORM SOIL TESTS TO PREDICT THE NEED FOR LIME OR FERTILIZER. IN LIEU OF A SOIL TEST, APPLY LIME AT 2 TONS/AC. OR FERTILIZER AT 500 LB/AC. OF 10-10-10 OR 12-12-12 ANALYSIS
3. APPLY SEED UNIFORMLY. COVER BROADCASTED SEED BY RAKING OR DRAGGING, AND LIGHTLY TAMPING INTO PLACE.
4. MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING.
5. INSPECT FOR SOIL EROSION OR VEGETATION LOSS AND REPAIR BARE OR SPARSE AREAS, FILL GULLIES, RE-FERTILIZE, RE-SEED AND RE-MULCH AS NEEDED.

TEMPORARY SEEDING SPECIES SELECTION			
DATES	SPECIES	LB/1,000 SF	LB/AC.
MARCH 1 - AUGUST 15	OATS TALL FESCUE PERENNIAL RYEGRASS	3 1 1	128 40 40
	PERENNIAL RYEGRASS TALL FESCUE	2 1	40 40
AUGUST 16 - OCTOBER 31	RYE TALL FESCUE PERENNIAL RYEGRASS	3 1 1	112 40 40
	WHEAT TALL FESCUE PERENNIAL RYEGRASS	3 1 1	120 40 40
	PERENNIAL RYEGRASS TALL FESCUE	2 1	40 40
NOVEMBER 1 - FEBRUARY 28	ONLY MULCH OR DORMANT SEEDING.		

TEMPORARY SEEDING DETAIL



NOTES:

1. CONCRETE WASHOUT AREA SHALL BE LOCATED A MINIMUM OF 100' FROM STORM SEWER INLETS, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS OF THE STATE.
2. IF CONCRETE WASHOUT AREA IS LOCATED AWAY FROM A PAVED SURFACE, CONSTRUCT A GRAVEL ACCESS ROUTE EQUAL IN COMPOSITION TO A CONSTRUCTION ENTRANCE.
3. CONCRETE WASHOUT AREA SHALL BE SUFFICIENT SIZE TO CONTAIN CONCRETE WASTE GENERATED. LARGE SITES MAY REQUIRE MULTIPLE CONCRETE WASHOUT AREAS.
4. PLASTIC LINING SHALL BE DOUBLE-LINED, CONTINUOUS 10-ML POLYETHYLENE SHEETING FREE OF HOLES, TEARS OR OTHER DEFECTS INSTALLED ON A SMOOTH, LEVEL SURFACE, FREE OF LARGE ROCKS AND DEBRIS.
5. CONCRETE WASHOUT SIGNAGE SHALL BE CLEARLY VISIBLE AND LOCATED WITHIN 30 FEET OF EACH WASHOUT AREA.
6. CONCRETE WASHOUT AREA SHALL BE COVERED DURING INCLEMENT WEATHER TO PREVENT OVERFLOW.
7. CONCRETE WASHOUT AREA SHALL BE INSPECTED DAILY TO CHECK FOR DAMAGE AND DETERMINE IF IT NEEDS CLEANED OR REPLACED. ANY DAMAGE TO THE SIDEWALLS OR PLASTIC LINING SHALL BE REPAIRED IMMEDIATELY. REPLACE THE ENTIRE CONCRETE WASHOUT AREA WHEN IT IS 75% FULL.

CONCRETE WASHOUT DETAIL

SCALE: NONE

NOTES:

1. MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:
   - UNROTTED SMALL GRAIN STRAW SPREAD UNIFORMLY AT 2 TONS/AC. (2 TO 3 BALES).
   - WOOD-CELLULOSE FIBER (I.E. HYDROSEEDING) APPLIED AT 1 TON/AC.
   - ROLLED EROSION CONTROL PRODUCT OR MULCH MATTING APPLIED PER MANUFACTURER RECOMMENDATION.
   - WOOD MULCH OR CHIPS APPLIED AT 6 TONS/AC.
2. MULCH SHALL BE ANCHORED IMMEDIATELY BY ONE OF THE FOLLOWING METHODS:
   - PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL USING A DISK, CRIMPER OR SIMILAR TOOL.
   - NETTING PER MANUFACTURER RECOMMENDATION IN CONCENTRATED RUNOFF AREAS OR CRITICAL SLOPES.
   - SYNTHETIC BINDERS AT MANUFACTURER RATE.
   - WOOD-CELLULOSE FIBER BINDER AT A NET DRY WEIGHT OF 750 LB/AC., MIXED WITH WATER, AND CONTAIN 50 LB/100 GAL. MAX. OF WOOD CELLULOSE FIBER.

MULCHING DETAIL

NOTES:

1. SUBSOILING SHALL OCCUR WHEN SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING IS NOT PERMITTED ON SLIP-PRONE AREAS.
2. THE SEED BED SHALL BE PREPARED BY APPLYING AGRICULTURAL GROUND LIMESTONE OR FERTILIZER AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, APPLY LIME AT 2 TONS/AC. OR FERTILIZER AT 500 LB/AC. OF 10-10-10 OR 12-12-12 ANALYSIS. LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL TO A DEPTH OF 3".
3. APPLY SEED UNIFORMLY ON FIRM, MOIST SEED BED BETWEEN MARCH 1 AND MAY 31 OR AUGUST 1 AND SEPTEMBER 30. TILLAGE FOR SEEDBED PREPARATION SHALL OCCUR WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. SEEDING SHOULD NOT BE APPLIED BETWEEN OCTOBER 1 AND NOVEMBER 20 BECAUSE SEEDS MAY GERMINATE, BUT WILL NOT SURVIVE THE WINTER. IF SEEDING MUST OCCUR, INCREASE THE SEEDING RATE BY 50% AND ANCHOR. APPLY ADDITIONAL MULCH AND IRRIGATION AS REQUIRED TO ENSURE GERMINATION.
4. MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING.
5. SEEDING SHALL INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY OR HOT WEATHER OR ON ADVERSE SITE CONDITIONS.
6. SEEDING SHALL NOT BE CONSIDERED ESTABLISHED FOR AT LEAST 1 FULL YEAR FROM THE TIME OF SEEDING. DURING THIS PERIOD INSPECT FOR SOIL EROSION OR VEGETATION LOSS AND REPAIR BARE OR SPARSE AREAS, FILL GULLIES, RE-FERTILIZE, RE-SEED AND RE-MULCH AS NEEDED.
7. ADEQUATE PERMANENT VEGETATION SHALL BE GROUND COVER DENSE ENOUGH TO COVER 80% OF THE SOIL SURFACE BASED ON VISUAL INSPECTION.

PERMANENT SEEDING FERTILIZATION AND MOWING CHART				
MIXTURE	FORMULA	LB/ AC.	TIME	MOW
CREEPING RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	10-10-10	500	FALL, YEARLY, OR AS NEEDED	≥3"
TALL FESCUE	10-10-10	500		≥4"
TURF-TYPE FESCUE	10-10-10	500		
CROWN VETCH FESCUE	0-20-20	400	SPRING, AND YEARLY AFTER ESTABLISHED	DO NOT MOW
FLAT PEA FESCUE	0-20-20	400		

PERMANENT SEEDING SPECIES SELECTION		
SEED MIX	SEED RATE LB/AC.	NOTES:
GENERAL USE		
CREEPING RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	20 - 40 10 - 20 20 - 40	FOR CLOSE MOWING AND WATERWAYS WITH ≤2.0 FT./SEC. VELOCITY
TALL FESCUE	40 - 50	
TURF-TYPE FESCUE	90	
STEEP BANKS OR CUT SLOPES		
TALL FESCUE	40 - 50	
CROWN VETCH TALL FESCUE	10 - 20 20 - 30	DO NOT SEED LATER THAN AUGUST
FLAT PEA TALL FESCUE	20 - 25 20 - 30	DO NOT SEED LATER THAN AUGUST
ROAD DITCHES AND SWALES		
TALL FESCUE	40 - 50	
TURF-TYPE FESCUE KENTUCKY BLUEGRASS	90 5	
LAWN		
KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	100 - 120 100 - 120	
KENTUCKY BLUEGRASS CREEPING RED FESCUE	100 - 120 100 - 120	FOR SHADED AREAS

PERMANENT SEEDING DETAIL

STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

NO	REVISION	DATE

BID	
ISSUED FOR:	4/22/25
ISSUE DATE:	AS SHOWN
SCALE:	RW, CZ
DESIGNED BY:	CZ, GA, LE
DRAWN BY:	LH, RW
CHECKED BY:	

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

STORMWATER POLLUTION PREVENTION DETAILS

PROJECT NO. 32272
DISCIPLINE: CIVIL
SHEET NAME: SWP-5
SHEET 21 OF 31

DELEGATION OF AUTHORITY FOR EROSION AND SEDIMENT CONTROL

PROJECT NAME: _____

PROJECT ADDRESS: _____

I, _____, HEREBY DESIGNATE THE PERSON OR DESCRIBED POSITION BELOW TO BE A DULY AUTHORIZED REPRESENTATIVE FOR THE PURPOSE OF OVERSEEING COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS, INCLUDING THE OHIO EPA NPDES CONSTRUCTION GENERAL PERMIT, AT THE DESIGNATED PROJECT. THE DESIGNEE IS AUTHORIZED TO SIGN REPORTS, STORM WATER POLLUTION PREVENTION PLANS (SWP3) AND OTHER DOCUMENTS AS REQUIRED BY THE NPDES PERMIT.

_____
NAME OF QUALIFIED PERSON AND/OR POSITION

_____ _____
COMPANY NAME PHONE NO.

_____
STREET ADDRESS

BY SIGNING THIS AUTHORIZATION, I CERTIFY UNDER THE PENALTY OF LAW THAT ALL REQUIRED DOCUMENTS WILL BE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON(S) WHO MANAGES THE SYSTEM OR IS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION TO BE SUBMITTED WILL BE, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THERE ARE SUBSTANTIAL PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

_____ _____
COMPANY NAME PHONE NO.

_____
STREET ADDRESS

_____
PRINT NAME AND TITLE

_____ _____
SIGNATURE DATE

SUBCONTRACTOR AGREEMENT FOR EROSION AND SEDIMENT CONTROL

PROJECT NAME: _____

PROJECT ADDRESS: _____

BY SIGNING THIS AGREEMENT, I CERTIFY UNDER THE PENALTY OF LAW THAT I HAVE READ AND UNDERSTAND THE TERMS AND CONDITIONS OF THE STORM WATER POLLUTION PREVENTION PLAN (SWP3) FOR THE DESIGNATED PROJECT AND AGREE TO FOLLOW THE PRACTICES DESCRIBED. AS A SUBCONTRACTOR, I AM REQUIRED TO COMPLY WITH THE SWP3 FOR ANY WORK I PERFORM AT THE PROJECT. IT IS MY RESPONSIBILITY TO OBTAIN A COPY OF THE SWP3 FROM THE CONTRACTOR AND TO ADVISE MY EMPLOYEES WORKING ON THIS PROJECT OF THE REQUIREMENTS. I AM AWARE THERE ARE SUBSTANTIAL PENALTIES OR LOSS OF CONTRACT FOR VIOLATING ANY CONDITION OF THE SWP3, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

_____ _____
COMPANY NAME PHONE NO.

_____
STREET ADDRESS

_____
PRINT NAME AND TITLE

_____ _____
SIGNATURE DATE

DESCRIPTION OF CONSTRUCTION SERVICE(S) I AM TO PROVIDE:

_____

_____

_____

_____

_____

_____

_____

FINAL CERTIFICATION AND NOTIFICATION FOR EROSION AND SEDIMENT CONTROL

PROJECT NAME: _____

PROJECT ADDRESS: _____

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED FOR THE DESIGNATED PROJECT. BASED ON MY INQUIRY OF THE PERSON(S) WHO MANAGED THE SYSTEM OR DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THERE ARE SUBSTANTIAL PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

_____ _____
COMPANY NAME PHONE NO.

_____
STREET ADDRESS

_____
PRINT NAME AND TITLE

_____ _____
SIGNATURE DATE

GRADING AND STABILIZATION ACTIVITY LOG

PROJECT NAME: _____ SHEET NO.: _____

PROJECT ADDRESS: _____

DATE GRADING ACTIVITY INITIATED	DESCRIPTION OF GRADING ACTIVITY	DATE GRADING ACTIVITY CEASED	STABILIZATION MEASURE INITIATED		DESCRIPTION OF STABILIZATION MEASURE AND LOCATION (ATTACH SKETCH IF NECESSARY)
			DATE	TYPE	
				☐ TEMP. ☐ PERM.	
				☐ TEMP. ☐ PERM.	
				☐ TEMP. ☐ PERM.	
				☐ TEMP. ☐ PERM.	
				☐ TEMP. ☐ PERM.	
				☐ TEMP. ☐ PERM.	
				☐ TEMP. ☐ PERM.	
				☐ TEMP. ☐ PERM.	

EROSION AND SEDIMENT CONTROL AMENDMENT LOG

PROJECT NAME: _____ SHEET NO.: _____

PROJECT ADDRESS: _____

AMENDMENT NO.	DATE OF AMENDMENT	DESCRIPTION OF AMENDMENT	DESCRIPTION OF STABILIZATION MEASURE AND LOCATION (ATTACH SKETCH IF NECESSARY)

STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

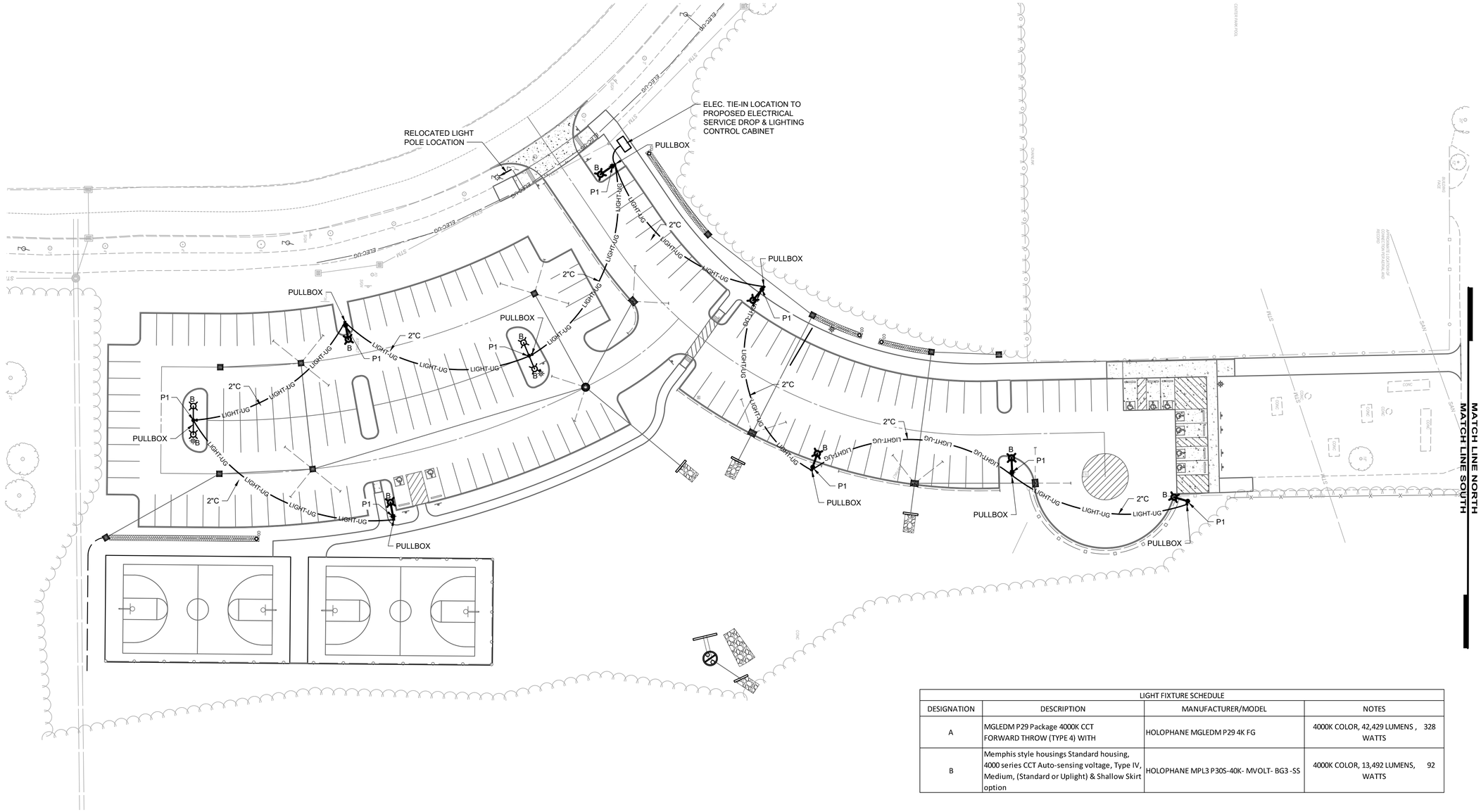
NO	REVISION	DATE

ISSUED FOR: BID
ISSUE DATE: 4/22/25
SCALE: AS SHOWN
DESIGNED BY: RW, CZ
DRAWN BY: CZ, GA, LE
CHECKED BY: LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

STORMWATER POLLUTION PREVENTION PLAN LOGS

PROJECT NO. 32272
DISCIPLINE CIVIL
SHEET NAME SWP-6
SHEET 22 OF 31



LIGHT FIXTURE SCHEDULE			
DESIGNATION	DESCRIPTION	MANUFACTURER/MODEL	NOTES
A	MGLEDM P29 Package 4000K CCT FORWARD THROW (TYPE 4) WITH	HOLOPHANE MGLEDM P29 4K FG	4000K COLOR, 42,429 LUMENS , 328 WATTS
B	Memphis style housings Standard housing, 4000 series CCT Auto-sensing voltage, Type IV, Medium, (Standard or Uplight) & Shallow Skirt option	HOLOPHANE MPL3 P30S-40K- MVOLT- BG3 -SS	4000K COLOR, 13,492 LUMENS, 92 WATTS

BAR SCALE
30' 15' 0' 30'
SCALE: 1"= 30'

OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

SHEET LEGEND

A POLE MTD FIXTURE PER SCHEDULE
P-1 PR. LIGHT POLE LOCATION

P-1 - IS A PROPOSED 25' LIGHT POLE FURNISHED BY CITY TO BE INSTALLED BY THE CONTRACTOR VERIFY LENGTH WITH CITY.

SHEET NOTES

1. SEE GENERAL NOTES SHEET FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
2. CONTRACTOR TO FIELD ROUTE PROPOSED LIGHTING CONDUITS TO MINIMIZE PAVEMENT CUTTING AND REPAIR.
3. ALL PROPSOED LIGHT POLES SHALL BE PROVIDED BY THE CITY. CONTRACTOR TO PERFORM THE INSTALLATION PER THE PRICES TO INCLUDE.

STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

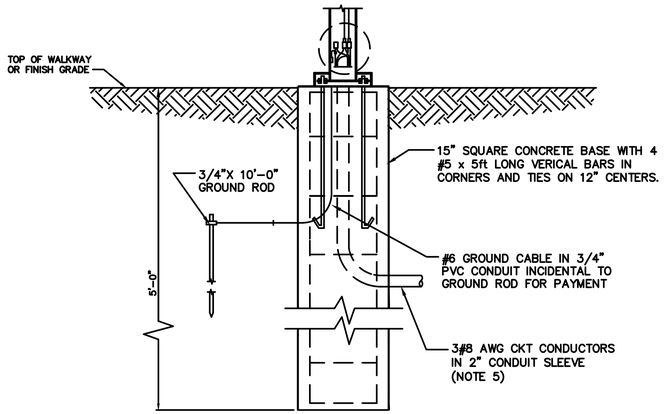
NO	REVISION	DATE

ISSUED FOR: BID
ISSUE DATE: 4/22/25
SCALE: AS SHOWN
DESIGNED BY: RW, CZ
DRAWN BY: CZ, GA, LE
CHECKED BY: LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

SITE LIGHTING PLAN

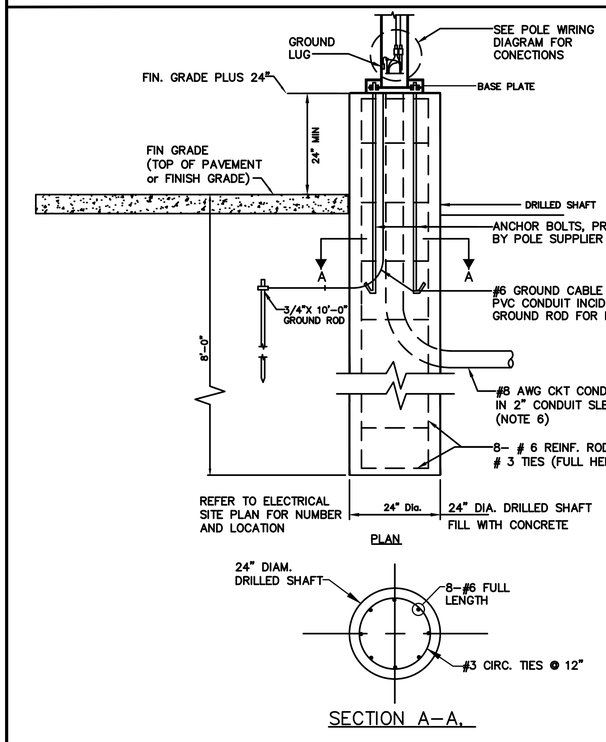
PROJECT NO. 32272
DISCIPLINE CIVIL
SHEET NAME E-1
SHEET 23 OF 31

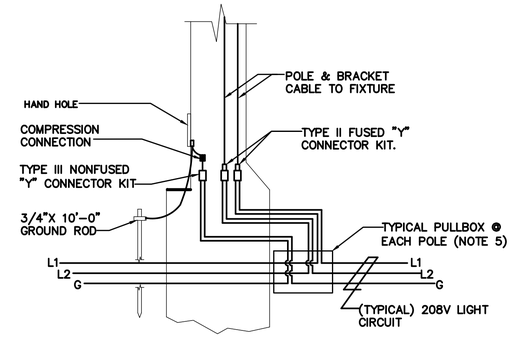


PICKLE BALL COURT
LIGHT POLE FOUNDATION

NOT TO SCALE

1. COPPER GROUND CABLE SHALL BE EXOTHERMICALLY WELDED TO GROUND ROD. RUN CABLE FREE END THROUGH 3/4" EMT AND CONNECT AS SHOWN.
2. ANCHOR BOLTS AND ANCHOR BOLT PATTERN SHALL BE PROVIDED BY THE POLE SUPPLIER. THE GENERAL CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE ANCHOR BOLTS WITH THE SITE WORK. PAYMENT FOR ANCHOR BOLTS AND THEIR INSTALLATION IS UNDER ITEM 625 – LIGHT POLE FOUNDATION, 24 INCH X 8' DEEP, AS PER PLAN.
3. ALL WIRING IN POLE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. PROVIDE A 12"x12" PULL BOX AT EA LIGHT POLE WITH *8 FEET OF SLACK ON EACH CIRCUIT CONDUCTOR. REFER TO PRICES TO INCLUDE FOR SPECIFIC PULLBOX MATERIAL REQUIREMENTS.
5. VERIFY COMPATIBILITY OF USE OF 2" CONDUIT SLEEVE WITH POLE MANUFACTURER
6. ALL POLES SHALL BE EQUIPPED WITH VIBRATION DAMPERS, GROUND LUG, POLE BASE COVERS, AND LEVELING NUTS
7. LIGHTING CONTROL WILL NEED TO BE COORDINATED WITH THE CITY OF MENTOR ELECTRICIAN. IT IS THE INTENT TO OBTAIN POWER AND MANUAL CONTROL FROM EXISTING POWER CENTER IN THE CONCESSION BUILDING LP-A.





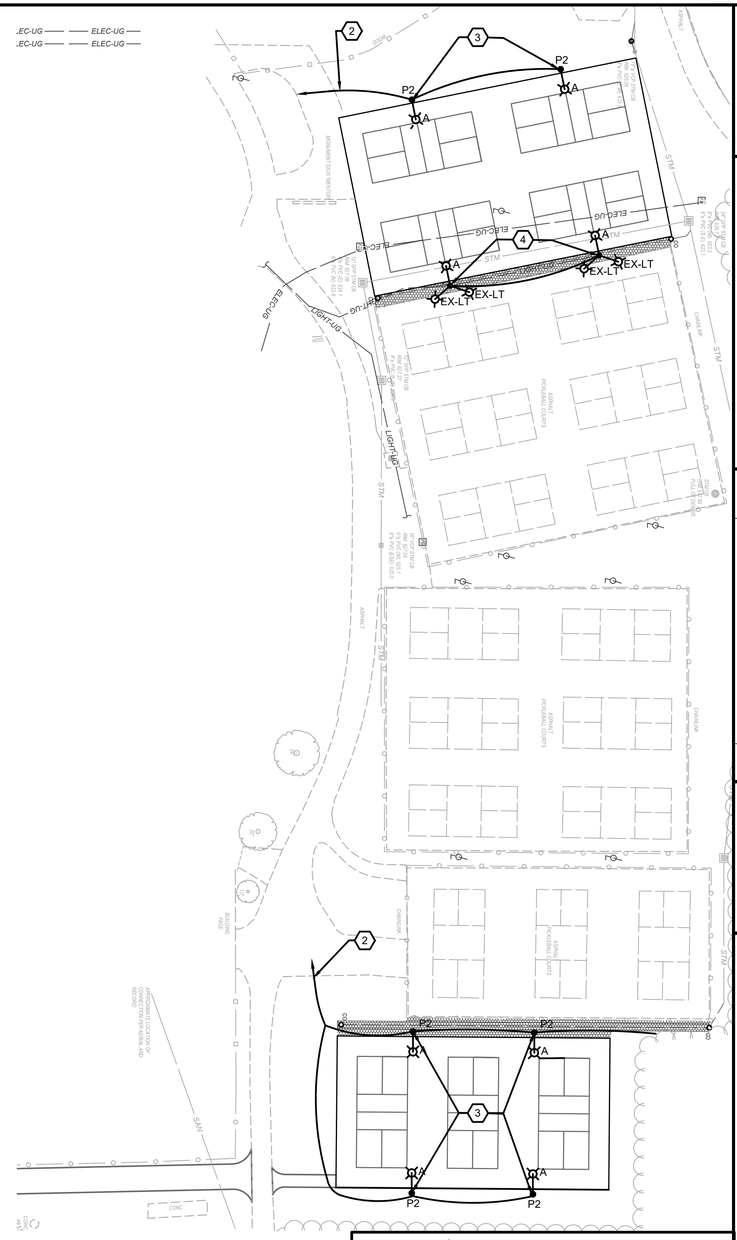
TYPICAL LIGHT POLE WIRING

NOT TO SCALE

PARKING LOT
LIGHT POLE FOUNDATION

NOT TO SCALE

1. COPPER GROUND CABLE SHALL BE EXOTHERMICALLY WELDED TO GROUND ROD. RUN CABLE FREE END THROUGH 3/4" EMT AND CONNECT AS SHOWN.
2. ANCHOR BOLTS AND ANCHOR BOLT PATTERN SHALL BE PROVIDED BY THE POLE SUPPLIER. THE GENERAL CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE ANCHOR BOLTS WITH THE SITE WORK. PAYMENT FOR ANCHOR BOLTS AND THEIR INSTALLATION IS UNDER ITEM 625 – LIGHT POLE FOUNDATION, 24 INCH X 8' DEEP, AS PER PLAN.
3. ALL WIRING IN POLE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. PROVIDE A 12"x12" PULL BOX AT EA LIGHT POLE WITH *8 FEET OF SLACK ON EACH CIRCUIT CONDUCTOR. REFER TO PRICES TO INCLUDE FOR SPECIFIC PULLBOX MATERIAL REQUIREMENTS.
5. VERIFY COMPATIBILITY OF USE OF 2" CONDUIT SLEEVE WITH POLE MANUFACTURER
6. POLE BASE IS TO BE ONE CONTINUOUS POUR. 2' PORTION OF EXPOSED CONC. BASE ABOVE PAVEMENT /GRADE SHALL BE HAND RUBBED SMOOTH. PRE-FABBED CONC. POLE BASES WILL NOT BE ACCEPTED. (ALL BASES MUST BE POURED ON SITE)
7. ALL POLES SHALL BE EQUIPPED WITH VIBRATION DAMPERS, GROUND LUG, POLE BASE COVERS, AND LEVELING NUTS
8. LIGHTING CONTROL WILL NEED TO BE COORDINATED WITH THE CITY OF MENTOR ELECTRICIAN. IT IS THE INTENT TO OBTAIN POWER AND MANUAL CONTROL FROM THE PROPOSED ELECTRICAL SERVICE AND LIGHTING CONTROL CABINET.



SHEET NOTES

1. SEE GENERAL NOTES SHEET FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
2. CONTRACTOR TO FIELD ROUTE PROPOSED LIGHTING WIRE & CONDUITS.
3. ALL PROPOSED LIGHT POLES SHALL BE PROVIDED BY THE CITY. CONTRACTOR TO PERFORM THE INSTALLATION.
4. PROPOSED TYPE A LIGHT FIXTURES ARE TO BE ADDED TO THESE (2) EXISTING LIGHT POLES. ON THESE (2) POLES THE EXISTING BULLHORN TENON ADAPTER IS TO BE REMOVED AND REPLACED WITH A NEW BULLHORN TRIPLE ADAPTER TO FACILITATE EXISTING LIGHTS AND NEW TYPE A LIGHT. CONTRACTOR TO PERFORM THE INSTALLATION.

BAR SCALE
30' 15' 0' 30'
SCALE: 1"= 30'

OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

SHEET LEGEND

A POLE MTD FIXTURE PER SCHEDULE
P-2 PR. LIGHT POLE LOCATION

P-2 - IS A PROPOSED 30' LIGHT POLE FURNISHED BY CITY VERIFY LENGTH WITH CITY.

STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

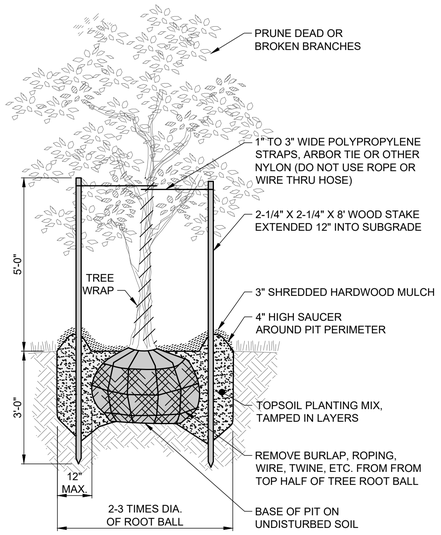
NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

SITE LIGHTING PLAN COURT

PROJECT NO.	
32272	
DISCIPLINE	
CIVIL	
SHEET NAME	
E-2	
SHEET	OF
24	31

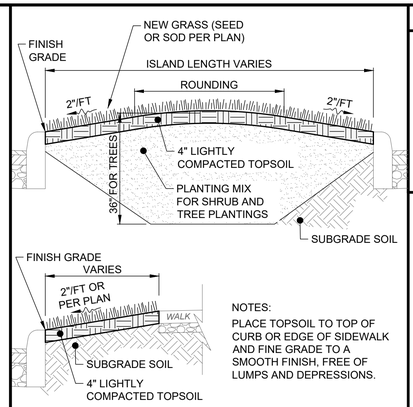


NOTES:

1. CROWN OF ROOT BALL TO BEAR THE SAME RELATION TO FINISH GRADE WHICH IT WAS GROWN AT THE NURSERY.
2. DO NOT DAMAGE ROOTS OR DESTROY ROOT BALL WHEN INSTALLING TREE STAKES.
3. REMOVE TREE RINGS, TREE WRAP AND STAKES 1 YEAR AFTER INSTALLATION. NOTIFY OWNER PRIOR TO REMOVAL.

TREE PLANTING DETAIL

SCALE: NONE



NOTES:

PLACE TOPSOIL TO TOP OF CURB OR EDGE OF SIDEWALK AND FINE GRADE TO A SMOOTH FINISH, FREE OF LUMPS AND DEPRESSIONS.

ISLAND PLANTING DETAIL

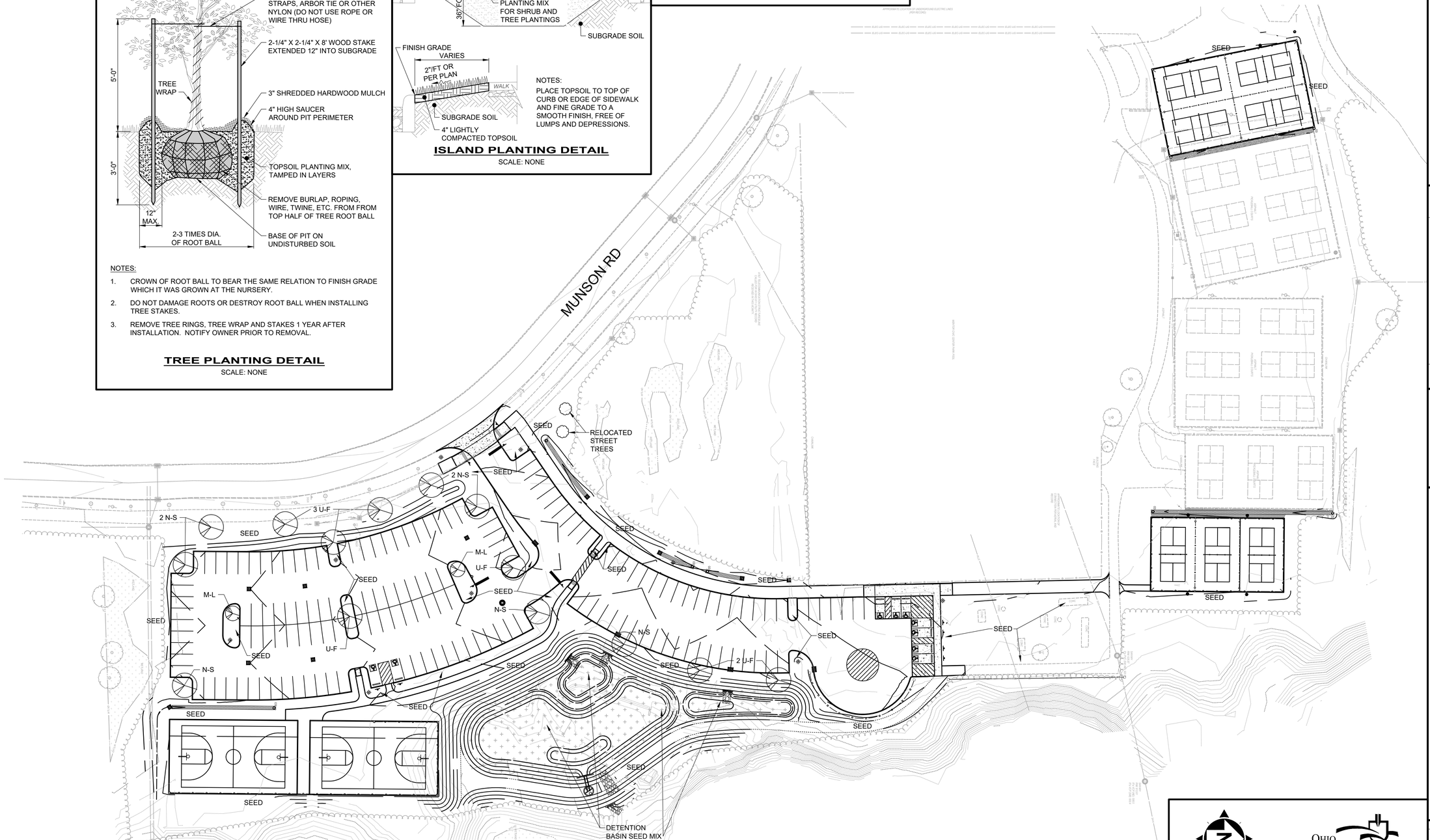
SCALE: NONE

LANDSCAPE NOTES

1) GRAPHICAL SCREENING AND SHADING IS USED TO DE- EMPHASIZE EXISTING CONDITION ITEMS AND SOME NEW IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK.
2) ALL DISTURBED AREAS SHALL BE TOPSOILED, FINE GRADES AND SEEDED.
3) THE CONTRACTOR SHALL PROTECT EXISTING TREES AND PLANTS NOT DESIGNATED FOR REMOVAL. ANY TREE OR PLANT, INCLUDING ROOTS, DAMAGED BY CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR WITH LIKE SPECIES AND SIZE WITH NO ADDITIONAL COMPENSATION.

PLANT MATERIAL LIST

QTY.	KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
2	M-L	MALUS LANCELOT	LANCELOT CRABAPPLE	2' CAL.	B&B
7	N-S	NYSSA SYLVATICA	BLACK OR SOUR GUM	2" CAL.	B&B
7	U-F	ULMUS X FRONTIER	FRONTIER ELM	2" CAL.	B&B



BAR SCALE
40' 20' 0' 40'
SCALE: 1"= 40'

OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

STATE OF OHIO
RICHARD R. WASHINGTON
9400794
REGISTERED
LANDSCAPE ARCHITECT

verdantas

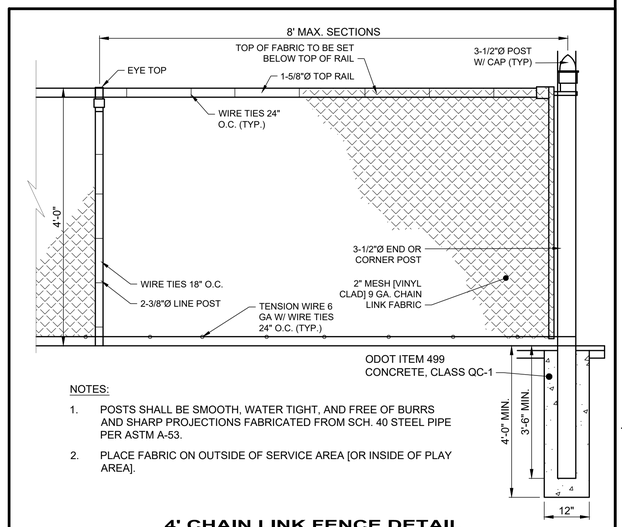
NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	I RRW
DRAWN BY:	RRW
CHECKED BY:	RRW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

LANDSCAPE PLAN

PROJECT NO.	32272
DISCIPLINE	CIVIL
SHEET NAME	L-1
SHEET	25
OF	31

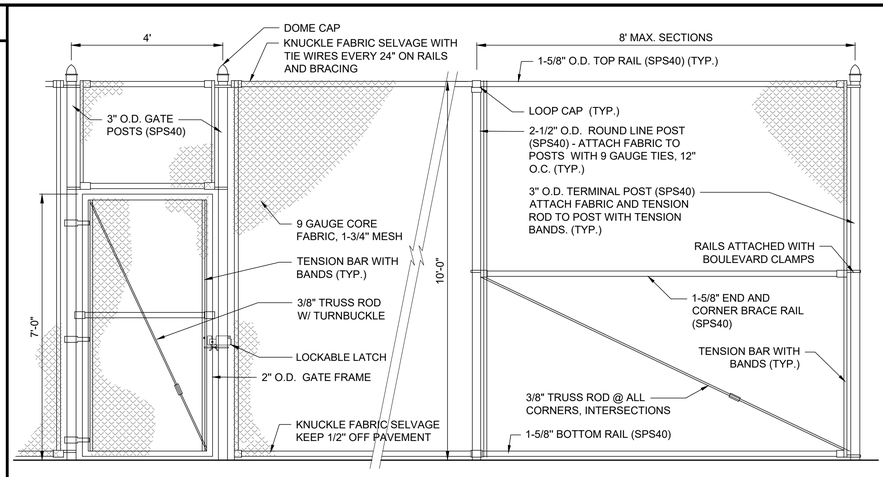


NOTES:

1. POSTS SHALL BE SMOOTH, WATER TIGHT, AND FREE OF BURRS AND SHARP PROJECTIONS FABRICATED FROM SCH. 40 STEEL PIPE PER ASTM A-53.
2. PLACE FABRIC ON OUTSIDE OF SERVICE AREA [OR INSIDE OF PLAY AREA].

4' CHAIN LINK FENCE DETAIL

SCALE: NONE

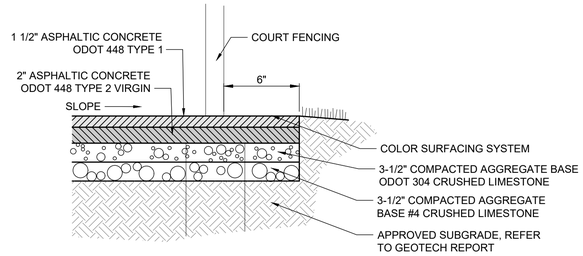


NOTES:

1. SEE PLAN FOR GATE LOCATIONS. FRAME SHALL BE FITTED WITH THE SAME FABRIC AS THE FENCE
2. GATES SHALL BE EQUIPPED WITH GALVANIZED STEEL HINGES, STOP, FULCRUM LATCH PADLOCKING DEVICE WITH STRIKE STRAP.
3. ALL POSTS SHALL BE SET 6" IN FROM EDGE OF PAVEMENT.

10' COURT FENCING DETAIL

NOT TO SCALE



COURT SPECIFICATIONS:

1. SUBGRADE PREPARATION
   THE SUBGRADE SHALL BE GRADED AND COMPACTED PER ACCEPTABLE INDUSTRY STANDARDS. ANY SUBGRADE AREA WHICH REQUIRES EMBANKMENT SHALL BE FIRST SCARIFIED BEFORE ANY FILL MATERIAL IS PLACED. SUBGRADE EMBANKMENT AND/OR FILL MATERIAL(S) SHALL BE FREE OF ORGANIC OR EXPANSIVE MATERIALS, AND OF PARTICLES GREATER THAN 1-1/2 INCHES IN DIMENSION. IT SHALL BE PLACED IN LIFTS NOT TO EXCEED SIX (6) INCHES IN THICKNESS AND COMPACTED TO A MINIMUM DENSITY OF 98% OF ASTM D698 STANDARD PROCTOR. THE MOISTURE CONTENT OF THE FILL SHALL BE REDUCED BY AERATION OR INCREASED BY ADDING WATER AS NECESSARY TO ATTAIN PROPER MOISTURE CONTENT FOR REQUIRED COMPACTION. COMPACTION OF EMBANKMENT AND/OR FILL MATERIALS SHALL BE BY USE OF A SHEEPSFOOT TYPE COMPACTOR. AT CONCLUSION OF SUBGRADE GRADING, THE ENTIRE AREA SHALL BE COMPACTED BY USE OF A SMOOTH DRUM VIBRATORY ROLLER WITH A STATIC WEIGHT OF NOT LESS THAN SIX TONS. THE SUBGRADE SHALL THEN BE GRADED AND ROLLED IN OPPOSITE DIRECTIONS, WITH THE FINAL ROLLING PASSES IN THE DIRECTION OF FINISH GRADE PITCH. COMPACTION OF THE ENTIRE SUBGRADE AREA SHALL BE TESTED FOR A MINIMUM DENSITY OF 98% OF ASTM D698 STANDARD PROCTOR. PRIOR TO INSTALLATION OF THE LIMESTONE BASE MATERIALS, ANY AREA OF THE SUBSURFACE DRAINAGE SYSTEM WHICH WAS COVERED BY SUBGRADE SOILS SHALL BE EXCAVATED TO EXPOSE THE AGGREGATE BACKFILL, AND ADDITIONAL AGGREGATE PER SPECIFICATION SHALL BE INSTALLED TO MEET DESIGN ELEVATIONS. PRIOR TO INSTALLATION OF THE LIMESTONE BASE, THE ENTIRE AREA SHALL BE PROOF-ROLLED USING A LOADED TANDEM AXLE DUMP TRUCK IN THE PRESENCE OF THE OWNER AND/OR OWNER'S REPRESENTATIVE.

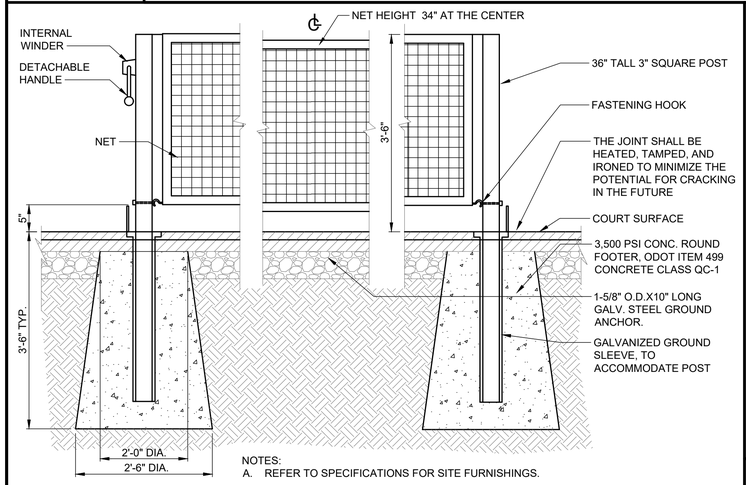
2. LIMESTONE BASE CONSTRUCTION
   UPON APPROVED AND COMPACTED SUBGRADE, INSTALL A TWO LAYER LIMESTONE BASE. THE #4 LIMESTONE BASE SHALL EXTEND OVER THE #57 WASHED GRAVEL SUB-SURFACE DRAINAGE SYSTEM AT THE LOW SIDE OF EACH COURT BATTERY AND ALSO AT THE TWO SLOPED SIDES OF EACH COURT BATTERY. THE ODOT ITEM #304 LIMESTONE SHALL EXTEND OVER THE #4 LIMESTONE AND PAST THE #4 LIMESTONE ON THE HIGH SIDE OF EACH COURT BATTERY. ALL BASE MATERIALS SHALL BE PLACED A MINIMUM OF 18" OUTSIDE OF THE PROPOSED FINISHED PAVED AREAS. FINE GRADE AND COMPACT TO DESIGN PITCH WITH A TOLERANCE NOT TO EXCEED 3/8" FROM DESIGN PITCH. COMPACTION OF EACH LIMESTONE BASE LAYER SHALL BE BY SMOOTH DRUM VIBRATORY ROLLER WITH A STATIC WEIGHT OF NOT LESS THAN SIX TONS.

3. ASPHALTIC CONCRETE
   AGGREGATE MIX IN ASPHALT SHALL BE CRUSHED VIRGIN LIMESTONE. SLAG, GRAVEL, SHALE, OR RECYCLED ASPHALT WILL NOT BE PERMITTED.
   UPON A PROPERLY GRADED AND COMPACT LIMESTONE BASE, CONSTRUCT A TWO LAYER LIMESTONE AGGREGATE HOT PLANT MIX ASPHALT STRUCTURAL SURFACE. THE FIRST LAYER SHALL BE ODOT ITEM #448, TYPE II HOT PLANT MIX ASPHALT. THE FINISH LAYER SHALL BE ODOT ITEM #448, TYPE I VIRGIN LIMESTONE MIX ASPHALT WITH EITHER MANUFACTURED SAND OR LIMESTONE SAND FINE AGGREGATE. NO RECYCLED ASPHALT, SLAG, SHALE, NATURAL SAND, OR GRAVEL SHALL BE INCORPORATED INTO THE VIRGIN LIMESTONE MIX ASPHALT SPECIFIED. JOB MIX DESIGNS FOR THE ODOT ITEM #448, TYPE I AND TYPE II HOT PLANT MIX ASPHALT SHALL BE REQUIRED FROM THE ASPHALT PLANT SUPPLYING THE ASPHALT FOR THIS PROJECT. ALL ASPHALT LAYERS SHALL BE INSTALLED BY USE OF A SELF-PROPELLED ASPHALT PAVER WITH A MINIMUM FOUR TON HOPPER. POWER AND/OR DRAG BOXES ARE NOT ACCEPTABLE. BREAKDOWN ROLLING SHALL BE WITH A MINIMUM 3 TO 5 TON TANDEM STEEL WHEEL ROLLER WITH A FUNCTIONING WATERING SYSTEM. FINISH ROLLING SHALL BE WITH A MINIMUM 1.5 TON TANDEM STEEL WHEEL ROLLER WITH A FUNCTIONING WATERING SYSTEM. THE NEW ASPHALT SURFACE SHALL BE PROTECTED FROM DAMAGE BY ALL SUBSEQUENT OPERATIONS OF THE PRIME CONTRACTOR. ANY DAMAGE TO SURFACE PRIOR TO PROJECT COMPLETION SHALL BE REPAIRED BY PRIME CONTRACTOR AT HIS EXPENSE.

4. COLOR FINISH COURSE
   A. NEW ASPHALT MUST BE PROPERLY CURED A MINIMUM OF 30 DAYS PRIOR TO FINISHING.
   B. ALL NET POST SLEEVES, CENTER STRAP ANCHORS, AND FENCING SHALL BE INSTALLED PRIOR TO THE APPLICATION OF ANY SURFACING MATERIALS.
   C. THE CONTRACTOR MAY REMOVE EXISTING FENCE, GATES, AND OTHER APPURTENANCES TO FACILITATE INGRESS AND EGRESS OF EQUIPMENT, AND MATERIALS AND INSTALLATION OF THE WORK.
   D. THE AREAS TO BE TREATED SHALL BE CLEANED OF ALL OILS, DIRT, OR OTHER FOREIGN MATTER.
   E. FINAL SURFACE INSPECTION: PRIOR TO APPLICATION OF A COLOR FINISH SYSTEM THE COURT SURFACE SHALL BE FLOODED WITH WATER AND ALLOWED TO DRAIN. ANY DEPRESSIONS THEREUPON HOLDING WATER DEEPER THAN ONE-EIGHTH INCH (1/8") SHALL BE PATCHED AND LEVELED IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER OF THE COLOR FINISH MATERIAL SPECIFIED HEREINAFTER.
   F. COLOR FINISH MATERIAL: 3 COAT 100% ACRYLIC COLOR SURFACING SYSTEM. COLORS SHALL MATCH EXISTING COURTS AS APPROVED BY THE OWNER. ALL MIXING APPLICATIONS SHALL BE PER MANUFACTURER'S SPECIFICATIONS.
   G. 3 APPLICATION COATS:
      1) ACRYLIC RESURFACER WITH SILICA SAND ADDED - ONE (1) COAT APPLIED PER MFG. SPECIFICATIONS.
      2) 2 & 3. TEXTURED ACRYLIC COLOR COATS WITH SILICA SAND ADDED BY THE MANUF. OF THE COLOR SURFACING PRODUCT. APPLIED PER MFG. SPECIFICATIONS.
   H. PLAYING LINES: TEXTURED WHITE ACRYLIC LINE PAINT. BASE LINES SHALL BE NOT MORE THAN FOUR INCHES (4") WIDE AND PLAYING LINES NOT MORE THAN TWO INCHES (2") WIDE. LINES ON TENNIS COURTS SHALL BE ACCURATELY LOCATED AND MARKED IN ACCORDANCE WITH RULES OF THE UNITED STATES TENNIS ASSOCIATION.

COURT PAVEMENT DETAIL

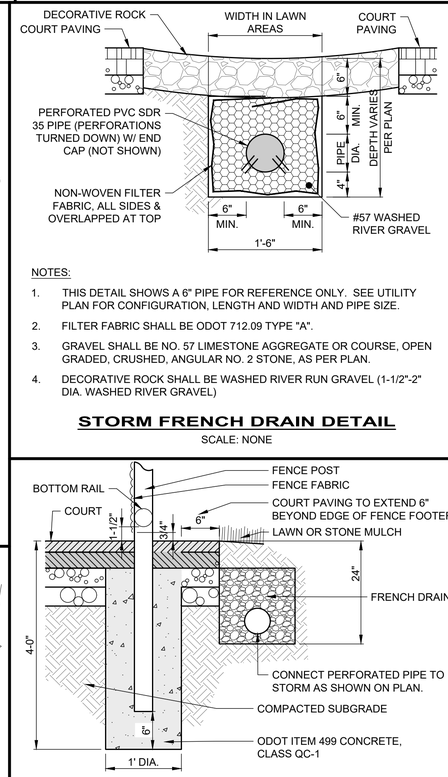
NOT TO SCALE



NOTES:
A. REFER TO SPECIFICATIONS FOR SITE FURNISHINGS.

COURT NET AND POSTS DETAIL

NOT TO SCALE

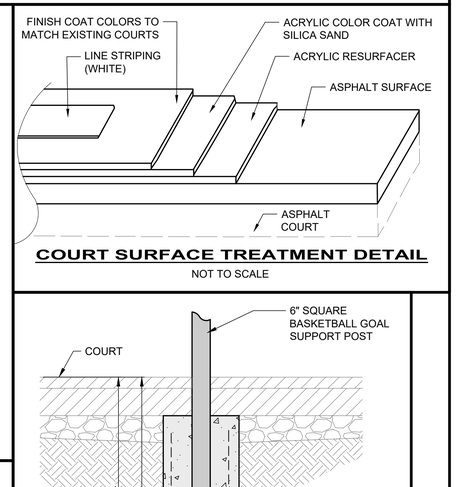


NOTES:

1. THIS DETAIL SHOWS A 6" PIPE FOR REFERENCE ONLY. SEE UTILITY PLAN FOR CONFIGURATION, LENGTH AND WIDTH AND PIPE SIZE.
2. FILTER FABRIC SHALL BE ODOT 712.09 TYPE "A".
3. GRAVEL SHALL BE NO. 57 LIMESTONE AGGREGATE OR COURSE, OPEN GRADED, CRUSHED, ANGULAR NO. 2 STONE, AS PER PLAN.
4. DECORATIVE ROCK SHALL BE WASHED RIVER RUN GRAVEL (1-1/2"-2" DIA. WASHED RIVER GRAVEL)

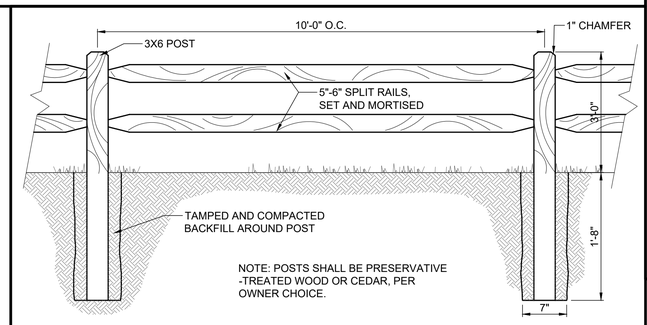
STORM FRENCH DRAIN DETAIL

SCALE: NONE



COURT SURFACE TREATMENT DETAIL

NOT TO SCALE

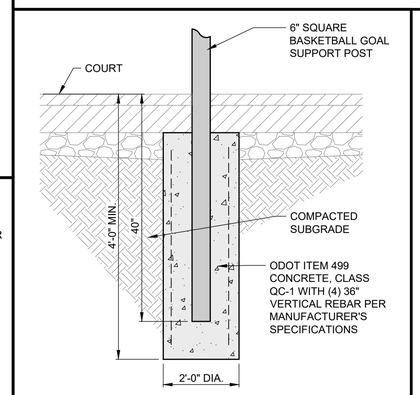


2-RAIL WOOD SPLIT RAIL FENCE DETAIL

SCALE: NONE

FENCE FOOTER DETAIL

NOT TO SCALE



BASKETBALL POST FOOTER DETAIL

SCALE: NONE

STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

NO	REVISION	DATE
BID		4/22/25

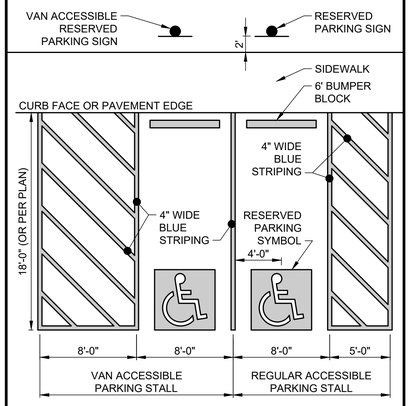
ISSUED FOR: BID
ISSUE DATE: 4/22/25
SCALE: AS SHOWN
DESIGNED BY: RW, CZ
DRAWN BY: CZ, GA, LE
CHECKED BY: LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

COURT DETAILS

PROJECT NO. 32272
DISCIPLINE: CIVIL
SHEET NAME: DT-1
SHEET 26 OF 31

Z:\PROJECT FILES\MA-NZ\MENTOR\32272 - CIVIC CENTER PARK IMPROVEMENTS\CAD\DWG\SHEETS\C_32272 - DETAILS.DWG - DT-1 - 4/22/2025 4:44:12 PM - LENE HILL

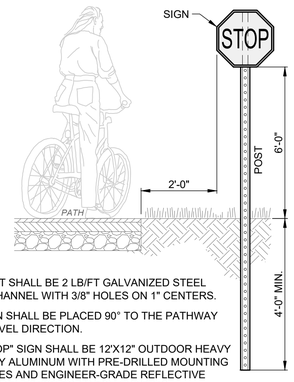


NOTES:

1. ALL PAINTED AREAS SHALL RECEIVE (2) 15 MIL COATS OF PAINT WITH 4 WEEK MIN. BETWEEN COATS.
2. THIS DETAIL IS FOR REFERENCE AND DIMENSION CONTROL ONLY; SEE LAYOUT PLAN FOR ACTUAL CONFIGURATION.
3. SEE SEPARATE DETAILS FOR SIGNS, PARKING SYMBOL AND BUMPER BLOCK.

ACCESSIBLE PARKING LAYOUT DETAIL

SCALE: NONE

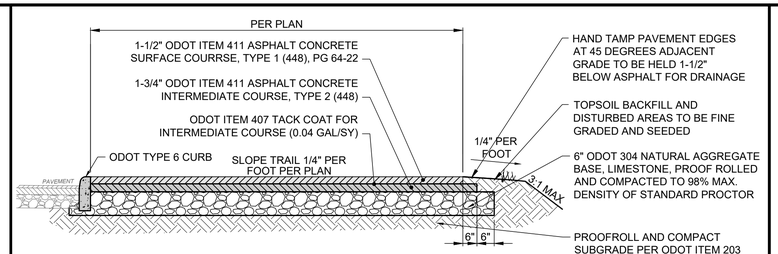


NOTES:

1. POST SHALL BE 2 LB/FT GALVANIZED STEEL U-CHANNEL WITH 3/8" HOLES ON 1" CENTERS.
2. SIGN SHALL BE PLACED 90° TO THE PATHWAY TRAVEL DIRECTION.
3. "STOP" SIGN SHALL BE 12'X12" OUTDOOR HEAVY DUTY ALUMINUM WITH PRE-DRILLED MOUNTING HOLES AND ENGINEER-GRADE REFLECTIVE ENAMEL FINISH TO MATCH EXISTING.

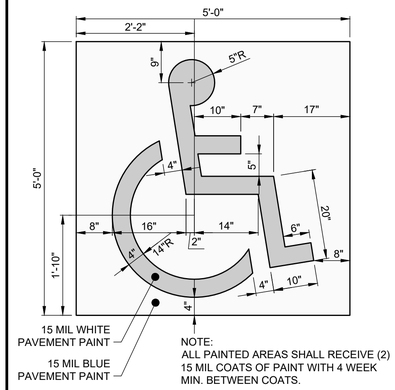
"BIKE LANE" SIGN POST DETAIL

SCALE: NONE



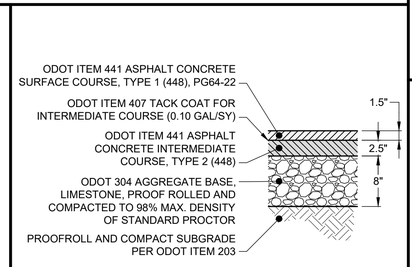
ASPHALT PATH

NOT TO SCALE



ACCESSIBLE PARKING SYMBOL DETAIL

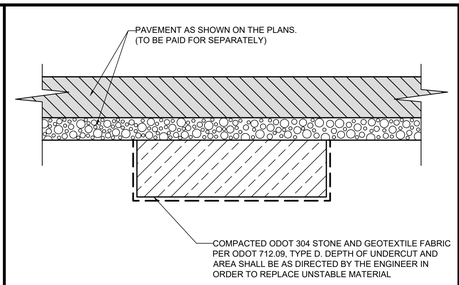
SCALE: NONE



NOTES:
-SURFACE COURSE SHALL BE VIRGIN ASPHALT MATERIAL ONLY. NO R.A.P. PERMITTED.
-INTERMEDIATE COURSE CAN HAVE A MAXIMUM OF 25% R.A.P.

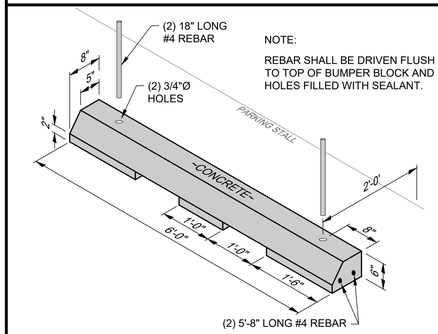
STANDARD DUTY ASPHALT PAVEMENT DETAIL

SCALE: NONE



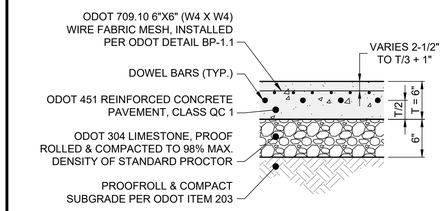
ADDITIONAL SUBGRADE REPLACEMENT DETAIL (ITEM 204)

NOTE: ITEM SHALL BE USED AS DIRECTED



6' CONCRETE BUMPER BLOCK DETAIL

SCALE: NONE

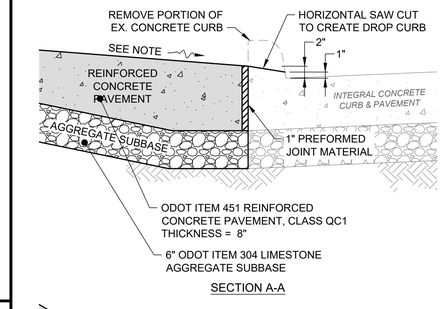


NOTES:

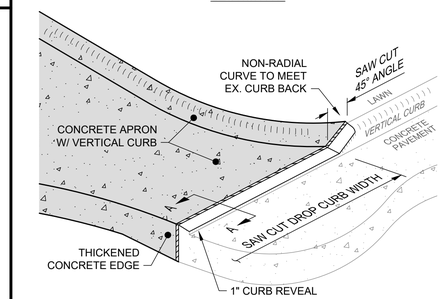
1. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL JOINTS. DIVIDE JOINTS INTO EQUALLY SPACED RECTANGULAR BLOCKS. MAXIMUM JOINT SPACING SHALL BE 13' X 13'.
2. APPLY LIQUID-MEMBRANE CURING COMPOUND (200 S.F./GAL.).
3. IF UNSUITABLE SOILS EXISTS, SEE SUBGRADE REPAIR DETAIL.

REINFORCED CONCRETE PAVEMENT DETAIL

SCALE: NONE



SECTION A-A

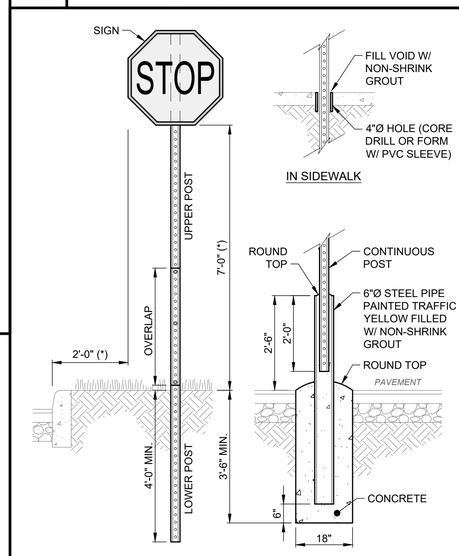


NOTES:

1. CONCRETE SHALL BE ODOT ITEM 451, CLASS QC-1 EXCEPT AT ACTIVE DRIVE APRONS, WHICH SHALL BE CLASS QC MS.
2. MINIMUM DRIVE APRON SLOPE PERMITTED IS 1/8"/FT. (1.00%) AND MAXIMUM IS 1"/FT. (8.33%). SEE GRADING PLAN FOR ACTUAL SLOPES AND ELEVATIONS.
3. SEE SEPARATE DETAILS FOR ADDITIONAL REQUIREMENTS AND LAYOUT PLAN FOR ACTUAL THICKNESS AND DIMENSIONS.

CONCRETE DRIVE APRON W/ DROP VERTICAL CURB AT EX. CONCRETE CURB & GUTTER DETAIL

SCALE: NONE

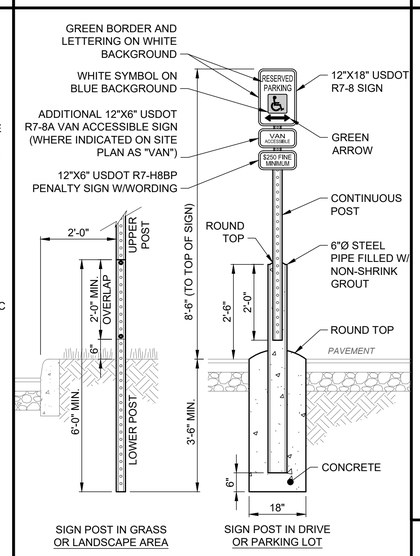


NOTES:

1. POSTS SHALL BE 2 LB/FT GALVANIZED STEEL U-CHANNEL WITH 3/8" HOLES ON 1" CENTERS.
2. ALL SIGNS SHALL BE PLACED 90° TO THE ROADWAY TRAVEL DIRECTION.
3. "STOP" SIGN SHOWN FOR REFERENCE. SEE LAYOUT PLAN FOR SPECIFIC TYPE OF SIGN(S) TO BE USED.

SIGN POST DETAIL

SCALE: NONE

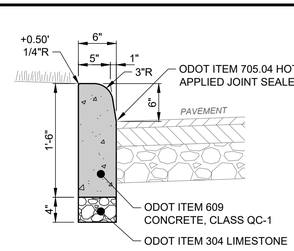


NOTES:

1. ALL CONCRETE SHALL BE ODOT ITEM 499, CLASS QC-1.
2. POST SHALL BE 2 LB/FT GALVANIZED STEEL U-CHANNEL WITH 3/8" HOLES ON 1" CENTERS.
3. PAINT STEEL PIPE TRAFFIC YELLOW OR COLOR PER PLAN.
4. LOCATE SIGNS ON BOTH SIDES WHERE ACCESSIBLE PARKING STALLS FACE EACH OTHER.

'ACCESSIBLE PARKING' SIGN W/ POST DETAIL

SCALE: NONE



NOTES:

1. INSTALL 1/2" PREFORMED JOINT MATERIAL AND USE 5/8"Ø X 18" LONG DOWELS INTO COLD JOINTS TOP AND BOTTOM WHERE NEW CURB MEETS EXISTING CURB.
2. PROVIDE CONTRACTION JOINTS AT 10' O.C.
3. APPLY LIQUID-MEMBRANE CURING COMPOUND.
4. THIS DETAIL SHOWS ASPHALT PAVEMENT FOR REFERENCE ONLY. SEE SITE PLAN FOR ACTUAL TYPE OF PAVEMENT.

(ODOT TYPE 6) 6" VERTICAL CURB DETAIL

SCALE: NONE

STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

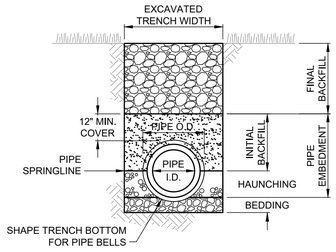
NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

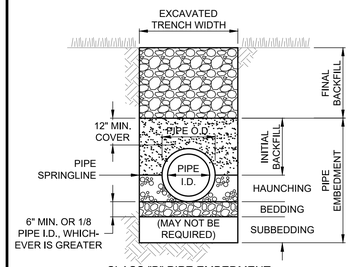
MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

PARKING LOT AND SITE DETAILS

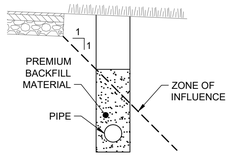
PROJECT NO.	
32272	
DISCIPLINE	
CIVIL	
SHEET NAME	
DT-2	
SHEET	OF
27	31



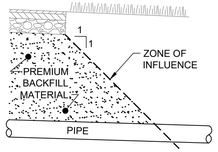
CLASS "C" PIPE EMBEDMENT



CLASS "B" PIPE EMBEDMENT



PARALLEL ZONE OF INFLUENCE



TRANSVERSE ZONE OF INFLUENCE

NOTES:

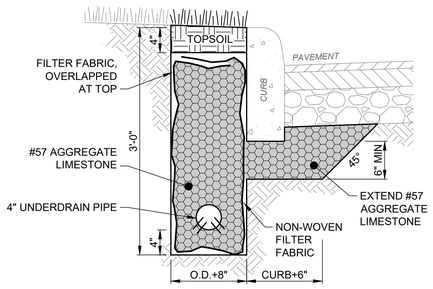
1. EXCAVATED TRENCH WIDTH: MEASURED FROM BOTTOM OF TRENCH TO 12" OVER TOP OF PIPE (WITHIN THE PIPE EMBEDMENT), THE MIN. TRENCH WIDTH SHALL BE O.D. + 18" AND THE MAX. SHALL BE:
   - O.D.+ 24" FOR 24" AND SMALLER I.D. PIPE
   - O.D.+ 30" FOR 27" THRU 54" I.D. PIPE
   - O.D.+ 48" FOR 60" AND LARGER I.D. PIPE
2. FINAL BACKFILL: ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE SHALL BE PREMIUM BACKFILL (ODOT ITEM 304 LIMESTONE). PAVEMENT INCLUDES ROADWAY, SHOULDER AND DRIVEWAY, BUT NOT SIDEWALK. NO SLAG OR SLACKER AGGREGATES ALLOWED. IN ALL OTHER AREAS, FINAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL. BACKFILL SHALL BE COMPACTED TO 98% MAXIMUM DRY DENSITY OF STANDARD PROCTOR WITH MOISTURE CONTENT ADJUSTED TO +2/-2% OF OPTIMUM.
3. PIPE EMBEDMENT:

   CLASS "B": SHALL BE USED FOR ALL PIPES UNLESS OTHERWISE NOTED ON THE PLANS. BEDDING AND HAUNCHING SHALL BE NO. 8 OR 57 COURSE INTERLOCKING LIMESTONE AGGREGATE. IN AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE NO. 57 COURSE INTERLOCKING LIMESTONE AGGREGATE. IN ALL OTHER AREAS, THE INITIAL BACKFILL MAY BE SUITABLE ON-SITE MATERIAL FOR RIGID PIPE, AND SHALL BE NO. 57 COURSE INTERLOCKING LIMESTONE AGGREGATE FOR FLEXIBLE PIPE.

   CLASS "C": SHALL BE USED ONLY FOR DUCTILE IRON WATER MAIN OR FORCE MAIN. THE PIPE EMBEDMENT SHALL BE NO. 57 COURSE INTERLOCKING LIMESTONE AGGREGATE IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE. IN ALL OTHER AREAS, THE PIPE EMBEDMENT SHALL BE SUITABLE ON-SITE MATERIAL. BEDDING IS NOT REQUIRED. WHERE ROCK OR SHALE IS ENCOUNTERED, BEDDING SHALL BE 6" MIN. OF NO. 57 COURSE INTERLOCKING LIMESTONE AGGREGATE OR SAND.
4. SUBBEDDING: WHERE AN UNSTABLE TRENCH BOTTOM CONDITION IS ENCOUNTERED, EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH MATERIAL AS DIRECTED BY THE ENGINEER.
5. CLAY TRENCH DAMS SHALL BE REQUIRED FOR EACH LATERAL UPSTREAM OF EVERY MANHOLE OR AS SHOWN ON THE PLANS.

TRENCHING, EMBEDMENT AND BACKFILL DETAIL

SCALE: NONE

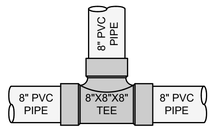


NOTES:

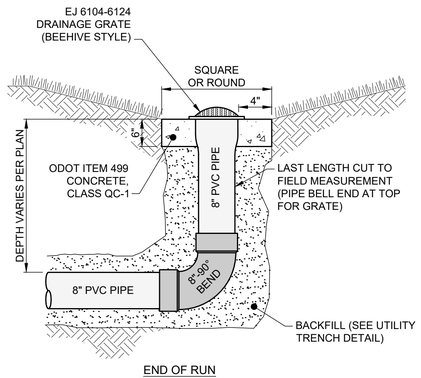
1. THIS DETAIL SHOWS A 6" WIDE CURB FOR REFERENCE ONLY. SEE SITE PLAN FOR TYPE OF CURB AND ACTUAL WIDTH.
2. AGGREGATE MUST EXTEND UNDER AND BEYOND THE CURB TO MEET THE PAVEMENT SUBBASE AND ALLOW SUB-DRAINAGE.
3. FILTER FABRIC SHALL BE ODOT 712.09 TYPE "A".
4. REMOVE OR COMPACT ALL LOOSE EXCAVATION AT BOTTOM OF TRENCH BEFORE INSTALLING AGGREGATE.
5. MAINTAIN POSITIVE DRAINAGE OF PIPE INVERTS WITH NO DIPS OR HUMPS IN FLOW LINE.
6. UNDERDRAIN SHALL BE PERFORATED PVC SDR 35 PIPE WITH PERFORATIONS TURNED DOWN OR HDPE SINGLE WALL CORRUGATED PIPE.

CURB UNDERDRAIN DETAIL

SCALE: NONE



MIDDLE OF RUN



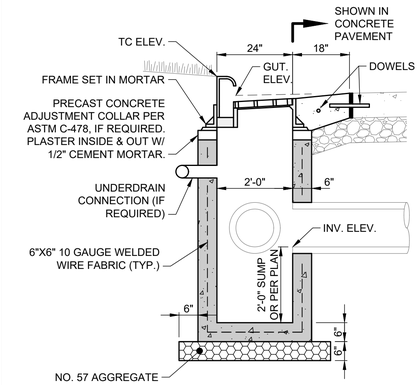
END OF RUN

NOTES:

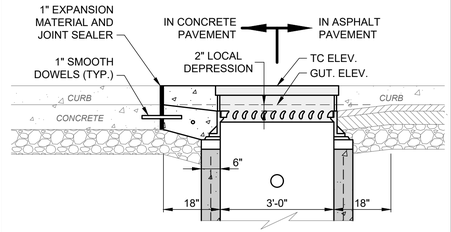
1. THIS DETAIL SHOWS AN 8" PIPE FOR REFERENCE ONLY. SEE UTILITY PLAN FOR ACTUAL SIZE.

YARD INLET DETAIL

SCALE: NONE



INLET BASIN
(SHOWN WITH SUMP)
SECTION



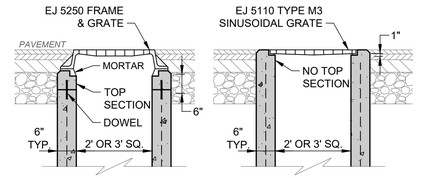
PROFILE

NOTES:

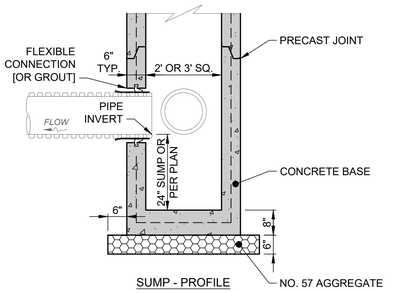
1. ALL CONCRETE SHALL BE ODOT ITEM 499, CLASS QC-1.
2. STRUCTURE SHALL MEET H-20 LOADING.
3. PRECAST CONCRETE STRUCTURE AND REINFORCEMENT SHALL CONFORM TO ASTM C-913.
4. INSTALL STEPS IF STRUCTURE IS MORE THAN 5' DEEP (NOT SHOWN FOR CLARITY). USE REINFORCED PLASTIC MANHOLE STEPS. FIRST STEP SHALL NOT BE MORE THAN 2'-0" BELOW TOP OF FRAME.
5. PIPE OPENINGS SHALL BE O.D. OF PIPE PLUS 2", AND ALL PIPE OPENINGS MUST BE PREFABRICATED WITH FLEXIBLE CONNECTIONS (Z-LOK OR A-LOK) PER ASTM C-923.
6. GRADE ADJUSTMENT BY PRE-CAST CONCRETE ADJUSTING COLLAR OR MAX. 2 COURSES ASTM C-32 BRICK MASONRY SET IN MORTAR.
7. (*) IF TOP SECTION IS A SEPARATE CAST PIECE, 1/2"Ø X 6" L DOWELS SHALL BE USED AT EACH CORNER TO ATTACH THE TOP TO THE BOTTOM SECTIONS OF BASIN.
8. FRAME AND GRATE SHALL BE EJ 7030 WITH TYPE M6 VANE GRATE AND T1 BACK FOR 2'X3' OR PER PLAN.
9. ALL GRATES SHALL INCLUDE LETTERING "DUMP NO WASTE" AND FISH IMAGE.
10. BASIN SHALL INCLUDE SUMP IF REQUIRED PER PLAN.
11. THIS DETAIL IS FOR REFERENCE AND DIMENSION CONTROL ONLY; SEE UTILITY PLAN FOR ACTUAL SIZES.

PRECAST CONCRETE 2'X3' CURB INLET BASIN DETAIL

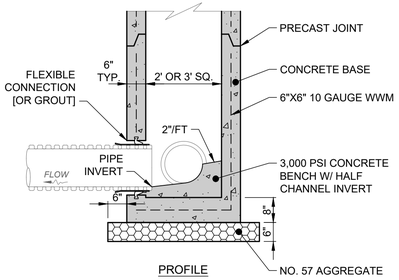
SCALE: NONE



PAVED AREA ALTERNATE #1: PAVED AREA



SUMP - PROFILE



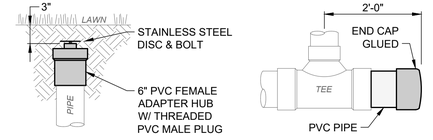
PROFILE

NOTES:

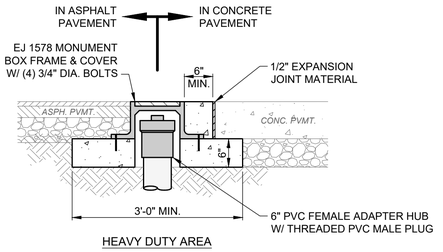
1. CONCRETE SHALL BE ODOT ITEM 499, CLASS QC-1.
2. STRUCTURE SHALL MEET H-20 LOADING.
3. PRECAST CONCRETE STRUCTURE AND REINFORCEMENT SHALL CONFORM TO ASTM C-913.
4. PIPE OPENINGS SHALL BE O.D. OF PIPE PLUS 2", AND ALL PIPE OPENINGS MUST BE PRECAST WITH FLEXIBLE CONNECTIONS (Z-LOK OR A-LOK) PER ASTM C-923.
5. IF TOP SECTION IS A SEPARATE CAST PIECE, 1/2"Ø X 6" L DOWELS SHALL BE USED AT EACH CORNER TO ATTACH THE TOP TO THE BOTTOM SECTIONS OF BASIN.
6. GRATE MUST INCLUDE LETTERING "DUMP NO WASTE" AND FISH IMAGE.
7. THIS DETAIL IS FOR REFERENCE AND DIMENSION CONTROL ONLY; SEE UTILITY PLAN FOR ACTUAL PIPE SIZES AND ELEVATIONS.

PRECAST CONCRETE INLET BASIN DETAIL

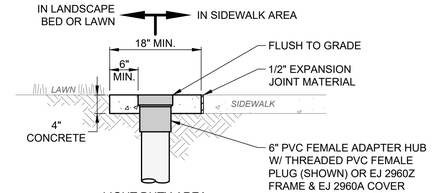
SCALE: NONE



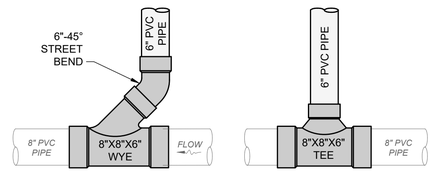
ALTERNATE FOR LAWN AREA IF PIPE DOES NOT CONTINUE



HEAVY DUTY AREA



LIGHT DUTY AREA



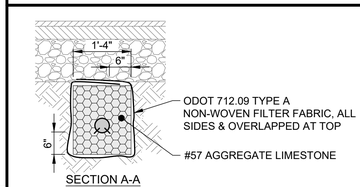
CLEANOUT TEST TEE

NOTES:

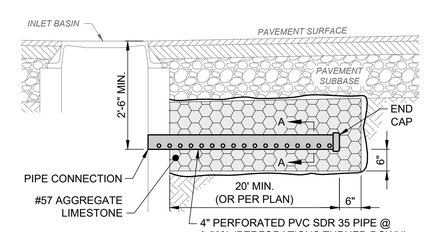
1. CONCRETE SHALL BE ODOT ITEM 499, CLASS QC-1.
2. THIS DETAIL SHOWS A 6" CLEANOUT AND TEST TEE FOR REFERENCE ONLY. USE 4" CLEANOUT OR TEST TEE FOR 4" PIPE; 6" CLEANOUT OR TEST TEE FOR 6" PIPE AND LARGER; OR AS PER PLAN. NOT ALL ITEMS SHOWN MAY APPLY.

STORM CLEANOUT & TEST TEE DETAIL

SCALE: NONE



SECTION A-A



FINGER DRAIN DETAIL

SCALE: NONE

STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

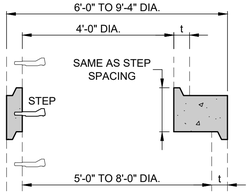
NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

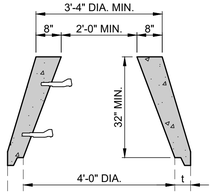
MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

UTILITY DETAILS

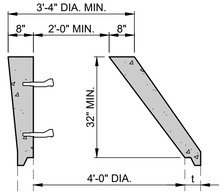
PROJECT NO.	
32272	
DISCIPLINE	
CIVIL	
SHEET NAME	
DT-3	
SHEET	OF
28	31



FLAT SLAB TRANSITION

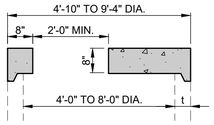


CONCENTRIC CONE TOP



ECCENTRIC CONE TOP

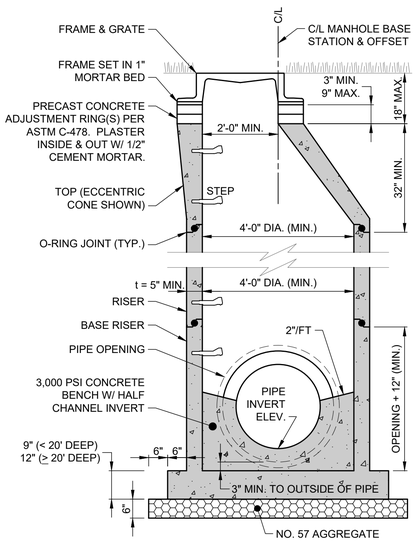
MANHOLE		MAX. PIPE I.D.	
BASE I.D.	MIN. WALL "t"	STRAIGHT THRU INSTALLATION	RIGHT ANGLE INSTALLATION
4'-0"	5"	27"	24"
5'-0"	5"	36"	30"
6'-0"	6"	42"	36"
7'-0"	7"	54"	42"
8'-0"	8"	60"	48"



FLAT SLAB TOP

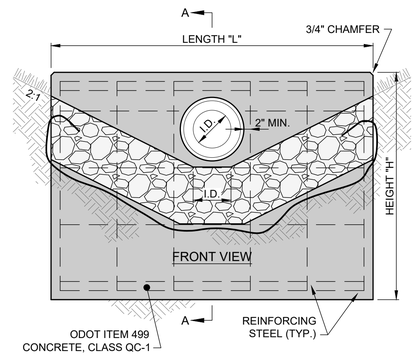
NOTES:

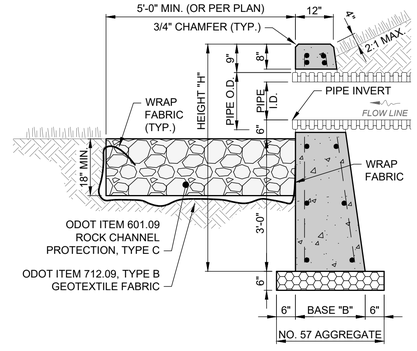
1. TOP SECTION SHALL BE AN ECCENTRIC CONE. ROTATE CONE TO OFFSET MANHOLE CASTING TO AVOID SIDEWALKS, UNDERDRAINS AND CURBS. USE FLAT SLAB TOP IF MANHOLE IS LESS THAN 6'-3" DEEP.
2. LARGER BASE WITH TRANSITION SECTION MAY REQUIRED BASED ON PIPE SIZES, QUANTITIES AND ANGLES.
3. PRECAST MANHOLE AND REINFORCEMENT SHALL CONFORM TO ASTM C-478.
4. STRUCTURE SHALL MEET H-20 LOADING.
5. BASE MUST BE PRECAST MONOLITHIC WITH BASE RISER.
6. ALL PRECAST CONCRETE SECTIONS SHALL BE MANUFACTURED AND FURNISHED AS SOLID SECTIONS WITHOUT LIFT HOLES OF ANY KIND.
7. O-RING JOINT BETWEEN PRECAST MANHOLE SECTIONS SHALL BE RESILIENT WATERTIGHT GASKET PER ASTM C-443.
8. ALL PIPE OPENINGS MUST BE PRECAST WITH FLEXIBLE CONNECTIONS (Z-LOK OR A-LOK) PER ASTM C-923. [OR: PIPE OPENINGS ≤24" MUST BE PREFABRICATED WITH FLEXIBLE CONNECTIONS (Z-LOK OR A-LOK) PER ASTM C-923. LARGER PIPES MAY USE FLEXIBLE CONNECTIONS OR FILL INTERSTITIAL SPACE WITH GROUT.]
9. USE REINFORCED PLASTIC MANHOLE STEPS.
10. FIRST STEP SHALL NOT BE MORE THAN 2'-0" BELOW TOP OF FRAME. MAKE PROJECTION 3-1/2" IF IN 24" DIA. SECTION.
11. CASTING TYPE VARIES BASED ON MANHOLE LOCATION AND SHALL BE AS FOLLOWS OR PER PLAN:
    - A. IN PAVEMENT: EJ 1040 FRAME WITH TYPE "B" VENTED COVER LABELED "STORM".
    - B. IN PAVEMENT ADJACENT TO CURB: EJ 7010 FRAME WITH TYPE "M4" VANE GRATE AND "T1" BACK.
    - C. IN SIDEWALK: EJ 1040 FRAME WITH TYPE "A" SOLID COVER LABELED "STORM".
    - D. IN GRASS: EJ 1040 FRAME WITH TYPE "N" OVAL GRATE.
12. ANY PRECAST CONCRETE SECTION DAMAGED IN TRANSIT OR ON-SITE AND WHERE THE WATER TIGHTNESS OF THE SECTION HAS BEEN ADVERSELY AFFECTED SHALL BE REPLACED AND NOT UTILIZED IN THE CONSTRUCTION OF THE MANHOLE.



PRECAST CONCRETE MANHOLE (STORM) DETAIL

SCALE: NONE





PROFILE SECTION A-A

DIM.	PIPE I.D. ≤ 12"	15"	18"	21"	24"	30"	36"
"H"	5'-5"	5'-7"	5'-11"	6'-2"	6'-5"	6'-11"	7'-6"
"L"	5'-8"	7'-0"	8'-4"	9'-8"	11'-0"	13'-8"	16'-4"
"B"	1'-10"	1'-11"	2'-0"	2'-1"	2'-2"	2'-4"	2'-6"

MIN. DIMENSIONS FOR CIRCULAR PIPE:
L = 5D + 4T
H = D + T + 44"

MIN. DIMENSIONS FOR ELLIPTICAL PIPE:
L = 4R + 4T = S
H = D + T + 44"

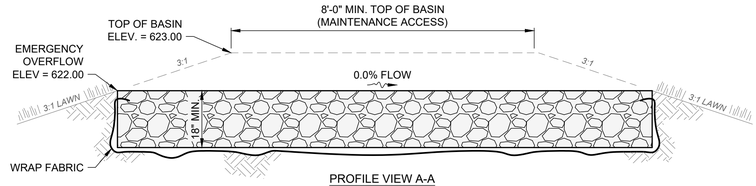
WHERE:
D = DIAMETER OF PIPE
R = RISE OF PIPE
S = SPAN OF PIPE
T = THICKNESS OF PIPE
L = LENGTH OF HEADWALL
H = HEIGHT OF HEADWALL

NOTES:

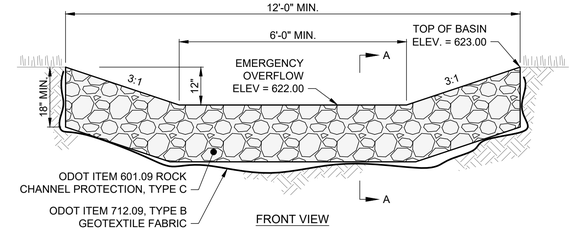
1. PRECAST CONCRETE STRUCTURE AND REINFORCEMENT SHALL CONFORM TO ASTM C-913.
2. THE HEADWALL BASE SHALL BE INCREASED BY 12" IF SOIL BEARING CAPACITY IS LESS THAN 2,600 PSF.
3. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4".
4. REMOVE LIFTING HOLE STEEL WIRES AND SEAL LIFT HOLES WITH NON-SHRINK GROUT.
5. PIPE OPENING SHALL BE PIPE O.D. + 2" AND INTERSTITIAL SPACE FILLED WITH NON-SHRINK GROUT. SPRAY FOAM, STONES, WOOD WEDGES AND LOOSE BRICKS ARE UNACCEPTABLE.
6. REINFORCING STEEL SHALL BE NO. 5 BARS 12" O.C., MAX OF 18", WITH 3" MINIMUM COVERAGE AND CONFORM TO ASTM A-615.
7. WIDTH OF ROCK CHANNEL PROTECTION SHALL BE EQUAL TO WIDTH OF HEADWALL OR AS PER PLAN. ROCK CHANNEL PROTECTION SHALL CONFORM TO THE GRADING LIMITS AS SHOWN ON THE GRADING PLAN.
8. CONSTRUCT LEVEL ROCK WEIR ON A LEVEL CONTOUR TO ENSURE UNIFORM SPREADING OF STORM RUNOFF; MUST CONVERT CONCENTRATED FLOW TO SHEET FLOW.
9. GEOTEXTILE SHALL BE LAID WITH THE LONG DIMENSION PARALLEL TO THE FLOW DIRECTION AND LAID LOOSELY WITHOUT WRINKLES OR CREASES. WHERE JOINTS ARE NECESSARY, STRIPS SHALL BE PLACED TO PROVIDE A 12" MINIMUM OVERLAP, WITH THE UPSTREAM STRIP OVERLAPPING THE DOWNSTREAM STRIP.

PRECAST HEADWALL FOR 8" THRU 36" DIA. PIPE DETAIL

SCALE: NONE



PROFILE VIEW A-A



FRONT VIEW

NOTES:

1. THIS DETAIL IS FOR REFERENCE AND MINIMUM DIMENSION CONTROLS ONLY. SEE GRADING PLAN FOR ACTUAL LENGTH, WIDTH, SLOPES, ELEVATIONS AND LOCATIONS.
2. ROCK CHANNEL PROTECTION CONFIGURATION SHALL CONFORM TO THE SHAPE AND GRADING LIMITS AS SHOWN ON THE GRADING PLAN.
3. GEOTEXTILE SHALL BE LAID WITH THE LONG DIMENSION PARALLEL TO THE FLOW DIRECTION AND LAID LOOSELY WITHOUT WRINKLES OR CREASES. WHERE JOINTS ARE NECESSARY, STRIPS SHALL BE PLACED TO PROVIDE A 12" MINIMUM OVERLAP, WITH THE UPSTREAM STRIP OVERLAPPING THE DOWNSTREAM STRIP.

STONE EMERGENCY OVERFLOW DETAIL

SCALE: NONE

STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

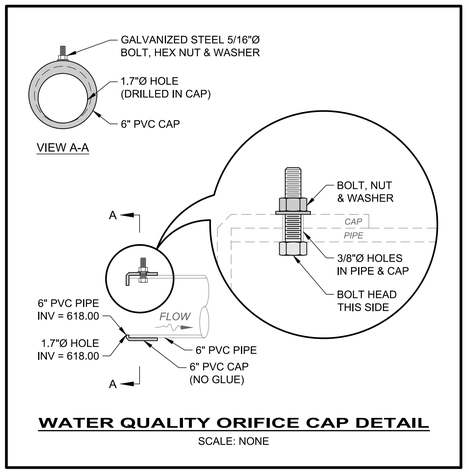
NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

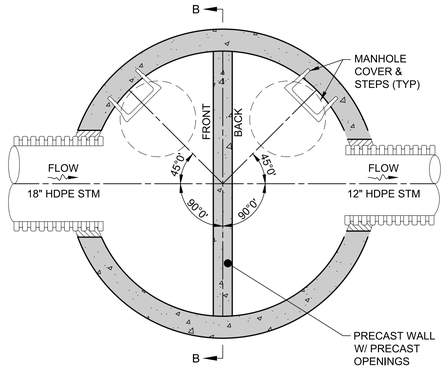
STORMWATER DETAILS

PROJECT NO.	32272
DISCIPLINE	CIVIL
SHEET NAME	DT-4
SHEET	29
OF	31

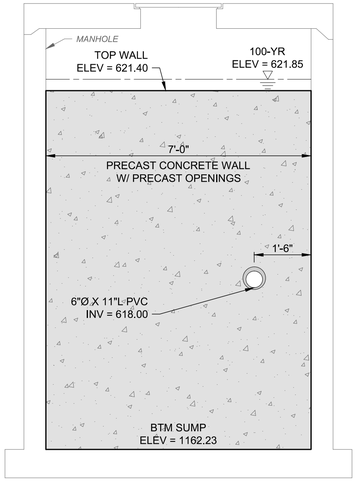


WATER QUALITY ORIFICE CAP DETAIL

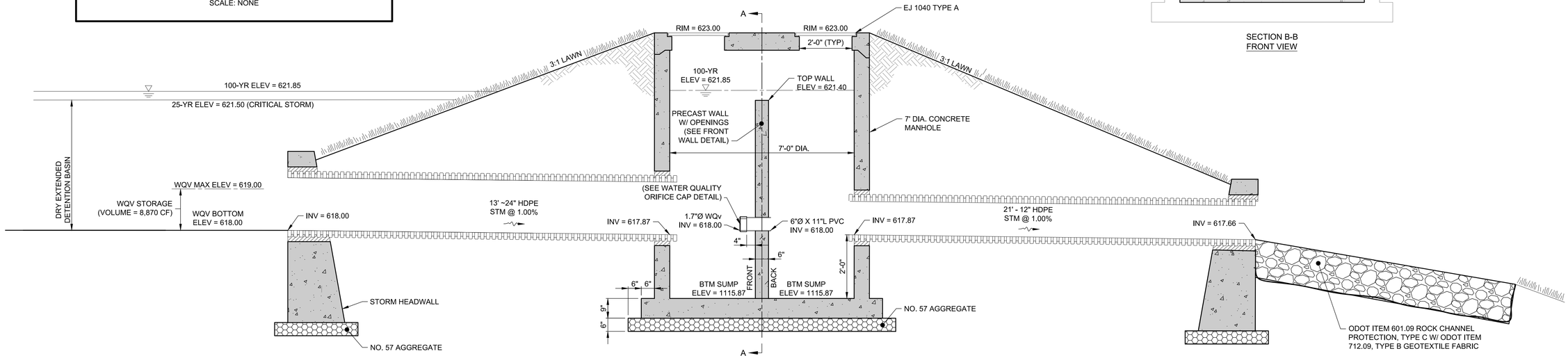
SCALE: NONE



SECTION A-A
PLAN VIEW



SECTION B-B
FRONT VIEW



STORM OUTLET CONTROL STRUCTURE PROFILE VIEW

SCALE: NONE

NOTES:

1. THIS DETAIL PROVIDES ADDITIONAL INFORMATION RELATED TO THE SPECIFIC OUTLET CONTROL STRUCTURE INCLUDING ELEVATIONS AND PIPE DIRECTIONS. SEE PRE-CAST CONCRETE MANHOLE (STORM) DETAIL FOR MANHOLE SPECIFICATIONS, DIMENSIONS, ETC.
2. STEPS SHALL BE CONSTRUCTED ON BOTH SIDES OF MANHOLE, BUT NOT SHOWN FOR CLARITY.

STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED PROFESSIONAL ENGINEER

verdantas

NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

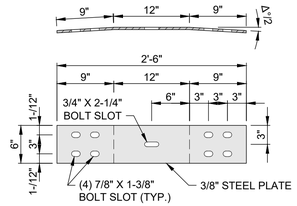
DETENTION BASIN DETAILS

PROJECT NO.
32272

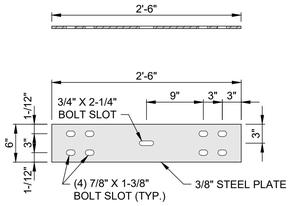
DISCIPLINE
CIVIL

SHEET NAME
DT-5

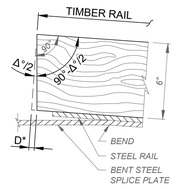
SHEET **30** OF **31**



BENT STEEL SPLICE PLATE



STRAIGHT STEEL SPLICE PLATE

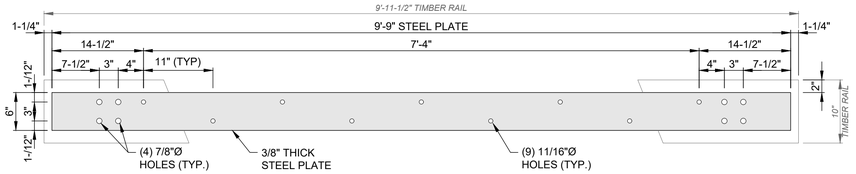


DETAIL "A"

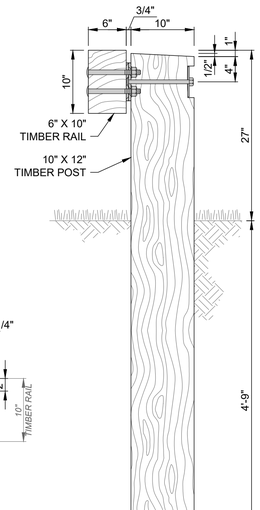
BEND AND END CUT TABLE						
RADIUS	Δ/2°	D(*)		RADIUS	Δ/2°	D(*)
20'	7.18°	3/4"		50'	2.87°	5/16"
25'	5.74°	5/8"		55'	2.61°	1/4"
30'	4.78°	1/2"		60'	2.39°	1/4"
35'	4.10°	7/16"		65'	2.20°	1/4"
40'	3.58°	3/8"		70'	2.05°	1/4"
45'	3.18°	3/8"		> 70'	FLAT	0"

NOTES:

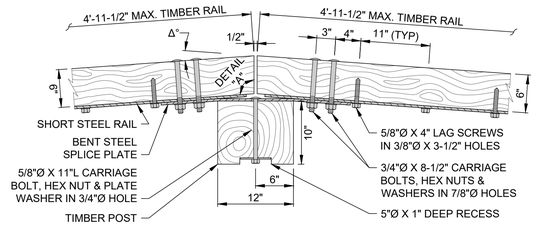
1. TIMBER RAILS AND POSTS SHALL BE ROUGH SAWN.
2. ALL STRUCTURAL STEEL, BOLTS, NUTS, WASHERS, ETC. SHALL BE HOT-DIPPED ZINC COATED GALVANIZED STEEL.



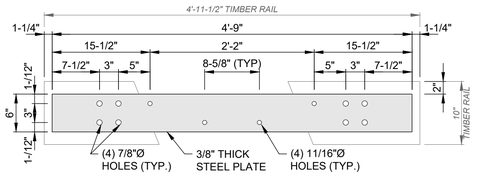
LONG STEEL RAIL



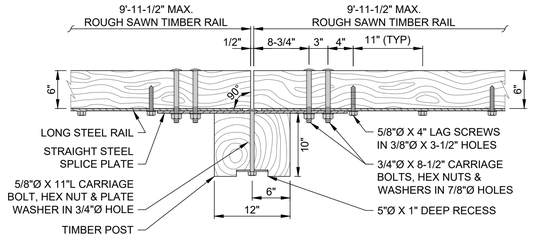
CROSS SECTION



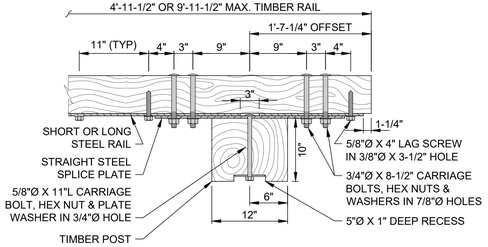
CURVE SECTION - PLAN VIEW



SHORT STEEL RAIL

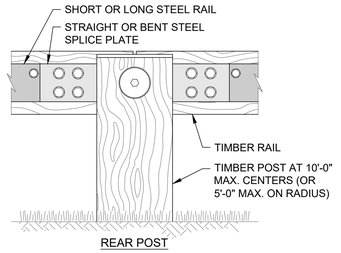


STRAIGHT SECTION - PLAN VIEW

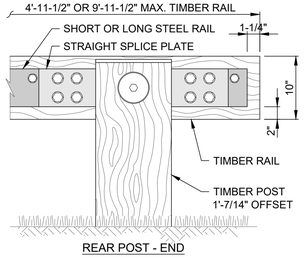


CURVE OR STRAIGHT END SECTION - PLAN VIEW

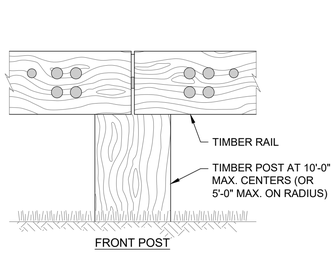
PLATE WASHER



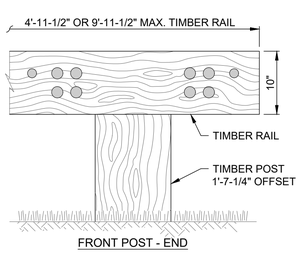
REAR POST



REAR POST - END



FRONT POST



FRONT POST - END

STEEL-BACKED TIMBER GUARDRAIL DETAIL

SCALE: NONE

STATE OF OHIO
LENE C. HILL
E-66017
REGISTERED
PROFESSIONAL ENGINEER

verdantas

NO	REVISION	DATE

ISSUED FOR:	BID
ISSUE DATE:	4/22/25
SCALE:	AS SHOWN
DESIGNED BY:	RW, CZ
DRAWN BY:	CZ, GA, LE
CHECKED BY:	LH, RW

MENTOR CIVIC CENTER PARK
8500 MUNSON ROAD
- CITY OF MENTOR, LAKE COUNTY -

TIMBER GUARDRAIL DETAILS

PROJECT NO.	32272
DISCIPLINE	CIVIL
SHEET NAME	DT-6
SHEET	31
OF	31