LAKELAND ATHLETIC COMPLEX
PHASE ONE

9661 MEMPHIS ARLINGTON ROAD, LAKELAND, TN 38002

CITY OF LAKELAND
10001 HIGHWAY 70, LAKELAND, TN

CITY MANAGER

SHANE HORN

MAYOR & COMMISSIONERS

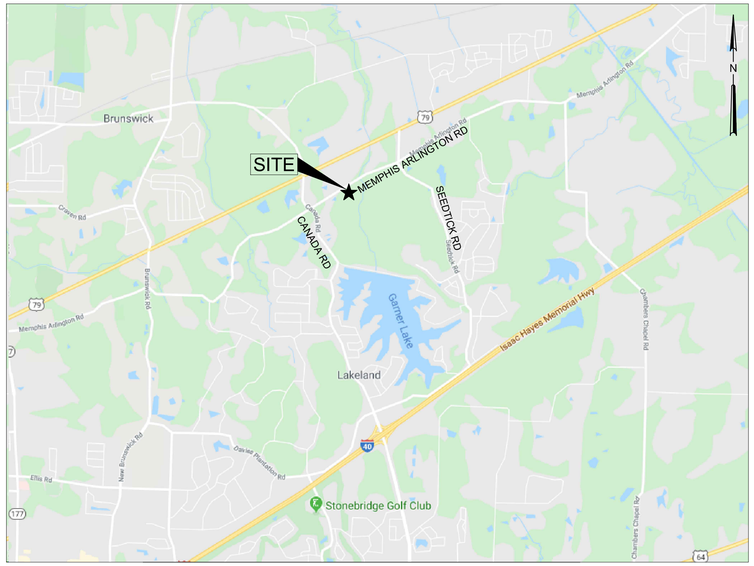
MIKE CUNNINGHAM, MAYOR

MICHELE DIAL, VICE-MAYOR

JIM ATKINSON, COMMISSIONER

RICHARD GONZALES, JR., COMMISSIONER

WESLEY WRIGHT, COMMISSIONER



LOCATION MAP

NOT TO SCALE

INDEX OF DRAWINGS

THIS PROJECT IS FUNDED IN PART BY A LOCAL PARKS AND RECREATION FUND GRANT ADMINISTERED BY THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION RECREATION EDUCATIONAL SERVICES DIVISION

BARGE DESIGN SOLUTIONS

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Emily Howell — CITY ENGINEER — 04-20-21 DATE

BARGE DESIGN SOLUTIONS

APR. 21, 2021
PROJECT No.
36953-00

COVER SHEET

LAKELAND ATHLETIC COMPLEX
PHASE ONE

G0.01
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GENERAL NOTES

1. THE BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN IS FROM A FIELD SURVEY COMPLETED BY BARGE DESIGN SOLUTIONS ON FEBRUARY 20, 2019.
2. ELEVATIONS SHOWN ARE RELATIVE TO NAVD88 DATUM AND WERE ESTABLISHED BY DIFFERENTIAL SURVEY GRADE GPS.
3. GRID COORDINATES SHOWN ARE STATE PLANE, TENNESSEE ZONE WITH NO SCALE FACTOR APPLIED. GEODETIC AND GRID COORDINATES ARE RELATIVE TO NAD83 DATUM AND WERE ESTABLISHED BY DIFFERENTIAL SURVEY GRADE GPS.
4. NO PORTION OF THIS PROJECT LIES WITHIN THE 100 YR FLOOD PLAN AS INDICATED ON NFIP FIRM MAPS NO. 47157C0215G DATED FEBRUARY 06, 2013.
5. GEOTECHNICAL INVESTIGATION FOR THIS PROJECT WAS PROVIDED BY:
   GEOTECHNOLOGY, INC.
   3312 WINBROOK DR.
   MEMPHIS, TN 38116
   (901) 353-1981
   GEOTECHNOLOGY PROJECT NO. J032791.01
6. VERTICAL CONTROL: CONTROL POINTS SET AND AS SHOWN ON THE PLANS ARE TO BE USED AS THE BASIS FOR VERTICAL CONTROL. VERTICAL DATUM FOR THESE CONTROL POINTS IS NAVD 88. THE CONTRACTOR SHALL PROTECT AND MAINTAIN THESE CONTROL POINTS.
7. HORIZONTAL CONTROL: MONUMENTATION SHOWN ON THE PLANS ARE TO BE USED AS THE BASIS FOR LAYOUT CONTROL. THE CONTRACTOR SHALL PROTECT AND MAINTAIN THESE CONTROL POINTS.
8. THE CONTRACTOR WILL PROVIDE ALL SITE CLEARING STAKING AND PROVIDE COPIES OF THE SAME TO THE A/E. THE CONTRACTOR SHALL PROTECT AND MAINTAIN ALL PROJECT CONTROL AND BENCHMARKS ESTABLISHED IN THE FIELD BY THE OWNER.
9. ALL WORK SHALL BE PERFORMED, AS A MINIMUM, TO THE STANDARDS AND REQUIREMENTS OF THE CITY OF LAKELAND UNLESS MORE RESTRICTIVE OR DEMANDING REQUIREMENTS ARE SHOWN HEREON IN WHICH CASE THE MORE RESTRICTIVE OR DEMANDING SHALL APPLY. ALL WORK MUST OBTAIN THE APPROVAL OF THE APPROPRIATE DEPARTMENTS AND/OR AGENCIES OF COUNTY, AND MUST MEET OR EXCEED THE STATE OR FEDERAL REQUIREMENTS, IF IT SO APPLIES.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH THE SITE AND EXISTING CONDITIONS PRIOR TO SUBMITTING THEIR BID.
11. THE OWNER AND ENGINEER MAKE NO REPRESENTATIONS ABOUT THE SUBSURFACE CONDITIONS THAT MAY BE ENCOUNTERED WITHIN THE LIMITS OF THE PROJECT. THE CONTRACTOR SHOULD SATISFY HIMSELF BY CONDUCTING ON-SITE INSPECTIONS.
14. CONTRACTOR TO MAINTAIN AND PROTECT AS NECESSARY ALL EXISTING STRUCTURES, FACILITIES, APPURTENANCES, INFRASTRUCTURE (E.G. PIPES, CULVERTS, CONDUITS, WIRES), PROPERTY, OR OTHER ITEMS TO REMAIN. ANY PRIVATE OR PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS. AT NO ADDITIONAL COST, THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO THE EXISTING FACILITIES TO A CONDITION EQUAL OR BETTER THAN EXISTING, ABOVE OR BELOW GROUND, THAT MAY OCCUR
15. THE CONTRACTOR SHALL PROVIDE DUST CONTROLS AT ALL TIMES TO PREVENT DUST FROM LEAVING THE PROJECT LIMITS.
16. AT LEAST TWO WEEKS PRIOR TO CONSTRUCTION, CONTRACTOR SHALL REQUEST HORIZONTAL AND VERTICAL LOCATION INFORMATION FROM ALL UTILITIES WITHIN PROXIMITY OF ALL WORK. AT TIME OF REQUEST CONTRACTOR SHALL DISCLOSE SCOPE OF CONSTRUCTION ACTIVITIES AND SCHEDULES FOR COORDINATION WITH UTILITIES.
17. APPROXIMATE LOCATIONS, DIMENSIONS AND ELEVATIONS OF SHOWN EXISTING PUBLIC OR PRIVATE UTILITIES, STRUCTURES, AND OTHER FEATURES IN THESE CONSTRUCTION PLANS ARE SHOWN ACCORDING TO THE BEST INFORMATION MADE AVAILABLE AT THE TIME OF PREPARATION AND MAY BE INCOMPLETE. THE OWNER AND/OR ENGINEER WILL NOT GUARANTEE ANY LOCATIONS AS SHOWN ON THESE PLANS OR THOSE OMITTED FROM THESE PLANS. THE EXISTENCE AND EXACT LOCATION OR LOCATIONS OF ALL UTILITIES SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES WITH ANY DISCREPANCIES WITH THE INFORMATION SHOWN IN THESE PLANS REPORTED IMMEDIATELY TO THE ENGINEER. THE CONTRACTOR SHALL COORDINATE WITH THE OWNERS OF ANY UTILITIES IN THE RELOCATION OF EXISTING FACILITIES, WHERE REQUIRED, AND/OR THE OWNER OR HIS REPRESENTATIVE IN THE ADJUSTMENT OF PROPOSED FACILITIES.
18. DISCREPANCIES IN FIELD CONDITIONS, PLAN CONDITIONS, OR CODES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
19. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF LAKELAND WITH REGARD TO IMPROVEMENTS PROPOSED WITHIN THE PUBLIC RIGHTS-OF-WAY.
20. EXTERIOR EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE PLACED PRIOR TO THE START OF ON-SITE GRADING ACTIVITIES. EROSION AND SEDIMENT CONTROL SHALL BE PROVIDED AT ANY BORROW SITE LOCATION.
21. TRAFFIC CONTROL, IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF LAKELAND SHALL BE REQUIRED FOR ALL WORK WITHIN THE PUBLIC RIGHTS-OF-WAY. TRAFFIC CONTROL SHALL CONFORM TO FEDERAL HIGHWAY ADMINISTRATIONS "MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICE FOR STREET AND HIGHWAY CONSTRUCTION.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A MAINTENANCE OF TRAFFIC CONTROL PLAN (TCP) FOR ALL CONSTRUCTION WITHIN PUBLIC RIGHTS OF WAY.
23. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND SHALL MAINTAIN A PROGRAM OF SAFETY MEETING ALL REQUIREMENTS OF FEDERAL, STATE, AND LOCAL GOVERNING AGENCIES DURING ALL PHASES OF CONSTRUCTION AND AT ALL TIMES UNTIL FINAL COMPLETION AND ACCEPTANCE BY THE OWNER.
24. THESE DRAWINGS DO NOT INCLUDE INSTRUCTIONS FOR THE CONTRACTOR REGARDING CONSTRUCTION SAFETY. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED BY THE CONTRACTOR. NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM THIS RESPONSIBILITY. THE CONTRACTOR OR THEIR REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE PUBLIC AND THE SAFETY OF THEIR PERSONNEL.
25. KEEP SITE NEAT AND CLEAN AT ALL TIMES. CONTINUOUSLY REMOVE DEBRIS AND LEGALLY DISPOSE OF UNSUITABLE MATERIAL. BURNING OF MATERIALS ON SITE IS PROHIBITED.
26. CONTRACTOR SHALL VERIFY ALL QUANTITIES SHOWN AND MAKE HIS/HER BID BASED ON THOSE VERIFICATIONS. IF ANY DISCREPANCIES IN QUANTITIES ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE ENGINEER.
27. ALL SIGNAGE AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH TDOT STANDARD ROADWAY DRAWINGS, LATEST EDITION, AND THE MANUAL OF UNIFORM TRAFFIC CONTROL TRANSPORTATION REQUIREMENTS. ALL ADA REQUIREMENTS, BOTH SIGNAGE AND MARKINGS WILL BE PER THE LATEST ADA CRITERIA USING THE APPROPRIATE COLORED TRAFFIC PAINT.
28. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED PLANS AND PERMITS AT THE CONSTRUCTION SITE AT ALL TIMES. THE CONTRACTOR IS RESPONSIBLE TO READ AND UNDERSTAND ALL PERMITS INCLUDING ALL GENERAL AND SPECIAL CONDITIONS. AT OWNER'S OR ENGINEER'S REQUEST, THE CONTRACTOR SHALL PROVIDE APPROPRIATE DOCUMENTATION THAT ALL CONSTRUCTION RELATED CONDITIONS ARE ADHERED TO.
29. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE SITE DEMOLITION AREA TO FULLY UNDERSTAND THEIR RESPONSIBILITY FOR REMOVAL OF ALL PAVEMENT, SURFACE STRUCTURES, VEGETATION, TREES AND ALL UTILITIES BOTH SURFACE AND SUBSURFACE. CONTRACTOR SHALL REFER TO LANDSCAPE ARCHITECT'S PLANS FOR SPECIFIC CLEARING SPECIFICATIONS.
30. THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATIONS THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSION REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE BASED.

DEMOLITION & CLEARING NOTES

1. COMPLY WITH ALL PERTINENT PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" ISSUED BY A.G.C. OF AMERICA, INC. AND U.S. DEPARTMENT OF LABOR. ALL SAFETY MEANS AND METHODS ARE RESPONSIBILITY OF CONTRACTOR.
2. PRIOR TO COMMENCING WORK, CONTACT UTILITY OWNERS TO NOTIFY THEM OF WORK IN AREA AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY. GIVE NOTIFICATIONS AT LEAST THREE BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND UTILITY.
3. COORDINATE WITH OWNER THE EXACT LIMITS OF DEMOLITION/CLEARING AND ITEMS TO BE REMOVED.
4. WHERE EXISTING PAVEMENT IS CUT, IT SHALL BE CUT IN A NEAT, STRAIGHT LINE THROUGH PAVEMENT AND BASE.
5. KEEP SITE CLEAN AND NEAT AT ALL TIMES.
6. USE OF EXPLOSIVES WILL NOT BE PERMITTED.
7. STORAGE OR SALE OF REMOVED ITEMS ON SITE WILL NOT BE PERMITTED.
8. CONDUCT DEMOLITION AND CLEARING OPERATIONS AND REMOVAL OF DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES.
9. COST OF ALL DISPOSAL, PERMITTING, AND ASSOCIATED EXPENSES SHALL BE CONTRACTOR'S RESPONSIBILITY.
10. PROVIDE OWNER WITH TWO COPIES OF ANY WRITTEN CERTIFICATIONS WITH ORIGINAL SIGNATURES FROM DISPOSAL FACILITY, TO WHICH DISPOSED MATERIAL WAS TRANSPORTED, THAT ANY RUBBLE AND DEBRIS FROM DEMOLITION OR REMOVAL WAS DISPOSED OF IN SAID LAWFUL MANNER.
11. KEEP SITE SECURE AT ALL TIMES. CONTRACTOR IS RESPONSIBLE FOR SECURING ALL MATERIALS, SUPPLIES, AND EQUIPMENT STORED ON SITE.
12. ALL ACCESS TO SITE SHALL BE THROUGH GATES. GATES SHALL BE KEPT LOCKED WHEN THERE IS NO ACTIVITY.
13. MULCH ALL BARE AREAS IMMEDIATELY FOLLOWING INITIAL CLEARING AND GRUBBING PROCEDURES. ANY DISTURBED AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER BEING DISTURBED
14. CONTRACTOR SHALL NOTIFY LOCAL FIRE OFFICIALS AND OBTAIN ALL NECESSARY PERMITS BEFORE BURNING INCLUDING BUY NOT LIMITED TO A TENNESSEE DIVISION OF FORESTRY BURN PERMIT. CONTRACTOR SHALL COMPLY WITH LOCAL AND STATE FIRE CODES AND SEASONAL BURN BANS. BURN BANS SHALL NOT BE GROUNDS FOR DELAY OF PROJECT.
15. ALL INITIAL EROSION AND SEDIMENT CONTROL PRACTICES AND TREE PROTECTION MEASURES SHALL BE IN PLACE PRIOR TO START OF DEMOLITION/CLEARING OR LAND DISTURBANCE ACTIVITIES.
16. DEMOLITION/CLEARING WORK SHALL BE COORDINATED WITH ALL ADJACENT USES. ALL DEMOLITION AREAS SHALL BE SECURED TO ALLOW SAFE ACCESS ONLY TO CONSTRUCTION PERSONNEL.
17. CONTRACTOR SHALL FULLY REMOVE AND DISPOSE OF ALL NON-VEGETATED WASTE MATERIALS OFFSITE IN ACCORDANCE WITH ALL LEGAL REQUIREMENTS UNLESS NOTED OTHERWISE.
18. CONTRACTOR TO COORDINATE SHUT-OFF AND REROUTING OF ANY SITE UTILITIES WITH LOCAL ENTITIES HAVING JURISDICTION.
19. ADDITIONAL SPECIFIC TREE REMOVAL/PROTECTION AND DEMOLITION NOTES ARE CONTAIN ON RESPECTIVE SHEETS HEREIN.

SITE NOTES

1. ALL GRADING,EROSION CONTROL, PAVING, PAVING PRODUCTS, CONSTRUCTION METHODS, ETC. ARE TO BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT) EXCEPT HOWEVER, THE VARIOUS SUB-SECTIONS ENTITLED "BASIS FOR PAYMENT" SHALL NOT BE APPLICABLE.
2. ALL CONCRETE PERTAINING TO THE SITE PLAN AND RELATED EXTERIOR CONCRETE ITEMS SHALL BE Fc' = 4,000 PSI, AS DEFINED BY ACI STANDARDS, AIR ENTRAINED. THE APPLICABLE PROVISIONS OF ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, SHALL ALSO APPLY.
3. PAVEMENT MARKINGS FOR LANE LINES SHALL MEET THE REQUIREMENTS OF THE CITY OF LAKELAND, AS WELL AS THE TENNESSEE DEPARTMENT OF TRANSPORTATION.
4. ALL WORK SHALL BE IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE CITY OF LAKELAND AND STATE AND FEDERAL GOVERNING AGENCIES.
5. WHERE EXISTING PAVEMENT IS CUT, IT SHALL BE CUT IN A NEAT, STRAIGHT LINE THROUGH PAVEMENT AND BASE.
6. ALL DIMENSIONS SHOWN ARE TO THE EDGE OF PAVEMENT / EDGE OF GRAVEL AND/OR FACE OF CURB UNLESS OTHERWISE NOTED.
7. AS INDICATED ON SHEET C0.42, TREE REMOVAL AND PROTECTION PLAN, THE CONTRACTOR SHALL PROTECT ANY TREE FROM DAMAGE OR ANY SCARRING BY PLACING PROTECTIVE STAKING AROUND THE SIDES OF THE TREE OF SUFFICIENT AREA TO PROTECT THE TRUNK AND ROOT SYSTEMS FROM GRADING DAMAGE.
8. THE CONTRACTOR SHALL PROVIDE SECURITY FENCING AT THE PERIMETER OF THE SITE AS NEEDED. PROJECT ACCESS IS TO BE PROVIDED AS SHOWN HEREIN AT THE PROPOSED CONSTRUCTION ENTRANCE AND SHALL BE GATED AND LOCKED OUTSIDE WORK HOURS. SECURITY FENCING SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
9. ALL STREETS SHALL REMAIN CLEAR OF OBSTRUCTIONS AT ALL TIMES. ALL CONSTRUCTION EQUIPMENT SHALL BE STORED WITHIN AN AREA OTHER THAN THE EXISTING DRIVEWAY, PARKING TO REMAIN, OR ROADWAY.

SITE LAYOUT NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DIMENSIONAL LAYOUT SURVEYING.
2. ALL COORDINATES AND BEARINGS ARE RELATIVE TO PROJECT GRID.
3. ALL ANGLES ARE 90° UNLESS OTHERWISE NOTED.
4. VERIFY LOCATION OF PROPOSED SIDEWALKS AND ENTRANCES WITH OWNER AND ADJUST IN FIELD TO MINIMIZE DISTURBED AREAS AND AVOID CONFLICTS. WALKS AND RAMPS SHALL MEET ALL ADA LATEST REVISION REQUIREMENTS.
5. TYPICAL PARKING STALL SIZE SHALL BE 9' X 20'.
6. ALL RADII ARE 5 FT UNLESS OTHERWISE NOTED.
7. ALL DIMENSIONS SHOWN ARE TO THE EDGE OF PAVEMENT / EDGE OF GRAVEL AND/OR FACE OF CURB UNLESS OTHERWISE NOTED.

GRADING NOTES

1. ALL ELEVATIONS REFER TO VERTICAL DATUM AS INDICATED ON THE SURVEY PROVIDED HEREIN; N.A.V.D. 88 BY BARGE DESIGN SOLUTIONS, DATED FEBRUARY 2019.
2. ALL PROPOSED CONTOURS REPRESENT PROPOSED FINISHED SURFACE GRADE AND ANY PROPOSED PROFILES AND/OR CROSS-SECTIONS REPRESENT THE SAME FINISHED SURFACE. CONTRACTOR SHALL ACCOUNT FOR DEPTH OF GROUND COVER (E.G. SOD), AND OTHER LANDSCAPE AND HARDSCAPE FEATURES. ALL AREAS MUST DRAIN WITHOUT ANY NOTICEABLE PONDING. THE CONTRACTOR WILL BE REQUIRED TO REGRADE AND REFINISH ANY AREAS WHICH DO NOT COMPLY WITH POSITIVE DRAINAGE WITHOUT PONDING.
3. ALL PROPOSED GRADING SHALL BE CONSIDERED UNCLASSIFIED. IT IS UNDERSTOOD THAT ANY REFERENCE TO ROCK, EARTH, OR OTHER MATERIALS ON THE DRAWINGS IS NOT AN INDICATION OF CLASSIFIED EXCAVATION.
4. STRIP AND STOCKPILE ALL TOPSOIL IN CUT AND FILL AREAS. PROVIDE ADEQUATE EROSION AND SEDIMENT CONTROL FOR ALL STOCKPILES. TAKE CARE TO AVOID MIXING SUBSOIL AND OTHER UNSUITABLE MATERIAL WITH THE TOPSOIL.
5. COMPLETE ALL CLEARING AND GRUBBING OPERATIONS FOR EXCAVATION AREAS BEFORE STARTING EXCAVATION AND/OR EMBANKMENT OPERATIONS. DISTURB ONLY THOSE AREAS NECESSARY FOR THE CURRENT PHASE OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR AND SHALL PROTECT ANY AND ALL EXISTING STRUCTURES, PIPES, CULVERTS, CONDUITS, WIRES OR OTHER ITEMS TO REMAIN. HE SHALL, AT HIS OWN EXPENSE, REPAIR OR REPLACE ANY DAMAGE THAT MAY RESULT FROM HIS OPERATIONS.
6. AT ALL TIMES MAINTAIN THE AREA SO IT WILL BE WELL DRAINED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL REQUIREMENTS.
7. INSOFAR AS PRACTICAL USE ALL SUITABLE MATERIAL ON-SITE. MATERIAL MAY BE WASTED OFF-SITE AT NO COST TO THE OWNER WITH APPROVAL OF THE A/E. FURNISH COPIES OF THE PROPERTY OWNER AGREEMENT FOR WASTE SITES ALONG WITH APPROVAL OF UTILITY OWNERS AT THE WASTE SITE AND APPROVAL OF REGULATORY AGENCIES. AT OWNER'S DISCRETION, ROCKS AND BOULDERS MAY BE USED ONSITE FOR LANDSCAPING OR WASTED ON-SITE AS DIRECTED BY OWNER.
8. AFTER REMOVAL OF TOPSOIL TO APPROXIMATELY 6" OR GREATER DEPTH, CONSTRUCT EMBANKMENTS BY DISTRIBUTING THE MATERIAL IN SUCCESSIVE, UNIFORM HORIZONTAL LAYERS NO MORE THAN 12" THICK. COMPACT EACH LAYER AND PROVIDE FOR DRAINAGE OF SURFACE WATER AT ALL TIMES. MAINTAIN OPTIMUM MOISTURE CONTENT OF THE BACKFILL MATERIAL.
9. EXCAVATE AREAS OF YIELDING OR UNSUITABLE MATERIAL AND BACKFILL WITH APPROVED MATERIAL AS DIRECTED BY A/E.
10. ALL DISTURBED AREAS ARE TO BE PERMANENTLY VEGETATED. FINISH GRADE AND SPREAD TOPSOIL FROM STOCKPILES ON ALL DISTURBED AREAS EXCEPT BUILDING LOCATIONS AND AREAS TO BE PAVED TO THE FINISHED CONTOUR ELEVATIONS SHOWN ON THE PLANS. SCARIFY SUBGRADE TO A DEPTH OF 3" BEFORE PLACING TOPSOIL. PROVIDE A MINIMUM 4' TOPSOIL THICKNESS ON SUBGRADE. SLOPE UNIFORMLY WITH NO WATER POCKETS. CAREFULLY RAKE THE TOPSOIL BY HAND TO REMOVE ALL CLODS, ROOTS, STICKS, STONES OVER 1" IN DIAMETER AND OTHER FOREIGN MATERIALS FROM THE SURFACE.
11. COMPACTION OF PAVEMENT AREAS, SLOPES, AND LANDSCAPED AREAS SHOULD BE DONE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. REFER TO THE GEOTECHNICAL ENGINEERING REPORT FOR ALL SUBGRADE PREPARATION AND FILL PLACEMENT REQUIREMENTS. REGARDLESS OF TEST RESULTS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO MEET ON-SITE COMPACTION REQUIREMENTS. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR ALL GRADING AND COMPACTION UNDER BUILDINGS. UNLESS OTHERWISE NOTED, COMPACT THE EMBANKMENT AREAS TO A DENSITY OF AT LEAST 95% OF MAXIMUM DENSITY OR , IN STRUCTURE OR PAVING AREAS TO AT LEAST 100% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 (STANDARD PROCTOR). PROVIDE SOIL TESTING AT NO COST TO THE OWNER AND PROVIDE COPIES OF THE TEST REPORTS TO THE A/E. REGARDLESS OF THE TEST RESULTS, IT IS THE CONTRACTORS RESPONSIBILITY TO MEET ON-SITE COMPACTION REQUIREMENTS.
12. ALL EXCAVATION IS UNCLASSIFIED WITHOUT REGARD TO MATERIALS ENCOUNTERED. CONTRACTOR SHALL VISIT SITE AND DRAW HIS OWN CONCLUSIONS ON CONDITIONS TO BE ENCOUNTERED. LINE AND GRADES SHOWN SHALL BE ACHIEVED WITHOUT ADDITIONAL COMPENSATION.
13. PROOFROLL ALL AREAS TO RECEIVE FILL. PERFORM PROOF ROLLING WITH A FULLY LOADED 8 TO 10 TON TANDEM AXLE DUMP TRUCK AT 2 TO 3 M.P.H. FOR A MINIMUM OF FOUR PASSES. UNDERCUT AREAS THAT DEFLECT MORE THAN 1 INCH OR EXHIBIT WEAK SOIL OR OTHERWISE UNSUITABLE CONDITIONS TO A FIRM LEVEL OF SOIL FOLLOWED BY BACK FILLING UNDERCUT AREAS USING AN ENGINEERED FILL.
14. SLOPE ALL DITCHES ACCORDING TO TYPICAL SECTION AND/OR GRADING PLAN.
15. PLACE OUTLET PROTECTION ON ALL SPILLWAYS AND PIPE OUTLETS. UNLESS OTHERWISE NOTED, OUTLET PROTECTION TO BE TDOT CLASS A-1 RIP RAP PLACED 18" THICK MIN. INSTALL NON-WOVEN GEOTEXTILE FABRIC BETWEEN SUBGRADE AND RIP RAP.
16. PROVIDE POSITIVE AND APPROPRIATE SLOPE TO DRAIN ALL BALCONIES, DECKS, PATIOS, WALKS, DRIVEWAYS, GRADE ADJACENT TO BUILDINGS, AND SWALES, REGARDLESS WHETHER THE PLANS GRAPHICALLY PORTRAIT OR INDICATE SLOPE. FINAL CONSTRUCTION SHALL NOT PERMIT PONDING OF WATER IN ANY OF THE FOREGOING AREAS.
17. ALL UNSUITABLE AND DELETERIOUS SUBSTANCE MATERIALS, (I.E. MUCK, PEAT, BURIED DEBRIS, ETC.), IS TO BE EXCAVATED IN ACCORDANCE WITH OWNER'S GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. UNSUITABLE AND DELETERIOUS MATERIALS ARE TO BE REMOVED FROM THE SITE AS DIRECTED BY THE OWNER. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS RECOMMENDED BY GEOTECHNICAL ENGINEER.
18. THE CONTRACTOR SHALL MAINTAIN THE STORM DRAINAGE SYSTEMS UNTIL FINAL ACCEPTANCE OF THE PROJECT.
19. NO DEWATERING IS ANTICIPATED FOR THE PROPOSED CONSTRUCTION. IN THE EVENT DEWATERING IS REQUIRED, THE CONTRACTOR SHALL APPLY FOR ALL APPLICABLE WATER USE PERMITS AT THAT TIME.
20. CONTRACTOR IS REQUIRED TO ADJUST ALL VALVE BOXES, MANHOLE RIMS, ETC. AS NECESSARY TO MATCH PROPOSED GRADES.
21. TESTING OF ASPHALT PAVEMENT SECTIONS BY A CERTIFIED TESTING LAB, INCLUDING CORE SAMPLES, SHALL BE PROVIDED TO ENGINEER FOR EVERY 5,000 SQ FT AREA OF PAVEMENT WITH A MINIMUM OF ONE TEST REQUIRED. CONTRACTOR TO CONFIRM TESTING LOCATIONS WITH ENGINEER PRIOR TO PAVEMENT STRUCTURE CONSTRUCTION. TESTING OF EACH AREA SHALL ADHERE TO CURRENT TDOT STANDARD SPECIFICATIONS. FAILURE TO PROVIDE ENGINEER WITH SATISFACTORY TEST RESULTS WILL PREVENT CONSTRUCTION CERTIFICATION AND DELAY FINAL ACCEPTANCE BY OWNER.
22. DURING THE GRADING PROCESS, IF CONTRACTOR ENCOUNTERS DISCOLORED OR MALODOROUS SOILS INDICATING POSSIBLE CONTAMINANTS, GRADING ACTIVITY SHALL CEASE AND THE OWNER AND A/E SHALL BE NOTIFIED IMMEDIATELY.

STORM DRAINAGE NOTES

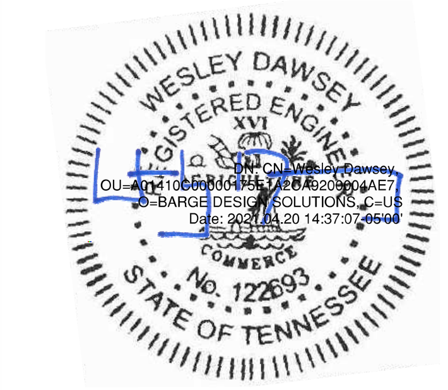
1. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE OWNER'S ENGINEER, SHOP DRAWINGS ON ALL PROPOSED PRECAST AND MANUFACTURED STRUCTURES. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE. ALL SHOP DRAWINGS ARE TO BE REVIEWED AND APPROVED BY THE CONTRACTOR WITH SIGNATURE PRIOR TO SUBMITTAL TO THE OWNER'S ENGINEER.
2. ALL STORM DRAINAGE PIPE SHALL BE AASHTO M252/M294 HDPE DUAL WALL OR CLASS III RCP, UNLESS OTHERWISE NOTED. ALL DRAINAGE PIPE CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS, STANDARDS, DETAILS, GUIDELINES, ETC., AND TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, UNLESS OTHERWISE NOTED.
3. ALL STORM PIPE TO HAVE A MINIMUM SLOPE OF 1%, UNLESS OTHERWISE INDICATED.
4. ALL PIPE JOINTS AND JOINT MATERIAL ARE TO PROVIDE A WATERTIGHT CONNECTION.
5. AT ALL TIMES, MAINTAIN THE PROJECT AREA IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL REQUIREMENTS AS DEFINED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
6. AFTER COMPLETION OF EACH SECTION OF PIPE, PROTECT FROM SEDIMENT AND DEBRIS ACCUMULATION INSIDE OF THE PIPE. CLEAN AND FLUSH ALL SEDIMENT FROM THE PIPE AND DISCHARGE IN ACCORDANCE WITH THE REQUIREMENTS FOR EROSION AND SEDIMENT CONTROL. AFTER INSTALLATION AND DURING THE REMAINDER OF THE CONSTRUCTION PERIOD PROVIDE INLET PROTECTION FOR STORM WATER PIPES AND INLET STRUCTURES WITH SILT FENCE, STAKED STRAW BALES OR OTHER ACCEPTED MEANS TO PREVENT SILT ACCUMULATION IN THE STORMWATER SYSTEM. ANY SEDIMENT, DEBRIS, ETC. THAT ACCUMULATES IN THE PIPE IS TO BE REMOVED PRIOR TO FINAL ACCEPTANCE.
7. ALL MANHOLES SHALL BE 4.0' DIA. UNLESS OTHERWISE NOTED ON DRAWINGS.
8. ALL PROPOSED CONCRETE INLETS AND/OR CATCH BASINS SHALL HAVE GROUT IN THE SUMP PLACED TO MATCH PIPE INVERTS FOR UNIFORM HYDRAULIC TRANSITION WITH SIDE SLOPES AT $\frac{1}{2}$" PER FOOT.
9. STANDARD INDICES REFER TO THE LATEST EDITION OF TDOT STANDARD DRAWINGS.
10. THE CONTRACTOR IS TO PROVIDE A $\frac{1}{2}$" BITUMINOUS EXPANSION JOINT MATERIAL WITH SEALER AT THE ABUTMENT OF CONCRETE AND ANY STRUCTURE.

EROSION & SEDIMENT CONTROL NOTES

1. THE CONTRACTOR MUST IMPLEMENT ALL PROPER EROSION AND SEDIMENT CONTROL MEASURES FOR THE PROJECT AND MEET ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS.
2. ALL WORK UNDER THIS SECTION IS TO BE PERFORMED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE CURRENT VERSION OF THE TENNESSEE EROSION & SEDMENT CONTROL HANDBOOK AND THE REQUIREMENTS OF THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) AND CITY OF LAKELAND.
3. EROSION AND SEDIMENT CONTROL MEASURES AROUND THE EXTERIOR OF THE SITE SHALL BE INSTALLED PRIOR TO ANY ON-SITE GRADING ACTIVITIES. DURING THE CONSTRUCTION PERIOD ANY PROPOSED DETENTION BASIN FACILITIES SHALL BE USED FOR TEMPORARY SEDIMENT TRAP PURPOSES AND, AS SUCH, SHALL BE CONSTRUCTED FIRST IN A MANNER TO CAPTURE ON-SITE RUNOFF FROM GRADING OPERATIONS AS MUCH AS POSSIBLE. UPON COMPLETION OF THE EXTERIOR EARTHEN EMBANKMENT AROUND THE SEDIMENT BASIN, TOPSOIL, FERTILIZE, SEED AND MULCH THE EXTERIOR EARTHEN EMBANKMENT, IF APPLICABLE. PROVIDE STAKED STRAW BALES AND/OR DIVERSION CHANNELS AS NECESSARY TO ROUTE RUNOFF FROM THE CONSTRUCTION SITE INTO THE TEMPORARY SEDIMENT TRAP. SEDIMENT AND EROSION CONTROL DEVICES ARE TO BE INSPECTED PRIOR TO THE START OF GRADING ACTIVITIES. UPON PROPER STABILIZATION OF THE DISTURBED AREAS THAT DRAIN TO THE SEDIMENT TRAP, CLEAN OUT AND DISPOSE OF ALL SEDIMENT DEBRIS, AND COMPLETE CONSTRUCTION OF THE DETENTION BASIN FACILITIES.
4. PERMANENT OR TEMPORARY SOIL STABILIZATION MUST BE APPLIED TO ALL DENUDED AREAS WITHIN 7 DAYS OF REACHING FINAL GRADE OR TO OTHER DENUDED AREAS WHICH ARE TO REMAIN DORMANT FOR LONGER THAN 14 DAYS. ALL TOPSOIL STOCK-PILES SHALL BE STABILIZED OR PROTECTED WITH SILT FENCE SEDIMENT TRAPPING.
5. ALL DISTURBED AREAS NOT TO BE PAVED SHALL BE TOP SOILED, FERTILIZED, SEEDED AND MULCHED. AN ACCEPTABLE GROWTH OF GRASS IS REQUIRED IN ALL AREAS DESIGNATED FOR SEEDING. AN ACCEPTABLE GROWTH IS CONSIDERED 100 SEEDLINGS PER SQUARE FOOT OF THE PERMANENT SPECIES OF GRASS OF THE SEED MIXTURE. IF THE PLANTING IS LESS THAN 50% SUCCESSFUL, REWORK THE GROUND, RE-FERTILIZE, RE-SEED AND RE-MULCH. ALL SEEDING MUST MEET THE APPROVAL OF SWMD AND THE A/E.
6. THE PROPOSED VEHICULAR ENTRANCE SHALL BE USED AS A TEMPORARY CONSTRUCTION ENTRANCE DURING CONSTRUCTION. NO ACCESS IS TO BE PROVIDED DIRECTLY TO THE PUBLIC RIGHT-OF-WAY WITHOUT AN APPROVED CONSTRUCTION ENTRANCE. PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCE WITH 2-3" STONE MAY BE REQUIRED TO PREVENT THE ACCUMULATION OF DUST AND MUD ON THE CITY/COUNTY STREETS.
7. THE CONTRACTOR IS REQUIRED TO PREVENT ALL RUNOFF AND SEDIMENT FROM DAMAGING ADJACENT PROPERTIES OR DOWNSTREAM WATER BODIES.
8. ON AND OFF-SITE DUST AND MUD TO BE CONTROLLED AT ALL TIMES. THIS MAY REQUIRE PERIODIC ON-SITE WATERING OR OTHER METHODS FOR DUST CONTROL AND PERIODIC WASHING OF THE PUBLIC STREETS AS MAY BE NECESSARY
9. SEDIMENT CONTROL DEVICES ARE TO BE PERIODICALLY CLEANED WHEN ACCUMULATION OF SILT IS WITHIN HALF THE HEIGHT OF THE CONTROL DEVICE. THE DEVICES SHALL BE CHECKED WEEKLY AND WITHIN 24 HOURS AFTER EVERY RAINFALL OF 0.5" OR GREATER. IN THE EVENT OF CONTINUOUS RAINFALL, EROSION CONTROLS SHALL BE CHECKED DAILY. ANY FAILURE OF A CONTROL DEVICE SHALL BE CORRECTED WITHIN 3 DAYS. THE CONTRACTOR WILL KEEP A LOG OF ALL INSPECTIONS AND REPAIR EFFORTS DURING THE CONSTRUCTION PERIOD.
10. UPON COMPLETION AND ACCEPTANCE BY THE OWNER OF THE COMPLETED FACILITY, THE OWNER WILL ASSUME A MINIMUM OF SEMI-ANNUAL MAINTENANCE OF THE STORM-WATER FACILITIES, INCLUDING, AS APPLICABLE, THE DETENTION BASIN AND OUTLET WORKS IN CONJUNCTION WITH THE REMAINING STORMWATER PIPING SYSTEM. FURTHER, PERIODIC INSPECTION AND REPAIR OF ANY EROSION OR OTHER POLLUTING ACTS WILL OCCUR. MAINTENANCE LOGS WILL BE MAINTAINED ON-SITE INDICATING DATE, WORK PERFORMED, BY WHOM, AND SIGNED BY THE MAINTENANCE SUPERVISOR OF THE COMPLETED FACILITY.
11. UPON FAILURE OF THE BMP'S PROVIDED TO SUCCESSFULLY PREVENT OBJECTIONABLE DOWNSTREAM COLOR CONTRAST, THE CONTRACTOR SHALL UTILIZE POLYACRYLAMIDE OR OTHER FLOCCULATING MATERIALS ACCEPTABLE TO TDEC AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, AS AN ADDITIONAL BMP TREATMENT.

Know what's **below.**
Call before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018



GENERAL NOTES

LAKELAND ATHLETIC COMPLEX
PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REVISION INFORMATION

REV.	DR.	CHK.	DATE	DESCRIPTION
	MD	WD	04-21-21	ISSUE FOR BID

G0.02

FILE NO. 3695300

USER:MADONLEY
FILE:F:\36\36953\3695300\04_CAD\CIVIL\PLOT\3695300_G002 GEN NOTES.dwg
SAVED:4/19/2021
PLOTTED:4/19/2021

EXISTING LEGEND

- PROPERTY LINE
- 280 EXISTING MAJOR CONTOUR
- 283 EXISTING MINOR CONTOUR
- SS SANITARY SEWER
- SANITARY SEWER MANHOLE
- VEGETATION LIMITS
- LOD LIMITS OF DISTURBANCE
- EXISTING WETLAND
- EXISTING FENCE LINE
- AREA TO BE CLEARED

NOTES

1. UTILITY DISCLAIMER - LOCATION OF EXISTING UTILITIES AND STRUCTURES INDICATED ARE APPROXIMATE ONLY, AND THOSE INDICATED ARE NOT NECESSARILY ALL WHICH MAY EXIST ON THE PROJECT SITE. CONTRACTOR SHALL DETERMINE ACTUAL LOCATIONS OF ALL UTILITIES AND STRUCTURES ON THE PROJECT SITE, WHETHER THEY ARE INDICATED OR NOT. CONTRACTOR SHALL ASSUME THE RESPONSIBILITY FOR ANY DAMAGE TO THE UTILITY LINES, WHETHER SHOWN ON THE CONSTRUCTION PLANS OR NOT, DURING WORK ON THE PROJECT.
2. FOR UNDERGROUND UTILITY LOCATIONS CALL 811 OR 1-800-351-1111.
3. FILED VERIFY EXISTING GRADES AND COMPARE WITH PLAN ON THIS SHEET. REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO STARTING CONSTRUCTION OPERATIONS.
4. SEE SHEET C1.01 FOR ASPHALT REMOVAL LIMITS.
5. ALL DEMOLITION LINES BETWEEN PROPOSED AND REMAINING PAVEMENTS SHALL BE CUT STRAIGHT AND SMOOTH.
6. SEE TREE REMOVAL AND PROTECTION PLAN SHEET C0.42.

60' 30' 0' 60' 120'
SCALE: 1 INCH = 60 FEET

Know what's below.
Call before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

WESLEY DAWSEY
REGISTERED ENGINEER
No. 122693
STATE OF TENNESSEE

REVISION INFORMATION

REV.	DR.	CHK.	DATE	DESCRIPTION
	MD	WD	04-21-21	ISSUE FOR BID

EXISTING CONDITIONS & DEMO PLAN

LAKELAND ATHLETIC COMPLEX
PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

C0.41
FILE NO. 3695300

USER:MADONLEY
FILE:C:\3695300\3695300\04_CAD\CIVIL\PLOTS\695300_C041 EXISTING.dwg
SAVED:4/19/2021
PLOTTED:4/19/2021

EXISTING LEGEND

- PROPERTY LINE
- 280 EXISTING MAJOR CONTOUR
- 283 EXISTING MINOR CONTOUR
- SS SANITARY SEWER
- SANITARY SEWER MANHOLE
- VEGETATION LIMITS
- LIMITS OF CLEARING
- EXISTING WETLAND
- EXISTING FENCE LINE
- TREE PROTECTION FENCE
- AREA TO BE CLEARED (BASE BID)

PHASE 1 TREE DENSITY

PHASE 1 AREA: 15.00 ACRES

EXISTING PHASE 1 AREA TREES
1,074 TREES
34,942 DENSITY UNITS

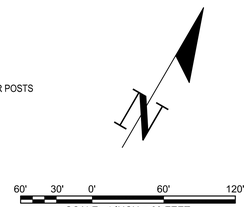
PHASE 1 AREA TREE REMOVAL
606 TREES REMOVED
18,846 DENSITY UNITS REMOVED

REMAINING TREE COVER
468 TREES
16096 DENSITY UNITS

TREE PROTECTION NOTES:

1. ALL TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO AND MAINTAINED THROUGHOUT THE LAND DISTURBING AND CONSTRUCTION PROCESS, AND NOT BE REMOVED UNTIL FINAL LANDSCAPING IS INSTALLED.
2. THE TREE PROTECTION AREA SHALL INCLUDE NO LESS THAN THE TOTAL AREA BENEATH THE TREE CANOPY AS DEFINED BY THE DRIPLINE OF THE TREE OR GROUP OF TREES, UNLESS PRIOR APPROVAL IS RECEIVED FROM THE CITY.
3. PROHIBITED ACTIVITIES WITHIN A TREE PROTECTION AREA INCLUDE, BUT ARE NOT LIMITED TO, PARKING, MATERIALS STORAGE, CONCRETE WASHOUT, BURN-HOLE PLACEMENT, SOIL COMPACTION AND PLACING OF WASTE MATERIAL.
4. ROOT DISTURBANCE DUE TO CUTS OR FILL SHALL NOT BE ALLOWED WITHIN A TREE PROTECTION AREA. ALL EXPOSED ROOTS ONE INCH AND GREATER IN DIAMETER AT THE EDGE OF THE TREE PROTECTION AREA SHALL BE PRUNED WITH A CLEAN CUT FLUSH TO SOIL EDGE.
5. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED IN A MANNER DESIGNED TO PREVENT THE ACCUMULATION OF SEDIMENT WITHIN A TREE PROTECTION AREA.
6. ALL CLEARED TREES ARE TO BE FULLY REMOVED INCLUSIVE OF BELOW GRADE ROOT MASS.
7. ALL AREAS DESIGNATED TO BE CLEANED BY CONTRACTOR OR SELECTIVELY CLEARED ARE TO BE FLAGGED IN THE FIELD PRIOR TO CLEARING. NOTED FLAGGING LIMITS ARE TO BE APPROVED BY L.A. PRIOR TO COMMENCING CLEARING.
8. IF SO INDICATED ON THE SITE PLAN TO REMAIN, THE CONTRACTOR SHALL PROTECT ANY PLANT MATERIAL FROM DAMAGE OR ANY SCARRING. A MINIMUM AREA SHALL BE THE DRIP LINE OF THE TREE UNLESS OTHERWISE NOTED.

1 / C0.42 TREE PROTECTION FENCING
NTS



Know what's **below.** **Call** before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

WESLEY DAWSEY REGISTERED ENGINEER No. 122893 STATE OF TENNESSEE

TREE REMOVAL AND PROTECTION PLAN

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

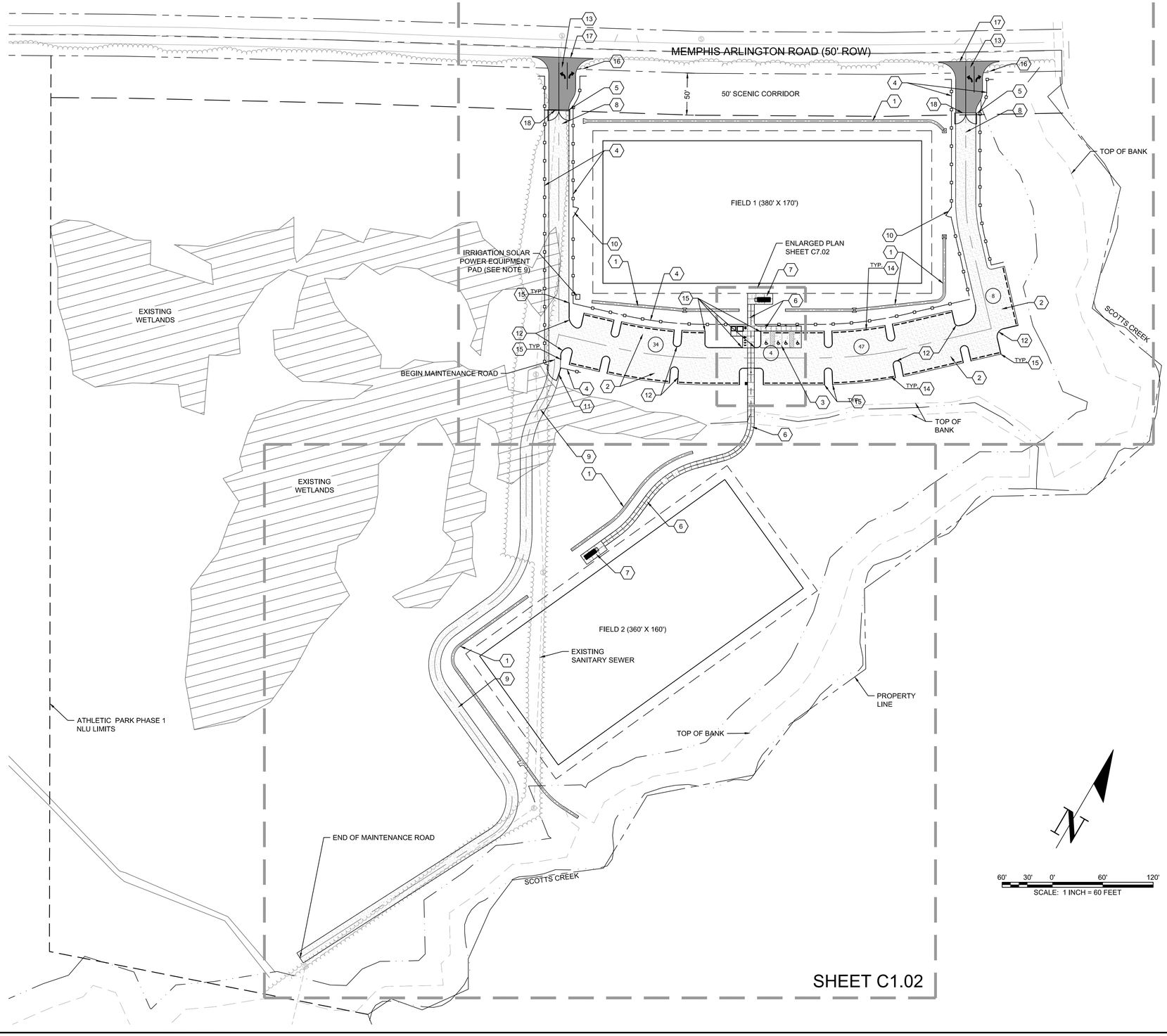
REV.	DR.	CHK.	DATE	REVISION INFORMATION DESCRIPTION
	MD	WD	04-21-21	ISSUE FOR BID

C0.42

FILE NO. 3695300

USER:MADONLEY
REF:C:\3695300\3695300\04_CAD\CIVIL\PLOT\3695300_C042 TREE REMOVAL PLAN.dwg
SAVED:4/19/2021
PLOTTED:4/19/2021

SHEET C1.01



SHEET C1.02

SITE LEGEND

- CONCRETE
- GRAVEL PAVEMENT
- ASPHALT PAVEMENT
- (89) NIMBER OF PARKING SPACE

PARKING PROVIDED

PROPOSED PARKING SPACES: 89
PROPOSED ADA PARKING SPACES: 4
TOTAL PROPOSED PARKING SPACES: 93

SITE NOTES

1. THE SITE LAYOUT SHALL BE BASED ON THE DIMENSIONS AND OTHER INFORMATION SHOWN. MINOR ADJUSTMENTS TO THE LAYOUT APPROVED BY THE ENGINEER MAY BE NEEDED IN THE FIELD TO ACHIEVE THE DESIRED ALIGNMENT WITH THE EXISTING FEATURES TO REMAIN.
2. CONTRACTOR SHALL BE FAMILIAR WITH THE SITE AND CHECK ALL FINAL DIMENSIONS ON THE GROUND PRIOR TO CONSTRUCTION ACTIVITIES. NOTIFY THE ENGINEER IMMEDIATELY OF DISCREPANCIES FROM THE PLANS.
3. THE EXACT LOCATION OF ALL EXISTING UTILITIES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. CARE SHALL BE TAKEN CARE TO PROTECT ANY UTILITIES THAT ARE TO REMAIN AND ALL CONSTRUCTION SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY/AGENCY. ANY DAMAGED UTILITY SHALL BE REPAIRED/RELOCATED TO MEET LOCAL STANDARDS AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED PRIOR TO ANY CONSTRUCTION ACTIVITIES TAKING PLACE.
4. THE CONTRACTOR SHALL CUT CLEAN EDGES ON EXISTING PAVEMENT AND PROVIDE SMOOTH TRANSITION INTO PROPOSED PAVEMENT.
5. PROPOSED ACCESSIBLE PARKING SPACES SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION. CONTRACTOR SHALL NOTIFY THE ENGINEER IF THE INFORMATION ON THESE PLANS EXCEED THE MAXIMUM ALLOWABLE SLOPE OR THE IMPROVEMENTS CAN NOT BE CONSTRUCTED WITHIN THE MAXIMUM ALLOWABLE SLOPE LIMIT.
6. PROPOSED CONCRETE SIDEWALK ROUTES INDICATED ON THESE PLANS SHALL NOT EXCEED A LONGITUDINAL SLOPE OF 5% OR A CROSS SLOPE OF 2%. CONTRACTOR SHALL NOTIFY THE ENGINEER IF THE INFORMATION ON THESE PLANS EXCEED THE MAXIMUM ALLOWABLE SLOPE OR THE IMPROVEMENTS CAN NOT BE CONSTRUCTED WITHIN THE MAXIMUM ALLOWABLE SLOPE LIMIT.
7. PROPERTY LINES SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION. GRADING AND CLEARING ALONG PROPERTY LINES SHALL BE FULLY COORDINATED WITH ADJACENT PROPERTY OWNERS.
8. IRRIGATION SOLAR POWER EQUIPMENT PAD SHALL BE 5'Wx6'Lx4" THICK, WIRE REINFORCED CONCRETE. MINOR ADJUSTMENTS TO THE FINAL LOCATION AND ORIENTATION MAY BE REQUIRED TO FIT WITH OTHER IRRIGATION EQUIPMENT AND SITE ELEMENTS. NOTIFY LANDSCAPE ARCHITECT IF LOCATION DEVIATES FROM WHAT IS SHOWN ON THESE PLANS.

KEYNOTES

1	3' CONCRETE SWALE	7 / C7.01
2	GRAVEL PARKING/ENTRY ROAD	5 / C7.01
3	CONCRETE PAVED ADA PARKING	8 / C7.01
4	WOODEN SPLIT RAIL FENCE	4 / C7.03
5	26' BAR GATE	1 / C7.03
6	CONCRETE SIDEWALK	9 / C7.01
7	CONCRETE BLEACHER PAD	9 / C7.01
8	24' GRAVEL ENTRY ROAD	5 / C7.01
9	14' GRAVEL MAINTENANCE ROAD	4 / C7.01
10	12' BAR GATE	2 / C7.03
11	16' BAR GATE	2 / C7.03
12	VERTICAL CURB	12 / C7.01
13	ASPHALT PAVEMENT	1 / C7.01
14	CONCRETE WHEEL STOPS	6 / C7.01
15	CURB WIPEDOWN	11 / C7.01
16	STOP SIGN	13 / C7.01
17	PAVEMENT CONNECTION	2 / C7.01
18	PAVEMENT CONNECTION TO GRAVEL	3 / C7.01

Know what's below. Call before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

WESLEY DAWSEY REGISTERED ENGINEER No. 125893 STATE OF TENNESSEE

OVERALL SITE PLAN

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK	DATE	DESCRIPTION
	MD	WD	04-21-21	ISSUE FOR BID

C1.00

FILE NO. 3695300

USER:MADONLEY
FILE:C:\3695300\3695300\04_CAD\CIVIL\PLOT\3695300_C100 OVERALL SITE PLAN.dwg
SAVED:4/19/2021
PLOTTED:4/19/2021

SITE LEGEND

- CONCRETE
- GRAVEL PAVEMENT
- ASPHALT PAVEMENT

SITE NOTES

1. THE SITE LAYOUT SHALL BE BASED ON THE DIMENSIONS AND OTHER INFORMATION SHOWN. MINOR ADJUSTMENTS TO THE LAYOUT APPROVED BY THE ENGINEER MAY BE NEEDED IN THE FIELD TO ACHIEVE THE DESIRED ALIGNMENT WITH THE EXISTING FEATURES TO REMAIN.
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6. PROPERTY LINES SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION. GRADING AND CLEARING ALONG PROPERTY LINES SHALL BE FULLY COORDINATED WITH ADJACENT PROPERTY OWNERS.
7. ALL RADII AND DIMENSIONS ARE MEASURED TO THE FACE OF CURB WHERE PRESENT OR EDGE OF PAVEMENT OR GRAVEL WHERE CURB IS NOT PRESENT.
8. ALL RADII SHALL BE 5' UNLESS OTHERWISE NOTED.

MEMPHIS ARLINGTON ROAD (50' ROW)

50' SCENIC CORRIDOR BUFFER

FIELD BUFFER ZONE

ENLARGED PLAN - SEE SHEET C7.02

EXISTING WETLANDS

EXISTING WETLANDS

SEE SHEETS C5.01-C5.02 FOR MAINTENANCE ROAD INFORMATION

BEGIN MAINTENANCE ROAD

VERTICAL CURB (TYP.)

VERTICAL CURB (TYP.)

TOP OF BANK

TOP OF BANK

SCOTTS CREEK

MATCH LINE SHEET C1.02

SCALE: 1 INCH = 30 FEET

Know what's **below.** **Call** before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

WESLEY DAWSEY — REGISTERED ENGINEER — No. 122693 — STATE OF TENNESSEE

SITE LAYOUT PLAN

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

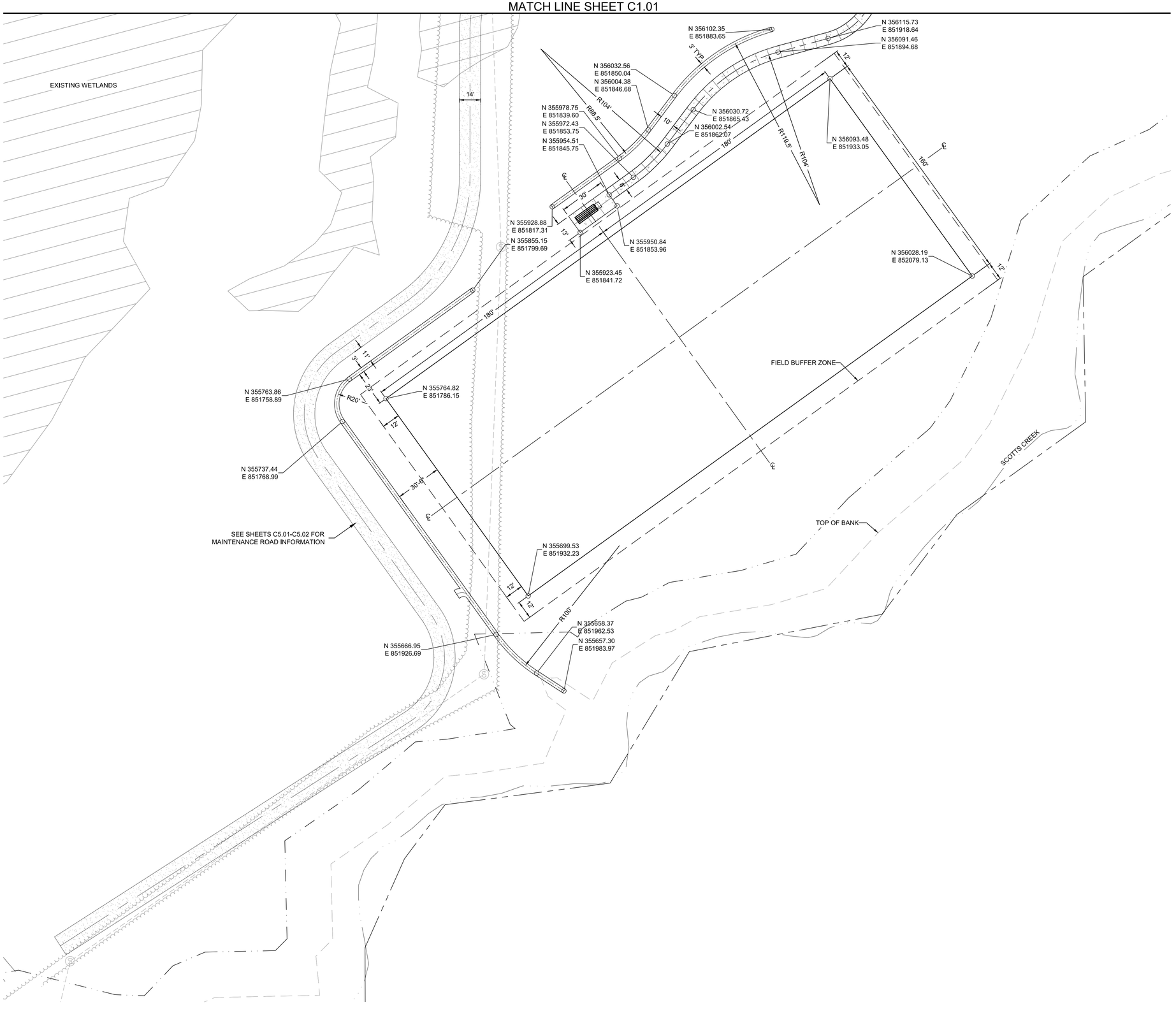
REV.	DR	CHK	DATE	REVISION INFORMATION DESCRIPTION
	MD	WD	04-21-21	ISSUE FOR BID

C1.01

FILE NO. 3695300

USER:MADONLEY
FILE:C:\3695300\3695300\04_CAD\CIVIL\PLOTS\3695300_C101 SITE LAYOUT PLAN.dwg
SAVED:4/19/2021
PLOTTED:4/19/2021

MATCH LINE SHEET C1.01



SITE LEGEND

- CONCRETE
- GRAVEL PAVEMENT
- ASPHALT PAVEMENT

SITE NOTES

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8. ALL RADII SHALL BE 5' UNLESS OTHERWISE NOTED.

30' 15' 0' 30' 60'
SCALE: 1 INCH = 30 FEET

Know what's **below.**
Call before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

SITE LAYOUT PLAN

LAKELAND ATHLETIC COMPLEX
PHASE 1
MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

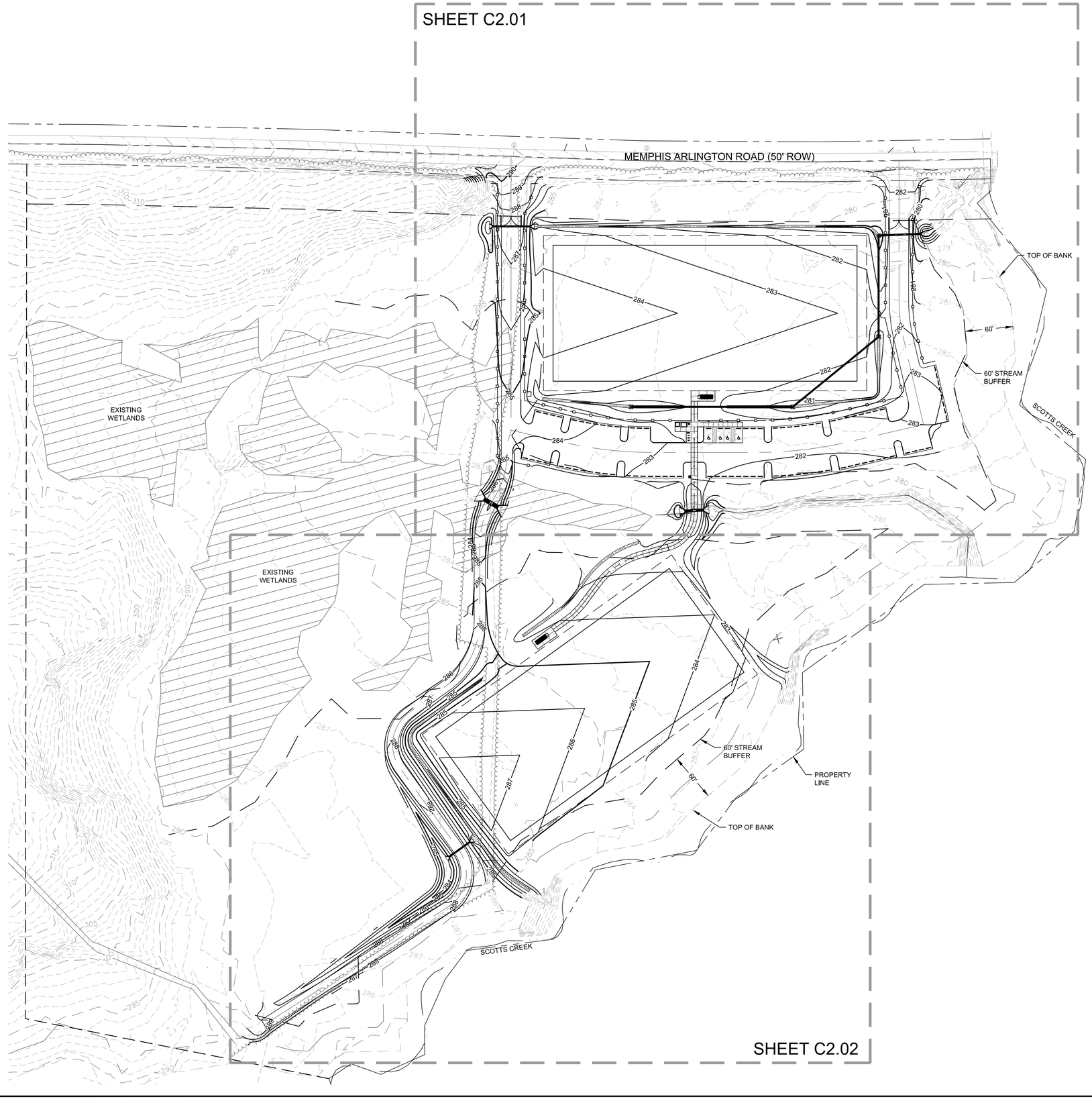
REVISION INFORMATION			
REV.	DR. / CHK.	DATE	DESCRIPTION
	MD / WD	04-21-21	ISSUE FOR BID

C1.02

FILE NO. 3695300

USER:MADONLEY
FILE:C:\3695300\3695300\04_CAD\CIVIL\PLOT\3695300_C101 SITE LAYOUT PLAN.dwg
SAVED:4/19/2021
PLOTTED:4/19/2021

SHEET C2.01



GRADING NOTES:

1. THE EXACT LOCATION OF ALL EXISTING UTILITIES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. CARE SHALL BE TAKEN CARE TO PROTECT ANY UTILITIES THAT ARE TO REMAIN AND ALL CONSTRUCTION SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY/AGENCY. ANY DAMAGED UTILITY SHALL BE REPAIRED/RELOCATED TO MEET LOCAL STANDARDS AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED PRIOR TO ANY CONSTRUCTION ACTIVITIES TAKING PLACE.
2. SOLID SOD PLAYING FIELD AREAS AND SEED ALL OTHER EARTHEN AREAS DISTURBED DURING CONSTRUCTION UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL VERIFY SITE CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY THE OWNER OF ANY VARIATIONS PRIOR TO COMMENCEMENT OF WORK.
4. PROPERTY LINES SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION. GRADING AND CLEARING ALONG PROPERTY LINES SHALL BE FULLY COORDINATED WITH ADJACENT PROPERTY OWNERS.
5. PROPOSED ACCESSIBLE PARKING SPACES SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION. CONTRACTOR SHALL NOTIFY THE OWNER IF THE INFORMATION ON THESE PLANS EXCEED THE MAXIMUM ALLOWABLE SLOPE OR THE IMPROVEMENTS CAN NOT BE CONSTRUCTED WITHIN THE MAXIMUM ALLOWABLE SLOPE LIMIT.
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7. THE CONTRACTOR SHALL CUT CLEAN EDGES ON EXISTING PAVEMENT AND PROVIDE SMOOTH TRANSITION INTO PROPOSED PAVEMENT.
8. SEE SHEETS C2.31 TO C2.52 FOR EROSION CONTROL INFORMATION.
9. THE CONTRACTOR MUST IMPLEMENT ALL PROPER EROSION AND SEDIMENT CONTROL MEASURES FOR THE PROJECT AND MEET ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS.

GRADING & DRAINAGE LEGEND

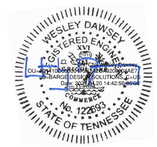
	STORM DRAIN
1020	EXISTING CONTOUR
1021	PROPOSED CONTOUR
	DRAIN INLET
	TYPE D HEADWALL
	RIP-RAP OUTLET PROTECTION
282.50	SPOT ELEVATION
BC	BOTTOM OF CURB (GUTTER)
TC	TOP OF CURB
FL	SWALE FLOWLINE

60' 30' 0' 60' 120'

SCALE: 1 INCH = 60 FEET

811 Know what's **below.** **Call** before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018



OVERALL GRADING PLAN

LAKELAND ATHLETIC COMPLEX PHASE 1

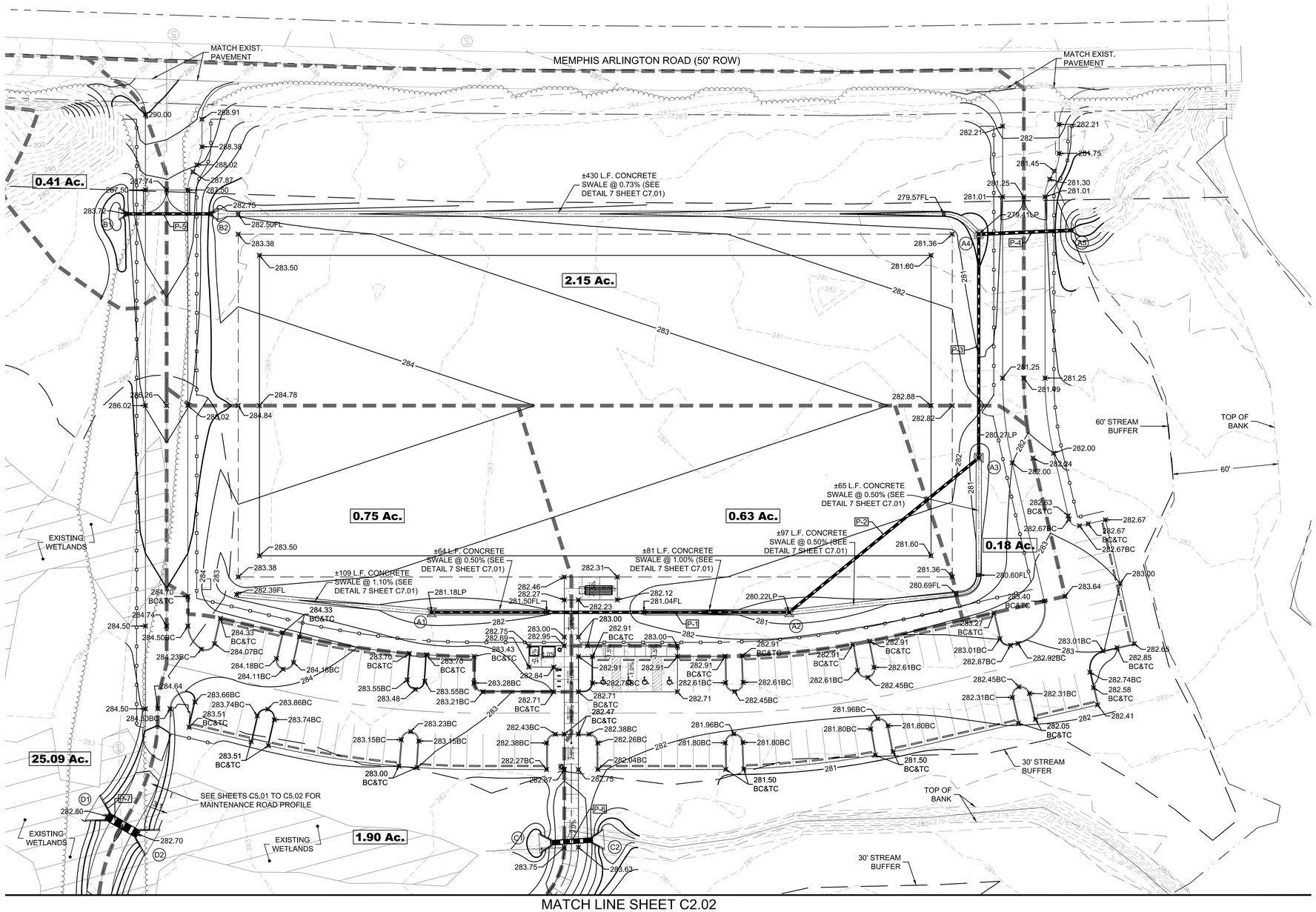
MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DATE	DESCRIPTION
	MD	WD	04-21-21	ISSUE FOR BID

C2.00

FILE NO. 3695300

USER:MADONLEY
FILE P:\3695300\3695300\04_CAD\CIVIL\PLOTS\3695300_C200 OVERALL GRADING.dwg
SAVED:2/25/2021
PLOTTED:4/19/2021



MATCH LINE SHEET C2.02

GRADING NOTES:

1. THE EXACT LOCATION OF ALL EXISTING UTILITIES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. CARE SHALL BE TAKEN CARE TO PROTECT ANY UTILITIES THAT ARE TO REMAIN AND ALL CONSTRUCTION SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY/AGENCY. ANY DAMAGED UTILITY SHALL BE REPAIRED/RELOCATED TO MEET LOCAL STANDARDS AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED PRIOR TO ANY CONSTRUCTION ACTIVITIES TAKING PLACE.
2. SOLID SOD PLAYING FIELD AREAS AND SEED ALL EARTHEN AREAS DISTURBED DURING CONSTRUCTION UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL VERIFY SITE CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY THE OWNER OF ANY VARIATIONS PRIOR TO COMMENCEMENT OF WORK.
4. PROPERTY LINES SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION. GRADING AND CLEARING ALONG PROPERTY LINES SHALL BE FULLY COORDINATED WITH ADJACENT PROPERTY OWNERS.
5. PROPOSED ACCESSIBLE PARKING SPACES SHALL NOT EXCEED 2% SLOPE IN ANY DIRECTION. CONTRACTOR SHALL NOTIFY THE OWNER IF THE INFORMATION ON THESE PLANS EXCEED THE MAXIMUM ALLOWABLE SLOPE OR THE IMPROVEMENTS CAN NOT BE CONSTRUCTED WITHIN THE MAXIMUM ALLOWABLE SLOPE LIMIT.
6. PROPOSED CONCRETE SIDEWALK ROUTES INDICATED ON THESE PLANS SHALL NOT EXCEED A LONGITUDINAL SLOPE OF 5% OR A CROSS SLOPE OF 2%. CONTRACTOR SHALL NOTIFY THE ENGINEER IF THE INFORMATION ON THESE PLANS EXCEED THE MAXIMUM ALLOWABLE SLOPE OR THE IMPROVEMENTS CAN NOT BE CONSTRUCTED WITHIN THE MAXIMUM ALLOWABLE SLOPE LIMIT.
7. THE CONTRACTOR SHALL CUT CLEAN EDGES ON EXISTING PAVEMENT AND PROVIDE SMOOTH TRANSITION INTO PROPOSED PAVEMENT.
8. SEE SHEETS C2.31 TO C2.52 FOR EROSION CONTROL INFORMATION.
9. 3070 INLETS SHALL HAVE A CONCRETE APRON SURROUND. SEE DETAIL 2, SHEET C7.04.
10. THE CONTRACTOR MUST IMPLEMENT ALL PROPER EROSION AND SEDIMENT CONTROL MEASURES FOR THE PROJECT AND MEET ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS.

GRADING & DRAINAGE LEGEND

	STORM DRAIN
1020	EXISTING CONTOUR
1021	PROPOSED CONTOUR
	DRAIN INLET
	TYPE D HEADWALL
	RIP-RAP OUTLET PROTECTION
282.50	SPOT ELEVATION
BC	BOTTOM OF CURB (GUTTER)
TC	TOP OF CURB
FL	SWALE FLOWLINE

Structure Table

Node	Description	Rim Elevation (ft)	Sump Elevation (ft)	Area (Ac.)	Q Design (cfs)
A1	3070 Inlet	281.18	278.18	0.75	1.30
A2	3070 Inlet	280.22	277.17	0.63	1.10
A3	3070 Inlet	280.27	276.48	0.18	0.40
A4	3070 Inlet	279.41	275.59	2.56	6.10
A5	Type 'D' HW	277.44	275.00	-	-
B1	Type 'D' HW	285.68	283.72	0.41	2.50
B2	Type 'D' HW	284.71	282.75	-	-
C1	Type 'D' HW	282.75	279.50	26.99	63.90
C2	Type 'D' HW	281.85	278.60	-	-
D1	Type 'D' HW	287.05	282.80	25.09	60.50
D2	Type 'D' HW	286.95	282.70	-	-
E1	Type 'D' HW	285.10	283.14	1.39	2.30
E2	Type 'D' HW	284.77	282.81	-	-

Pipe Table

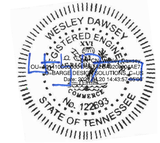
Pipe Label	Upstream Node	Upstream Invert (ft)	Downstream Node	Downstream Invert (ft)	Length (ft)	Slope (ft/ft)	Size (in)	Area in Pipe	Q Design (cfs)	Q Capacity (cfs)	Pipe Type
P-1	A1	278.18	A2	277.17	202	0.0050	15	0.75	1.30	4.58	HDPE
P-2	A2	277.17	A3	276.48	138	0.0050	15	1.38	2.40	4.57	HDPE
P-3	A3	276.48	A4	275.84	127	0.0050	15	1.56	2.80	4.59	HDPE
P-4	A4	275.59	A5	275.00	53	0.0112	18	4.12	8.90	11.14	HDPE
P-5	B1	283.72	B2	282.75	49	0.0200	15	0.41	2.50	9.16	HDPE
P-6	C1	279.50	C2	278.60	24	0.0380	30	26.99	63.90	80.21	RCP
P-7	D1	282.80	D2	282.70	20	0.0050	34x53	25.09	60.50	40.60	RCP
P-8	E1	283.14	E2	282.81	33	0.0100	15	1.39	2.30	6.48	RCP

30' 15' 0' 30' 60'

SCALE: 1 INCH = 30 FEET

Know what's **below.** **Call** before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018



GRADING PLAN
LAKELAND ATHLETIC COMPLEX
PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REVISION INFORMATION

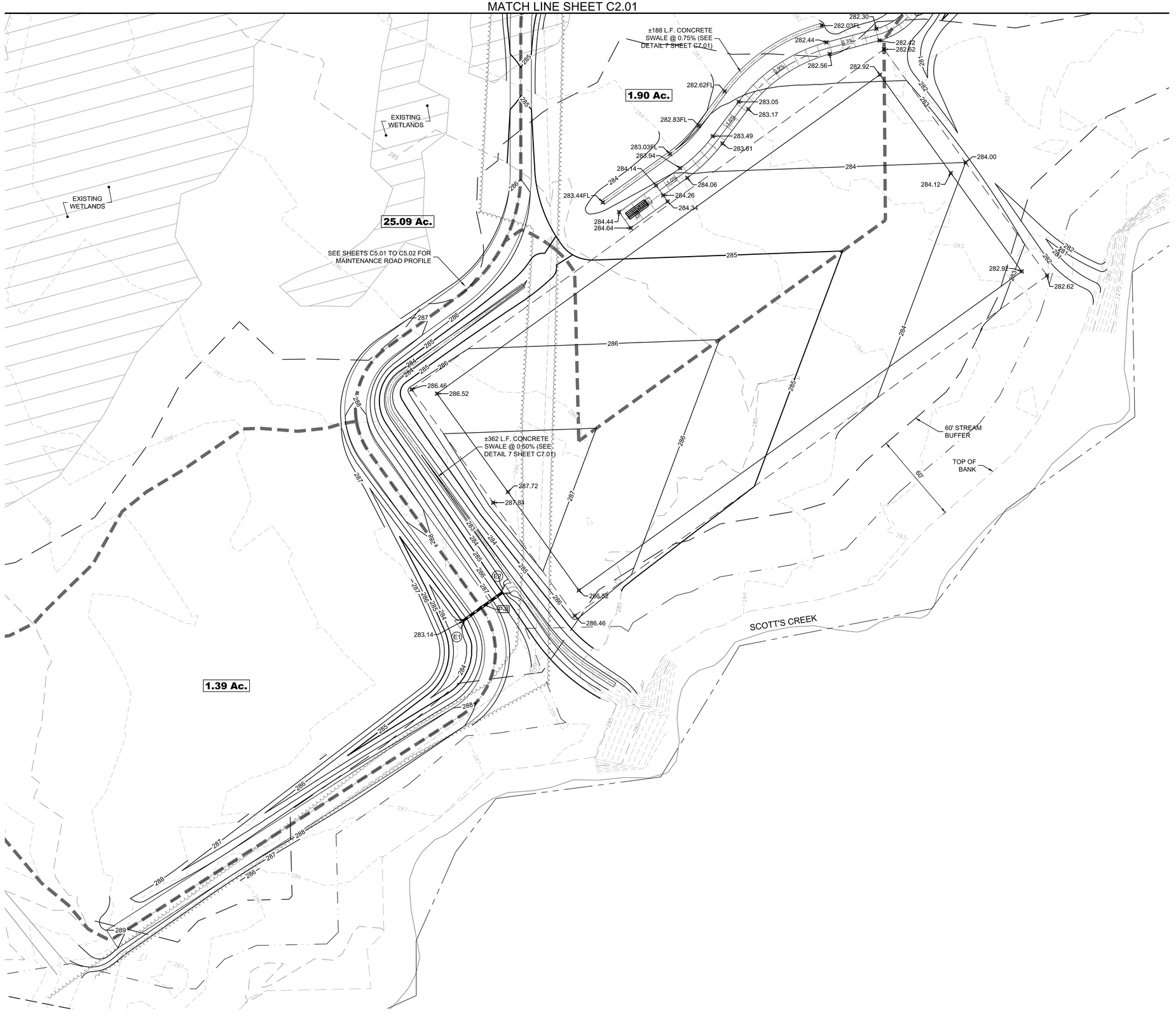
REV.	DR.	CHK.	DATE
	MD	WD	04-21-21

ISSUE FOR BID

C2.01

FILE NO. 3695300

USER:MADONLEY
FILE:P:\3695\3695038\3695300\04_CAD\CIV\LPLOT\3695300_C201 GRADING & DRAINAGE.dwg
SAVED:2/25/2021
PLOTTED:4/19/2021



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1021	PROPOSED CONTOUR
	DRAIN INLET
	TYPE D HEADWALL
	RIP-RAP OUTLET PROTECTION
282.50	SPOT ELEVATION
BC	BOTTOM OF CURB (GUTTER)
TC	TOP OF CURB
FL	SWALE FLOWLINE

30' 15' 0' 30' 60'

SCALE: 1 INCH = 30 FEET

Know what's **below.**
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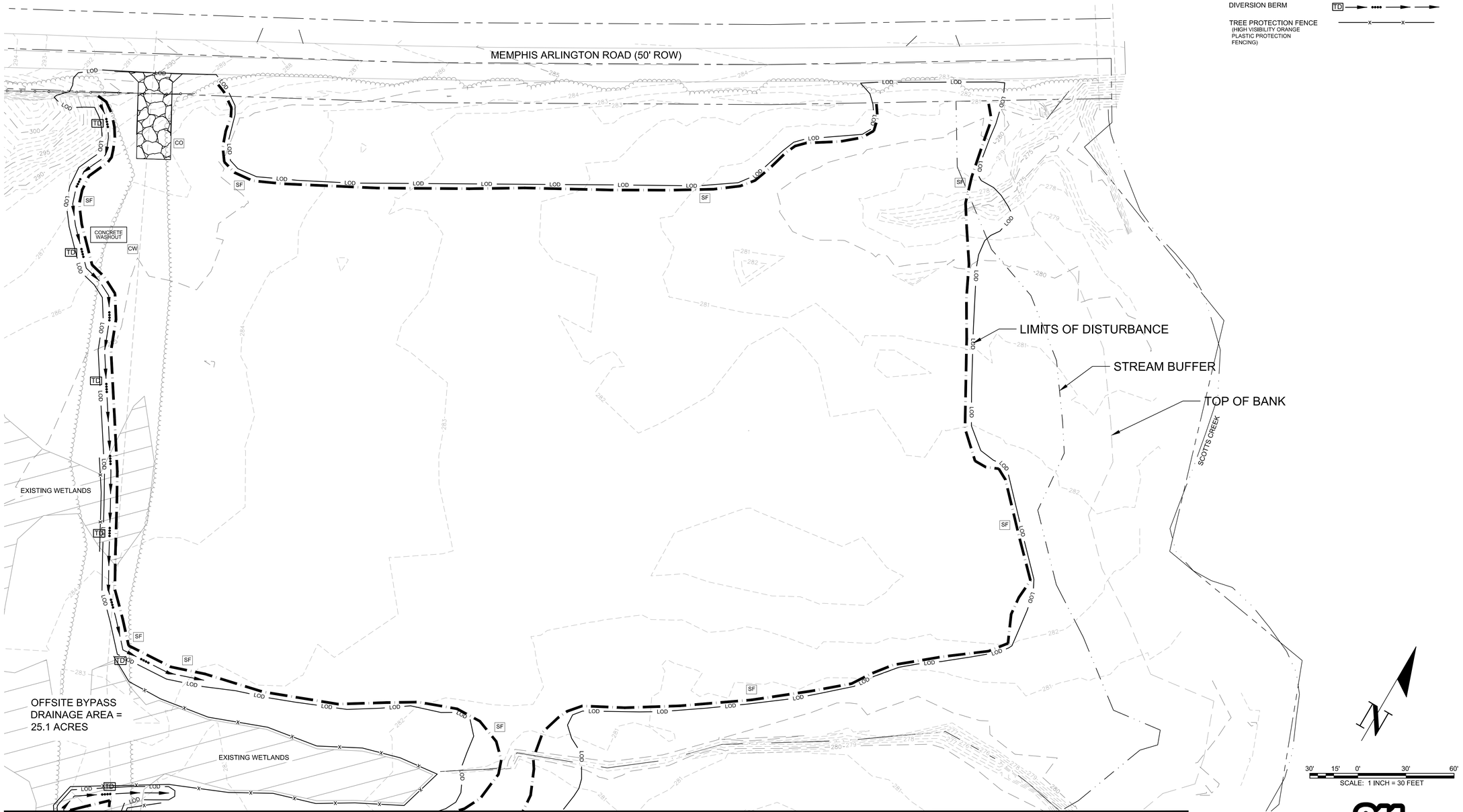
WESLEY DAVID MADONLEY
REGISTERED ENGINEER
No. 123893
STATE OF TENNESSEE

GRADING PLAN
LAKELAND ATHLETIC COMPLEX
PHASE 1
MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DATE	DESCRIPTION
	MD	WD	04-21-21	ISSUE FOR BID

C2.02

FILE NO. 3695300



LEGEND

LIMITS OF DISTURBANCE	LOD
SILT FENCE	SF
CONCRETE WASHOUT	CW
OUTLET PROTECTION	OP
CONSTRUCTION EXIT	CO
STONE FILTER RING	FR
INLET PROTECTION	IP
DIVERSION BERM	TD
TREE PROTECTION FENCE (HIGH VISIBILITY ORANGE PLASTIC PROTECTION FENCING)	

30' 15' 0' 30' 60'

SCALE: 1 INCH = 30 FEET

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BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

WESLEY DAVIS
REGISTERED ENGINEER
No. 122693
STATE OF TENNESSEE

INITIAL EROSION CONTROL PLAN

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DATE	REVISION INFORMATION DESCRIPTION
	MD	WD	04-21-21	ISSUE FOR BID

C2.31

FILE NO. 3695300

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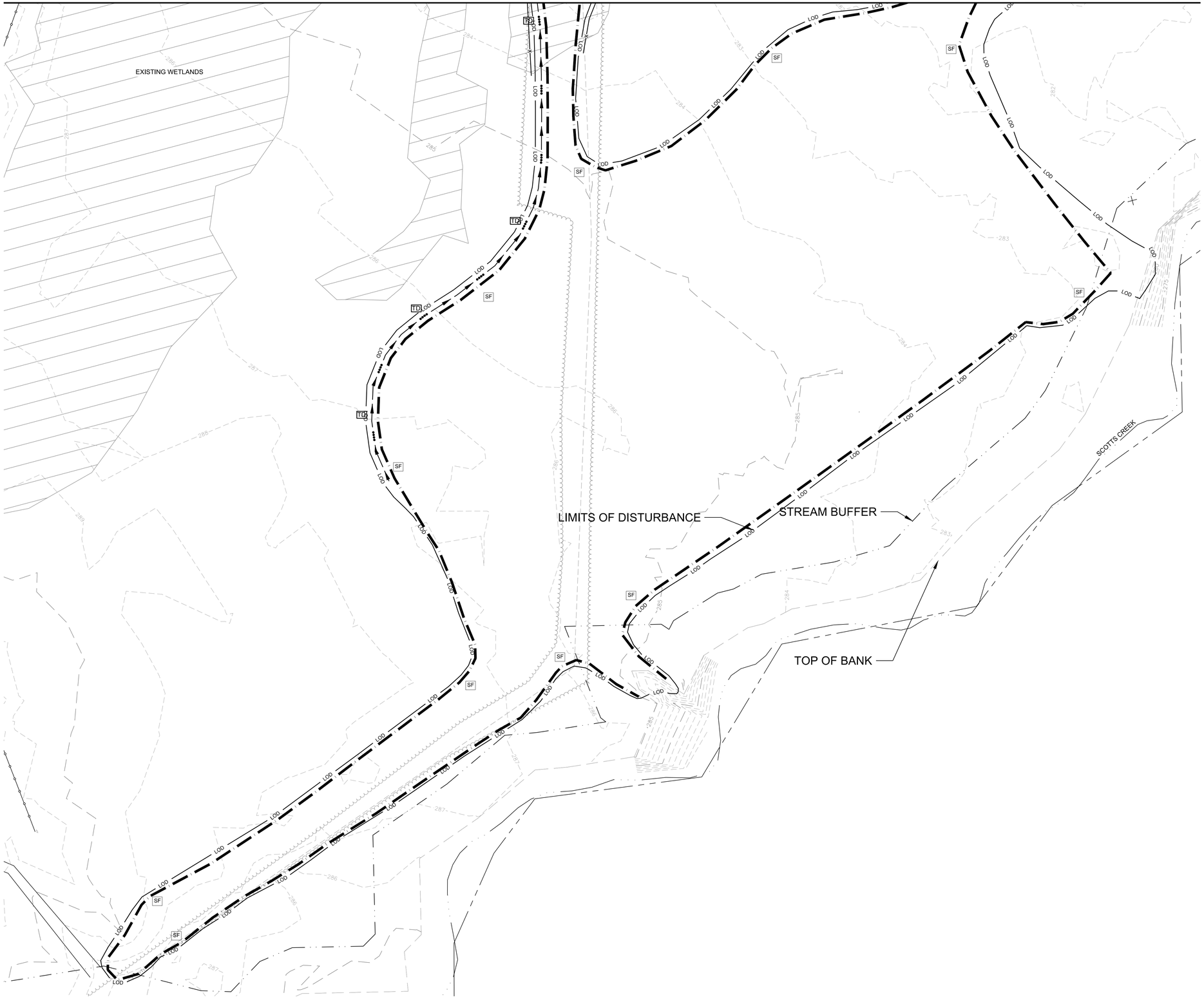
FILE:P:\3695300\3695300\04_CAD\CIVIL\PLOT\3695300_C231 INITIAL EROSION.dwg
SAVED:2/19/2021
PLOTTED:4/19/2021

MATCH LINE SHEET C2.31



LEGEND

LIMITS OF DISTURBANCE	LOD
SILT FENCE	SF
CONCRETE WASHOUT	CW CONCRETE WASHOUT
OUTLET PROTECTION	OP
CONSTRUCTION EXIT	CO
STONE FILTER RING	FR
INLET PROTECTION	IP
DIVERSION BERM	TD
TREE PROTECTION FENCE (HIGH VISIBILITY ORANGE PLASTIC PROTECTION FENCING)	x x

30' 15' 0' 30' 60'
SCALE: 1 INCH = 30 FEET

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BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

WESLEY DAWSEY
REGISTERED ENGINEER
No. 122693
STATE OF TENNESSEE

INITIAL EROSION CONTROL PLAN

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DATE	REVISION INFORMATION DESCRIPTION
	MD	WD	04-21-21	ISSUE FOR BID

C2.32

FILE NO. 3695300

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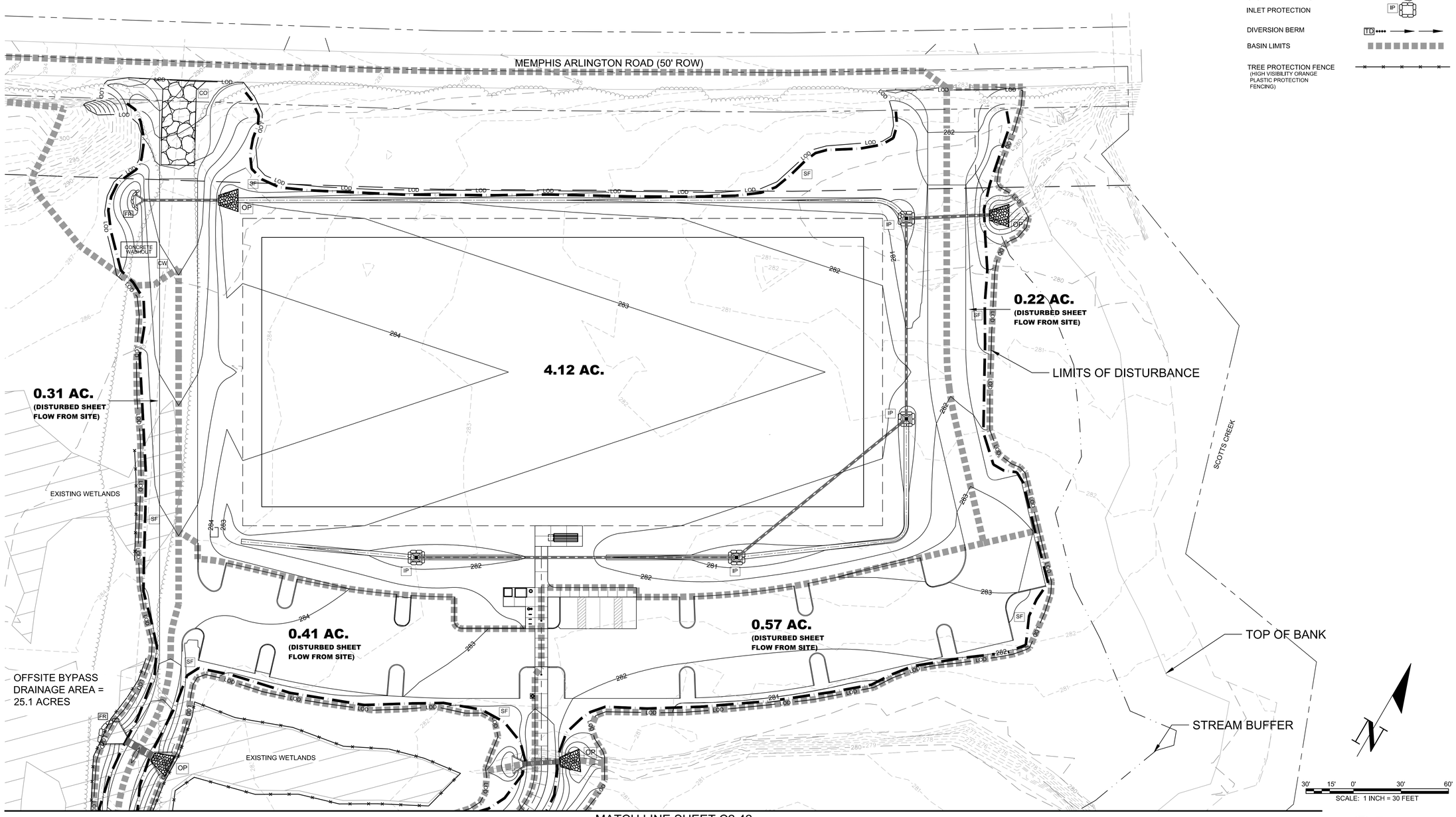
PLOTTED:4/19/2021



LEGEND

- LIMITS OF DISTURBANCE — LOD
- SILT FENCE — SF
- CONCRETE WASHOUT — CW
- OUTLET PROTECTION — OP
- CONSTRUCTION EXIT — CO
- STONE FILTER RING — FR
- INLET PROTECTION — IP
- DIVERSION BERM — TD
- BASIN LIMITS
- TREE PROTECTION FENCE (HIGH VISIBILITY ORANGE PLASTIC PROTECTION FENCING)

30' 15' 0' 30' 60'

SCALE: 1 INCH = 30 FEET

Know what's **below.** **Call** before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

WESLEY DAWSEY REGISTERED ENGINEER No. 122893 STATE OF TENNESSEE

REV.	DR.	CHK.	DATE	REVISION INFORMATION
	MD	WD	04-21-21	ISSUE FOR BID

INTERMEDIATE EROSION CONTROL PLAN

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

C2.41

FILE NO. 3695300

USER:MADONLEY
FILE F:\3636865\3695300\04_CAD\CIVIL\LOT3695300_C241 INTERMEDIATE EROSION.dwg
SAVED:2/19/2021
PLOTTED:4/19/2021

MATCH LINE SHEET C2.41

EXISTING WETLANDS

0.05 AC.
(DISTURBED SHEET FLOW FROM SITE)

0.16 AC.
(DISTURBED SHEET FLOW FROM SITE)

0.31 AC.
(DISTURBED SHEET FLOW FROM SITE)

0.86 AC.
(DISTURBED SHEET FLOW FROM SITE)

0.16 AC.
(DISTURBED SHEET FLOW FROM SITE)

OUTFALL NO. 1
GRASS SWALE
DISCHARGING 0.16 AC.

0.80 AC.
(DISTURBED SHEET FLOW FROM SITE)

SCOTTS CREEK

2.73 AC.

LIMITS OF DISTURBANCE

TOP OF BANK

STREAM BUFFER

OUTFALL NO. 2
CONCRETE SWALE
DISCHARGING 2.73 AC.

LEGEND

LIMITS OF DISTURBANCE	LOD
SILT FENCE	SF
CONCRETE WASHOUT	CW (CONCRETE WASHOUT)
OUTLET PROTECTION	OP
CONSTRUCTION EXIT	CO
STONE FILTER RING	FR
INLET PROTECTION	IP
DIVERSION BERM	TD
BASIN LIMITS	
TREE PROTECTION FENCE (HIGH VISIBILITY ORANGE PLASTIC PROTECTION FENCING)	

30' 15' 0' 30' 60'
SCALE: 1 INCH = 30 FEET

Know what's **below.**
Call before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

WESLEY DAWSEY
REGISTERED ENGINEER
No. 122893
STATE OF TENNESSEE

INTERMEDIATE EROSION CONTROL PLAN

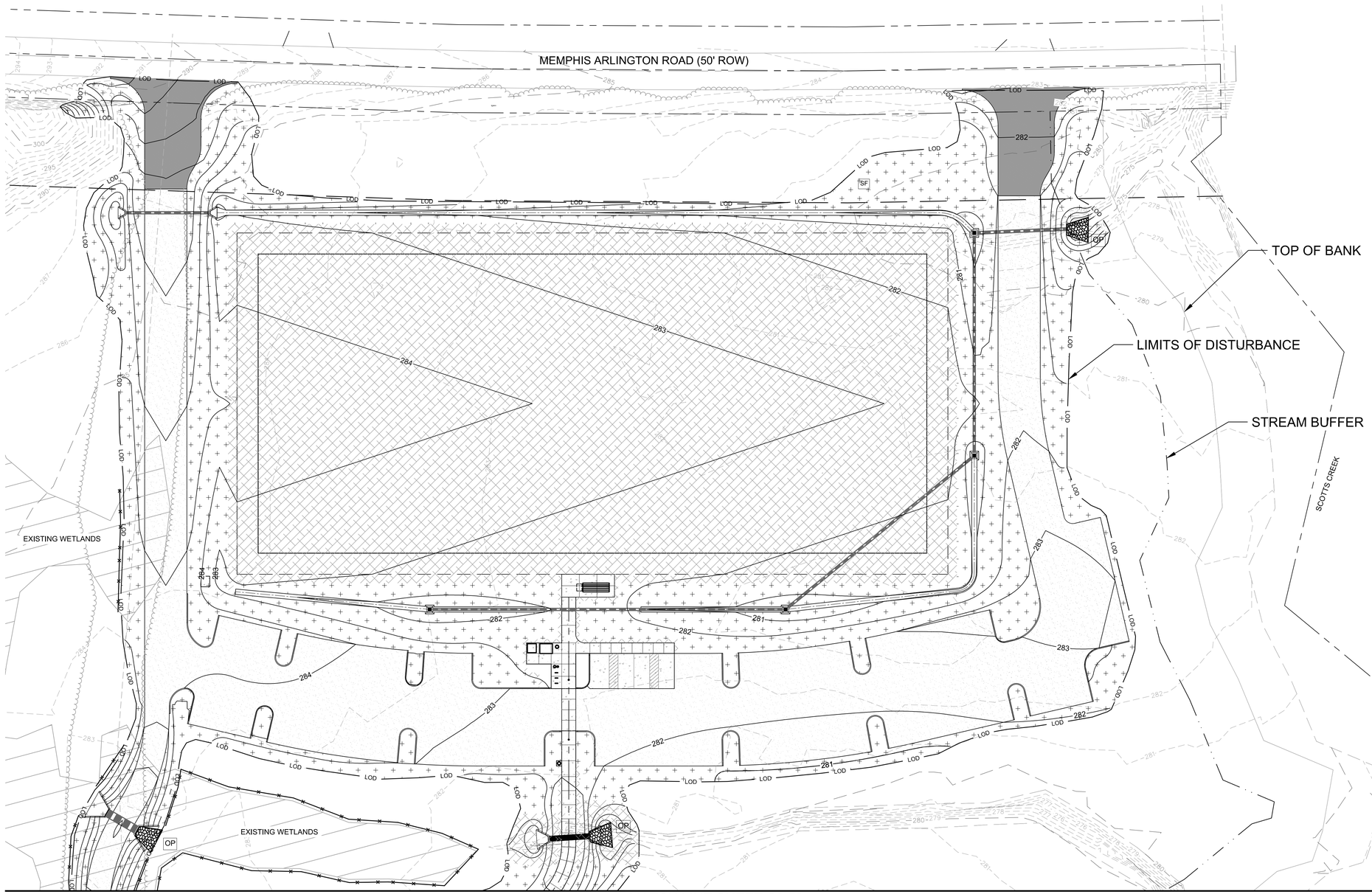
LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DATE	REVISION INFORMATION
	MD	WD	04-21-21	ISSUE FOR BID

C2.42

FILE NO. 3695300



MATCH LINE SHEET C2.52

LEGEND

LIMITS OF DISTURBANCE	LOD
SILT FENCE	SF
CONCRETE WASHOUT	CW (CONCRETE WASHOUT)
OUTLET PROTECTION	OP
CONSTRUCTION EXIT	CO
STONE FILTER RING	FR
INLET PROTECTION	IP
PERMANENT SEEDING	
PERMANENT SOD	
TURF REINFORCEMENT MAT	
ASPHALT PAVEMENT	
CONCRETE PAVING	
GRAVEL DRIVE/PARKING	
TREE PROTECTION FENCE (HIGH VISIBILITY ORANGE PLASTIC PROTECTION FENCING)	

30' 15' 0' 30' 60'

SCALE: 1 INCH = 30 FEET

Know what's **below.** **Call** before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

WESLEY DAVSEY
REGISTERED ENGINEER
No. 122893
STATE OF TENNESSEE

FINAL EROSION CONTROL PLAN

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DATE	REVISION INFORMATION
	MD	WD	04-21-21	ISSUE FOR BID

C2.51

FILE NO. 3695300

MATCH LINE SHEET C2.51

EXISTING WETLANDS

LIMITS OF DISTURBANCE

TOP OF BANK

STREAM BUFFER

SCOTTS CREEK

LEGEND

LIMITS OF DISTURBANCE	LOD
SILT FENCE	SF
CONCRETE WASHOUT	CW: CONCRETE WASHOUT
OUTLET PROTECTION	OP
CONSTRUCTION EXIT	CO
STONE FILTER RING	FR
INLET PROTECTION	IP
PERMANENT SEEDING	
PERMANENT SOD	
TURF REINFORCEMENT MAT	
ASPHALT PAVEMENT	
CONCRETE PAVING	
GRAVEL DRIVE/PARKING	
TREE PROTECTION FENCE (HIGH VISIBILITY ORANGE PLASTIC PROTECTION FENCING)	

N

30' 15' 0' 30' 60'

SCALE: 1 INCH = 30 FEET

Know what's **below.**
Call before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

WESLEY DAWSEY
REGISTERED ENGINEER
No. 122693
STATE OF TENNESSEE

FINAL EROSION CONTROL PLAN

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DATE	REVISION INFORMATION DESCRIPTION
	MD	WD	04-21-21	ISSUE FOR BID

C2.52

FILE NO. 3695300

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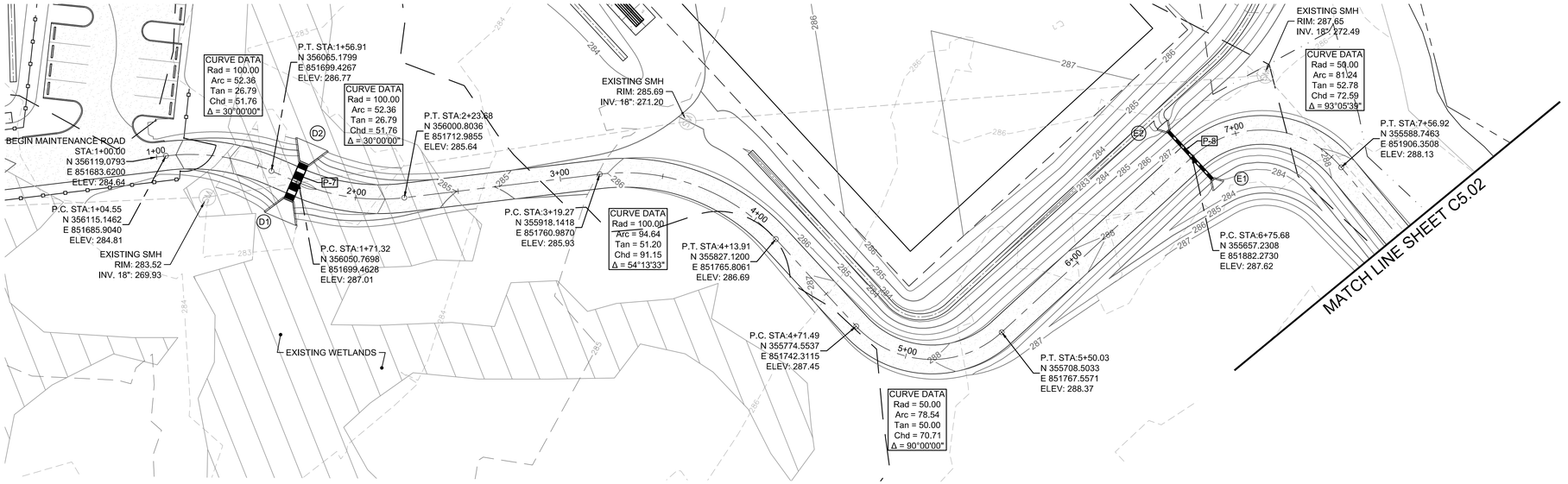
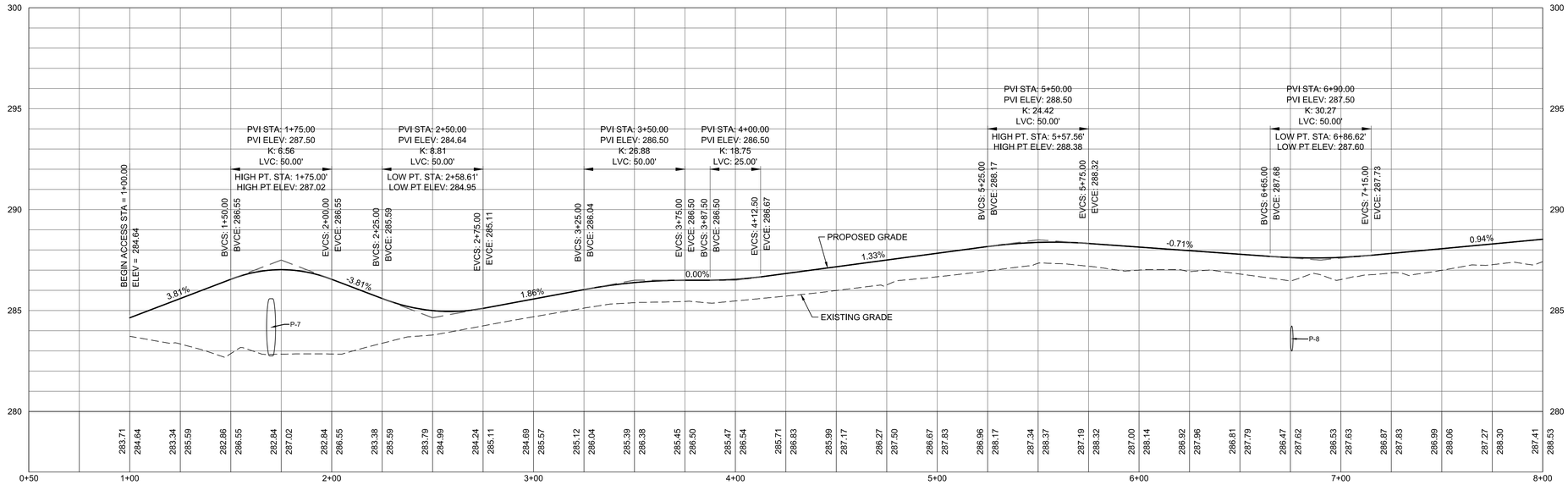
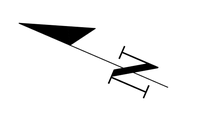
PLOTTED:4/19/2021







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BARGE
DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

WESLEY DAWSEY
REGISTERED ENGINEER
No. 123693
STATE OF TENNESSEE

MAINTENANCE ROAD PLAN & PROFILE

LAKELAND ATHLETIC COMPLEX
PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DATE	REVISION INFORMATION DESCRIPTION
	MD	WD	04-21-21	ISSUE FOR BID

C5.01
FILE NO. 3695300

USER:MADONLEY
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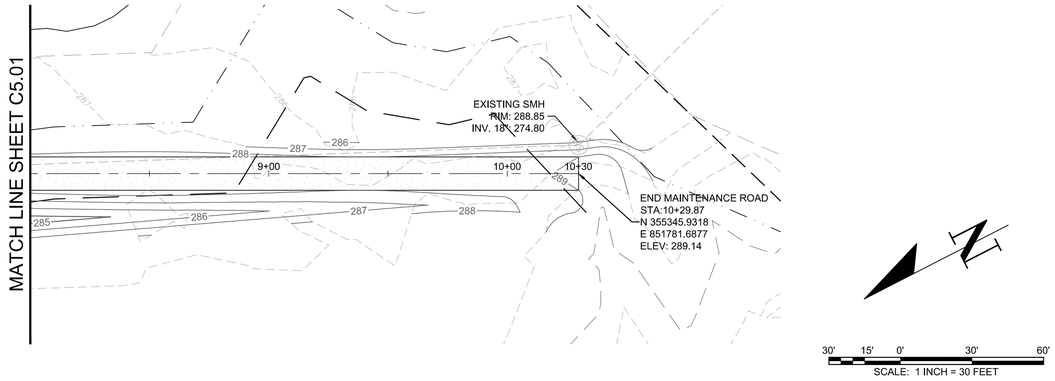
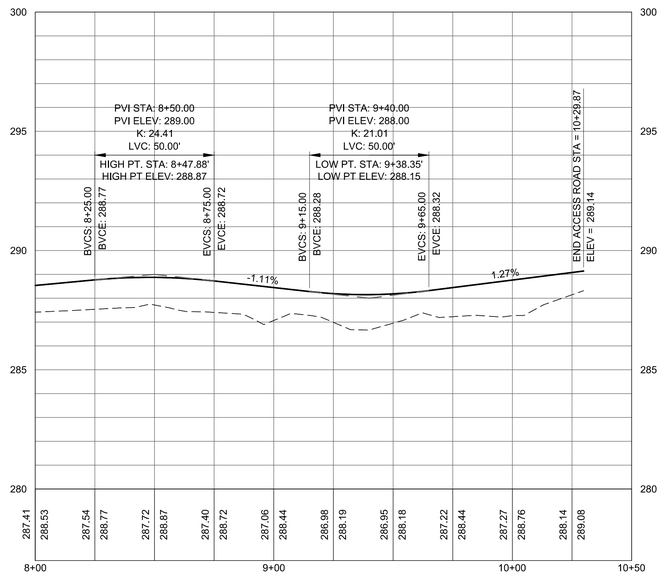
PLOTTED:4/19/2021





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BARGE
DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

WESLEY DAWSEY
REGISTERED ENGINEER
No. 122893
STATE OF TENNESSEE

MAINTENANCE ROAD PLAN & PROFILE

LAKELAND ATHLETIC COMPLEX
PHASE 1

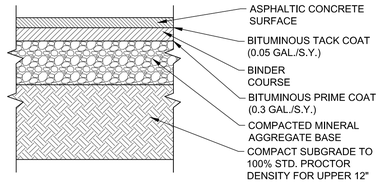
MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DATE	DESCRIPTION
	MD	VID	04-21-21	ISSUE FOR BID

C5.02

FILE NO. 3695300

USER:MADONLEY
FILE:P:\3695300\3695300\04A_CAD\CIVIL\PLOT\3695300_C501 ACCESS ROAD PLAN & PROFILE.dwg
SAVED:2/11/2021
PLOTTED:4/19/2021

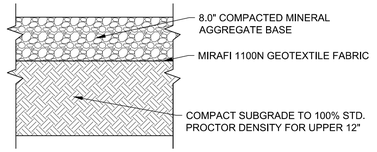


PAVEMENT LAYER	PAVEMENT THICKNESS
ASPHALITIC CONCRETE SURFACE	1.5"
BINDER COURSE	2"
COMPACTED MINERAL AGGREGATE BASE	8"

NOTES:

1. FOR PREPARATION OF PAVEMENT SUBGRADE, SEE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
2. ASPHALTIC CONCRETE SURFACE GRADE "E" (PG64-22) LIMESTONE. MATERIAL AND INSTALLATION IN ACCORDANCE WITH TDOT STANDARDS.
3. MINERAL AGGREGATE BASE TYPE "A" GRADE "D" IN ACCORDANCE WITH TDOT STANDARDS.
4. DENSITY REQUIREMENTS FOR COMPACTION PER TDOT STANDARDS.
5. BINDER COURSE GRADE "B-M".
6. FOR PREPARATION OF PAVEMENT SUBGRADE, FILL PLACED WITHIN 8 INCHES OF FINISHED SUBGRADE ELEVATION IN AREAS TO BE PAVED SHOULD BE COMPACTED TO AT LEAST 98% OF MATERIAL'S MAXIMUM STANDARD PROCTOR DRY DENSITY (ASTM D698). FILL PLACED BELOW THIS LEVEL SHOULD BE COMPACTED TO AT LEAST 95% OF MATERIAL'S MAXIMUM DRY DENSITY.
7. AFTER PROOFROLLING WITH A LOADED TANDEM AXLE DUMP TRUCK AND REPAIRING DEEP SUBGRADE DEFICIENCIES, ENTIRE SUBGRADE SHOULD BE SCARIFIED TO DEPTH OF 8 INCHES AND UNIFORMLY COMPACTED TO AT LEAST 98% OF STANDARD PROCTOR.
8. GRAVEL BASE COURSE MIXTURES SHOULD CONFORM TO REQUIREMENTS OF SECTION 303 OF TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
9. ASPHALTIC BINDER COURSE MIXTURES SHALL BE IN ACCORDANCE WITH TYPE REFERENCED IN SECTION 307 OF TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
10. ASPHALTIC SURFACE COURSE MIXTURES SHALL BE IN ACCORDANCE WITH TYPE REFERENCED IN SECTION 411 OF TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
11. PROVIDE PRIME COAT AND TACK COAT TO FACE OF CURB WHERE CURB CONTACTS ASPHALT.

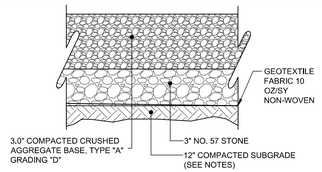
1 / C7.01 ASPHALT PAVEMENT
SCALE: NTS



NOTES:

1. FOR PREPARATION OF SUBGRADE, SEE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
2. MINERAL AGGREGATE BASE TYPE "A" GRADE "D" IN ACCORDANCE WITH TDOT STANDARDS.
3. DENSITY REQUIREMENTS FOR COMPACTION PER TDOT STANDARDS.

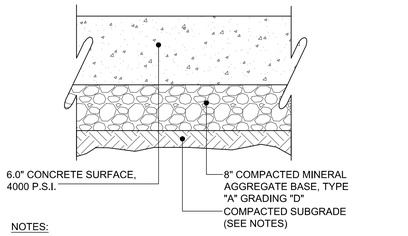
4 / C7.01 GRAVEL MAINTENANCE ROAD
SCALE: NTS



NOTES:

1. FOR PREPARATION OF PAVEMENT SUBGRADE, FILL PLACED WITHIN 8 INCHES OF FINISHED SUBGRADE ELEVATION IN AREAS TO BE PAVED SHOULD BE COMPACTED TO AT LEAST 98% OF MATERIAL'S MAXIMUM STANDARD PROCTOR DRY DENSITY (ASTM D698). FILL PLACED BELOW THIS LEVEL SHOULD BE COMPACTED TO AT LEAST 95% OF MATERIAL'S MAXIMUM DRY DENSITY.
2. AFTER PROOFROLLING WITH A LOADED TANDEM AXLE DUMP TRUCK AND REPAIRING DEEP SUBGRADE DEFICIENCIES, ENTIRE SUBGRADE SHOULD BE SCARIFIED TO DEPTH OF 8 INCHES AND UNIFORMLY COMPACTED TO AT LEAST 98% OF STANDARD PROCTOR.
3. GRAVEL BASE COURSE MIXTURES SHOULD CONFORM TO REQUIREMENTS OF SECTION 903.5 OF TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
4. DEPTH OF GRAVEL MAY INCREASE AND SUGRADE PREPARATION SUBJECT TO CHANGE PER GEOTECHNICAL ENGINEER'S REPORT.

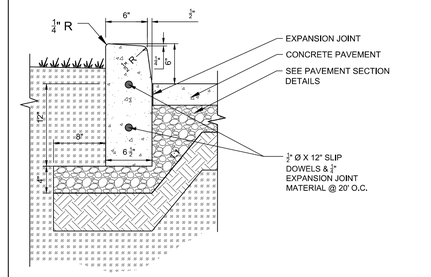
5 / C7.01 ENTRY ROAD & PARKING SECTION
SCALE: NTS



NOTES:

1. FOR PREPARATION OF PAVEMENT SUBGRADE, FILL PLACED WITHIN 8 INCHES OF FINISHED SUBGRADE ELEVATION IN AREAS TO BE PAVED SHOULD BE COMPACTED TO AT LEAST 98% OF MATERIAL'S MAXIMUM STANDARD PROCTOR DRY DENSITY (ASTM D698). FILL PLACED BELOW THIS LEVEL SHOULD BE COMPACTED TO AT LEAST 95% OF MATERIAL'S MAXIMUM DRY DENSITY.
2. AFTER PROOFROLLING WITH A LOADED TANDEM AXLE DUMP TRUCK AND REPAIRING DEEP SUBGRADE DEFICIENCIES, ENTIRE SUBGRADE SHOULD BE SCARIFIED TO DEPTH OF 8 INCHES AND UNIFORMLY COMPACTED TO AT LEAST 98% OF STANDARD PROCTOR.
3. GRAVEL BASE COURSE MIXTURES SHOULD CONFORM TO REQUIREMENTS OF SECTION 303 OF TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
4. PORTLAND CEMENT CONCRETE PAVEMENT MIXTURE SHALL BE IN ACCORDANCE WITH SECTION 501 OF TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
5. CONTRACTOR MAY NEED TO INCREASE CONCRETE AND BASE DEPTHS TO MATCH EXISTING CONDITIONS. CONTRACTOR TO FIELD VERIFY EXISTING PAVEMENT SECTION PRIOR TO CONSTRUCTION AND REPORT TO ENGINEER.

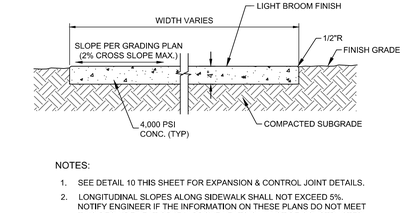
8 / C7.01 CONCRTE PAVEMENT
SCALE: NTS



NOTES:

1. EXPANSION JOINTS SHALL BE SPACED AT 50' O.C. SEE TYPICAL EXPANSION JOINT DETAILS.
2. PROVIDE 1/2" - 3" CONTRACTION JOINTS AT 10' ON CENTER. JOINTS ADJACENT TO CONCRETE PAVEMENT (E.G. SIDEWALK) TO MATCH PAVEMENT JOINTS.
3. EXACT CURB DIMENSIONS MAY BE ALTERED SLIGHTLY TO FIT STANDARD EXTRUDED CURB MACHINES, BUT SUCH VARIANCES MUST BE APPROVED BY THE ENGINEER. SUBMIT PROPOSED CURB TEMPLATE FOR APPROVAL.
4. SEE TYPICAL CONCRETE PAVEMENT DETAIL FOR PAVEMENT INFORMATION.
5. PROVIDE EXPANSION JOINT BETWEEN CURB AND CONCRETE PAVEMENT PER TYPICAL DETAILS.
6. CONCRETE AND CONSTRUCTION TO CONFORM TO REQUIREMENTS OF THE TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

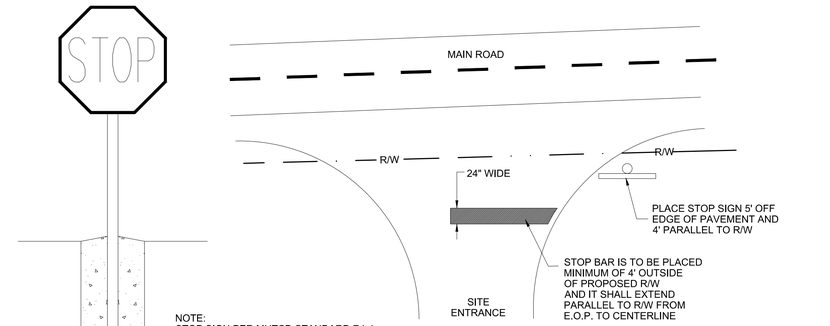
12 / C7.01 VERTICAL CURB
SCALE: NTS



NOTES:

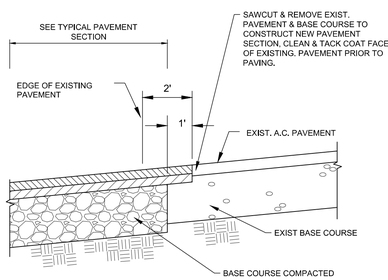
1. SEE DETAIL 10 THIS SHEET FOR EXPANSION & CONTROL JOINT DETAILS.
2. LONGITUDINAL SLOPES ALONG SIDEWALK SHALL NOT EXCEED 5%. NOTIFY ENGINEER IF THE INFORMATION ON THESE PLANS DO NOT MEET THIS REQUIREMENT OR IF IMPROVEMENTS CAN NOT BE CONSTRUCTED TO THIS REQUIREMENT.
3. SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%. NOTIFY ENGINEER IF THE INFORMATION ON THESE PLANS DO NOT MEET THIS REQUIREMENT OR IF IMPROVEMENTS CAN NOT BE CONSTRUCTED TO THIS REQUIREMENT.

9 / C7.01 CONCRETE SIDEWALK
SCALE: NTS

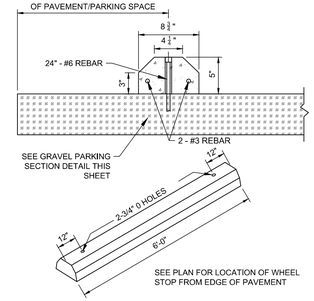


NOTE:
STOP SIGN PER MUTCD STANDARD R1-1. FOLLOW CITY OF LAKELAND STANDARDS FOR SIGN INSTALLATION.

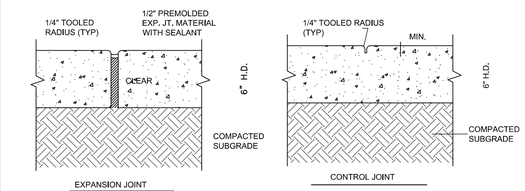
13 / C7.01 STOP SIGN & STOP BAR
SCALE: NTS



2 / C7.01 PAVEMENT CONNECTION
SCALE: NTS



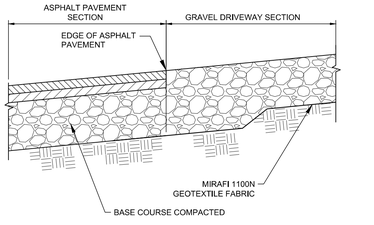
6 / C7.01 CONCRETE WHEELSTOP
SCALE: NTS



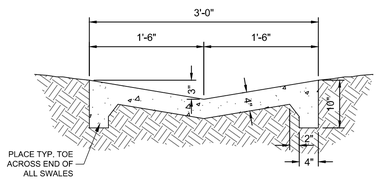
NOTE:
LOCATE EXP. JOINTS @ 24' (TYP.) OR AS INDICATED ON PLAN

NOTE:
LOCATE CONTRACTION JOINTS @ A DISTANCE EQUAL TO WIDTH OF WALK, OR AS INDICATED ON PLAN.

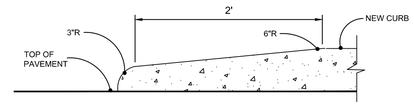
10 / C7.01 SIDEWALK EXPANSION AND CONTROL JOINT DETAILS
SCALE: NTS



3 / C7.01 PAVEMENT CONNECTION TO GRAVEL DRIVEWAY
SCALE: NTS



7 / C7.01 CONCRETE SWALE
SCALE: NTS



11 / C7.01 CURB WIPEDOWN
SCALE: NTS

Know what's below. Call before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

WESLEY DAVID SMITH
REGISTERED ENGINEER
No. 125893
STATE OF TENNESSEE

SITE DETAILS

LAKELAND ATHLETIC COMPLEX
PHASE 1
MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DATE	REVISION INFORMATION DESCRIPTION
	MD	WD	04-21-21	ISSUE FOR BID

C7.01
FILE NO. 3695300

USER:MADONLEY
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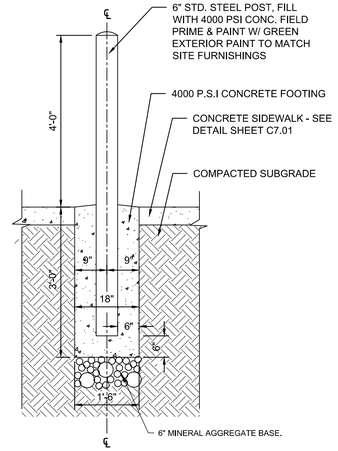
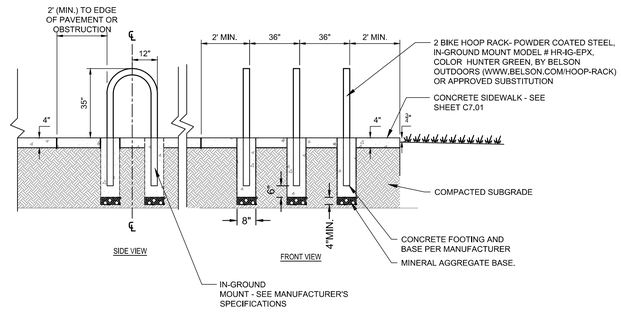
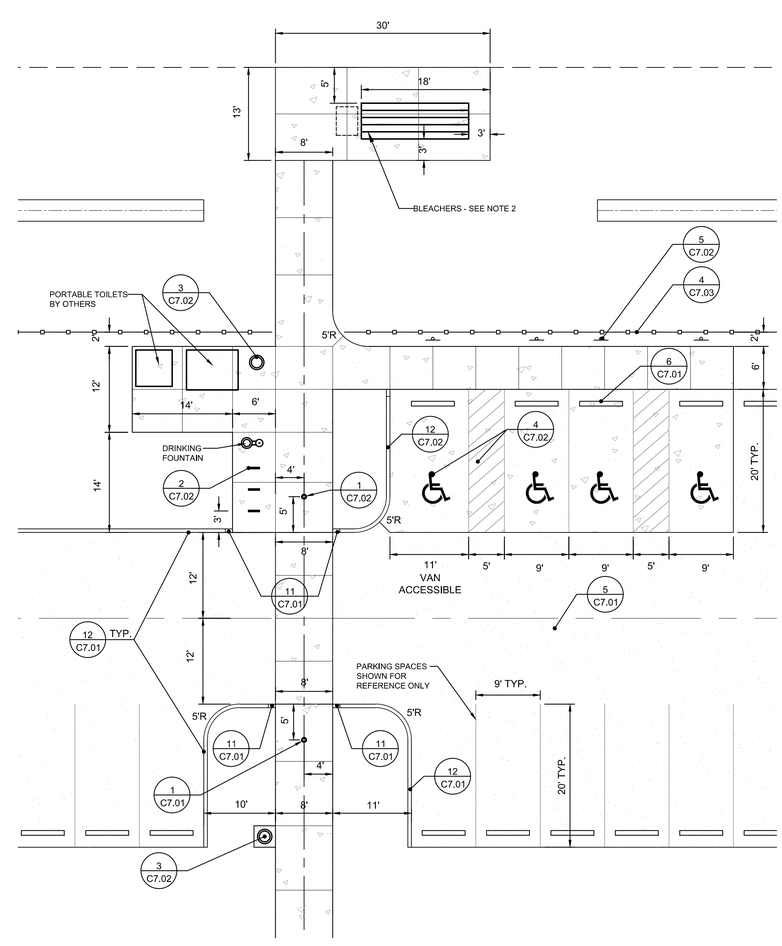
SAVED:2/17/2021
PLOTTED:4/19/2021
BSI-PVG-5009



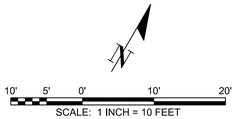
1 C7.02 PIPE BOLLARD DETAIL
SCALE: NTS



2 C7.02 BIKE HOOP DETAIL
SCALE: NTS

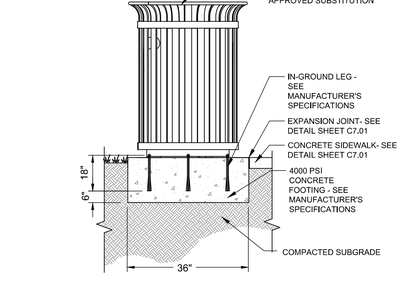


NOTE:
1. SEE CIVIL SHEET C1.01 FOR LAYOUT INFORMATION
2. BLEACHERS TO BE 5' X 15' STANDARD ALUMINUM, 3 ROWS, WITH SINGLE FOOTBOARDS BY BELSON OUTDOORS (MODEL #BLU-109, WWW.BELSON.COM/STANDARD-ALUMINUM-BLEACHERS) OR APPROVED SUBSTITUTION AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS
3. DRINKING FOUNTAIN SHALL BE MODEL NO. 440 SM, COLOR GREEN, BY MOST DEPENDABLE FOUNTAINS, INC. OR APPROVED SUBSTITUTION. INSTALL PER MANUFACTURER'S SPECIFICATIONS.

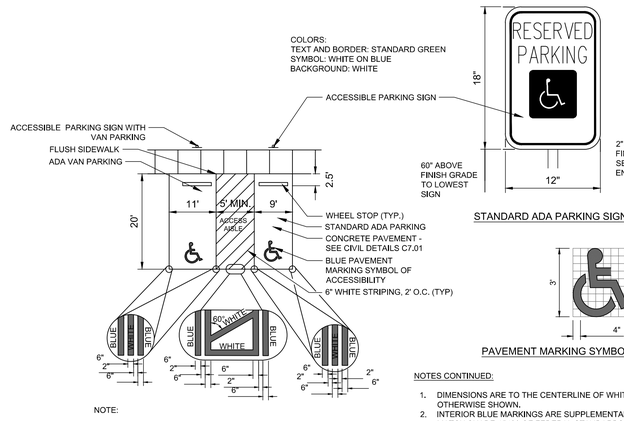


5 C7.02 ENLARGED PLAN

NOTE:
1. TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
2. SEE CIVIL SITE PLAN FOR LOCATION INFORMATION



3 C7.02 TRASH RECEPTACLE DETAIL
SCALE: NTS



STANDARD ADA PARKING SIGN

VAN ACCESSIBLE SIGN

NOTE:
SIGN MUST BE MOUNTED IMMEDIATELY BELOW THE STANDARD ACCESSIBLE PARKING SIGN AT SPACES DESIGNATED AS "VAN ACCESSIBLE"

COLORS:
TEXT & BORDER: GREEN
BACKGROUND: WHITE

PAVEMENT MARKING SYMBOL OF ACCESSIBILITY

NOTES CONTINUED:
1. DIMENSIONS ARE TO THE CENTERLINE OF WHITE MARKINGS, UNLESS OTHERWISE SHOWN.
2. INTERIOR BLUE MARKINGS ARE SUPPLEMENTAL AND SHALL BE TINTED TO MATCH SHADE 15180 OF FEDERAL STANDARDS 595A.
3. AN ACCESS AISLE IS REQUIRED FOR EACH ACCESSIBLE SPACE THAT IS NOT A PARALLEL PARKING SPACE.
4. ACCESSIBLE AISLE TO BE LOCATED PASSENGER SIDE FOR SOLITARY ADA PARKING SPACES AND ALL VAN PARKING SPACES.
5. PAVEMENT SYMBOL SHALL BE 3' HIGH AND WHITE IN COLOR.
6. IF NO CURBING IS SPECIFIED IN THE PLANS, WHEEL STOPS SHALL BE USED TO DELINEATE PARKING SPACES. SEE LAYOUT.
7. STALL DEPTH IS TO ACCOUNT FOR 2' VEHICLE OVERHANG AS MEASURED FROM FACE OF CURB OR FACE OF WHEEL STOP.

NOTE:
1. ALL ACCESSIBLE SPACES SHALL BE SIGNED WITH STANDARD ADA PARKING.
2. SIGNS SHALL BE PER CITY OF LAKELAND STANDARD SIGNS AND REQUIREMENT.
3. ACCESSIBLE PARKING SPACE AND ACCESS AISLE DIMENSIONS SHALL BE AS INDICATED ON THESE PLANS. STRIPING SHALL BE PROVIDED PER LOCAL CODE REQUIREMENTS. SLOPES SHALL NOT EXCEED 2% IN ANY DIRECTION ACROSS THE PARKING SPACE & ACCESS AISLE.

4 C7.02 ADA PARKING SIGN DETAIL
SCALE: NTS

Know what's below. Call before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

WESLEY DAVID WEST
REGISTERED ENGINEER
No. 123893
STATE OF TENNESSEE

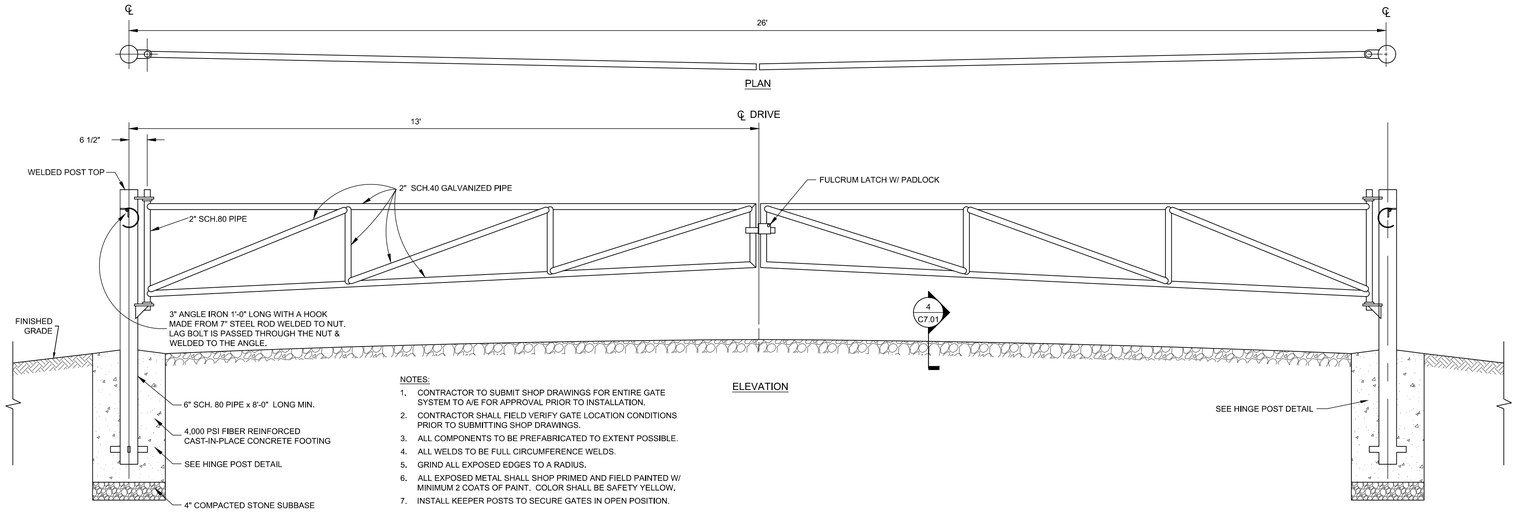
SITE DETAILS

LAKELAND ATHLETIC COMPLEX
PHASE 1
MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DATE	REVISION INFORMATION DESCRIPTION
	MD	WD	04-21-21	ISSUE FOR BID

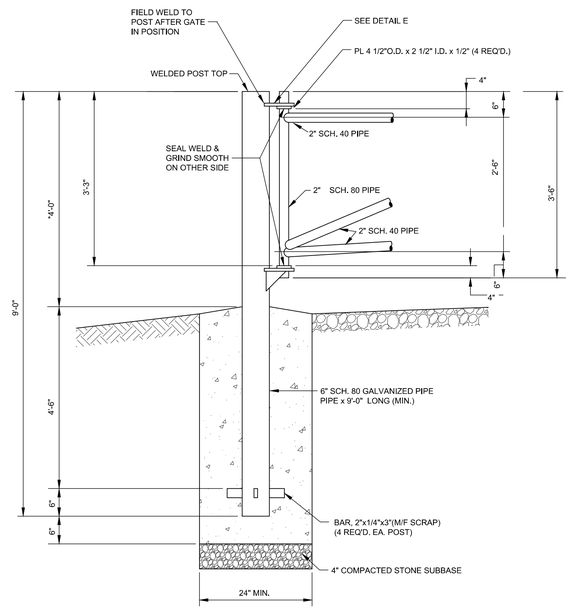
C7.02
FILE NO. 3695300

USER:MADONLEY
FILE:P:\3695300\3695300\04_CAD\CIVIL\PLOT\3695300_C702_DETAILS.dwg
SAVED:2/18/2021
PLOTTED:4/19/2021



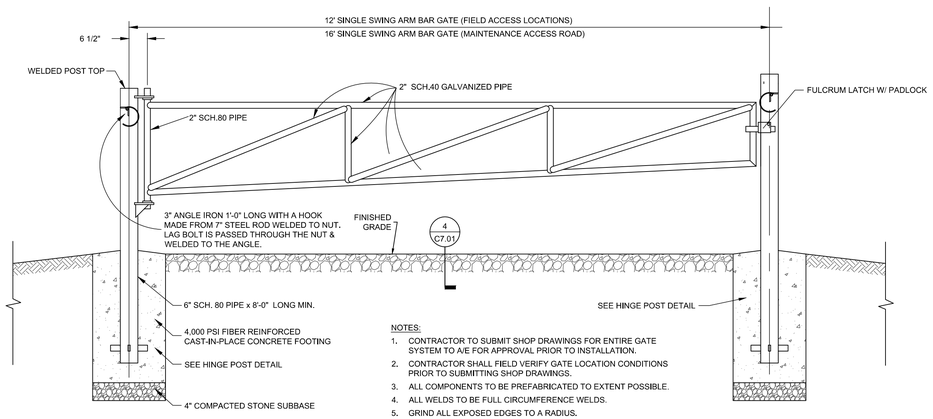
NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ENTIRE GATE SYSTEM TO A/E FOR APPROVAL PRIOR TO INSTALLATION.
2. CONTRACTOR SHALL FIELD VERIFY GATE LOCATION CONDITIONS PRIOR TO SUBMITTING SHOP DRAWINGS.
3. ALL COMPONENTS TO BE PREFABRICATED TO EXTENT POSSIBLE.
4. ALL WELDS TO BE FULL CIRCUMFERENCE WELDS.
5. GRIND ALL EXPOSED EDGES TO A RADIUS.
6. ALL EXPOSED METAL SHALL SHOP PRIMED AND FIELD PAINTED W/ MINIMUM 2 COATS OF PAINT. COLOR SHALL BE SAFETY YELLOW.
7. INSTALL KEEPER POSTS TO SECURE GATES IN OPEN POSITION.

1 / C7.03 DOUBLE SWING BAR GATE
SCALE: NTS



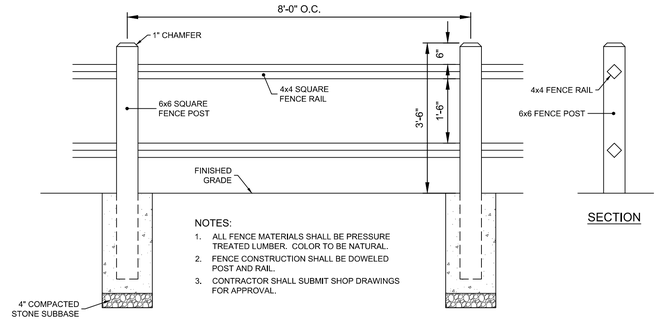
NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ENTIRE GATE SYSTEM TO A/E FOR APPROVAL PRIOR TO INSTALLATION.
2. CONTRACTOR SHALL FIELD VERIFY GATE LOCATION CONDITIONS PRIOR TO SUBMITTING SHOP DRAWINGS.
3. ALL COMPONENTS TO BE PREFABRICATED TO EXTENT POSSIBLE.
4. ALL WELDS TO BE FULL CIRCUMFERENCE WELDS.
5. GRIND ALL EXPOSED EDGES TO A RADIUS.
6. ALL EXPOSED METAL SHALL SHOP PRIMED AND FIELD PAINTED W/ MINIMUM 2 COATS OF PAINT. COLOR SHALL BE SAFETY YELLOW.

3 / C7.03 BAR GATE HINGE POST DETAIL
SCALE: NTS



NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ENTIRE GATE SYSTEM TO A/E FOR APPROVAL PRIOR TO INSTALLATION.
2. CONTRACTOR SHALL FIELD VERIFY GATE LOCATION CONDITIONS PRIOR TO SUBMITTING SHOP DRAWINGS.
3. ALL COMPONENTS TO BE PREFABRICATED TO EXTENT POSSIBLE.
4. ALL WELDS TO BE FULL CIRCUMFERENCE WELDS.
5. GRIND ALL EXPOSED EDGES TO A RADIUS.
6. ALL EXPOSED METAL SHALL SHOP PRIMED AND FIELD PAINTED W/ MINIMUM 2 COATS OF PAINT. COLOR SHALL BE SAFETY YELLOW.
7. INSTALL KEEPER POSTS TO SECURE GATES IN OPEN POSITION.

2 / C7.03 SINGLE SWING BAR GATE
SCALE: NTS



NOTES:
1. ALL FENCE MATERIALS SHALL BE PRESSURE TREATED LUMBER. COLOR TO BE NATURAL.
2. FENCE CONSTRUCTION SHALL BE DOWELED POST AND RAIL.
3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL.

4 / C7.03 WOODEN SPLIT RAIL FENCE
SCALE: NTS

Know what's **below.**
Call before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

WESLEY DAVIS WILLIAMS
REGISTERED ENGINEER
No. 122893
STATE OF TENNESSEE

SITE DETAILS

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DESCRIPTION
	MD	WD	04-21-21 ISSUE FOR BID

C7.03

FILE NO. 3695300

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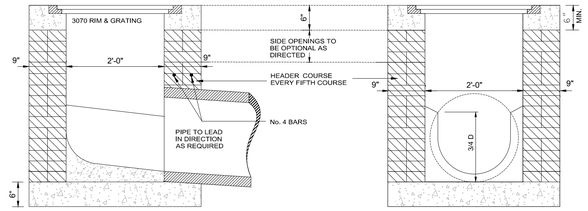
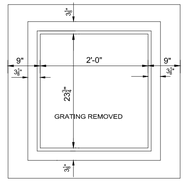
FILE:F:\36\3695300\3695300104_CAD\CIVIL\PLOT\3695300_C703_DETAILS.dwg
SAVED:3/19/2020
PLOTTED:4/19/2021



LONGITUDINAL SECTION

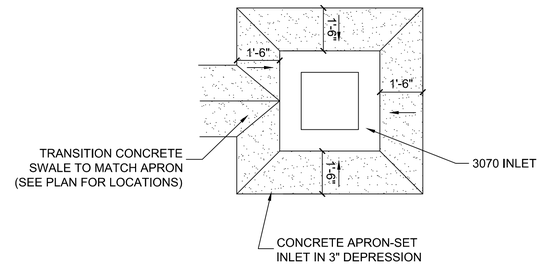
CROSS SECTION



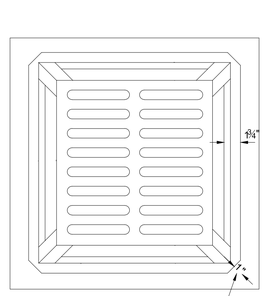
PLAN

NOTES:
1. 3070 INLET STRUCTURE IS THE SAME AS THE STANDARD CITY OF MEMPHIS NO. 10 INLET
2. SEE DETAIL 2 THIS SHEET FOR INLET APRONS REQUIRED AROUND 3070 INLETS.

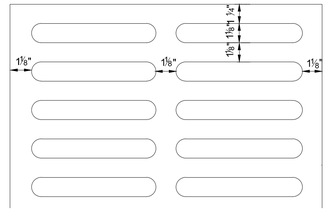
1 / C7.04 — 3070 INLET N.T.S.



2 / C7.04 — INLET APRON N.T.S.



PLAN VIEW N.T.S.

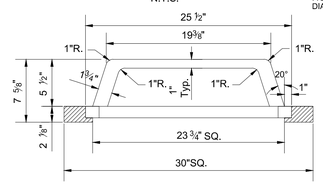


GRATE TOP DETAIL N.T.S.

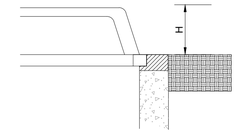
ESTIMATED WEIGHTS

FRAME: 170 LBS.
GRATE: 156 LBS.

TOTAL: 326 LBS.



SECTION A-A N.T.S.



NOTES:

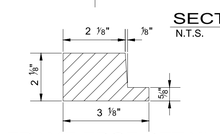
1. FOR INLET STRUCTURE CONSTRUCTION SEE THE CITY OF MEMPHIS DESIGN STANDARD FOR A NO. 10 INLET

2. INLET CAPACITY (WITH 50% TRASH BLOCKAGE)

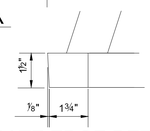
H (FT.)	Q (C.F.S.)	
1.0	6.6	
0.8		5.6
0.6		4.4

3. MAXIMUM TRIBUTARY DRAINAGE AREA ALLOWED IN INLET = 2 AREAS

4. NO TWIN 3070 INLETS ALLOWED.

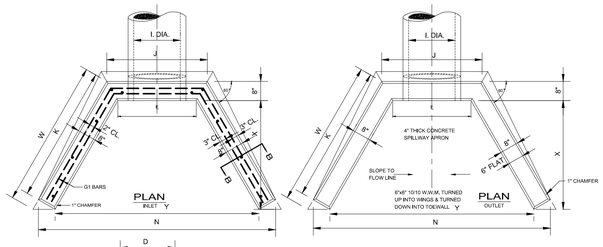


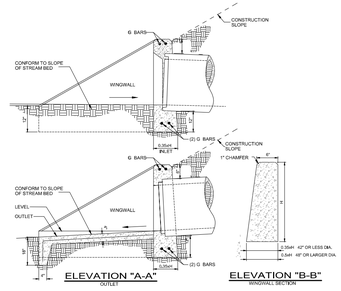
FRAME EDGE DETAIL N.T.S.



GRATE EDGE DETAIL N.T.S.

3 / C7.04 — 3070 INLET GRATE N.T.S.





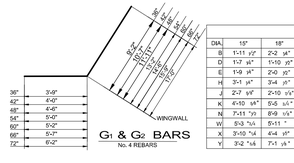


TABLE OF DIMENSION AND DIAMETERS

DIA	15"	18"	21"	24"	30"	36"	42"	48"	54"	60"	66"	72"
B	1'-11 ½"	2'-2 ⅜"	2'-5 ⅛"	2'-8 ½"	3'-3"	3'-9"	4'-4 "	4'-10 ½"	5'-5"	6'-0"	6'-6 ½"	7'-1 "
D	1'-7 ⅛"	1'-10 ½"	2'-1 ½"	2'-5 "	3'-0"	3'-7 "	4'-2 "	4'-9 "	5'-4"	6'-0"	6'-7 "	7'-2 "
E	1'-9 ⅛"	2'-0 ½"	2'-3 ½"	2'-7 "	3'-2"	3'-9 "	4'-4 "	4'-10 "	5'-6"	6'-2"	6'-9 "	7'-4 "
H	3'-1 ⅛"	3'-4 ½"	3'-7 ½"	3'-11 "	4'-6"	5'-1 "	5'-8 "	6'-3 "	6'-10"	7'-6"	8'-1 "	8'-8 "
J	2'-7 ⅛"	2'-10 ½"	3'-1 ⅛"	3'-5 ⅛"	4'-0 " ⅛	4'-10 ⅜"	5'-2 ⅛"	5'-9 ⅛"	6'-4 " ⅛	7'-0 " ⅛	7'-7 ⅛"	8'-2 ⅛"
K	4'-10 ⅛"	5'-0 ⅛"	6'-0 ⅛"	6'-8 ⅛"	7'-11 ⅛	9'-2 ⅛"	10'-5 ⅛"	11'-8 ⅛"	12'-11 ⅞	14'-3 " ⅛	15'-6 ⅛"	16'-9 ⅛"
N	7'-11 " ⅛	8'-0 ⅛"	9'-7 ⅛"	10'-8 ⅛"	12'-4 " ⅛	14'-2 ⅛"	16'-0 ⅛"	17'-10 ⅛"	19'-8 " ⅛	21'-6 " ⅛	23'-3"	25'-1 ⅛"
W	5'-3 ⅞	5'-11 "	6'-5 ½"	7'-1 ½"	8'-4 ⅛	9'-7 ½"	10'-10 ½"	12'-1 ½"	13'-4 " ½	14'-8 " ⅛	15'-11 ½"	17'-2 ½"
X	3'-10 " ⅛	4'-4 ½"	4'-10 ½"	5'-5 "	6'-6"	7'-7"	8'-8"	9'-9"	10'-10"	12'-0"	13'-1 "	14'-2 "
Y	3'-2 " ⅛	3'-7 ½"	7'-1"	8'-10 ½"	10'-8 ½"	12'-6 " ⅛	14'-4 " ½	16'-2 " ½	18'-0 " ½	20'-0 " ½	21'-10 ½"	23'-8 ½"

36"	3'-9"
42"	4'-0"
48"	4'-6"
54"	5'-0"
60"	5'-2"
66"	5'-7"
72"	6'-2"

4 / C7.04 — TYPE 'D' HEADWALL N.T.S.

811 Know what's below. Call before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

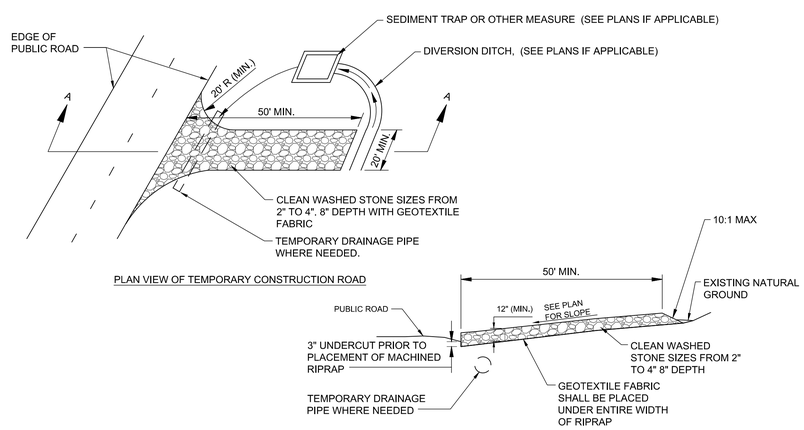
WESLEY DAWSEY — REGISTERED ENGINEER — No. 122693 — STATE OF TENNESSEE

REV.	DR.	CHK.	DESCRIPTION	DATE
	MD	WD	ISSUE FOR BID	04-21-21

SITE DETAILS

LAKELAND ATHLETIC COMPLEX
PHASE 1
MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

C7.04
FILE NO. 3695300

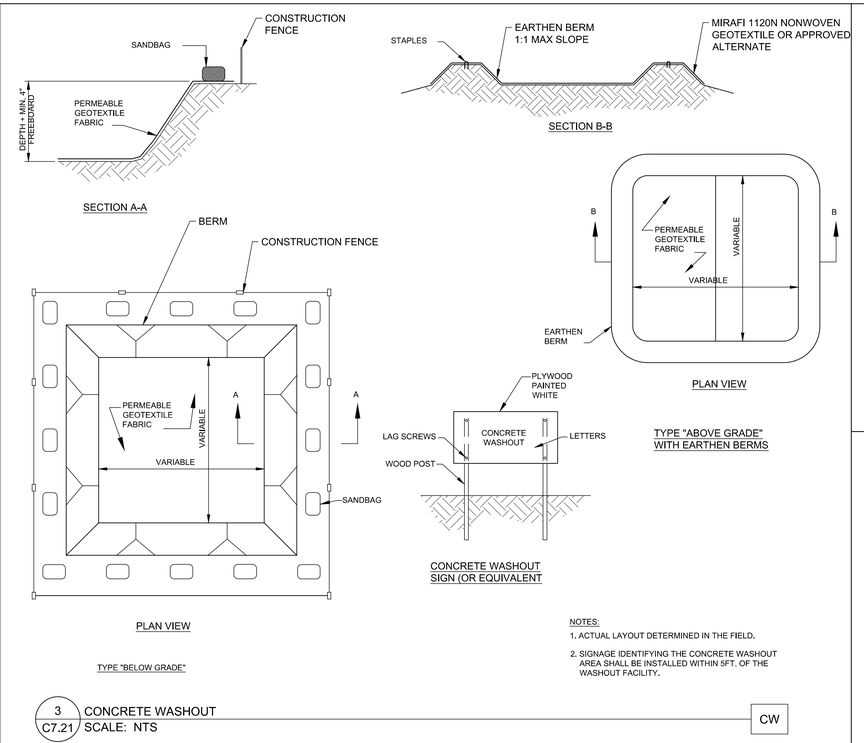


NOTES:

1. STONE FOR A STABILIZED CONSTRUCTION EXIT SHALL BE 2 TO 4 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET.
3. THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 20 FEET, WHICH EVER IS GREATER.
5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FABRIC SHALL BE 12 OZ./S.Y. NON-WOVEN.
6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.
8. IF APPLICABLE, DIVERSION DITCH AND SEDIMENT TRAP SHALL BE LOCATED AS SHOWN IN PLANS. REPRESENTATION IN THE ABOVE DETAIL IS FOR GENERAL REFERENCE.

1 / C7.21 CONSTRUCTION EXIT
SCALE: NTS — CO

BSI-ECR-7008

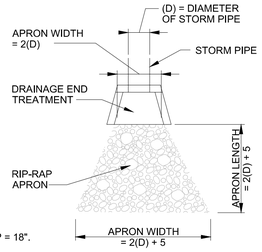


NOTES:

7. ACTUAL LAYOUT DETERMINED IN THE FIELD.
2. SIGNAGE IDENTIFYING THE CONCRETE WASHOUT AREA SHALL BE INSTALLED WITHIN 5FT. OF THE WASHOUT FACILITY.

3 / C7.21 CONCRETE WASHOUT
SCALE: NTS — CW

BSI-ECR-7005



NOTES:

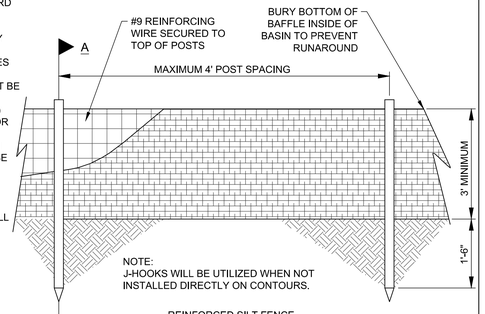
1. d_{50} = 12" (NSA NO. R-6).
2. MIN. DEPTH OF RIP-RAP = 18".
3. 10 OZ./SQ.YD.(MIN.) NON-WOVEN GEOTEXTILE OR FILTER STONE BLANKET (NSA F5-3) SHALL BE INSTALLED BENEATH RIP-RAP.

OUTLET PLAN VIEW

6 / C7.21 RIP-RAP OUTFALL APRON
SCALE: NTS — OP

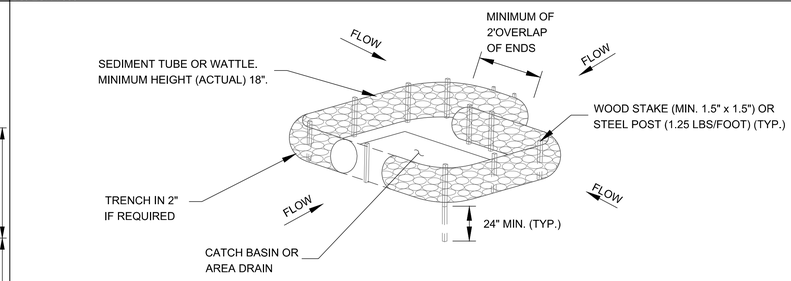
NOTES:

1. FILTER CLOTH SHALL MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATION FOR GEOTEXTILES AASHTO DESIGNATION: M288, SEDIMENT CONTROL, SELF SUPPORTED.
2. THE FILTER MATERIAL SHALL BE STAPLED TO THE STAKES. HEAVY DUTY WIRE STAPLES WITH 1/2 INCH WIDTH SHALL BE USED AND EVENLY SPACED WITH AT LEAST FOUR PER POST FOR SILT FENCES AND THREE (3) PER POST FOR FILTER BARRIERS. FILTER MATERIAL SHALL NOT BE STAPLED TO EXISTING TREES.
3. MINIMUM (2" NOMINAL X 2" NOMINAL) - (1.5" ACTUAL X 1.5" ACTUAL) (2.25 SQ. IN.) HARDWOOD POST (OAK OR HICKORY) - LENGTH 48" OR MINIMUM 1.33 LB./FT. STEEL POST (STD. OR U SECTION.
4. WHEN STEEL POSTS ARE USED THEY SHALL HAVE A PROTECTION FOR FASTENING WIRE TO THEM. THE WIRE FASTENERS SHOULD BE EVENLY SPACED WITH AT LEAST FIVE PER POST.
5. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN 12" DEEP.
6. INSTALL FENCE ALONG CONTOUR (NEVER UP AND DOWN SLOPE).
7. SILT FENCE SHALL BE MAINTAINED UNTIL CONTRIBUTING AREA IS STABILIZED WITH PAVEMENT OR VEGETATION. ALL FENCING SHALL BE REMOVED AFTER STABILIZATION AND DISPOSED OF IN AN APPROVED LANDFILL.

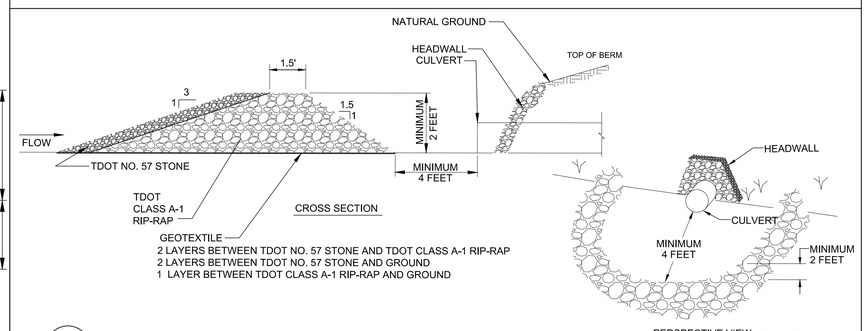


2 / C7.21 SILT FENCE
SCALE: NTS — SF

BSI-ECR-7014



4 / C7.21 INLET PROTECTION
SCALE: NTS — IP



5 / C7.21 STONE FILTER RING
SCALE: NTS — FR

BSI-ECR-7015

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

WESLEY DAWSEY
REGISTERED ENGINEER
No. 127893
STATE OF TENNESSEE

EROSION CONTROL DETAILS

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DATE	REVISION INFORMATION
	MD	WD	04-21-21	ISSUE FOR BID

C7.21

FILE NO. 3695300

Know what's below. Call before you dig.

USER:MADONLEY
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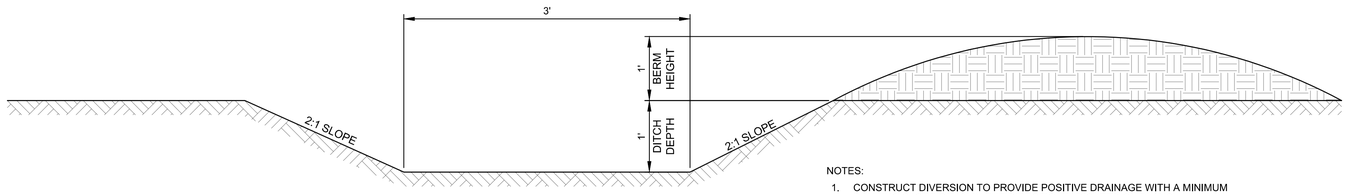
SAVED:2/24/2021
PLOTTED:4/19/2021



NOTES:

1. CONSTRUCT DIVERSION TO PROVIDE POSITIVE DRAINAGE WITH A MINIMUM RUNNING SLOPE OF 1% IN THE DIRECTION INDICATED ON PLANS.

EROSION CONTROL PLAN LEGEND: TD

1 / C7.22 DIVERSION BERM
SCALE: NTS

TD

Know what's **below.**
Call before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

WESLEY DAWSEY
REGISTERED ENGINEER
No. 127893
STATE OF TENNESSEE

REVISION INFORMATION

REV.	DR.	CHK.	DATE	DESCRIPTION
	MD	WD	04-21-21	ISSUE FOR BID

EROSION CONTROL DETAILS

LAKELAND ATHLETIC COMPLEX
PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

C7.22

FILE NO. 3695300

USER:MADONLEY
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SAVED: 2/24/2021
PLOTTED: 4/19/2021

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR CONDUCTING SITE INSPECTION PRIOR TO BIDDING WORK, TO DETERMINE SITE CONDITIONS AND AREAS TO BE PLANTED. SUBMISSION OF BID INDICATES CONTRACTOR HAS VERIFIED SITE CONDITIONS AND PLANT MATERIAL QUANTITIES.

2. PRIOR TO THE START OF WORK, THE LANDSCAPE CONTRACTOR SHALL ASCERTAIN THE LOCATION OF ALL SURFACE AND UNDERGROUND UTILITIES, ETC., AND SHALL TAKE PROPER PRECAUTIONS TO PREVENT DAMAGE TO SUCH IMPROVEMENTS. IN THE EVENT ANY UTILITIES ARE UNCOVERED, THE LANDSCAPE CONTRACTOR SHALL PROMPTLY NOTIFY THE A/E. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES FROM DAMAGE DURING CONSTRUCTION AND TO REPAIR ANY DAMAGE WHICH SHOULD OCCUR TO THE SATISFACTION OF THE OWNER.

3. EXAMINE SUBGRADE UPON WHICH WORK IS TO BE PERFORMED. VERIFY SUBGRADE ELEVATIONS, OBSERVE CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED, AND PROVIDE PERCOLATION TESTS AND ALL OTHER TESTS NECESSARY TO ASCERTAIN THAT ADEQUATE GROWING CONDITIONS WILL BE PROVIDED FOR PLANTS. IF PERCOLATION TESTS OR SUBSOIL CONDITIONS INDICATE RETENTION OF WATER IN PLANTING AREAS, AS SHOWN BY SEEPAGE OR OTHER EVIDENCE INDICATING PRESENCE OF UNDERGROUND WATER, NOTIFY A/E IN WRITING OF THIS FACT OR OTHER UNSATISFACTORY CONDITIONS BEFORE BACKFILLING. A CHANGE ORDER MAY BE ISSUED TO DIRECT INSTALLATION OF DRAIN TILE OR OTHER MEASURES BEYOND DRAINAGE REQUIREMENTS INDICATED. DO NOT PROCEED WITH THE WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. COMMENCEMENT OF PLANTING WORK INDICATES THAT SITE CONDITIONS HAVE BEEN ACCEPTED "AS IS" BY THE CONTRACTOR.

4. ACTUAL AS-BUILT SITE CONDITIONS MAY VARY FROM THIS PLAN. PLANT AND MATERIAL QUANTITIES AS SHOWN ON THE PLAN ARE FOR UNIFORM COMPARISON AND ESTIMATE PURPOSES ONLY. NOTIFY OWNER OF ALL SITE CONDITIONS WHICH WILL AFFECT PLANT QUANTITIES REQUIRED AND/OR THEIR LOCATIONS.

5. THE QUANTITIES INDICATED ON THE DRAWINGS ARE PROVIDED FOR THE BENEFIT OF THE LANDSCAPE CONTRACTOR, BUT SHOULD NOT BE ASSUMED TO ALWAYS BE CORRECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY CALCULATIONS AND THE LIABILITY WHICH PERTAINS TO THOSE QUANTITIES AND ANY RELATED CONTRACT DOCUMENTS AND/OR PRICE QUOTATIONS. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR PROVIDING PLANT QUANTITIES REQUIRED TO COVER SPECIFIED AREAS AT THE DESIGNATED SPACING.

6. PRIOR TO PLANTING, THE CONTRACTOR IS TO OBTAIN SOIL TESTS FOR ALL PLANTING AREAS TO DETERMINE IF THE PROPER SOIL PH IS PRESENT. RESULTS FROM THESE TESTS ARE TO BE SENT TO THE A/E. IF THE TEST INDICATES IMPROPER PH, THEN THE LANDSCAPE CONTRACTOR IS TO MAKE PROVISIONS TO ADD LIME OR SULFUR TO PROVIDE THE PROPER SOIL PH.

7. PROTECT EXISTING GRASS AREAS, TREES, AND OTHER VEGETATION TO REMAIN.

8. DURING LANDSCAPE INSTALLATION KEEP PAVEMENTS CLEAN AND WORK AREA IN ORDERLY CONDITION.

9. CONTRACTOR TO REPAIR ANY PAVEMENTS, CURBS, AND OTHER IMPROVEMENTS DAMAGED AS A RESULT OF LANDSCAPE INSTALLATION ACTIVITIES.

10. DAMAGE BY CONTRACTOR TO UNDISTURBED AREAS OUTSIDE THE LIMITS OF CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.

11. SUBSTANTIAL COMPLETION: WILL BE PROVIDED AFTER THE CONTRACTOR HAS SATISFACTORILY COMPLETED WORK REQUIREMENTS AS SPECIFIED. THE A/E WILL CONDUCT A SUBSTANTIAL COMPLETION INSPECTION AND PROVIDE A PUNCH LIST OF OBSERVED DEFICIENCIES.

12. FINAL ACCEPTANCE: THE A/E WILL PROVIDE THE FINAL INSPECTION AFTER THE CONTRACTOR HAS SATISFACTORILY CORRECTED THE DEFICIENCIES ON THE PUNCH LIST. SHOULD THE A/E INSPECTION FIND WORK INCOMPLETE, THE CONTRACTOR SHALL REMEDY THE DEFICIENCIES.

13. IF THE SUBSTANTIAL COMPLETION OR FINAL INSPECTION REQUIRE REINSPECTION BY A/E DUE TO FAILURE OF WORK TO COMPLY WITH CONTRACTOR'S CLAIMS ON INITIAL INSPECTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPENSATING THE A/E FOR REINSPECTION SERVICES AT THE RATE OF ONE HUNDRED FIFTY DOLLARS NO CENTS ($150) PER HOUR PER PERSON PLUS ALL RELATED TRAVEL EXPENSES FOR EACH REQUESTED REINSPECTION TRIP.

14. AFTER FINAL ACCEPTANCE AND PRIOR TO END OF WARRANTY PERIOD, CONTRACTOR SHALL REPLACE ALL PLANT MATERIAL THAT HAS DIED OR HAS DEFECTS, INCLUDING UNSATISFACTORY GROWTH, IN THE OPINION OF THE A/E.

LANDSCAPE NOTES

1. DIMENSIONS FOR HEIGHTS, SPREAD, AND TRUNK SPECIFIED ON THE MATERIAL SCHEDULE IS A GUIDE FOR THE MINIMUM DESIRED SIZE OF EACH PLANT. AT A MINIMUM, ALL PLANT MATERIALS SHALL COMPLY WITH THE LATEST EDITION OF PUBLICATION ANSI Z60.1, AND AMERICAN STANDARDS FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

2. THE LOCATION OF ALL TREES, SHRUBS, AND GROUND COVER AREAS SHOWN ON THE PLAN SHALL BE STAKED/FLAGGED BY THE CONTRACTOR AND APPROVED BY THE A/E BEFORE THE DIGGING OF PITS. PLANTING SHALL BE LOCATED WHERE SHOWN ON THE DRAWINGS OR WHERE FIELD LOCATED BY A/E.

3. PROVIDE ONLY PLANTS THAT ARE FREE FROM DISEASES AND PESTS, AND THAT COMPLY WITH THE LATEST EDITION OF PUBLICATION ANSI Z60.1, AMERICAN STANDARDS FOR NURSERY STOCK, BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

4. DO NOT MAKE SUBSTITUTIONS REGARDING PLANT SIZES OR SPECIES WITHOUT WRITTEN PERMISSION FROM THE A/E.

5. NO PLANT SHALL BE BOUND WITH ROPE OR WIRE IN A MANNER THAT DAMAGES THE BARK, BREAKS BRANCHES, OR DESTROYS ITS NATURAL SHAPE

6. PLANTS DESIGNATED "B&B" IN THE PLANT LIST SHALL BE BALLED AND BURLAPPED. THEY SHALL BE DUG WITH FIRM, NATURAL BALLS OF EARTH OF SUFFICIENT DIAMETER AND DEPTH TO ENCOMPASS THE FIBROUS AND FEEDING ROOT SYSTEM NECESSARY FOR FULL RECOVERY OF THE PLANT. BALLS SHALL BE FIRMLY WRAPPED WITH BURLAP OR SIMILAR MATERIAL AND BOUND WITH TWINE OR CORD.

7. ONLY "HEMP" BURLAP AND TWINE SHALL BE USED. NO TREATED OR PRESERVED BURLAP OR TWINE IS ALLOWED. ALL HEMP TWINE ATTACHED TO THE TREE TRUNK IS TO BE REMOVED AFTER PLANTING. A MINIMUM THE TOP ONE- THIRD OF THE ROOT BALL IS TO HAVE ALL BURLAP AND TWINE REMOVED.

8. MINIMIZE DAMAGE TO THE ROOT BALL WHEN INSTALLING ALL PLANT MATERIAL. IF ROOTS ARE GIRDLING OR CIRCLING ROOTS WILL NOT BE ACCEPTED BY THE A/E.

9. REMOVE ALL STRINGS AND OTHER TIES FROM TREES.

10. THE BALLS OF "B&B" PLANTS WHICH CANNOT BE PLANTED IMMEDIATELY ON DELIVERY SHALL BE COVERED WITH MOIST SOIL OR MULCH, OR OTHER PROTECTION FROM DRYING WINDS AND SUN. ALL PLANTS INSTALLED OR STORED SHALL BE WATERED BY CONTRACTOR AS NECESSARY UNTIL FINAL ACCEPTANCE.

11. ALL PLANTS SHALL BE HANDLED SO THAT ROOTS ARE ADEQUATELY PROTECTED AT ALL TIMES. DURING SHIPMENT, THE ENTIRE PLANT SHALL BE PROTECTED BY TARPAULINS OR OTHER SUITABLE COVERING. PLANT MATERIAL SUFFERING FROM WIND BURN OR OTHER DAMAGE IS NOT ACCEPTABLE.

12. PLANT BED PREPARATION: THOROUGHLY DISC, SCARIFY, & LOOSEN SUBGRADE OF PLANTING BEDS TO A MINIMUM DEPTH OF 12 INCHES. REMOVE STONES MEASURING OVER 1 INCH IN ANY DIMENSION. REMOVE ROCKS, STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER THAT WILL INTERFERE WITH VEGETATION ESTABLISHMENT OR MAINTENANCE OPERATIONS. ADD SPECIFIED SOIL AMENDMENTS AND MIX THOROUGHLY INTO UPPER 4 INCHES OF TOPSOIL.

13. ALL PLANT BEDS SHALL BE SPRAYED WITH PRE-EMERGENT HERBICIDE (TREFLAN OR EQUIVALENT), APPLIED (ACCORDING TO MANUFACTURER'S INSTRUCTIONS) PRIOR TO PLANTING, FOR NOXIOUS WEED CONTROL. AVOID OVER APPLICATION INTO SEEDED GRASS AREAS.

14. ALL PLANTING BEDS AND TREE PLANTINGS SHALL RECEIVE A MINIMUM 3" DEEP SHREDDED HARDWOOD MULCH LAYER AND TO BE OF SUFFICIENT CHARACTER AS NOT TO BE EASILY DISPLACED BY WATER RUNOFF OR WIND.

15. ANY SERIES OF TREES OR SHRUBS TO BE PLACED IN A PARTICULAR ARRANGEMENT WILL BE FIELD CHECKED FOR ACCURACY BY THE A/E. ANY PLANTS INCORRECTLY ARRANGED SHALL BE RELOCATED WITH A/E APPROVAL, AND AT CONTRACTOR'S COST.

16. GROUND COVER SPACING PATTERN SHALL BE AS INDICATED ON TYPICAL SPACING PATTERN USING SPACING DIMENSION AS SHOWN ON PLANS AND SCHEDULE.

17. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR STAKING, GUYING, FERTILIZING, APPLICATION OF INSECTICIDES/HERBICIDES, AND FOR THE WATERING AND MAINTENANCE TO INCLUDE BUT NOT LIMITED TO WEEDING, MULCHING, AND STRAIGHTENING OF ALL INSTALLED PLANT MATERIAL, INCLUDING SOD AND SEED AREAS, UNTIL FINAL ACCEPTANCE OF A/E.

18. ALL PLANT MATERIAL IS TO BE GUARANTEED FOR ONE (1) YEAR. GUARANTEE PERIOD STARTS FROM DATE OF SUBSTANTIAL ACCEPTANCE OF A/E.

19. THE A/E MAY INSPECT TREES AND SHRUBS EITHER AT PLACE OF GROWTH OR AT SITE BEFORE PLANTING FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, SIZE, AND QUALITY. DESIGNER RETAINS THE RIGHT TO FURTHER INSPECT TREES AND SHRUBS FOR SIZE AND CONDITION OF ROOT BALL, INSECTS, INJURIES, AND LATENT DEFECTS TO REJECT UNSATISFACTORY OR DEFECTIVE AT ANY TIME DURING PROGRESS OF WORK. REMOVE REJECTED MATERIAL IMMEDIATELY FROM THE PROJECT SITE.

20. REPLACEMENT PLANT MATERIAL SHALL CLOSELY MATCH ADJACENT SPECIMENS OF THE SAME SPECIES AND SHALL CONFORM TO THE STANDARDS FOR PLANT MATERIALS SPECIFIED. ALL REPLACED MATERIAL SHALL IMMEDIATELY BE REMOVED FROM THE SITE AND ALL NECESSARY REPAIRS TO GRADES, LAWN AREAS, PAVING, AND OTHER AREAS DAMAGED DURING REPLACEMENT SHALL BE MADE AT NO COST TO THE OWNER.

21. NO PLANT MATERIAL REQUIRED TO BE BALLED AND BURLAPPED SHALL BE ACCEPTED IF THE BALL IS CRACKED OR BROKEN EITHER BEFORE OR DURING THE PROCESS OF PLANTING, OR WHEN REQUIRED BURLAP, STAVES, ROPES OR PLATFORM HAVE BEEN REMOVED.

SODDING NOTES

1. SOD IS TO BE CYNODON DACTYLON 'TIFWAY 419' (T-419 BERMUDA GRASS). SOD ALL AREAS AS INDICATED ON THE PLANS. CONTRACTOR TO SUBMIT SOD VARIETY TO A/E FOR REVIEW. ALL SLOPES GREATER THAN 3:1 SHALL BE PEGGED TO HOLD SOD IN PLACE. ALL DRAINAGE SWALES ARE TO RECEIVE A 6' WIDE BAND OF SOD. PROVIDE A 3' WIDE BAND OF SOD AROUND ALL DRAINAGE INLETS.

2. 4" OF IMPORTED TOPSOIL SHALL BE PROVIDED ON ALL AREAS TO BE SODDED, INSTALLED AND STABILIZED PRIOR TO SOD. TOPSOIL SHALL CONSIST OF 30% SAND, 6-8% ORGANIC MATTER, 64-66% OF NATIVE SOIL. NO DELETERIOUS MATERIAL IN EXCESS OF 1" SHALL BE REMOVED.

3. SOD BED PREPARATION: LOOSEN SUBGRADE OF LAWN AREAS TO A MINIMUM DEPTH OF 8 INCHES. REMOVE STONES MEASURING OVER 1 INCH IN ANY DIMENSION. REMOVE STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER. ADD SOIL AMENDMENTS IN ACCORDANCE WITH SOIL TEST REQUIREMENTS AND MIX THOROUGHLY INTO UPPER 4 INCHES OF TOPSOIL.

4. THE SOIL SHALL BE THOROUGHLY TILLED TO DEPTH OF FOUR (4) INCHES AND FERTILIZER ADDED. FOLLOWING THIS, THE SOD AREA SHALL BE GRADED TO REMOVE ALL RIDGES AND DEPRESSIONS, AND THE SURFACE CLEARED OF ALL STONE AND DEBRIS.

5. FINE GRADE LAWN AREAS TO SMOOTH, EVEN SURFACE WITH LOOSE, UNIFORMLY FINE TEXTURE. ROLL,RAKE, AND DRAG LAWN AREAS, REMOVE RIDGES AND FILL DEPRESSIONS, AS REQUIRED TO MEET FINISH GRADES.

6. FERTILIZER: CONTRACTOR SHALL PERFORM A SOIL TEST PRIOR SODDING AND APPLICATION OF ANY SOIL AMENDMENTS, AND SUBMIT RESULTS OF SOIL TESTS TO A/E FOR APPROVAL. APPLY ALL AMENDMENTS PER SOIL TEST RECOMMENDATIONS. SPREAD LIME AND FERTILIZER UNIFORMLY OVER ALL AREAS IMMEDIATELY BEFORE FINAL PREPARATION AND MIX THOROUGHLY WITH THE SOIL.

7. SOD IS TO BE ROLLED AND WATERED WITHIN TWO WEEKS OF INSTALLATION.

8. ENDS OF SOD PANELS ARE TO BE OFFSET. SOD PANELS SHALL BE LAID TIGHTLY TOGETHER SO AS TO MAKE SOLID SODDED AREA.

9. SOD IS TO BE LAID AS SOON AS IT IS DELIVERED TO PLANTING AREAS. ONLY HEALTHY, MOIST, AND GREEN SOD IS TO BE LAID. ANY SOD WHICH IS BROWN AND UNDER STRESS IS UNACCEPTABLE. ANY SOD WHICH IS NOT LAID WITHIN 24 HOURS OF DELIVERY IS UNACCEPTABLE UNLESS APPROVED BY A/E.

10. REPAIR AND RESOD ALL ERODED OR DISTURBED SOD AREAS WHERE DESIRED VEGETATIVE COVER HAS NOT BEEN ESTABLISHED, OR WHERE NOXIOUS WEEDS EMERGE.

11. CONTRACTOR IS RESPONSIBLE FOR WATERING AND MAINTENANCE OF SODDED AREAS UNTIL AREAS EXHIBIT HEALTHY AND VIGOROUS GROWTH AS DETERMINED BY A/E.

12. SOD IS TO BE TOP DRESSED WITHIN ONE MONTH OF INSTALLATION.

SEEDING NOTES

1. 4" OF TOPSOIL SHALL BE PROVIDED ON ALL AREAS TO BE SEEDED UNLESS NOTED OTHERWISE. INSTALL AND STABILIZE TOPSOIL PRIOR TO SEEDING.

2. SEED BED PREPARATION: THOROUGHLY DISC, SCARIFY, & LOOSEN SUBGRADE OF LAWN AREAS TO A MINIMUM DEPTH OF 4 INCHES. REMOVE STONES MEASURING OVER 1-1/2 INCHES IN ANY DIMENSION. REMOVE ROCKS, STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER THAT WILL INTERFERE WITH VEGETATION ESTABLISHMENT OR MAINTENANCE OPERATIONS. ADD SPECIFIED SOIL AMENDMENTS AND MIX THOROUGHLY INTO UPPER 4 INCHES OF TOPSOIL.

3. FERTILIZER: CONTRACTOR SHALL PERFORM A SOIL TEST PRIOR TO SEEDING AND APPLICATION OF ANY SOIL AMENDMENTS, AND SUBMIT RESULTS OF SOIL TESTS TO A/E FOR APPROVAL. APPLY SOIL AMENDMENTS PER SOIL TEST RECOMMENDATIONS. SPREAD LIME AND FERTILIZER UNIFORMLY OVER ALL AREAS IMMEDIATELY BEFORE FINAL LAND PREPARATION AND MIX THOROUGHLY WITH THE SOIL.

4. PERMANENT VEGETATIVE COVER OF AT LEAST 90% IS REQUIRED. APPLY A HYDROMULCH ACCORDING TO SPECIFICATIONS, IF NECESSARY.

5. AREAS WILL BE REPLANTED IF PERMANENT VEGETATION IS DISTURBED OR NOT ESTABLISHED. CONTRACTOR TO MECHANICALLY REMOVE GROWTH OF OVER 12" PRIOR TO OVER SEEDING AND RE SEEDING MEADOW AREAS IN THE SPRING TO ALLOW GROWTH OF PERMANENT VEGETATION.

6. REPAIR AND RE SEED ALL ERODED OR DISTURBED SEEDED AREAS WHERE VEGETATIVE COVER HAS NOT BEEN ESTABLISHED.

7. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF SEEDED AREAS UNTIL 95% PERMANENT GRASS COVER IS ESTABLISHED AND SEEDED AREAS EXHIBIT HEALTHY AND VIGOROUS GROWTH AS DETERMINED BY A/E.

8. APPLY A 1/2" TO 3/4" LAYER OF THRASHED RYE, OAT, OR WHEAT STRAW, OR BERMUDA GRASS HAY. APPLY MULCH ON ALL SEEDED AREAS IMMEDIATELY FOLLOWING SEEDING OPERATIONS. MAINTAIN A COVER OF MULCH UNTIL SEEDS HAVE GERMINATED AND SEEDLINGS ARE A MINIMUM OF 2" HEIGHT AND MOWING OPERATIONS HAVE BEGUN. FIELD ADJUST FOR UNIFORM COVERAGE.

9. GRASS SEED TO BE CYNODON DACTYLON 'SAHARA' (SAHARA BERMUDA GRASS) : PROVIDE FRESH, CLEAN, NEW- CROP SEED COMPLYING WITH TOLERANCE FOR PURITY AND GERMINATION ESTABLISHED BY OFFICIAL SEED ANALYSIS OF NORTH AMERICA. PROVIDE SEED MIXTURE COMPOSED OF GRASS SPECIES, PROPORTIONS, AND MINIMUM PERCENTAGES OF PURITY, GERMINATION AND MAXIMUM PERCENTAGE OF WEED SEED.

10. FINE GRADE LAWN AREAS TO SMOOTH, EVEN SURFACE WITH LOOSE, UNIFORMLY FINE TEXTURE. ROLL, RAKE, AND DRAG LAWN AREAS, REMOVE RIDGES AND FILL DEPRESSIONS, AS REQUIRED TO MEET FINISH GRADES.

11. PROTECT ALL SLOPES 3:1 OR STEEPER AGAINST EROSION WITH SPECIFIED EROSION CONTROL BLANKETS OR ACCEPTED SUBSTITUTION. INSTALL BLANKETS ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

12. UNLESS OTHERWISE APPROVED IN WRITING BY THE A/E, SEEDING OPERATIONS SHALL BE LIMITED TO THE FOLLOWING PLANTING PERIOD: SPRING - APRIL 1 THROUGH JUNE 1.

13. WHEN REQUIRED, SEEDING DURING NOVEMBER 15 THROUGH FEBRUARY 28, ADD AN ADDITIONAL 7 POUNDS PER 1,000 SQUARE FEET OF ANNUAL RYE GRASS.

14. SEEDING IS TO BE DONE AS AREAS ARE READY. IF THE CONSTRUCTION SCHEDULE ALLOWS, SEEDING APPLICATION SHOULD BE DONE ACCORDING TO THE OPTIMUM SEEDING DATES DEPICTED IN THE SEEDING SCHEDULE. A TEMPORARY SEED AND APPLICATION IS TO BE ADDED TO THE SEED MIX DURING THE DATES LISTED IN THE SEED SCHEDULE. TIMING OF SEEDING IS TO BE AS NOTED ON DRAWINGS OR SPECIFICATIONS.

15. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATE WATER TO SEEDED AREAS TO ESTABLISH ACCEPTABLE GRASS COVERAGE.

811 Know what's **below.** **Call** before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

MARK A. DONLEY REGISTERED AGRICULTURE COMMERCE TENNESSEE, NO. 3521 LANDSCAPE ARCHITECT

Digitally signed by Mark Donley
Date: 2021.04.21 07:13:27-05'00'

LANDSCAPE NOTES

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

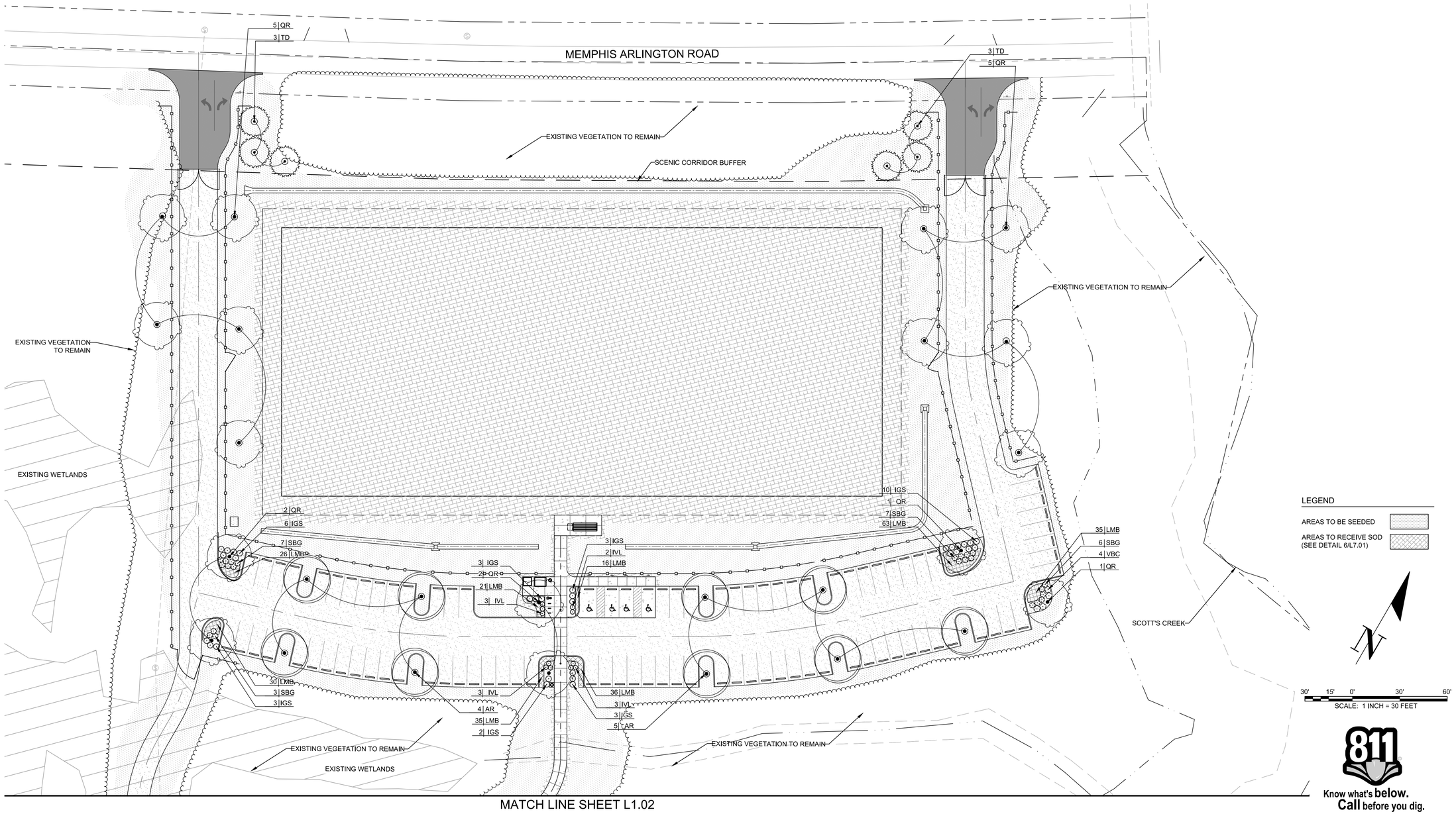
REV.	DR.	CHK.	DATE	REVISION INFORMATION DESCRIPTION
	MD	MD	04-21-21	ISSUE FOR BID

L0.01

FILE NO. 3695300

USER:MADONLEY
FILE P:\3695300\3695300004_CAD\LAND\PLOT\3695300-L001 LA NOTES.dwg
SAVED:4/19/2021
PLOTTED:4/20/2021

PLANT SCHEDULE							
TREES	QTY	BOTANICAL NAME	COMMON NAME	CONDITION	SIZE	HEIGHT	REMARKS
AR	12	Acer rubrum `October Glory`	October Glory Red Maple	B & B	2"-2 1/2" Cal.	8`-10` Ht.	Strong Central Leader, Full Canopy, Well Rooted
QR	19	Quercus rubra	Red Oak	B & B	2"-2 1/2" Cal.	8`-10` Ht.	Strong Central Leader, Full Canopy, Well Rooted
TD	6	Taxodium distichum `Autumn Gold`	Autumn Gold Bald Cypress	B & B	2"-2 1/2" Cal.	8`-10` Ht.	Strong Central Leader, Well formed and Fully Branched, Well Rooted
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONDITION	SIZE	SPACING	REMARKS
IGS	30	Ilex glabra `Shamrock`	Shamrock Inkberry	3 gal	--	48" O.C.	Full in pot, Well rooted, Matched
IVL	11	Itea virginica `Little Henry` TM	Virginia Sweetspire	3 gal	--	36" O.C.	Full in pot, Well rooted, Matched
SBG	23	Spiraea x bumalda `Goldflame`	Goldflame Spirea	3 gal	--	42" O.C.	Full in pot, Well rooted, Matched
VBC	4	Viburnum x burkwoodii `Chenaultii`	Chenault Viburnum	5 gal	--	48" O.C.	Full in pot, Well rooted, Matched
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	CONDITION	SIZE	SPACING	REMARKS
LMB	262	Liriope muscari `Big Blue`	Big Blue Lilyturf	1 gal	--	18" o.c.	Full in pot, Well rooted, Matched



MATCH LINE SHEET L1.02

LEGEND

AREAS TO BE SEEDED

AREAS TO RECEIVE SOD (SEE DETAIL 6/L7.01)

30' 15' 0' 30' 60'

SCALE: 1 INCH = 30 FEET

811 Know what's below. Call before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

MARK A. DONLEY REGISTERED LANDSCAPE ARCHITECT TENNESSEE, NO. 851 AGRICULTURE COMMERCE

Digitally signed by Mark Donley
Date: 2021.04.21 07:13:44-05'00'

LANDSCAPE PLAN

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REVISION INFORMATION			
REV.	DR.	CHK.	DATE
	MD	MD	04-21-21

DESCRIPTION
ISSUE FOR BID

L1.01

FILE NO. 3695300

MATCH LINE SEE SHEET L1.01

EXISTING WETLANDS

3| QR

3| AR

NOTE: SEE SHEET L1.01 FOR PLANT SCHEDULE.

SCOTT'S CREEK

EXISTING VEGETATION TO REMAIN

LEGEND

AREAS TO BE SEEDED

AREAS TO RECEIVE SOD
(SEE DETAIL 6/L7.01)

30' 15' 0' 30' 60'

SCALE: 1 INCH = 30 FEET

811
Know what's **below.**
Call before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

MARK A. DONLEY REGISTERED LANDSCAPE ARCHITECT TENNESSEE, NO. 661 COMMERCE AGRICULTURE

Digitally signed by Mark Donley
Date: 2021.04.21 07:13:58-05'00'

LANDSCAPE PLAN

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REVISION INFORMATION			
REV.	DR.	CHK.	DATE	DESCRIPTION
	MD	MD	04-21-21	ISSUE FOR BID

L1.02

FILE NO. 3695300

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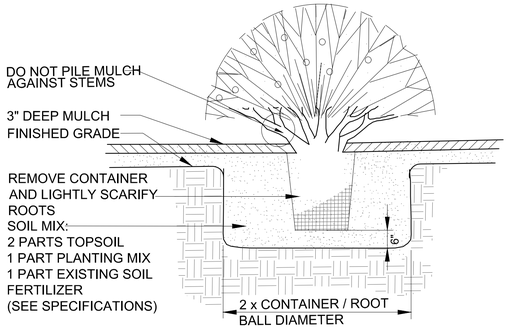
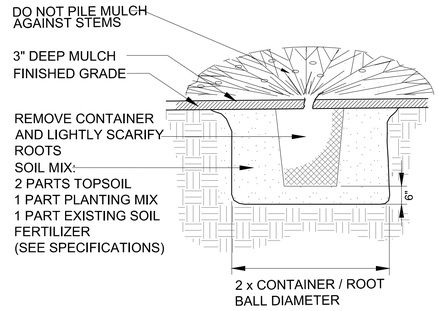
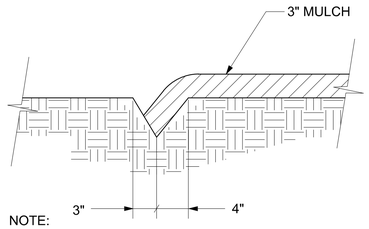
PLOTTED:4/20/2021



1 L7.01 TYPICAL SHRUB PLANTING DETAIL
1/2" = 1'-0"



2 L7.01 TYPICAL GROUNDCOVER PLANTING DETAIL
1/2" = 1'-0"



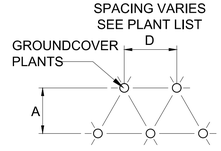
NOTE:

USE TRENCH EDGING ON ALL LANDSCAPE BEDS THAT ARE NEXT TO GRASSED AREAS.

3 L7.01 TYPICAL TRENCH EDGING DETAIL
NTS

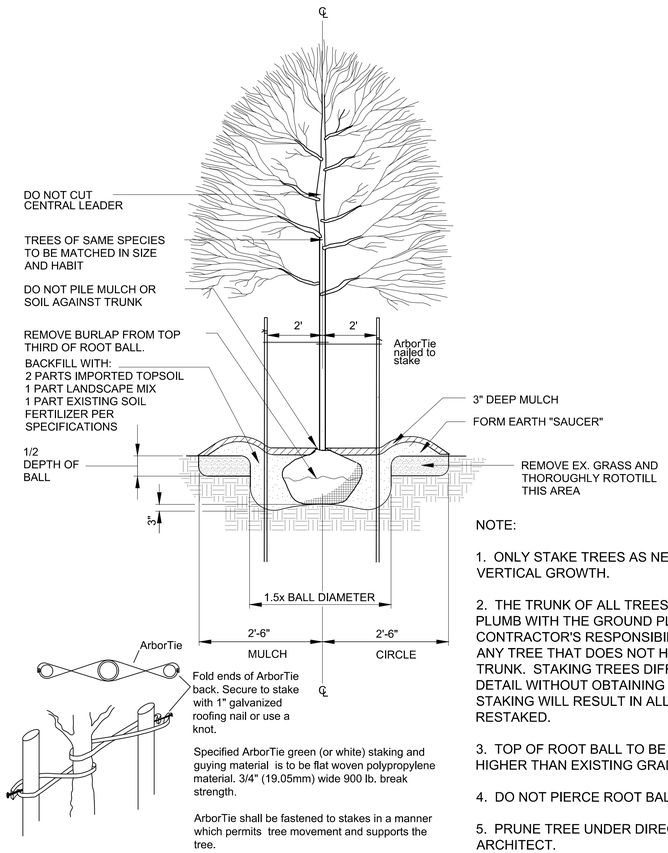
NOTE: SPACING VARIES
SEE PLANT LIST

PLANT SPACING (D)	ROW SPACING (A)	SPACING OFF OF PAVEMENT
6" O.C.	5"	6"
8" O.C.	7"	8"
10" O.C.	9"	8"
12" O.C.	10"	12"
15" O.C.	13"	18"
18" O.C.	16"	18"
24" O.C.	21"	30"
30" O.C.	26"	36"
36" O.C.	30"	42"
48" O.C.	42"	48"



TRIANGLE / OFFSET SPACING

4 L7.01 TYPICAL SHRUB SPACING DETAIL
NTS



Specified ArborTie green (or white) staking and guying material is to be flat woven polypropylene material. 3/4" (19.05mm) wide 900 lb. break strength.

ArborTie shall be fastened to stakes in a manner which permits tree movement and supports the tree.

NOTE:

1. ONLY STAKE TREES AS NEEDED TO ENSURE VERTICAL GROWTH.

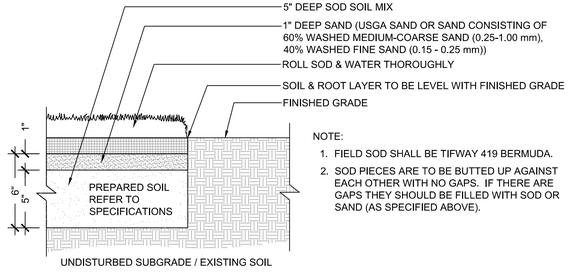
2. THE TRUNK OF ALL TREES IS REQUIRED TO BE PLUMB WITH THE GROUND PLANE. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO STRAIGHTEN ANY TREE THAT DOES NOT HAVE A VERTICAL TRUNK. STAKING TREES DIFFERENTLY THAN THIS DETAIL WITHOUT OBTAINING APPROVAL PRIOR TO STAKING WILL RESULT IN ALL TREES BEING RESTAKED.

3. TOP OF ROOT BALL TO BE EQUAL OR SLIGHTLY HIGHER THAN EXISTING GRADE.

4. DO NOT PIERCE ROOT BALL WITH STAKES.

5. PRUNE TREE UNDER DIRECTION OF LANDSCAPE ARCHITECT.

5 L7.01 TYPICAL TREE PLANTING/ TRANSPLANTING DETAIL
NTS



NOTE:

1. FIELD SOD SHALL BE TIFWAY 419 BERMUDA.
2. SOD PIECES ARE TO BE BUTTED UP AGAINST EACH OTHER WITH NO GAPS. IF THERE ARE GAPS THEY SHOULD BE FILLED WITH SOD OR SAND (AS SPECIFIED ABOVE).

6 L7.01 MULTIPURPOSE FIELD SOD
NTS

Know what's **below.**
Call before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

MARK A. DONLEY REGISTERED LANDSCAPE ARCHITECT TENNESSEE, NO. 661 DEPARTMENT OF AGRICULTURE COMMERCE
Digitally signed by Mark Donley
Date: 2021.04.21 07:14:12-05'00'

LANDSCAPE DETAILS

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DATE	REVISION INFORMATION DESCRIPTION
	MD	MD	04-21-21	ISSUE FOR BID

L7.01

FILE NO. 3695300

USER:MADONLEY
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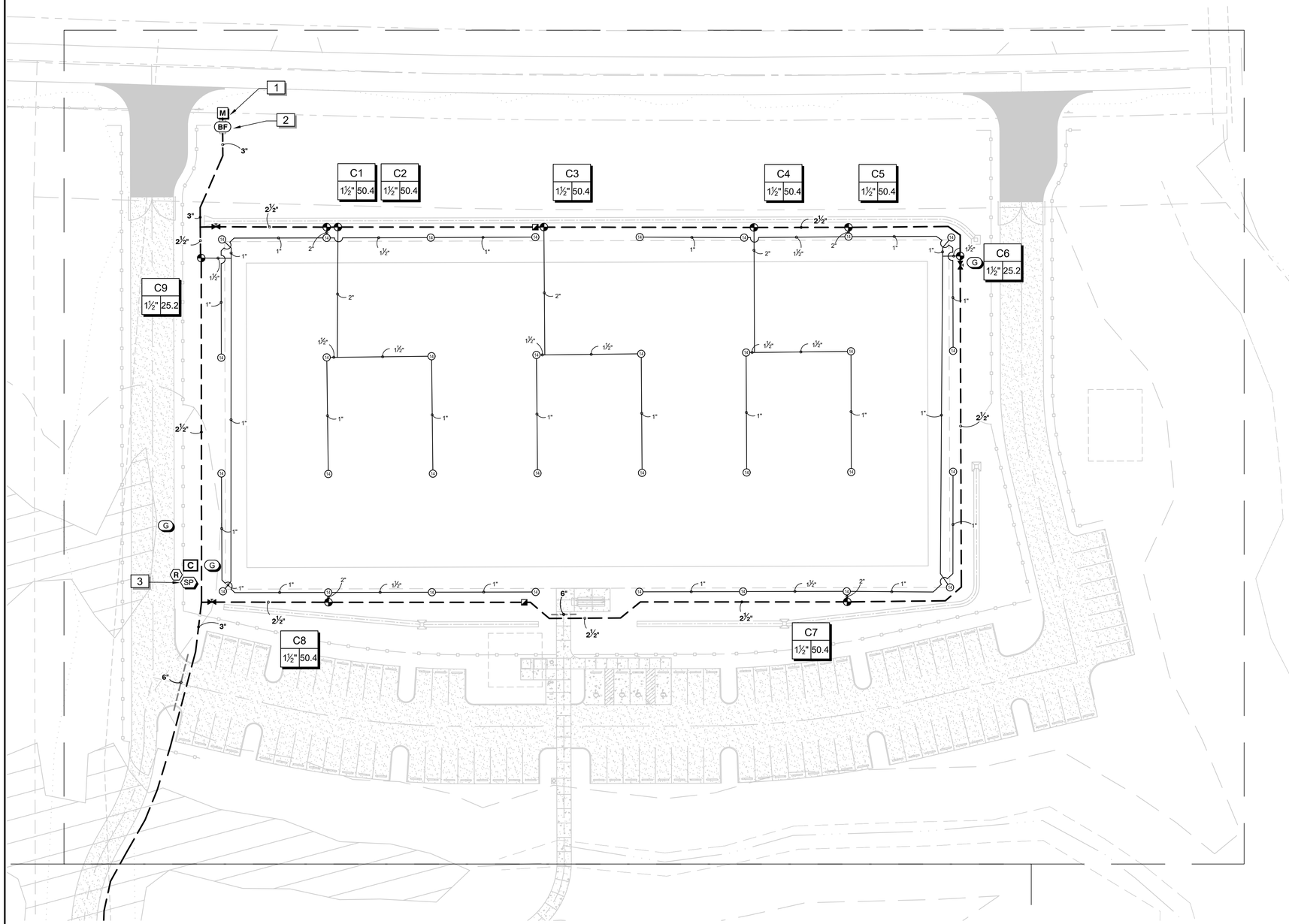
SAVED:4/19/2021
PLOTTED:4/20/2021



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
(14)	Rain Bird 8005-SS Turf Rotor, 5.0" Pop-Up, Stainless Steel Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1" (26/34) NPT Female Threaded Inlet. Extended Radius is Ideal for Large Turf Applications.

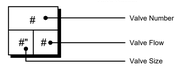
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Rain Bird PEB 1", 1-1/2", 2" Plastic Industrial Valves. Low Flow Operating Capability, Globe Configuration.
	Rain Bird 44-LRC 1" Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Locking Thermoplastic Rubber Cover, and 2-Piece Body.
	Matco-Norca 10RT 2" to 8" cast iron gate isolation valve. Ring-Tite Gasket Ends. Resilient wedge with epoxy coating and optional nut. For IPS pipe. Same size as mainline pipe.
BF	Febco 825Y 2" Reduced Pressure Backflow Preventer
C	Rain Bird ESP-LXD-LXMM Flow sensing Two-Wire Decoder Commercial Controller. 50 Stations. UV-Resistant, Outdoor-Rated, Powder-Coated Metal Cabinet. Available in the US market, International, European, or Australian Markets.
R	Rain Bird WR2-RFS Wireless Rain/Freeze Sensor.
G	2-Wire Grounding Point Install as per plan detail and manufacturers instructions.
SP	Solar Power Equipment Site One Greentech Model Solar 250Temp See plan detail.
M	Water Meter 2"

Irrigation Lateral Line: PVC Class 200 SDR 21

Irrigation Mainline: PVC Class 200 SDR 21

Pipe Sleeve: PVC Schedule 40

Valve Callout



REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	Irrigation system water source to be a 3" service line to a 2" water meter. System requirements are 51 gpm at a static pressure of 80 psi. Verify available flow and pressure prior to construction.
2	Install 2" RPZ backflow preventer with HDPE insulated enclosure on a concrete pad as per plan detail.
3	Coordinate exact location of the solar panel, irrigation controller and rain sensor with the owners representative. See plan detail for approximate layout of solar panel, controller and rain sensor

CRITICAL ANALYSIS

Generated:	2020-07-24 14:17
P.O.C. NUMBER: 01	
Water Source Information:	
FLOW AVAILABLE	
Water Meter Size:	2"
Flow Available:	120.00 gpm
PRESSURE AVAILABLE	
Static Pressure at POC:	80.00 psi
Elevation Change:	5.00 ft
Service Line Size:	3"
Length of Service Line:	20.00 ft
Pressure Available:	77.00 psi
DESIGN ANALYSIS	
Maximum Station Flow:	50.40 gpm
Flow Available at POC:	120.00 gpm
Residual Flow Available:	69.60 gpm
Critical Station:	C11
Design Pressure:	50.00 psi
Friction Loss:	2.87 psi
Fittings Loss:	0.29 psi
Elevation Loss:	0.00 psi
Loss through Valve:	3.63 psi
Pressure Req. at Critical Station:	56.79 psi
Loss for Fittings:	0.21 psi
Loss for Main Line:	2.09 psi
Loss for POC to Valve Elevation:	0.00 psi
Loss for Backflow:	12.04 psi
Loss for Water Meter:	1.93 psi
Critical Station Pressure at POC:	73.06 psi
Pressure Available:	77.00 psi
Residual Pressure Available:	3.94 psi

EXAMPLE WATERING SCHEDULE

NUMBER	MODEL	TYPE	PRECIP	IN./WEEK	MIN./WEEK	GAL./WEEK	GAL./DAY
C1	Rain Bird PEB	Turf Rotor	0.69 in/h	1	88	4,435	
C2	Rain Bird PEB	Turf Rotor	0.35 in/h	1	173	8,719	
C3	Rain Bird PEB	Turf Rotor	0.36 in/h	1	169	8,518	
C4	Rain Bird PEB	Turf Rotor	0.35 in/h	1	170	8,568	
C5	Rain Bird PEB	Turf Rotor	0.70 in/h	1	87	4,385	
C6	Rain Bird PEB	Turf Rotor	1.35 in/h	1	45	1,134	
C7	Rain Bird PEB	Turf Rotor	0.72 in/h	1	84	4,234	
C8	Rain Bird PEB	Turf Rotor	0.69 in/h	1	88	4,435	
C9	Rain Bird PEB	Turf Rotor	1.35 in/h	1	45	1,134	
C10	Rain Bird PEB	Turf Rotor	0.71 in/h	1	85	4,284	
C11	Rain Bird PEB	Turf Rotor	0.34 in/h	1	178	8,971	
C12	Rain Bird PEB	Turf Rotor	0.34 in/h	1	178	8,971	
C13	Rain Bird PEB	Turf Rotor	0.36 in/h	1	169	8,518	
C14	Rain Bird PEB	Turf Rotor	0.69 in/h	1	87	4,385	
C15	Rain Bird PEB	Turf Rotor	1.30 in/h	1	47	1,184	
C16	Rain Bird PEB	Turf Rotor	0.71 in/h	1	85	4,284	
C17	Rain Bird PEB	Turf Rotor	0.70 in/h	1	86	4,334	
C18	Rain Bird PEB	Turf Rotor	1.36 in/h	1	45	1,134	
		TOTALS:			1,909	91,627	

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	PSI	PSI @ POC	PRECIP
C1	Rain Bird PEB	1-1/2"	Turf Rotor	50.40	56.37	70.89	0.69 in/h
C2	Rain Bird PEB	1-1/2"	Turf Rotor	50.40	56.93	71.48	0.35 in/h
C3	Rain Bird PEB	1-1/2"	Turf Rotor	50.40	56.95	71.93	0.36 in/h
C4	Rain Bird PEB	1-1/2"	Turf Rotor	50.40	56.94	72.19	0.35 in/h
C5	Rain Bird PEB	1-1/2"	Turf Rotor	50.40	56.27	71.58	0.70 in/h
C6	Rain Bird PEB	1-1/2"	Turf Rotor	25.20	58.02	70.36	1.35 in/h
C7	Rain Bird PEB	1-1/2"	Turf Rotor	50.40	56.33	71.64	0.72 in/h
C8	Rain Bird PEB	1-1/2"	Turf Rotor	50.40	56.36	71.56	0.69 in/h
C9	Rain Bird PEB	1-1/2"	Turf Rotor	25.20	58.18	70.21	1.35 in/h
C10	Rain Bird PEB	1-1/2"	Turf Rotor	50.40	56.14	72.42	0.71 in/h
C11	Rain Bird PEB	1-1/2"	Turf Rotor	50.40	56.79	73.06	0.34 in/h
C12	Rain Bird PEB	1-1/2"	Turf Rotor	50.40	56.79	72.64	0.34 in/h
C13	Rain Bird PEB	1-1/2"	Turf Rotor	50.40	56.84	72.61	0.36 in/h
C14	Rain Bird PEB	1-1/2"	Turf Rotor	50.40	56.25	72.15	0.69 in/h
C15	Rain Bird PEB	1-1/2"	Turf Rotor	25.20	57.85	70.40	1.30 in/h
C16	Rain Bird PEB	1-1/2"	Turf Rotor	50.40	56.27	72.71	0.71 in/h
C17	Rain Bird PEB	1-1/2"	Turf Rotor	50.40	56.25	72.89	0.70 in/h
C18	Rain Bird PEB	1-1/2"	Turf Rotor	25.20	57.76	70.38	1.36 in/h

0 30 60 90 feet

1" = 30'

NORTH

Know what's **below.** **Call** before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT /// SUITE 100 /// MEMPHIS /// TENNESSEE /// 38018

MICHAEL C. CLARK — TENNESSEE — LICENSED PROFESSIONAL — COMMERCIAL

IRRIGATION PLAN

LAKELAND ATHLETIC COMPLEX PHASE 1

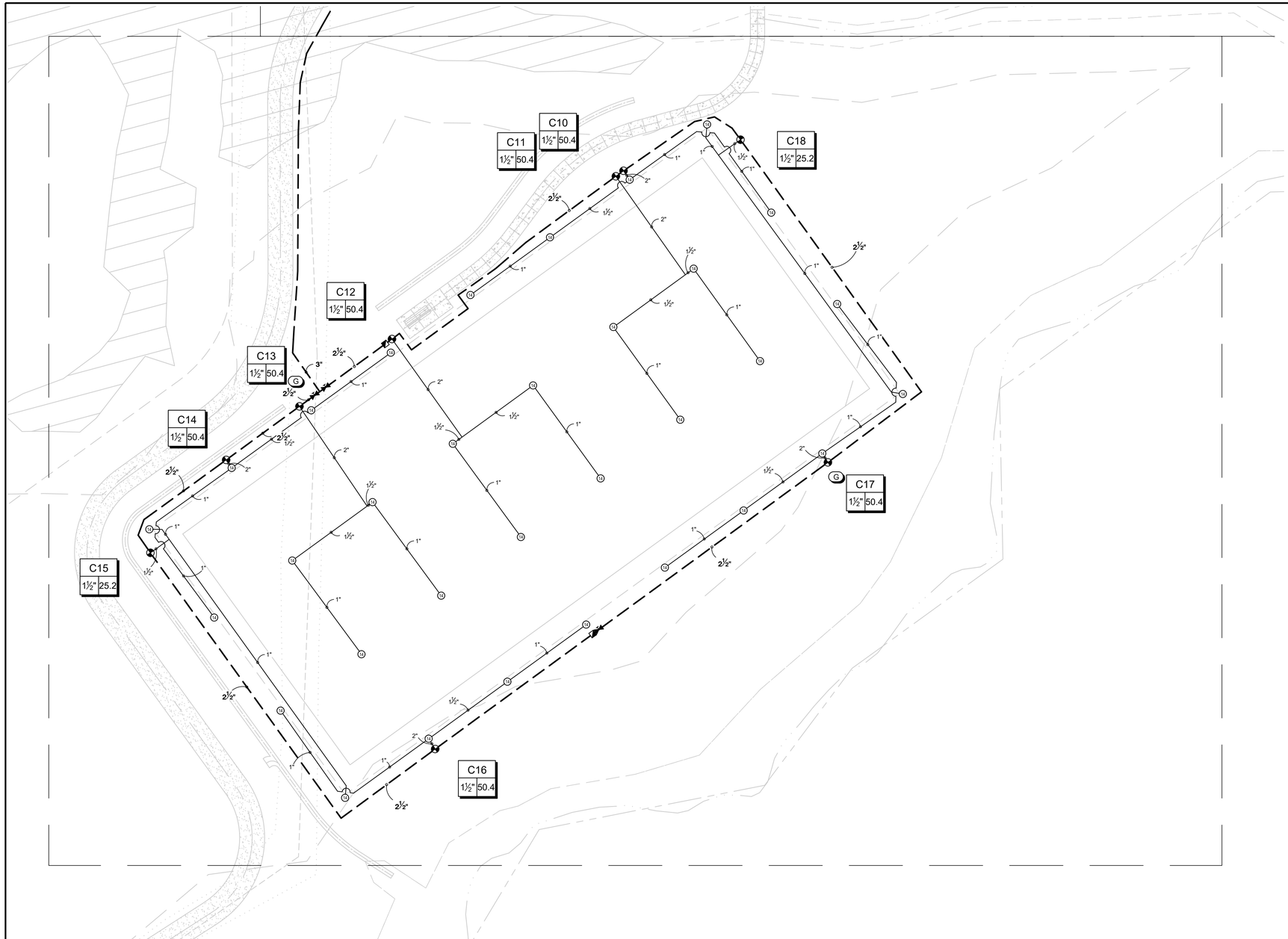
MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DESCRIPTION	DATE
	MC	WD	ISSUED FOR BID	04-21-2021

IR1.01

FILE NO. 3695300

USER:MICHAEL CLARK
FILE:D:\OBDC\Commercial Projects\BWS\Lakeland Rec Complex\Design Files\3695300\Irrigation.dwg
SAVED:4/22/2021
PLOTTED:4/22/2021



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
14	Rain Bird 8005-SS Turf Rotor, 5.0" Pop-Up, Stainless Steel Riser, Standard Nozzle. With Seal-A-Matic Check Valve, Adjustable 50-330 arc, and 360 Non-Reversing Full-Circle. 1" (26/34) NPT Female Threaded Inlet. Extended Radius is Ideal for Large Turf Applications.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Rain Bird PEB 1", 1-1/2", 2" Plastic Industrial Valves. Low Flow Operating Capability, Globe Configuration.
	Rain Bird 44-LRC 1" Brass Quick-Coupling Valve, with Corrosion-Resistant Stainless Steel Spring, Locking Thermoplastic Rubber Cover, and 2-Piece Body.
	Matco-Norca 10RT 2" to 8" cast iron gate isolation valve. Ring-Tite Gasket Ends. Resilient wedge with epoxy coating and optional nut. For IPS pipe. Same size as mainline pipe.
BF	Febco 825Y 2" Reduced Pressure Backflow Preventer
C	Rain Bird ESP-LXD-LXMM Flow sensing Two-Wire Decoder Commercial Controller. 50 Stations. UV-Resistant, Outdoor-Rated, Powder-Coated Metal Cabinet. Available in the US market, International, European, or Australian Markets.
R	Rain Bird WR2-RFS Wireless Rain/Freeze Sensor.
G	2-Wire Grounding Point Install as per plan detail and manufacturers instructions.
SP	Solar Power Equipment Site One Greentech Model Solar 250Temp See plan detail.
M	Water Meter 2"
	Irrigation Lateral Line: PVC Class 200 SDR 21
	Irrigation Mainline: PVC Class 200 SDR 21
	Pipe Sleeve: PVC Schedule 40

Valve Callout

0 30 60 90 feet

1" = 30'

NORTH

811 Know what's **below.** **Call** before you dig.

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

MICHAEL D. CLARK — LICENSED PROFESSIONAL ENGINEER — COMMERCIAL

IRRIGATION PLAN

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REVISION INFORMATION

REV.	DR.	CHK.	DATE	DESCRIPTION
	MC	WD	04-21-2021	ISSUED FOR BID

IR1.02

FILE NO. 3695300

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FILE:D:\CIDCO\Commercial Projects\BWS\CL\Lakeland Rec Complex\Design Files\3695300\Irrigation.dwg
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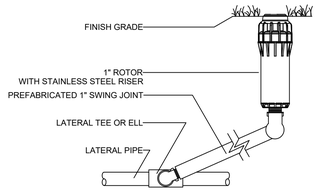
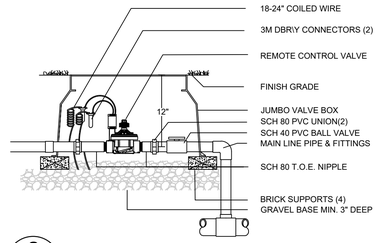
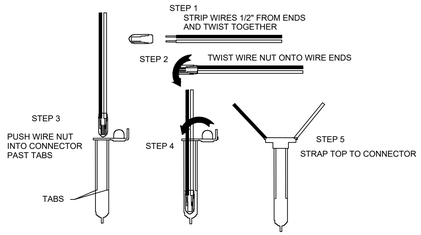


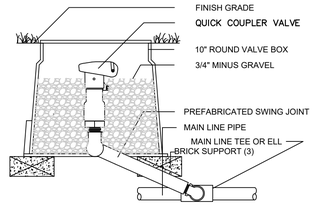
1 1" INLET ROTOR
NTS



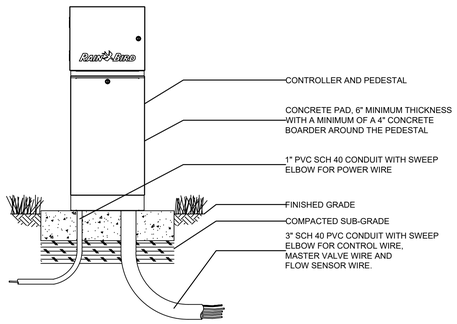
2 ELECTRIC CONTROL VALVE
NTS



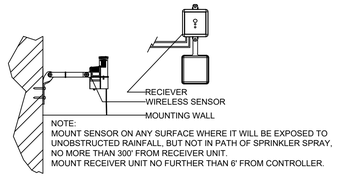
3 WIRE CONNECTION 3M-DBY-6
NTS



4 QUICK COUPLER VALVE
NTS



5 PEDESTAL MOUNT CONTROLLER
NTS



6 WIRELESS RAIN SENSOR
NTS

GENERAL NOTES

1. ALL TRENCHING TO BE OUTSIDE OF TREE DRIP LINE
2. MAINLINE TO HAVE MINIMUM OF 18" OF COVER AND A MINIMUM OF 18" OFF OF THE HARDSCAPE
3. LATERALS TO HAVE MINIMUM OF 12" OF COVER AND A MINIMUM OF 12" OFF OF THE HARDSCAPE
4. NO ROCKS, BOULDERS OR SHARP OBJECTS TO BE IN TRENCH BACKFILL
5. ALL PIPE TO BE INSTALLED AS PER MANUFACTURES SPECIFICATIONS
6. SPRINKLERS AND RELATED EQUIPMENT TO BE INSTALLED AS PER DETAILS
7. TWO WIRE CONTROL WIRE TO BE 14 GA UL 2 CONDUCTOR, JACKETED AND APPROVED BY 2-WIRE CONTROLLER MANUFACTURER
8. ALL 2-WIRE CONTROL WIRE TO HAVE 14GA "BLUE" TRACER WIRE FROM THE CONTROLLER TO ALL CONTROL VALVES. TRACER WIRE TO HAVE A 24" LOOP LOCATED IN EACH CONTROL VALVE AND ISOLATION VALVE BOXES.
9. WIRE SPLICES TO BE DONE AS PER DETAILS
10. ALL WIRE SPLICES OUTSIDE OF CONTROL VALVE BOX TO BE IN 10" VALVE BOX
11. TWO WIRE CONDUCTORS TO BE COLOR CODED
12. CONTRACTOR SHALL INSTALL MANUFACTURES GROUNDING EQUIPMENT ON BOTH THE POWER AND OUTPUT SIDES OF CONTROLLER, ALL GROUNDING POINTS TO BE INSTALLED AS PER PLANS AND DETAILS
13. AT EACH VALVE AND CHANGE IN MAINLINE DIRECTION CONTRACTOR TO INSTALL A 30" LOOP OF EXTRA WIRE
14. SPRINKLERS ARE TO BE ADJUSTED TO AVOID OVER-SPRAY INTO NON-IRRIGATED AREAS
15. ELECTRIC CONTROL VALVES ARE TO BE INSTALLED IN VALVE BOXES AS FOLLOWS
    14" RECTANGULAR MINIMUM FOR EACH ELECTRIC CONTROL VALVE
    JUMBO VALVE BOX FOR DRIP ZONE KITS
16. SPRINKLERS TO BE INSTALLED 12" FROM FOUNDATIONS AND 2" FROM HARDSCAPE
17. CONTRACTOR TO ADD RISER EXTENSIONS TO SPRINKLERS IF REQUIRED TO MAINTAIN PROPER COVERAGE
18. ALL PIPING TO BE FLUSHED PRIOR TO INSTALLATION OF SPRINKLERS
19. ALL VALVES, QUICK COUPLER VALVES, WIRE SPLICES TO BE IN LANDSCAPED BEDS WHEREVER POSSIBLE
20. CONTRACTOR IS RESPONSIBLE FOR OBTAINING PROPER COVERAGE OF AREA TO BE IRRIGATED, MAKE ADJUSTMENTS AS NECESSARY
21. CONTRACTOR SHALL EXERCISE CARE NOT TO DAMAGE EXISTING UTILITIES REPAIRING ANY DAMAGES AT HIS OWN COST
22. PLAN IS DIAGRAMMATIC TO IMPROVE CLARITY ALL IRRIGATION EQUIPMENT TO BE INSTALLED WITHIN PROPERTY LINES AND LANDSCAPED AREAS
23. ANY DISCREPANCIES BETWEEN THE PLAN AND THE SITE TO BE REFERRED TO THE OWNERS REPRESENTATIVE PRIOR TO CONSTRUCTION
24. CONTRACTOR TO PROVIDE 1 YEAR WARRANTEE OF ALL PRODUCTS AND WORKMANSHIP TO INCLUDE WINTERIZATION AND SPRING START-UP
25. CONTRACTOR TO PROVIDE OWNER AND OR LANDSCAPE ARCHITECT RECORD DRAWING PRIOR TO SUBSTANTIAL COMPLETION.
26. INSTALLATION OF IRRIGATION SLEEVES IS THE IRRIGATION CONTRACTORS RESPONSIBILITY IRRIGATION CONTRACTOR TO COORDINATE WITH GENERAL CONTRACTOR SLEEVE INSTALLATION PRIOR TO PAVEMENT INSTALLATION
27. CLEANUP AND DISPOSE OF ALL DEBRIS, WASTE AND EXCESS CONSTRUCTION MATERIALS LEAVE AREA NEAT, CLEAN AND READY FOR OWNERS USE PROVIDE CLEAN PAVEMENT SURFACES INCLUDING AREAS OF PUBLIC R.O.W.

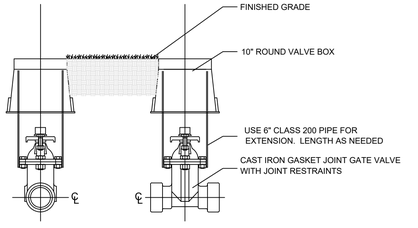
TWO WIRE CONTROL SYSTEM NOTES

1. ALL DECODER WIRE SPLICE CONNECTORS TO BE 3M DBY-6 OR BETTER.
2. ALL DECODER TO VALVE SOLENOID SPLICE CONNECTORS TO BE 3M DBY-6 OR BETTER
3. ALL GROUNDING POINTS TO HAVE LSP-01 LIGHTNING ARRESTOR INSTALLED INLINE AS PER MANUFACTURER'S REQUIREMENTS AND INSTALLED AS PER DETAIL.
4. ALL 2-WIRE PRODUCTS TO BE INSTALLED AND OPERATED AS PER THE MANUFACTURER'S RECOMMENDATIONS AND OR REQUIREMENTS.
5. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY 2-WIRE INSTALLATION TRAINING PRIOR TO PROJECT START, NOTIFY IRRIGATION CONSULTANT WHEN TRAINING HAS BEEN COMPLETED.
6. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR TRAINING OWNERS STAFF, AS NEEDED, ON THE OPERATION AND MAINTENANCE OF THE CONTROL SYSTEM.
7. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR COMPLETE PROGRAMMING AND OPERATION OF THE CONTROL SYSTEM FOR 6 MONTHS FROM THE DAY THE CONTROLLER BECOMES FUNCTIONAL. CONTRACTOR TO PROVIDE THE OWNERS REPRESENTATIVE A COMPUTER SPREAD SHEET THAT SHOWS EACH PROGRAM, OPERATIONAL DAYS AND RUN TIMES PER ZONE.

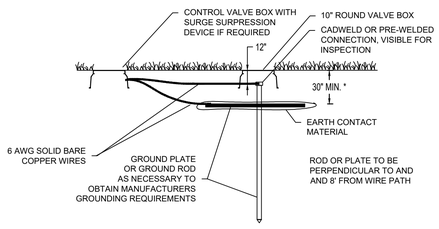
CONTROLLER INSTALLATION NOTES

1. IRRIGATION CONTRACTOR TO COORDINATE EXACT LOCATION OF CONTROLLER WITH OWNER'S REPRESENTATIVE.
2. PROVIDE 120VAC POWER FROM THE SOLAR PANEL POWER INVERTER TO THE CONTROLLER IN 1-1/4" PVC SCH 40 ELECTRICAL CONDUIT .
3. CONTROLLER TO BE SECURELY ATTACHED TO THE CONCRETE PEDESTAL BASE USING CONCRETE METALLIC WEDGE STYLE ANCHORS.
4. ALL IRRIGATION CONTROL WIRE ABOVE GRADE TO BE ENCASED IN PVC ELECTRICAL CONDUIT.
5. CONTROLLER TO BE GROUNDED AS PER MANUFACTURERS RECOMMENDATIONS AND PLAN DETAIL.

SIDE VIEW

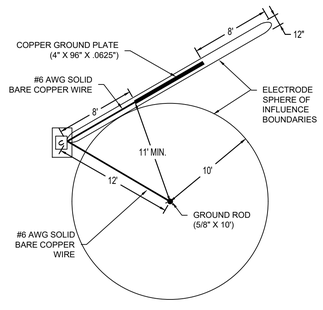


7 ISOLATION VALVE DETAIL 2 1/2" AND LARGER
NTS

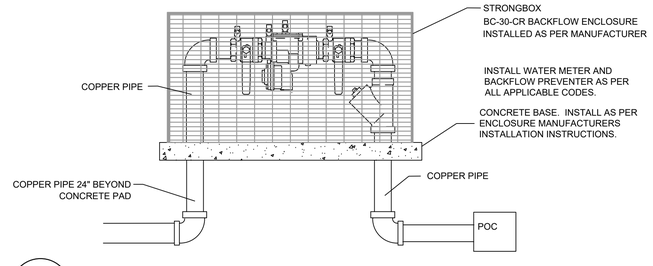


8 TWO WIRE GROUNDING POINT DETAIL
NTS

TOP VIEW

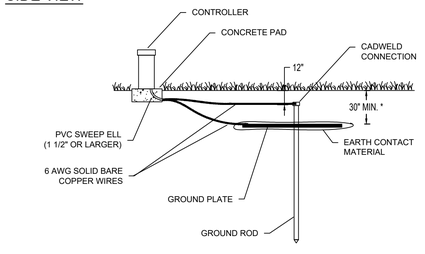


DO NOT INSTALL ANY OTHER WIRES OR CABLE
WITHIN THE SPHERE OF INFLUENCE



9 RPZ BACKFLOW PREVENTER WITH ENCLOSURE
NTS

SIDE VIEW



10 CONTROLLER GROUNDING DETAIL
NTS

Know what's below.
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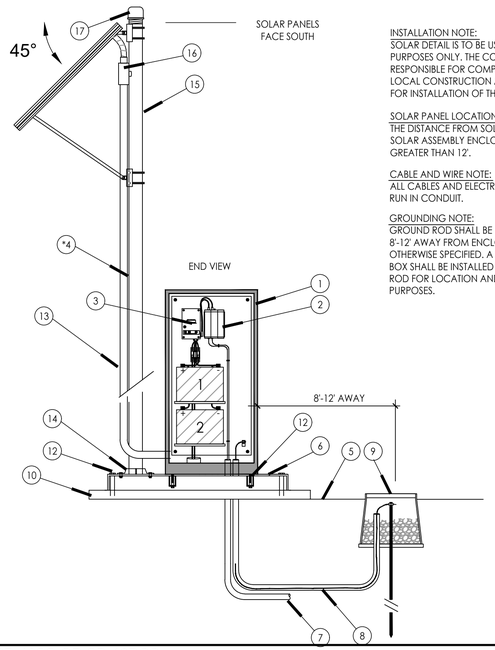
MICHAEL CLARK
REGISTERED LANDSCAPE ARCHITECT
COMMERCIAL

IRRIGATION PLAN
LAKELAND ATHLETIC COMPLEX
PHASE 1
MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DATE	REVISION INFORMATION
	MC	WD	04-21-2021	ISSUED FOR BID

IR1.03
FILE NO. 3695300

USER:MICHAEL CLARK
FILE D:\CIDCO\Commercial Projects\BWS\Lakeland Rec Complex\Design Files\3695300\Irrigation.dwg
SAVED:4/20/2021
PLOTTED:4/20/2021



INSTALLATION NOTE:
SOLAR DETAIL IS TO BE USED FOR ILLUSTRATIVE PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL LOCAL CONSTRUCTION AND SAFETY CODES FOR INSTALLATION OF THE SOLAR PANEL.

SOLAR PANEL LOCATION NOTE:
THE DISTANCE FROM SOLAR PANEL POLE TO SOLAR ASSEMBLY ENCLOSURE SHALL BE NO GREATER THAN 12'.

CABLE AND WIRE NOTE:
ALL CABLES AND ELECTRICAL WIRES MUST BE RUN IN CONDUIT.

GROUNDING NOTE:
GROUND ROD SHALL BE LOCATED BETWEEN 8'-12' AWAY FROM ENCLOSURE UNLESS OTHERWISE SPECIFIED. A 10" ROUND VALVE BOX SHALL BE INSTALLED OVER THE GROUND ROD FOR LOCATION AND MAINTENANCE PURPOSES.

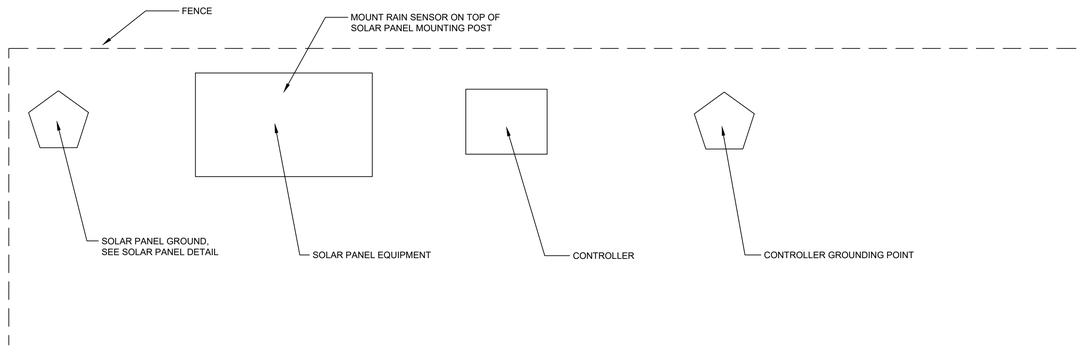
1. STRONGBOX STAINLESS STEEL NEMA 3R RAINPROOF ENCLOSURE AND SOLAR ASSEMBLY BY SOGT.
2. POWER INVERTER.
3. CHARGE CONTROLLER.
4. *1 TO 2 PANELS, INSTALL 15' x 3" GALVANIZED POLE. *3 TO 4 PANELS, INSTALL 15' x 4" GALVANIZED POLE.
5. FINISHED GRADE.
6. ENCLOSURE AND POLE MOUNTING SKID, ALUMINUM 4' X 5'. ANCHOR SKID TO CONCRETE PAD ON ALL 4 CORNERS WITH STAINLESS STEEL ANCHORS.
7. 1-1/2" ELECTRICAL CONDUIT AND SWEEP ELL FOR 120 VAC POWER LINE TO CONTROLLER.
8. 1-1/2" PVC CONDUIT AND SWEEP ELL WITH #6 GROUND WIRE TO EXTERNAL GROUND ROD LOCATION.
9. UL LISTED 5/8" x 8' GROUND ROD WITH #6 GROUND WIRE AND CLAMP INSTALLED INSIDE 10" ROUND VALVE BOX.
10. BATTERIES FOR POWER STORAGE. NUMBER OF BATTERIES BASED ON POWER REQUIREMENT.
11. WIRE REINFORCED CONCRETE PAD, 4" GREATER IN SIZE ON ALL SIDE THAN THE ALUMINUM SKID.
12. STAINLESS STEEL ANCHOR BOLTS.
13. 1-1/4" GALVANIZED CONDUIT AND SWEEP ELBOW INTO THE ENCLOSURE.
14. POLE ATTACHMENT FLANGE. BOLT TO THE SKID, SIZE PER POLE DIAMETER.
15. MOUNT SOLAR PANEL ON GALVANIZED POLE WITH BRACKET PROVIDED BY SOGT. POLE NOT INCLUDED.
16. WATER PROOF ELECTRICAL JUNCTION BOX ATTACHED TO POLE FOR SOLAR WIRING.
17. GALVANIZED END CAP. SIZE PER POLE DIAMETER.

18"W x 36"H, STRONGBOX: SB-18SS OR SB-18DSS
FRONT ENTRY ON ALUMINUM SKID

1 SOLAR ASSEMBLY - 250 SERIES, QUOTE #4722853 dated 8-28-2020

SiteOne Green Tech

10 SOLAR PANEL DETAIL
NTS



11 SOLAR PANEL AND CONTROLLER LAYOUT
NTS

Know what's below. Call before you dig.

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MICHAEL CLARK TENNESSEE LICENSED COMMERCIAL

IRRIGATION PLAN

LAKELAND ATHLETIC COMPLEX
PHASE 1
MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DATE	REVISION INFORMATION DESCRIPTION
	MC	WD	04-21-2021	ISSUED FOR BID

IR1.04
FILE NO. 3695300

USER:MICHAEL CLARK
FILE:D:\CIDCO\Commercial Projects\BWS\Lakeland Rec Complex\Design Files\3695300\Irrigation.dwg
SAVED:4/20/2021
PLOTTED:4/20/2021

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	LIGHTING		**BASIC MATERIALS**
	SOLAR POLE LIGHTING FIXTURE (LED)	1	BRANCH CIRCUIT WIRE & CONDUIT RUN CONCEALED IN WALL OR ABOVE CEILING, HOME RUN TO PANELBOARD. A NUMERAL, IF PRESENT AT ARROW HEAD, INDICATES CIRCUIT NUMBER. ANY BRANCH CIRCUIT SHOWN WITHOUT SLASH MARKS INDICATES A CONDUIT CONTAINING (3) #12 AWG CONDUCTORS (HOT, NEUTRAL & GROUND). SLASH MARKS, IF PRESENT, INDICATE THE FOLLOWING: HOT (ENERGIZED) CONDUCTOR, NEUTRAL CONDUCTOR, & GROUND CONDUCTOR
	SERVICE AND DISTRIBUTION		
	SWITCHBOARD		WIRE & CONDUIT RUN EXPOSED
	DISTRIBUTION PANEL		WIRE & CONDUIT RUN IN OR UNDER FLOOR
	BRANCH CIRCUIT PANEL		
T	TRANSFORMER		DISCONNECT SWITCH
	MOTOR CONNECTION	J	JUNCTION BOX
G	GENERATOR CONNECTION	S	MANUAL MOTOR STARTER SWITCH
	DISCONNECT SWITCH (FUSED AS REQUIRED)	WP	G.F.I. TYPE DUPLEX RECEPTACLE OUTDOORS (WEATHERPROOF)
	MOTOR CONTROLLER (SPECIFIED IN OTHER THAN DIV. 26)		
	COMBINATION MOTOR CONTROLLER & DISCONNECT SWITCH (SPECIFIED IN OTHER THAN DIV. 26)		
⊗	EQUIPMENT NOT FURNISHED UNDER DIV. 26 (SPECIFIED IN OTHER THAN DIV. 26)		
M	ELECTRIC METER		
R	RELAY		
CB	CIRCUIT BREAKER		
LC	LIGHTING CONTACTOR		
PC	PHOTOCELL		
T	THERMOSTAT		

ELECTRICAL ABBREVIATIONS

SYMBOL	DESCRIPTION
A	AMPERE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERES INTERRUPTING CURRENT
ANN	ANNUNCIATOR
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CLP	CURRENT LIMITING PANEL
CT	CURRENT TRANSFORMER
CU	COPPER
DISC	DISCONNECT
EDF	ELECTRIC DRINKING FOUNTAIN
FAAP	FIRE ALARM ANNUMNICATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPS
G	GROUND
GFI	GROUND FAULT CURRENT INTERRUPTER
HP	HORSEPOWER
HZ	HERTZ
KCMIL	THOUSAND CIRCULAR MILS
KVA	KILOVOLT-AMPERE
KW	KILOWATT
LED	LIGHT EMITTING DIODE
MCC	MOTOR CONTROL CENTER
MLO	MAIN LUGS ONLY
N	NEUTRAL
NEC	NATIONAL ELECTRIC CODE
PF	POWER FACTOR
SOWB	SPACE ONLY WITH BUS
UGW	UNDERGROUND ELECTRICAL
V	VOLT
VA	VOLT-AMPERE
VFD	VARIABLE FREQUENCY DRIVE
WP	WEATHER PROOF
XFMR	TRNASFORMER
3P	THREE POLE
3PH	THREE PHASE
4W	FOUR WIRE
30/3	30 AMPERE, 3-POLE

GENERAL PROJECT NOTES:

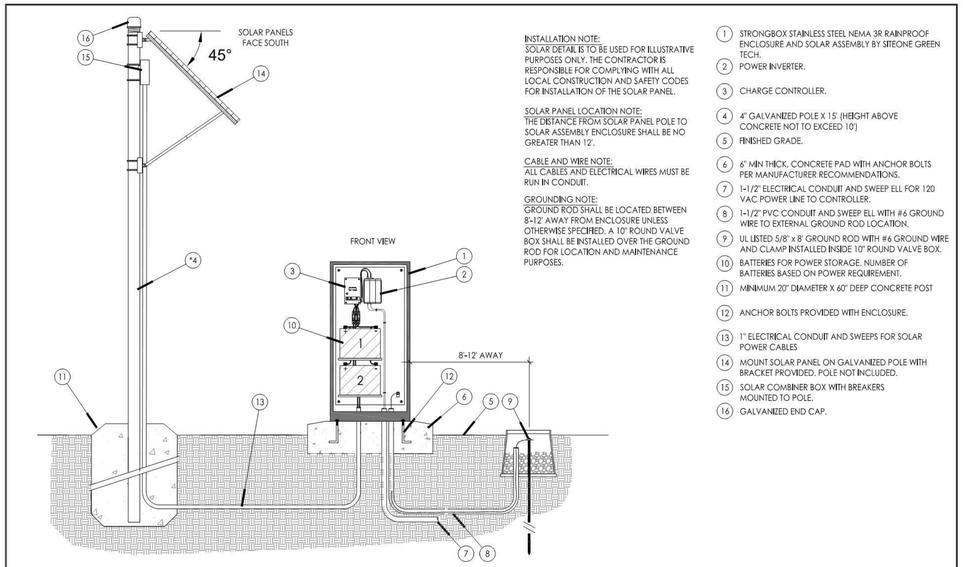
1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH DIVISION 26 SPECIFICATIONS, NATIONAL ELECTRICAL CODE, AND ALL OTHER APPLICABLE STANDARDS AND REGULATIONS ENFORCED BY THE AUTHORITY HAVING JURISDICTION.
2. ALL ABOVE GROUND EXTERIOR CONDUIT SHALL BE GALVANIZED RIGID STEEL CONDUIT WITH CORROSION RESISTANT FITTINGS, CLAMPS AND SUPPORT. INTERIOR EXPOSED CONDUIT ABOVE GROUND SHALL BE EMT.
3. IN THE EVENT OF CONFLICTS BETWEEN THE DRAWINGS, SPECIFICATIONS, CODES AND REGULATIONS, NOTIFY THE ENGINEER IN WRITING FOR ENGINEER OF RECORD'S OPINION PRIOR TO INSTALLATION.
4. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL AND REVIEW.
5. SMACNA SEISMIC RESTRAINT MANUAL, THIRD EDITION 2008, OR LATEST REVISION MAY BE USED AS A GUIDE FOR GENERAL SEISMIC SUPPORT DETAIL AND SUPPORT SPACING RECOMMENDATIONS.
6. COORDINATE LOCATION OF ALL LIGHTING FIXTURES WITH OTHER DISCIPLINES PRIOR TO ROUGH-IN.
7. ELECTRICAL CONTRACTOR SHALL VERIFY VOLTAGE AND AMP DRAW FOR ALL NEW EQUIPMENT.

CODE ANALYSIS - INTERNATIONAL BUILDING CODE 2015
CODE COMMENTS
JURISDICTION
Memphis and Shelby County Construction Code Enforcement
APPLICABLE CODES
2015 International Building Code with Local Amendments
2015 International Existing Building Code with Local Amendments
2015 International Residential Code with Local Amendments
2014 National Electrical Code
2018 Joint Electrical Code
2015 International Mechanical Code with Local Amendments
2015 International Fuel Gas Code with Local Amendments
2015 International Plumbing Code with Local Amendments
2015 International Energy Conservation Code with Local Amendments
2009 ICC A117.1 Accessibility and Useable Buildings and Facilities)by reference)
2013 ASME 17.1 Safety Code for Elevators and Escalators (by reference)

DRAWING LIST - ELECTRICAL	
E1.00	**ELECTRICAL - LEGEND, GENERAL NOTES, SCHEDULES, & DETAILS**
E1.01	**ELECTRICAL - PHOTOMETRICS PLAN**
E1.02	**ELECTRICAL - SITE PLAN**
Grand total: 3	

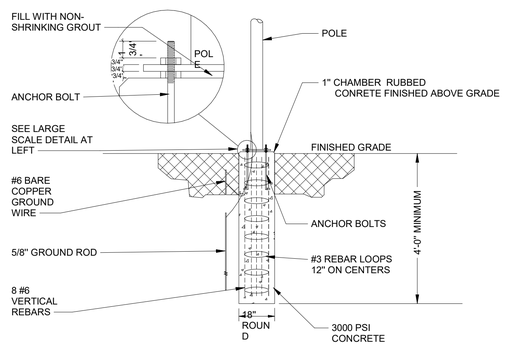
LIGHT FIXTURE SCHEDULE

Type Mark	Count	Manufacturer	Description	Model	Wattage	Voltage	Luminous Flux	Total Light Loss Factor	Initial Color Temperature	Comments
A	14	SOL EVERGEN	SOLAR AREA LIGHT & POLE	SOL EVERGEN	20 W		3000 lm	1	4000 K	



1 SOLAR ASSEMBLY - 250 SERIES

1 IRRIGATION CONTROLLER
1/2" = 1'-0"



2 POLE DETAIL - FLUSH
N.T.S.

3 SOLAR PARKING LIGHT FIXTURE
N.T.S.

INNOVATIVE ENGINEERING SERVICES, LLC
2787 Stage Center Drive, Suite 101
Bartlett, Tennessee 38134
www.innovativees-llc.com 901.379.0500

BARGE DESIGN SOLUTIONS
60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

RYAN J. HERTER REGISTERED ENGINEER 29 AGRICULTURE COMMERCE No. 106919 STATE OF TENNESSEE
4/1/2021

ELECTRICAL - LEGEND, GENERAL NOTES, SCHEDULES, & DETAILS

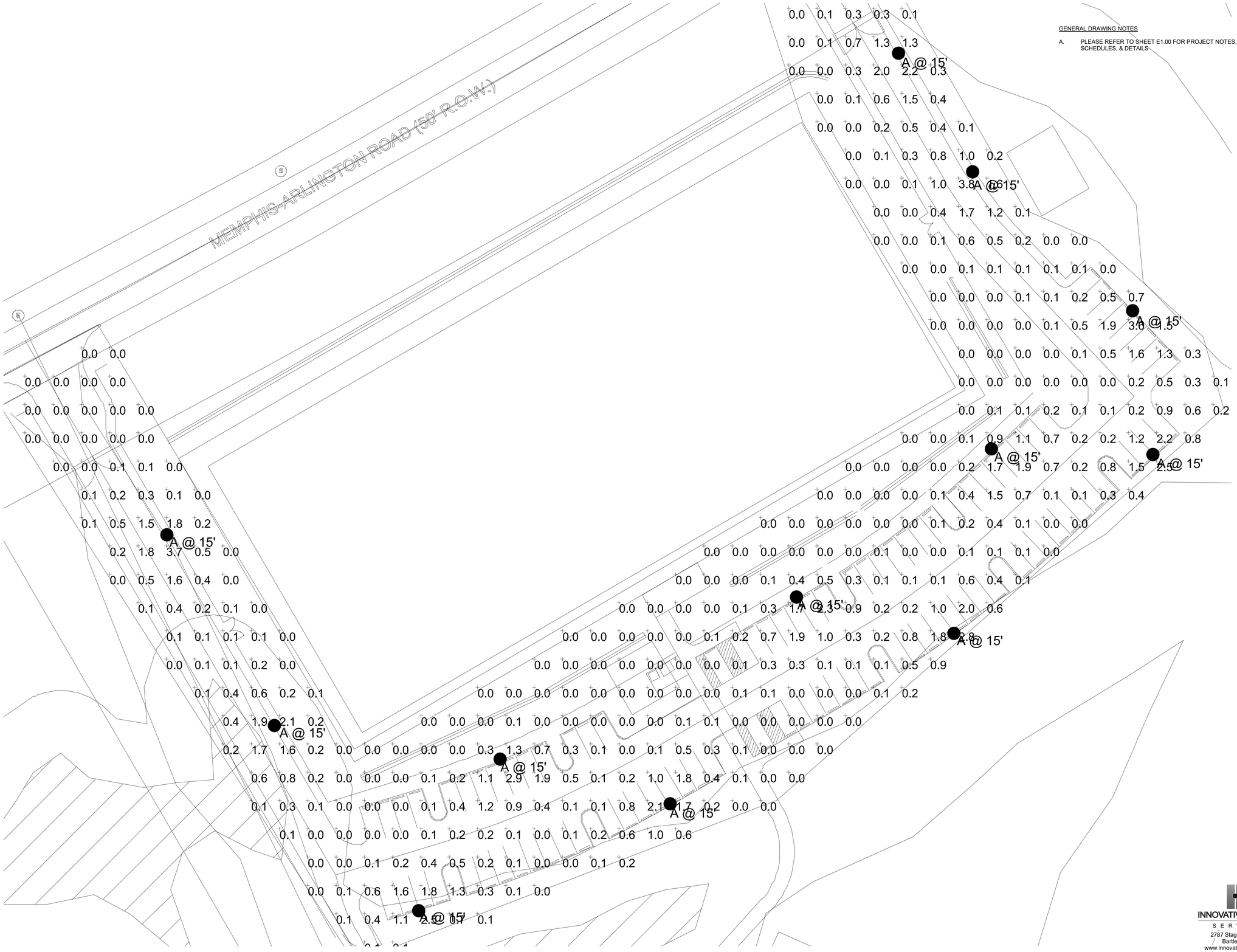
LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR	CHK	DATE	REVISION INFORMATION DESCRIPTION
	RJH	RJH	04-21-21	ISSUE FOR BID

E1.00

FILE NO. 3695300



1 ELECTRICAL - PHOTOMETRICS PLAN
1" = 30'-0"

GENERAL DRAWING NOTES

A. PLEASE REFER TO SHEET E1.00 FOR PROJECT NOTES, LEGEND, SCHEDULES, & DETAILS

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RYAN J. HERTER — REGISTERED ENGINEER — AGRICULTURE & COMMERCE — No. 106918 — STATE OF TENNESSEE
4/1/21

ELECTRICAL - PHOTOMETRICS PLAN

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

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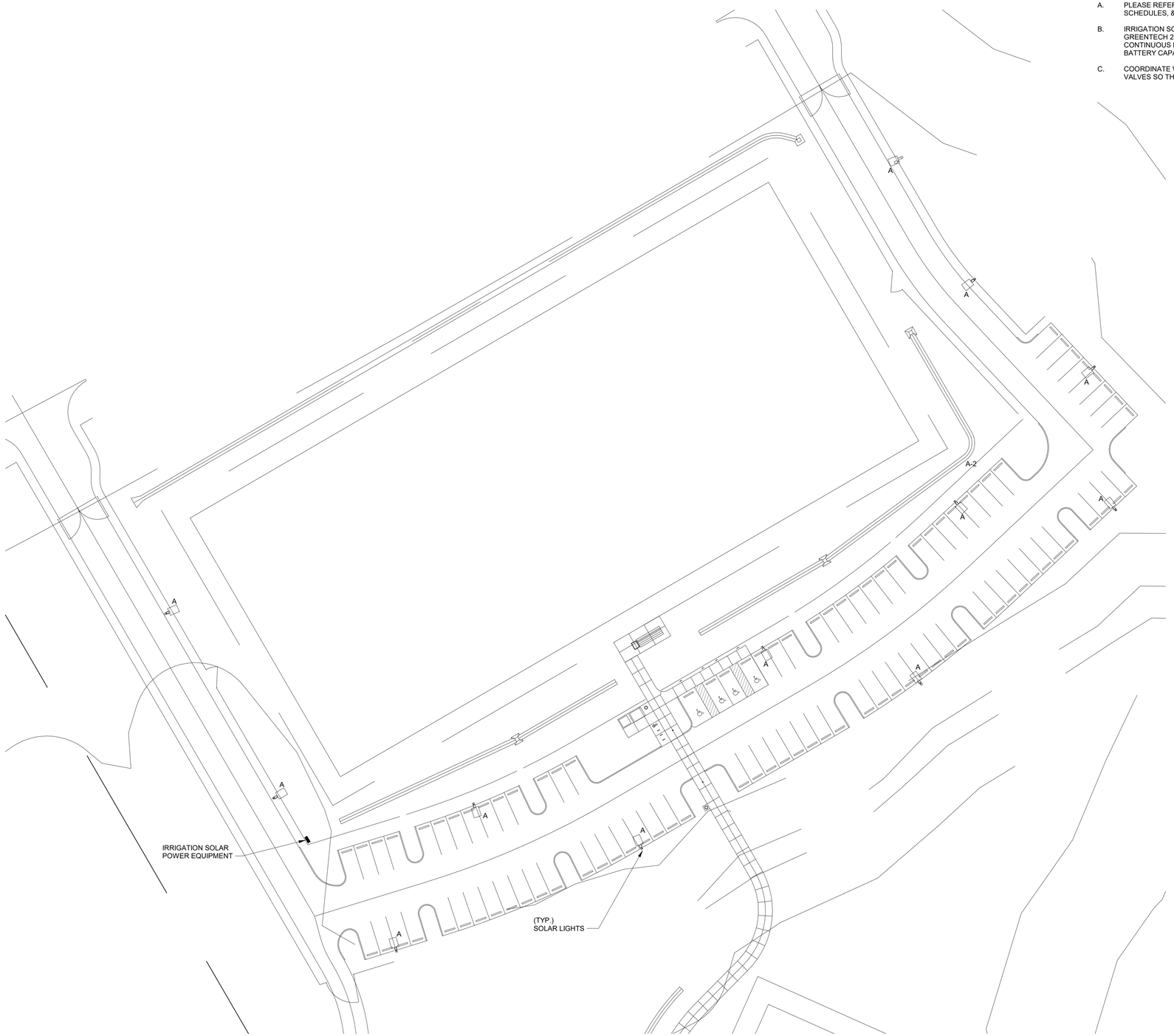
GENERAL DRAWING NOTES

A. PLEASE REFER TO SHEET E1.00 FOR PROJECT NOTES, LEGEND, SCHEDULES, & DETAILS

B. IRRIGATION SOLAR ASSEMBLY SHALL BE EQUAL TO SITE ON GREENTECH 250 SOLAR SERIES STRONGBOX: SB-18SS WITH 8W CONTINUOUS POWER, 27 HOURS OF RESERVE POWER, & 36AH OF BATTERY CAPACITY.

C. COORDINATE WITH SPRINKLER CONTRACTOR TO PROVIDE LATCHING VALVES SO THAT THEY DO NOT NEED CONSTANT POWER.



1 ELECTRICAL - SITE PLAN
1" = 30'-0"

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60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

RYAN J. HERTER
REGISTERED ENGINEER
AGRICULTURE & COMMERCE
No. 106919
STATE OF TENNESSEE
4/21/21

ELECTRICAL - SITE PLAN

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

REV.	DR.	CHK.	DATE	DESCRIPTION
	RJH	RJH	04-21-21	ISSUE FOR BID

REVISION INFORMATION

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E1.02

FILE NO. 3695300

GENERAL PROJECT NOTES

1. CONTRACTOR SHALL COORDINATE ALL PLUMBING SYSTEMS WITH ALL OTHER TRADES, SO NOT TO CAUSE INTERFERENCES.
2. CONTRACTOR SHALL FIELD VERIFY ALL SITE UTILITY CONNECTIONS OR SIZE,LOCATION, AND DEPTH AND INSTALL ALL SYSTEMS IN ACCORDANCE WITH CONDITIONS FOUND (PRIOR TO BEGINNING INSTALLATION). ANY PART OF PLUMBING SYSTEMS INSTALLED INCORRECTLY DUE TO NOT VERIFYING SAME SHALL BE REMOVED AND CORRECTED AT THE EXPENSE OF THE CONTRACTOR.
3. CONTRACTOR SHALL GUARANTEE ENTIRE SYSTEM FOR A PERIOD OF ONE YEAR AFTER FINAL DATE OF ACCEPTANCE.
4. PROVIDE RATED SEALANT FOR ALL PENETRATIONS THROUGH WALLS, CEILINGS AND ROOFS. PROVIDE FIRE STOP SEALANT AROUND ALL PENETRATIONS THROUGH FIRE RATED WALLS, SO AS TO MAINTAIN FIRE INTEGRITY IN THE EVENTOF A FIRE.
5. CONTRACTOR SHALL INSTALL ALL PLUMBING SYSTEMS IN A GOOD WORKMANSHIP MANNER. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALLAPPLICABLE CODES AND AUTHORITIES.
6. CONTRACTOR SHALL REVIEW ENTIRE SET OF DOCUMENTS INCLUDING PLUMBING PLANS AND ADVISE ARCHITECT IN WRITING PRIOR TO BEGINNING CONSTRUCTION IF THERE ARE ANY CODE VIOLATIONS, SPACE CONFLICTS AND/OR OTHER COORDINATION CONFLICTS WITH OTHER TRADES. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL A COMPLETE PLUMBING SYSTEM IN ACCORDANCE WITH CODES, ETC.
7. SEE ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS, DETAILS, ELEVATIONS, AND EXACT LOCATIONS OF ALL FIXTURES.
8. THESE DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL PLUMBING LAYOUTS AND PIPE ROUTING ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PREPARE DETAILED SHOP DRAWINGS WHERE SPACE AND/OR COORDINATION ISSUES ARISE AND TO CONFIRM ALL SPACE ALLOCATIONS.
9. CONTRACTOR SHALL PROVIDE TAMPER-PROOF, LOCKABLE ACCESS PANELS FOR ALL CONCEALED VALVES, WATER HAMMER ARRESTORS, ETC.
10. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL CHARACTERISTICS OF ELECTRICAL OPERATED EQUIPMENT WITH ELECTRICAL CONTRACTOR PRIOR TOORDERING SAME. THIS APPLIES TO VOLTAGE, PHASE, RATED CAPACITIES, ETC.
11. CONTRACTOR SHALL OFFSET ALL PIPING IN BUILDING AS REQUIRED TO PROPERLY INSTALL PLUMBING SYSTEMS.
12. CONTRACTOR SHALL PROVIDE SHUTOFF VALVES ON ALL BRANCH RUNOUTS TO FIXTURES. NO EXCEPTIONS!
13. AT COMPLETION OF PROJECT, THE CONTRACTOR SHALL REMOVE ALL AERATORS, FILTERS, ETC. AND FLUSH SYSTEM OUT THOROUGHLY.
14. CONTRACTOR SHALL VERIFY ALL CONNECTIONS OF MISC. EQUIPMENT FURNISHED BY OTHERS PRIOR TO INSTALLING THE SAME AND MAKE ALL CONNECTIONS FOR THE SAME.
15. SLEEVES SHALL BE INSTALLED WHERE PIPING PASSES THROUGH STRUCTURE. ALL HOLES THROUGH CONCRETE SHALL BE CORE-DRILLED. VERIFY LOCATION WITH ARCHITECT BEFORE COMMENCING WORK.
16. ALL PIPING SHALL BE TESTED AND PROVEN TIGHT BEFORE PIPE IS CONCEALED.
17. ALL SANITARY PIPING SHALL BE INSTALLED WITH A MINIMUM SLOPE OF 1/8" PER FOOT, UNLESS NOTED OTHERWISE ON THE PLANS.
18. PRIOR TO SUBMITTING BID, VISIT THE SITE OF THE PROPOSED CONSTRUCTION AND THOROUGHLY INVESTIGATE EXISTING UTILITIES, WORKING CONDITIONS TO BE ENCOUNTERED ETC. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR CONDITIONS INCREASING COST WHICH WERE NOT KNOWN WHEN SUBMITTING PROPOSAL IF THE CONDITION WAS OBVIOUS AND COULD HAVE BEEN DISCOVERED DURING A SITE VISIT.
19. DISCONNECT AND DISMANTLE EXISTING PLUMBING SYSTEMS AND EQUIPMENT TO BE DEMOLISHED AND LEAVE DEBRIS AND DISCONNECTED EQUIPMENT ON THE FLOOR FOR REMOVAL UNDER SECTION 02070 - SELECTIVE DEMOLITION.
20. REMOVE EXISTING PLUMBING STACKS, MAINS AND BRANCHES WHEN SERVING FIXTURES TO BE DEMOLISHED. REMOVE PIPING BACK TO WITHIN 24" OF THE ACTIVE MAIN AND PROVIDE CAP OR PLUG TO SUIT SYSTEM. OBTAIN EXISTING RECORD DRAWINGS FROM THE OWNER. MAINTAIN EXISTING PLUMBING RISERS AND STACKS SERVING FIXTURES TO REMAIN.
21. AFTER WALLS AND CEILINGS ARE REMOVED AND PIPING IS EXPOSED, VERIFY PIPING SERVES ONLY PLUMBING FIXTURES & EQUIPMENT INDICATED FOR DEMOLITION BEFORE SHUTDOWN FOR DISCONNECTION. IDENTIFY EXISTING PIPING WHICH SERVES FIXTURES & EQUIPMENT TO REMAIN. PROMPTLY NOTIFY ARCHITECT OF ACTIVE PIPING TO BE MAINTAINED WHEN LOCATED IN PARTITIONS TO BE DEMOLISHED.
22. REMOVE EXISTING STACKS AND RISERS LOCATED IN EXISTING PARTITIONS TO BE DEMOLISHED AND PROVIDE NEW OFFSET AT CEILING AND DROP THROUGH THE FLOOR AND RECONNECT TO THE EXISTING SERVICES AT THE FLOOR BELOW.

MISC. CODE NOTES

1. PERMITS SHALL BE APPLIED FOR BY LICENSED CONTRACTOR.
2. ANY CONTRACTOR WHO DESIRES TO INSTALL, ENLARGE, ALTER, REPAIR, MOVE OR REPLACE A PLUMBING SYSTEM, WHICH IS TO REGULATED BY THE CODE SHALL FIRST MAKE APPLICATION AND OBTAIN THE REQUIRED PERMIT FOR THE WORK.
3. PLUMBING PLANS & INSTALLATION SUBJECT TO PLUMBING INSPECTOR'S COMMENTS & FIELD APPROVAL.
4. FLOOR DRAINS LOCATED IN SUCH AREAS WHERE TRAPS WILL NOT BE REPLENISHED SHALL HAVE EITHER A MINIMUM 12" DEEP SEAL TRAP, TRAP PRIMER, OR BE ON AN INDIRECT SYSTEM.
5. ALL OF PLUMBING SYSTEM SHALL BE INSTALLED IN STRICT ACCORDANCE WITH CURRENT COUNTY PLUMBING CODE AND LOCAL ADMENDMENTS, PLUMBING INSPECTORS & PLANS EXAMINERS REVIEW.
6. PLUMBING CONTRACTOR SHALL PROVIDE INDIRECT WASTE OPENING TO WITHIN 2 FEET OF ALL COOLING COILS & EVAPORATORS FOR CONDENSATE. ROUTE TO HOUSE SIDE OF ACTIVE TRAP & CONNECT TO SAME. VERIFY LOCATIONS IN FIELD WITH HVAC CONTRACTOR PRIOR TO BEGINNING INSTALLATION OF SYSTEMS.
7. WATER SUPPLY & SEWER SHALL BE PERMITTED & INSPECTED THROUGH PLUMBING DEPARTMENT.

CODE ANALYSIS - INTERNATIONAL BUILDING CODE 2015

CODE COMMENTS
JURISDICTION
Memphis and Shelby County Construction Code Enforcement
APPLICABLE CODES
2015 International Building Code with Local Amendments
2015 International Existing Building Code with Local Amendments
2015 International Residential Code with Local Amendments
2014 National Electrical Code
2018 Joint Electrical Code
2015 International Mechanical Code with Local Amendments
2015 International Fuel Gas Code with Local Amendments
2015 International Plumbing Code with Local Amendments
2015 International Energy Conservation Code with Local Amendments
2009 ICC A117.1 Accessibility and Useable Buildings and Facilities)by reference)
2013 ASME 17.1 Safety Code for Elevators and Escalators (by reference)

PIPING LEGEND

SYMBOL	DESCRIPTION
	WATER
	COLD WATER PIPING
	DRAINAGE
	SANITARY OR WASTE PIPING
	VALVES
BFP	REDUCED PRESSURE BACKFLOW PREVENTER
	STRAINER
	PIPING
	DROP (OR RISE)

SYMBOLS LEGEND

WC-1
PLUMBING FIXTURE DESIGNATION

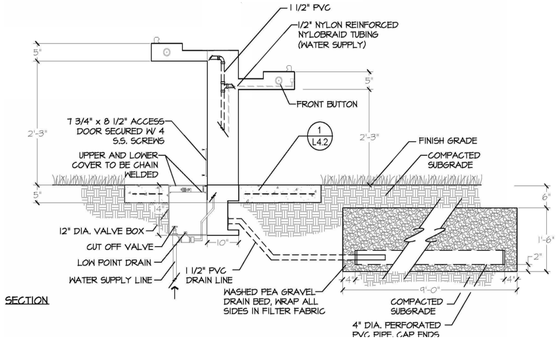
X/PXXX
ELEVATION DETAIL DESIGNATION

X / XX
REVISION DESIGNATION

X / PXXX — DRAWING NUMBER / SHEET NUMBER
DETAIL DESIGNATION

A1.2
COLUMN LINE DESIGNATION

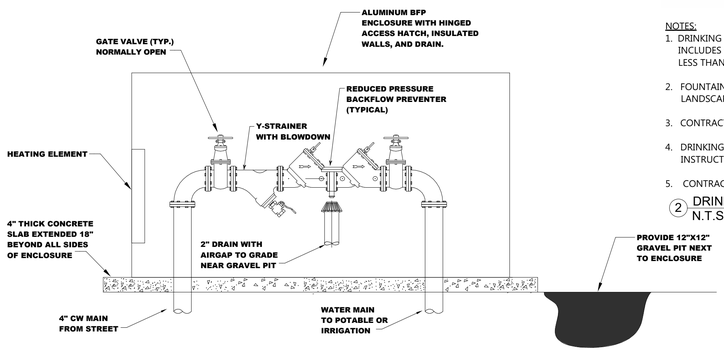
POINT OF CONNECTION/REMOVAL



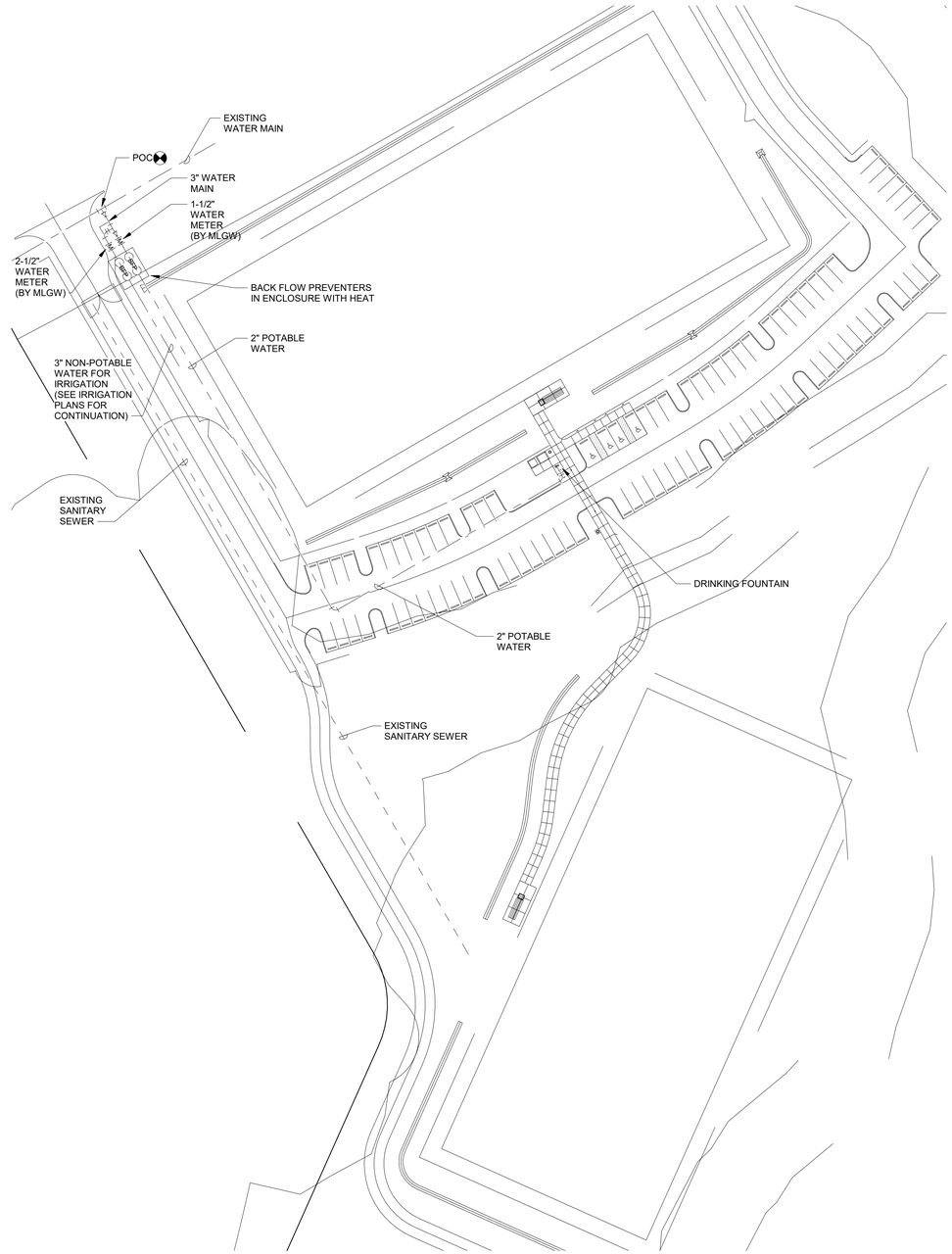
SECTION

NOTES:
1. DRINKING FOUNTAIN TO BE BY MDF FOUNTAINS OR APPROVED EQUAL, COLOR TO BE GREEN. BASE BID INCLUDES AN ADA, HI/LO MODEL; 440 SM FRONT APPROACH. ALL PUSH BUTTONG ON FRONT AND REQUIRE LESS THAN 5 LBS. OF PRESSURE TO OPERATE.
2. FOUNTAIN TO INCLUDE HOSE BIB WITH LOCKING COVER ON CENTER POST. SUBMIT SHOP DRAWING TO LANDSCAPE ARCHITECT AND ENGINEER OF RECORD PRIOR TO ORDERING UNIT.
3. CONTRACTOR SHLL PROVIDE ALL PLUMBING REQUIRED.
4. DRINKING FOUNTAIN SHALL MEET ADA GUIDELINES. INSTALLATION SHALL BE IN ACORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
5. CONTRACTOR SHALL VERIFY FOUNTAIN LOCATIONS FOR APPROVAL OF LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

(2) DRINKING FOUNTAIN DETAIL
N.T.S.



(3) BACKFLOW PREVENTER ENCLOSURE
1/16" = 1'-0"



(1) PLUMBING - SITE PLAN
1" = 50'-0"

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60 GERMANTOWN COURT // SUITE 100 // MEMPHIS // TENNESSEE // 38018

TENNESSEE LICENSED PROFESSIONAL ENGINEER
JOSEPH E. WILLIAMS
NO. 110205
STATE OF TENNESSEE
4/21/21

PLUMBING
SITE PLAN, LEGEND, GENERAL NOTES & DETAILS

LAKELAND ATHLETIC COMPLEX PHASE 1

MEMPHIS-ARLINGTON ROAD
LAKELAND, TENNESSEE

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