SCALE UNITS IN FEET

ENGINEERING & CONSTRUCTION PLANS

INDOOR, OUTDOOR DOG PARK & BAR

489 OLD LANTANA ROAD CROSSVILLE, CUMBERLAND COUNTY, TENNESSEE

PROJECT SITE

TOTAL PROPERTY - 1.06± ACRES TOTAL DISTURBANCE AREA - 0.98± ACRES LAT: N 35.933516° LONG: W-85.0382679 COUNTY: CUMBERLAND, MAP 113J, GROUP C, PARCEL 015.00 489 OLD LANTANA ROAD CROSSVILLE, TENNESSEE 38555

PROJECT LOCATION MAP

ECE SERVICES PROJECT # 23526

INDEX OF DRAWING SHEETS

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SCOPE:

LOT CLEARING AND GRUBBING FOR PROPOSED BUILDING, PARKING AND PERIMETER FENCE FOR DOG PARK

FOR: **DONALD CRAIN**

9026 TAYLORS CHAPEL ROAD CROSSVILLE, CUMBERLAND COUNTY, **TENNESSEE**

ENVIRONMENTAL & CIVIL ENGINEERING SERVICES

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SHEET REFERENCE NUMBER:

G-001

SHEET 1 OF 14

ENGINEERING ♦ GEOTECHNICAL ♦ ENVIRONMENTAL

ENGINEERING PLANS

- 1. ALL CONSTRUCTION SHALL COMPLY WITH ALL OF THE APPLICABLE REQUIREMENTS OF THE FOLLOWING DRAWINGS, SPECIFICATIONS, AND STANDARDS:
 - A. PROJECT PLANS AND SPECIFICATIONS
 - B. STATE OF TENNESSEE, DEPARTMENT OF ENVIRONMENT AND CONSERVATION, DIVISION OF GROUND WATER PROTECTION CHAPTER 1200-1-6 REGULATIONS TO GOVERN SUBSURFACE SEWAGE DISPOSAL SYSTEMS AND OTHER CRITERIA PUBLISHED BY DEPARTMENT.
 - C. STATE OF TENNESSEE OF ENVIRONMENT AND CONSERVATION, DIVISION OF WATER POLLUTION CONTROL CHAPTER 1200-4-2 REGULATIONS FOR PLANS, SUBMITTAL, AND APPROVAL; CONTROL OF CONSTRUCTION; CONTROL OF OPERATION (RULES AND REGULATIONS) AND OTHER CRITERIA PUBLISHED BY DEPARTMENT.
 - D. STATE OF TENNESSEE, DEPARTMENT OF ENVIRONMENT AND CONSERVATION, DIVISION OF WATER SUPPLY CHAPTER 1200-5-1 PUBLIC WATER SYSTEMS (RULES AND REGULATIONS) AND OTHER CRITERIA PUBLISHED BY DEPARTMENT
 - E. STATE OF TENNESSEE, DEPARTMENT OF ENVIRONMENT AND CONSERVATION, DIVISION OF WATER POLLUTION CONTROL CHAPTER 1200-5-5 SEWAGE DISPOSAL FOR PROPOSED SUBDIVISIONS (RULES AND REGULATIONS) AND OTHER CRITERIA PUBLISHED BY DEPARTMENT.
 - F. INTERNATIONAL BUILDING CODE 2000
 - I. ACI 304, AMERICAN CONCRETE INSTITUTE GUIDE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE.
 - J. ACI 318, AMERICAN CONCRETE INSTITUTE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.
 - K. ACI 360R, AMERICAN CONCRETE INSTITUTE GUIDE TO DESIGN OF SLABS-ON-GROUND.
 - L. STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION 2006 EDITION
 - M. NATIONAL ELECTRIC CODE, LATEST EDITION

SITE PREPARATION

- 1. ALL SURFACE PAVEMENTS, VEGETATION, TOPSOIL AND OTHER ORGANIC MATERIAL OR MISCELLANEOUS FILL AND DEBRIS SHOULD BE REMOVED FROM THE CONSTRUCTION AREAS PRIOR TO THE BUILDING OR PLACING OF FILLS. ANY FORMER BUILDINGS, FOUNDATIONS, SEPTIC TANKS, SURFACE DISPOSAL FIELDS AND UNDERGROUND UTILITIES WITHIN THE PROPOSED PROJECT AREA SHOULD BE REMOVED.
- 2. PROPER SITE PREPARATION CAN MITIGATE SOME RISK OF EXCESSIVE OR NON-UNIFORM SETTLEMENT. THE RISK CAN BE ELIMINATED ONLY BY REMOVAL AND REPLACEMENT, OR REMOVAL AND RECOMPACTION OF ANY MATERIAL NOT SUITABLE FOR STRUCTURAL LOADING. ANY UNDOCUMENTED FILLS ENCOUNTERED CREATE RISK BY VARYING ZONES OF FILL MATERIAL OR COMPACTION WITH SOFT, LOOSE, OR UNCOMPACTED MATERIAL, LIKELY. ALL TOPSOIL, ENCOUNTER ORGANIC SOIL, OR ORGANIC DEBRIS MUST BE OVER EXCAVATED AND REMOVED.
- 3. AFTER THE COMPLETION OF THE STRIPPING OPERATIONS AND PREPARATION OF ANY PROPOSED FILL AREA AND THE REMOVAL OF ANY CUT AREAS, THE EXPOSED SUBGRADE AREAS SHOULD BE PROOF ROLLED. PROOF ROLLING IS BEST ACHIEVED DURING REASONABLY DRY WEATHER USING A LOADED TANDEM AXLE, RUBBER TIRE DUMP TRUCK, OR SIMILAR APPROVED VEHICLE WEIGHTING AT LEAST 20-TONS, TRAVERSING THE SITE IN TWO PERPENDICULAR DIRECTIONS UNDER THE OBSERVATION OF ECE SERVICES PERSONNEL. THE UNSUITABLE ZONES IDENTIFIED THROUGH THIS PROOF ROLL TEST SHALL BE OVER-EXCAVATED TO ENSURE COMPLETED REMOVAL OF THE UNDESIRABLE MATERIAL AND THEN BE REPLACED WITH APPROVED FILL MATERIALS AS DESCRIBED IN THIS REPORT.

SOIL AND SHOT ROCK FILL PLACEMENT

- 1. PRIOR TO ANY FILL PLACEMENT, REPRESENTATIVE SOIL SAMPLES OF THE MATERIAL TO BE REWORKED, OR OBTAINED FROM ON OR OFF-SITE BORROW AREAS SHALL HAVE SAMPLES COLLECTED AND TESTED. ECE SERVICES CAN PERFORM THE NECESSARY COLLECTION AND TESTING BUT ALLOW ONE WEEK PRIOR TO FILL PLACEMENT.
- 2. ONCE THE SUBGRADE HAS BEEN PROPERLY PREPARED, SOIL OR SHOT ROCK FILL MAY BE PLACED IN ORDER TO ATTAIN THE DESIRED FINAL GRADES. IN GENERAL, ANY NON-ORGANIC COHESIVE SOIL WITH A LIQUID LIMIT LESS THAN 45% AND A PLASTICITY INDEX LESS THAN 20 AND A MAXIMUM PARTICLE SIZE OF 4 INCHES IS SATISFACTORY FOR SOIL FILLS; AS WELL AS ANY GRANULAR SOIL WITH A MAXIMUM GRAVEL CONTENT OF 20 PERCENT.
- 3. THE SOIL FILL SHOULD BE PLACED IN LIFTS OF UNIFORM THICKNESS. THE LIFT THICKNESS SHOULD NOT EXCEED THAT WHICH CAN BE PROPERLY COMPACTED THROUGHOUT ITS ENTIRE DEPTH WITH THE EQUIPMENT AVAILABLE, USUALLY NO MORE THAN 6 INCHES. WE RECOMMEND THAT STRUCTURAL FILLS SUPPORTING FOOTINGS, FLOOR SLABS AND PAVEMENTS BE COMPACTED TO 98 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698). THE MOISTURE CONTENT OF THE FILL SOILS SHOULD BE WITHIN PLUS OR MINUS 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT. DENSITY TESTS SHALL BE PERFORMED WITH A MINIMUM OF ONE TEST PER 6 INCH LIFT PER 5,000 TO 10,000 SQUARE FEET WITH A MINIMUM OF TWO TESTS REGARDLESS OF THE SQUARE FOOTAGE.
- 4. THE FILL PLACEMENT SHOULD BE OBSERVED AND DOCUMENTED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER. FILL PADS SHOULD BE CONSTRUCTED SO THAT THE COMPACTED SURFACE EXTENDS HORIZONTALLY BEYOND THE OUTSIDE FOOTING EDGES AT LEAST 10 FEET AND BEYOND PAVEMENTS AND WALKS AT LEAST 5 FEET.
- 5. FOR PROPER AND TIMELY CONSTRUCTION OF THE FILLS, SOILS SHOULD BE PLACED AT OR NEAR THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE SPECIFIED PROCTOR TEST. THE MOISTURE CONTENT OF THE FILL SOILS SHOULD BE WITHIN PLUS OR MINUS 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT. SUITABLE EQUIPMENT FOR EITHER AERATING OR ADDING WATER TO THE FILL MATERIALS SHOULD BE AVAILABLE AS THE SOIL MOISTURE AND WEATHER CONDITIONS DICTATE
- 6. WE RECOMMEND THIS FIRM BE RETAINED TO PERFORM CONTINUOUS REVIEW OF ANY CONSTRUCTION OF THE SOILS RELATED PHASES OF THIS PROJECT. OTHERWISE, WE ASSUME NO RESPONSIBILITY FOR CONSTRUCTION COMPLIANCE WITH THE DESIGN CONCEPTS, SPECIFICATIONS, OR OUR RECOMMENDATIONS. AS A PART OF THIS REVIEW, FIELD DENSITY TESTS SHOULD BE PERFORMED AS FREQUENTLY AS NECESSARY TO ASSIST IN THE EVALUATION OF THE FILL WITH RESPECT TO THE ABOVE RECOMMENDATIONS.

STORMWATER EPSC NOTES

- 1. THE STORMWATER POLLUTION PREVENTION PLAN IS NOT INCLUDED HEREIN BUT PRESENTED AS A SEPARATE PLAN, AS REQUIRED, AND BECOMES PART OF THESE ENGINEERING AND CONSTRUCTION PLANS.
- 2. ALL PROPOSED STORMWATER PRACTICES SHOWN ON THIS PLAN ARE IN ACCORDANCE WITH AND A PART OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THIS PROJECT. REFERENCE THE SWPPP FOR ANY CLARIFICATION OR ADDITIONAL CONTROLS THAT MAY NEED TO BE ADDED TO THESE PLANS.
- 3. NO VARIATION, MODIFICATION, OR ALTERATION SHALL BE MADE FROM THIS PLAN WITHOUT THE EXPRESS APPROVAL OF THE ENGINEER.
- 4. THE FOLLOWING APPLICATIONS AND PERMIT REQUESTS HAVE BEEN SUBMITTED FOR THE PROPOSED PROJECT.
 - a. CITY OF CROSSVILLE LAND DISTURBANCE PERMIT
 - b. CITY OF CROSSVILLE MS4 STORMWATER PERMIT
- 5. ALL ADJACENT PROPERTIES, WATER FEATURES, AND RELATED NATURAL RESOURCES SHALL BE KEPT FREE OF DEPOSITS OR DISCHARGES OF SOIL, SEDIMENT, HAZARDOUS SUBSTANCES, OR CONSTRUCTION-RELATED MATERIAL AT THE CONSTRUCTION SITE.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR ANY REQUIRED EPSC INSPECTIONS AND COMPLIANCE COSTS
- 7. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A COPY OF THE EPSC INSPECTION FORMS ON A MONTHLY BASIS.
- 5. THE CONTRACTOR IS REQUIRED TO PREVENT OBJECTABLE COLORED STORMWATER WATER FROM LEAVING THE PROJECT SITE, EVEN IF NO STORMWATER PERMIT IS REQUIRED.
- EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED PER TDEC'S CONSTRUCTION GENERAL PERMIT REQUIREMENTS. THE CONTROL MEASURES SHOWN IN THE DRAWINGS ARE THE MINIMUM REQUIRED, AND ADDITIONAL MEASURES MAY BE NECESSARY AS SITE CONDITIONS DICTATE. THE CONTRACTOR SHALL PROVIDE ADDITIONAL EROSION CONTROL DEVICES AS NEEDED AT NO EXTRA COST.
- 10. EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSTALLED PRIOR TO DISTURBANCE OF EXISTING GROUND COVER. THEY MUST REMAIN IN PLACE AND FUNCTIONAL THROUGHOUT THE CONSTRUCTION PERIOD.
- 11. NATURAL VEGETATION SHOULD BE RETAINED AND PROTECTED WHERE FEASIBLE.
- 12. ALL TOPSOIL TO BE STRIPPED FROM THE AREA BEING DEVELOPED SHALL BE STOCKPILED AND IMMEDIATELY SEEDED. STOCKPILE SHALL BE SURROUNDED WITH SILT FENCE AND HAVE A SHALLOW TRENCH AROUND THE PILE TO CAPTURE RUNOFF.
- 13. ALL CUT SLOPES AND EMBANKMENTS FILL ARE TO BE IMMEDIATELY LAID BACK AND STABILIZED AS FOLLOWS:
 - a. GRADE TO THE FINISHED SLOPE.
 - b. SCARIFIED
 - c. TOPSOIL PLACEMENT WITH NOT LESS THAN FOUR INCHES OF SUITABLE TOPSOIL MATERIAL.
 - d. SEED WITH HYBRID KENTUCKY 31 AT A RATE OF 6-8 LBS /1000 SF
 - e. MULCHED AT A RATE OF 100 LBS /1000 SF AND ANCHOR PROPERLY.
- 17. ON ALL EMBANKMENT FILL SLOPES, TOPSOIL SHALL BE STRIPPED AT LEAST FIVE (5) FEET WIDER THAN REQUIRED FOR THE EMBANKMENT TOE OF THE SLOPE. A PROTECTIVE BERM OF TOPSOIL SHALL BE LEFT IN THIS AREA, RUNNING PARALLEL TO THE CONTOURS TO RESTRICT DRAINAGE RUNOFF. THE TOPSOIL BERM SHALL BE SEEDED AS REQUIRED FOR STOCKPILES.
- 18. PAVED AND GRAVEL SURFACES SHALL BE KEPT CLEAN AT ALL TIMES.
- 19. ALL STORM DRAINAGE OUTLETS SHALL BE STABILIZED, AS REQUIRED BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
- 20. APPLY TEMPORARY SEEDING WHENEVER GRADING OPERATIONS ARE TEMPORARILY HALTED FOR OVER 14 DAYS, AND FINAL GRADING OF EXPOSED SURFACES IS TO BE COMPLETED WITHIN ONE YEAR. APPLY TEMPORARY SEEDING TO STEEP SLOPES (GREATER THAN OR EQUAL TO 3:1) WHENEVER GRADING OPERATIONS ARE TEMPORARILY HALTED FOR OVER SEVEN (7) DAYS. THE FINAL GRADING OF EXPOSED SURFACES IS TO BE COMPLETED WITHIN ONE YEAR. APPLY TEMPORARY SEEDING TO SOIL STOCKPILES.
- 21. APPLY PERMANENT SEEDING WHENEVER GRADING OPERATIONS ARE COMPLETED, AND ALL CONSTRUCTION OPERATIONS WILL NOT IMPACT THE DISTURBANCE AREA. APPLY PERMANENT SEEDING TO ALL NON-CONSTRUCTION AREAS THAT SHOW SIGNS OF EXCESSIVE EROSION.
- 22. PERMANENT SEEDING SHALL BE DROUGHT-TOLERANT, HYBRID KENTUCKY 31, JAGUAR, LANCER, REBEL II, FALCON II, OR OTHER BRANDS. SEED AT A RATE OF 6-8 LBS/ 1000 SF AND USE A SLOW-RELEASE STARTER FERTILIZER WITH 1 LBS / 1000 SF NITROGEN. IF GRADING IS PERFORMED DURING THE WINTER MONTHS, THE SEED MIXTURE SHALL BE SUPPLEMENTED WITH WINTER RYE OR OTHER APPROPRIATE VARIETY TO ASSURE STABILIZATION DURING THE WINTER SEASON.
- 23. MULCH WITH STRAW AT A RATE OF 100 LBS / 1000 SF OVER THE SEEDED AREA AND ANCHORED IN A SUITABLE MANNER.
- 24. SUPPOSE THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION EXIT IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD. IN THAT CASE, THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
- 25. ALL MATERIAL SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
- **26.** THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF SITE CONSTRUCTION POLLUTION PREVENTION PRACTICES THROUGHOUT THE LIFE OF THE PROJECT.
- 27. UPON COMPLETE STABILIZATION OF THE SITE, SILT FENCES AND OTHER TEMPORARY SILT BARRIERS SHALL BE REMOVED OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES
- 28. THE CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA, THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, CONCRETE TRUCK WASHOUT AREA, OFFICE TRAILERS, AND TOILET FACILITIES.
- 29. CURRENT VERSIONS OF THE STORMWATER POLLUTION PREVENTION PLAN, THE NOTICE OF INTENT, AND THE NOTICE OF COVERAGE SHALL BE KEPT ON-SITE FOR THE DURATION OF THE PROJECT.
- **30.** ALL UNDISTURBED AREAS, INCLUDING ARCHAEOLOGICAL SITES AND STREAM BUFFERS, SHALL BE FIELD MARKED AND KEPT FREE OF CONSTRUCTION EQUIPMENT.
- 31. PROPOSED STORMWATER CONTROL DITCHES, PONDS, DETENTION BASINS, AND OTHER STRUCTURES SHALL BE CLEANED OUT OF ANY SILTATION UPON COMPLETION OF GRADING OPERATIONS AND THE ESTABLISHMENT OF PERMANENT VEGETATION AND EROSION CONTROLS.
- 32. THE CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN SITE STABILIZATION HAS BEEN ACHIEVED, SO A TDEC NOTICE OF TERMINATION CAN BE SUBMITTED, IF APPLICABLE.
- **33.** ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED UPON THE STABILIZATION, COMPLETION OF THE PROJECT, AND RECEIPT OF A TDEC NOTICE OF TERMINATION.

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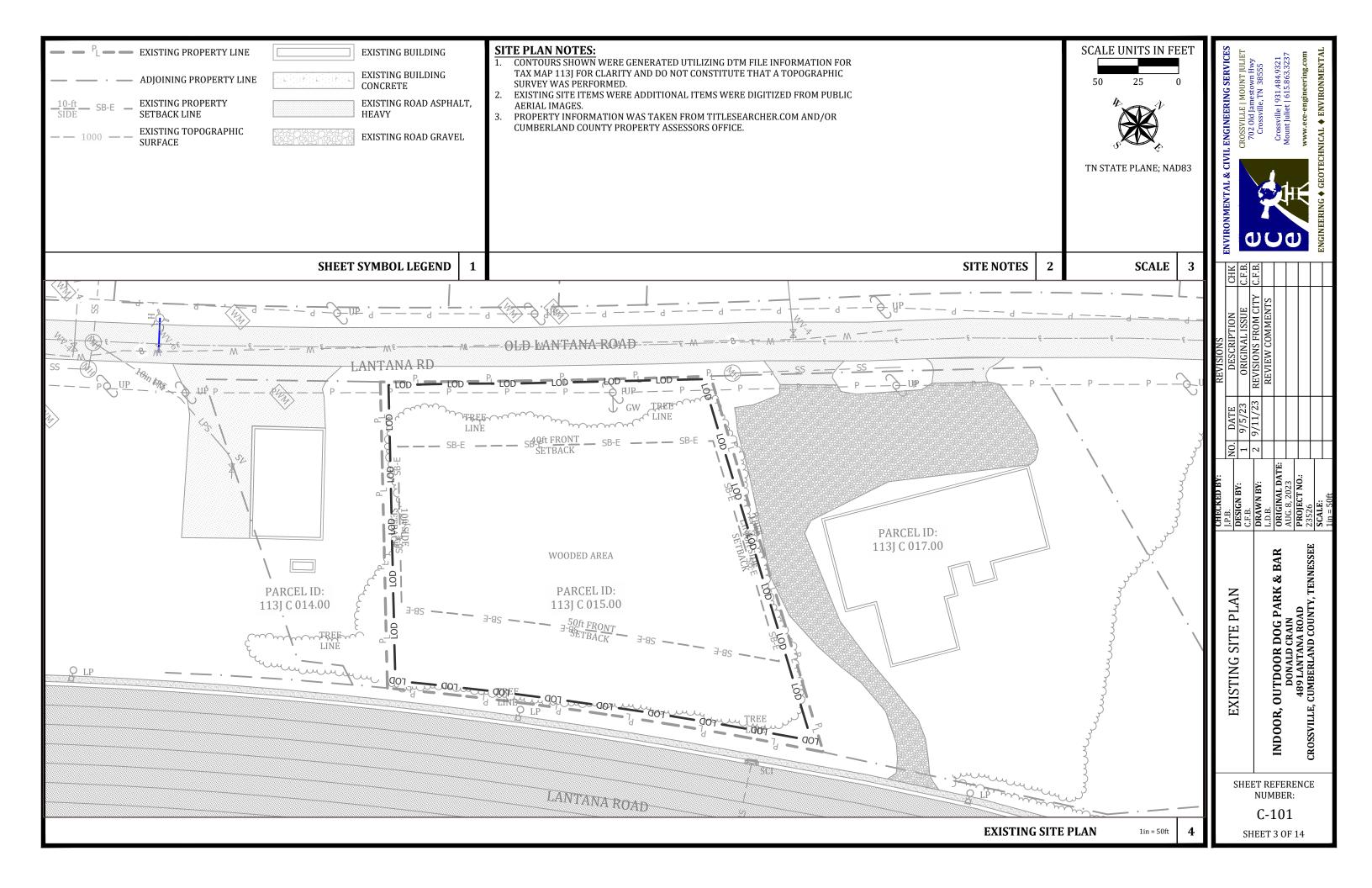
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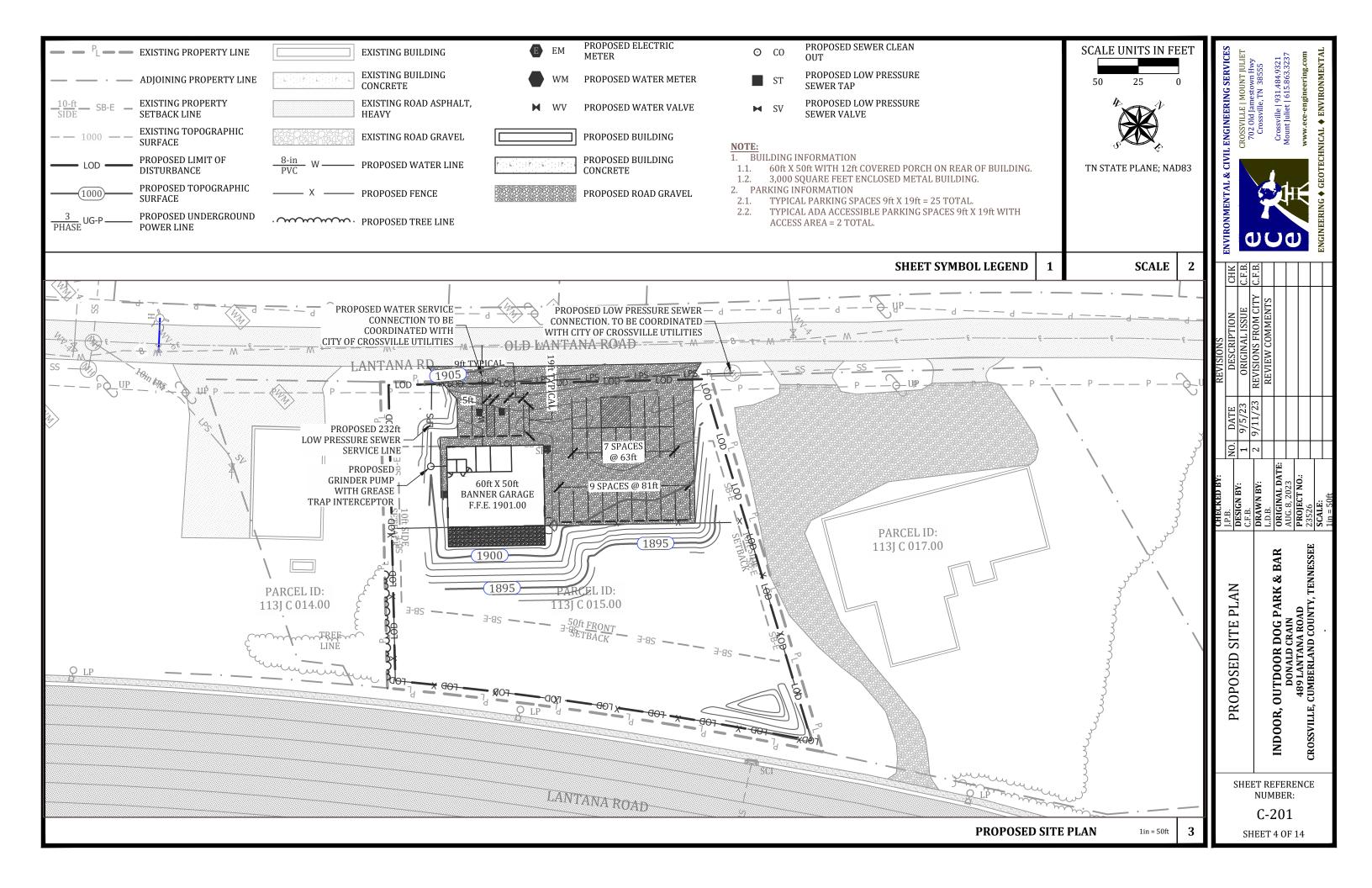
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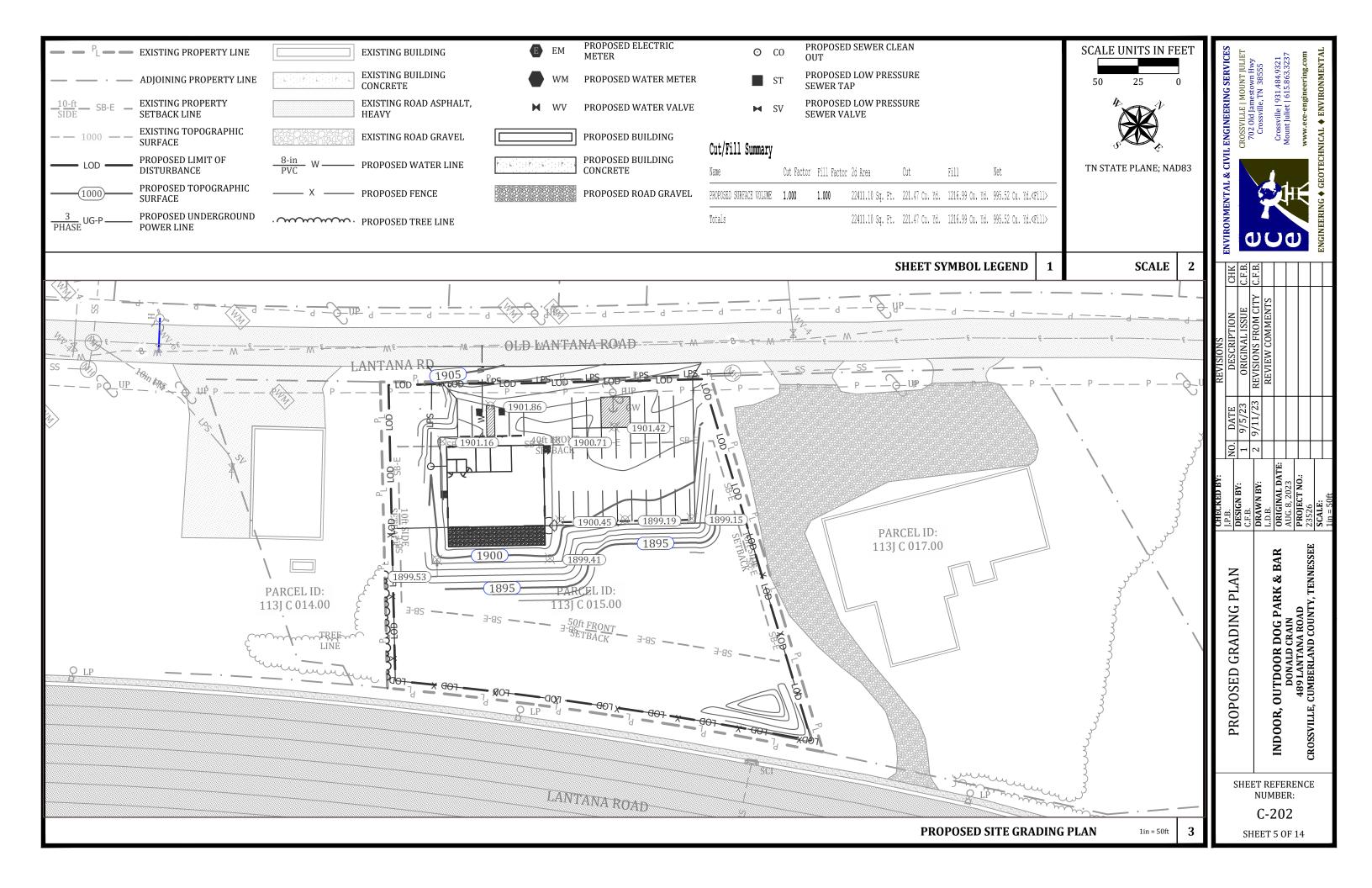
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S	GENERAL NOTES	J.P.B.	.NO.	DATE	DESCRIPTION	CHK
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		DRAWN BY:	. 2	9/11/23	9/11/23 REVISIONS FROM CITY C.F.B.	C.F.B.
RE UM		L.D.B.			REVIEW COMMENTS	
FE IBE	INDOOR, OUTDOOR DOG PARK & BAR	ORIGINAL DATE:				
	DONALD CRAIN	AUG. 8, 2023				
EN	489 LANTANA ROAD	PROJECT NO.:				
CI	CDOCCULL CLIMBEDIAND COLINTA TENINESCEE	23526				
Е	CRUSSVILLE, COMBERLAIND COUNTY, LEINNESSEE	SCALE				
		1 in - 50ft				

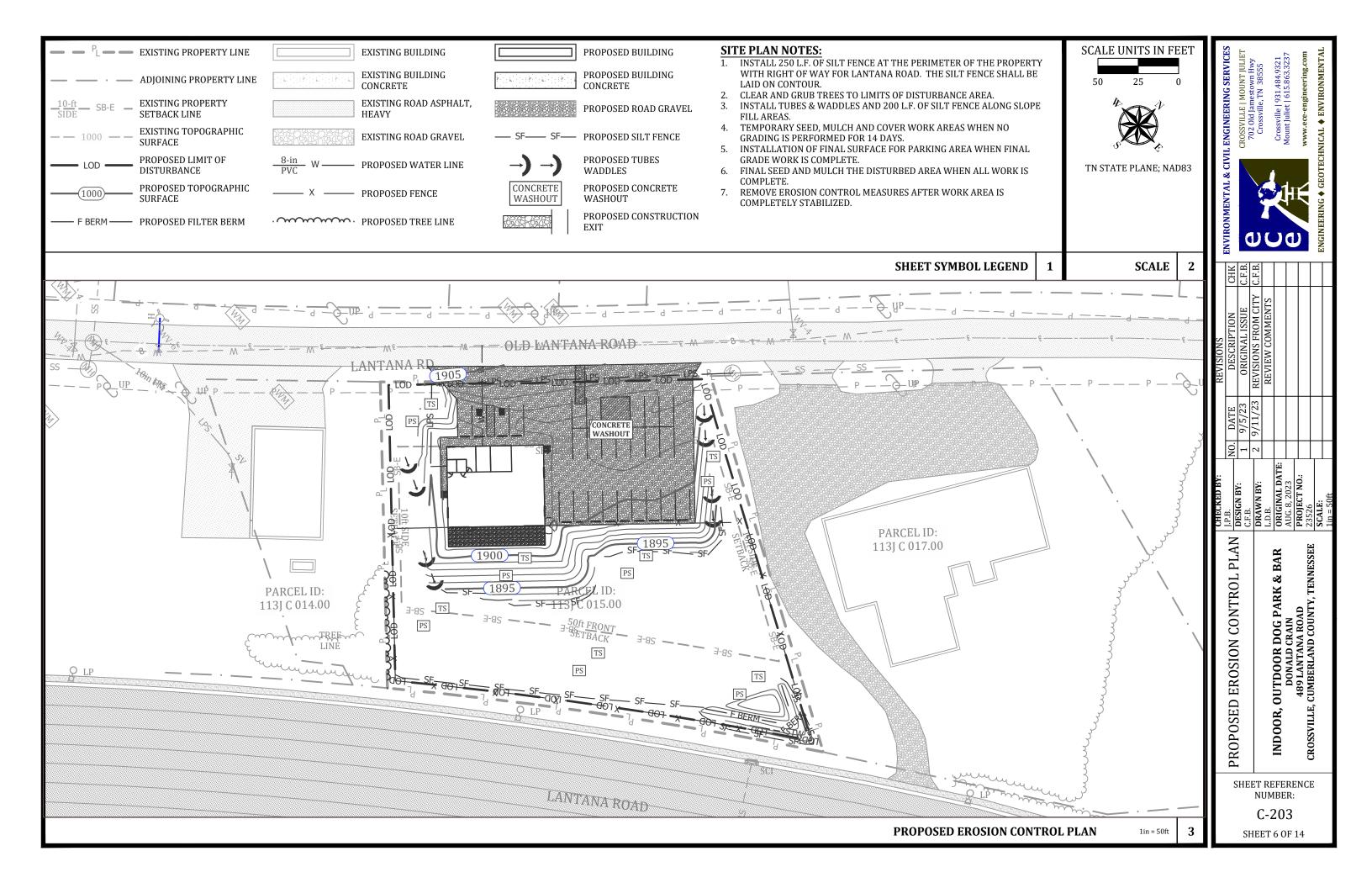
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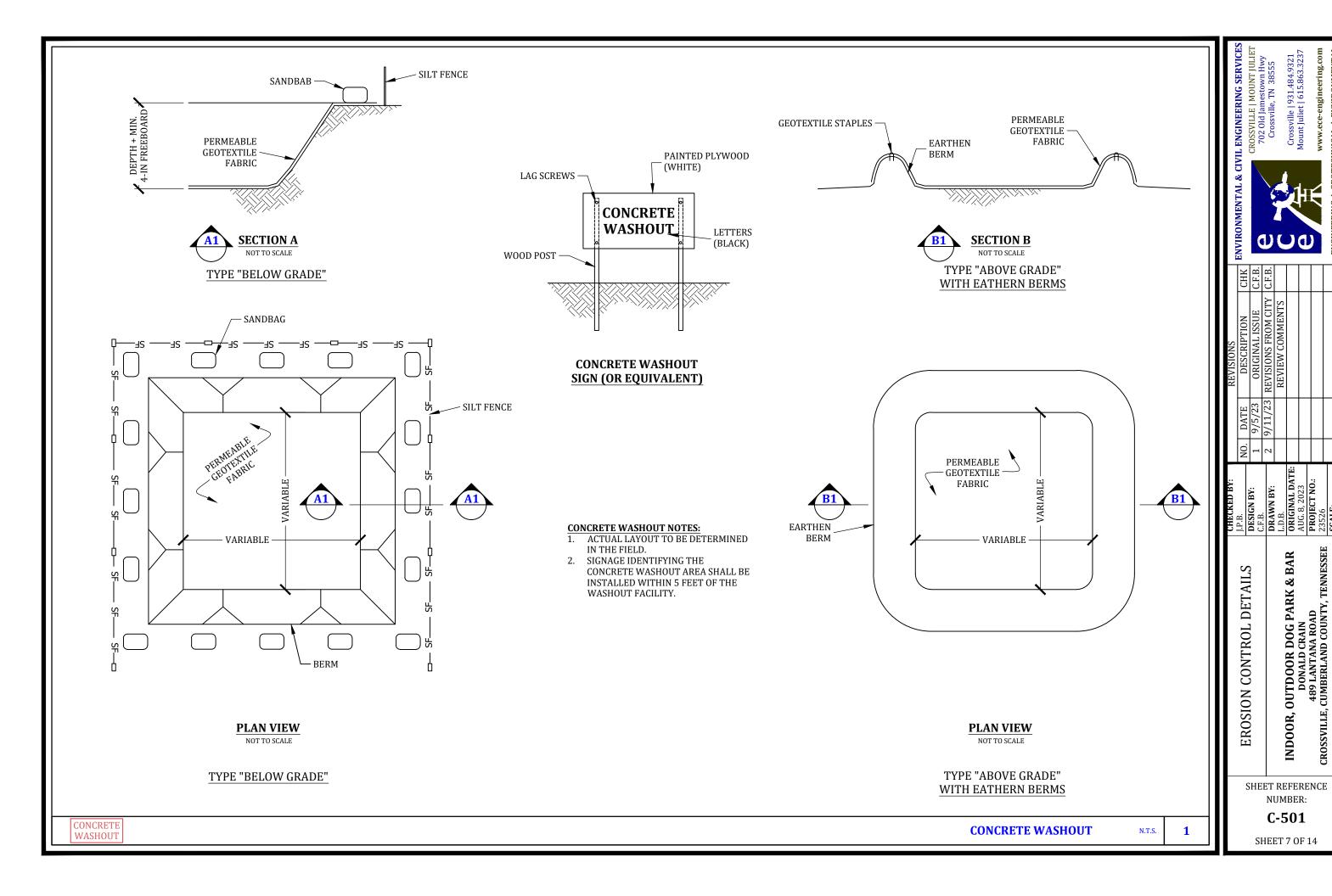
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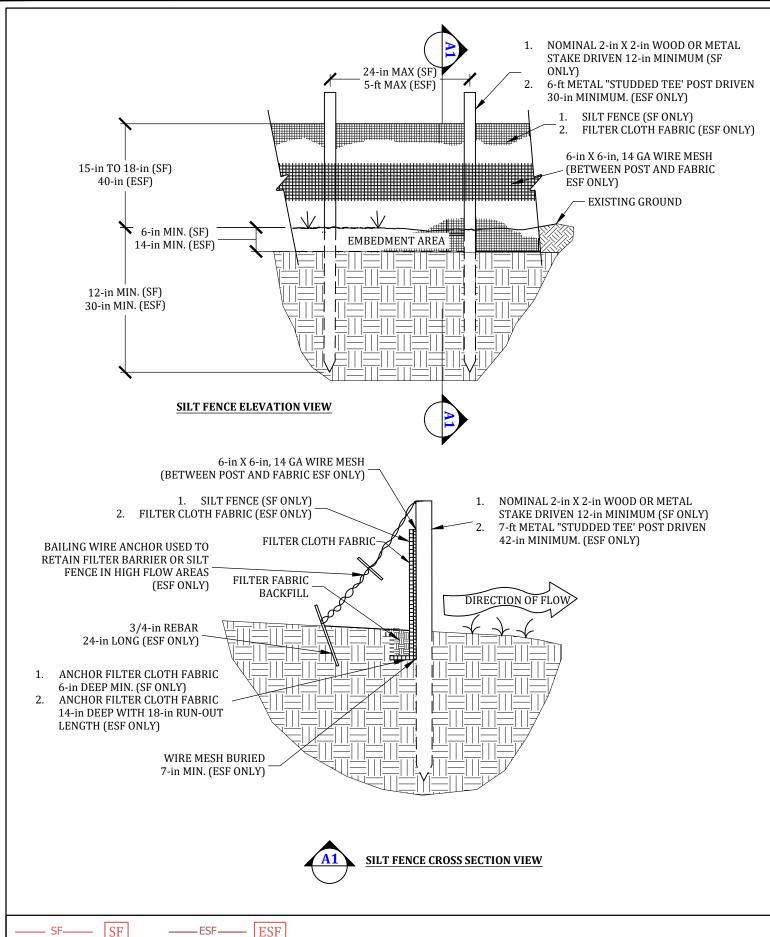












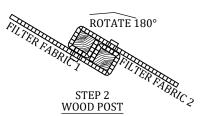
WOOD POST CONNECTION

STAPLE (6-in SPACING -VERTICALLY) FILTER FABRIC 2



STAPLE (6-in SPACING VERTICALLY)

STEP 1

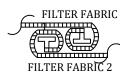


- 1. ROTATE BOTH POSTS WITH FABRIC CLOCKWISE AT LEAST 180°.
- 2. EMBED BOTH POST INTO GROUND PER APPLICABLE FILTER FENCE SPECIFICATIONS.

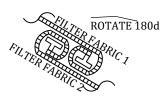
METAL POST CONNECTION

SUPPORT POST FILTER (PRIOR TO EMBEDMENT) FABRIC 1 FILTER FABRIC 2 E.O. FENCE 1 FE.O. FENCE 2

- 1. WRAP FABRICAROUND END SUPPORTS AS SHOWN AND ANCHOR FABRIC TO POSTS.
- 2. POSITION POSTS/FABRIC AS SHOWN ABOVE. STEP 1



1. POSITION THE FILTER FABRIC 2 POST INSIDE OF THE FILTER FABRIC 1 POST AS SHOWN ABOVE. STEP 2



- 1. ROTATE BOTH POST WITH FABRIC CLOCKWISE AT LEAST 180°.
- 2. EMBED BOTH POST INTO GROUND PER APPLICABLE FILTER FENCE SPECIFICATIONS.

STEP 3

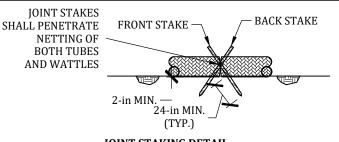
SILT FENCE NOTES:

- ARE SEDIMENT CONTROL STRUCTURES COMPOSED OF STANDARD WEIGHT SYNTHETIC FILTER-FABRIC STAPLED TO WOODEN STAKES OR METAL T-POST. SILT FENCE SHALL HAVE AN EXPECTED USABLE LIFE OF 3 MONTHS. THEY ARE APPLICABLE IN DITCH LINES, AROUND DROP INLETS, AND AT TEMPORARY LOCATIONS WHERE CONTINUOUS CONSTRUCTION CHANGES THE EARTH CONTOUR AND RUNOFF CHARACTERISTICS AND WHERE LOW OR MODERATE FLOWS (NOT EXCEEDING 1 cfs) ARE EXPECTED.
- THE HEIGHT OF A SILT FENCE SHALL BE A MINIMUM OF 15-INCHES AND SHALL NOT EXCEED 18-INCHES.
- STANDARD STRENGTH SYNTHETIC FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL AND CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS (AND THUS IMPROVE THE STRENGTH AND EFFICIENCY OF THE BARRIER).
- WOOD STAKES SHALL BE SPACED A MAXIMUM OF 5 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 12-INCHES).
- FOR TRENCH INSTALLATION A TRENCH SHALL BE EXCAVATED APPROXIMATELY 6-INCHES WIDE AND 6-INCHES DEEP ALONG THE LINE OF STAKES AND UP-SLOPE FROM THE BARRIER. SLIT INSTALLATION IS ACCEPTABLE WITH PROPER EQUIPMENT.
- THE FILTER MATERIAL SHALL BE STAPLED TO THE WOODEN STAKES, AND 6-8-INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. HEAVY DUTY WIRE STAPLES AT LEAST 1/2-INCH LONG SHALL BE USED. FILTER MATERIAL SHALL NOT BE STAPLED TO EXISTING TREES.
- THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER MATERIAL.
- SILT FENCE SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UP-SLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
- ENHANCED SILT FENCES ARE COMPOSED OF A WIRE SUPPORT FENCE, METAL T-POST AND AN ATTACHED SYNTHETIC FILTER FABRIC SLOW THE FLOW RATE SIGNIFICANTLY. THEIR EXPECTED USABLE LIFE IS 6 MONTHS.

DESIGN BY: INDOOR, OUTDOOR DOG PARK & BAR DONALD CRAIN 489 LANTANA ROAD CROSSVILLE, CUMBERLAND COUNTY, TENNESSEE **EROSION CONTROL DETAILS** SHEET REFERENCE

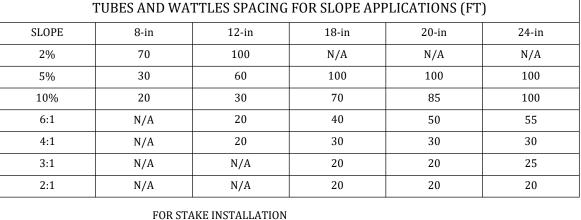
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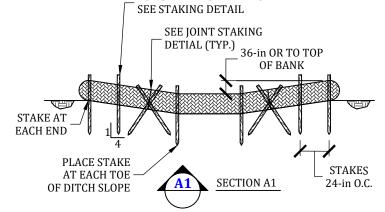
JOINT STAKING DETAIL

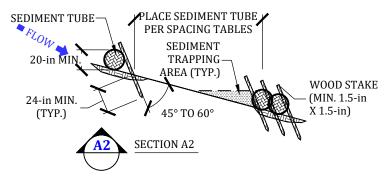
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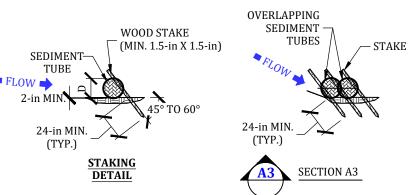


	LES SPACING TABLE PLICATION (FT)
SLOPE	MAXIMUM SEDIMENT TUBE SPACING
LESS THAN 2%	70
2%	30
3%	20
4%	N/A
5%	N/A
6%	N/A
GREATER THAN 6%	N/A

OVERLAP TUBES AND WATTLES 24-in MIN. STAGGER JOINTS BETWEEN ROWS OF TUBES (TYP.) STAKE AT EACH END AND 24-in MAX. O.C. ALONG ENTIRE LENGTH PLAN VIEW FOR **SLOPE APPLICATION**







TUBES AND WATTLES NOTES:

- TUBES AND WATTLES CAN BE PLACE AT THE TOP, ON THE FACE, OR AT THE TOE OF SLOPES TO INTERCEPT RUNOFF, REDUCE FLOW VELOCITY, RELEASE THE RUNOFF AS SHEET FLOW AND PROVIDE REMOVAL OF SEDIMENT FROM THE RUNOFF.
- TUBES AND WATTLES SHALL BE INSTALLED ALONG OR ON THE GROUND CONTOUR. AT THE TOE OF SLOPES, OR IN A DITCH TO HELP REDUCE THE EFFECTS OF SOIL EROSION AND RETAIN SEDIMENT. TUBES AND WATTLES SHOULD NOT BE USED IN DITCHES OR STREAMS WITH CONTINUOUS FLOW.
- FOR DITCH APPLICATIONS. THE MAXIMUM DRAINAGE AREA SHALL BE 15 ACRES. AT SITES WHICH DRAIN TO HIGH-QUALITY OR SEDIMENT-IMPARED STREAMS. THE MAXIMUM DRAINAGE AREAS SHALL BE 1/4 ACRE PER 100 L.F. OF TUBE.
- TUBES AND WATTLES SHALL NOT BE USED ON PAVEMENT, ROCKY SOILS, OR ANY OTHER LOCATION WHERE THE STAKES CANNOT BE DRIVEN TO THE REQUIRED
- WHEAT STRAW, COCONUT FIBERS, OR HARDWOOD MULCH THAT IS ENCLOSED BY A TUBULAR FLEXIBLE NETTING MATERIAL. ALL MATERIALS INCLUDING THE NETTING SHALL BE BIODEGRADABLE.
- NOT ACCEPTABLE MATERIALS.
- MAXIMUM OF 24-in. DIAMETER TOLERANCE IS 2-in. FOR DITCH APPLICATIONS, SEDIMENT TUBES SHALL BE A MINIMUM OF 20-in.
- 1.5-in. ACTUAL). THE STAKE SHALL BE EMBEDDED A MINIMUM OF 24-in.
- TUBES AND WATTLES SHALL BE TRENCHED IN A MINIMUM OF 2-in.
- 10. IF MORE THAN ONE TUBES AND WATTLES AREA PLACED IN A ROW IN SLOPE APPLICATION. THE TUBES AND WATTLES SHALL BE OVERLAPPED A MINIMUM OF 24-in TO PREVENT FLOW AND SEDIMENT FROM PASSING THROUGH THE FIELD JOINT. WHEN USED IN DITCHES, TWO ROWS OF TUBES AND WATTLES SHALL BE PLACED ON THE CHANNEL BOTTOM WITH STAGGERED JOINTS AS SHOWN.
- DIAMETER AND SHALL BE PLACED PERPENDICULAR TO THE FLOW OF WATER. TUBES AND WATTLES SHALL CONTINUE UP THE SIDES SLOPES A MINIMUM OF 36-in PLUS THE DIAMETER OF THE TUBE, OR THE TOP OF THE DITCH, WHICHEVER IS
- BIODEGRADE. FOR DITCH APPLICATIONS TUBES AND WATTLES SHALL BE COMPLETELY REMOVED AFTER FULLY ESTABLISHED VEGETATION HAS COMPLETELY DEVELOPED.
- TUBES AND WATTLES SHALL BE PAID BY THE SIZE USED PER LINEAR FOOT. 13. PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR
- HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE STRUCTURE AND PAID FOR UNDER SEDIMENT REMOVAL PER CUBIC YARD.



- 5. TUBES AND WATTLES SHALL BE MANUFACTURED FROM WOOD EXCELSIOR, RICE OR
- PINE NEEDLE AND LEAF MULCH FILLED TUBES, WATTLES AND STRAW BALES ARE
- THE DIAMETER OF TUBES AND WATTLES SHALL BE A MINIMUM OF 8-in AND A
- TUBES AND WATTLES SHALL BE INSTALLED WITH WOODEN STAKES (MIN. 1.5-in X
- FOR DITCH APPLICATIONS, TUBES AND WATTLES SHALL BE A MINIMUM OF 20-in
- TUBES AND WATTLES USED IN SLOPE APPLICATIONS MAY REMAIN IN PLACE TO
- CONSTRUCTION, MAINTENANCE, AND REMOVAL OF THE TUBES AND WATTLES.
- SEDIMENT SHALL BE REMOVED FROM BEHIND THE TUBES AND WATTLES WHEN IT

INDOOR, OUTDOOR DOG PARK & BAR DONALD CRAIN 489 LANTANA ROAD CROSSVILLE, CUMBERLAND COUNTY, TENNESSEE **EROSION CONTROL DETAILS** SHEET REFERENCE NUMBER: C-503

SHEET 9 OF 14

SIDE

SLOPE

-SEDIMENT TUBES

DITCH

BOTTOM

SIDE

PLAN VIEW FOR

DITCH APPLICATION

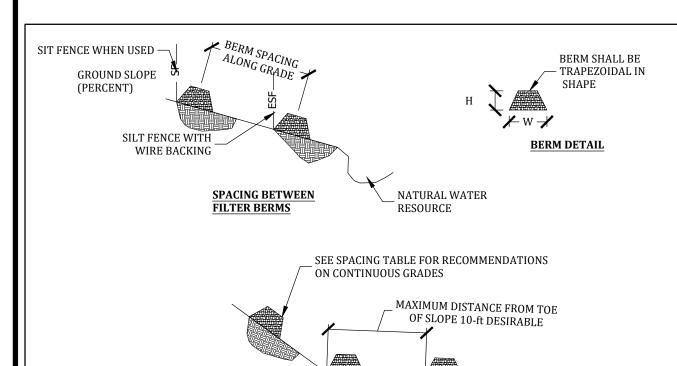
SLOPE

STAKES @

24-in O.C

20-in

MIN



BETTER

SLOPE PROFILE

TOE OF SLOPE

FILTER BERM NOTES:

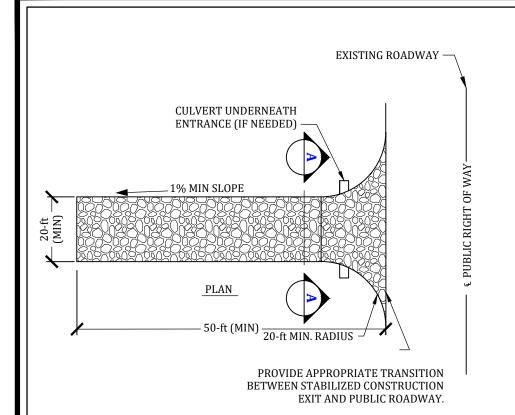
- COMPOST OR MULCH FILTER BERMS ARE SEDIMENT CONTROL DEVICES WHICH MAY BE USED IN PLACE OF SILT FENCE TO CONTROL SEDIMENT TRANSPORT FROM AREAS WHERE RUNOFF OCCURS AS SHEET FLOW.
- THE MAXIMUM DRAINAGE AREA FOR A CONTINUOUS BERM SHALL BE 1/4 ACRE PER 100 LINEAR FEET OF FILTER BERM.
- FILTER BERMS SHALL NOT BE USED TO TREAT CONCENTRATED FLOW AND SHOULD BE USED WITH SILT FENCE WITH WIRE BACKING OR OTHER APPROPRIATE STRUCTURAL MEASURES ON SITES WITH DRAIN TO SENSITIVE NATURAL WATER RESOURCES (WETLANDS OR STREAMS).
- FILTER BERMS MAY BE USED IN CONJUNCTION WITH SILT FENCE OR SILT FENCE WIRE BACKING AND SHOULD BE CONSTRUCTED DIRECTLY AT THE BASE OF THE OTHER STRUCTURAL MEASURE (DOWNHILL SIDE).
- WHERE POSSIBLE, BERMS SHOULD BE PLACED AWAY FROM THE TOE OF SLOPES A MINIMUM OF 10-ft TO ALLOW FOR ENERGY DISSIPATION AND STORAGE OF SEDIMENT.
- FILTER BERMS SHALL BE PLACED ALONG RO ON THE GROUND CONTOUR WITH THE ENDS OF THE FILER BERM TURNED UP SLOPE. ADEQUATE AREA SHALL BE PROVIDED BEHIND BERM FOR PONDING OF WATER.
- MULCH FILTER BERMS SHALL CONSIST OF 100% WOOD CHIPS. COMPOST FILTER BERM SHALL CONSIST OF 50% WOOD CHIPS BLENDED WITH 50% COMPOST. ALL WOOD CHIPS SHALL BE LESS THAN 6-in IN LENGHT WITH 95% PASSING A 2-in SCREEN AND NOT LESS THAN 30% PASSING A 1-in SCREEN.
- COMPOST FILTER BERM MAY BE VEGETATED WITH TEMPORARY OR PERMANENT SEEDING AFTER PLACEMENT. MULCH FILTER BERMS SHALL NOT BE SEEDED.
- ROUTINELY INSPECT FILTER BERMS AND MAINTAIN TO A FUNCTIONAL CONDITION THROUGHOUT CONSTRUCTION. INSTALL ADDITIONAL FILTER MATERIAL AS DIRECTED BY THE ENGINEER. UPON PROJECT COMPLETION, DISPERSE OR REMOVE BERM OR LEAVE IN PLACE AS DIRECTED BY THE
- 10. SEDIMENT SHALL BE REMOVED FROM BEHIND THE FILTER BERM WHEN IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE STRUCTURE.

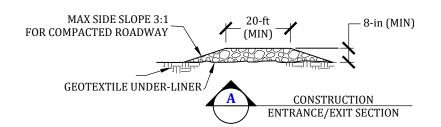
BEI	RM DETAIL
SYMBOL	DESC.
Н	12-in TO 3-ft
W	2 x H (TYPICAL)
W	3-ft (MINIMUM)
	= SEE FILTER BERM ACING TABLE

FILTER	BERM SPACING
GROUND SLOPE (%)	BERM SPACING (ft)
<2	110
2 - 5	100
5 - 10	75
10 - 20	25
>20	NOT ALLOWED

INDOOR, OUTDOOR DOG PARK & BAR
DONALD CRAIN
489 LANTANA ROAD
CROSSVILLE, CUMBERLAND COUNTY, TENNESSEE **EROSION CONTROL DETAILS** SHEET REFERENCE NUMBER: C-504 N.T.S SHEET 10 OF 14

FILTER BERM





CONSTRUCTION EXIT NOTES:

- 1. STONE SIZE USE WASHED, WELL GRADED 1 1/2-in TO 2 1/2-in CRUSHED STONE.
- LENGTH 50-ft MINIMUM, ADJUST LENGTH BASED ON EFFECTIVENESS.
- THICKNESS 8-in MINIMUM.
- WIDTH NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
- WASHING WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE THROUGH USE OF SAND BAGS, GRAVEL, BOARDS, OR OTHER APPROVED METHODS.
- MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

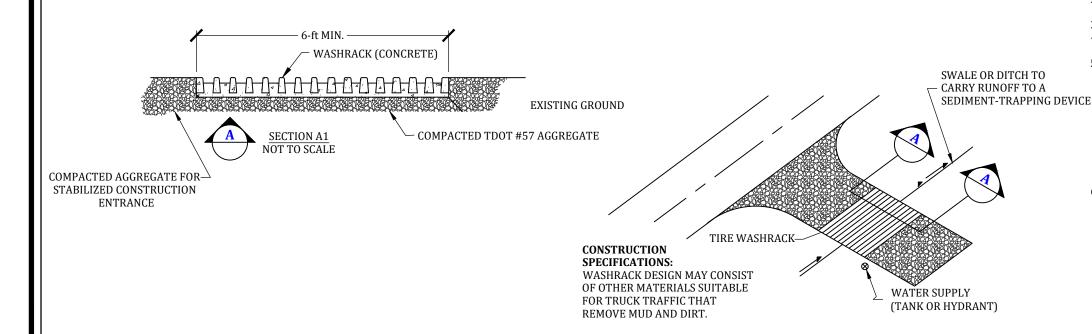
CE or

CONSTRUCTION EXIT

N.T.S

CONSTRUCTION EXIT NOTES:

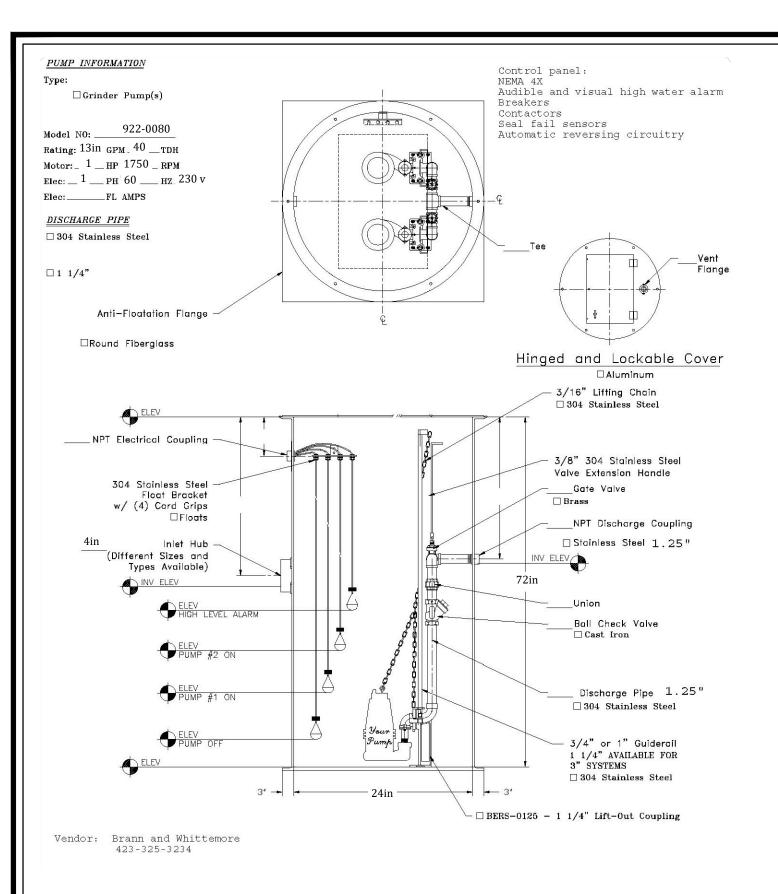
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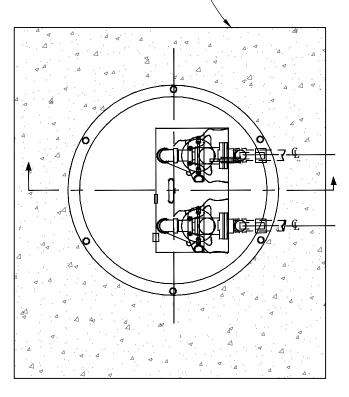
TIRE WASH FACILITY

N.T.S

SHEET 11 OF 14



6ft X 6ft X 6in CONCRETE PAD - REINFORCE WITH 1 LAYER OF #5 BARS @ 9in O.C.E.W. BACKFILL EXCAVATED PIT WITH #57 CRUSHED AGGREGATE COMPACTED TO 98% STD PROCTOR (NOT SHOWN IN SECTION VIEW FOR CLARITY)

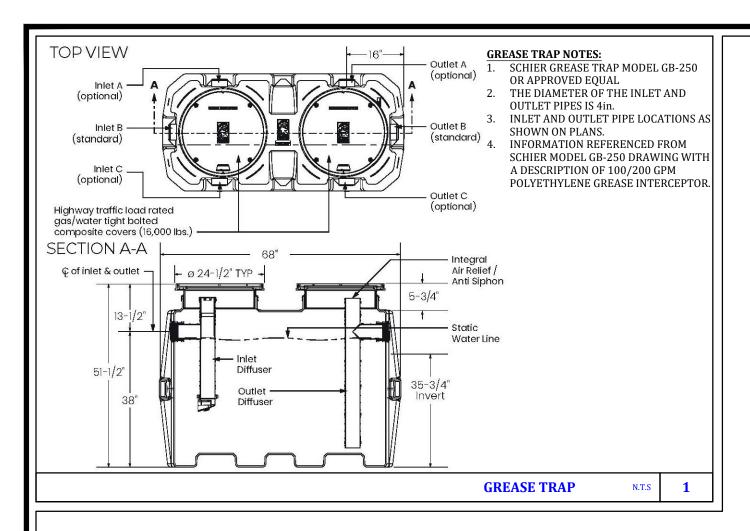


NOTES:

- 1. FOUNDATION FOR PUMP STATION SHALL BE ACCEPTABLE TO ENGINEER. REMOVE ALL LOOSE MATERIAL AND SOFT SUBSOILS AND BACKFILL WITH CRUSHED AGGREGATE.
- 2. PIPING SHALL BE CONNECTED TOGETHER NO CLOSER THAN 4ft OUTSIDE OF PUMP STATION AND CONCRETE SLAB. ALTERNATELY, CONTRACTOR MAY USE AN INTEGRAL VALVE PIT WITH PUMP BASE.
- 3. GRINDER PUMP AS CALLED FOR OR APPROVED EQUAL.

INDOOR, OUTDOOR DOG PARK & BAR DONALD CRAIN 489 LANTANA ROAD CROSSVILLE, CUMBERLAND COUNTY, TENNESSEE SITE DETAILS SHEET REFERENCE NUMBER: C-506

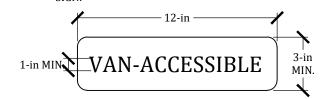
SHEET 12 OF 14

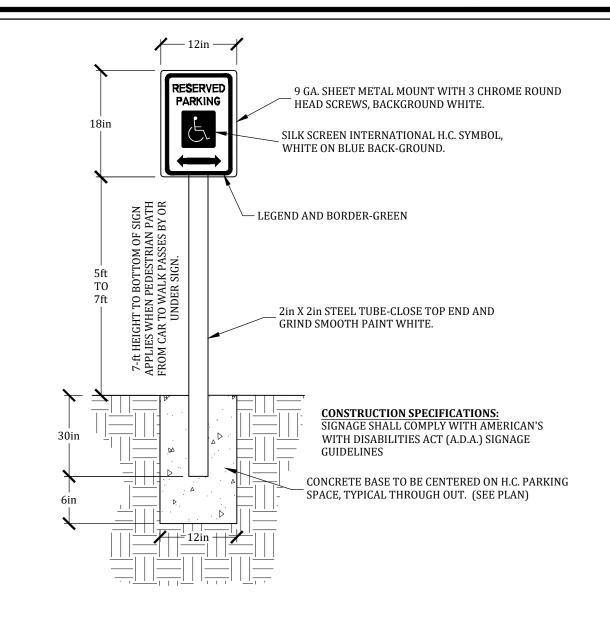




CONSTRUCTION SPECIFICATIONS:

- LEGEND AND BORDER GREEN
 WHITE SYMBOL ON BLUE
 BACKGROUND.
- 2. EACH HC. PARKING SIGN SHALL BE MOUNTED ON GALV. STEEL POST SUCH THAT THE BOTTOM EDGE OF THE SIGN IS 60in ABOVE GRADE.
- 3. ADD "VAN ACCESSIBLE" SIGN TO BE FIELD LOCATED BY ARCHITECT.
- 3.1. THE SIGN TO BE MOUNTED JUST BELOW STD. H.C. SIGN WHERE SPECIFIED ON PLANS. COLOR AND LETTERING TO MATCH H.C. SIGN.





CONSTRUCTION SPECIFICATIONS:

- 1. "HANDICAPPED PARKING PLACE" MEANS ANY PUBLIC OR PRIVATE PROPERTY WHICH HAS BEEN DESIGNATED AS RESERVED FOR THE USE OF HANDICAPPED PERSONS AS FOLLOWS:
- 2. (A) BY A BLUE METAL REFLECTIVE SIGN WHICH IS AT LEAST 12in IN WIDTH AND 18-in IN LENGTH AND IS ERECTED AT SUCH HEIGHT OR IN SUCH A MANNER THAT IT WILL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE AND BEARING THE FOLLOWING WORDS; "PARKING PERMIT ONLY", "TOW-AWAY ZONE", "AND MAXIMUM FINE \$500.00". THE WARNINGS REQUIRED IN THIS SUBPARAGRAPH SHALL BE PRINTED IN WHITE LETTERS NOT LESS THAN 1-in IN HEIGHT ON THREE SEPARATE LINES AND CENTERED ON THE SIGN. THE SIGN SHALL ALSO BEAR THE INTERNATIONAL SYMBOL FOR ACCESSIBILITY CENTERED BETWEEN THE SECOND AND THIRD WARNINGS. THE SIGN REQUIRED BY THIS SUBPARAGRAPH SHALL BE THE OFFICIAL AUTHORIZED SIGN FOR HANDICAPPED PARKING PLACE DESIGNATION IN THIS STATE.
- 3. (B) WHERE THE PARKING PLACE IS DESIGNATED BEFORE JANUARY 1, 1988, BY A SIGN OR SIGNS BEARING THE WORDS "TOW-AWAY ZONE" AND "HANDICAPPED PARKING ONLY" OR THE WORDS "TOW-AWAY ZONE" AND THE UNIVERSAL SYMBOL OF ACCESSIBILITY, THAT DESIGNATION SHALL BE DEEMED TO MEET THE REQUIREMENTS OF SUBPARAGRAPH (A) OF THIS PARAGRAPH UNTIL SUCH TIMES AS THE SIGN OR SIGNS ARE REPLACED FOR OTHER REASONS, AT WHICH TIME ANY NEW SIGN ERECTED SHALL COMPLY FULLY WITH THE REQUIREMENTS OF SUBPARAGRAPH (A) OF THIS PARAGRAPH OR
- (C) WHERE THE PARKING PLACE IS ON PRIVATE PROPERTY, IS CONSTRUCTED SOLELY OF CONCRETE, WAS USED BY THE PUBLIC OR FINISHED PRIOR TO JANUARY 1, 1987, AND WHICH IS DESIGNATED BY HAVING IMPRINTED AND MAINTAINED IN REFLECTIVE PAINT UPON SUCH PLACE THE WORDS "TOW-AWAY ZONE" AND "HANDICAPPED PARKING ONLY" OR THE WORDS "TOW-AWAY ZONE" AND THE UNIVERSAL SYMBOL OF ACCESSIBILITY, THAT DESIGNATION SHALL BE DEEMED TO MEET THE REQUIREMENTS OF SUBPARAGRAPH (A) OF THIS PARAGRAPH UNTIL SUCH TIME AS THAT CONCRETE LOT IS RENOVATED, REPAIRED, OR REMODELED, AT WHICH TIME A SIGN SHALL BE ERECTED WHICH SHALL COMPLY WITH THE REQUIREMENTS OF SUBPARAGRAPH (A) OF THIS PARAGRAPH.

N.T.S

SITE DETAILS

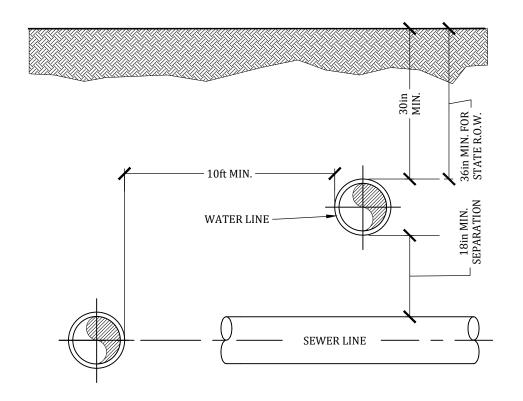
INDOOR, OUTDOOR DOG PARK & BAR DONALD CRAIN 489 LANTANA ROAD CROSSVILLE, CUMBERLAND COUNTY, TENNESSEE

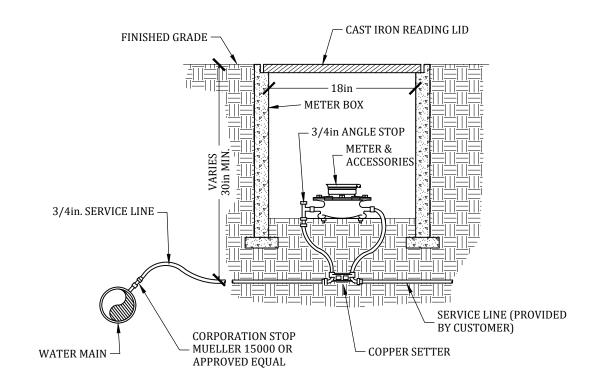
SHEET REFERENCE

NUMBER:

C-507

SHEET 13 OF 14





- WATER SERVICE NOTE:
 1. METER BOXES SHALL NOT BE LESS THAN 18in DEEP. BOX SHALL BE PRE-CAST CONCRETE (GODDARD NO. 36H,W/EXTENSION, OR APPROVED EQUAL.) CAST IRON BOXES ACCEPTABLE.
- 2. METERS FURNISHED WITH PRESSURE REDUCING VALVES SHALL BE INSTALLED

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			CHECKED BY:			REVISIONS			
	5	SITE DETAILS	J.P.B.	NO.	DATE	DESCRIPTION	CHK	ENVIKUNMEN I AL & CIVIL ENGINEEKING SEKVICES	NG SERVICES
	SHE		DESIGN BY:	1	9/5/23	ORIGINAL ISSUE	C.F.B.	CROSSVILLE MOUNT JULIET	AOUNT JULIET
			DRAWN RY:	2	9/11/23	2 9/11/23 REVISIONS FROM CITY C.F.B.	C.F.B.	Crossville TN 38555	550WII HWY TN 38555
			L.D.B.			REVIEW COMMENTS			
50	EFE IBE	INDOOR, OUTDOOR DOG PARK & BAR	ORIGINAL DATE:					Crossville 931.484.9321	31.484.9321
		DONALD CRAIN	AUG. 8, 2023					Mount Juliet 615.863.3237	615.863.3237
	ENC	489 LANTANA ROAD	PROJECT NO.:					www.ece-engineering.com	ineering.com
	Е	CROSSVILLE, COMBERLAND COUNTY, TENNESSEE	23520 SCALE:					ENCINEEDING & CEOTECHNICAL & ENVIRONMENTAL	DONMENTAL
			AS NOTED						NOWHENTAL

IN GODDARD NO. 37H METER BOXES W/EXTENSION OR APPROVED EQUAL.
SERVICE LINE FROM WATER MAIN TO METER YOKE CAN BE 'TYPE K' COPPER OR REHAU MUNICIPEX, PEXa 3306 CTS SDR9 PIPE OR APPROVED EQUAL.

4. ALL COMPONENTS SHALL COMPLY WITH REQUIREMENTS OF LOCAL UTILITY.

UTILITIES PIPED SEPARATION

1

N.T.S

WATER SERVICE

SHEET 14 OF 14