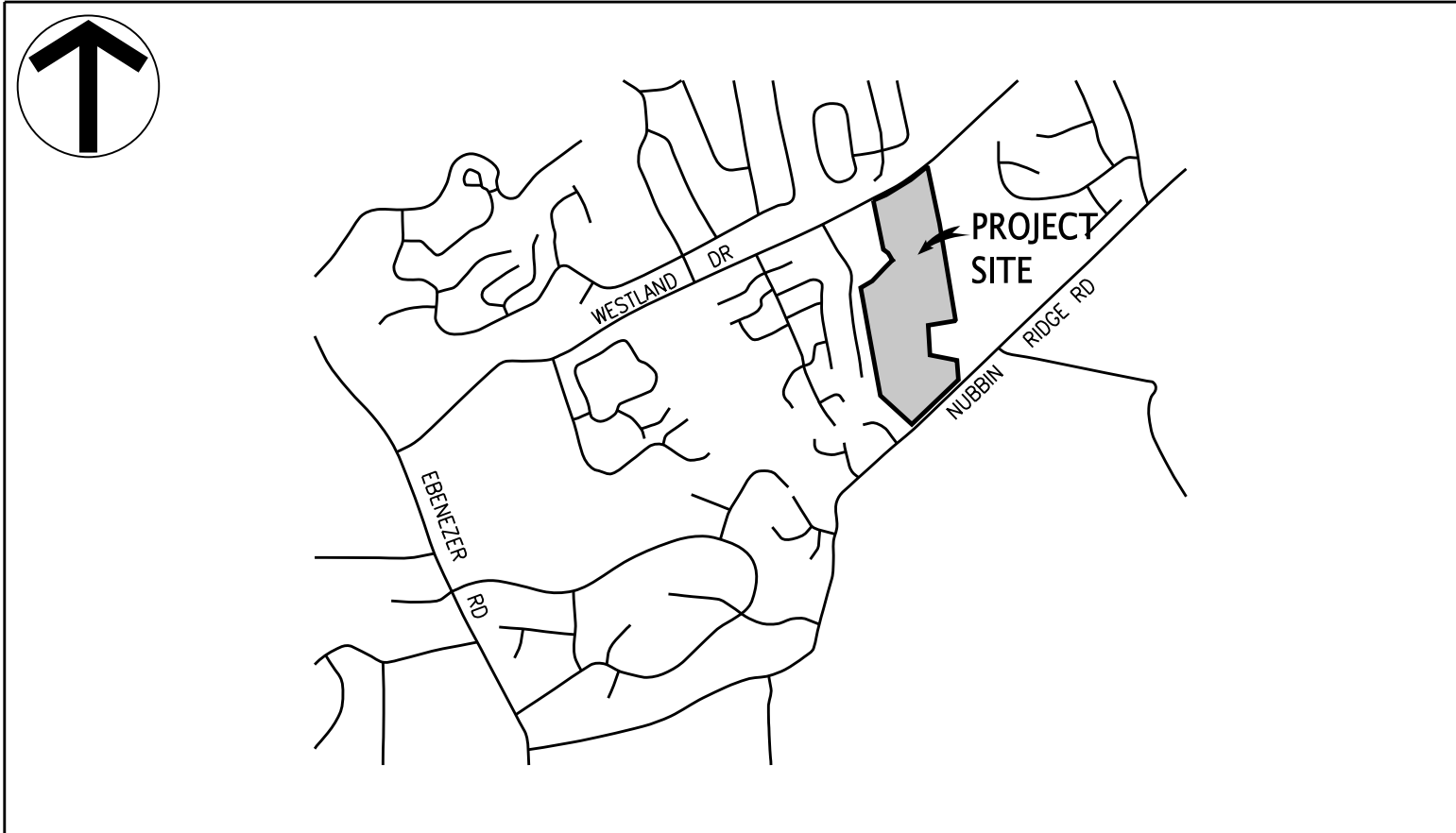


WESTLAND CREEK SUBDIVISION

8444 WESTLAND DRIVE

KNOXVILLE, TENNESSEE 37923



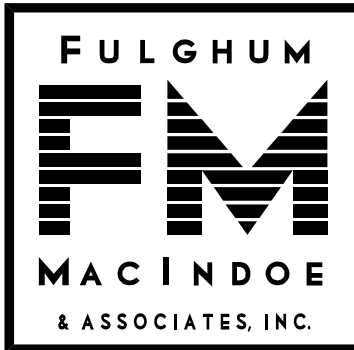
LOCATION MAP
(NOT TO SCALE)



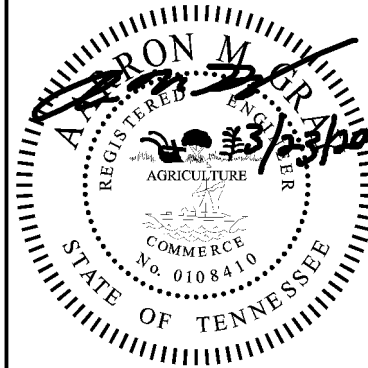
OVERALL PLAN
(NOT TO SCALE)

DRAWING INDEX

SHEET NO.	REV. NO.	ISSUE DATE	TITLE
C1	14	03/23/20	COVER SHEET AND INDEX
C2	5	03/23/20	LAYOUT AND PAVING PLAN
C3	3	02/26/20	LAYOUT AND PAVING PLAN
C4	5	02/26/20	GRADING PLAN
C5	5	02/26/20	GRADING PLAN
C6	0	10/01/18	EPSC PLAN – STAGE 1
C7	0	08/24/18	EPSC PLAN – STAGE 1
C8	2	08/07/19	EPSC PLAN – STAGE 2
C9	1	08/07/19	EPSC PLAN – STAGE 2
C10	2	08/07/19	EPSC PLAN – STAGE 3
C11	1	08/07/19	EPSC PLAN – STAGE 3
C12	6	02/26/20	STORM DRAINAGE PLAN
C13	5	02/26/20	STORM DRAINAGE PLAN
C14	5	11/19/19	WATER PLAN
C15	4	08/07/19	WATER PLAN
C16	5	11/19/19	SANITARY SEWER PLAN
C17	4	08/07/19	SANITARY SEWER PLAN
C18	6	11/11/19	SANITARY SEWER PROFILES
C19	4	08/07/19	SANITARY SEWER PROFILES
C20	1	02/26/20	ROADWAY PROFILES
C21	2	02/26/20	ROADWAY PROFILES
C22	3	02/26/20	DETAILS
C23	0	08/24/18	DETAILS
C24	0	08/24/18	DETAILS
C25	2	08/07/19	DETAILS



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PLANNING FILE NO.: 3-SA-20-C

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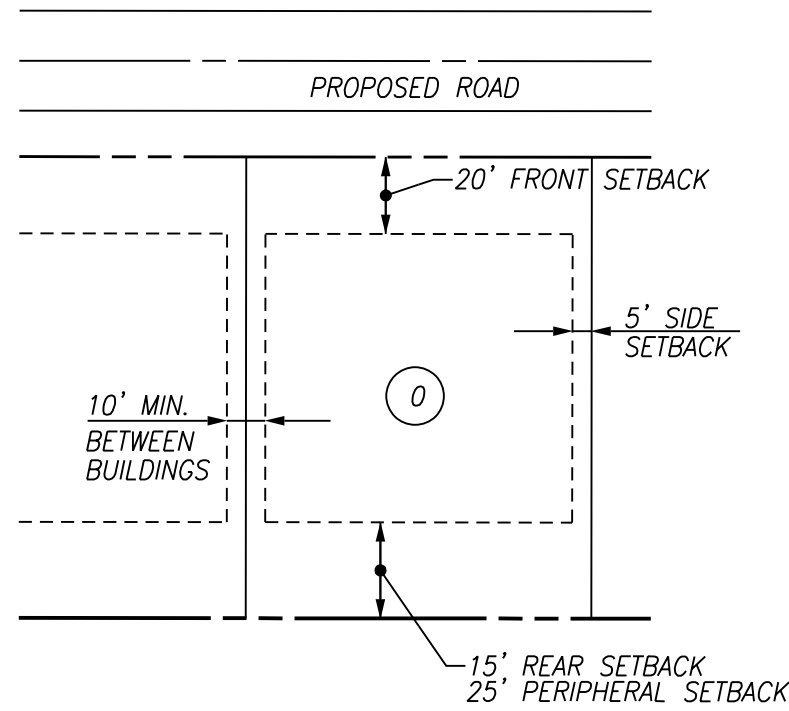
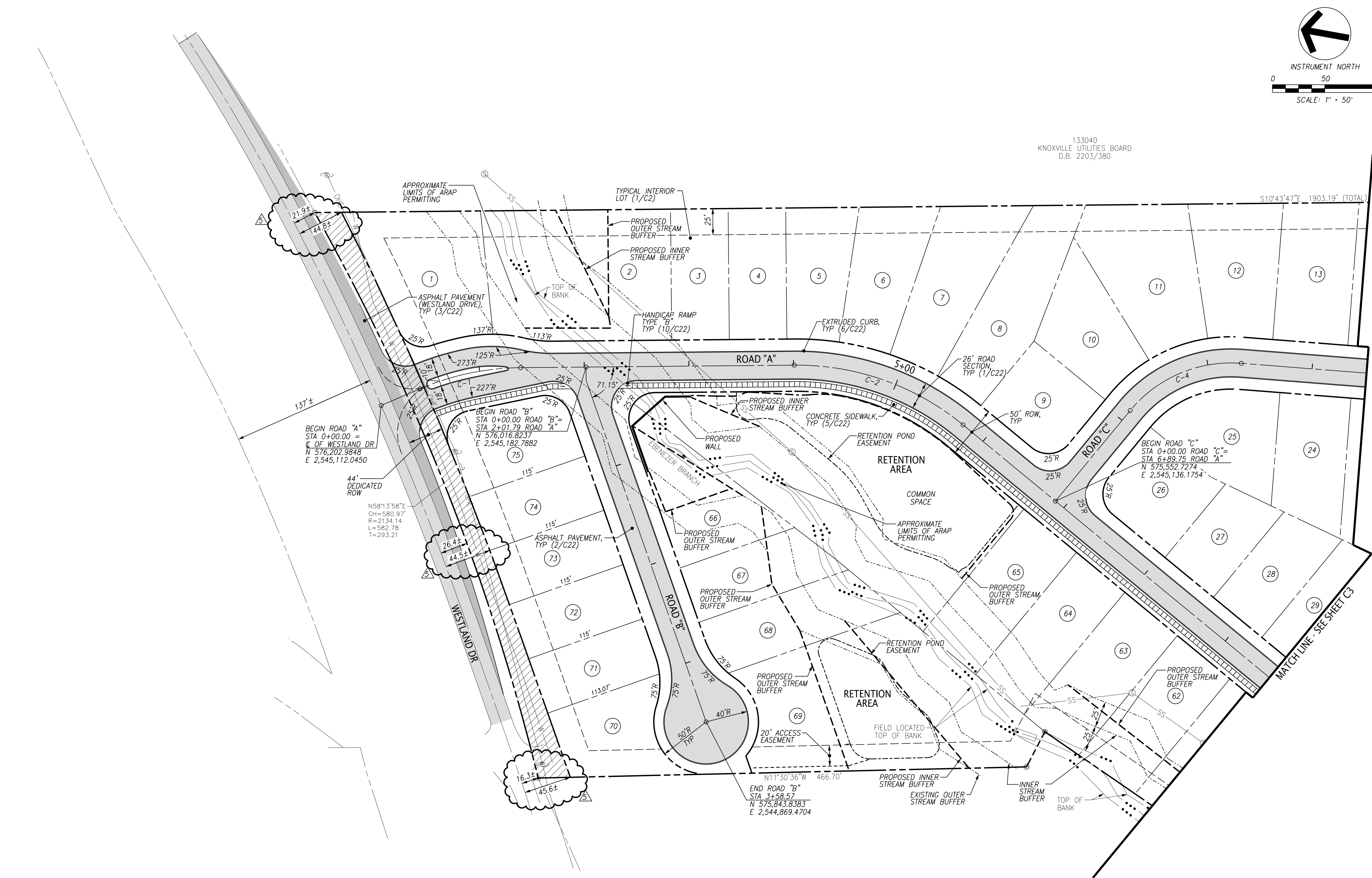
COVER SHEET
AND INDEX

PROJ. NO.	NO.	DESIGNED BY	AMG	DRAWN BY	RLP	DATE
330.012	1	AMG	AMG	RLP	03/23/20	03/23/20
330.012	2	AMG	AMG	RLP	02/26/20	02/26/20
330.012	3	AMG	AMG	RLP	07/23/20	07/23/20
330.012	4	AMG	AMG	RLP	11/19/19	11/19/19
330.012	5	AMG	AMG	RLP	11/11/19	11/11/19
330.012	6	AMG	AMG	RLP	11/11/19	11/11/19
330.012	7	AMG	AMG	RLP	11/11/19	11/11/19
330.012	8	AMG	AMG	RLP	11/11/19	11/11/19
330.012	9	AMG	AMG	RLP	11/11/19	11/11/19
330.012	10	AMG	AMG	RLP	11/11/19	11/11/19
330.012	11	AMG	AMG	RLP	11/11/19	11/11/19
330.012	12	AMG	AMG	RLP	11/11/19	11/11/19
330.012	13	AMG	AMG	RLP	11/11/19	11/11/19
330.012	14	AMG	AMG	RLP	11/11/19	11/11/19
330.012	15	AMG	AMG	RLP	11/11/19	11/11/19
330.012	16	AMG	AMG	RLP	11/11/19	11/11/19
330.012	17	AMG	AMG	RLP	11/11/19	11/11/19
330.012	18	AMG	AMG	RLP	11/11/19	11/11/19
330.012	19	AMG	AMG	RLP	11/11/19	11/11/19
330.012	20	AMG	AMG	RLP	11/11/19	11/11/19
330.012	21	AMG	AMG	RLP	11/11/19	11/11/19
330.012	22	AMG	AMG	RLP	11/11/19	11/11/19
330.012	23	AMG	AMG	RLP	11/11/19	11/11/19
330.012	24	AMG	AMG	RLP	11/11/19	11/11/19
330.012	25	AMG	AMG	RLP	11/11/19	11/11/19

3-SA-20-C
Revised: 3/25/20

Project
330.012
Date
08/24/18
Scale
NTS
Sheet
C1

File Name: \\J330_130.012 (UNOS) J33012-002.dgn
Plot Date: 3/25/2020



1
C2
TYPICAL INTERIOR LOT
NTS

3-SA-20-C
Revised: 3/25/20

HORIZONTAL CURVE DATA TABLE						
CURVE NO.	P.I. COORDINATES		DELTA ANGLE	RADIUS	TANGENT	LENGTH
	NORTHING	EASTING				
C-1	576,127.4345	2,545,161.8286	22° 39' 11" (RT)	250.00	50.08	98.84
C-2	575,731.9099	2,545,236.7762	40° 02' 29" (RT)	250.00	91.08	174.71
C-4	575,465.9659	2,545,290.7083	54° 57' 34" (RT)	125.00	65.01	119.90

- GENERAL NOTES:**
- THE BOUNDARY DATA TAKEN FROM LYNCH SURVEYS, LLC. TOPOGRAPHIC DATA WAS TAKEN FROM KGIS. EXISTING CONTOURS ARE AT 2'-FT INTERVALS. VERTICAL DATUM IS BASED ON NAVD88.
 - UNLESS NOTED OTHERWISE, DIMENSIONS ARE TAKEN FROM THE FENCE LINE, PROPERTY LINE, FACE OF CURB, EDGE OF PAVEMENT OR OUTSIDE FACE OF BUILDING.
 - THE MINERAL AGGREGATE BASE AND ASPHALTIC SURFACE COURSES SHALL MEET THE MATERIALS, EQUIPMENT, CONSTRUCTION, AND TESTING REQUIREMENTS OF THESE DRAWINGS, AND THE CITY OF KNOXVILLE DEPARTMENT OF ENGINEERING STANDARD SPECIFICATIONS.
 - CONCRETE CURB AND PAVEMENT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS. CONCRETE CURB AND PAVEMENT SHALL MEET THE MATERIALS, EQUIPMENT, AND CONSTRUCTION REQUIREMENTS OF THE KNOX COUNTY DEPARTMENT OF ENGINEERING STANDARD SPECIFICATIONS.
 - TRAFFIC CONTROL DEVICES AND PAVEMENT MARKING SHALL CONFORM TO THE FEDERAL HIGHWAY ADMINISTRATIONS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
 - PROPERTY CONCERNED REFLECTS PARCEL 133050 AS SHOWN IN KNOX COUNTY CLT MAP 133. ZONING FOR THE PROPERTY IS PR, PLANNED RESIDENTIAL ZONE. TOTAL AREA = 23.70± AC.

OWNER: SHADY GLEN, LLC
405 MONTBROOK LANE
KNOXVILLE, TN 37919
 - BUILDING SETBACKS INTERNAL TO SUBDIVISION ARE 20'-FT. IN FRONT, 5'-FT. ON SIDE, 15'-FT. REAR, AND 25'-FT. AT THE PERIPHERY.
 - ACCESS TO LOTS IS RESTRICTED TO INTERNAL STREETS.
 - PROPOSED IMPROVEMENTS INCLUDE 26' WIDE PUBLIC ROAD, EXTRUDED CURB, STORM SEWER, SANITARY SEWER, WATER, GAS, ELECTRIC, TELEPHONE, AND CABLE TV.
 - ROOF DRAIN AND FRONT YARD FOR ALL PROPOSED LOTS WILL BE CONNECTED TO PROPOSED STORM DRAINAGE SYSTEM.
 - RETAINING WALLS TO BE DESIGNED AND SEALED BY AN ENGINEER LICENSED IN THE STATE OF TENNESSEE AND SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO ISSUANCE OF A PERMIT. REFER TO VENDOR'S PLANS FOR RETAINING WALL AND RAILING DETAILS. RAILING SHALL BE PROVIDED FOR RETAINING WALL HEIGHTS THAT EQUAL OR EXCEED 30 INCHES.
 - REMOVE OVER-PAVEMENT OF ASPHALT AND STONE FROM UNDERNEATH LANDSCAPE AREAS, UP TO THE LIMITS THAT HAVE BEEN SPECIFIED (REFER TO THE CURB DETAIL) IN ORDER TO PROVIDE A SOLID BASE FOR THE CONCRETE CURB.
 - PRIOR TO INSTALLING NEW PIPING, CONTRACTOR SHALL LOCATE EXISTING UTILITIES/STRUCTURES WHERE NEW PIPES CROSS BY POT-HOLING. AFTER EXPOSING EXISTING UTILITY/STRUCTURE, CONTRACTOR SHALL OBTAIN HORIZONTAL AND VERTICAL LOCATIONS BY FIELD SURVEY, AND RESOLVE ANY CONFLICTS BETWEEN UNDERGROUND UTILITIES/STRUCTURES AND NEW PIPING UNDER THE DIRECTION OF THE OWNER PRIOR TO INSTALLING NEW PIPING.

- ALTERNATIVE DESIGN STANDARDS PER KNOX COUNTY ENGINEERING:**
- BUILDING SETBACKS ON LOTS GREATER THAN 10% FROM 10' TO 5'.
 - ROAD SLOPE FROM 12% TO 14% FROM STA 1+15.00 ROAD "C" TO STA 4+73.00 ROAD "C".
- VARIANCE AND ZONING REQUEST:**
- REDUCTION OF MINIMUM LOT DEPTH OF 150' FOR LOTS 70-75.

STREAM BUFFER INFORMATION:	
25' EAST BUFFER PRE-DEVELOPMENT	32,849.9± SF
25' WEST BUFFER PRE-DEVELOPMENT	19,986.7± SF
50' EAST BUFFER PRE-DEVELOPMENT	30,467.0± SF
50' WEST BUFFER PRE-DEVELOPMENT	19,978.2± SF
25' EAST BUFFER POST-DEVELOPMENT	32,968.1± SF
25' WEST BUFFER POST-DEVELOPMENT	20,053.6± SF
50' EAST BUFFER POST-DEVELOPMENT	39,518.8± SF
50' WEST BUFFER POST-DEVELOPMENT	20,000.9± SF

LEGEND:	
	PROPOSED ASPHALT PAVEMENT (WESTLAND DRIVE)
	PROPOSED ASPHALT PAVEMENT
	PROPOSED CONCRETE SIDEWALK
	PROPOSED LOT NUMBER
	PROPOSED PROPERTY/ROW LINE
	EXISTING PROPERTY LINE
	PROPOSED BUILDING SETBACK
	PROPOSED ROAD CENTER LINE
	EXISTING CREEK
	EXISTING STREAM BUFFER
	PROPOSED STREAM BUFFER
	DETAIL REF (DETAIL NO./SHT NO.)
	TYPICAL

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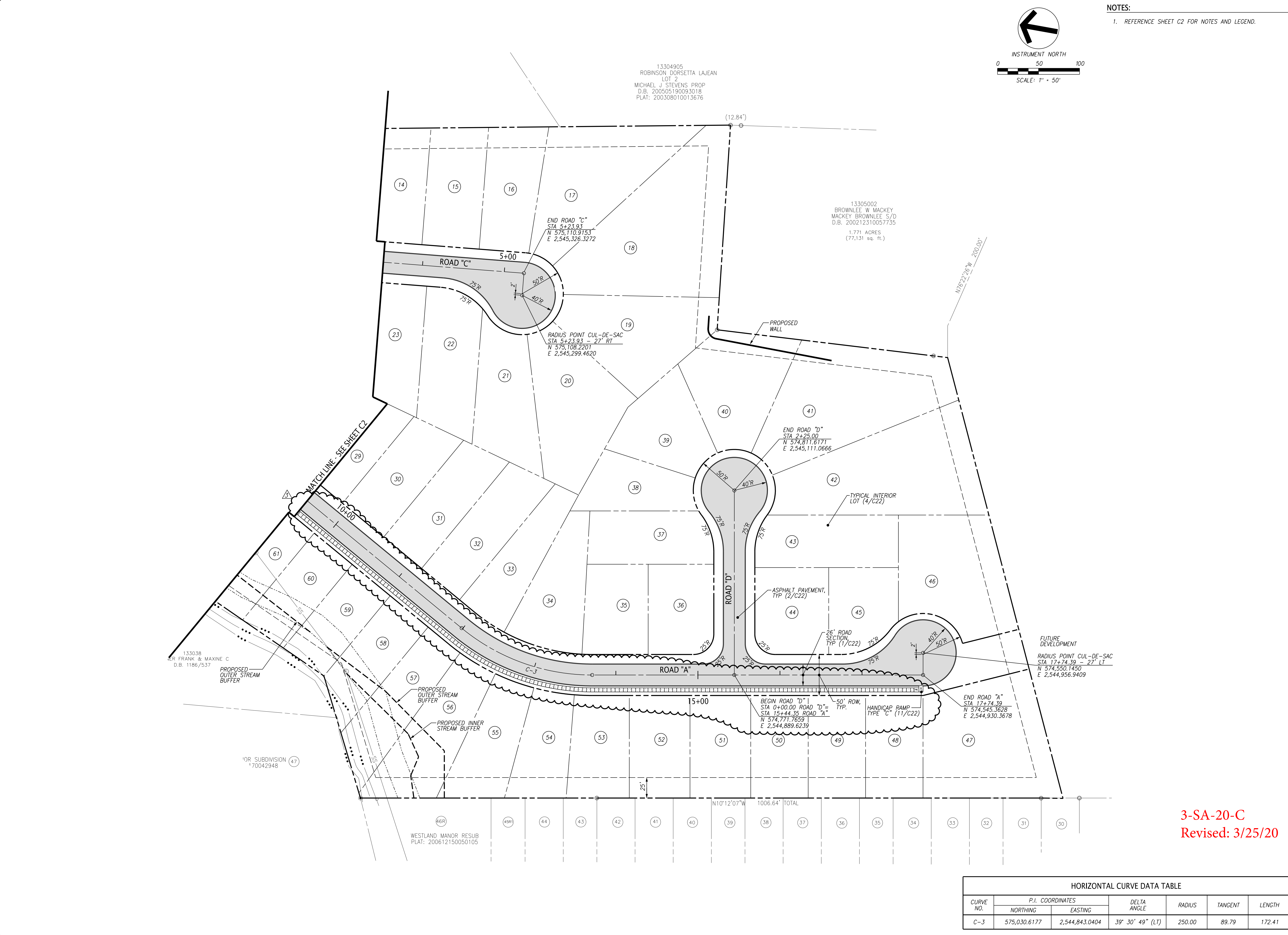
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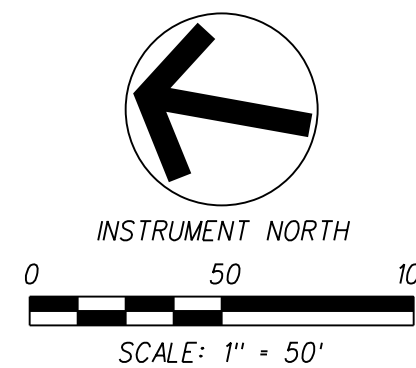
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PLANNING FILE NO.: 3-SA-20-C

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LAYOUT AND PAVING PLAN						
Project	Date	Scale	DESIGNED BY		DRAWN BY	R/LP
			PROJ. MGR.	AMG		
330.012	08/24/18	1"=50'	<div><div></div><div>1</div></div>	REVISED PER COUNTY COMMENTS		03/23/20
			<div><div></div><div>2</div></div>	REVISED PER COUNTY COMMENTS		02/26/20
			<div><div></div><div>3</div></div>	REVISED PER OWNER COMMENTS		07/23/20
			<div><div></div><div>4</div></div>	REVISED ENTRANCE		11/19/19
			<div><div></div><div>5</div></div>	REVISED LOTS		08/07/19
No.				Revision/Issue		Date
			C2			

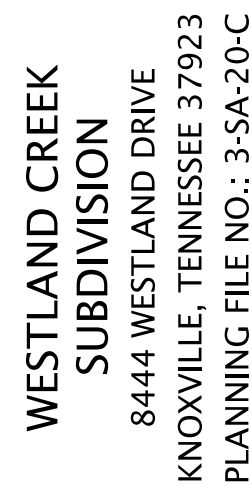
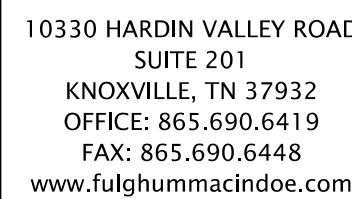
File Name: \\J300.120.012\DWG\330012-003.dgn
Plot Date: 2/26/2020





1. UNLESS NOTED OTHERWISE, THE PROPOSED GRADES SHOWN ON THESE DRAWINGS ARE FINISHED GRADE. EXISTING AND PROPOSED CONTOURS ARE SHOWN AT 2-FT. INTERVALS.
2. THE ACCURACY OF THE GRADES IS DEPENDANT ON THE DATA PROVIDED BY THE OWNER OR OWNER'S REPRESENTATIVE. FIELD VERIFY AS NECESSARY PRIOR TO CONSTRUCTION.
3. THE SITE SHALL BE CLEARED AND GRUBBED WITHIN THE LIMITS OF EXCAVATION. COMPLETELY DISPOSE OF ALL MATERIALS RESULTING FROM CLEARING AND GRUBBING OFF-SITE. BURNING SHALL NOT BE PERMITTED UNLESS PRIOR APPROVAL IS OBTAINED BY THE LOCAL FIRE DEPARTMENT. THE CONTRACTOR MUST OBTAIN A PERMIT AND MEET ALL OF THE REQUIREMENTS AS SPECIFIED BY THE FIRE DEPARTMENT.
4. ALL TREES STUMPS, BOULDERS, AND OTHER OBSTRUCTIONS SHALL BE REMOVED TO A DEPTH OF 2 FT BELOW THE SUBGRADE. ROCK SHALL BE SCARIFIED TO DEPTH OF 1 FT BELOW SUBGRADE.
5. STRIP TOPSOIL FULL DEPTH (6-IN. MIN.) AND TEMPORARILY STOCKPILE EXCAVATED MATERIALS. INSTALL SILT FENCE OR OTHER APPROPRIATE EROSION CONTROL STRUCTURES ON THE DOWN HILL SIDE OF THE STOCKPILE.
6. PROOF ROLL ALL AREAS TO RECEIVE FILL. PROOF ROLL WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK USING A CRISS-CROSS PATTERN (4 PASSES MIN.) AREAS FAILING THE PROOF ROLLING SHALL BE UNDERCUT AND BACKFILLING USING AN ENGINEERED FILL OR STABILIZED BY A METHOD APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER.
7. AREAS THAT EXHIBIT WEAK SOIL OR OTHERWISE UNSUITABLE CONDITIONS SHALL BE UNDERCUT TO A FIRM LEVEL OF SOIL FOLLOWED BY BACKFILLING THE UNDERCUT AREAS USING AN ENGINEERED FILL. TOOT NO. 57, OR TOOT NO. 67 STONE.
8. FILL MATERIAL SHALL BE SATISFACTORY MATERIAL FREE FROM ROOTS AND OTHER ORGANIC MATERIAL. FROZEN MATERIAL AND THAWED FILL MATERIAL SHALL ALSO BE FREE OF STONE OR OTHER MATERIAL LARGER THAN 6 IN. AND LARGER THAN 4 IN. IN THE TOP 6 IN. OF AN EMBANKMENT.
9. FILL SOILS SHALL HAVE A PI LESSER THAN 30 & A MAXIMUM DRY DENSITY OF 90 PCF OR GREATER.
10. UNSATISFACTORY SOILS INCLUDE MATERIALS THAT ARE TOO WET OR TOO SOFT, EXPANSIVE SOILS AND SOILS CLASSIFIED PT. OR CH. OR SH. FILL MATERIAL SHALL BE SATISFACTORY SOILS OFF-SITE UNLESS OTHERWISE APPROVED BY THE OWNER OR GEOTECHNICAL ENGINEER.
11. FILL MATERIAL SHALL BE PLACED IN LOOSE, HORIZONTAL LIFTS NOT EXCEEDING 8 IN. THICKNESS. COMPACT EACH LAYER TO AT LEAST 98% MAXIMUM DRY DENSITY. COMPACT THE UPPER 24 IN. OF FILL BENEATH PAVEMENTS AND THE UPPER 12 IN. BENEATH BUILDING SLABS TO 100% MAXIMUM DRY DENSITY. MAINTAIN THE MOISTURE CONTENT TO WITHIN ± 1 TO ± 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT.
12. A 6 IN. (MIN.) LAYER OF TOPSOIL SHALL BE PLACED OVER THE AREAS TO BE SEEDDED AND TO THE FINISH GRADE ELEVATIONS AS SHOWN ON THE DRAWINGS.
13. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS OR POND OR AS-BUILT SURVEY NECESSARY MEASURES TO KEEP THE SITE FREE-DRAINING.
14. NO SLOPE SHALL EXCEED 2:1 UNLESS PROPER SLOPE STABILIZATION MEASURES ARE IMPLEMENTED.
15. PROTECT AND MAINTAIN SUBGRADES UNTIL PLACEMENT OF THE FINAL SURFACE IS ACHIEVED.
16. CONTRACTOR IS RESPONSIBLE TO ASSURE THAT THE FINISHED GRADES CONFORM WITH THE DETENTION POND DESIGN PARAMETERS. ONCE GRADING IS COMPLETE AND PRIOR TO FINAL SEEDING, SUBMIT AN AS-BUILT SURVEY FOR THE OWNER'S REVIEW.
17. SLOPE BOTTOM OF POND @ 2.0% (MIN.).
18. VERIFY GRADES WHEREVER NECESSARY TO BRING THE PROPOSED LINES, ELEVATIONS, SLOPES, AND CROSS-SECTIONS OF THE GRADING WORK TO WITHIN THE FOLLOWING TOLERANCES ABOVE OR BELOW THAT AS SHOWN ON THE PLANS: SUBGRADE 0.1', UNPAVED AREAS 0.1', SIDEWALKS 0.10", PAVEMENTS 0.04", AND BUILDINGS 0.04".
19. SLOPES GREATER THAN 4:1 SLOPE AT A HEIGHT GREATER THAN 6-FT SHALL BE TESTED BY THE PROJECT GEOTECHNICAL ENGINEER TO DETERMINE STABILITY.
20. DISTURBED AREAS SHALL BE STABILIZED IN AN EXPEDIENT MANNER TO MINIMIZE TIME OF EXPOSURE TO WEATHER.

———— 1020 ————	PROPOSED CONTOUR
----- 1022 -----	EXISTING CONTOUR
—————	PROPERTY LINE
944.1 X	PROPOSED SPOT ELEVATION
TW 927.5	TOP OR WALL
BW 926.5	BOTTOM OF WALL
(1/C2)	DETAIL REFERENCE (DETAIL NO./SHT. NO.)
TYP.	TYPICAL

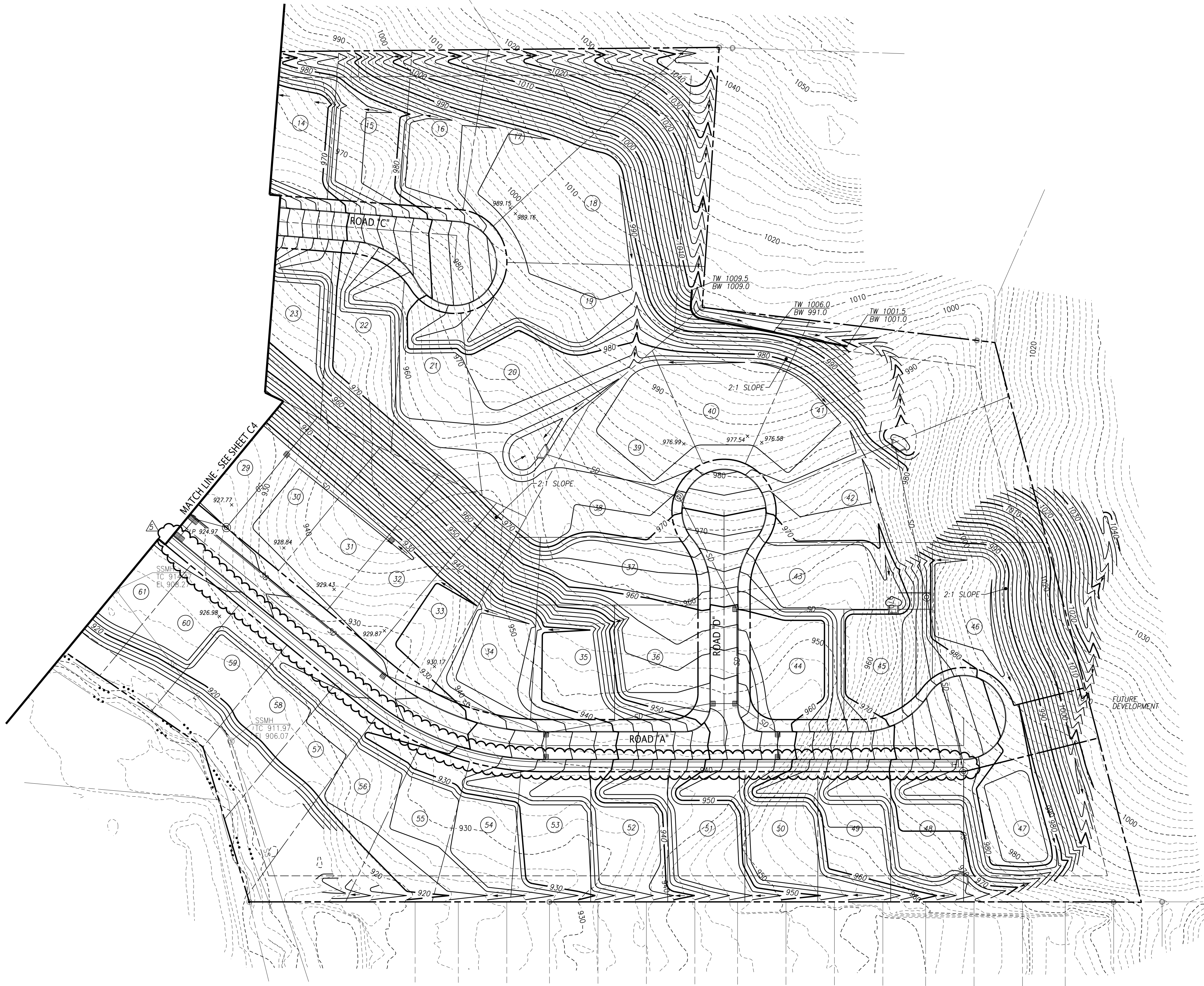


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GRADING PLAN

PROJ. MOR.	AMC	DESIGNED BY	AMC	DRAWN BY	R/LP
$\frac{A}{5}$		REVISED PER COUNTY COMMENTS			02/26/20
$\frac{A}{4}$		REVISED PER OWNER COMMENTS			01/23/20
$\frac{A}{4}$		REVISED ENTRANCE			11/19/19
$\frac{A}{4}$		REVISED GRADING			08/07/19
$\frac{A}{4}$		REVISED PER COUNTY COMMENTS			09/26/18
No.		Revision/Issue			Date

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Plot Date: 2/26/2020

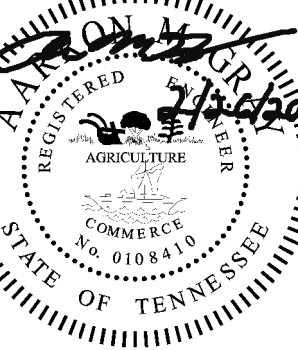


NOTES:

1. REFERENCE SHEET C4 FOR NOTES AND LEGEND.



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GRADING PLAN

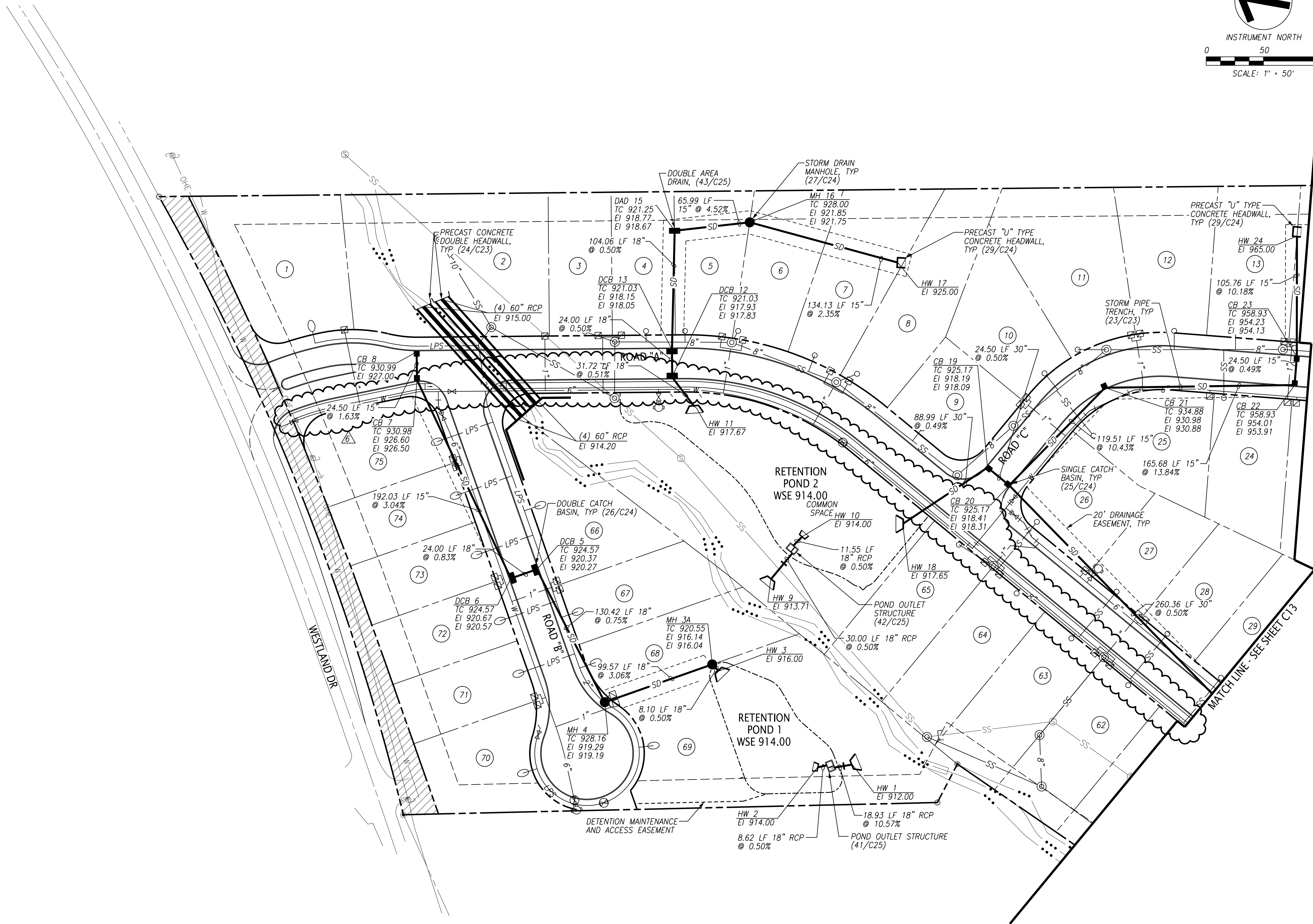
PROJ. NO.	MR.	DESIGNED BY	ANG	DRAWN BY	RLP	Date
330.012	5	ANG	ANG	ANG	02/26/20	
		REVISED PER COUNTY COMMENTS			01/23/20	
		REVISED PER OWNER COMMENTS			11/11/19	
		REVISED GRADING			11/05/19	
		REVISED GRADING			08/07/19	
		Revision/Issue				
		No.				
Project	330.012	Sheet				
Date	08/24/18					
Scale	1"=50'					

3-SA-20-C
Revised: 3/25/20

C5

File Name: \\JTD\JTD_012\DWG\330012-012.dgn
Plot Date: 2/26/2020

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STORM PIPE NOTES:

1. INSTALL STORM SEWER PIPING AND APPURTENANCES TO MEET THE MATERIALS, EQUIPMENT, AND CONSTRUCTION REQUIREMENTS OF THE CITY OF KNOXVILLE STANDARD SPECIFICATIONS.
2. TRENCH DESIGN AND SAFETY FOR PIPELINE CONSTRUCTION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL CONFORM WITH ALL APPLICABLE LOCAL, STATE, AND OSHA REGULATIONS.
3. UNLESS NOTED OTHERWISE, STORM SEWER PIPE SHALL BE EITHER CLASS III REINFORCED CONCRETE PIPE (RCP) OR SMOOTH INTERIOR HIGH DENSITY POLYETHYLENE PIPE (HDPE). RCP SHALL BE INSTALLED IN ACCORDANCE WITH AASHTO M170 (ASTM C76). HDPE PIPE SHALL BE INSTALLED IN ACCORDANCE WITH AASHTO M294.
4. HDPE PIPE SHALL BE INSTALLED WITH WATERTIGHT (WT) JOINTS MEETING ALL AASHTO AND ASTM REQUIREMENTS. JOINTS SHALL BE MADE OF POLYSOPRENE AND INSTALLED AND COVERED WITH A REMOVABLE, PROTECTIVE WRAP BY THE MANUFACTURER.
5. PIPE DEFLECTION AND ALIGNMENT SHALL BE CHECKED AFTER BACKFILLING AND COMPACTION ARE COMPLETE AND PRIOR TO PLACING THE BASE. TEST DEFLECTION WITH A MANDREL OR OTHER APPROVED METHOD.
6. PIPE WITH DEFLECTION 5% OR GREATER OR WITH UNDUE MISALIGNMENT SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
7. PIPE/CULVERTS ARE MEASURED IN TERMS OF HORIZONTAL LENGTH COMPLETE IN PLACE REGARDLESS OF TYPE, DEPTH, CLASS, SHAPE AND SIZE, AS MEASURED ALONG THE CENTERLINE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE (NO DEDUCTIONS FOR STRUCTURES). ACTUAL QUANTITY OF PIPE MAY VARY. THE CONTRACTOR SHALL SUPPLY AND INSTALL THE NECESSARY QUANTITY OF PIPE TO CONSTRUCT THE COMPLETE SYSTEM AS SHOWN. INSTALLATION INCLUDES EXCAVATION, SHORING, FURNISHING AND INSTALLATION OF PIPES, JOINT MATERIALS, COUPLINGS, AND BACKFILL.
8. FOR RCP PIPE WITH SLOPES GREATER THAN 15% USE JOINT TIES OR JOINT FASTENERS AS SPECIFIED BY THE MANUFACTURER. FOR HDPE PIPE WITH SLOPES GREATER THAN 15% USE CONCRETE PIPE ANCHORS AS SPECIFIED BY THE MANUFACTURER.

LEGEND:

SD	EXISTING STORM LINE
SD 15"	PROPOSED STORM LINE
---	PROPOSED STORM EASEMENT
●	PROPOSED STORM MANHOLE
■	PROPOSED SINGLE CATCH BASIN
■	PROPOSED DOUBLE CATCH BASIN
□	PROPOSED STORM HEADWALL
□	PROPOSED STORM U-HEADWALL
□	PROPOSED OUTLET STRUCTURE
□	PROPOSED WATER QUALITY STRUCTURE
MH	PROPOSED STORM MANHOLE
CB	PROPOSED SINGLE CATCH BASIN
DCB	PROPOSED DOUBLE CATCH BASIN
HW	PROPOSED STORM HEADWALL
OS	PROPOSED OUTLET STRUCTURE
TC	PROPOSED TOP OF CASTING
EI	PROPOSED ELEVATION AT INVERT
YI	PROPOSED YARD INLET
(1/C2)	DETAIL REF (DETAIL NO./SHT NO.)
TYP	TYPICAL



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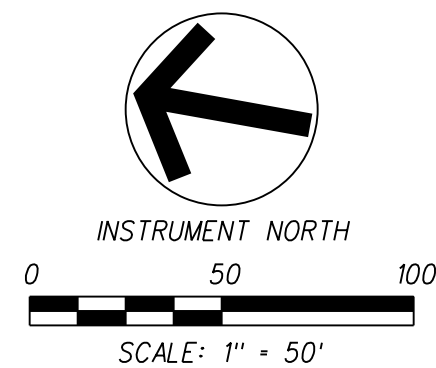
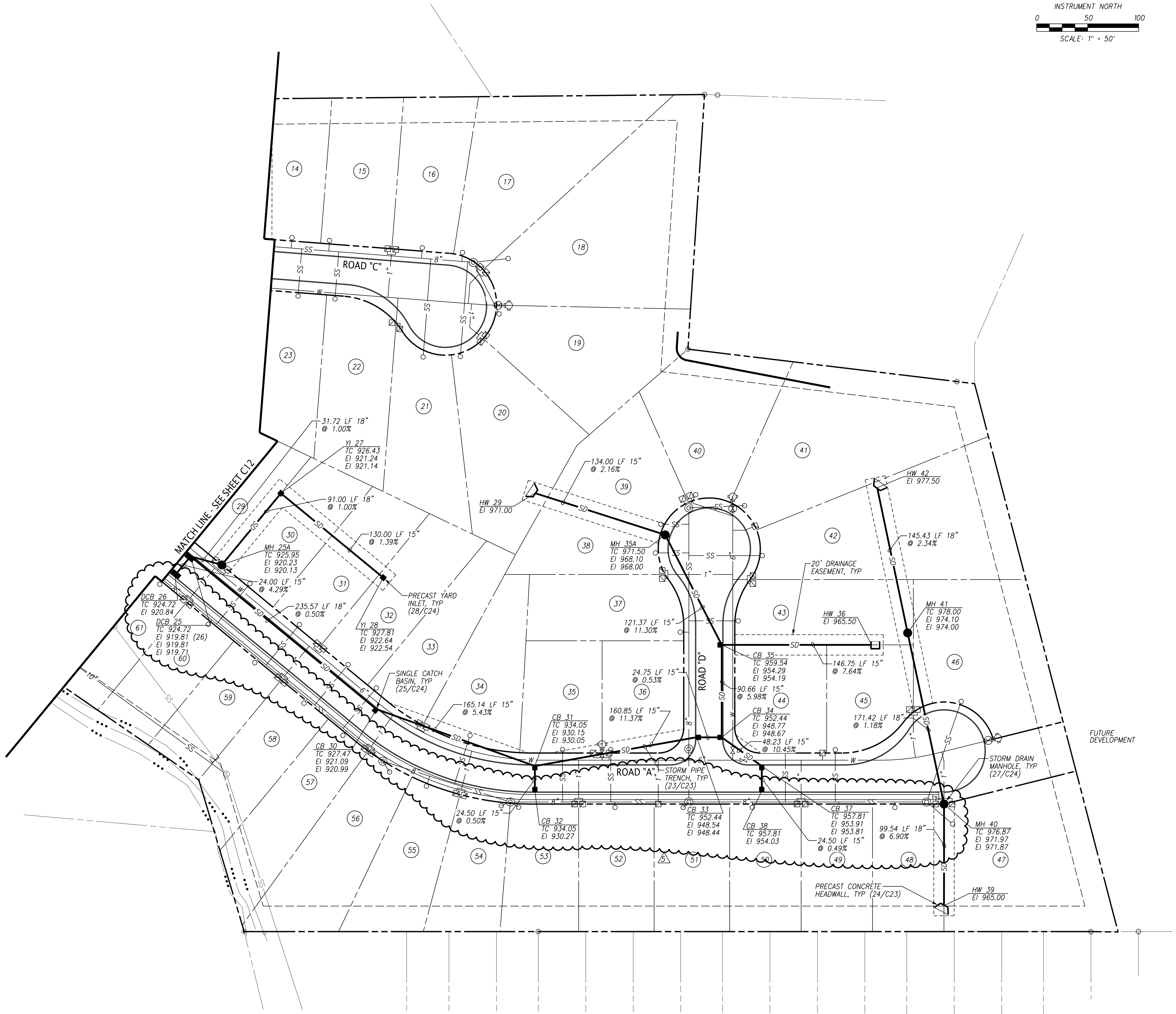
STORM DRAINAGE PLAN

PROJ. NO.	DESIGNED BY	DRAWN BY	DATE
330.012	ANG	RLP	02/26/20
	REVISED PER COUNTY COMMENTS		11/19/19
	REVISED ENTRANCE		08/07/19
	REVISED STORM DRAINAGE		03/27/19
	REVISED STORM DRAINAGE		11/12/18
No.	Revision/Issue		Date
Project	330.012	Sheet	
Date	08/24/18		
Scale	1"=50'		

C12

File Name: \\J300.120.012\DWG\3300120-01.dgn
Plot Date: 2/26/2020

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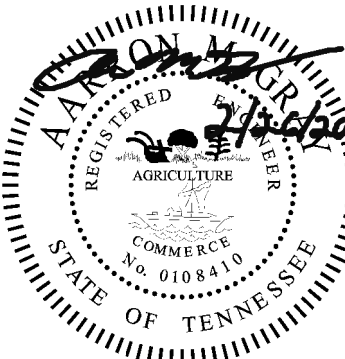


NOTES:

1. REFERENCE SHEETS C12 FOR NOTES AND LEGEND.



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WESTLAND CREEK
SUBDIVISION
8444 WESTLAND DRIVE
KNOXVILLE, TENNESSEE 37923
PLANNING FILE NO.: 3-SA-20-C

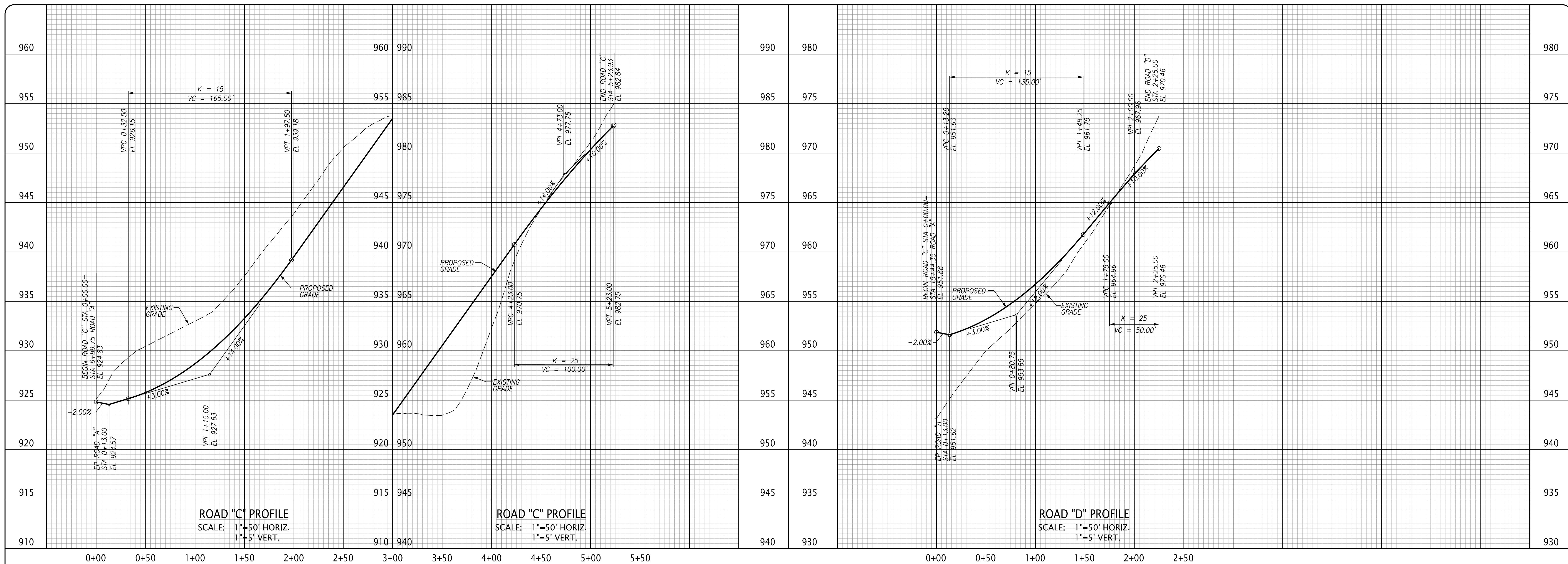
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STORM DRAINAGE PLAN

PROJ. MGR.	DESIGNED BY	DRAWN BY	DATE
ANG	ANG	RLP	02/26/20
ANG	ANG	ANG	11/11/19
ANG	ANG	ANG	11/05/19
ANG	ANG	ANG	08/07/19
ANG	ANG	ANG	11/12/18
No.	Revision/Issue		Date

Project	330.012	Sheet
Date	08/24/18	C13
Scale	1"=50'	

3-SA-20-C
Revised: 3/25/20





1/4" RADIUS, TYP.

3" 3"

1/2" EXPANSION JOINT W/ PREFORMED FILLER TOPPED WITH TRAFFIC GRADE SEALANT

1/4" RADIUS, TYP.

3" 3"

1" DEEP TOOLED JOINT

CONTROL JOINT



NOTES:

1. PREFORMED EXPANSION JOINTS SHALL BE EQUALLY SPACED AT 20' O.C. AND WHERE THE SIDEWALK IS IN CONTACT WITH THE STREET RETURNS, ON BUILDING LINES, AND AT OTHER FIXED OBJECTS, EXPANSION JOINT AT BUILDINGS AND RETAINING WALLS SHALL BE INCREASED TO 1" WIDTH.
2. EQUALLY SPACE CONTRACTION JOINTS AT 5' O.C. (MAX.) BETWEEN EXPANSION JOINTS.
3. PROTECT AND CURE CONCRETE WITH AN APPROVED CURING COMPOUND (KURE-N-SEAL BY SONNEBORN OR EQUAL) APPLY ACCORDING TO THE MANUFACTURER'S SPECIFICATION.



1. PAVEMENT HAS NOT BEEN DESIGNED FOR CONSTRUCTION TRAFFIC/ACTIVITIES. USE OF THESE SURFACES FOR CONSTRUCTION ACTIVITIES SHALL BE DONE AT THE CONTRACTOR'S CONVENIENCE AND RISK. DAMAGE TO PAVEMENT RESULTING FROM THESE ACTIVITIES SHALL BE REPAIRED IN CONFORMANCE WITH THE INITIAL PAVEMENT SPECIFICATIONS.
2. ROADS GREATER THAN 10% SHALL HAVE GRADE "D" SURFACE MIX.

NOTES

1. PREFORMED 1/2" EXPANSION JOINTS SHALL BE EQUALLY SPACED AT 25' MAX. CENTERS. EQUALLY SPACE 1/4" CONTRACTION JOINTS AT 5' MAX. CENTERS BETWEEN EXPANSION JOINTS.
2. EXPANSION JOINT MATERIAL REQUIRED FOR GRASS MEDIANS.
3. EXACT CURB DIMENSIONS MAY BE ALTERED SLIGHTLY TO FIT STANDARD EXTRUDED CURB MACHINES, BUT SUCH VARIANCES MUST BE APPROVED BY THE ENGINEER.
4. IMMEDIATELY AFTER THE CONCRETE HAS SUFFICIENTLY SET, BACKFILL BEHIND CURBS TO PREVENT PONDING OF SURFACE WATER.



1. DETECTABLE WARNING SHALL BE INSTALLED AT ALL LOCATIONS WHERE RAMP EXITS TO VEHICULAR DRIVE PATH.

10 ADA RAMP TYPE "B"
C22 NTS



1. GEOTEXTILE MAT TO BE PLACED
BENEATH PROPOSED RIPRAP.

Diagram illustrating the cross-section of a road with a sidewalk, showing elevations and grades.

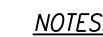
Key features and dimensions:

- Centerline (CL) ROAD:** Elevation (EL) 0.26
- EDGE OF PAVEMENT:** Elevation (EL) 0.00
- BACK OF SIDEWALK:** Elevation (EL) 0.12
- GRADE TRANSITION:** Elevation (EL) 1.48 MAX
- FACE OF GARAGE:** Elevation (EL) 2.28 MAX
- Grades:**
 - 2.0% (from CL ROAD to EDGE OF PAVEMENT)
 - 1.5% (from EDGE OF PAVEMENT to BACK OF SIDEWALK)
 - 9.5% MAX (from BACK OF SIDEWALK to GRADE TRANSITION)
 - 8.0% MAX (from GRADE TRANSITION to FACE OF GARAGE)
 - 0.0% (from FACE OF GARAGE to the right)
- Horizontal Distances:**
 - 13' (from CL ROAD to EDGE OF PAVEMENT)
 - 7.67' (from EDGE OF PAVEMENT to BACK OF SIDEWALK)
 - 14.33' (from BACK OF SIDEWALK to GRADE TRANSITION)
 - 10' (from GRADE TRANSITION to FACE OF GARAGE)
 - 32' (total distance from CL ROAD to FACE OF GARAGE)
- Additional Notes:**
 - $\Delta = 8\%$ MAX (indicated between the 9.5% and 8.0% grades)
 - WITH SIDEWALK** (indicated below the diagram)

The diagram illustrates a road cross-section with the following details:

- Left Side:** A vertical line labeled "ROAD" with an elevation of "EL. 0.26".
- Horizontal Distances:**
 - 13' from the road to the "EDGE OF PAVEMENT".
 - 32' from the "EDGE OF PAVEMENT" to the "FACE OF GARAGE".
- Elevations:**
 - "EDGE OF PAVEMENT" at "EL. 0.00".
 - "FACE OF GARAGE" at "EL. 3.08 MAX".
- Grades and Transitions:**
 - A 2.0% grade from the road to the "EDGE OF PAVEMENT".
 - A 6.0% MAX grade from the "EDGE OF PAVEMENT" to a point 10' away.
 - A "GRADE TRANSITION" from 6.0% to 14.0% MAX over a 10' distance, with an intermediate elevation of "EL. 0.60".
 - A 14.0% MAX grade from the transition point to another point 12' away.
 - A "GRADE TRANSITION" from 14.0% to 8.0% MAX over a 12' distance, with an intermediate elevation of "EL. 2.28".
 - An 8.0% MAX grade from the transition point to the "FACE OF GARAGE".
 - A 0.0% grade at the "FACE OF GARAGE".
- Additional Labels:**
 - "Δ=8% MAX" indicates the change in grade between the 14.0% and 8.0% sections.
 - The text "WITHOUT SIDEWALK" is written at the bottom right.

11	ADA RAMP TYPE "C"
C22	NTS



1. INSTALL ANCHORS AT 36" CENTER TO CENTER ON GRADES BETWEEN 18% AND 25%.
2. INSTALL ANCHORS AT 24" CENTER TO CENTER ON GRADES BETWEEN 25% AND 35%.
3. INSTALL ANCHORS AT 16" CENTER TO CENTER ON GRADES BETWEEN 35% AND OVER.

VARES PER MANUF.

0.9" DIA.

0.2" H.

2.35" (TYP.)

SECTION OF "DOME STAMP"
PATTERN IN SURFACE

0.9" DIA.
0.2" H.

2.35"

2.35"

2.35"

2.35"

2.35"

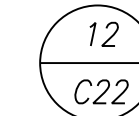
2.35"

TRIANGULAR PATTERN
(EITHER PATTERN IS ACCEPTABLE)

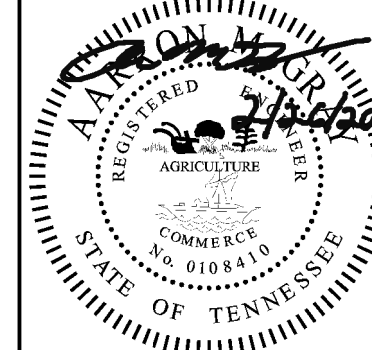
SQUARE PATTERN

NOTES:

1. WIDTH OF DETECTABLE WARNING AREA SHALL BE A MINIMUM OF 4 FEET AND VARY WITH WIDTH OF RAMP.
2. LENGTH OF DETECTABLE WARNING AREA SHALL BE 2 FEET REGARDLESS OF SECTION WIDTH.
3. DETECTABLE WARNING AREA SHALL BE COLORED DARK GRAY OR BLACK IN ALL LOCATIONS.
4. SURFACE APPLIED SYSTEMS SHALL HAVE BEVELED EDGES TO ELIMINATE TRIP HAZARDS.
5. ARMOR-TILE OR ADA SOLUTIONS TACTILE WARNING CAST-IN-PLACE SYSTEMS OR AN EQUIVALENT SHALL BE USED.








EROSION CONTROL DETAIL FOR HOME CONSTRUCTION

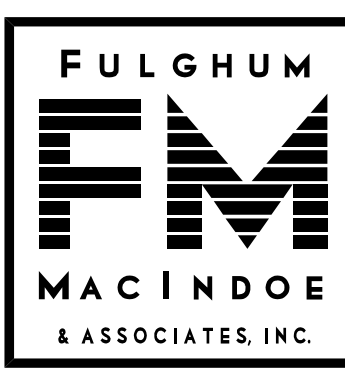
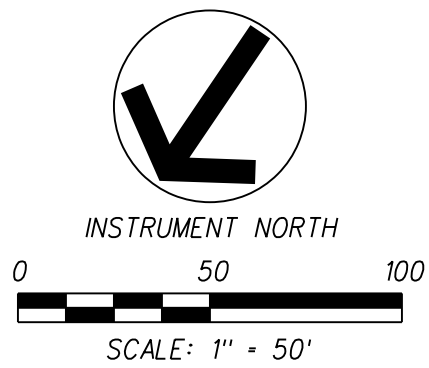


WESTLAND CREEK
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PLANNING FILE NO.: 3-SA-20-C

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DETAILS

Project 330.012 Date 08/24/18 Scale NTS		PROJ. MFR. 	DESIGNED BY AMG	DRAWN BY RLP
		REVISED PER COUNTY COMMENTS	02/26/20	
		REVISED PER OWNER COMMENTS	01/23/20	
		REVISED PER COUNTY COMMENTS	10/01/18	
		ISSUED FOR CONSTRUCTION	08/24/18	



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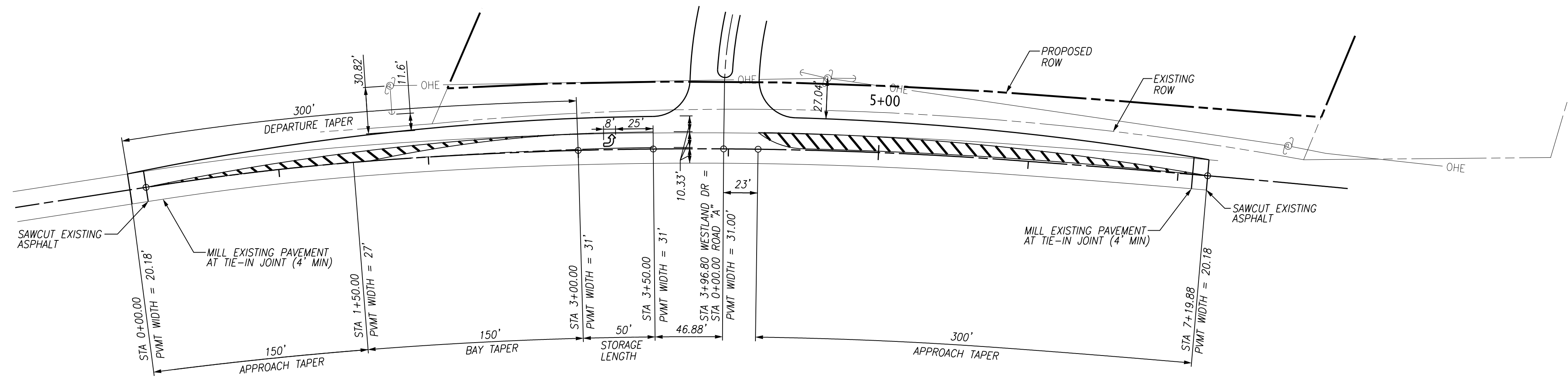
WESTLAND CREEK SUBDIVISION
TURN LANE DESIGN
8444 WESTLAND DRIVE
KNOXVILLE, TENNESSEE 37923
PLANNING FILE NO.: 3-SA-20-C

S&E PROPERTIES, LLC
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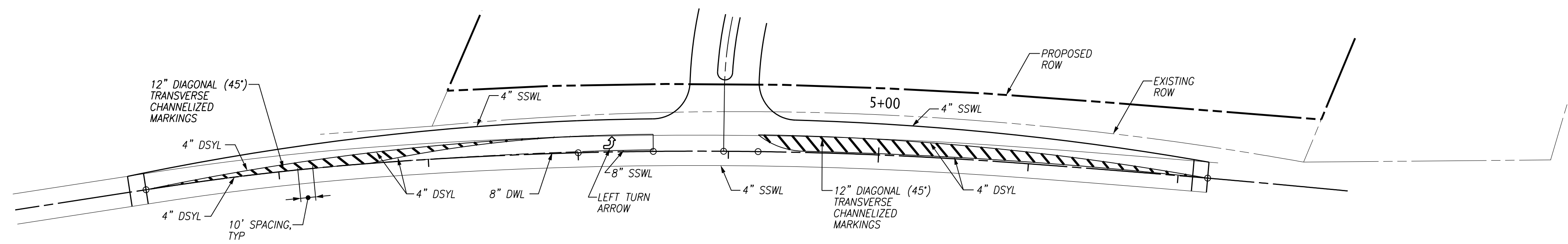
PROPOSED LAYOUT AND STRIPING PLAN

PROJ. MGR.	DESIGNED BY	DRAWN BY	DATE
AMG	AMG	RLP	02/26/20
AMG	AMG	AMG	11/19/19
AMG	AMG	AMG	10/17/18
AMG	AMG	AMG	10/08/18
No.	Revision/Issue	No.	Date

Project	330.012	Sheet	C1
Date	10/08/18		
Scale	1"=50'		



PROPOSED LAYOUT
SCALE: 1" = 50'



STRIPING PLAN
SCALE: 1" = 50'

3-SA-20-C
Revised: 3/25/20

LEGEND:	
---	PROPOSED PROPERTY/ROW LINE
---	EXISTING PROPERTY LINE
---	ROAD CENTER LINE
---	PROPOSED CHANNELIZED MARKINGS
SSWL	SINGLE SOLID WHITE LINE
DWL	DOTTED WHITE LINE
DSYL	DOUBLE SOLID YELLOW LINE
TYP	TYPICAL

1. ALL TEMPORARY WORK ZONE TRAFFIC CONTROL SIGNAGE, DEVICES, AND PROCEDURES TO BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. THE CONTRACTOR IS TO IMPLEMENT THIS TRAFFIC CONTROL PLAN AS SHOWN AND IS RESPONSIBLE FOR MAKING ANY FIELD ADJUSTMENTS DEEMED NECESSARY IN ACCORDANCE WITH THE MUTCD. THIS PLAN DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES TO THE SAFETY OF THE TRAVELING PUBLIC AND RESIDENTS ALONG THE CONSTRUCTION AREA.
3. WHEN NOT NEEDED FOR ONGOING WORK ACTIVITIES, TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE REMOVED FROM THE AREA, COVERED, OR OTHERWISE POSITIONED IN A MANNER THAT MAKES IT OBVIOUS THAT THEY ARE NOT IN USE.
4. CHANNELIZING DEVICES TO BE STANDARD MUTCD DRUMS OR MIN. 28" TALL CONES WITH WEIGHTED BASES AND SHALL BE REFLECTORIZED.
5. CONTRACTOR TO MAINTAIN ACCESS TO SIDE ROADS AND DRIVEWAYS AT ALL TIMES.
6. CONTRACTOR TO CONTACT KNOX COUNTY ENGINEERING AT 865.215.5860 AT LEAST ONE DAY PRIOR TO ROUTING TRAFFIC.
7. ALL SIGNS AND CHANNELIZING DEVICES SHALL HAVE A MEANS OF RETROREFLECTION FOR USE AT NIGHT. REFERENCE MUTCD FOR VARIOUS MEANS OF RETROREFLECTION.
8. LANE CLOSURES ON WESTLAND DRIVE SHALL BE ALLOWED ONLY BETWEEN THE HOURS OF 9 A.M. AND 3 P.M.
9. CONTRACTOR SHALL KEEP WORK ZONE LENGTHS TO A MINIMUM BY SHIFTING THE WORK ZONE AS WORK PROGRESSES WHERE PRACTICAL.
10. ADVANCE WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN 48 HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERCTED UP TO ONE WEEK BEFORE NEEDED IF THE SIGN FACE IS FULLY COVERED.
11. LONG TERM BUT SPORADIC USE WARNING SIGNS MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.
12. TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERCTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
13. USE OF BARRICADES AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROAD WITHIN 10 FEET OF THE EDGE OF TRAVELED WAY BEFORE OR AFTER USE. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN NOT IN USE AND NO SUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS SUBJECT TO APPROVAL BY THE RESPONSIBLE AGENCY.
14. DURING PERIODS OF INACTIVITY, THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT WITHIN TEN FEET OF THE EDGE OF PAVEMENT WHILE THE LANE IS OPEN TO TRAFFIC. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO BE PARKED WITHIN TEN FEET OF AN OPEN TRAFFIC LANE AT ANY TIME. WHEN SUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS SUBJECT TO APPROVAL BY THE RESPONSIBLE AGENCY.
15. PORTABLE BARRIER RAIL WILL BE REQUIRED WHERE DROP OFFS EXCEED 18 INCHES. PORTABLE BARRIER RAIL MAY BE USED WHERE DROP OFFS EXCEED 6 INCHES. FOR MORE SPECIFIC INFORMATION SEE TDOT DROP-OFF POLICY.

1. THE BOUNDARY DATA TAKEN FROM LYNCH SURVEYS LLC, TOPOGRAPHIC DATA WAS TAKEN FROM KGIS. EXISTING CONTOURS ARE AT 2-FT INTERVALS. VERTICAL DATUM IS BASED ON NAVD88.
2. TRAFFIC CONTROL DEVICES AND PAVEMENT MARKING SHALL CONFORM TO THE FEDERAL HIGHWAY ADMINISTRATIONS "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
3. REFERENCE ASSHTO AND TDOT STANDARD SPECIFICATIONS AND DETAILS FOR ROADWAY CONSTRUCTION AND STRIPING DESIGN INFORMATION.
4. CONTRACTOR TO COORDINATE WITH KNOX COUNTY ENGINEERING AND PUBLIC WORKS FOR PERMITTING PRIOR TO CONSTRUCTION.
5. CONTRACTOR TO MAINTAIN A 4-FT MINIMUM CLEAR ZONE FROM THE EDGE OF PAVEMENT AT A MAXIMUM OF A 4:1 SLOPE.

a. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES AND SHOULDER WHERE THE TRAFFIC LANE IS BEING USED BY TRAFFIC, CAUSED BY BASE, PAVING OR RESURFACING:

1. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 2 INCHES:
 - a. WARNING SIGNS, UNEVEN LANES (WB-11) AND/OR SHOULDER DROP-OFF WITH PLAQUE (WB-17 AND WB-17C), SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.
 - b. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY ADDED PAVEMENT SHALL BE ELIMINATED WITHIN THREE WORKDAYS.
 - c. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY COLD PLANING SHALL BE ELIMINATED WITHIN THREE WORKDAYS.
 - d. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE TRAFFIC LANE, BEING UTILIZED BY TRAFFIC AND SHOULDER THE DIFFERENCE IN ELEVATION SHALL BE ELIMINATED WITHIN SEVEN WORKDAYS AFTER THE CONDITION IS CREATED.
2. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES. TRAFFIC IS NOT TO BE ALLOWED TO TRAVERSE THIS DIFFERENCE IN ELEVATION.
 - a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
 - (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
 - (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACE OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.
 - b. IF THE DIFFERENCE IN ELEVATION IS ELIMINATED OR DECREASED TO 2 INCHES OR LESS BY THE END OF EACH WORKDAY, CONES MAY BE USED DURING DAYLIGHT HOURS IN LIEU OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES MENTIONED IN PARAGRAPH a, PROVIDED WARNING SIGNS, WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.
 - c. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE THROUGH TRAFFIC LANE AND THE SHOULDER AND THE ELEVATION DIFFERENCE IS LESS THAN 3.5 INCHES, THE CONTRACTOR MAY USE WARNING SIGNS AND/OR PROTECTIVE DEVICES AS APPLICABLE AND APPROVED BY THE ENGINEER. SEE PARAGRAPH a REGARDING USE OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) WILL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 2 MILES IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

3. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 6 INCHES BUT NOT EXCEEDING 18 INCHES, THE CONTRACTOR, WITH THE ENGINEER'S APPROVAL, MAY UTILIZE ONE OF THE FOLLOWING:
- a. THE CONTRACTOR SHALL ACCOMPLISH SEPARATION BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
 - (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
 - (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACE OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.
 - b. IN ORDER TO USE THIS METHOD, THE CONTRACTOR MUST REDUCE THE DIFFERENCE IN ELEVATION TO 6 INCHES OR LESS BY THE END OF THE WORKDAY THAT THE CONDITION IS CREATED.
 - b. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a, AND CONSTRUCT A STONE WEDGE WITH A 4:1 SLOPE, OR FLATTER, TO ELIMINATE THE VERTICAL OFFSET IF THE LOWER ELEVATION IS AT OR BELOW SUBGRADE AT THE END OF EACH DAY.
 - c. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a AND IF THE LOWER ELEVATION IS BASE STONE OR ASPHALT PAVEMENT, PLACEMENT OF SUBSEQUENT LAYERS OF PAVEMENT MUST BEGIN THE NEXT WORK DAY AND PROGRESS CONTINUOUSLY UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED OR REDUCED TO SIX INCHES OR LESS
 - d. THE CONTRACTOR SHALL PROVIDE SEPARATION BY PORTABLE BARRIER RAIL.

IN ORDER TO USE THIS METHOD, THE CONTRACTOR MUST REDUCE THE DIFFERENCE IN ELEVATION TO 6 INCHES OR LESS BY THE END OF THE WORKDAY THAT THE CONDITION IS CREATED.

b. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a, AND CONSTRUCT A STONE WEDGE WITH A 4:1 SLOPE, OR FLATTER, TO ELIMINATE THE VERTICAL OFFSET IF THE LOWER ELEVATION IS AT OR BELOW SUBGRADE AT THE END OF EACH DAY.

c. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a AND IF THE LOWER ELEVATION IS BASE STONE OR ASPHALT PAVEMENT, PLACEMENT OF SUBSEQUENT LAYERS OF PAVEMENT MUST BEGIN THE NEXT WORK DAY AND PROGRESS CONTINUOUSLY UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED OR REDUCED TO SIX INCHES OR LESS

d. THE CONTRACTOR SHALL PROVIDE SEPARATION BY PORTABLE BARRIER RAIL

FOR PRECEDING CONDITIONS a, b, and c, the CONTRACTOR SHALL USE THE SHOULDER DROP-OFF WARNING SIGN WITH PLAQUE (W8-17 and W8-17P). IT SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN THE SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 1,000 FEET. IN THE EXPOSED AREA, THE CONTRACTOR SHALL NOT BE ALLOWED TO LIMIT HIS OPERATIONS TO ONE WORK ZONE, NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IS ELIMINATED. WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS SHALL BE CONSIDERED INDEPENDENT IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

4. FOR DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 18 INCHES.

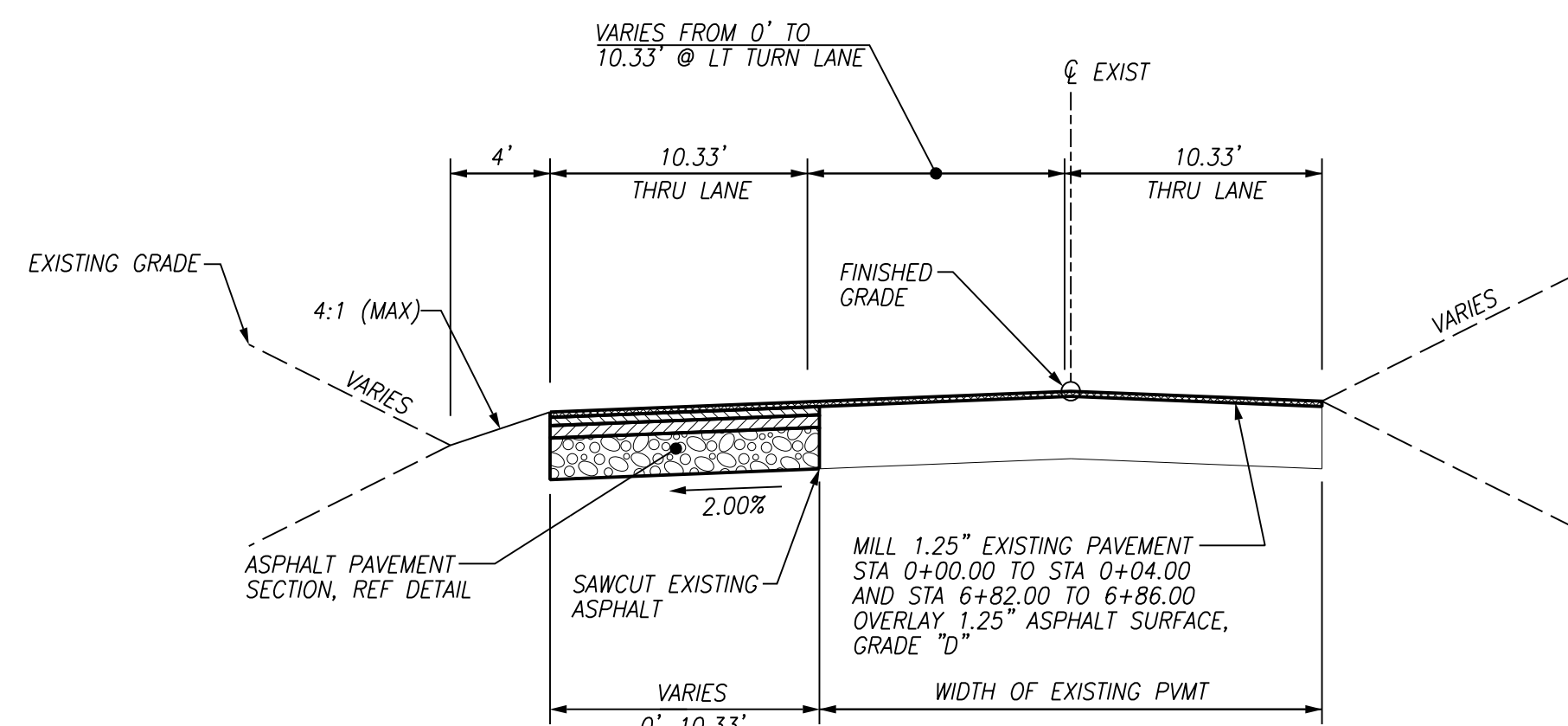
SEPARATION WILL BE PROVIDED BY USE OF PORTABLE BARRIER RAIL

IN THIS SITUATION THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

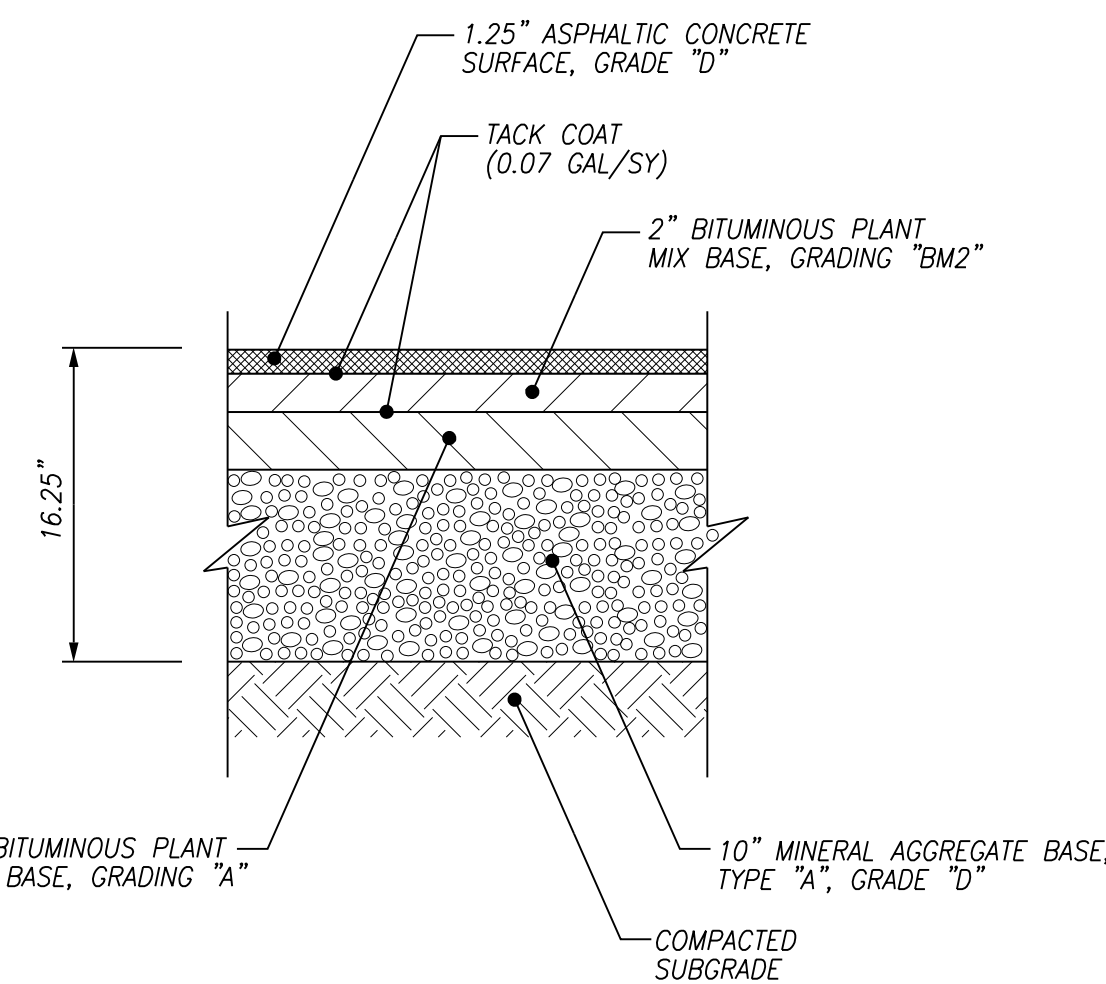
- B. IF THE DIFFERENCE IN ELEVATION IS WITHIN 30 FEET OF THE NEAREST TRAFFIC LANE BEING USED BY TRAFFIC CAUSED BY GRADING, EXCAVATION FOR UTILITIES, DRAINAGE STRUCTURES, UNDERCUTTING, ETC.:
1. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 3/4 INCH AND NOT EXCEEDING 2 INCHES.
 - a. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.
 2. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES.
 - a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
 - (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
 - (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACE OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.
 3. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 6 INCHES:
 - a. THE CONTRACTOR SHALL ACCOMPLISH SEPARATION BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
 - (1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
 - (2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACE OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.
 - b. ELIMINATE VERTICAL OFFSET BY CONSTRUCTING A STONE WEDGE OR GRADING TO A 4:1 SLOPE, OR FLATTER, OR USED PORTABLE BARRIER RAIL.

THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE WITHIN 8 FEET OF A TRAFFIC LANE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.
 - C. IF THE DIFFERENCE IN ELEVATION IS FARTHER THAN 8 FEET FROM THE NEAREST TRAFFIC LANE BUT NOT MORE THAN 30 FEET FROM THE NEAREST TRAFFIC LANE: SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:
 1. WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.
 2. WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.



TYPICAL SECTION - OVERLAY



- NOTES:
1. PAVEMENT HAS NOT BEEN DESIGNED FOR CONSTRUCTION TRAFFIC/ACTIVITIES. USE OF THESE SURFACES FOR CONSTRUCTION ACTIVITIES SHALL BE DONE AT THE CONTRACTOR'S CONVENIENCE AND RISK. DAMAGE TO PAVEMENT RESULTING FROM THESE ACTIVITIES SHALL BE REPAIRED IN CONFORMANCE WITH THE INITIAL PAVEMENT SPECIFICATIONS.

1 ASPHALT PAVEMENT SECTION
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TYPICAL SECTIONS AND NOTES

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