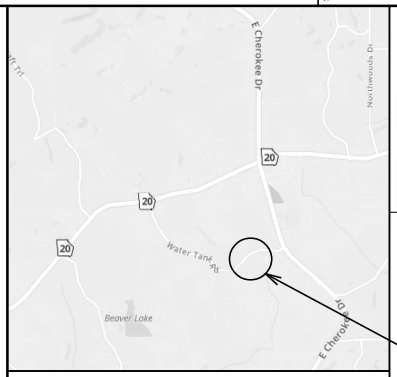
1/5/2024 calco	GPLOT-V8 gplotborder-v81-P0.tbl	Water Tank_01-0001.dgn GRMCOV	CHEROKEE COUNTY, GA	P. I. No. N/A

CHEROKEE COUNTY
SPLOST ROADWAY PROGRAM

PLAN AND PROFILE OF PROPOSED

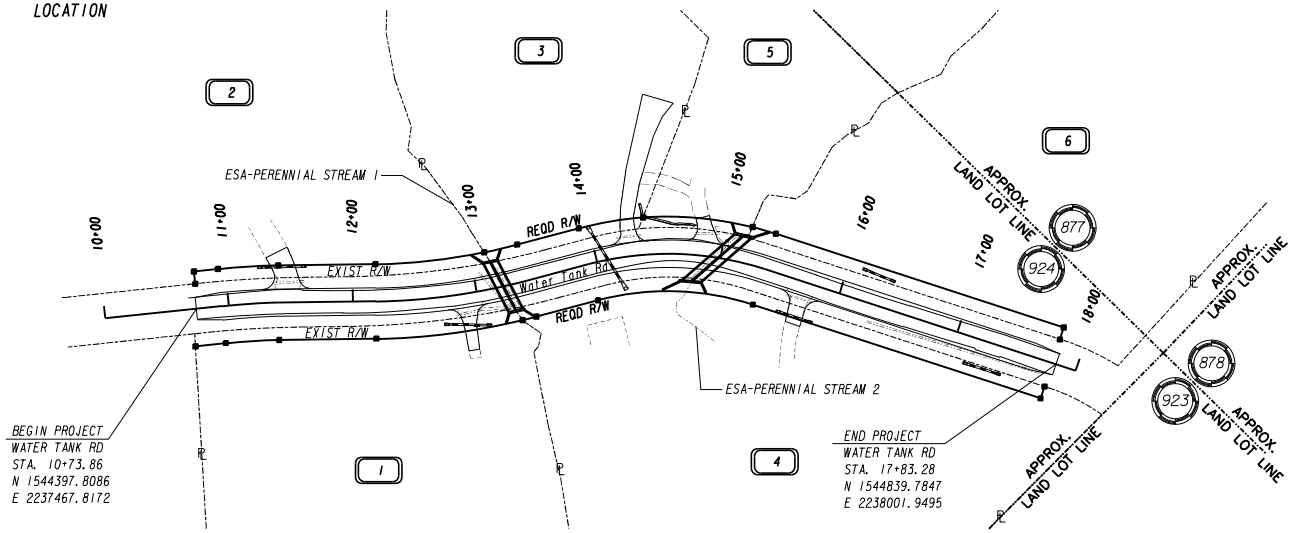
WATER TANK ROAD
DRAINAGE IMPROVEMENTS
PROJECT 74008



PROJECT LOCATION

LOCATION SKETCH

THIS PROJECT HAS BEEN PREPARED USING THE HORIZONTAL GEORGIA COORDINATE SYSTEM OF 1984 (NAD 1983)/94 WEST ZONE, AND THE NORTH AMERICAN VERTICAL DATUM (NAVD)OF 1988.



PREPARED BY: _____

CHARLIE A.LANZ,PE

GEORGIA REGISTERED PROFESSIONAL ENGINEER CHARLIE A. LANZ No. 035611

THE DATA,TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANYWAY INDICATED THEREBY,WHETHER BY DRAWINGS OR NOTES,OR IN ANY OTHER MANNER,ARE BASED UPON FIELD INVESTIGATIONS AND ARE BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS.HOWEVER,THE SAME ARE SHOWN AS INFORMATION ONLY,ARE NOT GUARANTEED,AND DO NOT BIND CHEROKEE COUNTY IN ANY WAY.THE ATTENTION OF BIDDER IS SPECIFICALLY DIRECTED TO SUBSECTIONS 102.04,102.05,AND 104.03 OF THE SPECIFICATIONS.

PLANS PREPARED BY:

CALCO ENGINEERING

SCALE IN FEET
0 50 100 200

PLANS COMPLETED 12-06-2023	
REVISIONS	

DRAWING No. 01-0001

FUNCTIONAL CLASS:
WATER TANK RD - LOCAL (RURAL)

THIS PROJECT IS 100% IN CHEROKEE COUNTY AND IS 100% IN CONG.DIST.NO.11.

PROJECT DESIGNATION: EXEMPT

DESIGN DATA	WATER TANK RD
TRAFFIC A.D.T. :	N/A
DIRECTIONAL DIST:	N/A
% TRUCKS:	N/A
SPEED DESIGN:	25 MPH

LENGTH OF PROJECT County: Cherokee (057)	LAND LOT 924 MILES
NET LENGTH OF ROADWAY	0.134
NET LENGTH OF BRIDGES	0.000
NET LENGTH OF PROJECT	0.134
NET LENGTH OF EXCEPTIONS	0.000
GROSS LENGTH OF PROJECT	0.134

DRAWING NO.	DESCRIPTION

	INDEX
1-0001	Cover
2-0001	Index
4-0001	General Notes
5-0001	Typical Sections
6-0001	Summary Quantities
9-0001	Detailed Estimate
13-0001 to 13-0002	Mainline Plan
15-0001	Mainline Roadway Profile
17-0001	Driveway Profiles
21-0001	Drainage Area Map
22-0001	Drainage Profiles
23-0001 to 23-0004	Cross Sections
24-0000 to 24-0002	Utility Plans
26-0001 to 26-0002	Signing and Marking Plans
39-0001 to 39-0003	Perennial Stream Plans
52-0001 to 52-0007	Erosion Control Legend and Uniform Code Sheets
54-0001 to 54-0004	BMP Location Details
60-0001 to 60-0005	Right of Way Plans

LIST OF APPLICALBE GEORGIA DOT STANDARDS		
STD. NO.	DESCRIPTION	DATE
1030d1	Concrete and Metal Pipe Culverts Sheet 1 of 3	9/1/2001
1030d2	Concrete and Metal Pipe Culverts Sheet 2 of 3	9/26/2001
1120	Flared End Sections for Pipes.	6/9/2006
1122-1	Safety End Section (Metal) (for Side Drain pipe-or Storm Drain Pipe Parallel to Mainline) (Sheet 1 of 3)	1/28/2005
2400-1	Index of Reinforced Concrete Box Culverts (Sheet 1 of 1)	9/30/2017
2402-1	Reinforced Concrete Double Box Culvert (Sheet 1 of 3)	9/30/2017
2402-2-B	Reinforced Concrete Double Box Culvert 5' x 3' and 5' x 4' (Sheet 2-B of 3)	9/30/2017
2402-3	Reinforced Concrete Double Box Culvert (Sheet 3 of 3)	9/30/2017
2405-1	Reinforced Concrete Skewed Wingwalls, Toewalls And Parapets for 75 Deg, 60 Deg and 45 Deg Skews (Sheet 1 of 3)	9/30/2017
2405-2	Reinforced Concrete Skewed Wingwalls, Toewalls And Parapets for 75 Deg and 60 Deg Skews (Sheet 2 of 3)	9/30/2017
2405-3	Reinforced Concrete Skewed Wingwalls, Toewalls And Parapets for 45 Deg Skew (Sheet 3 of 3)	9/30/2017
2406-1	Concrete Box Culvert Aprons and Baffles Detail (Sheet 1 of 2)	9/30/2017
2406-2	Concrete Box Culvert Aprons and Baffles Detail (Sheet 2 of 2)	9/30/2017
2530p	Precast Box Culvert Barrels 4 x 3 Thru 10 x 10 Single and Multiple Lines	6/27/1985
2535p	Precast Box Culvert Ends - Wingwalls, Parapets Toewalls and Aprons	3/1/1985
9003	Federal Aid and State Project Markers; Right of Way Markers; County Line Marker	4/10/2006

LIST OF APPLICALBE GEORGIA DOT DETAILS		
DET. NO.	DESCRIPTION	DATE
D-24A	Temporary Silt Fence (Sheet 1 of 4)	1/19/2011
D-24B	Temporary Silt Fence Berm Ditch, Installation, Brush Barrier (Sheet 2 of 4)	1/19/2011
D-24C	Temporary Silt Fence J-Hooks, Inlet Sediment Traps (Sheet 3 of 4)	1/19/2011
D-24D	Temporary Silt Fence Fabric Check Dam (Sheet 4 of 4)	7/1/2015
D-35	Permanent Soil Reinforcing Mat (Turf Reinforcing Mat) Installation on ditches	1/19/2011
D-41	Construction Exit	11/4/2020
D-43	Rock Filter Dam	4/22/2016
D-48	Fish Passage Culvert Concrete Veins	11/7/2011
EC-L1	Erosion Control Legend and Uniform Code Sheet (Sheet 1 of 7)	3/2/2017
EC-L2	Erosion Control Legend and Uniform Code Sheet (Sheet 2 of 7)	11/28/2018
EC-L3	Erosion Control Legend and Uniform Code Sheet (Sheet 3 of 7)	3/2/2017
EC-L4	Erosion Control Legend and Uniform Code Sheet (Sheet 4 of 7)	3/2/2017
EC-L5	Erosion Control Legend and Uniform Code Sheet (Sheet 5 of 7)	3/2/2017
EC-L6	Erosion Control Legend and Uniform Code Sheet (Sheet 6 of 7)	11/28/2018
EC-L7	Erosion Control Legend and Uniform Code Sheet (Sheet 7 of 7)	3/2/2017
T-11a	DETAILS OF PAVEMENT MARKING PLACEMENT ON NON-LIMITED ACCESS ROADWAY	9/15/2016
T-15a	DETAILS OF RAISED PAVEMENT MARKER LOCATION NON-LIMITED ACCESS ROADWAY	9/15/2016
T-15c	DETAILS OF RAISED PAVEMENT MARKERS	9/22/2011

CALCO ENGINEERING

REVISION DATES

INDEX

WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		02-0001
CORRECTED:		DATE:		
VERIFIED:		DATE:		

PROJECT GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH CHEROKEE COUNTY AND GEORGIA DEPARTMENT OF TRANSPORTATION STANDARD AND SUPPLEMENTAL SPECIFICATIONS, CURRENT EDITION. ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT HIS/HER OWN EXPENSE UNLESS PREVIOUSLY OBTAINED BY THE COUNTY.

2. ALL KNOWN FACILITIES ARE SHOWN SCHEMATICALLY ON PLANS, AND ARE NOT NECESSARILY ACCURATE IN LOCATION AS TO PLAN OR ELEVATION. UTILITY FACILITIES SUCH AS SERVICE LINES OR UNKNOWN FACILITIES NOT SHOWN ON PLANS WILL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY UNDER THIS REQUIREMENT. "EXISTING UTILITY FACILITIES" MEANS ANY UTILITY THAT EXISTS ON THE PROJECT IN ITS ORIGINAL, RELOCATED OR NEWLY INSTALLED POSITION.

3. UTILITY WORK COORDINATION WILL BE REQUIRED AS A PART OF THIS CONTRACT. THE CONTRACTOR SHALL BE REQUIRED TO USE THE ONE-CALL CENTER TELEPHONE NUMBER 811 OR 1-800-282-7411 FOR THE PURPOSE OF COORDINATING THE MARKING OF UNDERGROUND UTILITIES. THE CONTRACTOR'S ATTENTION IS CALLED TO SUB-SECTION 105.06 OF THE GADOT STANDARD SPECIFICATIONS "COOPERATION WITH UTILITIES".

4. INGRESS AND EGRESS SHALL BE MAINTAINED AT ALL TIMES TO ADJACENT PROPERTIES. REFER TO SUB-SECTION 107.07 OF THE GEORGIA STANDARD SPECIFICATIONS.

5. RIGHT-OF-WAY MARKERS IN RESIDENTIAL LAWN AND DEVELOPED COMMERCIAL AREAS SHALL BE PLACED FLUSH WITH THE FINISH SURFACE.

6. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO FURNISH SUITABLE BORROW MATERIAL FOR THE PROJECT AND TO DISPOSE OF ANY UNSUITABLE OR WASTE MATERIAL IN COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. CONCRETE AND ASPHALT MATERIALS REMOVED FROM THE PROJECT SITE MAY NOT BE PLACED IN FILL LOCATIONS THAT FALL WITHIN EASEMENT AREAS. WITH THE PRIOR APPROVAL OF THE ENGINEER, THESE MATERIALS MAY BE PLACED WITHIN THE R/W PROVIDED THERE IS THREE (3') FEET OF MINIMUM COVER AND THERE ARE NO PLANS FOR THE FUTURE WIDENING OF THE ROADWAY. ALL FILL AREAS MUST BE COMPACTED TO MINIMUM 95% STANDARD PROCTOR.

7. PERFORATED UNDERDRAIN SHALL BE PLACED IN AREAS WHERE WET CONDITIONS EXIST IN THE SUBGRADE AS DIRECTED BY ENGINEER.

8. STRUCTURES, TREES, SHRUBS AND OTHER PLANT MATERIAL THAT FALL WITHIN THE RIGHT-OF-WAY AND EASEMENT LIMITS, BUT OUTSIDE THE LIMITS OF CONSTRUCTION, SHALL NOT BE DISTURBED UNLESS DIRECTED BY THE ENGINEER.

9. THE CONTRACTOR SHALL OBSERVE ALL APPLICABLE LOCAL, STATE AND FEDERAL SAFETY REGULATIONS REGARDING PIPE INSTALLATION IN TRENCHES. NO SEPARATE PAYMENT WILL BE MADE FOR ANY COST INCURRED TO COMPLY WITH THE REQUIREMENT.

10. ALL EXISTING PIPE NO LONGER IN USE SHALL BE REMOVED UNLESS OTHERWISE NOTED ON PLANS OR AS DIRECTED BY THE ENGINEER. REMOVAL OF PIPE SHALL BE INCLUDED IN PRICE BID FOR "GRADING COMPLETE".

11. IN AREA WHERE NEW PAVEMENT OR PAVEMENT WIDENING IS REQUIRED, SAW CUT OF EXISTING PAVEMENT WILL BE REQUIRED IN ACCORDANCE WITH SECTION 411 OF THE GEORGIA STANDARD SPECIFICATIONS AND WILL BE INCLUDED IN PRICE BID FOR "GRADING COMPLETE".

12. ALL ROAD SIGNS AND COUNTY SIGNS SHALL BE RESET AND PAYMENT SHALL BE INCLUDED IN "TRAFFIC CONTROL".

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING, RELOCATING AND MAINTAINING THE PROPERTY OWNER'S MAILBOX TO AN AREA OUTSIDE CONSTRUCTION LIMITS DURING THE LIFE OF THE CONTRACT. THE LOCATION OF THE BOX SHOULD BE CONVENIENT TO BOTH THE MAIL CARRIER AND THE PATRON, YET NOT INTERFERE WITH PROPOSED WORK. IT MAY BE NECESSARY FOR THE CONTRACTOR TO CONFER WITH THE POST OFFICE SERVING THE AREA. ALL COSTS INCURRED FOR COMPLIANCE WITH THESE REQUIREMENTS SHALL BE INCLUDED IN THE PRICE BID FOR GRADING COMPLETE.

14. ALL DRIVEWAYS SHALL BE MAINTAINED DURING CONSTRUCTION. ALL DRIVEWAYS TO BE CONSTRUCTED SHALL BE REPLACED IN KIND I.E. ASPHALT FOR ASPHALT, CONCRETE FOR CONCRETE ETC. ANY OTHER DRIVEWAY MATERIAL OR SPECIALIZED DRIVEWAY WILL NOT BE REPLACED IN KIND (I.E. PAVERS) AND WILL BE REPLACED WITH ASPHALT OR CONCRETE. ALL EARTH OR GRAVEL DRIVES SHALL BE PAVED WITH ASPHALT TO THE RIGHT-OF-WAY LIMIT OR TIE-IN POINT. DRIVEWAYS SHALL BE PAVED AS FOLLOWS:

ASPHALTIC DRIVES
RESIDENTIAL- 1-1/2" ASPH. CONC. 12.5 MM SUPERPAVE, 165 LB/SY
- 6" GRADED AGGREGATE BASE
COMMERCIAL- 1-1/2" ASPH. CONC. 12.5 MM SUPERPAVE, 165 LB/SY
- 2" ASPH CONC. 19 MM SUPERPAVE, 220 LB/SY
- 8" GRADED AGGREGATE BASE

CONCRETE DRIVES
RESIDENTIAL- 6" CONCRETE VALLEY GUTTER
- 6" CONCRETE DRIVEWAY
COMMERCIAL- 8" CONCRETE VALLEY GUTTER
- 8" CONCRETE DRIVEWAY

15. LUMP-SUM TRAFFIC CONTROL: THE PRICE BID FOR LUMP-SUM TRAFFIC CONTROL INCLUDE THE COST OF STAGED CONSTRUCTION, MAINTENANCE OF TRAFFIC (INCLUDING AGGREGATE SURFACE COURSE), INSTALLATION AND REMOVAL OF ALL TEMPORARY SIGNAGE, INTERIM PAVEMENT MARKINGS, BARRICADES, AND OTHER INTERIM TRAFFIC CONTROL DEVICES NECESSARY FOR THE CONSTRUCTION AND MAINTENANCE OF THE PROJECT. DEVICES UTILIZED ON THE PROJECT SHALL BE IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CURRENT EDITION AND SECTION 150. ALL DEVICES, SIGNS, POSTS, BARRICADES, ETC SHALL BE FROM THE GDOT QUALIFIED PRODUCTS LIST (QPL). ALL DEVICES SHALL BE CRASHWORTHY UNDER AASHTO AND NCHRP 350 REQUIREMENTS. THE ENGINEER MAY DIRECT THAT ADDITIONAL DEVICES AND MARKINGS BE ADDED TO THE TRAFFIC CONTROL PLAN. THE COST OF NOMINAL ITEMS ADDED BY THE ENGINEER SHALL BE INCLUDED IN LUMP-SUM TRAFFIC CONTROL EXCEPT FOR THE ADDITION OF A CHANGEABLE MESSAGE SIGN(S) OR A UNIT PRICE WILL BE DETERMINED WHEN A CHANGEABLE MESSAGE SIGN(S) IS NOT INCLUDED IN THE CONTRACT.

16. ALL CUT AND FILL SLOPES SHALL BE STABILIZED TO COMPLY WITH SECTION 161.3.05.B OF THE SPECIFICATIONS IN ORDER TO REDUCE THE POTENTIAL FOR EROSION. IF THE SEASON DOES NOT PERMIT PERMANENT GRASSING, TEMPORARY STRAW MULCH AND/OR TEMPORARY VEGETATION SHALL BE USED AS PER THE EROSION AND SEDIMENTATION POLLUTION CONTROL PLAN (ESPCP) OR AS DIRECTED BY THE ENGINEER.

17. EROSION CONTROL MEASURES SHALL BE INSTALLED TO BE IN COMPLIANCE WITH THE APPROVED EROSION AND SEDIMENTATION POLLUTION CONTROL (ESPCP). EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES THAT INVOLVE ENVIRONMENTAL SENSITIVE AREAS (ESA'S) AS DEFINED UNDER SECTION 107.23.F OF THE SPECIFICATIONS AND THE ESPCP. IN GENERAL, EROSION CONTROL ITEMS SHOULD BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBING ACTIVITIES. THE INSTALLATION OF THE EROSION CONTROL ITEMS MAY BE INSTALLED CONCURRENT WITH THE START OF THE LAND DISTURBING ACTIVITIES. IF ALLOWED BY THE ESPCP.

18. SPRINKLER SYSTEMS TO BE HANDLED AS FOLLOWS:
CASE 1 - SYSTEMS WITHIN THE CONSTRUCTION LIMITS OWNED BY INDIVIDUALS OR PRIVATE COMPANIES ARE TO BE REMOVED TO THE BACK OF THE CONSTRUCTION LIMITS AND PLUGGED
CASE 2 - SYSTEMS SHOWN BY THE PLANS TO BE REMOVED AND RELOCATED SHALL BE RELOCATED TO THE BACK OF THE SIDEWALK. COST SHALL BE INCLUDED IN PRICE BID FOR "GRADING COMPLETE".

19. AN N.O.I (NOTICE OF INTENT) IS NOT REQUIRED FOR THIS PROJECT. TOTAL DISTURBED AREA = 0.95 ACRES

20. ALL EXISTING STORM DRAIN PIPES INCLUDING BOX CULVERTS WITHIN THE CONSTRUCTION LIMITS SHALL BE CLEANED PRIOR TO COMPLETION OF PROJECT. COST TO BE INCLUDED IN GRADING COMPLETE.

21. ALL PROPOSED PIPE SHALL BE REINFORCED CONCRETE PIPE (RCP).

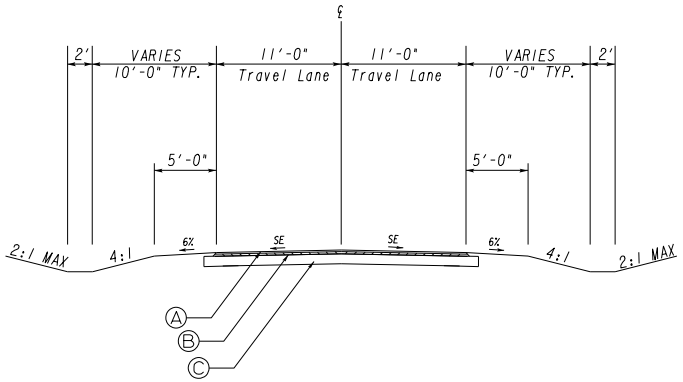
GEORGIA811 Utilities Protection Center, Inc
Know what's below. Call before you dig.

CALCO ENGINEERING

REVISION DATES

GENERAL NOTES
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		04-0001
CORRECTED:		DATE:		
VERIFIED:		DATE:		

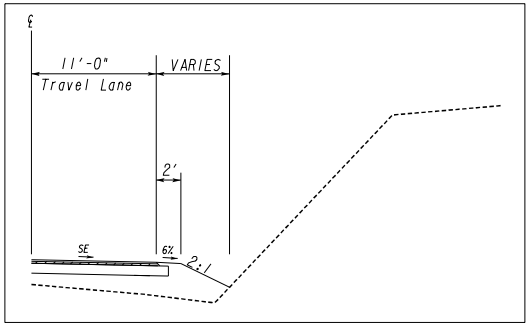


TYPICAL SECTION
WATER TANK ROAD

SUPERELEVATION SECTION
STA 10+73.86 - STA 16+16.00

NORMAL CROWN SECTION
STA 16+16.00 - STA 17+83.28

GAB LAYER TO EXTEND 1' BEYOND THE EDGE OF PAVEMENT



ALTERNATE SHOULDER SECTION
STA 10+73.86 - 12+25.00 RIGHT

Ⓐ 165 LB/SY, RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME
Ⓑ 220 LB/SY, RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME
Ⓒ GR AGGR BASE CRS, 10 INCH, INCL MATL

CALCO ENGINEERING

NOT TO SCALE

REVISION DATES

TYPICAL SECTIONS
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		05-0001
CORRECTED:		DATE:		
VERIFIED:		DATE:		

SUMMARY OF QUANTITIES

TRAFFIC CONTROL WATER TANK RD	
TOTAL	LUMP SUM

GRADING COMPLETE WATER TANK RD	
TOTAL	LUMP SUM

UTILITY ITEMS	
	EA
ADJUST WATER METER BOX TO GRADE	2

RIGHT OF WAY MARKERS	
	EA
TOTAL	23

BARRIER FENCE (ORANGE), 4 FT	
	LF
TOTAL	300

LOCATION	GR AGGR BASE CRS, 6 INCH, INCL MATL (SY)	GR AGGR BASE CRS, 10 INCH, INCL MATL (SY)	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME (TN)	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (TN)	TACK COAT (GL)	DRIVEWAY CONCRETE, 6 IN TK (SY)
WATER TANK ROAD		1889	113	190	121	
DRIVEWAY 1	69		6			
DRIVEWAY 2	45		4			
DRIVEWAY 3	51		17			
DRIVEWAY 4	-					35
DRIVEWAY 5	39		4			
TOTAL	205	1889	174	190	121	35

STRUCTURE NUMBER	LOCATION		18 INCH STORM DRAIN 1'-10' (LF)	SAFETY END SECTION 18 IN, STORM DRAIN, 4:1 SLOPE (EA)	FLARED END SECTION 18 IN, STORM DRAIN (EA)	CONCRETE BOX CULVERT: CLASS AA CONC. (CY)	CONCRETE BOX CULVERT: BAR, REINF STEEL (LB)	CONCRETE WINGWALLS, TOEWALLS, AND PARAPETS: CLASS AA CONC. (CY)	CONCRETE WINGWALLS, TOEWALLS, AND PARAPETS: BAR, REINF STEEL (LB)	CONCRETE BOX CULVERT APRONS AND BAFFLES: CLASS AA CONC. (CY)	CONCRETE BOX CULVERT APRONS AND BAFFLES: BAR, REINF STEEL (LB)	FOUND BKFILL MATL, TP II (CY)	UNDERCUT EXCAVATION (CY)	STN DUMPED RIP RAP, TP 3, 12 IN (CY)	PLASTIC FILTER FABRIC (CY)
A1	13+16.0	WATER TANK RD				45	5450	'7	1960			70	70		
A2	13+27.4	WATER TANK RD						'7	1960	5	325			35	35
B1	14+00.7	WATER TANK RD	48		1										
B2	14+17.5	WATER TANK RD			1										
C1	14+78.6	WATER TANK RD				56	6800	21	2300			90	90		
C2	15+13.6	WATER TANK RD						21	2300	5	380			75	75
DW1	11+48.0	WATER TANK RD	32	2											
DW2	12+91.0	WATER TANK RD	30	2											
DW5	15+71.0	WATER TANK RD	23	2											
	16+25.0	WATER TANK RD	20	2											
	17+30.0	WATER TANK RD	24	2											
	PROJECT TOTAL		177	10	2	101	12250	76	8520	10	705	160	160	110	110

TRAFFIC STRIPE		
DESCRIPTION	UNIT	THERMOPLASTIC
5" SOLID WHITE	LIN FEET	1340
5" SOLID YELLOW	LIN FEET	1420

PAVEMENT MARKERS (EACH)			
LOCATION	REFLECTIVE-RAISED		
	YELLOW	CLEAR	CLEAR/RED
	TYPE 1	TYPE 2	TYPE 3
WATER TANK RD	38		

LOCATION	TEMPORARY SILT FENCE TYPE C (LF)	CONSTRUCT AND REMOVE FABRIC CHECK DAM - TYPE C SILT FENCE (LF)	CONSTRUCT AND REMOVE ROCK FILTER DAMS (EA)	TURF REINFORCING MATTING, TP 1 (SY)	EROSION CONTROL MATS, SLOPES (SY)	MAINTENANCE OF TEMPORARY SILT FENCE, TP C (LF)	MAINTENANCE OF ROCK FILTER DAM (EA)	MAINTENANCE OF CHECK DAMS - ALL TYPES (LF)
WATER TANK RD	810	270	5	1100	1030	405	5	135
TOTAL	810	270	5	1100	1030	405	5	135

TEMPORARY GRASSING		
	UNIT	QTY.
TOTAL	AC.	1

PERMANENT GRASSING		
	UNIT	QTY.
TOTAL	AC.	1

MULCH		
	UNIT	QTY.
TOTAL	TON	16

CONSTRUCTION EXIT		
	UNIT	QTY.
TOTAL	EA	1

AGRICULTURAL LIME		
	UNIT	QTY.
TOTAL	TN	2.0

FERTILIZER MIXED GRADE		
	UNIT	QTY.
TOTAL	TN	1.0

FERTILIZER NITROGEN CONTENT		
	UNIT	QTY.
TOTAL	LB	50

MAINTENANCE OF CONSTRUCTION EXIT		
	UNIT	QTY.
TOTAL	EA	1

CALCO ENGINEERING

REVISION DATES
6/21/21

SUMMARY QUANTITIES
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		06-0001
CORRECTED:		DATE:		
VERIFIED:		DATE:		

DETAILED ESTIMATE

ITEM NO.	ITEM	UNIT	QUANTITY
	ROADWAY ITEMS		
150-1000	TRAFFIC CONTROL -	LS	LUMP
207-0203	FOUND BKFILL MATL, TP II	CY	160
210-0100	GRADING COMPLETE -	LS	LUMP
210-0250	UNDERCUT EXCAVATION	CY	160
310-5060	GR AGGR BASE CRS, 6 INCH, INCL MATL	SY	205
310-5100	GR AGGR BASE CRS, 10 INCH, INCL MATL	SY	1889
402-3130	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME	TN	174
402-3190	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2,INCL BITUM MATL & H LIME	TN	190
413-0750	TACK COAT	GL	121
441-0016	DRIVEWAY CONCRETE, 6 IN TK	SY	35
500-3002	CLASS AA CONCRETE	CY	187
511-1000	BAR REINF STEEL	LB	21475
550-1180	STORM DRAIN PIPE, 18 IN, H 1-10	LF	177
550-3318	SAFETY END SECTION 18 IN, STORM DRAIN, 4:1 SLOPE	EA	10
550-4218	FLARED END SECTION 18 IN, STORM DRAIN	EA	2
603-2180	STN DUMPED RIP RAP, TP 3, 12 IN	SY	110
603-7000	PLASTIC FILTER FABRIC	SY	110
611-8120	ADJUST WATER METER BOX TO GRADE	EA	2
634-1200	RIGHT OF WAY MARKERS	EA	23
643-8200	BARRIER FENCE (ORANGE), 4 FT	LF	300
653-1501	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	LF	1340
653-1502	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	LF	1420
654-1001	RAISED PVMT MARKERS TP 1	EA	38
	EROSION CONTROL ITEMS		
163-0232	TEMPORARY GRASSING	AC	1
163-0240	MULCH	TN	16
163-0300	CONSTRUCTION EXIT	EA	1
163-0528	CONSTRUCT AND REMOVE FABRIC CHECK DAM - TYPE C SILT FENCE	LF	270
163-0541	CONSTRUCT AND REMOVE ROCK FILTER DAMS	EA	5
165-0030	MAINTENANCE OF TEMPORARY SILT FENCE, TP C	LF	405
165-0041	MAINTENANCE OF CHECK DAMS - ALL TYPES	LF	135
165-0101	MAINTENANCE OF CONSTRUCTION EXIT	EA	1
165-0110	MAINTENANCE OF ROCK FILTER DAM	EA	5
171-0030	TEMPORARY SILT FENCE, TYPE C	LF	810
700-6910	PERMANENT GRASSING	AC	1
700-7000	AGRICULTURAL LIME	TN	2
700-8000	FERTILIZER MIXED GRADE	TN	1
700-8100	FERTILIZER NITROGEN CONTENT	LB	50
711-0100	TURF REINFORCING MATTING, TP 1	SY	1100
716-2000	EROSION CONTROL MATS, SLOPES	SY	1030

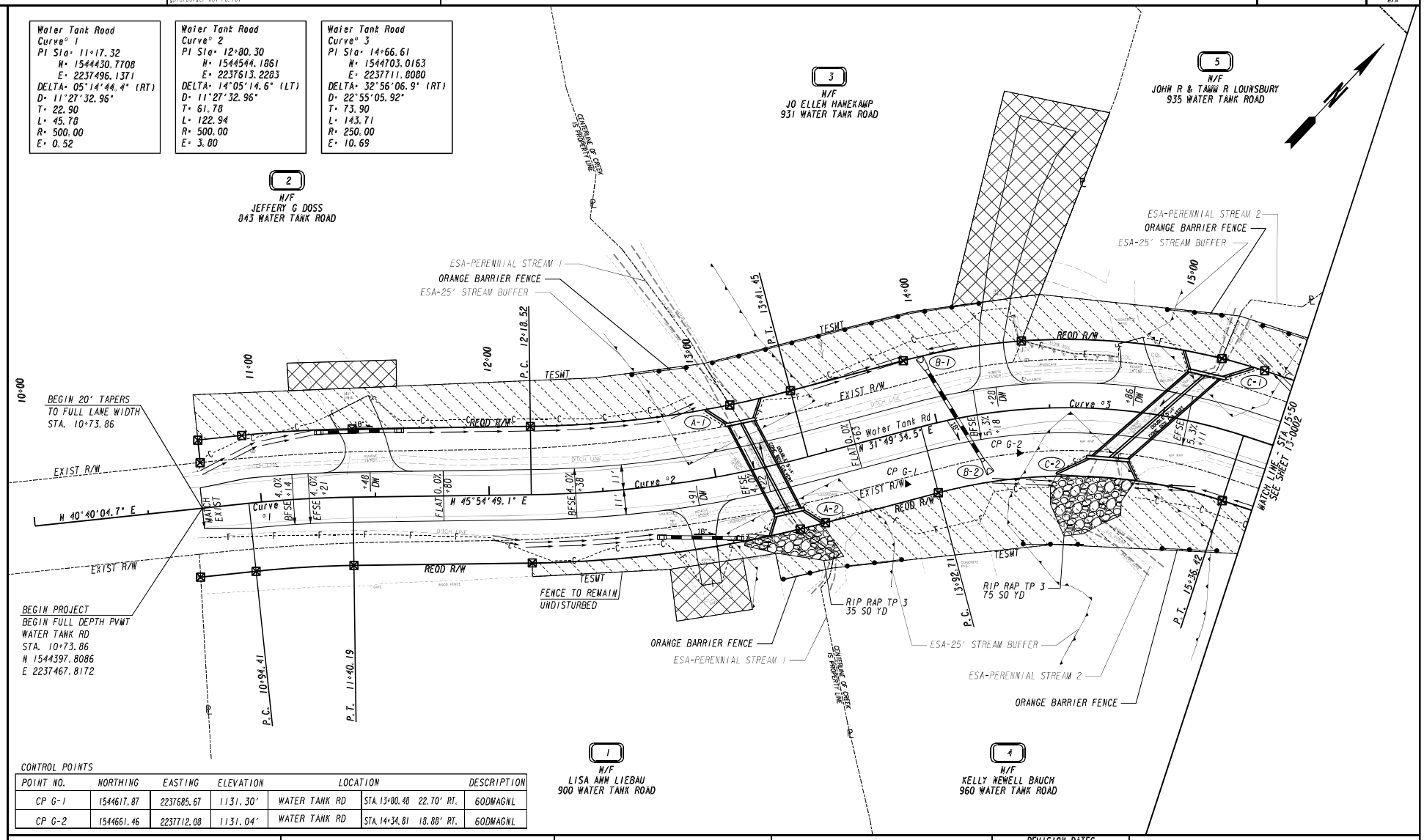
CALCO ENGINEERING

REVISION DATES

DETAILED ESTIMATE
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		09-0001
VERIFIED:		DATE:		

Water Tank Road Curve° 1	Water Tank Road Curve° 2	Water Tank Road Curve° 3
PI Sta• 11+17.32	PI Sta• 12+80.30	PI Sta• 14+66.61
N• 1544430.7708	N• 1544544.1861	N• 1544703.0163
E• 2237496.1371	E• 2237613.2283	E• 2237711.8080
DELTA• 05°14'44.4" (RT)	DELTA• 14°05'14.6" (LT)	DELTA• 32°56'06.9" (RT)
D• 11°27'32.96"	D• 11°27'32.96"	D• 22°55'05.92"
T• 22.90	T• 61.78	T• 73.90
L• 45.78	L• 122.94	L• 143.71
R• 500.00	R• 500.00	R• 250.00
E• 0.52	E• 3.80	E• 10.69



CONTROL POINTS

POINT NO.	NORTHING	EASTING	ELEVATION	LOCATION		DESCRIPTION
CP G-1	1544617.87	2237685.67	1131.30'	WATER TANK RD	STA 13+80.48 22.70' RT.	60DMAGNL
CP G-2	1544661.46	2237712.08	1131.04'	WATER TANK RD	STA 14+34.81 18.88' RT.	60DMAGNL

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
REQ'D LIMIT OF ACCESS
REQ'D LIMIT OF ACCESS & R/W
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)

CALCO ENGINEERING

SCALE IN FEET
0 20 40 80

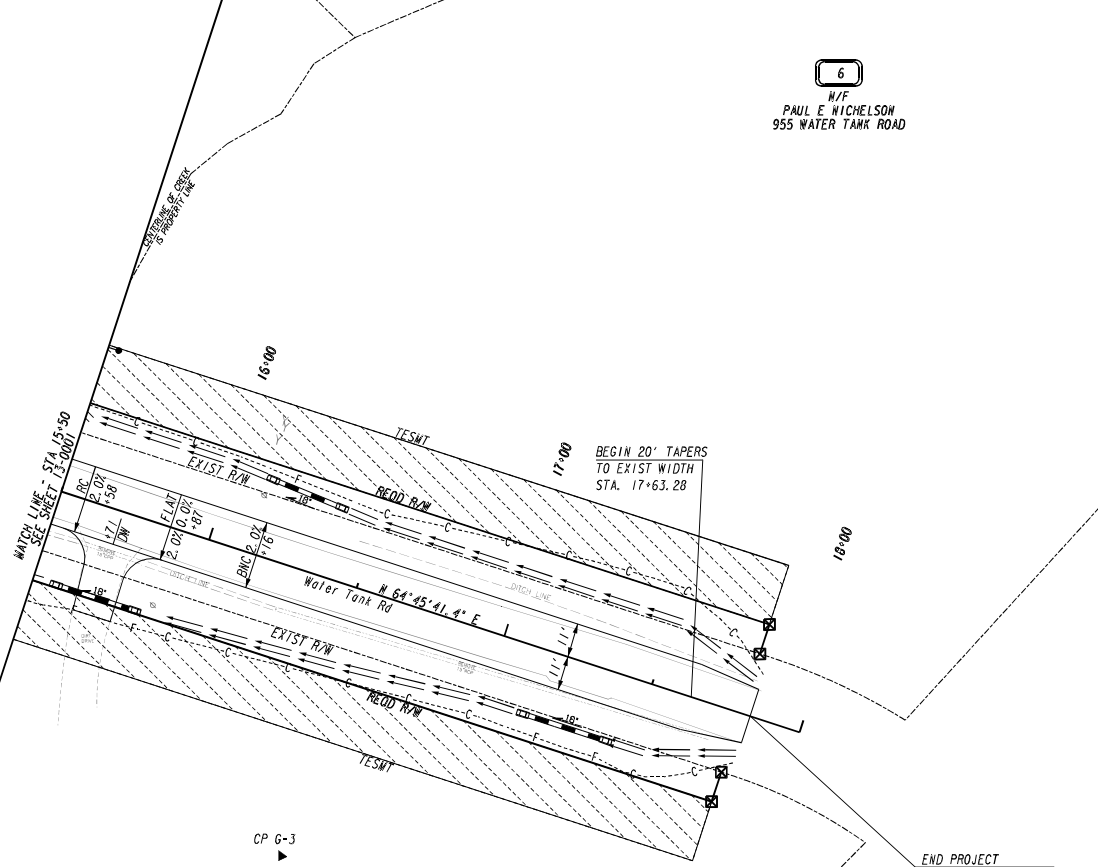
REVISION DATES

CONSTRUCTION PLAN
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:	DATE:	DRAWING No.
BACKCHECKED:	DATE:	13-0001
CORRECTED:	DATE:	
VERIFIED:	DATE:	

CONTROL POINTS

POINT NO.	NORTHING	EASTING	ELEVATION	LOCATION		DESCRIPTION
CP G-3	1544703.53	2237922.86	1136.05'	WATER TANK RD	STA. 16+53.64 89.53' RT.	60DWAGNL



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

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REQ'D LIMIT OF ACCESS
REQ'D LIMIT OF ACCESS & R/W
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)

CALCO ENGINEERING

SCALE IN FEET
0 20 40 80

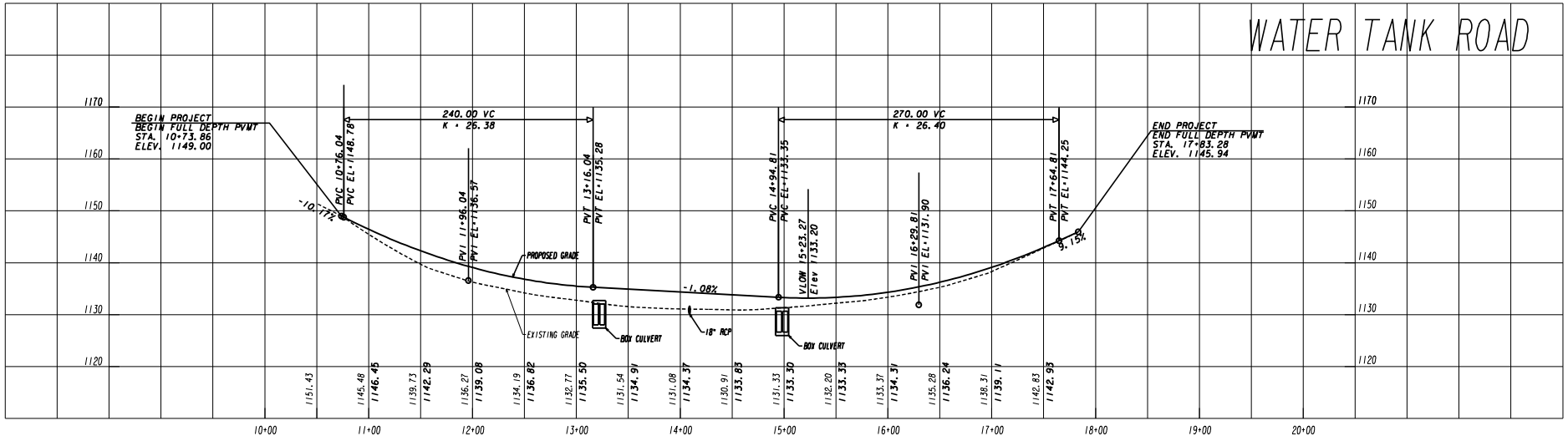
REVISION DATES

CONSTRUCTION PLAN
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED: DATE:
BACKCHECKED: DATE:
CORRECTED: DATE:
VERIFIED: DATE:

DRAWING No. 13-0002

10/23/2015 GPLN



24+50

CALCO ENGINEERING

HORIZ. SCALE IN FEET 0 50 100

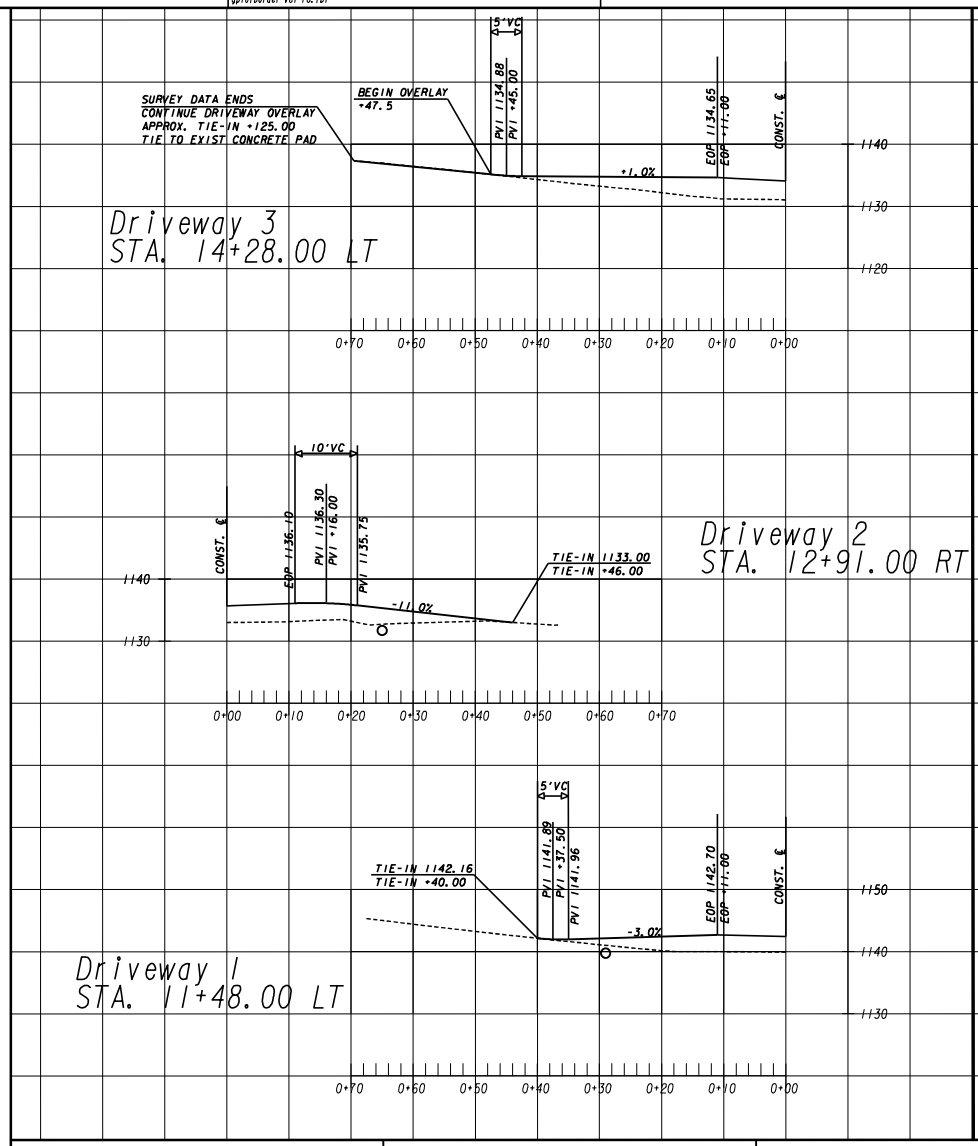
VERT. SCALE IN FEET 0 10 20

REVISION DATES

MAINLINE PROFILE
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		15-0001
VERIFIED:		DATE:		

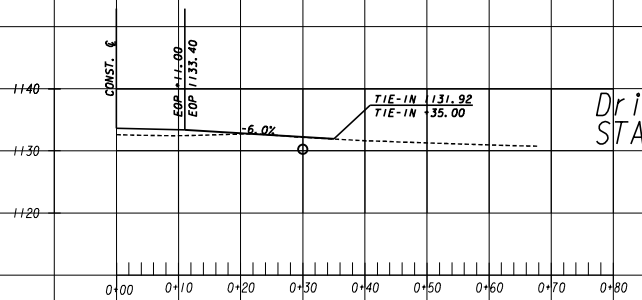
7/31/2015 GREDG



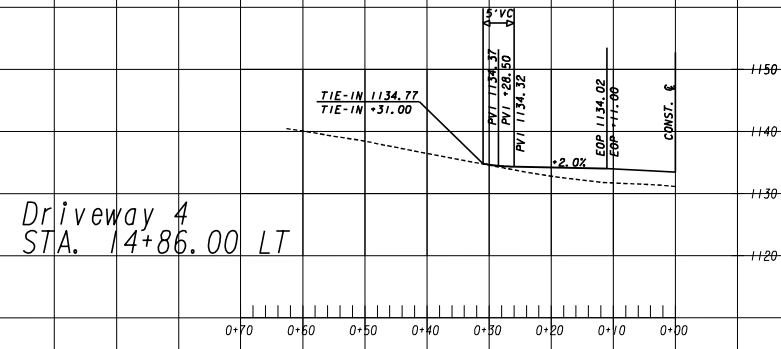
Driveway 3
STA. 14+28.00 LT

Driveway 2
STA. 12+91.00 RT

Driveway 1
STA. 11+48.00 LT



Driveway 5
STA. 15+71.00 RT



Driveway 4
STA. 14+86.00 LT

CALCO ENGINEERING

HORIZ.
SCALE IN FEET
0 10 20

VERT.
SCALE IN FEET
0 10 20

REVISION DATES

DRIVEWAY PROFILES
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

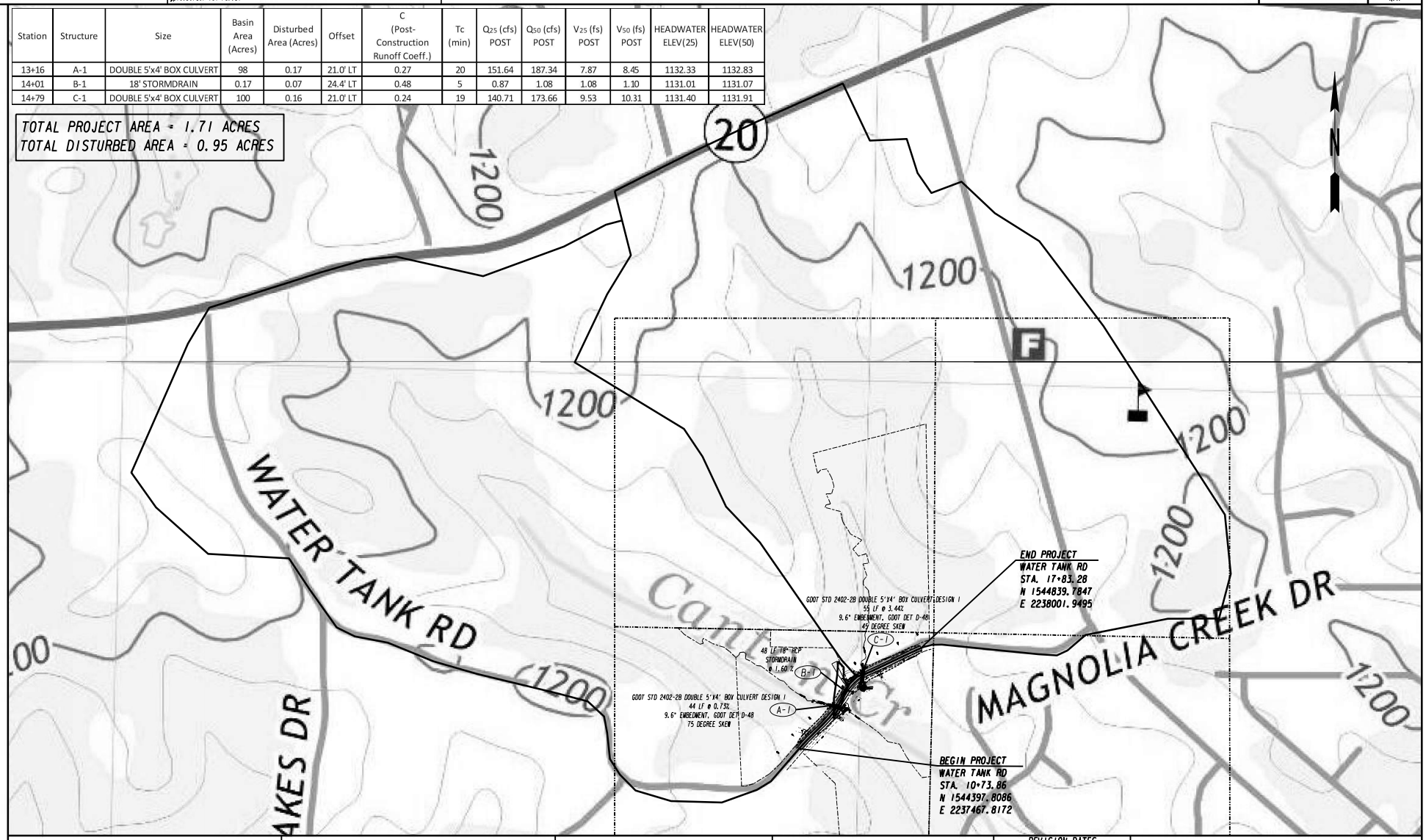
CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		17-0001
VERIFIED:		DATE:		

11/8/2018 SUVSEW

12/6/2023 1:25:55 PM GPLOT-V8 Water Tank_21-0001.dgn CHEROKEE COUNTY, GA P. I. No. N/A
calco gplotborder-V81-PD.tbl

Station	Structure	Size	Basin Area (Acres)	Disturbed Area (Acres)	Offset	C (Post-Construction Runoff Coeff.)	Tc (min)	Q_{25} (cfs) POST	Q_{50} (cfs) POST	V_{25} (fs) POST	V_{50} (fs) POST	HEADWATER ELEV(25)	HEADWATER ELEV(50)
13+16	A-1	DOUBLE 5'x4' BOX CULVERT	98	0.17	21.0' LT	0.27	20	151.64	187.34	7.87	8.45	1132.33	1132.83
14+01	B-1	18' STORMDRAIN	0.17	0.07	24.4' LT	0.48	5	0.87	1.08	1.08	1.10	1131.01	1131.07
14+79	C-1	DOUBLE 5'x4' BOX CULVERT	100	0.16	21.0' LT	0.24	19	140.71	173.66	9.53	10.31	1131.40	1131.91

TOTAL PROJECT AREA = 1.71 ACRES
TOTAL DISTURBED AREA = 0.95 ACRES



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
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BEGIN LIMIT OF ACCESS.....BLA
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REQ'D LIMIT OF ACCESS
REQ'D LIMIT OF ACCESS & R/W
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)

CALCO ENGINEERING

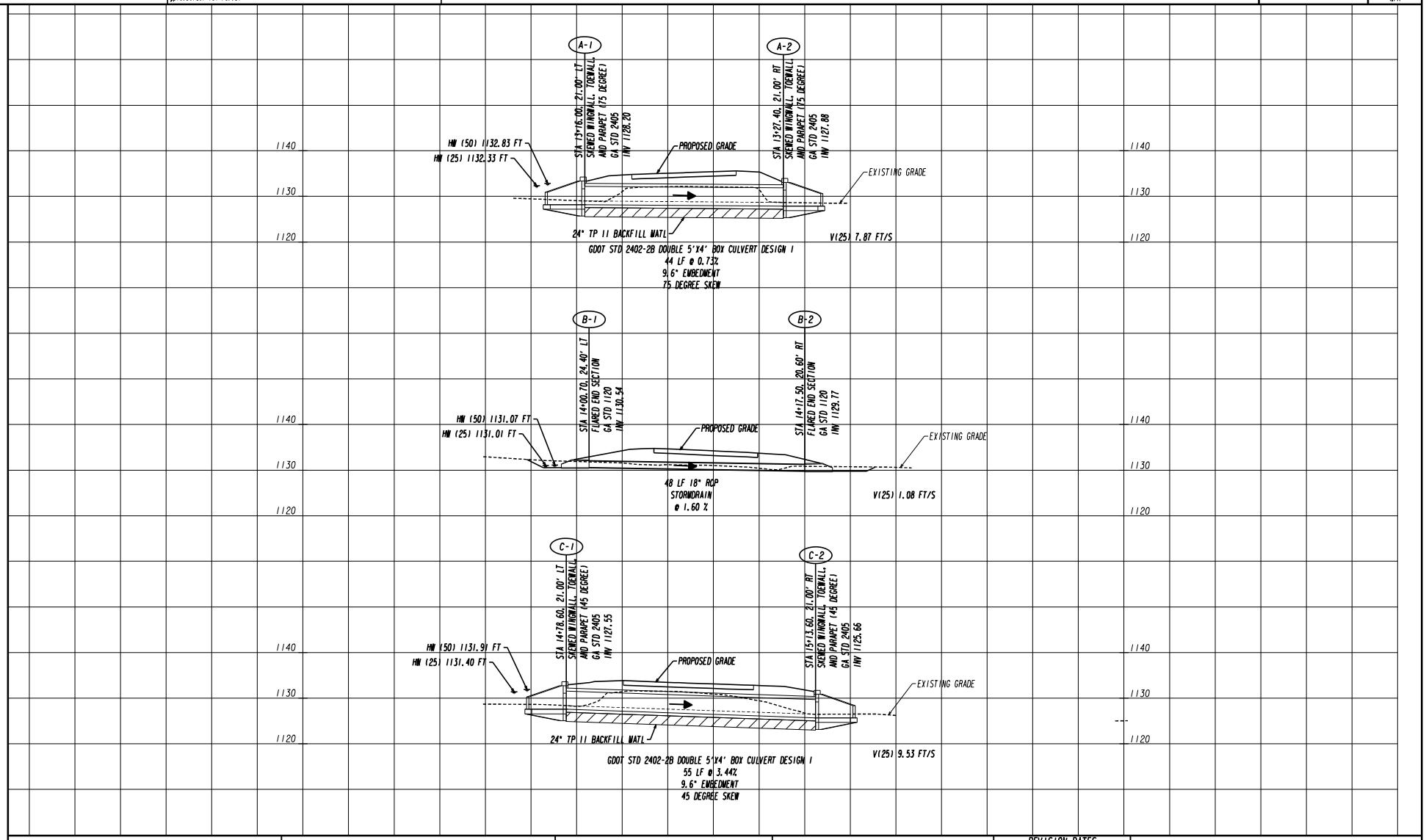
SCALE IN FEET
0 200 400 800

REVISION DATES

DRAINAGE AREA MAP
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		21-0001
VERIFIED:		DATE:		

10/23/205 GPLN



CALCO ENGINEERING

HORIZ. SCALE IN FEET 0 10 20

VERT. SCALE IN FEET 0 10 20

REVISION DATES

DRAINAGE PROFILES

WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		22-0001
VERIFIED:		DATE:		

10/23/2015 GPUN

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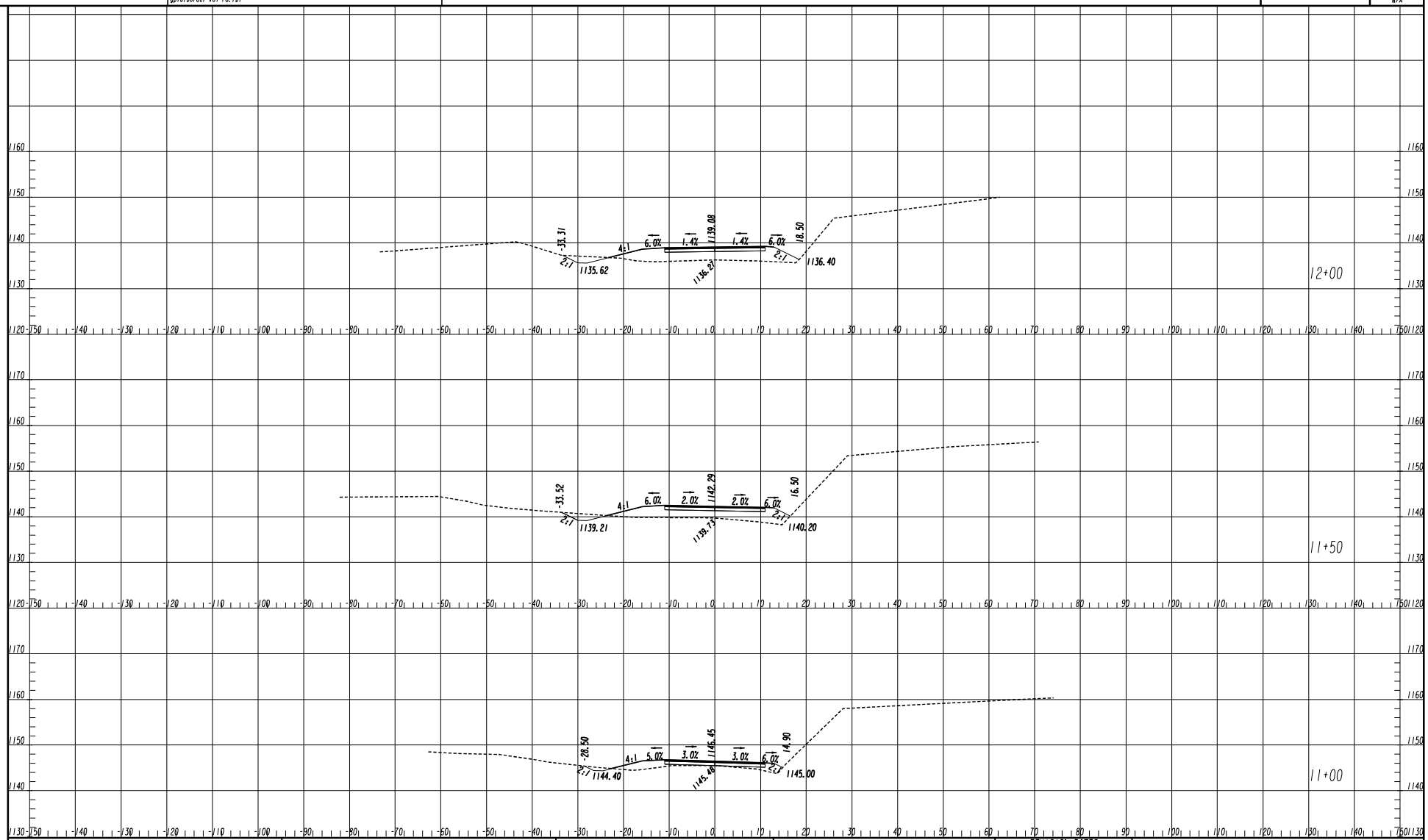

CALCO ENGINEERING

HORIZ. SCALE IN FEET 0 10 20

VERT. SCALE IN FEET 0 10 20

REVISION DATES

CROSS SECTIONS

WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:	DRAWING No.
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	23-0001
VERIFIED:		DATE:	

11/8/2018 SUVSEW

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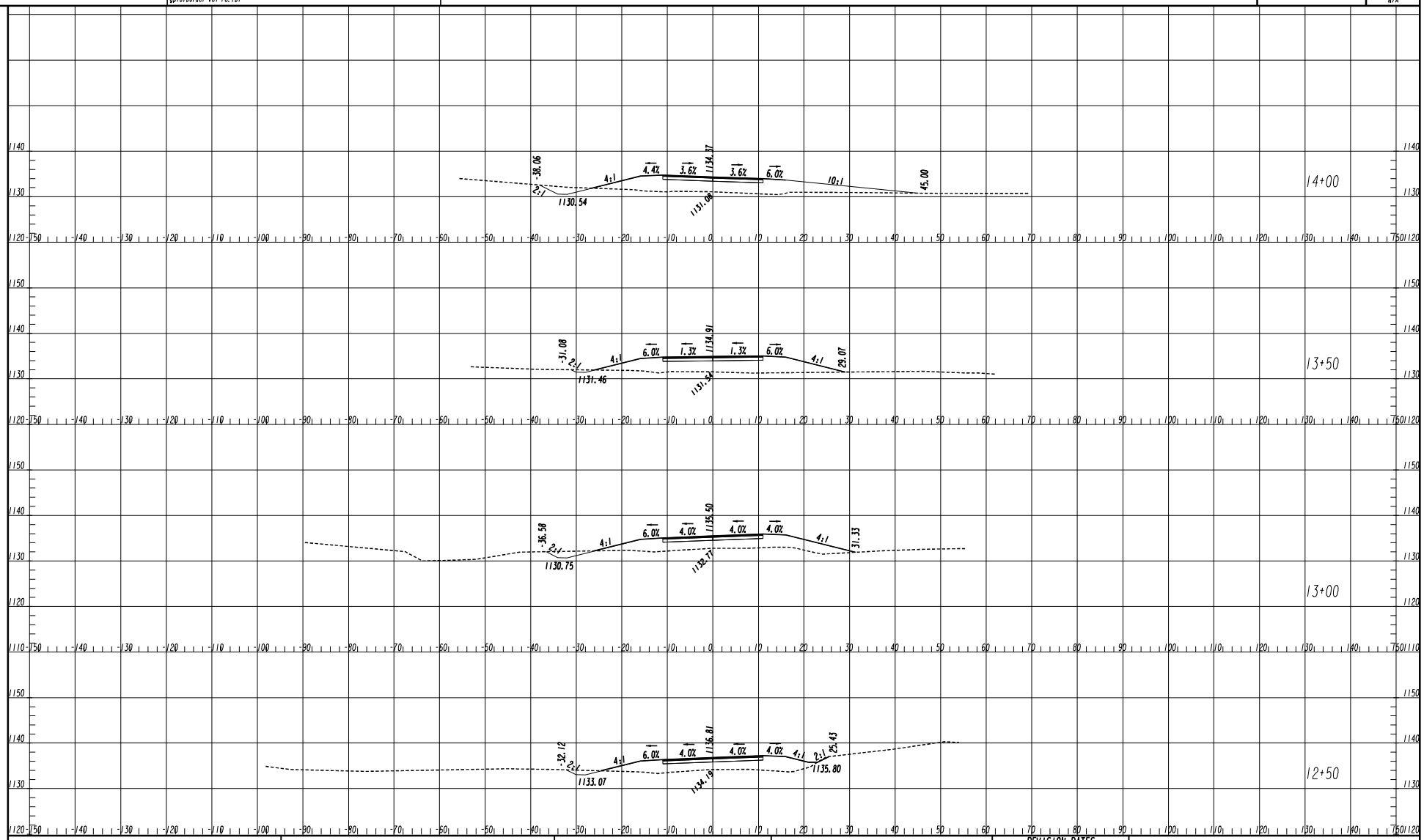

CALCO ENGINEERING

HORIZ. SCALE IN FEET 0 10 20

VERT. SCALE IN FEET 0 10 20

REVISION DATES

CROSS SECTIONS

WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		23-0002
VERIFIED:		DATE:		

11/8/2018 SUVSEW

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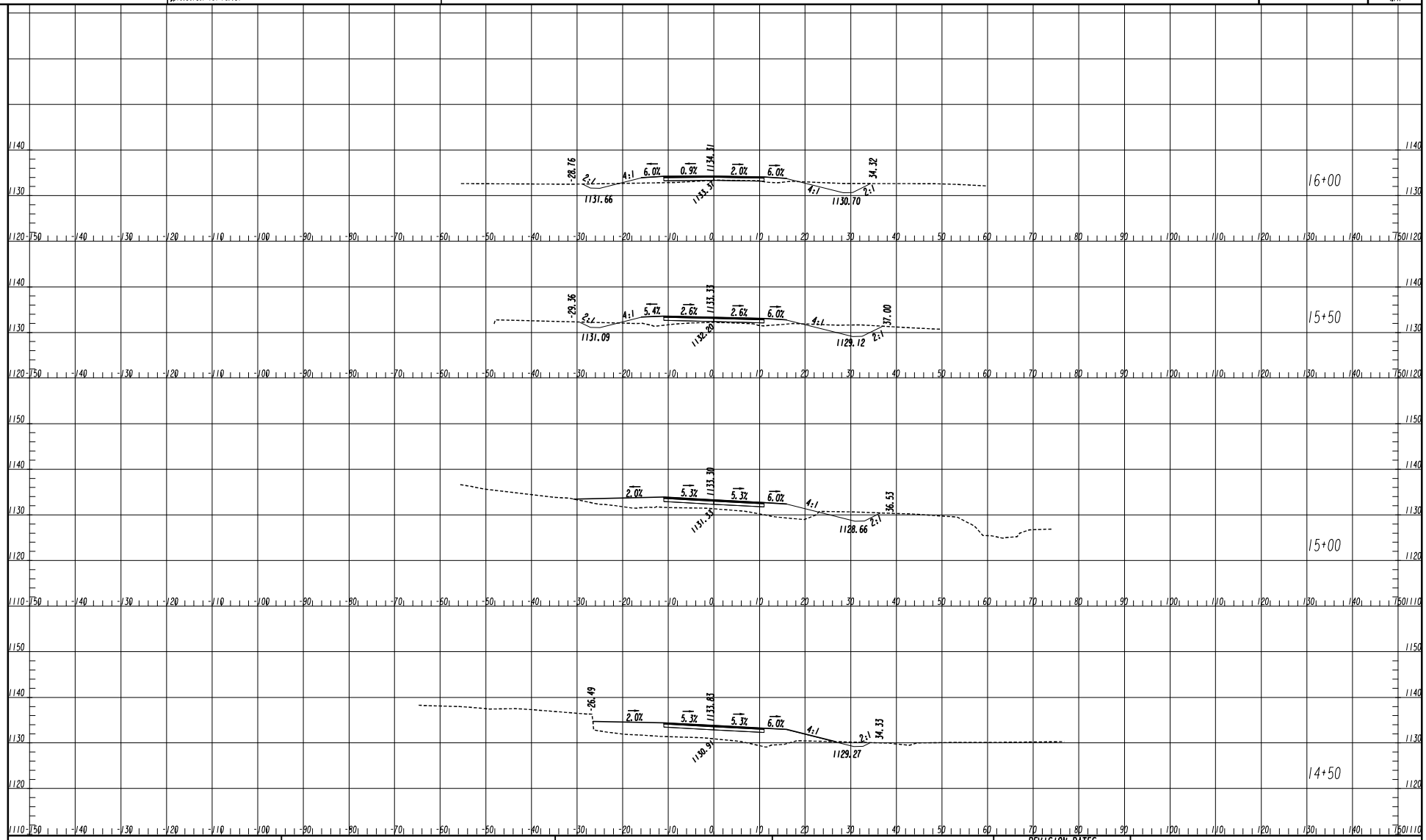

CALCO ENGINEERING

HORIZ. SCALE IN FEET 0 10 20

VERT. SCALE IN FEET 0 10 20

REVISION DATES

CROSS SECTIONS

WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		23-0003
VERIFIED:		DATE:		

11/8/2018 SUVSEW

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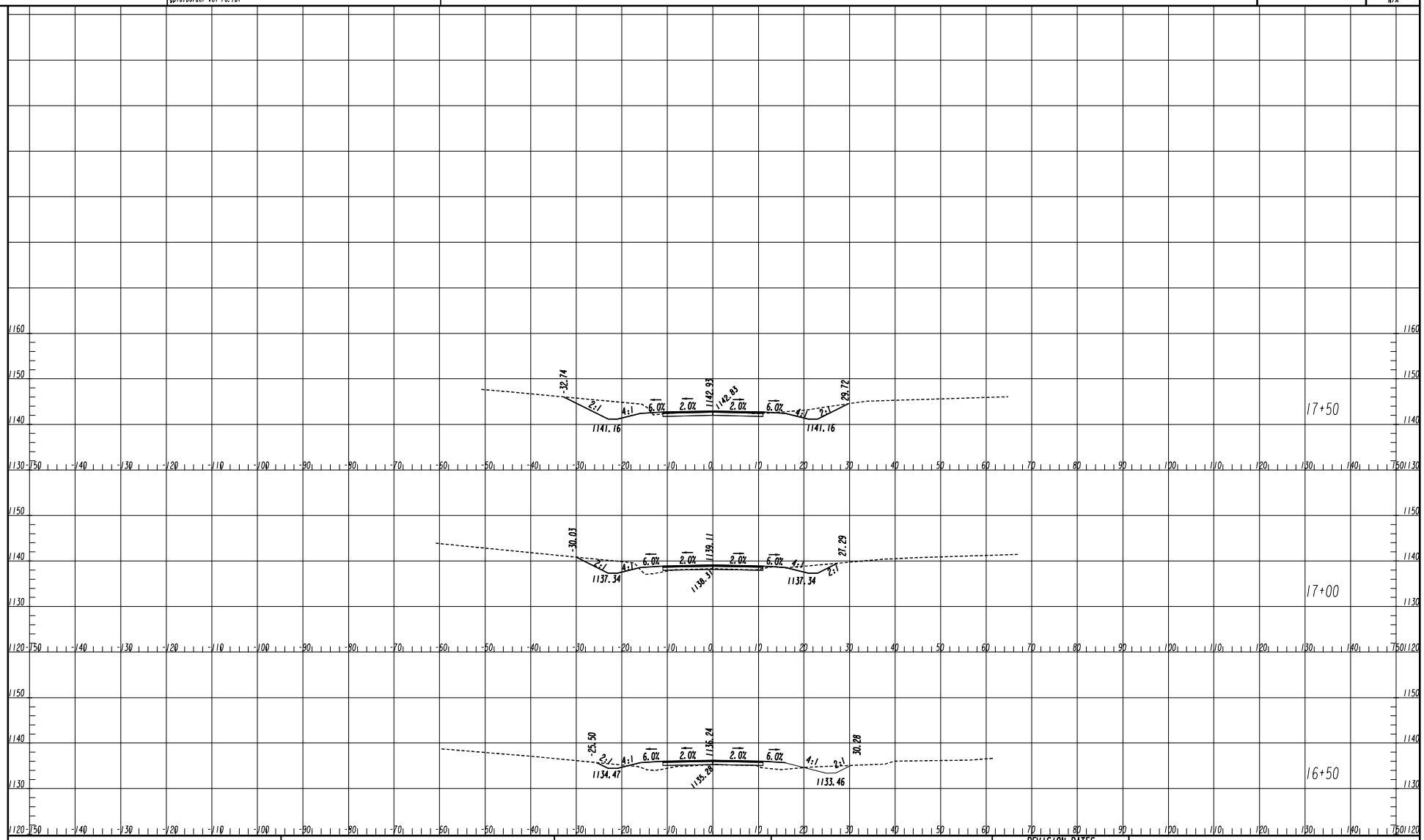

CALCO ENGINEERING

HORIZ. SCALE IN FEET 0 10 20

VERT. SCALE IN FEET 0 10 20

REVISION DATES

CROSS SECTIONS

WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		23-0004
VERIFIED:		DATE:		

11/8/2018 SUVSEW

OVERHEAD

EXISTING	TO BE REMOVED	PROPOSED	TYPE OF UTILITY
E	E	E	ELECTRIC
E-T	E-T	E-T	ELECTRIC, TELECOMMUNICATION
E-TV	E-TV	E-TV	ELECTRIC, CABLE TV
E-TC	E-TC	E-TC	ELECTRIC TRAFFIC CONTROL
E-T-TV	E-T-TV	E-T-TV	ELECTRIC, TELECOMMUNICATIONS, CABLE TV
E-T-TV-TC	E-T-TV-TC	E-T-TV-TC	ELECTRIC, TELECOMMUNICATIONS, CABLE TV, TRAFFIC CONTROL
E-TV-TC	E-TV-TC	E-TV-TC	ELECTRIC, CABLE TV, TRAFFIC CONTROL
E-T-TC	E-T-TC	E-T-TC	ELECTRIC, TELECOMMUNICATIONS, TRAFFIC CONTROL
GW	GW	GW	GUY WIRE
T	T	T	TELECOMMUNICATIONS
T-TC	T-TC	T-TC	TELECOMMUNICATIONS, TRAFFIC CONTROL
T-TV-TC	T-TV-TC	T-TV-TC	TELECOMMUNICATIONS, CABLE TV, TRAFFIC CONTROL
T-TV	T-TV	T-TV	TELECOMMUNICATIONS, CABLE TV
TV	TV	TV	CABLE TV
TV-TC	TV-TC	TV-TC	CABLE TV, TRAFFIC CONTROL
			TRAFFIC CONTROL

UNDERGROUND

E	E	E	ELECTRIC (QL-D)
E(C)	E(C)	E(C)	ELECTRIC (QL-C)
E(B)	E(B)	E(B)	ELECTRIC (QL-B)
T	T	T	TELECOMMUNICATIONS (QL-D)
T(C)	T(C)	T(C)	TELECOMMUNICATIONS (QL-C)
T(B)	T(B)	T(B)	TELECOMMUNICATIONS (QL-B)
TV	TV	TV	CABLE TV (QL-D)
TV(C)	TV(C)	TV(C)	CABLE TV (QL-C)
TV(B)	TV(B)	TV(B)	CABLE TV (QL-B)
W	W	W	WATER (QL-D)
W(C)	W(C)	W(C)	WATER (QL-C)
W(B)	W(B)	W(B)	WATER (QL-B)
"W	"W	"W	WATER FOR LABELED PIPE SIZES (QL-D)
"W(C)	"W(C)	"W(C)	WATER FOR LABELED PIPE SIZES (QL-C)
"W(B)	"W(B)	"W(B)	WATER FOR LABELED PIPE SIZES (QL-B)
NW	NW	NW	NON-POTABLE WATER (QL-D)
NW(C)	NW(C)	NW(C)	NON-POTABLE WATER (QL-C)
NW(B)	NW(B)	NW(B)	NON-POTABLE WATER (QL-B)
"NW	"NW	"NW	NON-POTABLE WATER FOR LABELED PIPE SIZES (QL-D)
"NW(C)	"NW(C)	"NW(C)	NON-POTABLE WATER FOR LABELED PIPE SIZES (QL-C)
"NW(B)	"NW(B)	"NW(B)	NON-POTABLE WATER FOR LABELED PIPE SIZES (QL-B)
STM	STM	STM	STEAM (QL-D)
STM(C)	STM(C)	STM(C)	STEAM (QL-C)
STM(B)	STM(B)	STM(B)	STEAM (QL-B)
"STM	"STM	"STM	STEAM FOR LABELED PIPE SIZES (QL-D)
"STM(C)	"STM(C)	"STM(C)	STEAM FOR LABELED PIPE SIZES (QL-C)
"STM(B)	"STM(B)	"STM(B)	STEAM FOR LABELED PIPE SIZES (QL-B)
SS	SS	SS	SANITARY SEWER WITH FLOW DIRECTION (QL-D)
SS(C)	SS(C)	SS(C)	SANITARY SEWER WITH FLOW DIRECTION (QL-C)
SS(B)	SS(B)	SS(B)	SANITARY SEWER WITH FLOW DIRECTION (QL-B)
Σ"SS	Σ"SS	Σ"SS	SANITARY SEWER WITH FLOW DIRECTION FOR LABELED PIPE SIZES (QL-D)
Σ"SS(C)	Σ"SS(C)	Σ"SS(C)	SANITARY SEWER WITH FLOW DIRECTION FOR LABELED PIPE SIZES (QL-C)
Σ"SS(B)	Σ"SS(B)	Σ"SS(B)	SANITARY SEWER WITH FLOW DIRECTION FOR LABELED PIPE SIZES (QL-B)
SFM	SFM	SFM	SANITARY SEWER FORCE MAIN WITH FLOW DIRECTION (QL-D)
SFM(C)	SFM(C)	SFM(C)	SANITARY SEWER FORCE MAIN WITH FLOW DIRECTION (QL-C)
SFM(B)	SFM(B)	SFM(B)	SANITARY SEWER FORCE MAIN WITH FLOW DIRECTION (QL-B)
G	G	G	GAS (QL-D)
G(C)	G(C)	G(C)	GAS (QL-C)
G(B)	G(B)	G(B)	GAS (QL-B)
"G	"G	"G	GAS FOR LABELED PIPE SIZES (QL-D)
"G(C)	"G(C)	"G(C)	GAS FOR LABELED PIPE SIZES (QL-C)
"G(B)	"G(B)	"G(B)	GAS FOR LABELED PIPE SIZES (QL-B)
P	P	P	PETROLEUM (QL-D)
P(C)	P(C)	P(C)	PETROLEUM (QL-C)
P(B)	P(B)	P(B)	PETROLEUM (QL-B)
"P	"P	"P	PETROLEUM FOR LABELED PIPE SIZES (QL-D)
"P(C)	"P(C)	"P(C)	PETROLEUM FOR LABELED PIPE SIZES (QL-C)
"P(B)	"P(B)	"P(B)	PETROLEUM FOR LABELED PIPE SIZES (QL-B)
TC	TC	TC	TRAFFIC CONTROL (QL-D)
TC(C)	TC(C)	TC(C)	TRAFFIC CONTROL (QL-C)
TC(B)	TC(B)	TC(B)	TRAFFIC CONTROL (QL-B)
UNK(B)	UNK(B)		UNKNOWN UTILITY FOUND IN SUE INVESTIGATION (QL-B)

EXISTING	PROPOSED	TEMPORARY	
E	E	E	ELECTRIC MANHOLE
H	H	H	HAND HOLE
E	E	E	TRANSFORMER
E	E	E	ELECTRIC METER
			UTILITY POLE/GUY POLE
			LIGHT POLE
			GUY ANCHOR
E	E	E	ELECTRIC BOX
			MARKER
T	T	T	TELECOMMUNICATIONS MANHOLE
T	T	T	TELECOMMUNICATIONS PEDESTAL
X	X	X	SPLICE BOX
SLC	SLC	SLC	SUBCRIBER LOOP CARRIER (aka "SLICK")
			CABINET
			PHONE BOOTH
			CABLE TV PEDESTAL
TV	TV	TV	CABLE TV MANHOLE
W	W	W	WATER VALVE
W	W	W	WATER METER
W	W	W	WATER MANHOLE
			FIRE HYDRANT ASSEMBLY, 6"DIP (INCLUDES ASSOCIATED VALVE)
BFP	BFP	BFP	BACKFLOW PREVENTER
PIV	PIV	PIV	PRESSURE INDICATOR VALVE
ARV	ARV	ARV	AIR RELEASE VALVE
W	W	W	WELL
W	W	W	WATER VAULT

EXISTING	PROPOSED	TEMPORARY	
			WATER VALVE MARKER
			STAND PIPE
			CLEANOUT
SS	SS	SS	SANITARY SEWER MANHOLE
ARV	ARV	ARV	AIR RELEASE VALVE
GT	GT	GT	GREASE TRAP
SFM	SFM	SFM	SANITARY SEWER FORCE MAIN VALVE
			VENT
G	G	G	GAS VALVE
G	G	G	GAS METER
G	G	G	GAS MANHOLE
GPR	GPR	GPR	GAS PRESSURE REGULATOR
G	G	G	GAS VAULT
GTS	GTS	GTS	GAS TEST STATION
P	P	P	PETROLEUM VALVE
TC			TRAFFIC CONTROL MANHOLE
			TRAFFIC CONTROL PEDESTRIAN SIGNAL

MISC.

LOS	LIMITS OF OVERHEAD AND SUBSURFACE UTILITY INVESTIGATION
TH	TEST HOLE (QL-A ONLY)
EOI	END OF INFORMATION
	QUALITY LEVEL (QL) DELINEATION
123	POLE ID
MH	SANITARY SEWER MANHOLE (SSMH) ID
C123	CONFLICT LOCATION ID

CALCO ENGINEERING

REVISION DATES

UTILITY PLANS

WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		24-0000
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10/23/2015 GPUN

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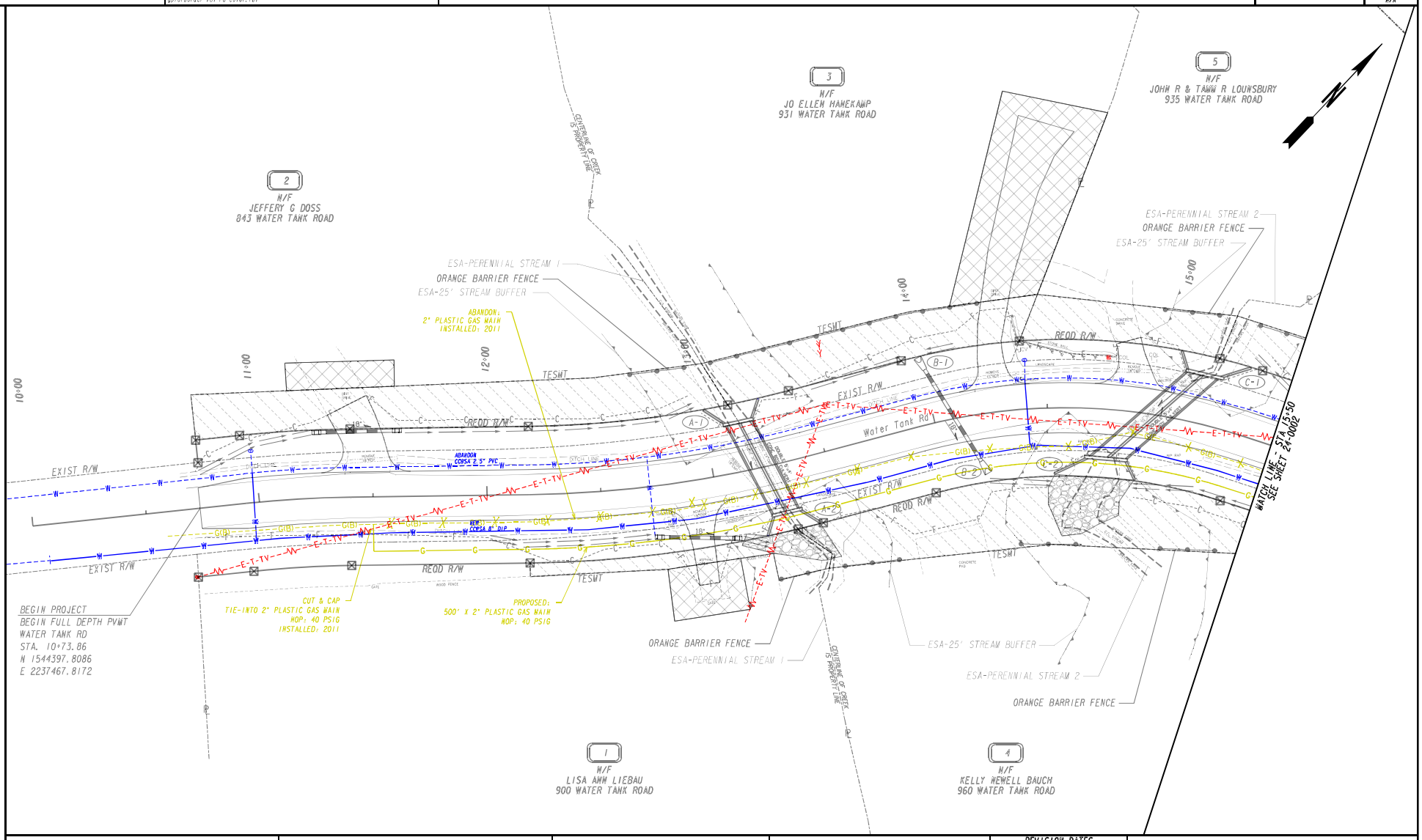

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
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REQ'D LIMIT OF ACCESS
REQ'D LIMIT OF ACCESS & R/W
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)

CALCO ENGINEERING

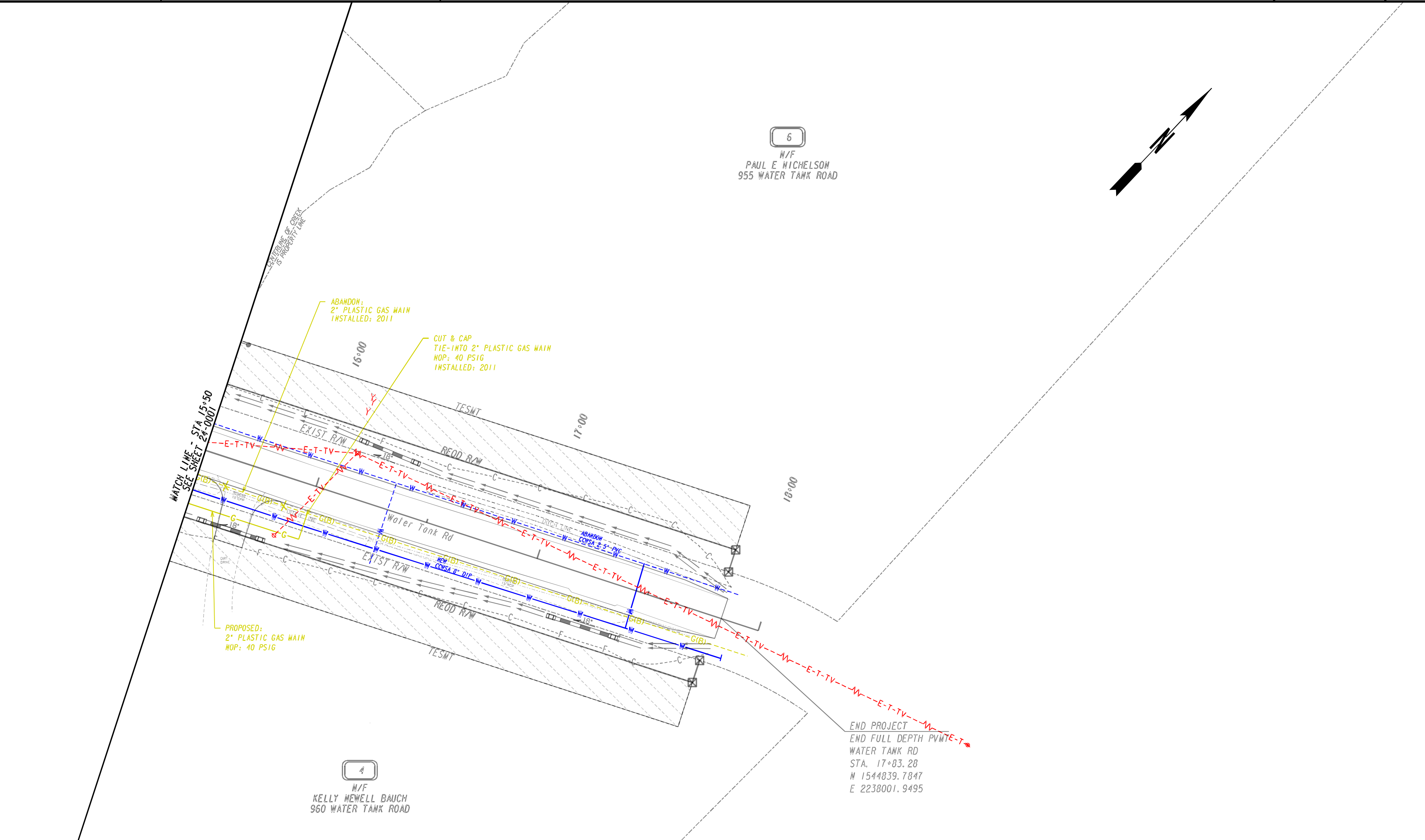
SCALE IN FEET
0 20 40 80

REVISION DATES

UTILITY PLANS
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		24-0001
CORRECTED:		DATE:		
VERIFIED:		DATE:		

10/23/2015 GPLN



PROPERTY AND EXISTING R/W LINE	
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
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BEGIN LIMIT OF ACCESS	BLA
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REQ'D LIMIT OF ACCESS	
REQ'D LIMIT OF ACCESS & R/W	
ORANGE BARRIER FENCE	
ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)	

CALCO ENGINEERING

SCALE IN FEET: 0 20 40 80

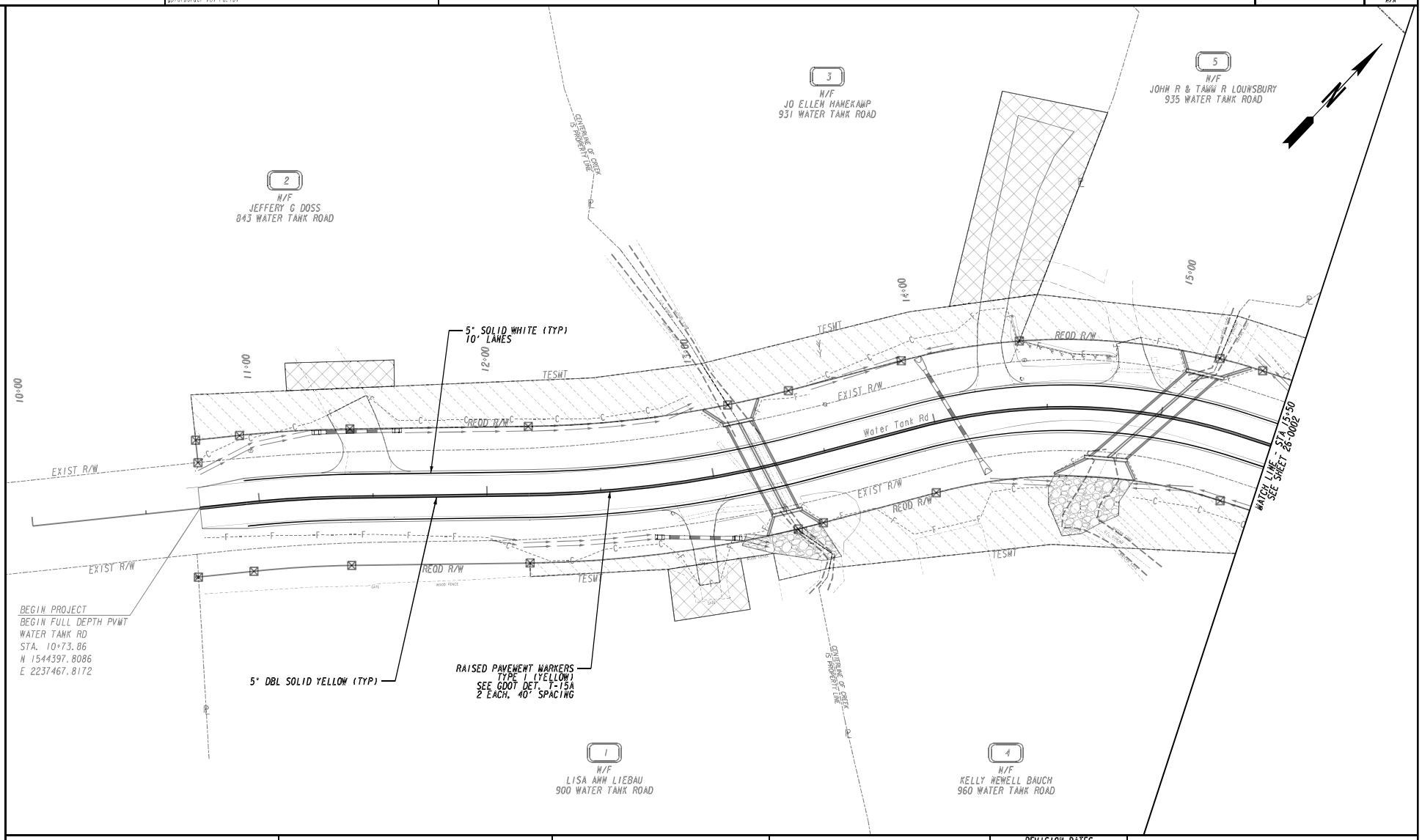
REVISION DATES

UTILITY PLANS
WATER TANK ROAD DRAINAGE IMPROVEMENTS

CHECKED: DATE:
BACKCHECKED: DATE:
CORRECTED: DATE:
VERIFIED: DATE:

DRAWING No. 24-0002

1/5/2024 11:03:06 AM | GPLOT-V8 | Water Tank_26-0001.dgn | CHEROKEE COUNTY, GA | P. I. No. N/A



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
REQ'D LIMIT OF ACCESS
REQ'D LIMIT OF ACCESS & R/W
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)

CALCO ENGINEERING

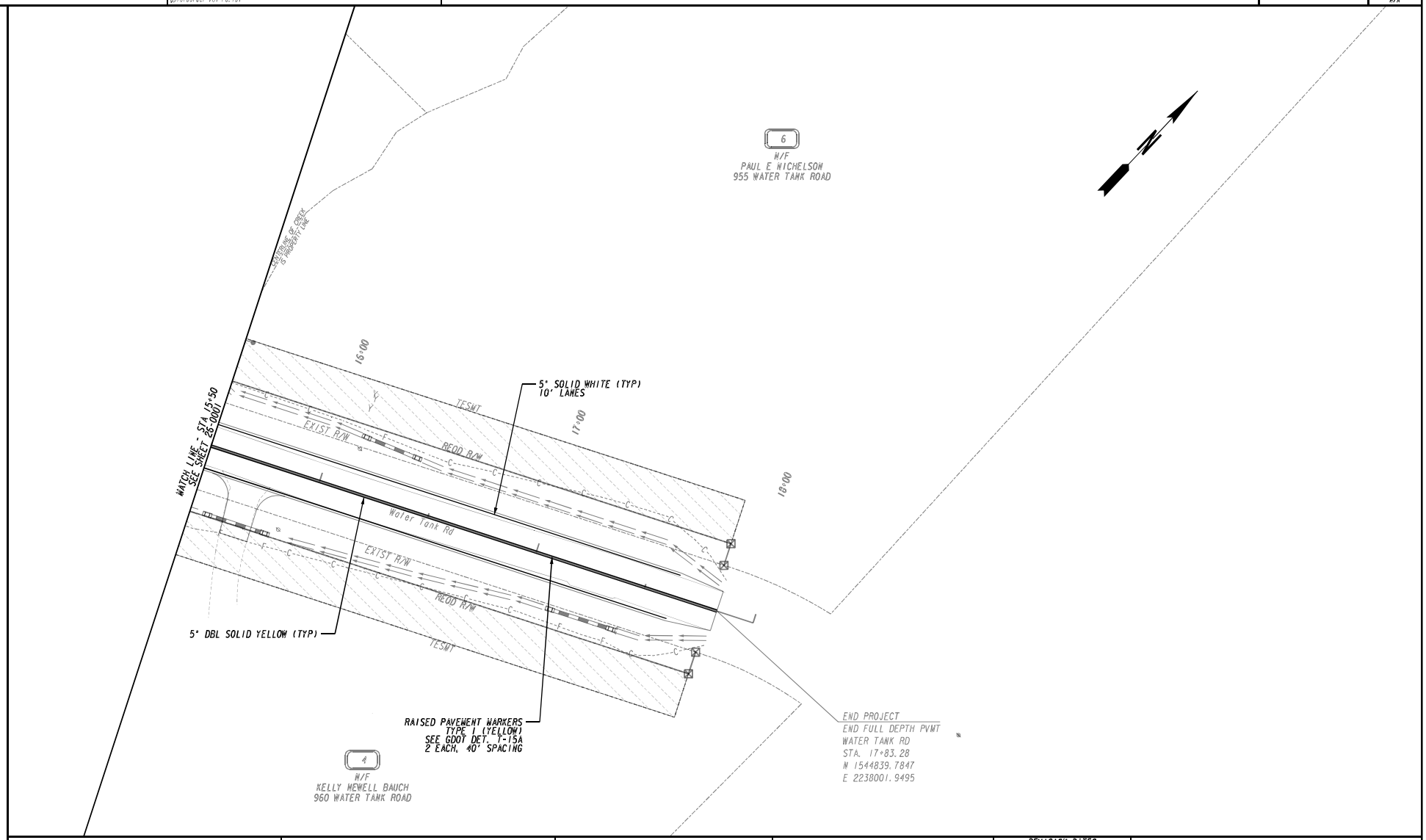
SCALE IN FEET
0 20 40 80

REVISION DATES

SIGNING AND MARKING PLAN
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		26-0001
VERIFIED:		DATE:		

10/23/2015 GPLN



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
REQ'D LIMIT OF ACCESS
REQ'D LIMIT OF ACCESS & R/W
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)

CALCO ENGINEERING

SCALE IN FEET
0 20 40 80

REVISION DATES

SIGNING AND MARKING PLAN
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

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10/23/2015 GPLN

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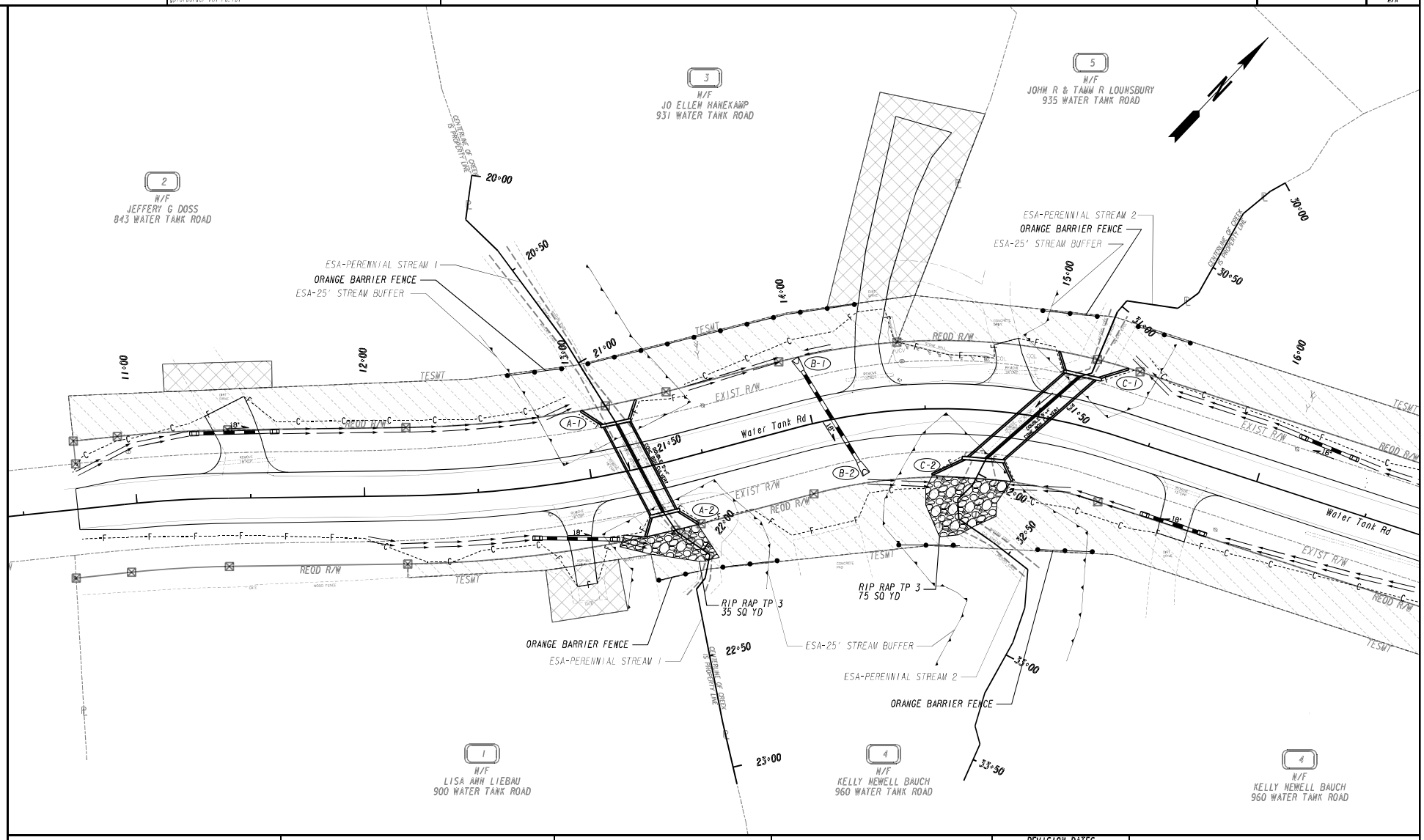

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
REQ'D LIMIT OF ACCESS
REQ'D LIMIT OF ACCESS & R/W
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)

CALCO ENGINEERING

SCALE IN FEET
0 20 40 80

REVISION DATES

PERENNIAL STREAM PLAN VIEW
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

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10/23/2015 GPLN

12/6/2023 1:27:57 PM GPLOT-V8 Water Tank_39-0002.dgn CHEROKEE COUNTY, GA P. I. No. N/A
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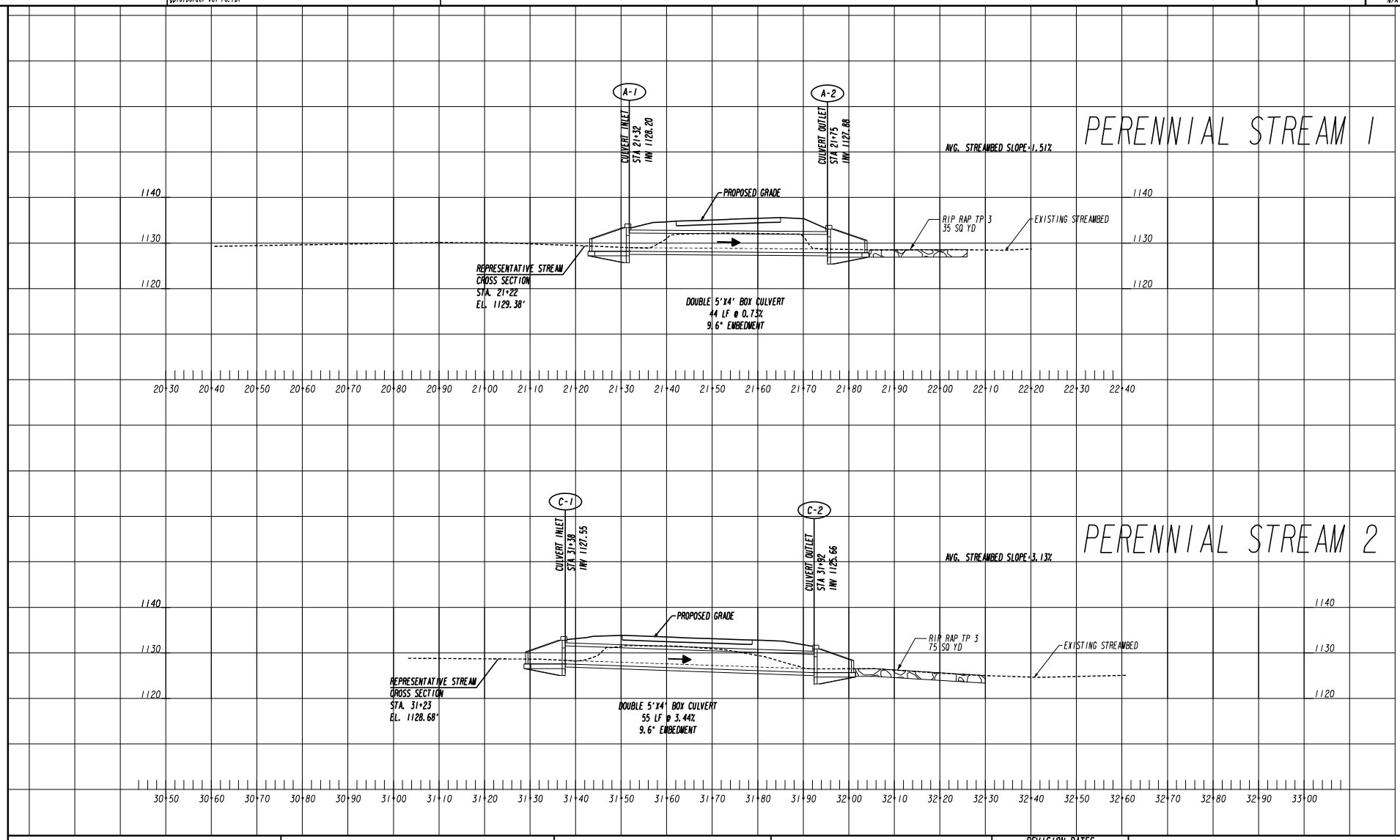

CALCO ENGINEERING

HORIZ. SCALE IN FEET 0 10 20

VERT. SCALE IN FEET 0 10 20

REVISION DATES

PERENNIAL STREAM LONGITUDINAL PROFILE

WATER TANK ROAD
DRAINAGE IMPROVEMENTS

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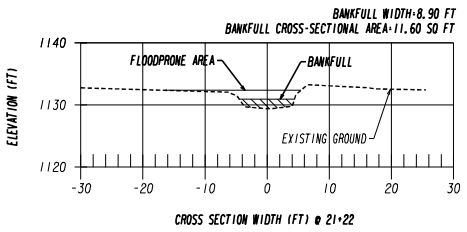
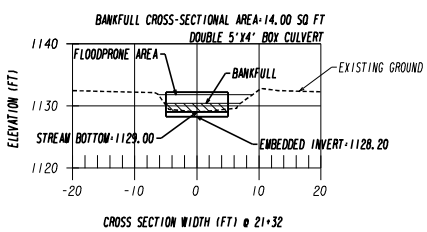
10/23/2015 GPUN

REPRESENTATIVE STREAM CHANNEL CROSS SECTION



CULVERT INLET CROSS SECTION



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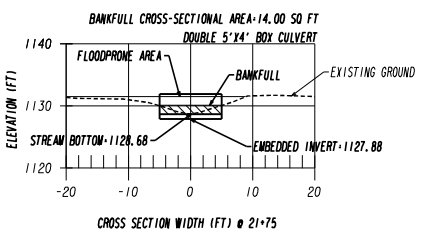
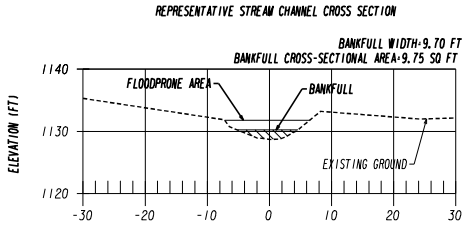


PERENNIAL STREAM 1

REPRESENTATIVE STREAM CHANNEL CROSS SECTION



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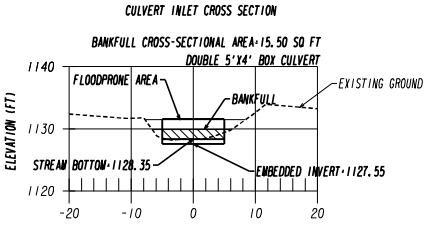
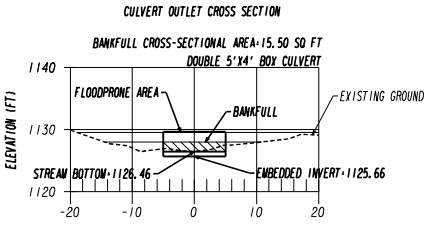


CULVERT OUTLET CROSS SECTION



PERENNIAL STREAM 2

CALCO ENGINEERING

HORIZ. SCALE IN FEET
0 10 20

VERT. SCALE IN FEET
0 10 20

REVISION DATES

PERENNIAL STREAM CROSS SECTIONS
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
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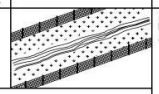
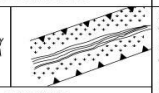
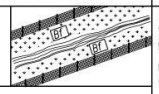
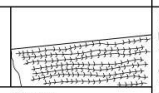
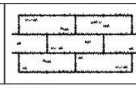
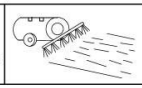
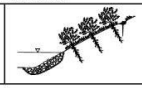
CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
	ORANGE BARRIER FENCE		ORANGE BARRIER FENCE DELINEATES ENVIRONMENTALLY SENSITIVE AREAS WHERE THE CONTRACTOR SHALL NOT CLEAR, GRUB, OR PLACE CONSTRUCTION MATERIALS OR EQUIPMENT WITHIN THIS AREA.
		LINE CODE ORANGE BARRIER FENCE	
ESA	ENVIRONMENTALLY SENSITIVE AREA		AN ENVIRONMENTALLY SENSITIVE AREA (ESA) CONTAINS RESOURCES THAT ARE ENVIRONMENTALLY, CULTURALLY, OR HISTORICALLY SENSITIVE. ESAs INCLUDE, BUT ARE NOT LIMITED TO: STATE WATER BUFFERS, HISTORIC SITES, ARCHAEOLOGICAL SITES, AND PROTECTED ANIMAL AND PLANT SPECIES HABITATS. IF WORK IS AUTHORIZED IN THIS AREA, THE WORK MUST BE PERFORMED IN ACCORDANCE WITH SECTION 107 AND ANY OTHER APPLICABLE SPECIAL PROVISIONS AND APPLICABLE PLAN NOTES.
		LINE CODE ESA-25'(OR 50')STREAM BUFFER, ETC.	
Bf	BUFFER ZONE		A STRIP OF UNDISTURBED ORIGINAL VEGETATION, ENHANCED OR RESTORED EXISTING VEGETATION, OR THE RE-ESTABLISHMENT OF VEGETATION SURROUNDING AN AREA OF DISTURBANCE OR BORDERING STREAMS, PONDS, WETLANDS, LAKES, AND COASTAL WATERS. WHEN NECESSARY, BUFFER ZONES ARE TO BE PROTECTED BY ORANGE BARRIER FENCE.
		SYMBOL Bf	
Ds1	MULCH SECTION 163		THIS IS AN APPLICATION OF STRAW MULCH USED TO REDUCE SOIL EROSION AND STABILIZE THE SOIL. IT IS USED TO CONTROL EROSION IN AREAS WHERE PERMANENT VEGETATION IS OUT OF SEASON OR TO TEMPORARILY STABILIZE AREAS PRIOR TO FINAL GRADING. MULCHING REQUIREMENTS ARE ADDRESSED BY STANDARD SPECIFICATIONS AND/OR THE PROJECT ENGINEER. THE BMP SYMBOL FOR APPLICABLE AREAS AND/OR A NOTE SHALL BE INCLUDED ON APPLICABLE SHEETS IN SECTION 54.
		SYMBOL Ds1	
Ds2	TEMPORARY GRASSING SECTION 163,700		THE SOWING OF A QUICK GROWING SPECIES OF GRASS SUITABLE TO THE AREA AND SEASON. IT IS TYPICALLY USED TO CONTROL EROSION IN AREAS LONGER THAN MULCHING IS EXPECTED TO LAST. TEMPORARY GRASSING SHOULD BE USED ON ALL PROJECTS ACCORDING TO THE STANDARD SPECIFICATIONS. THE BMP SYMBOL FOR APPLICABLE AREAS AND/OR A NOTE SHALL BE INCLUDED ON APPLICABLE SHEETS IN SECTION 54.
		SYMBOL Ds2	

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Ds3	PERMANENT GRASSING SECTION 700		THE SOWING OF PERMANENT VEGETATION, SUCH AS GRASS, SUITABLE TO THE AREA AND SEASON. PERMANENT VEGETATION SHALL BE USED ON ALL PROJECTS ACCORDING TO THE STANDARD SPECIFICATION. THE BMP SYMBOL FOR APPLICABLE AREAS AND/OR A NOTE SHALL BE INCLUDED ON APPLICABLE SHEETS IN SECTION 54.
		SYMBOL Ds3	
Ds4	SODDING CONSTRUCTION DETAIL D-54 SECTION 700, 890		THE INSTALLATION OF A SPECIES OF GRASS SODDING SUITABLE TO THE AREA AND SEASON TO PROVIDE IMMEDIATE PERMANENT VEGETATION. SODDING MAY BE SHOWN FOR HIGHLY SENSITIVE AREAS, TO IMPROVE AESTHETICS, OR FOR SPECIAL PLANTING REQUIREMENTS ON THE BASIS OF ENVIRONMENTAL COMMITMENTS OR LANDSCAPING REQUIREMENTS. THE BMP PATTERN FOR APPLICABLE AREAS AND/OR A NOTE SHALL BE INCLUDED ON APPLICABLE SHEETS IN SECTION 54.
		PATTERN  Ds4	
Fl-Co	FLOCCULANTS COAGULANTS SECTION 163,700, 895		FLOCCULANTS AND COAGULANTS ARE USED TO SETTLE SUSPENDED SEDIMENT, HEAVY METALS, AND HYDROCARBONS (TSS) IN SLOW MOVING RUNOFF FROM CONSTRUCTION SITES FOR WATER CLARIFICATION. ANIONIC POLYACRYLAMIDES (PAM) MAY BE USED IN CONJUNCTION WITH BMPs WITHIN CHANNELS UPSTREAM OF A POST-CONSTRUCTION POND, TEMPORARY SEDIMENT BASIN, OR TEMPORARY SEDIMENT TRAP. FLOCCULANTS SHALL NOT BE USED DOWNSTREAM OF AFOREMENTIONED BMPs! FLOCCULANTS/COAGULANTS ARE TO BE SHOWN ON PLANS WITH APPLICABLE BMP IF NEEDED. PAYMENT FOR PAM AS A FLOCCULANT WILL BE INCLUDED IN THE PRICE FOR THE INSTALLATION AND/OR MAINTENANCE OF THE BMP IT IS USED IN CONJUNCTION WITH. NO SEPARATE PAYMENT WILL BE MADE.
		SYMBOL Fl-Co POLYACRYLAMIDE	
Sb	STREAMBANK STABILIZATION SECTION 702		STREAMBANK STABILIZATION IS THE USE OF READILY AVAILABLE NATIVE PLANT MATERIALS TO MAINTAIN AND ENHANCE STREAMBANKS, OR TO PREVENT, OR RESTORE AND REPAIR SMALL STREAMBANK EROSION PROBLEMS. STREAMBANK STABILIZATION AREAS SHOULD BE SHOWN ON THE PLANS WHEN APPLICABLE TO THE PROJECT. REFER TO THE PROJECT'S STREAM AND STREAM BUFFER MITIGATION PLANS FOR PLANT SPECIES, LOCATIONS, AND OTHER PLANTING DETAILS.
		PATTERN  Sb	

NOTE:

1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

NO SCALE

REVISION DATES
3/2/2017

EROSION CONTROL LEGEND
UNIFORM CODE SHEET
SHEET 1 OF 7

CHECKED:	D. EAGLETON	DATE:	01/01/16	DRAWING No.
BACKCHECKED:		DATE:		52-0001
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CALCO ENGINEERING

REVISION DATES

EROSION CONTROL LEGEND
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
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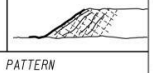
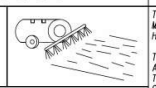
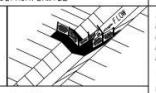
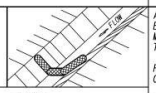
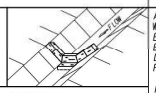
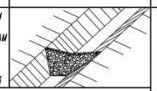
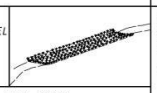
CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Ss	SLOPE STABILIZATION CONSTRUCTION DETAIL D-35 SECTION 716 PATTERN		SLOPE STABILIZATION (EROSION CONTROL MATTING) IS A PROTECTIVE COVERING USED TO PREVENT EROSION AND ESTABLISH TEMPORARY OR PERMANENT VEGETATION ON STEEP SLOPES, SHORE LINES, OR CHANNELS. SLOPE STABILIZATION MAY BE A ROLLED EROSION CONTROL PRODUCT (RECP) OR A HYDRAULIC EROSION CONTROL PRODUCT (HECP). SLOPE STABILIZATION SHALL BE USED ON ALL CUT OR FILL SLOPES OF 2.5:1 OR STEEPER AND WITHIN 50 FEET OF ALL CROSS DRAINS AND CULVERTS. NOTE: ONLY COCONUT FIBER BLANKET OR WOOD FIBER BLANKET SHALL BE USED AS SLOPE STABILIZATION WITHIN BUFFERED AREAS.
Tac	TACKIFIERS SECTION 163, 700, 895 SYMBOL Tac POLYACRYLAMIDE		TACKIFIERS HYDRATE IN WATER AND READILY BLEND WITH OTHER SLURRY MATERIALS AND ARE USED TO TIE-DOWN FOR SOIL, COMPOST, SEED, STRAW, HAY OR MULCH. TACKIFIERS REQUIREMENTS, SUCH AS ANIONIC POLYACRYLAMIDES (PAM) ARE ADDRESSED BY STANDARD SPECIFICATIONS AND ARE NOT TYPICALLY SHOWN ON THE PLANS. PAM IS TYPICALLY USED BY THE CONTRACTOR FOR TEMPORARY OR PERMANENT GRASSING. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR CRITERIA.
Cd-F	FABRIC CHECK DAM CONSTRUCTION DETAIL D-24D SECTION 171 SYMBOL Cd-F		A CHECK DAM COMPOSED OF SYNTHETIC FIBER FABRIC, WIRE REINFORCED, POST, OVERFLOW WEIR, AND TURF REINFORCEMENT MATTING (TRM) SPLASHPAD PLACED IN DITCHES IN A SPECIAL CONFIGURATION WHICH CONTROLS ENERGY DISSIPATION AND FILTRATION OF STORM WATER. SEE CONSTRUCTION DETAIL D-24D FOR ADDITIONAL INFORMATION AND SPACING REQUIREMENTS. THIS ITEM IS SUITABLE FOR USE IN ROADSIDE DITCHES THAT ARE PART OF INFRASTRUCTURE CONSTRUCTION PROJECTS AND WITHIN THE CLEAR ZONE. IF THIS ITEM IS USED IN AN AREA WITH FLOWS GREATER THAN 2.0-CFS OR WITHOUT A SEDIMENT BASIN, A MINIMUM OF ONE ROCK FILTER DAM SHALL BE USED AT THE DOWNSTREAM DISCHARGE POINT.
Cd-Fs	COMPOST FILTER SOCK CHECK DAM CONSTRUCTION DETAIL D-52 SECTION 163 SYMBOL Cd-Fs		A COMPOST FILTER SOCK CHECK DAM IS COMPOSED OF A PHOTODEGRADABLE OR BIODEGRADABLE KNITTED MESH MATERIAL CONTAINING A WEED FREE FILLER MATERIAL DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER. THEY SHALL BE PROPERLY STAKED FOR DITCH APPLICATIONS. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR MATERIAL SPECIFICATIONS. IF THIS ITEM IS USED IN AN AREA WITH FLOWS GREATER THAN 2.0-CFS OR WITHOUT A SEDIMENT BASIN, A MINIMUM OF ONE ROCK FILTER DAM SHALL BE USED AT THE DOWNSTREAM DISCHARGE POINT.
Cd-Hb	BALED STRAW CHECK DAM CONSTRUCTION DETAIL D-52 SECTION 163 SYMBOL Cd-Hb		A BALE STRAW CHECK DAM IS COMPOSED OF BALES PREFERABLY BOUND WITH WIRE OR NYLON INSTEAD OF TWINE. BALES SHOULD BE PLACED IN ROWS WITH BALE ENDS TIGHTLY ABUTTING ADJACENT BALES. THE DOWNSTREAM ROW OF BALES SHALL BE PLACED IN A TRENCH TO ALLOW THE TOP OF THE BALE'S LONG, WIDE SIDE TO BE LEVEL WITH THE GROUND AS A NON-ERODIBLE SPLASH PAD. PROPER STAKING IS ALSO REQUIRED FOR DITCH APPLICATIONS. IF THIS ITEM IS USED IN AN AREA WITH FLOWS GREATER THAN 2.0-CFS OR WITHOUT A SEDIMENT BASIN, A MINIMUM OF ONE ROCK FILTER DAM SHALL BE USED AT THE DOWNSTREAM DISCHARGE POINT.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Cd-S	STONE CHECK DAM OR SANDBAG CHECK DAM CONSTRUCTION DETAIL D-56 SECTION 163, 603 SYMBOL Cd-S		STONE CHECK DAMS ARE CONSTRUCTED OF TYPE-3 RIP-RAP WITH GEOTEXTILE UNDERLINER. STONE CHECK DAMS ARE PREFERRED IN ROADWAY DITCHES OUTSIDE THE CLEAR ZONE. CONSIDERATION SHOULD BE GIVEN TO USING OTHER APPROPRIATE CHECK DAMS AND/OR BMPs WITHIN THE CLEAR ZONE. SANDBAG CHECK DAMS ARE RECOMMENDED IN CONCRETE LINED CHANNELS FOR TEMPORARY VELOCITY CONTROL ONLY. ENSURE DISCHARGE POINT IS PROPERLY STABILIZED AND INCLUDE APPROPRIATE BMPs FOR SEDIMENT STORAGE UPSTREAM AND/OR DOWNSTREAM OF CONCRETE LINED CHANNELS. IF THIS ITEM IS USED IN AN AREA WITH FLOWS GREATER THAN 2.0-CFS OR WITHOUT A SEDIMENT BASIN, A MINIMUM OF ONE ROCK FILTER DAM SHALL BE USED AT THE DOWNSTREAM DISCHARGE POINT.
Ch-I	VEGETATED CHANNEL STABILIZATION SECTION 700 LINE CODE Ch-I		A NEW OR EXISTING CHANNEL MAY BE LINED WITH PERMANENT VEGETATION ONLY FOR VELOCITIES UP TO 5.0 fps. THIS MEASURE SHALL BE DESIGNED IN ACCORDANCE WITH THE GDOT CHANNEL LINING DESIGN PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED. TYPICALLY NOT SHOWN IN PLANS.
Ch-2RI	CHANNEL STABILIZATION RIP-RAP, TYPE I CONSTRUCTION DETAIL D-49 SECTION 603 LINE CODE Ch-2RI		THIS ITEM CONSISTS OF LINING A CHANNEL WITH TYPE I RIP-RAP 24" THICK (UNLESS SPECIFIED OTHERWISE) PLACED ON TOP OF A GEOTEXTILE UNDERLINER. THE RIP-RAP SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED. "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
Ch-2R3	CHANNEL STABILIZATION RIP-RAP, TYPE 3 CONSTRUCTION DETAIL D-49 SECTION 603 LINE CODE Ch-2R3		THIS ITEM CONSISTS OF LINING A CHANNEL WITH TYPE 3 RIP-RAP 24" THICK (UNLESS SPECIFIED OTHERWISE) PLACED ON TOP OF A GEOTEXTILE UNDERLINER. THE RIP-RAP SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED. "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

NOTE:

1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

NO SCALE

REVISION DATES
3/2/2017
11/28/2018

EROSION CONTROL LEGEND
UNIFORM CODE SHEET
SHEET 2 OF 7

CHECKED:	D. EAGLETON	DATE: 01/01/16	DRAWING No.
BACKCHECKED:		DATE:	52-0002
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12/3/2015 GPUN

CALCO ENGINEERING

REVISION DATES

EROSION CONTROL LEGEND
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

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10/23/2015 GPUN

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Ch-2T1	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711	LINE CODE	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-2 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
Ch-2T2	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711	LINE CODE	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-4 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
Ch-2T3	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711	LINE CODE	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-6 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
Ch-2T4	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711	LINE CODE	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-8 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
Ch-2T5	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711	LINE CODE	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-10 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Ch-2T6	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711	LINE CODE	THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-12 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
Ch-3	CONCRETE CHANNEL STABILIZATION CONSTRUCTION DETAIL D-10, D-49 SECTION 441	LINE CODE	CHANNELS ARE LINED WITH CONCRETE FOR VELOCITIES >/= 10 fps. THIS ITEM CONSISTS OF CONSTRUCTING A 4" THICK CONCRETE CHANNEL. THE CONCRETE SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN. RIP-RAP SHOULD BE USED TO DISSIPATE ENERGY DOWNSTREAM OF CONCRETE LINED CHANNELS.
Co	CONSTRUCTION EXIT CONSTRUCTION DETAIL D-41 SECTION 163, 800	SYMBOL	A CONSTRUCTION EXIT IS A STONE STABILIZED PAD THAT REDUCES OR ELIMINATES THE TRANSPORT OF MUD FROM CONSTRUCTION AREAS ONTO PUBLIC ROADS BY EQUIPMENT OR RUNOFF. BEST USED AT ACCESS POINTS, i.e. NEW LOCATION PROJECTS, BORROW PITS, WASTE PITS, ACCESS ROADS, ETC. SHOULD BE MINIMUM 20' WIDE, 50' LONG, 6" THICK, AND REQUIRES A GEOTEXTILE UNDERLINER. ON SITES WHERE THE GRADE TOWARD A PAVED AREA IS GREATER THAN 2%, A FULL WIDTH DIVERSION RIDGE 6" TO 8" HIGH WITH 3:1 SLOPES SHALL BE CONSTRUCTED APPROXIMATELY 15' UPSTREAM OF PAVED AREA. A TIRE WASHING AREA TO REMOVE MUD MAY ALSO BE REQUIRED PRIOR TO ENTRANCE ONTO PUBLIC ROADWAYS. ALL CONSTRUCTION EXIT REQUIREMENTS ARE INCLUDED IN THE PRICE OF THE CONSTRUCTION EXIT.
Dc-A	STREAM DIVERSION CHANNEL GEOTEXTILE, POLYETHYLENE FILM SECTION 163	LINE CODE	A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT DRAINAGE STRUCTURE IS BEING CONSTRUCTED IN A NATURAL STREAM. THIS IS A MEASURE USED TO PROTECT STREAM BEDS FROM EROSION. LINE THE CHANNEL WITH GEOTEXTILE OR POLYETHYLENE FILM. INSTALL TWO ROWS OF Sdi-S PARALLEL TO THE CHANNEL TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STREAM. THE SIZE OF THE CHANNEL WILL DEPEND ON THE DISCHARGE, CHANNEL GEOMETRY, CHANNEL SLOPE AND ROUGHNESS. IT IS ACCEPTABLE FOR VELOCITIES BETWEEN 0 - 2.5 fps. THE DRAINAGE AREA SHALL BE NOT GREATER THAN 1 SQUARE MILE. CONSTRUCTION OF THE DIVERSION CHANNEL IS INCLUDED IN THE COST OF THE STRUCTURE.

NOTE:

1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

NO SCALE

REVISION DATES
3/2/2017

EROSION CONTROL LEGEND
UNIFORM CODE SHEET
SHEET 3 OF 7

CHECKED:	D. EAGLETON	DATE:	01/01/16
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No. 52-0003

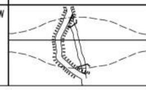
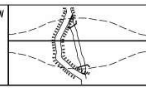
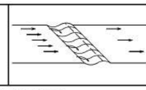
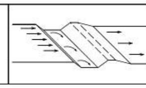
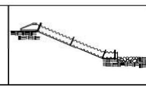
CALCO ENGINEERING

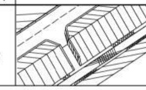
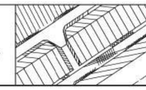
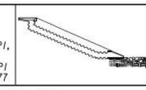
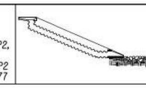
REVISION DATES

EROSION CONTROL LEGEND
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No. 52-0003

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Dc-B	STREAM DIVERSION CHANNEL GEOTEXTILE ONLY SECTION 163	 LINE CODE —D—D—D—(Dc-B)—D—D—D—	A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT DRAINAGE STRUCTURE IS BEING CONSTRUCTED IN A NATURAL STREAM. THIS IS A MEASURE USED TO PROTECT STREAM BEDS FROM EROSION. LINE THE CHANNEL WITH GEOTEXTILE ONLY. INSTALL TWO ROWS OF Sd1-S PARALLEL TO THE CHANNEL TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STREAM. THE SIZE OF THE CHANNEL WILL DEPEND ON THE DISCHARGE, CHANNEL GEOMETRY, CHANNEL SLOPE AND ROUGHNESS. IT IS ACCEPTABLE FOR VELOCITIES BETWEEN 2.5 - 9.0 fps. THE DRAINAGE AREA SHALL BE NOT GREATER THAN 1 SQUARE MILE. CONSTRUCTION OF THE DIVERSION CHANNEL IS INCLUDED IN THE COST OF THE STRUCTURE.
Dc-C	STREAM DIVERSION CHANNEL RIP-RAP & GEOTEXTILE SECTION 163	 LINE CODE —D—D—D—(Dc-C)—D—D—D—	A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT DRAINAGE STRUCTURE IS BEING CONSTRUCTED IN A NATURAL STREAM. THIS IS A MEASURE USED TO PROTECT STREAM BEDS FROM EROSION. LINE THE CHANNEL WITH RIP-RAP AND GEOTEXTILE. INSTALL TWO ROWS OF Sd1-S PARALLEL TO THE CHANNEL TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STREAM. THE SIZE OF THE CHANNEL WILL DEPEND ON THE DISCHARGE, CHANNEL GEOMETRY, CHANNEL SLOPE AND ROUGHNESS. IT IS ACCEPTABLE FOR VELOCITIES BETWEEN 9.0 - 13.0 fps. THE DRAINAGE AREA SHALL BE NOT GREATER THAN 1 SQUARE MILE. CONSTRUCTION OF THE DIVERSION CHANNEL IS INCLUDED IN THE COST OF THE STRUCTURE.
D1-1	DIVERSION BERM CONSTRUCTION DETAIL D-47 SECTION 205	 LINE CODE (D1-1)	A NON-DESIGNED TEMPORARY EARTHEN BERM WITH A COMPACTED SUPPORTING RIDGE ON THE LOWER SIDE TO BE USED AT THE EDGE OF EMBANKMENT DURING THE GRADING OPERATION. THE BERMS ARE ALSO CONSTRUCTED ABOVE, ACROSS OR BELOW A SLOPE TO REDUCE THE LENGTH OF A SLOPE. THEY ARE USED TO INTERCEPT RUNOFF, PREVENTING SLOPE EROSION AND TO DIRECT THE RUNOFF TO A STABLE OUTLET, DOWN DRAINS "Dn1"OR CATCHMENT AREAS AND ON ALL GRADING PROJECTS.
D1-2	DIVERSION CHANNEL SECTION 205	 LINE CODE (D1-2)	A DESIGNED TEMPORARY OR PERMANENT CHANNEL WITH A COMPACTED SUPPORTING RIDGE ON THE LOWER SIDE TO DIVERT OFFSITE RUNOFF AWAY FROM DISTURBED AREAS WITHIN THE PROJECT AREA. CHANNEL FOR OFFSITE RUNOFF SHALL BE STABILIZED WITH APPROPRIATE CHANNEL STABILIZATION. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR DESIGN CRITERIA. A DIVERSION CHANNEL DETAIL MUST ALSO BE PROVIDED IN THE ESPCP. RUNOFF FROM DISTURBED AREAS WITHIN THE PROJECT AREA SHALL NOT BE ALLOWED TO CONVERGE WITH OFFSITE RUNOFF WITHIN THIS DIVERSION.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE FLEXIBLE CONSTRUCTION DETAIL D-19 SECTION 163	 LINE CODE —T—T—T—(Dn1)—T—T—T—	A TEMPORARY PIPE SLOPE DRAIN IS A PLASTIC FLEXIBLE PIPE TO CARRY WATER FROM THE WORK AREA TO A LOWER ELEVATION. TEMPORARY SLOPE DRAINS SHOULD BE PLACED AT INTERVALS OF 350 FEET ON 0% - 2% GRADES, 200 FEET ON STEEPER GRADES AND MORE FREQUENTLY AS DICTATED BY FIELD CONDITIONS. THE TYPICAL PIPE SIZE IS A CORRUGATED 10". THE PIPE WILL BE ANCHORED WITH STAKES AT INTERVALS NOT TO EXCEED 10'. THE OUTLET AREA SHALL BE STABILIZED FOR VELOCITY DISSIPATION AND EROSION CONTROL.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Dn2-A	PERMANENT DOWNDRAIN STRUCTURE CONCRETE CONSTRUCTION DETAIL D-9 SECTION 441	 LINE CODE (Dn2-A)	A CONCRETE FLUME TYPE "A" IS USED TO DIRECT SURFACE RUNOFF DOWN A ROADWAY SLOPE INTO ANOTHER FORM OF CONTROL. IT IS USED IN ALL DEPRESSED AREAS WHERE WATER WILL FLOW DOWN THE SLOPE. IT IS DESIGNED FOR A 25-YEAR STORM AND MUST HAVE SOME FORM OF OUTLET PROTECTION. ADDITIONAL LABELING IS NOT REQUIRED IF SHOWN AS A PERMANENT DRAINAGE STRUCTURE ON THE CONSTRUCTION PLANS. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OTHER CRITERIA).
Dn2-B	PERMANENT DOWNDRAIN STRUCTURE CONCRETE CONSTRUCTION DETAIL D-9 SECTION 441	 LINE CODE (Dn2-B)	A CONCRETE FLUME TYPE "B" IS USED TO DIRECT SURFACE DITCH RUNOFF DOWN A BACK SLOPE INTO ANOTHER FORM OF CONTROL. IT IS USED IN DEPRESSED AREAS WHERE CONCENTRATED OFFSITE WATER REACHES THE CUT SLOPE. IT IS DESIGNED TO SAFELY CONVEY WATER DOWN THE CUT SLOPE. IT IS DESIGNED FOR A 25-YEAR STORM AND MUST HAVE SOME FORM OF OUTLET PROTECTION. ADDITIONAL LABELING IS NOT REQUIRED IF SHOWN AS A PERMANENT DRAINAGE STRUCTURE ON THE CONSTRUCTION PLANS. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA).
Dn2-1	PERMANENT DOWNDRAIN STRUCTURE GA. STD 9013 TP1, 9017J TP1, DETAIL D-26 TP1 SECTION 576, 577	 LINE CODE (Dn2-1)	CONCRETE DRAIN INLET WITH METAL PIPE IS USED TO DRAIN CURBS, ON A GRADE, DOWN TO A LOWER ELEVATION. THIS IS A PERMANENT STRUCTURE, REQUIRING OUTLET PROTECTION, TEMPORARY AND PERMANENT. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA).
Dn2-2	PERMANENT DOWNDRAIN STRUCTURE GA. STD 9013 TP2, 9017J TP2, DETAIL D-26 TP2 SECTION 576, 577	 LINE CODE (Dn2-2)	CONCRETE DRAIN INLET AND METAL PIPE IS USED TO DRAIN CURB, IN A SAG, DOWN TO A LOWER ELEVATION. THIS IS A PERMANENT STRUCTURE, REQUIRING OUTLET PROTECTION, TEMPORARY AND PERMANENT. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA).

NOTE:

1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

GDOT

NO SCALE

REVISION DATES
3/2/2017

EROSION CONTROL LEGEND
UNIFORM CODE SHEET
SHEET 4 OF 7

CHECKED:	D. EAGLETON	DATE:	01/01/16
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No. 52-0004

7/31/2015 GPLN

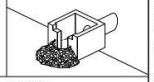
CALCO ENGINEERING

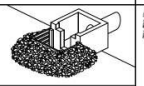
REVISION DATES

EROSION CONTROL LEGEND
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No. 52-0004

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Fr	FILTER RING CONSTRUCTION DETAIL D-46 SECTION 163 SYMBOL: Fr		A TEMPORARY STONE BARRIER CONSTRUCTED AT DRAINAGE STRUCTURE INLETS AND POST-CONSTRUCTION POND OUTLETS. IT REDUCES RUNOFF VELOCITY AND HELPS PREVENT SEDIMENT FROM LEAVING SITE PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR ADDITIONAL INFORMATION ON USAGE.
Rd	ROCK FILTER DAM CONSTRUCTION DETAIL D-43 SECTION 163, 603 SYMBOL: Rd		ROCK FILTER DAMS ARE CONSTRUCTED OF TYPE 3 STONE RIP-RAP FACED WITH "57 STONE ON THE UPSTREAM SIDE. THEY ARE PLACED ACROSS DRAINAGEWAYS WHICH DRAIN 50 ACRES OR LESS. GEOTEXTILE UNDERLINER SHALL BE USED WHEN PLACING ROCK FILTER DAMS. THE DAM SHOULD NOT BE HIGHER THAN THE CHANNEL BANKS. ROCK FILTER DAMS SHOULD BE USED IN DITCHES PRIOR TO DISCHARGING INTO STREAMS, WETLANDS, OPEN-WATERS, OR OTHER ESAs.
Rd-B	STONE FILTER BERM CONSTRUCTION DETAIL D-50 SECTION 163, 603 LINE CODE: —A—A—A—(Rd-B)—A—A—A—		STONE FILTER BERMS ARE CONSTRUCTED SIMILAR TO ROCK FILTER DAMS FOR A LINEAR APPLICATION. THEY ARE CONSTRUCTED OF TYPE-3 STONE RIP-RAP FACED WITH "57 STONE ON THE UPSTREAM SIDE. GEOTEXTILE UNDERLINER SHALL BE USED WHEN PLACING STONE FILTER BERMS. STONE FILTER BERMS ARE IDEAL ALONG THE PERIMETER FOR SHEET FLOW AND/OR SHALLOW CONCENTRATED FLOW TO A COMMON LOW AREA WHERE PERIMETER SILT FENCE ALONE MAY BE INSUFFICIENT. THERE IS NO WELL-DEFINED CHANNEL FOR A STANDARD ROCK FILTER DAM, AND/OR CONSTRUCTING A ROCK OUTLET TEMPORARY SEDIMENT TRAP IS NOT APPLICABLE.
Rp	RIP-RAP SECTION 603 PATTERN: Rp		RIP-RAP IS A FLEXIBLE PERMANENT BLANKET FOR PROTECTION OF FILL SLOPES AND BRIDGE END ROLLS. RIP-RAP TYPE-1 SHOULD BE PLACED ON TOP OF A GEOTEXTILE UNDERLINER AT A MINIMUM 24" THICKNESS OR AS INDICATED ON THE PLANS. RIP-RAP MAY ALSO BE USED AT DRAINAGE STRUCTURE OUTLETS WITHIN THE RIGHT-OF-WAY. HOWEVER, APPROPRIATE OUTLET PROTECTION SHOULD BE PROVIDED AT OUTFALLS. REFER TO STORM DRAIN OUTLET PROTECTION FOR ADDITIONAL INFORMATION ON USING RIP-RAP AT OUTFALLS.
Rt-P	RETROFITTING PERFORATED HALF-ROUND PIPE CONSTRUCTION DETAIL D-44 SECTION 163 SYMBOL: Rt-P		A PERFORATED HALF-ROUND PIPE WITH STONE FILTER PLACED IN FRONT OF A PERMANENT STORMWATER DETENTION POND OUTLET STRUCTURE TO SERVE AS A TEMPORARY SEDIMENT FILTER. SHOULD BE USED ONLY IN DETENTION PONDS WITH LESS THAN 30 ACRES TOTAL DRAINAGE AREA. SHALL ONLY BE USED IN DETENTION BASINS LARGE ENOUGH TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DISTURBED AREA. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR DESIGN CRITERIA.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Rt-B	RETROFITTING SLOTTED BOARD DAM CONSTRUCTION DETAIL D-45 SECTION 163 SYMBOL: Rt-B		A SLOTTED BOARD DAM CONSISTS OF STONE AND/OR FILTER FABRIC AND BOARDS WITH 0.5' - 1.0' SPACING TO SERVE AS A TEMPORARY SEDIMENT FILTER. PERMANENT STORMWATER DETENTION POND OUTLET: -DRAINAGE AREA UP TO 100 ACRES -DETENTION BASINS LARGE ENOUGH TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DISTURBED AREA ROADWAY DRAINAGE STRUCTURE: -OPEN END PIPES, WINGED HEADWALLS, OR CONCRETE WEIR OUTLETS WITH DRAINAGE AREA LESS THAN 30 ACRES REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR DESIGN CRITERIA.
Rt-Sg1 Rt-Sg2 Rt-Sg3	RETROFITTING SILT CONTROL GATES CONSTRUCTION DETAIL D-20 SECTION 163 SYMBOL: Rt-Sg1 Rt-Sg2 Rt-Sg3	 FRONT VIEW	A SILT CONTROL GATE CONSISTS OF BOARDS WITHOUT SPACING AND FILTER FABRIC TO BE USED FOR TEMPORARY SEDIMENT STORAGE ON ROADWAY PROJECTS AT THE INLET OF STRUCTURES WITH A DRAINAGE AREA UP TO 50 ACRES. THE DISTURBED AREA WITHIN THE DRAINAGE AREA SHALL NOT EXCEED 5 ACRES. SILT CONTROL GATES SHOULD NOT BE USED ALONE, BUT WITH ANOTHER BMP DOWNSTREAM PRIOR TO DISCHARGE LEAVING PROJECT AREA. DO NOT USE SILT GATES IN STATE WATERS. Rt-Sg1=TYPE 1: USED ON BOX CULVERTS Rt-Sg2=TYPE 2: USED ON STRAIGHT HEADWALLS Rt-Sg3=TYPE 3: USED ON FLARED END SECTIONS AND TAPERED HEADWALLS
Sdl-NS	SEDIMENT BARRIER (NON-SENSITIVE) SILT FENCE TYPE A CONSTRUCTION DETAIL D-24 SECTION 171 LINE CODE: —A—A—A—(Sdl-NS)—A—A—A—		SEDIMENT BARRIERS MINIMIZE AND PREVENT SEDIMENT CARRIED BY SHEET FLOW FROM LEAVING THE PROJECT AREA BY CAUSING DEPOSITION AND/OR FILTRATION OF SEDIMENT. SILT FENCE USED AS PERIMETER CONTROL SHALL NOT BE INSTALLED ACROSS CONCENTRATED FLOW. TYPE-A SILT FENCE IS TYPICALLY USED IN NON-ENVIRONMENTALLY SENSITIVE AREAS (ESAs) OR IN AREAS WITH FILLS LESS THAN 10'. IT SHOULD BE PLACED A MINIMUM OF 10' FROM CONSTRUCTION LIMITS OR ALONG THE RIGHT-OF-WAY LINE.
Sdl-S	SEDIMENT BARRIER (SENSITIVE) SILT FENCE TYPE C CONSTRUCTION DETAIL D-24 SECTION 171 LINE CODE: —C—C—C—(Sdl-S)—C—C—C—		SEDIMENT BARRIERS MINIMIZE AND PREVENT SEDIMENT CARRIED BY SHEET FLOW FROM LEAVING THE PROJECT AREA BY CAUSING DEPOSITION AND/OR FILTRATION OF SEDIMENT. SILT FENCE USED AS PERIMETER CONTROL SHALL NOT BE INSTALLED ACROSS CONCENTRATED FLOW. TYPE-C SILT FENCE IS TYPICALLY USED IN ENVIRONMENTALLY SENSITIVE AREAS (ESAs) OR IN AREAS WITH FILLS 10' AND GREATER. ALL ENVIRONMENTALLY SENSITIVE AREAS (ESAs) SHALL BE PROTECTED WITH A DOUBLE-ROW OF TYPE-C SILT FENCE REGARDLESS OF FILL HEIGHT. A SINGLE-ROW MAY BE USED FOR OTHER APPLICATIONS. IT SHOULD BE PLACED A MINIMUM OF 10' FROM CONSTRUCTION LIMITS OR ALONG THE RIGHT-OF-WAY LINE.

NOTE:

1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

NO SCALE

REVISION DATES: 3/2/2017

EROSION CONTROL LEGEND
UNIFORM CODE SHEET
SHEET 5 OF 7

CHECKED: S. EAGLETON DATE: 01/01/16
BACKCHECKED: DATE:
CORRECTED: DATE:
VERIFIED: DATE:
DRAWING No. 52-0005

7/3/2015 GPLN

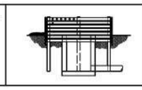
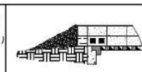
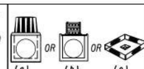
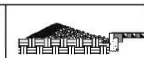
CALCO ENGINEERING

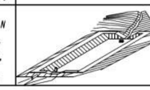
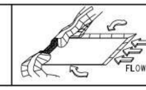
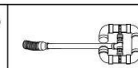
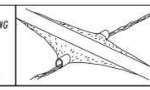
REVISION DATES

EROSION CONTROL LEGEND
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED: DATE: DRAWING No.
BACKCHECKED: DATE:
CORRECTED: DATE: 52-0005
VERIFIED: DATE:

10/23/2015 GPLN

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Sd1-BB	SEDIMENT BARRIER BRUSH BARRIER CONSTRUCTION DETAIL D-24B SECTION 201	 LINE CODE ✱ ✱ ✱ (Sd1-BB) ✱ ✱ ✱	THIS ITEM CONSISTS OF INTERMINGLED BRUSH, LOGS, ETC. SO AS NOT TO FORM A SOLID DAM. CONSTRUCTED AT THE TOE OF FILL SLOPES ONLY DURING THE CLEARING AND GRUBBING OPERATION. THE BARRIER SHOULD BE USED AT THE TOE OF FILL SLOPES ON GRADING PROJECTS IN RURAL AREAS WHERE SUFFICIENT RIGHT OF WAY OR EASEMENT IS AVAILABLE (10 FEET OR MORE). THE BARRIER SHOULD RUN ROUGHLY PERPENDICULAR TO THE FLOW OF WATER WHERE THIS DOES NOT CONFLICT WITH RIGHT-OF-WAY OR EASEMENT LIMITS. THEY WILL NOT BE PLACED IN WETLANDS. TYPICALLY NOT SHOWN ON PLANS. PAYMENT FOR THIS ITEM IS INCLUDED IN THE CLEARING AND GRUBBING COST. NO SEPARATE PAYMENT SHALL BE MADE.
Sd2-B	INLET SEDIMENT TRAP (BAFFLE BOX) CONSTRUCTION DETAIL D-42 SECTION 163	 SYMBOL (Sd2-B)	BAFFLE BOX INLET SEDIMENT TRAP USED FOR INLETS RECEIVING HIGH FLOW RATE AND/OR VELOCITY. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING FLOW RATES 7 cfs AND GREATER.
Sd2-Bg	INLET SEDIMENT TRAP (BLOCK & GRAVEL) CONSTRUCTION DETAIL D-42 SECTION 163	 SYMBOL (Sd2-Bg)	BLOCK AND GRAVEL DROP INLET PROTECTION USED FOR WHERE HEAVY FLOWS ARE EXPECTED AND WHERE OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE. CAN BE USED AT CULVERT INLETS. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING FLOW RATES THAT RANGE FROM 5 - 7 cfs.
Sd2-F	INLET SEDIMENT TRAP (FILTER FABRIC) CONSTRUCTION DETAIL D-24C SECTION 163	 (a) OR (b) OR (c) SYMBOL (Sd2-F)	(a) A SEDIMENT BARRIER CONSISTING OF A PREFABRICATED FRAME WITH FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN. (b) A SEDIMENT BARRIER CONSISTING OF A PERFORATED METAL STAND PIPE WITH FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN. (c) TYPE C SILT FENCE WITH SUPPORTING FRAME CAN BE USED AS AN ALTERNATE TO INLET SEDIMENT TRAP FOR AREAS WITH SLOPES < 5%. THIS ITEM IS USED TO PREVENT SILT FROM ENTERING THE PIPE SYSTEM. SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS. RECOMMENDED FOR INLET RECEIVING FLOW RATES THAT RANGE FROM 0 - 4 cfs.
Sd2-G	INLET SEDIMENT TRAP (GRAVEL) CONSTRUCTION DETAIL D42 SECTION 163	 SYMBOL (Sd2-G)	GRAVEL DROP INLET PROTECTION USED WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED. STONE AND GRAVEL ARE USED TO TRAP SEDIMENT. THE SLOPE TOWARD THE INLET SHALL BE NO MORE THAN 3:1. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING FLOW RATES THAT RANGE FROM 3 - 5 cfs.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Sd3	TEMPORARY SEDIMENT BASIN CONSTRUCTION DETAIL D-22A, D-22B SECTION 163	 SYMBOL (Sd3)	A BASIN CREATED BY EXCAVATING AN AREA, DAMMING CONCENTRATED FLOW, OR A COMBINATION OF BOTH. THE BASIN IS DESIGNED TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DRAINAGE AREA. THE DRAINAGE AREA SHOULD NOT EXCEED 150 ACRES. BASINS TYPICALLY CONSISTS OF A DAM, PRINCIPAL SPILLWAY, AND AN EMERGENCY SPILLWAY. A FLOATING SURFACE SKIMMER SHALL BE REQUIRED AS PART OF THE PRINCIPAL SPILLWAY UNLESS INFEASIBLE. SUFFICIENT RIGHT-OF-WAY OR EASEMENT IS NEEDED FOR BASIN CONSTRUCTION AND MAINTENANCE ACCESS. SEDIMENT BASINS SHALL BE CONSIDERED ON ALL PROJECTS, BUT MAY NOT BE PRACTICAL. BASINS SHOULD BE LOCATED TO MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES AND UTILITIES. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR DESIGN CRITERIA.
Sd4-C	ROCK OUTLET TEMPORARY SEDIMENT TRAP CONSTRUCTION DETAIL D-53 SECTION 163	 SYMBOL (Sd4-C)	TEMPORARY POND WITH ROCK OUTLET DESIGNED TO STORE 67 CUBIC YARDS OF SEDIMENT PER DRAINAGE AREA. DRAINAGE AREA SHALL NOT EXCEED 5 ACRES. DISTINGUISHED FROM TEMPORARY SEDIMENT BASIN BY LACK OF PRINCIPAL SPILLWAY. MAXIMUM POND DEPTH FROM BOTTOM OF POND TO EMERGENCY SPILLWAY IS 4 FEET. A TEMPORARY SEDIMENT BASIN SHALL BE EVALUATED PRIOR TO CONSIDERING A TEMPORARY SEDIMENT TRAP. A TEMPORARY SEDIMENT TRAP IS IDEAL FOR SMALL AREAS WITH NO UNUSUAL DRAINAGE FEATURES AND EFFECTIVE AGAINST COARSE SEDIMENT, BUT NOT AGAINST SILT OR CLAY PARTICLES THAT REMAIN SUSPENDED. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR DESIGN CRITERIA.
Sk	FLOATING SURFACE SKIMMER CONSTRUCTION DETAIL D-22A, D-22B SECTION 163	 SYMBOL (Sk)	A BUOYANT DEVICE THAT DRAINS WATER FROM THE SURFACE OF A TEMPORARY SEDIMENT BASIN AT A CONTROLLED FLOW RATE. THE INLET/ORIFICE SIZE IS DESIGNED TO DRAIN THE BASIN WITHIN 24 - 48 HOURS. THE SKIMMER INFORMATION SHALL BE PROVIDED IN CONJUNCTION WITH THE SEDIMENT BASIN INFORMATION IN PLANS. IF A SKIMMER IS INFEASIBLE, THE DESIGNER SHALL PROVIDE A WRITTEN JUSTIFICATION IN THE PLANS. SKIMMERS ARE ATTACHED TO A RISER WITHOUT PERFORATIONS AND ACTS AS THE PRIMARY SPILLWAY. THE SKIMMER BMP SYMBOL SHALL BE SHOWN IN CONJUNCTION WITH THE TEMPORARY SEDIMENT BASIN BMP SYMBOL WHEN APPLICABLE. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR ADDITIONAL INFORMATION.
Sr	TEMPORARY STREAM CROSSING SECTION 107	 SYMBOL (Sr)	A TEMPORARY STRUCTURE INSTALLED ACROSS A FLOWING STREAM OR WATERCOURSE FOR USE BY CONSTRUCTION EQUIPMENT. THIS BMP PROVIDES A MEANS TO CROSS STREAMS OR WATERCOURSES WITHOUT MOVING SEDIMENT INTO STREAMS, DAMAGING THE STREAM BED OR CHANNEL, OR CAUSING FLOODING. THIS BMP SHOULD NOT BE USED ON STREAMS WITH DRAINAGE AREAS GREATER THAN ONE SQUARE MILE, UNLESS SPECIFICALLY DESIGNED TO ACCOMMODATE THE ADDITIONAL DRAINAGE AREA BY THE DESIGN PROFESSIONAL. A CERTIFICATION STATEMENT AND SIGNATURE SHALL ACCOMPANY THE DESIGN. THIS BMP SHALL BE DESIGNED ACCORDING TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA". FOR CONTRACTOR'S USE ONLY!

NOTE:

1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

GDOT

NO SCALE

REVISION DATES
3/2/2017
11/28/2018

EROSION CONTROL LEGEND
UNIFORM CODE SHEET
SHEET 6 OF 7

CHECKED: D. EAGLETON DATE: 01/01/16
BACKCHECKED: DATE:
CORRECTED: DATE:
VERIFIED: DATE:
DRAWING No. 52-0006

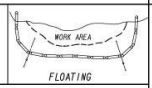
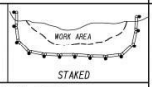
7/31/2015 GPLN

CALCO ENGINEERING

REVISION DATES

EROSION CONTROL LEGEND
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED: DATE:
BACKCHECKED: DATE:
CORRECTED: DATE:
VERIFIED: DATE:
DRAWING No. 52-0006

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
St	STORM DRAIN OUTLET PROTECTION GA. STD. 1125 & 2332 SYMBOL: St		A PIPE OR BOX CULVERT OUTLET HEADWALL WITH AN APRON AND DISSIPATOR BLOCKS IS USED TO REDUCE VELOCITY AT THE OUTLET OF A PIPE PRIOR TO ENTERING AN EXISTING STREAM OR PUBLICLY MAINTAINED DRAINAGE SYSTEM. IT IS USED ON THE OUTLET OF ALL BOX CULVERTS AND ON 48" AND LARGER PIPES. MAY BE USED ON INLET FOR FLOWING STREAMS. USE ON SMALL PIPES WHEN OUTLET VELOCITY OF THE 25-YEAR STORM IS 12 fps AND GREATER.
St-Rp	STORM DRAIN OUTLET PROTECTION (RIP-RAP) CONSTRUCTION DETAIL D-55 SECTION 603 PATTERN: FLAT AREA OR WELL-DEFINED CHANNEL		RIP-RAP OUTLET PROTECTION IS USED TO REDUCE VELOCITY AT THE OUTLET OF A PIPE, CHANNEL, OR STRUCTURE PRIOR TO ENTERING AN EXISTING STREAM OR PUBLICLY MAINTAINED DRAINAGE SYSTEM. THE MINIMUM DESIGN OF RIP-RAP OUTLET PROTECTION SHALL BE THE 25-YEAR STORM PEAK FLOW, BUT LARGER STORMS ARE RECOMMENDED. TYPE-1 RIP-RAP AT A DEPTH OF 36" AND PLACED ON FILTER FABRIC IS PREFERRED FOR ALL d50 +/- 1.2 FEET. TYPE-3 RIP-RAP AT A DEPTH OF 18" AND PLACED ON FILTER FABRIC MAY BE USED FOR d50 +/- 0.7 FEET. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR REQUIRED DESIGN DIMENSIONS AND OTHER INFORMATION TO BE INCLUDED IN THE PLANS.
Su	SURFACE ROUGHENING SERRATED SLOPES CONSTRUCTION DETAIL S-7 SECTION 205 LINE CODE: Su		PROVIDING A ROUGH SOIL SURFACE WITH HORIZONTAL DEPRESSIONS, BY OPERATING A CLEATED DOZER ON THE SLOPE IN A VERTICAL DIRECTION. CREATING SERRATED SLOPES IN THE GRADING PROCESS TO CONSTRUCT BENCHES WILL REDUCE RUNOFF VELOCITY AND INCREASE INFILTRATION OF WATER. IN MOST CASES THIS BMP IS NOT REQUIRED TO BE SHOWN ON THE PLANS, BUT REQUIRED TO BE COMPLETED BY THE CONTRACTOR UNDER ALL PROJECTS. IF SERRATED SLOPES ARE SPECIFIED BY THE SOIL SURVEY, THEN THIS BMP SHALL BE SHOWN ON THE PLANS WHERE SERRATED SLOPES ARE TO BE USED.
Tc-F	TURBIDITY CURTAIN FLOATING CONSTRUCTION DETAIL D-51 SECTION 170 LINE CODE: Tc-F		A FLOATING TURBIDITY CURTAIN IS USED TO PREVENT SEDIMENT FROM MOVING IN WATER BY ALLOWING IT TO DROP OUT OF SUSPENSION AND REMAIN WITHIN THE CONSTRUCTION AREA. IT IS TYPICALLY USED WHERE CONSTRUCTION IS REQUIRED IN A LARGE BODY OF WATER SUCH AS LAKES AND RIVERS. IT SHOULD BE USED AS DIRECTED BY THE ENGINEER. THIS BMP IS ONLY TO BE USED WHEN PERMITTED FILL IS BEING PLACED INTO A STATE WATER, OR AS A SUPPLEMENT TO ADEQUATELY PLACED PERIMETER BMPs. IT MAY ALSO BE REFERRED TO AS A FLOATING BOOM, SILT BARRIER, OR SILT CURTAIN.
Tc-S	TURBIDITY CURTAIN STAKED CONSTRUCTION DETAIL D-51 SECTION 170 LINE CODE: Tc-S		A STAKED TURBIDITY CURTAIN IS USED TO PREVENT SEDIMENT FROM MOVING IN WATER BY ALLOWING IT TO DROP OUT OF SUSPENSION AND REMAIN WITHIN THE CONSTRUCTION AREA. IT IS TYPICALLY USED IN SHALLOW INUNDATED AREAS. IT MAY BE USED TO PROTECT A SMALL STREAM BEING REALIGNED OR RESTORED. IN THIS CASE, CURTAIN SHOULD EXTEND TO BOTTOM OF STREAMBED. THE HEIGHT SHOULD BE LIMITED TO 5 FEET UNLESS DIRECTED AND EXTEND 2 FEET ABOVE NORMAL WATER ELEVATION. IT SHOULD BE USED AS DIRECTED BY THE ENGINEER. THIS BMP IS ONLY TO BE USED WHEN PERMITTED FILL IS BEING PLACED INTO A STATE WATER, OR AS A SUPPLEMENT TO ADEQUATELY PLACED PERIMETER BMPs. IT MAY BE REFERRED TO AS A SILT BARRIER OR SILT CURTAIN.

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION

NOTE:

1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

NO SCALE

REVISION DATES
3/2/2017

EROSION CONTROL LEGEND
UNIFORM CODE SHEET
SHEET 7 OF 7

CHECKED:	D. EAGLETON	DATE: 01/01/16	DRAWING No.
BACKCHECKED:		DATE:	52-0007
CORRECTED:		DATE:	
VERIFIED:		DATE:	

1/2/2015 GPLN

CALCO ENGINEERING

REVISION DATES

EROSION CONTROL LEGEND
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:	DRAWING No.
BACKCHECKED:		DATE:	52-0007
CORRECTED:		DATE:	
VERIFIED:		DATE:	

10/23/2015 GPLN

1/5/2024 11:06:08 AM | GPLOT-V8 | Water Tank_54-0001.dgn | CHEROKEE COUNTY, GA | P. I. No. N/A

EROSION CONTROL NOTES:
INITIAL PHASE: INSTALL SILT FENCE PRIOR TO ANY LAND DISTURBING ACTIVITY.

INTERMEDIATE / CONSTRUCTION PHASE: ROCK FILTER DAMS AND FABRIC CHECK DAMS SHALL BE IN PLACE DURING ALL PHASES OF CONSTRUCTION. MAINTAIN SILT FENCE AS REQUIRED. MULCH AND TEMPORARY GRASS AS NEEDED.

FINAL PHASE: SILT FENCE SHALL BE REMOVED AND PERMANENT GRASSING SHALL BE ESTABLISHED AFTER ALL CONSTRUCTION ACTIVITIES ARE COMPLETED. EROSION CONTROL MATTING (SLOPE STABILIZATION) AND TURF REINFORCED MATTING SHALL BE INSTALLED.

WATER TANK RD DISTURBED AREA = 0.95 AC

2 N/F JEFFERY G DOSS 843 WATER TANK ROAD

3 N/F JO ELLEN MAHEKAWP 931 WATER TANK ROAD

5 N/F JOHN R & TAWN R LOWNSBURY 935 WATER TANK ROAD

1 N/F LISA ANN LIEBAU 900 WATER TANK ROAD

4 N/F KELLY NEWELL BAUCH 960 WATER TANK ROAD

CENTERLINE OF CREEK IS PROPERTY LINE

ESA-PERENNIAL STREAM 1
ORANGE BARRIER FENCE
ESA-25' STREAM BUFFER

FABRIC CHECK DAM (Cd-F)
STA. 11+85 TO STA. 12+60
4 @ 25' SPACING

FABRIC CHECK DAM (Cd-F)
STA. 12+20 TO STA. 12+45
2 @ 25' SPACING

ESA-PERENNIAL STREAM 2
ORANGE BARRIER FENCE
ESA-25' STREAM BUFFER

RIP RAP TP 3
35 SQ YD

RIP RAP TP 3
75 SQ YD

Water Tank Rd

EXIST R/W
REQD R/W
TESWT
DITCH LINE
GATE
WOOD FENCE

MATCH LINE - STA. 15+50
SEE SHEET 54-0002

BEGIN PROJECT
BEGIN FULL DEPTH PVMT
WATER TANK RD
STA. 10+73.86
N 1544397.8086
E 2237467.8172

PROPERTY AND EXISTING R/W LINE	BEGIN LIMIT OF ACCESS.....BLA
REQUIRED R/W LINE	END LIMIT OF ACCESS.....ELA
CONSTRUCTION LIMITS	REQ'D LIMIT OF ACCESS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	REQ'D LIMIT OF ACCESS & R/W
EASEMENT FOR CONSTR OF SLOPES	ORANGE BARRIER FENCE
EASEMENT FOR CONSTR OF DRIVES	ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)

CALCO ENGINEERING

SCALE IN FEET
0 20 40 80

REVISION DATES

BMP LOCATION DETAILS
INITIAL AND INTERMEDIATE PHASE
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		54-0001
VERIFIED:		DATE:		

10/23/2015 GPLN

EROSION CONTROL NOTES:
INITIAL PHASE: INSTALL SILT FENCE PRIOR TO ANY LAND DISTURBING ACTIVITY.

INTERMEDIATE / CONSTRUCTION PHASE: ROCK FILTER DAMS AND FABRIC CHECK DAMS SHALL BE IN PLACE DURING ALL PHASES OF CONSTRUCTION. MAINTAIN SILT FENCE AS REQUIRED. MULCH AND TEMPORARY GRASS AS NEEDED.

FINAL PHASE: SILT FENCE SHALL BE REMOVED AND PERMANENT GRASSING SHALL BE ESTABLISHED AFTER ALL CONSTRUCTION ACTIVITIES ARE COMPLETED. EROSION CONTROL MATTING (SLOPE STABILIZATION) AND TURF REINFORCED MATTING SHALL BE INSTALLED.

WATER TANK RD DISTURBED AREA = 0.95 AC

6
H/F
PAUL E NICHELSON
955 WATER TANK ROAD

4
H/F
KELLY WENELL BAUCH
960 WATER TANK ROAD

OUTSIDE OF CREEK IS PROPERTY LINE

MATCH LINE - STA 15+50
SEE SHEET SK-0001

15+00
16+00
17+00
18+00

TESWT
EXIST R/W
REQD R/W
Water Tank Rd
DITCH LINE
18"

Sd1-S
Ds1
Ds2

FABRIC CHECK DAM Cd-F
STA. 15+75 TO STA. 16+75
5 @ 25' SPACING

FABRIC CHECK DAM Cd-F
STA. 15+95 TO STA. 16+95
5 @ 25' SPACING

END PROJECT
END FULL DEPTH PVMT
WATER TANK RD
STA. 17+83.28
N 1544839.7847
E 2238001.9495

N

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
REQ'D LIMIT OF ACCESS
REQ'D LIMIT OF ACCESS & R/W
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)

CALCO ENGINEERING

SCALE IN FEET
0 20 40 80

REVISION DATES

BMP LOCATION DETAILS
INITIAL AND INTERMEDIATE PHASE
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		54-0002
VERIFIED:		DATE:		

10/23/2015 GPLN

1/5/2024 11:10:51 AM | GPLOT-V8 | Water Tank_54-0003.dgn | CHEROKEE COUNTY, GA | P. I. No. N/A

EROSION CONTROL NOTES:
INITIAL PHASE: INSTALL SILT FENCE PRIOR TO ANY LAND DISTURBING ACTIVITY.

INTERMEDIATE / CONSTRUCTION PHASE: ROCK FILTER DAMS AND FABRIC CHECK DAMS SHALL BE IN PLACE DURING ALL PHASES OF CONSTRUCTION. MAINTAIN SILT FENCE AS REQUIRED. MULCH AND TEMPORARY GRASS AS NEEDED.

FINAL PHASE: SILT FENCE SHALL BE REMOVED AND PERMANENT GRASSING SHALL BE ESTABLISHED AFTER ALL CONSTRUCTION ACTIVITIES ARE COMPLETED. EROSION CONTROL MATTING (SLOPE STABILIZATION) AND TURF REINFORCED MATTING SHALL BE INSTALLED.

WATER TANK RD DISTURBED AREA = 0.95 AC

2
N/F
JEFFERY G DOSS
843 WATER TANK ROAD

3
N/F
JO ELLEN MAHEKAWP
931 WATER TANK ROAD

5
N/F
JOHN R & TAWW R LOWNSBURY
935 WATER TANK ROAD

1
N/F
LISA ANN LIEBAU
900 WATER TANK ROAD

4
N/F
KELLY NEWELL BAUCH
960 WATER TANK ROAD

ESA-PERENNIAL STREAM 1
ORANGE BARRIER FENCE
ESA-25' STREAM BUFFER
ESA-PERENNIAL STREAM 2
ORANGE BARRIER FENCE
ESA-25' STREAM BUFFER
CENTERLINE OF CREEK IS PROPERTY LINE
TESMT
REQD R/W
EXIST R/W
Water Tank Rd
Dsl Ds3
Ss Ds3
Ch-2T1
RIP RAP TP 3
35 SQ YD
RIP RAP TP 3
75 SQ YD
MATCH LINE - STA. 15+50
SEE SHEET 54-0004
BEGIN PROJECT
BEGIN FULL DEPTH PVMT
WATER TANK RD
STA. 10+73.86
N 1544397.8086
E 2237467.8172

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
REQ'D LIMIT OF ACCESS
REQ'D LIMIT OF ACCESS & R/W
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)

CALCO ENGINEERING

SCALE IN FEET
0 20 40 80

REVISION DATES

BMP LOCATION DETAILS
FINAL PHASE
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED: DATE:
BACKCHECKED: DATE:
CORRECTED: DATE:
VERIFIED: DATE:

DRAWING No. 54-0003

10/23/2015 GPLN

EROSION CONTROL NOTES:
INITIAL PHASE: INSTALL SILT FENCE PRIOR TO ANY LAND DISTURBING ACTIVITY.

INTERMEDIATE / CONSTRUCTION PHASE: ROCK FILTER DAMS AND FABRIC CHECK DAMS SHALL BE IN PLACE DURING ALL PHASES OF CONSTRUCTION. MAINTAIN SILT FENCE AS REQUIRED. MULCH AND TEMPORARY GRASS AS NEEDED.

FINAL PHASE: SILT FENCE SHALL BE REMOVED AND PERMANENT GRASSING SHALL BE ESTABLISHED AFTER ALL CONSTRUCTION ACTIVITIES ARE COMPLETED. EROSION CONTROL MATTING (SLOPE STABILIZATION) AND TURF REINFORCED MATTING SHALL BE INSTALLED.

WATER TANK RD DISTURBED AREA = 0.95 AC

6
H/F
PAUL E NICHELSON
955 WATER TANK ROAD

4
H/F
KELLY WENELL BAUCH
960 WATER TANK ROAD

OUTSIDE OF CREEK IS PROPERTY LINE

MATCH LINE - STA 15+50
SEE SHEET SA-0003

15'-00
17'-00
18'-00

TESMT
REQD R/W
EXIST R/W
Water Tank Rd

Ch-2T1
Dsl
Os3
SS

END PROJECT
END FULL DEPTH PVMT
WATER TANK RD
STA. 17+83.28
N 1544839.7847
E 2238001.9495

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
REQ'D LIMIT OF ACCESS
REQ'D LIMIT OF ACCESS & R/W
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)

CALCO ENGINEERING

SCALE IN FEET
0 20 40 80

REVISION DATES

BMP LOCATION DETAILS
FINAL PHASE
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

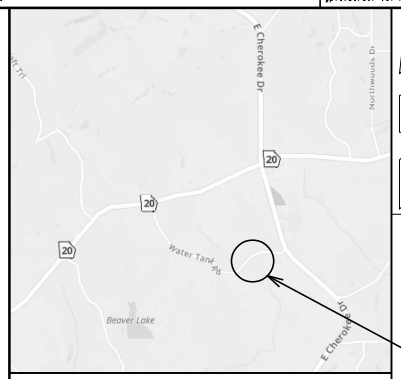
CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		54-0004
VERIFIED:		DATE:		

10/23/2015 GPLN

1/5/2024 calco	GPLOT-V8 gplotborder-v81-P0.tbl	Water Tank_60-0001.dgn GRMCOV	CHEROKEE COUNTY, GA	P. I. No. N/A

CHEROKEE COUNTY
SPLOST ROADWAY PROGRAM

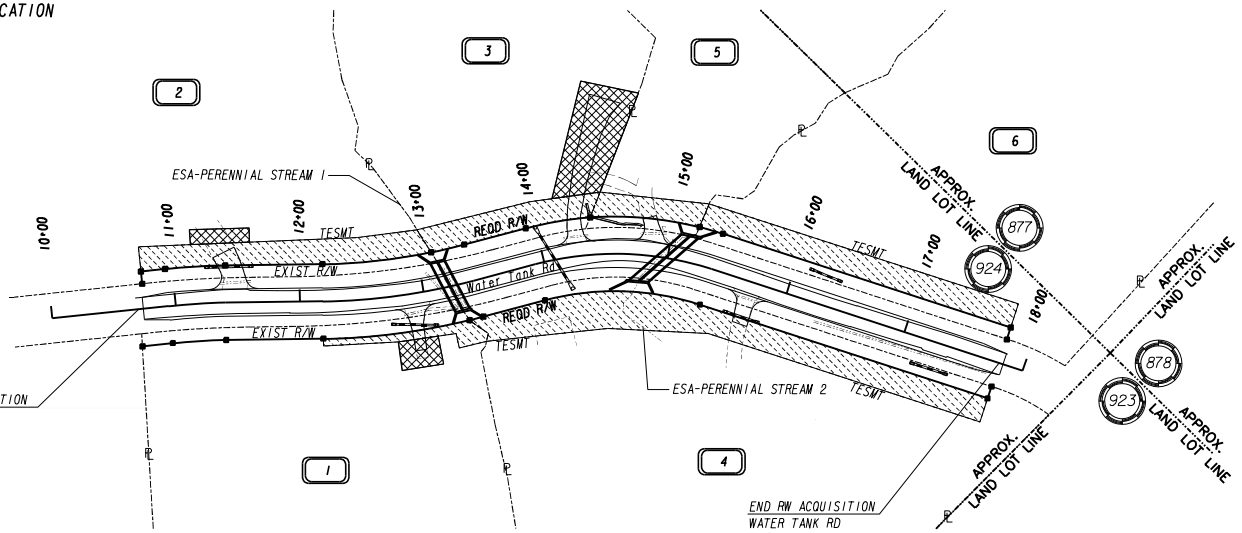
RIGHT OF WAY OF PROPOSED
WATER TANK ROAD
DRAINAGE IMPROVEMENTS
PROJECT 74008



LOCATION SKETCH

PROJECT LOCATION

THIS PROJECT HAS BEEN PREPARED USING THE HORIZONTAL GEORGIA COORDINATE SYSTEM OF 1984 (NAD 1983)/94 WEST ZONE, AND THE NORTH AMERICAN VERTICAL DATUM (NAVD)OF 1988.



BEGIN RW ACQUISITION
WATER TANK RD
STA. 10+69.95
N 1544394.8424
E 2237465.2687

END RW ACQUISITION
WATER TANK RD
STA. 17+80.00
N 1544838.3861
E 2237998.9826

CONVENTIONAL SIGNS

LAND LOT LINE	
PROPERTY LINE	
RIGHT OF WAY LINE: EXISTING	
RIGHT OF WAY LINE: REQUIRED	
RIGHT OF WAY LINE: EXISTING LIMIT OF ACCESS	
RIGHT OF WAY LINE: REQD LIMIT OF ACCESS	
RIGHT OF WAY LINE: EXISTING LIMIT OF ACCESS & R/W	
RIGHT OF WAY LINE: REQD LIMIT OF ACCESS & R/W	
RIGHT OF WAY LINE: R/W MARKERS	
FENCE	

LENGTH OF RW PROJECT COUNTY: CHEROKEE (057)	LAND LOT 924 MILES
NET LENGTH OF RIGHT OF WAY	0.134
NET LENGTH OF BRIDGES	0.000
NET LENGTH OF EXCEPTIONS	0.000
GROSS LENGTH OF RIGHT OF WAY	0.134

CHEROKEE COUNTY

PLANS PREPARED BY:

CALCO ENGINEERING

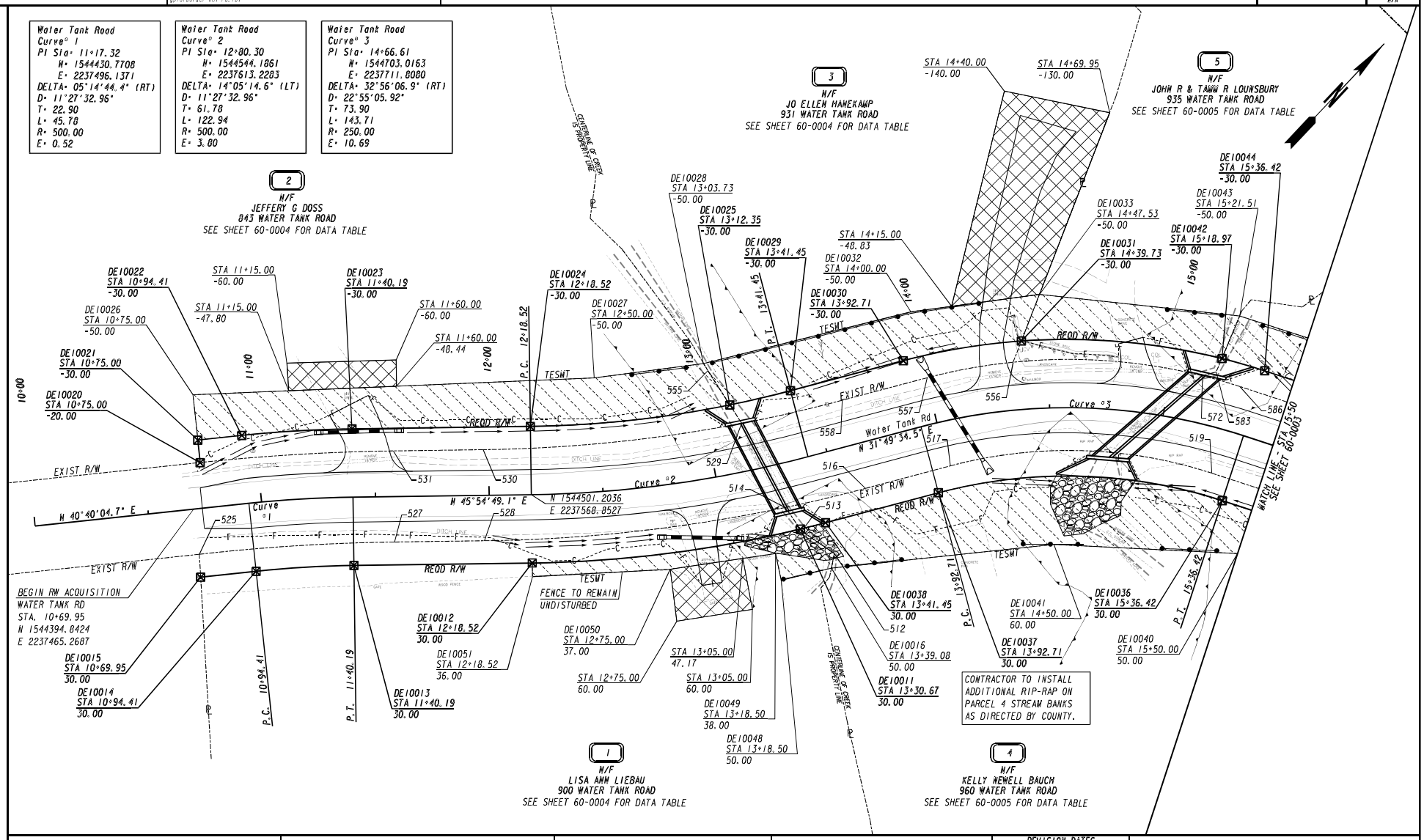
SCALE IN FEET
0 50 100 200

PREPARED BY: _____
CHARLIE A.LANZ,PE

GEORGIA REGISTERED No. 035611 PROFESSIONAL ENGINEER CHARLIE A. LANZ

PLANS COMPLETED 12-06-2023	
REVISIONS	

DRAWING No. 60-0001



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
REQ'D LIMIT OF ACCESS
REQ'D LIMIT OF ACCESS & R/W
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)

CALCO ENGINEERING

SCALE IN FEET
0 20 40 80

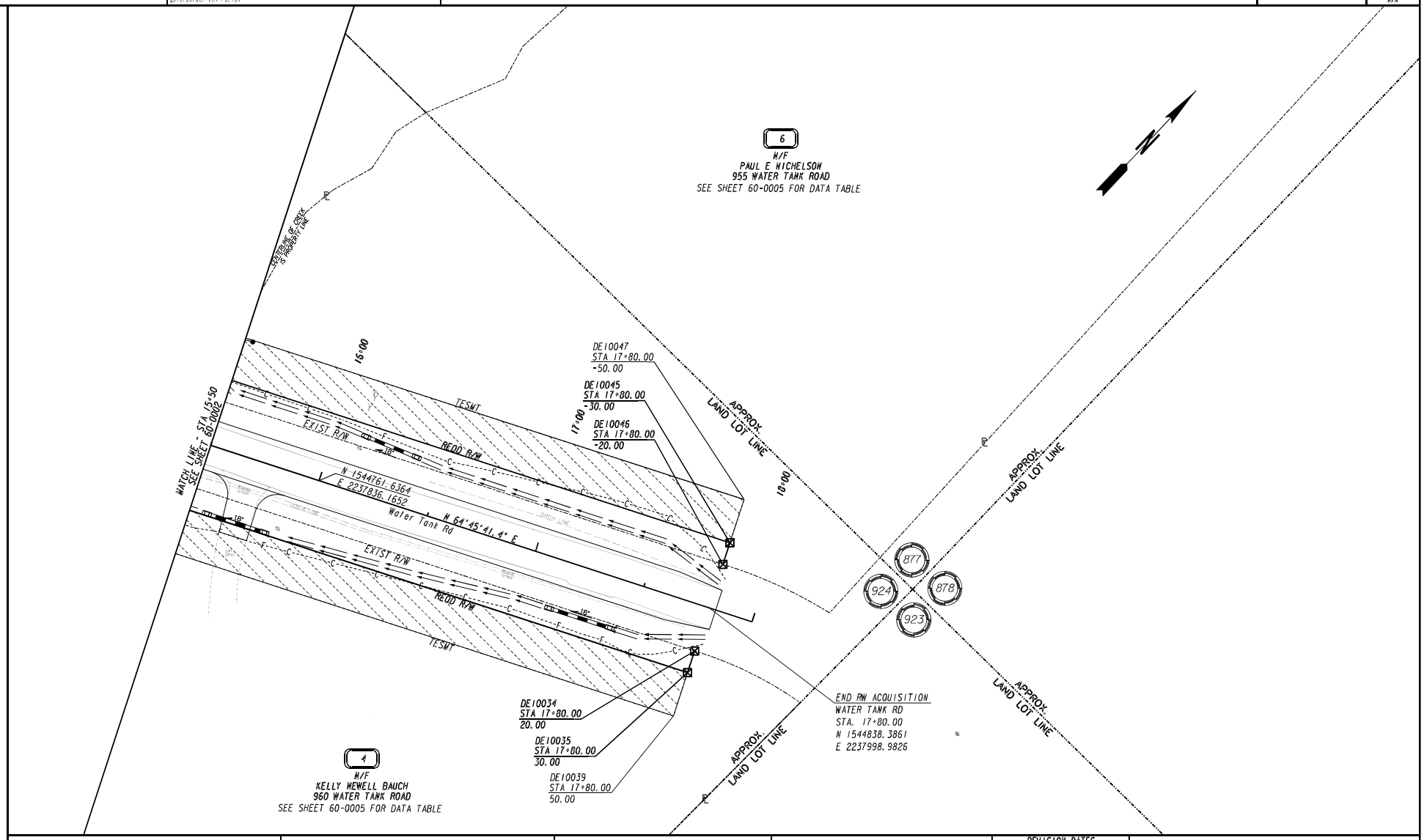
REVISION DATES

RIGHT OF WAY PLAN
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED: DATE:
BACKCHECKED: DATE:
CORRECTED: DATE:
VERIFIED: DATE:

DRAWING No. 60-0002

10/23/205 GPLN



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
REQ'D LIMIT OF ACCESS
REQ'D LIMIT OF ACCESS & R/W
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)

CALCO ENGINEERING

SCALE IN FEET
0 20 40 80

REVISION DATES

RIGHT OF WAY PLAN
WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		60-0003
CORRECTED:		DATE:		
VERIFIED:		DATE:		

PAR 1 - REQD RW REQ'D R/W DE101

PNT	OFFSET/ DIST	STATION/ BEARING	ALIGNMENT
525	20.02 R	10+70.42	Water Tank Road C/L
ARC LENGTH = 85.93			
CHORD BEAR = N 43°05'49.8" E			
LNTH CHORD = 85.90			
RADIUS = 874.06			
DEGREE = 6°33'18.3"			
527	20.00 R	11+58.20	Water Tank Road C/L
	39.46	N 45°54'49.1" E	
528	20.00 R	11+97.67	Water Tank Road C/L
ARC LENGTH = 133.13			
CHORD BEAR = N 40°22'34.7" E			
LNTH CHORD = 132.92			
RADIUS = 688.75			
DEGREE = 8°19'07.7"			
514	19.27 R	13+26.67	Water Tank Road C/L
	11.51	S 78°02'39.7" E	
DE10011	30.00 R	13+30.67	Water Tank Road C/L
ARC LENGTH = 118.88			
CHORD BEAR = S 39°29'17.1" W			
LNTH CHORD = 118.63			
RADIUS = 530.00			
DEGREE = 10°48'37.9"			
DE10012	30.00 R	12+18.52	Water Tank Road C/L
	78.33	S 45°54'49.1" W	
DE10013	30.00 R	11+40.19	Water Tank Road C/L
ARC LENGTH = 43.03			
CHORD BEAR = S 43°17'26.9" W			
LNTH CHORD = 43.02			
RADIUS = 470.00			
DEGREE = 12°11'26.1"			
DE10014	30.00 R	10+94.41	Water Tank Road C/L
	24.46	S 40°40'04.7" W	
DE10015	30.00 R	10+69.95	Water Tank Road C/L
	9.99	N 46°39'22.1" W	
525	20.02 R	10+70.42	Water Tank Road C/L
REQD R/W = 2718.61 SF			
REQD R/W = 0.062 ACRES			
REMAINDER = +/- 8.81 ACRES			

1 DRIVEWAY EASEMENT

PAR 2 - REQD RW REQ'D R/W DE103

PNT	OFFSET/ DIST	STATION/ BEARING	ALIGNMENT
DE10020	20.00 L	10+75.00	Water Tank Road C/L
	10.00	N 49°19'55.3" W	
DE10021	30.00 L	10+75.00	Water Tank Road C/L
	19.41	N 40°40'04.7" E	
DE10022	30.00 L	10+94.41	Water Tank Road C/L
ARC LENGTH = 48.52			
CHORD BEAR = N 43°17'26.9" E			
LNTH CHORD = 48.51			
RADIUS = 530.00			
DEGREE = 10°48'37.9"			
DE10023	30.00 L	11+40.19	Water Tank Road C/L
	78.33	N 45°54'49.1" E	
DE10024	30.00 L	12+18.52	Water Tank Road C/L
ARC LENGTH = 88.21			
CHORD BEAR = N 40°32'14.2" E			
LNTH CHORD = 88.08			
RADIUS = 470.00			
DEGREE = 12°11'26.1"			
DE10025	30.00 L	13+12.35	Water Tank Road C/L
	9.68	S 75°59'19.2" E	
529	20.96 L	13+16.00	Water Tank Road C/L
ARC LENGTH = 114.24			
CHORD BEAR = S 40°52'07.5" W			
LNTH CHORD = 114.10			
RADIUS = 648.75			
DEGREE = 8°49'54.1"			
530	20.00 L	11+97.67	Water Tank Road C/L
	39.46	S 45°54'49.1" W	
531	20.00 L	11+58.20	Water Tank Road C/L
ARC LENGTH = 85.01			
CHORD BEAR = S 43°14'51.6" W			
LNTH CHORD = 84.98			
RADIUS = 914.07			
DEGREE = 6°16'05.7"			
DE10020	20.00 L	10+75.00	Water Tank Road C/L
REQD R/W = 2286.80 SF			
REQD R/W = 0.052 ACRES			
REMAINDER = +/- 2.90 ACRES			

1 DRIVEWAY EASEMENT

PAR 3 - REQD RW REQ'D R/W DE105

PNT	OFFSET/ DIST	STATION/ BEARING	ALIGNMENT
529	20.96 L	13+16.00	Water Tank Road C/L
	9.68	N 75°59'19.2" W	
DE10025	30.00 L	13+12.35	Water Tank Road C/L
ARC LENGTH = 27.35			
CHORD BEAR = N 33°29'36.9" E			
LNTH CHORD = 27.35			
RADIUS = 470.00			
DEGREE = 12°11'26.1"			
DE10029	30.00 L	13+41.45	Water Tank Road C/L
	51.26	N 31°49'34.5" E	
DE10030	30.00 L	13+92.71	Water Tank Road C/L
ARC LENGTH = 52.66			
CHORD BEAR = N 37°12'49.5" E			
LNTH CHORD = 52.58			
RADIUS = 280.00			
DEGREE = 20°27'46.0"			
DE10031	30.00 L	14+39.73	Water Tank Road C/L
	10.03	S 22°09'37.0" E	
556	20.97 L	14+35.78	Water Tank Road C/L
ARC LENGTH = 38.47			
CHORD BEAR = S 36°22'19.1" W			
LNTH CHORD = 38.43			
RADIUS = 242.46			
DEGREE = 23°37'51.7"			
557	20.12 L	14+00.25	Water Tank Road C/L
	38.55	S 31°49'34.5" W	
558	20.00 L	13+62.31	Water Tank Road C/L
ARC LENGTH = 45.26			
CHORD BEAR = S 33°49'30.2" W			
LNTH CHORD = 45.26			
RADIUS = 648.75			
DEGREE = 8°49'54.1"			
529	20.96 L	13+16.00	Water Tank Road C/L
REQD R/W = 1221.58 SF			
REQD R/W = 0.028 ACRES			
REMAINDER = +/- 2.30 ACRES			

1 DRIVEWAY EASEMENT

PAR 1 - TESMT REQ'D TEMP. EASM'T. DE102

PNT	OFFSET/	STATION/	ALIGNMENT
DE10012	30.00 R	12+18.52	Water Tank Road C/L
ARC LENGTH = 118.88			
CHORD BEAR = N 39°29'17.1" E			
LNTH CHORD = 118.63			
RADIUS = 530.00			
DEGREE = 10°48'37.9"			
DE10011	30.00 R	13+30.67	Water Tank Road C/L
513	31.08 R	13+31.06	Water Tank Road C/L
512	44.13 R	13+41.75	Water Tank Road C/L
DE10016	50.00 R	13+39.08	Water Tank Road C/L
DE10048	50.00 R	13+18.50	Water Tank Road C/L
DE10049	38.00 R	13+18.50	Water Tank Road C/L
DE10050	37.00 R	12+75.00	Water Tank Road C/L
DE10051	36.00 R	12+18.52	Water Tank Road C/L
DE10012	30.00 R	12+18.52	Water Tank Road C/L
REQD EASMT AREA = 1094.60 SF			

PAR 2 - TESMT REQ'D TEMP. EASM'T. DE104

PNT	OFFSET/	STATION/	ALIGNMENT
DE10021	30.00 L	10+75.00	Water Tank Road C/L
DE10026	50.00 L	10+75.00	Water Tank Road C/L
DE10027	50.00 L	12+50.00	Water Tank Road C/L
DE10028	50.00 L	13+03.73	Water Tank Road C/L
555	46.59 L	13+05.26	Water Tank Road C/L
DE10025	30.00 L	13+12.35	Water Tank Road C/L
ARC LENGTH = 88.21			
CHORD BEAR = S 40°32'14.2" W			
LNTH CHORD = 88.08			
RADIUS = 470.00			
DEGREE = 12°11'26.1"			
DE10024	30.00 L	12+18.52	Water Tank Road C/L
DE10023	30.00 L	11+40.19	Water Tank Road C/L
ARC LENGTH = 48.52			
CHORD BEAR = S 43°17'26.9" W			
LNTH CHORD = 48.51			
RADIUS = 530.00			
DEGREE = 10°48'37.9"			
DE10022	30.00 L	10+94.41	Water Tank Road C/L
DE10021	30.00 L	10+75.00	Water Tank Road C/L
REQD EASMT AREA = 4424.59 SF			

PAR 3 - TESMT REQ'D TEMP. EASM'T. DE106

PNT	OFFSET/	STATION/	ALIGNMENT
DE10025	30.00 L	13+12.35	Water Tank Road C/L
555	46.59 L	13+05.26	Water Tank Road C/L
DE10028	50.00 L	13+03.73	Water Tank Road C/L
DE10032	50.00 L	14+00.00	Water Tank Road C/L
DE10033	50.00 L	14+47.53	Water Tank Road C/L
DE10031	30.00 L	14+39.73	Water Tank Road C/L
ARC LENGTH = 52.66			
CHORD BEAR = S 37°12'49.5" W			
LNTH CHORD = 52.58			
RADIUS = 280.00			
DEGREE = 20°27'46.0"			
DE10030	30.00 L	13+92.71	Water Tank Road C/L
DE10029	30.00 L	13+41.45	Water Tank Road C/L
ARC LENGTH = 27.35			
CHORD BEAR = S 33°29'36.9" W			
LNTH CHORD = 27.35			
RADIUS = 470.00			
DEGREE = 12°11'26.1"			
DE10025	30.00 L	13+12.35	Water Tank Road C/L
REQD EASMT AREA = 2811.29 SF			

CALCO ENGINEERING

REVISION DATES

RIGHT OF WAY PLAN

WATER TANK ROAD
DRAINAGE IMPROVEMENTS

CHECKED:		DATE:		DRAWING No.
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VERIFIED:		DATE:		

PAR 4 - REQD RW REQ'D R/W DE107

PNT	OFFSET/ DIST	STATION/ BEARING	ALIGNMENT
514	19.27 R	13+26.67	Water Tank Road C/L
ARC LENGTH = 36.22			
CHORD BEAR = N 33°19'57.4" E			
LNTH CHORD = 36.21			
RADIUS = 688.75			
DEGREE = 8°19'07.7"			
516	20.00 R	13+62.31	Water Tank Road C/L
	38.55	N 31°49'34.5" E	
517	19.86 R	14+01.56	Water Tank Road C/L
ARC LENGTH = 116.38			
CHORD BEAR = N 48°17'38.0" E			
LNTH CHORD = 114.78			
RADIUS = 202.46			
DEGREE = 28°17'59.3"			
519	19.86 R	15+27.57	Water Tank Road C/L
	251.72	N 64°45'41.4" E	
DE10034	20.00 R	17+80.00	Water Tank Road C/L
	10.00	S 25°14'18.6" E	
DE10035	30.00 R	17+80.00	Water Tank Road C/L
	243.58	S 64°45'41.4" W	
DE10036	30.00 R	15+36.42	Water Tank Road C/L
ARC LENGTH = 126.46			
CHORD BEAR = S 48°17'38.0" W			
LNTH CHORD = 124.73			
RADIUS = 220.00			
DEGREE = 26°02'36.7"			
DE10037	30.00 R	13+92.71	Water Tank Road C/L
	51.26	S 31°49'34.5" W	
DE10038	30.00 R	13+41.45	Water Tank Road C/L
ARC LENGTH = 11.44			
CHORD BEAR = S 32°26'39.8" W			
LNTH CHORD = 11.44			
RADIUS = 530.00			
DEGREE = 10°48'37.9"			
DE10011	30.00 R	13+30.67	Water Tank Road C/L
	11.51	N 78°02'39.7" W	
514	19.27 R	13+26.67	Water Tank Road C/L
REQD R/W = 4482.05 SF			
REQD R/W = 0.103 ACRES			
REMAINDER = +/- 2.69 ACRES			

PAR 4 - TESMT REQ'D TEMP. EASM'T. DE108

PNT	OFFSET/	STATION/	ALIGNMENT
DE10011	30.00 R	13+30.67	Water Tank Road C/L
ARC LENGTH = 11.44			
CHORD BEAR = N 32°26'39.8" E			
LNTH CHORD = 11.44			
RADIUS = 530.00			
DEGREE = 10°48'37.9"			
DE10038	30.00 R	13+41.45	Water Tank Road C/L
DE10037	30.00 R	13+92.71	Water Tank Road C/L
ARC LENGTH = 126.46			
CHORD BEAR = N 48°17'38.0" E			
LNTH CHORD = 124.73			
RADIUS = 220.00			
DEGREE = 26°02'36.7"			
DE10036	30.00 R	15+36.42	Water Tank Road C/L
DE10035	30.00 R	17+80.00	Water Tank Road C/L
DE10039	50.00 R	17+80.00	Water Tank Road C/L
DE10040	50.00 R	15+50.00	Water Tank Road C/L
DE10041	60.00 R	14+50.00	Water Tank Road C/L
DE10016	50.00 R	13+39.08	Water Tank Road C/L
512	44.13 R	13+41.75	Water Tank Road C/L
513	31.08 R	13+31.06	Water Tank Road C/L
DE10011	30.00 R	13+30.67	Water Tank Road C/L
REQD EASMT AREA = 9689.84 SF			

PAR 5 - REQD RW REQ'D R/W DE109

PNT	OFFSET/ DIST	STATION/ BEARING	ALIGNMENT
556	20.97 L	14+35.78	Water Tank Road C/L
	10.03	N 22°09'37.0" W	
DE10031	30.00 L	14+39.73	Water Tank Road C/L
ARC LENGTH = 88.76			
CHORD BEAR = N 51°40'56.5" E			
LNTH CHORD = 88.39			
RADIUS = 280.00			
DEGREE = 20°27'46.0"			
DE10042	30.00 L	15+18.97	Water Tank Road C/L
	6.49	S 20°35'20.7" E	
583	23.59 L	15+18.08	Water Tank Road C/L
	6.32	S 31°32'34.1" W	
572	20.58 L	15+12.98	Water Tank Road C/L
ARC LENGTH = 83.69			
CHORD BEAR = S 50°48'23.4" W			
LNTH CHORD = 83.28			
RADIUS = 242.46			
DEGREE = 23°37'51.7"			
556	20.97 L	14+35.78	Water Tank Road C/L
REQD R/W = 791.37 SF			
REQD R/W = 0.018 ACRES			
REMAINDER = +/- 0.98 ACRES			

PAR 5 - TESMT REQ'D TEMP. EASM'T. DE110

PNT	OFFSET/	STATION/	ALIGNMENT
DE10031	30.00 L	14+39.73	Water Tank Road C/L
DE10033	50.00 L	14+47.53	Water Tank Road C/L
DE10043	50.00 L	15+21.51	Water Tank Road C/L
DE10042	30.00 L	15+18.97	Water Tank Road C/L
ARC LENGTH = 88.76			
CHORD BEAR = S 51°40'56.5" W			
LNTH CHORD = 88.39			
RADIUS = 280.00			
DEGREE = 20°27'46.0"			
DE10031	30.00 L	14+39.73	Water Tank Road C/L
REQD EASMT AREA = 1581.63 SF			

PAR 6 - REQD RW REQ'D R/W DE111

PNT	OFFSET/ DIST	STATION/ BEARING	ALIGNMENT
572	20.58 L	15+12.98	Water Tank Road C/L
	6.32	N 31°32'34.1" E	
583	23.59 L	15+18.08	Water Tank Road C/L
	6.49	N 20°35'20.7" W	
DE10042	30.00 L	15+18.97	Water Tank Road C/L
ARC LENGTH = 19.54			
CHORD BEAR = N 62°45'45.0" E			
LNTH CHORD = 19.53			
RADIUS = 280.00			
DEGREE = 20°27'46.0"			
DE10044	30.00 L	15+36.42	Water Tank Road C/L
	243.58	N 64°45'41.4" E	
DE10045	30.00 L	17+80.00	Water Tank Road C/L
	10.00	S 25°14'18.6" E	
DE10046	20.00 L	17+80.00	Water Tank Road C/L
	251.72	S 64°45'41.4" W	
586	20.12 L	15+28.88	Water Tank Road C/L
ARC LENGTH = 17.21			
CHORD BEAR = S 62°43'42.3" W			
LNTH CHORD = 17.20			
RADIUS = 242.46			
DEGREE = 23°37'51.7"			
572	20.58 L	15+12.98	Water Tank Road C/L
REQD R/W = 2639.22 SF			
REQD R/W = 0.061 ACRES			
REMAINDER = +/- 7.49 ACRES			

PAR 6 - TESMT REQ'D TEMP. EASM'T. DE112

PNT	OFFSET/	STATION/	ALIGNMENT
DE10042	30.00 L	15+18.97	Water Tank Road C/L
DE10043	50.00 L	15+21.51	Water Tank Road C/L
DE10047	50.00 L	17+80.00	Water Tank Road C/L
DE10045	30.00 L	17+80.00	Water Tank Road C/L
DE10044	30.00 L	15+36.42	Water Tank Road C/L
ARC LENGTH = 19.54			
CHORD BEAR = S 62°45'45.0" W			
LNTH CHORD = 19.53			
RADIUS = 280.00			
DEGREE = 20°27'46.0"			
DE10042	30.00 L	15+18.97	Water Tank Road C/L
REQD EASMT AREA = 5179.37 SF			

CALCO ENGINEERING

REVISION DATES

RIGHT OF WAY PLAN

WATER TANK ROAD
DRAINAGE IMPROVEMENTS

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