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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

TENN.	YEAR	SHEET NO.
	2014	1
FED. AID PROJ. NO.	HSIP-I-40-7(168)	
STATE PROJ. NO.	47100-3111-94	

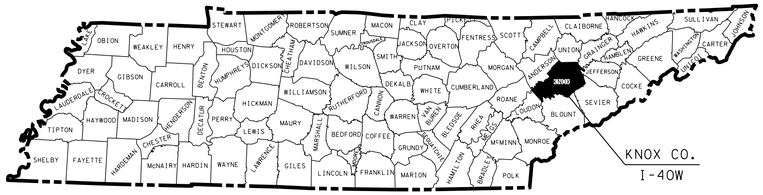
I-40W KNOX CO.

KNOX COUNTY

I-40, INTERCHANGE AT CAMPBELL STATION ROAD, WESTBOUND RAMP (RAMP QUEUE PROJECT)

GRADE, DRAIN, BASE, PAVE, AND GUARDRAIL

STATE HIGHWAY NO. N/A F.A.H.S. NO. I-40



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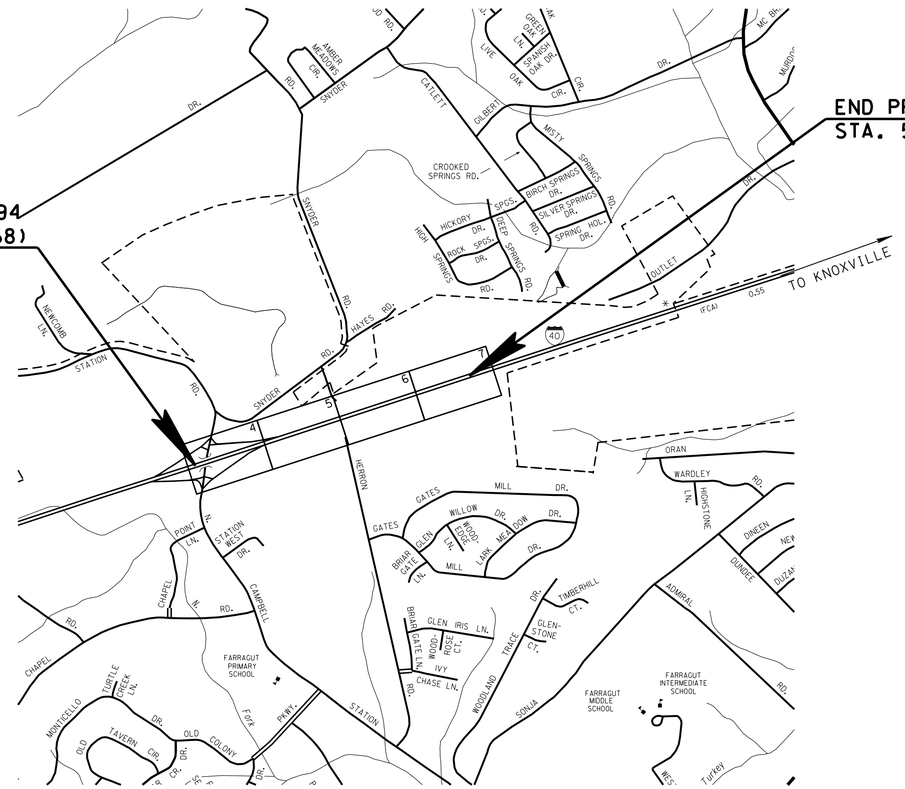
47100-3111-94
BEGIN PROJECT HSIP-I-40-7(168)
STA. 533+46.20 (CONST.)

47100-3111-94
END PROJECT HSIP-I-40-7(168)
STA. 573+00.00 (CONST.)



NO EXCLUSIONS
NO EQUATIONS

SEALED BY

PROJECT OF LIMITED SCOPE

APPROVED: Paul D. Degges
PAUL D. DEGGES, CHIEF ENGINEER

DATE:

APPROVED:
JOHN SCHROER, COMMISSIONER

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 2006 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

TDOT TRANS. PROJ. SP. SV. 2 MAYSOON HADDAD

DESIGNER RANDY PLUMMER CHECKED BY PAUL BEEBE

P.E. NO. 47100-1111-94 (DESIGN)

PIN NO. 114774.00

ROADWAY LENGTH	0.746 MILES
BRIDGE LENGTH	0.000 MILES
BOX BRIDGE LENGTH	0.000 MILES
PROJECT LENGTH	0.746 MILES

ORIGINAL SURVEY: NOVEMBER 2012
UPDATED SURVEY: NOVEMBER 2013

TRAFFIC DATA	
ADT (2014)	115,840
ADT (2034)	149,200
DHV (2034)	12,109
D	55 - 45
T (ADT)	9 %
T (DHV)	6 %
V	65 MPH

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	1A

I-40W KNOX CO.
47100-3111-94 (CONST.)

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NO PROJECT COMMITMENTS SHEET INCLUDED IN THIS SET OF PLANS

STANDARD ROADWAY DRAWINGS

DWG. NO.	REV.	DESCRIPTION
ROADWAY DESIGN STANDARDS		
RD-A-1	12-18-99	STANDARD ABBREVIATIONS
RD-L-1	10-26-94	STANDARD LEGEND
RD-L-2	09-05-01	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-3	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-4	04-15-04	STANDARD LEGEND FOR SIGNALIZATION AND LIGHTING
RD-L-5	05-01-08	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-6	03-30-10	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-7	05-24-12	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-UD-3	09-05-96	UNDERDRAIN DETAILS
RD-UD-4	05-27-01	UNDERDRAIN LATERAL DETAILS
RD-UD-9	12-18-94	LATERAL UNDERDRAIN ENDWALL DETAIL FOR 6:1 SLOPES
RD01-S-11	04-04-03	DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT
RD01-S-11A	10-15-02	ROADSIDE DITCH DETAILS FOR DESIGN AND CONSTRUCTION
RD01-SE-2	10-15-02	URBAN SUPERELEVATION DETAILS
RD01-TS-4	07-23-13	DESIGN STANDARDS 1 AND 2 LANE RAMPS
RD01-TS-5B	10-15-02	DESIGN STANDARDS FREEWAYS WITH MEDIAN BARRIER
DRAINAGE - CULVERTS AND ENDWALL		
D-PB-1	01-02-13	STANDARD DETAILS CLASS "B" BEDDING AND CULVERT EXCAVATION
D-PB-2	01-29-14	STANDARD DETAILS FOR PLASTIC PIPE INSTALLATION
D-PB-3		INDUCED TRENCH SOIL EMBANKMENT FOR PIPE CULVERT INSTALLATION
D-PE-9	04-25-90	CONCRETE ENDWALLS TYPE "B" (FOR ROUND & SIDE TAPERED INLETS, PIPE SIZES 15" TO 78", ALL SKEWS, 2:1 AND 4:1 SLOPES)
D-PE-9A	10-25-82	GENERAL DIMENSION QUANTITIES ROUND PIPE CONCRETE ENDWALLS TYPE "B" (PIPE SIZES 15" TO 78", ALL SKEWS, 2:1 AND 4:1 SLOPES)
D-PE-9C		BILL OF STEEL (SHEET 1 OF 4) CONCRETE ENDWALLS TYPE "B" (FOR CONCRETE ROUND AND SIDE TAPERED INLET, PIPE SIZE 15" - 78", ALL SKEW, 2:1 SLOPE)
D-PE-24A	06-14-13	24" CONCRETE ENDWALL CROSS DRAIN
D-PE-24B		24" CONCRETE ENDWALL CROSS DRAIN
D-PE-42A	06-14-13	42" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-42B		42" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-48A	06-14-13	48" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-48B		48" CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PE-99	11-01-13	PIPE GRATE & SKEWED CONNECTION DETAILS FOR "U" ENDWALLS CONCRETE ENDWALL CROSS DRAIN WITH STEEL PIPE GRATE
D-PG-3	04-15-97	FERROUS AND ALUMINUM CORRUGATED METAL PIPE
DRAINAGE-CATCH BASINS AND MANHOLES		
D-CB-31R	03-11-14	STANDARD PRECAST CIRCULAR NO. 31 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-31SD	03-11-14	STANDARD 7' X 7' SQUARE CONCRETE NO. 31 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-31SE	03-11-14	STANDARD 9' X 9' SQUARE CONCRETE NO. 31 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-38RB	03-11-14	STANDARD PRECAST CIRCULAR NO. 38 CATCH BASIN
D-CB-38S	08-01-12	STANDARD 32" X 32" SQUARE CONCRETE NO. 38 CATCH BASIN
D-CB-38SB	03-11-14	STANDARD 4' X 4' SQUARE CONCRETE NO. 38 CATCH BASIN
D-CB-38SC	03-11-14	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 38 CATCH BASIN
D-CB-46SE	03-11-14	STANDARD 9' X 9' SQUARE CONCRETE NO. 46 CATCH BASIN (FOR USE UNDER CONCRETE MEDIAN BARRIER WALL)
D-CB-99	06-07-13	MISCELLANEOUS DETAILS FOR RECTANGULAR STRUCTURES
D-CB-99R	03-11-14	MISCELLANEOUS DETAILS FOR ROUND STRUCTURES
D-CB-99RA	03-19-14	BILL OF STEEL FOR ROUND CATCH BASIN LIDS
D-CBB-31	05-27-01	TYPE "B" CAST IRON FRAME, GRATE & INLET DETAILS FOR NOS. 31, 41, 45, 46, & 51 TYPE CATCH BASINS
D-MH-2	08-01-12	STANDARD MASONRY & PRECAST NO. 3 MANHOLE
D-MH-3	04-21-14	STANDARD PRECAST CIRCULAR LID DETAILS FOR NO. 3 MANHOLE
D-MH-4	08-01-12	STANDARD NO. 3 MANHOLE CASTINGS AND STEPS
D-MH-5	04-01-14	STANDARD 5'2" X 5'2" SQUARE CONCRETE NO. 3
D-RF-1		STANDARD PRECAST RISER
ROADWAY AND PAVEMENT APPURTENANCES		
RP-CS-2	09-29-10	CONCRETE SHOULDER RUMBLE STRIP DETAIL (FOR 6-LANE OR WIDER DIVIDED HIGHWAY)
RP-I-5	12-18-96	EXAMPLES OF STREET AND ALLEY INTERSECTIONS
RP-J-1	10-26-00	PORTLAND CEMENT CONCRETE PAVEMENT JOINT TYPES AND SPACING
RP-J-3	10-26-00	PORTLAND CEMENT CONCRETE PAVEMENT JOINT TYPES AND SPACING
RP-J-5	07-01-01	TYPICAL ACCELERATION AND DECELERATION LANE JOINT TYPES AND SPACING FOR CONCRETE RAMPS
RP-J-7	01-30-12	CONCRETE RAMP JOINT TYPES AND SPACING
RP-J-11	07-29-96	3/4" AND 1-3/4" EXPANSION AND EDGE PAVEMENT JOINTS
RP-J-13	03-20-91	3/4" AND 1-3/4" ELASTOMERIC COMPRESSION JOINT SEALS
RP-J-15	01-19-02	LONGITUDINAL CONTRACTION AND CONSTRUCTION JOINTS
RP-J-17	02-02-12	DOWEL ASSEMBLY DEVICES
RP-J-18	02-02-12	DOWEL ASSEMBLY DEVICES
RP-J-19	02-02-12	DOWEL ASSEMBLY DEVICES
RP-NMC-10	07-29-03	STANDARD VERTICAL (NONMOUNTABLE) CONCRETE CURBS AND CONCRETE CURBS AND GUTTERS
SAFETY APPURTENANCES AND FENCE		
S-F-1	05-24-12	HIGH VISIBILITY FENCE
S-F-10B	05-14-10	STANDARD RIGHT-OF-WAY CHAIN LINK FENCE
S-F-10D		RIGHT-OF-WAY FENCE LOCATIONS AT INTERCHANGES
S-CZ-1		CLEAR ZONE CRITERIA
S-PL-1		SAFETY PLAN AT ROADSIDE HAZARDS
S-PL-6		SAFETY PLAN SAFETY HARDWARE PLACEMENT

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INDEX AND STANDARD ROADWAY DRAWINGS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	1B

I-40W KNOX CO.
47100-3111-94 (CONST.)

STANDARD ROADWAY DRAWINGS CONT'D.

DWG. NO.	REV.	DESCRIPTION

SAFETY APPURTENANCES AND FENCE CONT'D.

S-CC-1		CRASH CUSHION
S-GRT-1		TYPE 12 GUARDRAIL TERMINAL BURIED-IN-BACKSLOPE
S-GRT-4		TYPE 13 GUARDRAIL TERMINAL (TRAILING END)
S-GRA-1		GUARDRAIL ANCHOR FOR TYPE 12 TERMINAL
S-GRA-1A		GUARDRAIL ANCHOR FOR TYPE 12 TERMINAL (ALTERNATIVE)
S-GRA-3		GUARDRAIL ANCHOR FOR TYPE 12, 13 AND IN-LINE TERMINALS
S-SSMB-1	08-19-13	32" SINGLE SLOPE CONCRETE BARRIER WALL
S-SSMB-5		SINGLE SLOPE MEDIAN BARRIER WALL CATCH BASIN DETAIL
S-SSMB-7	12-04-13	FOOTING DETAILS FOR OVERHEAD SIGN STRUCTURE 32" MEDIAN BARRIER WALL
S-SSMB-8	12-04-13	FOOTING DETAILS FOR OVERHEAD SIGN STRUCTURE 51" MEDIAN BARRIER WALL

TRAFFIC CONTROL APPURTENANCES

T-FAB-1	05-27-97	FLASHING YELLOW ARROW BOARD
T-M-1	11-01-11	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-4	11-01-11	STANDARD INTERSECTION PAVEMENT MARKINGS
T-M-5	04-23-13	MARKING DETAILS FOR EXPRESSWAYS & FREEWAYS
T-M-6	06-22-12	MARKING DETAIL FOR EXPRESSWAY & FREEWAY INTERCHANGES
T-M-7	01-12-12	GORE MARKING DETAILS FOR EXPRESSWAY & FREEWAY INTERCHANGES
T-M-9	11-01-11	MARKING DETAILS FOR RAMP INTERSECTIONS
T-M-15		ASPHALT SHOULDER RUMBLE STRIP INSTALLATION DETAILS FOR INTERSTATE AND ACCESS CONTROLLED ROUTES
T-PBR-1	06-30-09	INTERCONNECTED PORTABLE BARRIER RAIL
T-PBR-2	11-01-11	DETAIL FOR VERTICAL PANELS AND FLEXIBLE DELINEATORS
T-S-6	02-12-91	STANDARD MOUNTING DETAILS - BOLTED EXTRUDED PANELS
T-S-7	02-12-91	HIGHWAY SHIELDS USED ON INTERSTATE AND U.S. NUMBERED ROUTES
T-S-8	07-15-91	HIGHWAY SHIELDS USED ON STATE NUMBERED ROUTES AND ARROWS
T-S-9	11-01-11	STANDARD LAYOUT GROUND MOUNTED SIGNS
T-S-10	04-04-12	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
T-S-11	06-06-11	DELINEATOR AND MILEPOST DETAILS
T-S-12	05-27-03	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, SQUARE TUBES
T-S-13	07-20-12	STANDARD STEEL GROUND MOUNTED SIGNS, BREAK-AWAY TYPE POST FOOTING DETAILS, I-BEAMS
T-S-15	12-07-90	STANDARD CONDUIT & GROUND DETAILS FOR OVERHEAD & CANTILEVER SIGN STRUCTURES
T-S-21	02-28-13	DETAILS FOR SIGNS MOUNTS ON CONCRETE MEDIAN BARRIERS
T-SG-2	07-29-04	LOOP LEAD-INS, CONDUIT AND PULL BOXES
T-SG-3	11-11-04	STANDARD NOTES AND DETAILS OF INDUCTIVE LOOPS
T-SG-3A		ALTERNATE DETECTION DETAILS
T-SG-4		SPAN WIRE AND MESSENGER CABLE DETAILS
T-SG-5	12-04-13	CONTROLLER CABINET DETAILS
T-SG-7	11-01-11	SIGNAL HEAD ASSEMBLIES AND PEDESTRIAN PUSH BUTTON SIGNS
T-SG-9	12-04-13	DETAILS OF CANTILEVER SIGNAL SUPPORT
T-SG-9A	12-04-13	MISCELLANEOUS SIGNAL DETAILS
T-SG-10	12-04-13	MAST ARM POLE AND STRAIN POLES FOUNDATION DETAILS
T-SG-11	07-29-04	MAINTENANCE OF EXISTING SIGNALS DURING HIGHWAY CONSTRUCTION
T-SG-12	11-01-11	TYPICAL WIRING FOR SIGNAL HEADS AND DETECTION LOOPS
T-WZ-10	04-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-16	03-13-09	LANE SHIFT ON DIVIDED HIGHWAYS AND FREEWAYS
T-WZ-18	03-13-09	SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS
T-WZ-40	04-02-12	RIGHT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-41	04-02-12	LEFT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS
T-WZ-52	04-02-12	TRAFFIC CONTROL FOR SIGNALS ONLY PROJECTS ON 4 OR 5 LANE MAJOR AND MINOR ROUTES

EROSION PREVENTION AND SEDIMENT CONTROL

EC-STR-2	08-01-12	SEDIMENT FILTER BAG
EC-STR-3C	08-01-12	SILT FENCE WITH WIRE BACKING
EC-STR-3E	04-01-08	SILT FENCE FABRIC JOINING DETAILS
EC-STR-6	08-01-12	ROCK CHECK DAM
EC-STR-6A	08-01-12	ENHANCED ROCK CHECK DAM
EC-STR-7	08-01-12	SEDIMENT TRAP WITH CHECK DAM
EC-STR-8	08-01-12	FILTER SOCK
EC-STR-11	08-01-12	CULVERT PROCTECTION TYPE 1
EC-STR-19	04-01-08	CATCH BASIN PROTECTION
EC-STR-25	08-01-12	TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD
EC-STR-27	08-01-12	TEMPORARY SLOPE DRAIN AND BERM
EC-STR-34	08-01-12	EROSION CONTROL BLANKET FOR SLOPE INSTALLATION
EC-STR-39A	08-01-12	CURB INLET PROTECTION TYPE 3 & 4

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STANDARD ROADWAY DRAWINGS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	2

I-40W KNOX CO.
47100-3111-94 (CONST.)

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
	105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1
	201-01	CLEARING AND GRUBBING	LS	1
1 2 3	203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	39015
	203-04	PLACING AND SPREADING TOPSOIL	C.Y.	1420
	203-06	WATER	M.G.	180
	203-07	FURNISHING & SPREADING TOPSOIL	C.Y.	1322
	204-08.01	BACKFILL MATERIAL (FLOWABLE FILL)	C.Y.	158
	209-02.05	12" TEMPORARY SLOPE DRAIN	L.F.	429
	209-03.21	FILTER SOCK (12 INCH)	L.F.	5086
	209-05	SEDIMENT REMOVAL	C.Y.	291
	209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	4154
2	209-08.07	ROCK CHECK DAM (V-DITCH) PER	EACH	98
	209-08.08	ENHANCED ROCK CHECK DAM (V-DITCH AND CHANNEL)	EACH	37
	209-08.09	FILTER SOCK CHECK DAM (24")	EACH	20
	209-09.03	SEDIMENT FILTER BAG (15' X 15')	EACH	2
	209-09.43	CURB INLET PROTECTION (TYPE 4)	EACH	3
	209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	6
4	303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	22809
2	303-10.01	MINERAL AGGREGATE (SIZE 57)	TON	66
	307-01.08	ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2	TON	886
	307-03.01	ASPHALT CONCRETE MIX (PG76-22) (BPMB-HM) GRADING A	TON	3916
	307-03.02	PERF. GRADE ASPH. CEMENT (PG76-22) GRADING AS	TON	43
	307-03.03	AGGREGATE (BPMB-HM) GRADING AS	TON	1271
	307-03.08	ASPHALT CONCRETE MIX (PG76-22) (BPMB-HM) GRADING B-M2	TON	1100
	313-03	TREATED PERMEABLE BASE	S.Y.	1844
5	402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	67
5	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	26
	411-01.07	ACS MIX (PG64-22) GRADING E SHOULDER	TON	1548
14	411-03.10	ACS MIX (PG76-22) GRADING D	TON	2416
	411-12.01	SCORING SHOULDERS (CONTINUOUS) (16IN WIDTH)	L.M.	2.3
	415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	4065
	501-01.04	PORTLAND CEMENT CONCRETE PAVEMENT (PLAIN) 11"	S.Y.	15242
15	502-04.03	TRANSVERSE TIE-BARS	EACH	317
	604-04.62	CLEAN & TEXTURE FINISH CONCRETE MEDIAN BARRIER	L.F.	745
	607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	L.F.	125
	607-03.30	18" PIPE CULVERT	L.F.	25
	607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	L.F.	173
	607-06.30	30" PIPE CULVERT	L.F.	12
	607-09.02	48" CONCRETE PIPE CULVERT (CLASS III)	L.F.	38
	611-01.02	MANHOLES, > 4' - 8' DEPTH	EACH	3
	611-01.03	MANHOLES, > 8' - 12' DEPTH	EACH	2
	611-07.01	CLASS A CONCRETE (PIPE ENDWALLS)	C.Y.	5
	611-07.02	STEEL BAR REINFORCEMENT (PIPE ENDWALLS)	LB.	577
	611-07.59	24IN ENDWALL (CROSS DRAIN) 6:1	EACH	1
	611-07.62	30IN ENDWALL (CROSS DRAIN) 6:1	EACH	1
	611-07.68	42IN ENDWALL (CROSS DRAIN) 6:1	EACH	1
	611-07.71	48IN ENDWALL (CROSS DRAIN) 6:1	EACH	1
	611-31.02	CATCH BASINS, TYPE 31, > 4' - 8' DEPTH	EACH	1
	611-38.02	CATCH BASINS, TYPE 38, > 4' - 8' DEPTH	EACH	1
	611-43.01	CATCH BASINS, TYPE 43, 0' - 4' DEPTH	EACH	1
	611-46.02	CATCH BASINS, TYPE 46, > 4' - 8' DEPTH	EACH	1
2	621-03.02	18" TEMPORARY DRAINAGE PIPE	L.F.	88
	702-03	CONCRETE COMBINED CURB & GUTTER	C.Y.	24
	705-02.02	SINGLE GUARDRAIL (TYPE 2)	L.F.	1308
	705-04.02	GUARDRAIL TERMINAL (TYPE 12)	EACH	1
	705-04.03	GUARDRAIL TERMINAL (TYPE 13)	EACH	1
	705-04.50	PORTABLE BARRIER RAIL DELINEATOR	EACH	258
10 11	705-08.51	PORTABLE IMPACT ATTENUATOR NCHRP350 TL-3	EACH	7
	705-17.97	ATTENUATOR (NARROW- LOW MAINTENANCE)	EACH	1
	706-01	GUARDRAIL REMOVED	L.F.	1088
	707-01.11	CHAIN LINK FENCE (6 FOOT)	L.F.	1400
5	707-01.12	END & CORNER POST ASSEMBLY(CHAIN-LINK FENCE 6')	EACH	4
	707-06.01	REMOVAL OF FENCE (CONTROL ACCESS)	L.F.	1400
2	707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	834
	709-05.05	MACHINED RIP-RAP (CLASS A-3)	TON	450
2	709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	470
	709-05.08	MACHINED RIP-RAP (CLASS B)	TON	51
	710-02	AGGREGATE UNDERDRAINS (WITH PIPE)	L.F.	6590
	710-05	LATERAL UNDERDRAIN	L.F.	1590
	710-06.11	LATERAL UNDERDRAIN ENDWALL (2:1)	EACH	4
	710-06.13	LATERAL UNDERDRAIN ENDWALL (4:1)	EACH	1
	710-06.14	LATERAL UNDERDRAIN ENDWALL (5:1)	EACH	2
	710-06.15	LATERAL UNDERDRAIN ENDWALL (6:1)	EACH	19

ESTIMATED ROADWAY QUANTITIES

	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
12	711-04.01	CONCRETE GLARE SCREEN MEDIAN BARRIER @ BRIDGE PIERS	L.F.	60
	711-05.01	REMOVAL & DISPOSAL OF CONCRETE MEDIAN BARRIER	L.F.	80
	711-05.70	32IN SINGLE SLOPE CONCRETE BARRIER WALL	L.F.	605
6	712-01	TRAFFIC CONTROL	LS	1
	712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	5160
5	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	130
	712-05.01	WARNING LIGHTS (TYPE A)	EACH	62
7	712-06	SIGNS (CONSTRUCTION)	S.F.	778
	712-06.16	SIGNS (CONSTRUCTION) (REDUCED SPEED WARNING)	EACH	1
	712-08.03	ARROW BOARD (TYPE C)	EACH	2
	712-09.02	REMOVABLE PAVEMENT MARKING (8" BARRIER LINE)	L.F.	3880
	713-01.01	CLASS A CONCRETE (FOUNDATION FOR SIGN SUPPORTS)	C.Y.	2
	713-01.02	STEEL BAR REINFORCEMENT (FOUNDATION FOR SIGN SUPPORTS)	LB.	501
	713-02.14	FLEXIBLE DELINEATOR (WHITE)	EACH	59
	713-02.15	FLEXIBLE DELINEATOR (YELLOW)	EACH	9
	713-06	STEEL I-BEAMS & WF-BEAMS(BREAKAWAY) SIGN SUPPORT	LB.	958
	713-09.01	STEEL OVERHEAD SIGN STRUCTURE (SPAN=107'-0")	EACH	1
	713-09.02	STEEL OVERHEAD SIGN STRUCTURE (SPAN=79'-0")	EACH	1
	713-11.02	PERFORATED/KNOCKOUT SQUARE TUBE POST	LB.	117
	713-13.03	FLAT SHEET ALUMINUM SIGNS (0.100" THICK)	S.F.	136
	713-14	EXTRUDED ALUMINUM PANEL SIGNS	S.F.	604
13	713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	1
	713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	2
	713-30.10	BARRIER MOUNTED SIGN SUPPORT (DESCRIPTION)	EACH	1
	716-01.06	TEMPORARY RAISED PAVEMENT MARKER, WHITE	EACH	188
	716-01.07	TEMPORARY RAISED PAVEMENT MARKER, YELLOW	EACH	77
	716-01.23	SNWPLWBLE PVMT MRKRS (BI-DIR) (2 COLOR)	EACH	150
	716-01.30	REMOVAL OF SNOWPLOWABLE REFLECTIVE MARKER	EACH	416
	716-02.04	PLASTIC PAVEMENT MARKING (CHANNELIZATION STRIPING)	S.Y.	36
	716-02.05	PLASTIC PAVEMENT MARKING (STOP LINE)	L.F.	85
	716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	9
8	716-02.07	PLASTIC PAVEMENT MARKING (24" BARRIER LINE)	L.F.	1216
	716-04.07	PLASTIC PAVEMENT MARKING (EXIT ONLY ARROW)	EACH	3
	716-04.08	PLASTIC PAVEMENT MARKING (OPTION LANE ARROW)	EACH	3
	716-04.12	PLASTIC PAVEMENT MARKING (YIELD LINE)	S.F.	42
	716-04.14	PLASTIC PAVEMENT MARKING (LANE REDUCTION ARROW)	EACH	2
	716-05.02	PAINTED PAVEMENT MARKING (8" BARRIER LINE)	L.F.	14080
9	716-05.05	PAINTED PAVEMENT MARKING (STOP LINE)	L.F.	85
	716-05.06	PAINTED PAVEMENT MARKING (TURN LANE ARROW)	EACH	9
	716-08.20	REMOVAL OF PAVEMENT MARKING (LINE)	L.M.	0.6
	716-12.02	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)	L.M.	2.8
	716-12.05	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN DOTTED LINE)	L.F.	228
	716-12.06	ENHANCED FLAT LINE THERMO (8IN LINE)	L.F.	1075
	716-12.09	ENHANCED FLAT LINE THERMO (12IN LINE)	L.F.	1965
	716-12.10	ENHANCED FLAT LINE THERMO (12IN DOTTED)	L.F.	309
	717-01	MOBILIZATION	LS	1
	740-06.01	GEOMEMBRANE	S.Y.	443
2	740-10.03	GEOTEXTILE (TYPE III) (EROSION CONTROL)	S.Y.	1100
2	801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	72
	801-02	SEEDING (WITHOUT MULCH)	UNIT	143
	801-03	WATER (SEEDING & SODDING)	M.G.	15
	803-01	SODDING (NEW SOD)	S.Y.	798
	805-12.02	EROSION CONTROL BLANKET (TYPE II)	S.Y.	15832

1. INCLUDES 1467 C.Y. FOR TEMPORARY BERMS (18" BERM-0.36 C.Y./L.F.), 63 C.Y. FOR TEMPORARY CONSTRUCTION EXITS, AND 88 C.Y. FOR CULVERT INLET PROTECTION TYPE 1.
2. SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE REPLACEMENT. ALL QUANTITIES ARE TO BE USED AS DIRECTED BY THE TDOT OPERATIONS ENGINEER.
3. REFER TO SPECIAL NOTES.
4. INCLUDES 500 TONS FOR MAINTENANCE OF TRAFFIC.
5. TO BE INCREASED OR DECREASED AS DIRECTED BY THE TDOT OPERATIONS ENGINEER.
6. INCLUDES ALL COSTS OF REMOVING CONFLICTING MARKINGS.
7. SEE SHEET NUMBERS 24, & 24A-24C FOR CONSTRUCTION SIGN LOCATIONS.
8. THE CONTRACTOR MAY ELECT TO SUBSTITUTE PREFORMED PLASTIC FOR THERMOPLASTIC. PREFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE AS BID FOR THERMOPLASTIC.
9. FOR TEMPORARY PAVEMENT MARKINGS ON INTERMEDIATE LAYERS.
10. THIS ITEM SHALL BE PORTABLE ENERGY ABSORBING TERMINAL MEETING THE REQUIREMENTS OF NCHRP 350 FOR TEST LEVEL 3. EXAMPLES WOULD BE A QUAD-GUARD, A REACT 350 OR A TRACC. THE PAY ITEM WILL INCLUDE FURNISHING AND INSTALLING ALL COMPONENTS AS SHOWN ON THE MANUFACTURER'S DRAWING.
11. TO BE USE IN WORK ZONE.
12. THERE WILL BE TWO (2) SECTIONS OF 51" GLARE SCREEN MEDIAN BARRIER WALL.
13. REMOVE SIGN SUPPORTS AND FOOTINGS ON APPROXIMATELY FIVE (5) EXISTING SIGNS. REMOVE ONE (1) SIGN AND USE THE EXISTING SUPPORTS OR AS DIRECTED BY THE TDOT OPERATIONS ENGINEER.
14. INCLUDES 176 TONS FOR COVERING RUMBLE STRIP I-40W INSIDE SHOULDER.
15. TO BE USED TO TIE EXISTING CONCRETE PAVEMENT TO PROPOSED CONCRETE PAVEMENT.

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ESTIMATED ROADWAY QUANTITIES

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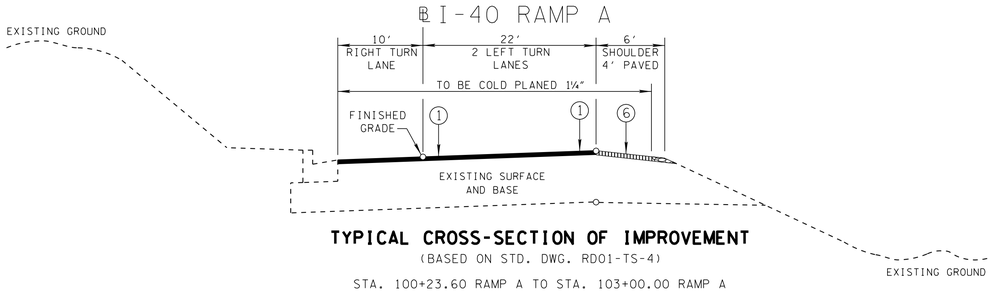
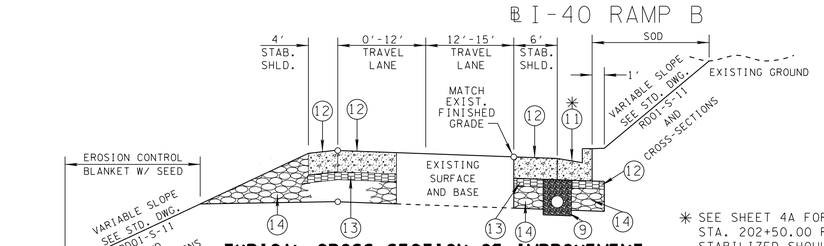
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	2
CONST.	2014	HSIP-I-40-7(168)	2B

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)



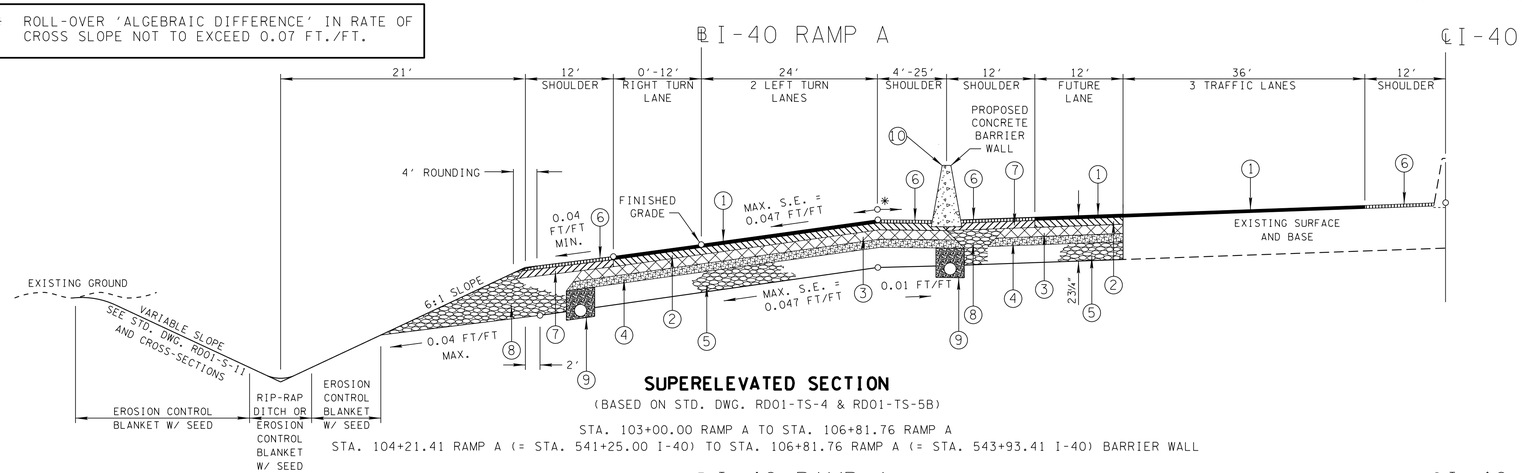
TYPICAL CROSS-SECTION OF IMPROVEMENT
(BASED ON STD. DWG. RD01-TS-4)
STA. 100+23.60 RAMP A TO STA. 103+00.00 RAMP A



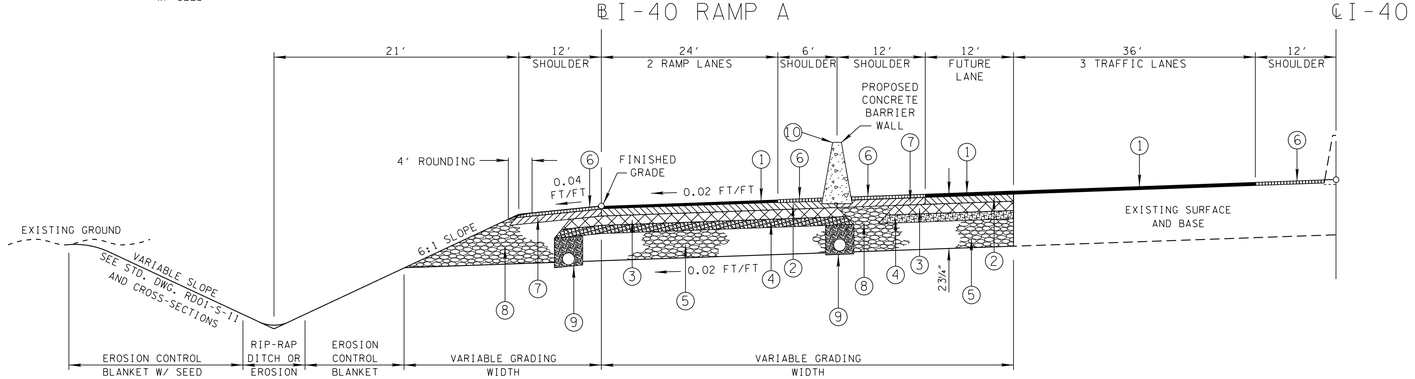
TYPICAL CROSS-SECTION OF IMPROVEMENT
(BASED ON STD. DWG. RD01-TS-4)
STA. 200+00.00 RAMP B TO STA. 208+50.00 RAMP B
(STA. 200+00.00 TO STA. 206+67.00 - 24' PAVEMENT)
(STA. 206+67.00 TO STA. 208+67.00 - 15' PAVEMENT)

✳ SEE SHEET 4A FOR LIMITS OF CURB AND GUTTER SECTION
STA. 202+50.00 RAMP B TO STA. 208+50.00 RAMP B
STABILIZED SHOULDER ONLY - NO CURB AND GUTTER

✳ ROLL-OVER 'ALGEBRAIC DIFFERENCE' IN RATE OF CROSS SLOPE NOT TO EXCEED 0.07 FT./FT.



SUPERELEVATED SECTION
(BASED ON STD. DWG. RD01-TS-4 & RD01-TS-5B)
STA. 103+00.00 RAMP A TO STA. 106+81.76 RAMP A
STA. 104+21.41 RAMP A (= STA. 541+25.00 I-40) TO STA. 106+81.76 RAMP A (= STA. 543+93.41 I-40) BARRIER WALL



TANGENT SECTION
(BASED ON STD. DWGS. RD01-TS-4 & RD01-TS-5B)
STA. 106+81.76 RAMP A TO STA. 109+08.82 RAMP A
STA. 106+81.76 RAMP A (= STA. 543+93.41 I-40) TO STA. 109+08.82 RAMP A (= STA. 546+20.47 I-40) BARRIER WALL

PAVEMENT SCHEDULE

(1) ASPHALTIC CONCRETE SURFACE (HOT MIX) @ 1¼"+ THICK (APPROX. 132.5 LBS./SQ.YD.)
- 411-03.10 ACS MIX (PG76-22) GRADING D
- 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (RATE 0.10 GAL./SQ.YD.)

(2) BITUMINOUS PLANT MIX BASE (HOT MIX) @ 2"+ THICK (APPROX. 226 LBS./SQ.YD.)
- 307-03.08 ASPHALT CONCRETE MIX (PG76-22) (BPMB-HM) GRADING B-M2
- 402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) (RATE 0.35 GAL./SQ. YD.)
- 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (RATE 0.07 GAL./SQ.YD.)

(3) BITUMINOUS PLANT MIX BASE (HOT MIX) @ 7"+ THICK (APPROX. 805 LBS./SQ.YD.)•
- 307-03.01 ASPHALT CONCRETE MIX (PG76-22) (BPMB-HM) GRADING A
- 402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) (RATE 0.35 GAL./SQ. YD.)
- • TO BE APPLIED IN TWO EQUAL LIFTS.

(4) BITUMINOUS PLANT MIX BASE (HOT MIX) @ 3"+ THICK (APPROX. 270 LBS./SQ. YD.)
- 307-03.02 ASPHALT CONCRETE MIX (PG76-22) (BPMB-HM) GRADING A-S
- 307-03.03 ASPHALT CONCRETE MIX (PG76-22) (BPMB-HM) GRADING A-S
- 402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) (RATE 0.35 GAL./SQ. YD.)

(5) MINERAL AGGREGATE BASE @ 10"+ THICK (ROADWAY) AND FULL DEPTH (SHOULDERS)
- 303-01 MINERAL AGGREGATE, TYPE "A" BASE, GRADING D

(6) ASPHALTIC CONCRETE SURFACE (HOT MIX) @ 1¼"+ THICK (APPROX. 128.75 LBS./SQ.YD.
- 411-01.07 ACS MIX (PG64-22) GRADING E
- 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (RATE 0.07 GAL./SQ.YD.)

(7) BITUMINOUS PLANT MIX BASE (HOT MIX) @ 2"+ THICK (APPROX. 226 LBS./SQ.YD.)
- 307-01.08 ASPHALT CONCRETE MIX (PG64-22) (BPMB-HM) GRADING B-M2
- 402-01 BITUMINOUS MATERIAL FOR PRIME COAT (PC) (RATE 0.35 GAL./SQ. YD.)
- 403-01 BITUMINOUS MATERIAL FOR TACK COAT (TC) (RATE 0.07 GAL./SQ.YD.)

(8) MINERAL AGGREGATE BASE @ 20"+ THICK (ROADWAY) AND FULL DEPTH (SHOULDERS)
- 303-01 MINERAL AGGREGATE, TYPE "A" BASE, GRADING D

PAVEMENT SCHEDULE

(9) AGGREGATE UNDERDRAIN (WITH PIPE)
- ITEM 710-02
- DWG. NO. RD-UD-3 (DETAIL D)

(10) 32" SINGLE SLOPE CONCRETE BARRIER WALL
- ITEM 711-05.70
- DWG. NO. S-SSMB-1

(11) CONCRETE COMBINED CURB AND GUTTER (6-30) D=11"
- ITEM 702-03
- DWG. NO. RP-NMC-10

(12) PORTLAND CEMENT CONCRETE PAVEMENT (PLAIN) @ 11"+ THICK
- 501-01.04 PORTLAND CEMENT CONCRETE PAVEMENT (PLAIN) 11"+

(13) TREATED PERMEABLE BASE @ 4"+ THICK
- 313-03 TREATED PERMEABLE BASE

(14) MINERAL AGGREGATE BASE @ 6"+ THICK (ROADWAY) AND FULL DEPTH (SHOULDERS)
- 303-01 MINERAL AGGREGATE, TYPE "A" BASE, GRADING D

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TYPICAL SECTIONS AND PAVEMENT SCHEDULE

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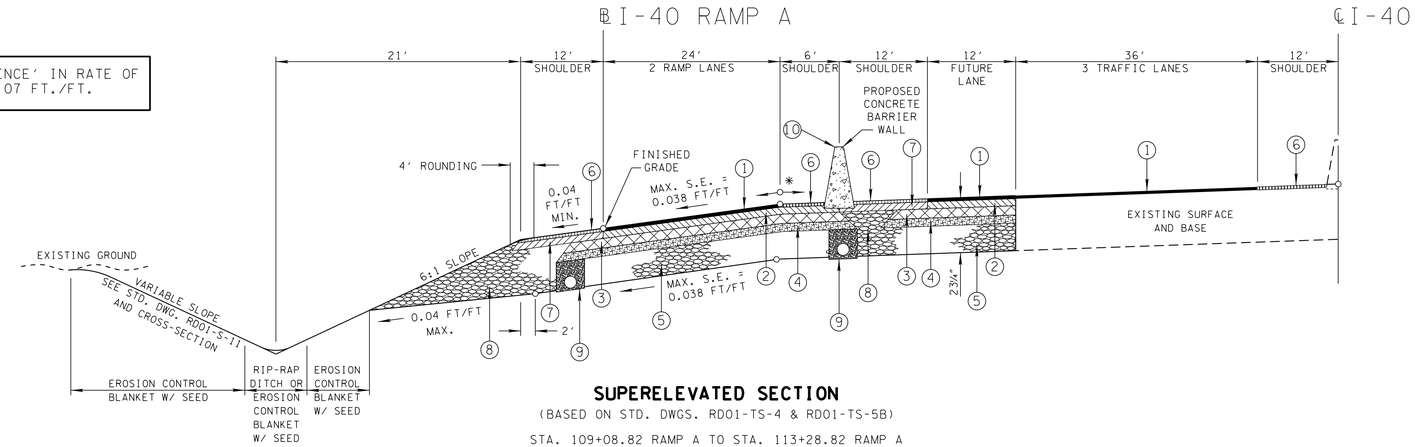
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	2A
CONST.	2014	HSIP-I-40-7(168)	2C

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

* ROLL-OVER 'ALGEBRAIC DIFFERENCE' IN RATE OF CROSS SLOPE NOT TO EXCEED 0.07 FT./FT.

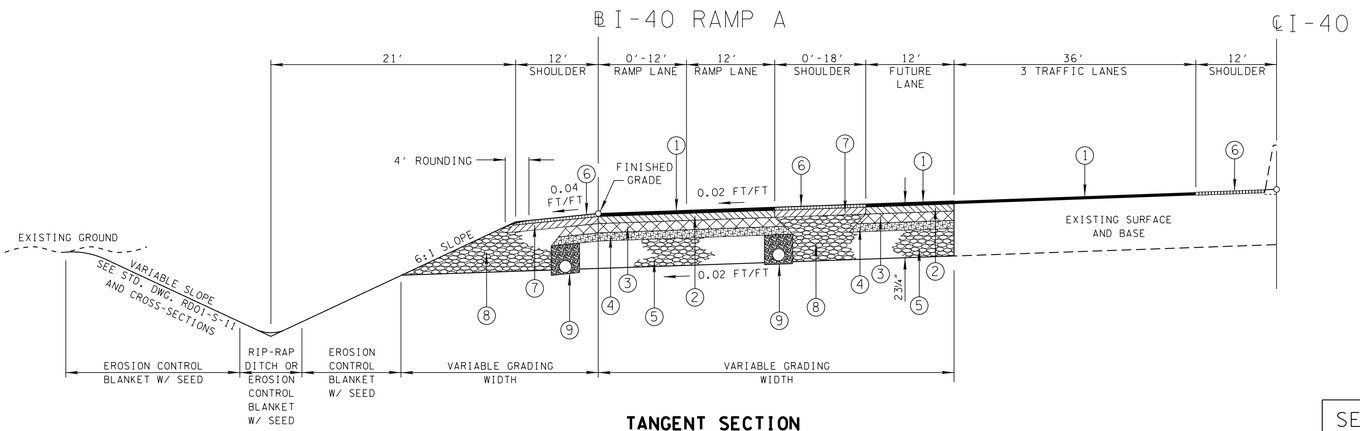


SUPERELEVATED SECTION

(BASED ON STD. DWGS. RD01-TS-4 & RD01-TS-5B)

STA. 109+08.82 RAMP A TO STA. 113+28.82 RAMP A

STA. 109+08.82 RAMP A (= STA. 546+20.47 I-40) TO STA. 110+18.35 RAMP A (= STA. 547.30.00 I-40) BARRIER WALL

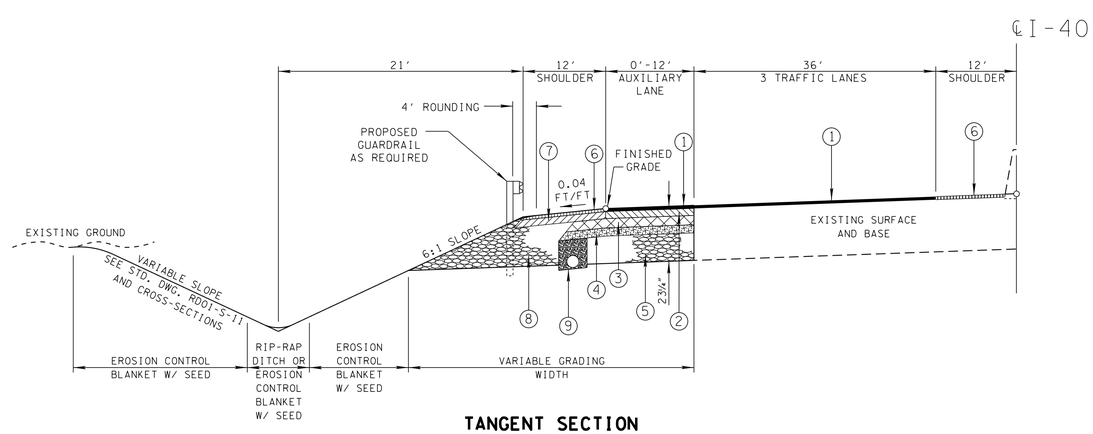


TANGENT SECTION

(BASED ON STD. DWGS. RD01-TS-4 & RD01-TS-5B)

STA. 113+28.82 RAMP A TO STA. 117+20.88 RAMP A (= STA. 554+31.14 I-40)

SEE SHEET 2B FOR PAVEMENT SCHEDULE



TANGENT SECTION

(BASED ON STD. DWG. RD01-TS-5B)

STA. 554+31.14 I-40 (= STA. 117+20.88 RAMP A) TO STA. 573+00.00 I-40

STA. 570+00.00 I-40 TO STA. 573+00.00 I-40, TRANSITION FROM 0'-12' FOR AUXILIARY LANE

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DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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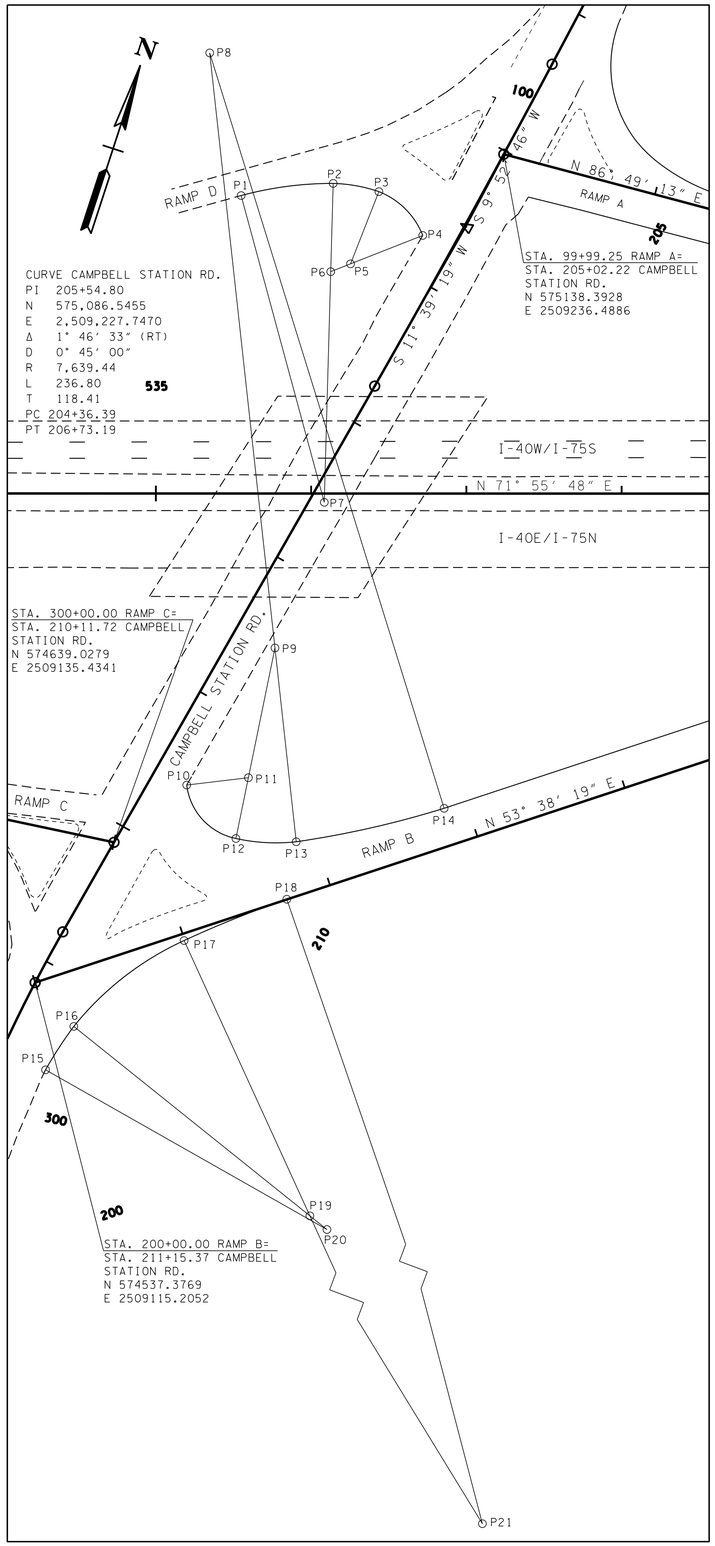
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	2B
CONST.	2014	HSIP-I-40-7(168)	2D

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

INTERSECTION RADII DETAILS

SCALE 1"=50'

NOTE: IT IS IMPERATIVE THAT RADII ARE CONSTRUCTED AS DETAILED. DETAILS REFLECT THE APPROPRIATE MINIMUM VEHICLE TURNING PATHS.



SOUTHWEST CORNER RAMP D 3-CENTER COMPOUND CURVE

POINT	STATION	STATION OFFSET	NORTHING	EASTING	RADIUS
P1	206+14.97	142.13' (RT.)	575055.2911	2509075.9566	———
P2	205+73.71	86.43' (RT.)	575084.4888	2509138.4201	———
P3	205+64.38	58.66' (RT.)	575088.3295	2509167.4331	———
P4	205+75.90	20.68' (RT.)	575069.9049	2509202.5646	———
P5	206+08.94	51.11' (RT.)	575043.4629	2509166.3993	45'
P6	206+59.48	42.21' (RT.)	574992.4641	2509165.2242	95'
P7	207+73.70	18.20' (LT.)	574868.4659	2509201.3414	225'

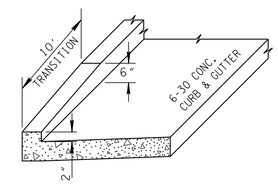
NORTHEAST CORNER RAMP B 3-CENTER COMPOUND CURVE

POINT	STATION	STATION OFFSET	NORTHING	EASTING	RADIUS
P8	205+35.98	197.59' (RT.)	575141.6373	2509036.1315	625'
P9	208+51.56	27.91' (LT.)	574790.2478	2509195.1267	120'
P10	209+53.45	22.37' (LT.)	574688.6394	2509168.5045	———
P11	209+32.63	54.50' (LT.)	574705.4787	2509204.7849	40'
P12	209+70.64	66.96' (LT.)	574665.7379	2509209.3128	———
P13	209+53.18	101.75' (LT.)	574675.8066	2509246.9086	———
P14	208+87.20	173.76' (LT.)	574725.8806	2509330.7664	———

SOUTHEAST CORNER RAMP B 3-CENTER COMPOUND CURVE

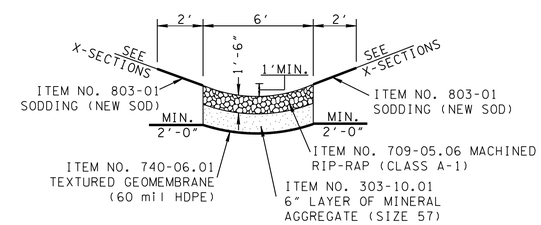
POINT	STATION	STATION OFFSET	NORTHING	EASTING	RADIUS
P15	211+63.73	30.71' (LT.)	574486.0072	2509139.0108	———
P16	211+29.46	35.02' (LT.)	574518.2378	2509147.6310	———
P17	210+44.27	70.60' (LT.)	574592.8857	2509198.0027	———
P18	209+88.36	114.83' (LT.)	574638.7078	2509252.6140	———
P19	211+82.86	224.56' (LT.)	574449.4355	2509330.0899	275'
P20	211+87.80	238.14' (LT.)	574444.4662	2509343.2680	195'
P21	218+08.45	475.78' (LT.)	574050.1652	2509697.7332	705'

NOTE: ALL STATIONS AND OFFSETS FOR 3-CENTER COMPOUND CURVES ARE REFERENCED TO THE CAMPBELL STATION ROAD CENTERLINE

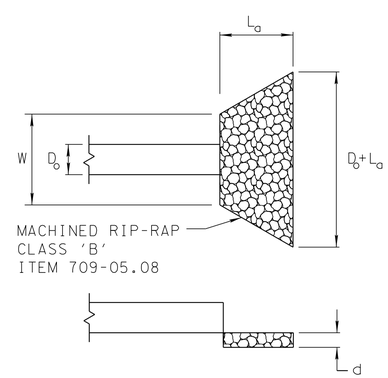


DETAIL OF CURB TRANSITION AT END OF CURB & GUTTER

SEE STD. DWG. RP-NMC-10 & RP-NMC-11 FOR OTHER DETAILS



DETAIL OF RIP-RAP DITCH



DETAIL OF RIP-RAP APRON

PROPOSED RIPRAP APRON SCHEDULE

STATION	ENDWALL TYPE	D_o	W	L_a	D_o+L_a	d	MACHINED RIP-RAP CLASS	ITEM NUMBER
559+69, LT.	"2B"	2'-6"	8'-8"	20'-0"	22'-6"	2'-6"	"B"	709-05.08

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DEPARTMENT OF TRANSPORTATION

DETAILS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	2E

I-40W KNOX CO.
47100-3111-94 (CONST.)

GENERAL NOTES

GRADING

(1) ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE 0F THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

(2) THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF STATE-OWNED R.O.W. IN A REGULATORY FLOOD WAY AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WITHOUT APPROVAL BY SAME. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON-WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATERCOURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.

SEEDING AND SODDING

(1) SOD SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS TO PREVENT DAMAGE TO ADJACENT FACILITIES AND PROPERTY DUE TO EROSION ON ALL NEWLY GRADED CUT AND FILL SLOPES AS WORK PROGRESSES.

(2) ITEM NO. 801-02, SEEDING (WITHOUT MULCH) AND EROSION CONTROL BLANKET , SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS AS WELL AS LOCATIONS DIRECTED BY THE ENGINEER.

GUARDRAIL

(1) THE CONTRACTOR SHALL NOT REMOVE ANY SECTIONS OF EXISTING GUARDRAIL TO REWORK SHOULDERS OR FLATTEN SLOPES UNTIL THE ENGINEER CONCURS IN THE NECESSITY OF REMOVAL DUE TO CONSTRUCTION REQUIREMENTS AND THE APPROPRIATE WARNING DEVICES ARE INSTALLED. THE PROPOSED GUARDRAIL, INCLUDING ANY ANCHOR SYSTEM, SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR A SECTION OF PROPOSED GUARDRAIL, INCLUDING ANCHORS, UNTIL IT IS COMPLETE IN PLACE.

(2) IF ANY APPROACH END OF A SECTION OF GUARDRAIL OR BRIDGE RAIL MUST TEMPORARILY BE LEFT INCOMPLETE AND EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL USE TWO (2) TEMPORARY BARRICADES OR DRUMS WITH TYPE A LIGHTS AND ROUNDED END ELEMENTS AS MINIMUM MEASURES TO PROTECT TRAFFIC FROM THE HAZARD OF AN EXPOSED END. ALL COST OF FURNISHING AND INSTALLING A TEMPORARY ROUNDED END ELEMENT SHALL BE INCLUDED IN THE COST OF THE PROPOSED GUARDRAIL.

DRAINAGE

(1) THE CONTRACTOR SHALL SHAPE DITCHES TO THE SPECIFIED DESIGN. THIS WORK WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS.

(2) EXCAVATION FOR PIPE CULVERTS, STORM SEWERS, ALL OTHER CULVERTS, AND MINOR STRUCTURES WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT WILL BE INCLUDED IN THE PRICE BID PER LINEAR FOOT OF PIPE.

(3) THE CUTTING OF INLET AND OUTLET DITCHES WHERE SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER WILL BE MEASURED AND PAID FOR AS ITEM NO. 203-01 ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED).

(4) WHERE A CULVERT (PIPE, SLAB OR BOX) IS MOVED TO A NEW LOCATION OTHER THAN THAT SHOWN ON THE PLANS, INCREASING OR DECREASING THE AMOUNT OF CULVERT EXCAVATION, NO INCREASE OR DECREASE IN THE AMOUNT OF PAYMENT WILL BE MADE DUE TO SUCH CHANGE.

(5) DURING CONSTRUCTION OF DRAINAGE STRUCTURES ALL COST ASSOCIATED WITH MAINTAINING THE FLOW OF WATER AND TRAFFIC, AT THESE STRUCTURES, DURING THE PHASED CONSTRUCTION OF THIS PROJECT ARE TO BE INCLUDED IN THE UNIT PRICE OF THE DRAINAGE STRUCTURES AND TRAFFIC CONTROL ITEMS.

MISCELLANEOUS

(1) ALL DETOUR, ACCESS, SERVICE, AND FRONTAGE ROADS SHALL BE CONSTRUCTED WITH A MINIMUM OF ONE (1) COURSE OF BASE MATERIAL BEFORE TRAFFIC IS INTERRUPTED ON EXISTING ROADS.

(2) NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA

PAVEMENT MARKINGS

(1) TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAYS WORK. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.02, PAINTED PAVEMENT MARKING (8" BARRIER LINE), L.F.

(2) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 6" ENHANCED FLATLINE THERMOPLASTIC INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-12.02, ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

DETOURS, LANE SHIFTS AND MEDIAN CROSS-OVERS

(3) THE PAVEMENT MARKING ON THE LANE SHIFTS FOR EDGELINES AND LANE LINES WILL BE INSTALLED AND MAINTAINED TO THE SAME STANDARDS AS FOR PERMANENT MARKINGS ON THE MAIN ROADWAY. THESE MARKINGS SHALL BE IN PLACE PRIOR TO ALLOWING TRAFFIC ONTO THE PAVEMENT. THESE PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NOS. 716-05.20 PAINTED PAVEMENT MARKING (6IN LINE) AND 716-05.02 PAINTED PAVEMENT MARKING (8IN BARRIER LINE), LIN. MI.

PAVEMENT

PAVING

(1) THE CONTRACTOR SHALL ATTACH A DEVICE TO THE SCREED OF THE PAVER SUCH THAT MATERIAL IS CONFINED AT THE END GATE AND EXTRUDES THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A CONSOLIDATED WEDGE-SHAPE PAVEMENT EDGE OF APPROXIMATELY 25 TO 30 DEGREES AS IT LEAVES THE PAVER (MEASURED FROM A LINE PARALLEL TO THE PAVEMENT SURFACE.) THE DEVICE SHALL MEET THE REQUIREMENTS THAT ARE CURRENTLY SET FORTH IN SPECIAL PROVISION 407SE.

RESURFACING

(2) WHERE DIRECTED BY THE TDOT ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO SHAPE PUBLIC SIDE ROADS, BUSINESS ENTRANCES, AND PRIVATE DRIVES, AS WELL AS CLEANING OF EXISTING DRAINS BEFORE PLACING MATERIALS. ALL COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

(3) ON CURB AND GUTTER SECTIONS, PUBLIC ROAD INTERSECTIONS SHALL BE RESURFACED TO THE END OF RADIUS. A SATISFACTORY TRANSITION FROM THE NEW PAVEMENT TO THE EXISTING GRADE OF THE INTERSECTING PUBLIC ROAD SHALL BE PROVIDED.

(4) IN ALL CASES, THE LENGTH OF THE PAVEMENT TRANSITION, THE THICKNESS AND WIDTH OF THE RESURFACING AND ANY ADDITIONAL PAVEMENT MATERIALS SHALL BE AS DIRECTED BY THE TDOT ENGINEER.

SIGNING

(1) THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS, EXCEPT THAT CUTOUT DIRECT APPLIED COPY SHALL BE USED ON ALL FLAT SHEET SIGNS WITH A GREEN BACKGROUND. THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL EXTRUDED PANEL SIGNS SHALL BE DEMOUNTABLE AND ATTACHED TO THE SIGN FACE, AS OUTLINED IN THE STANDARD SPECIFICATIONS. ALL SHIELDS ON GUIDE SIGNS SHALL BE DEMOUNTABLE AND ATTACHED TO THE SIGN FACE AS OUTLINED IN THE STANDARD SPECIFICATIONS.

(2) THE TOP OF THE SIGN FOOTINGS SHALL BE PLACED LEVEL WITH THE GROUND LINE.

(3) AFTER THE SIGN LOCATIONS HAVE BEEN STAKED, BUT PRIOR TO ORDERING ANY MATERIAL FOR THE SUPPORTS, THERE SHALL BE A FIELD INSPECTION AND APPROVAL BY THE REGIONAL CONSTRUCTION OFFICE.

(4) THE CONTRACTOR SHALL BE REQUIRED TO FURNISH LAYOUT DRAWINGS (3 SETS) OF ALL EXTRUDED PANEL SIGNS WITH SPACING OF ALL LETTERS, NUMERALS, SHIELDS, AND ARROWS. THE LAYOUT DRAWINGS SHALL BE SENT TO THE ROOADWAY DESIGN DIVISION, SIGNING AND MARKING SECTION, SUITE 1300, J. K. POLK BUILDING, NASHVILLE, TN 37243-1402.

(5) ALL SIGNS MARKED "TO BE REMOVED" ARE TO BE REMOVED BY THE CONTRACTOR AND PAID FOR UNDER ITEM 713-15 AND BECOME THE PROPERTY OF THE CONTRACTOR.

(6) THE EXISTING FOOTINGS ARE TO BE REMOVED 6 INCHES BELOW GROUND LINE.

(7) THE LENGTHS OF ALL SIGN SUPPORTS SHOWN ON THE SIGN SCHEDULE ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY ALL SUPPORT LENGTHS AT THE SITE PRIOR TO ERECTION.

SIGNALIZATION

(1) EQUIPMENT AND INSTALLATION OF TRAFFIC SIGNALS SHALL COMPLY WITH TDOT STANDARD SPECIFICATIONS, SECTION 730.

(2) EQUIPMENT AND INSTALLATION SHALL COMPLY WITH THE TDOT "SPECIAL PROVISIONS REGARDING SECTION 730K-TRAFFIC SIGNALS."

(3) IF RESURFACING IS INCLUDED IN THE PROJECT, SIGNAL DETECTION LOOPS SHALL BE INSTALLED BEFORE THE FINAL SURFACE IS APPLIED.

(4) ANY SIGNAL HEADS, WHEN VISIBLE TO DRIVERS BUT NOT OPERATIONAL, SHALL BE COMPLETELY COVERED.

(5) SIGNAL HEADS SHALL FLASH A MINIMUM OF SEVEN (7) DAYS PRIOR TO ACTIVATION OF THE SIGNAL.

(6) THE PROJECT ENGINEER SHALL NOTIFY THE LOCAL GOVERNMENTAL AGENCY RESPONSIBLE FOR TRAFFIC CONTROL MAINTENANCE AT LEAST ONE DAY IN ADVANCE OF THE COLD PLANING ACTIVITY AT SIGNALIZED INTERSECTIONS WHERE DETECTOR LOOPS ARE ON THE PAVEMENT. THE MAINTAINING AGENCY WILL THEN BE RESPONSIBLE FOR DISCONNECTING THE LOOP DETECTORS AND MAKING ANY NECESSARY TIMING ADJUSTMENTS IN THE SIGNAL CONTROLLER PRIOR TO THE CONSTRUCTION.

(7) LOOPS SHALL BE INSTALLED IN THE LEVELING COURSE IF A LEVELING COURSE IS PROVIDED.

(8) LOOP REPLACEMENT SHALL BE IN ACCORDANCE WITH SECTION 730 OF THE STANDARD SPECIFICATIONS.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

(1) ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.

(2) IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.

(3) A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS A FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.

(4) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.

(5) USE OF BARRICADES, PORTABLE BARRIER RAILS, VERTICAL PANELS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL INCREASE TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THE ENGINEER DETERMINES THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.

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GENERAL NOTES

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GENERAL NOTES CONT'D.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL CONT'D.

(1) THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO PARK WITHIN THIRTY (30) FEET OF A OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE.. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.

(2) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

EROSION PREVENTION AND SEDIMENT CONTROL

DISTURBED AREA

(1) AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.

(2) PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED (I.E. CLEARING AND GRUBBING INITIATED) MORE THAN 15 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING ACTIVITIES UNLESS THE AREA IS MULCHED, SEEDED WITH MULCH, OR OTHER TEMPORARY COVER IS INSTALLED.

(3) CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.

(4) ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS.

(5) CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION.

(6) NO MORE THAN 50 ACRES OF ACTIVE SOIL DISTURBANCE IS ALLOWED AT ANY TIME DURING THE CONSTRUCTION OF THE PROJECT. OFF-SITE BORROW OR WASTE AREAS ARE TO BE INCLUDED IN THE TOTAL DISTURBED AREA IF THE BORROW OR WASTE AREA IS EXCLUSIVE TO THE PROJECT PER TDOT'S WASTE AND BORROW MANUAL.

SEDIMENT CONTROL

(7) EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.

(8) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT ON ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT.

(9) WATER PUMPED FROM WORK AREAS AND EXCAVATION MUST BE HELD IN SETTLING BASINS OR TREATED BY FILTRATION OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE INTO SURFACE WATERS. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND FULLY DESCRIBED IN THE EPSC PLANS. WATER MUST BE HELD IN SETTLING BASINS UNTIL AT LEAST AS CLEAR AS THE RECEIVING WATERS. SETTLING BASINS SHALL NOT BE LOCATED CLOSER THAN 20 FEET FROM THE TOP BANK OF A STREAM. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED ACCORDING TO THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE OR WELL- VEGETATED OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. DISCHARGES FROM BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. DISCHARGES MUST NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITH THE RECEIVING STREAM.

(10) CHECK DAMS SHALL BE USED WHERE RUNOFF IS CONCENTRATED. CLEAN ROCK, BRUSH, GABION, OR SANDBAG CHECK DAMS SHALL BE PROPERLY CONSTRUCTED TO REDUCE VELOCITY AND CONTROL EROSION.

(11) FOR AN OUTFALL IN A DRAINAGE AREA OF 10 ACRES OR MORE, A TEMPORARY (OR PERMANENT) SEDIMENT BASIN OR EQUIVALENT CONTROL MEASURES THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A MINIMUM 2-YEAR/ 24-HOUR STORM EVENT, SHALL BE PROVIDED UNTIL FINAL STABILIZATION OF THE SITE. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS MAY BE CONTACTED TO REVIEW AND CONCUR WITH ANY REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE OUTFALL PROCEEDS.

(12) IF PERMANENT OR TEMPORARY VEGETATION IS TO BE USED AS AN EPSC MEASURE, THEN THE TIMING OF PLANTING OF VEGETATION SHALL BE SHOWN IN THE SWPPP. DELAYING PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED, IF POSSIBLE.

(13) OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION ACCESS (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED, AS NEEDED, TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.

(14) TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REPLACED AT THE END OF THE WORKDAY.

INSPECTION, MAINTENANCE, REPAIR

(15) EPSC CONTROLS WILL BE MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES.

(16) INSPECTION, REPAIR, AND MAINTENANCE OF EPSC MEASURES/STRUCTURES IS TO BE PERFORMED ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE CARE TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE STRUCTURES AT THE CONTRACTOR'S OWN EXPENSE.

(17) SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND BE TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS AND DOES NOT MIGRATE INTO WATERS OF THE STATE/U.S. COST FOR THIS TREATMENT IS TO BE INCLUDED IN PRICE BID FOR ITEM NO. 209-05 SEDIMENT REMOVAL, C.Y.

(18) THE CONTRACTOR SHALL INSTALL A RAIN GAUGE EVERY LINEAR MILE AT ALL SITES WHERE CLEARING, GRUBBING, EXCAVATION, GRADING CUTTING OR FILLING IS BEING ACTIVELY PERFORMED, OR EXPOSED SOIL HAS NOT YET BEEN PERMANENTLY STABILIZED. IF THE PROJECT LENGTH IS LESS THAN ONE LINEAR MILE, ONE RAIN GAUGE SHALL BE INSTALLED AT THE CENTER OF THE PROJECT OR AS INDICATED BY THE TDOT EPSC INSPECTOR. THE CONTRACTOR SHALL ENSURE THAT EACH GAUGE IS MAINTAINED IN GOOD WORKING CONDITION. TDOT AND/OR THE CONTRACTOR SHALL RECORD DAILY PRECIPITATION AND FORECASTED PERCENTAGE OF PRECIPITATION IN DETAILED RECORDS OF RAINFALL EVENTS INCLUDING DATES, AMOUNTS OF RAINFALL PER GAUGE, THE ESTIMATED DURATION (OR STARTING AND ENDING TIMES), AND FORECASTED PERCENTAGE OF PRECIPITATION FOR THE PROJECT. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER ON A MONTHLY BASIS. THE COST FOR THE RAIN GAUGES IS TO BE INCLUDED IN THE UNIT BID PRICES FOR OTHER ITEMS. RAIN GAUGES SHALL BE AS SPECIFIED IN THE APPROVED TDOT RAINFALL MONITORING PLAN.

(19) INSPECTION OF EPSC MEASURES SHALL BE DONE AT LEAST TWICE PER CALENDAR WEEK AT LEAST 72 HOURS APART. A CALENDAR WEEK IS DEFINED AS SUNDAY THROUGH SATURDAY. QUALITY ASSURANCE/QUALITY CONTROL SITE ASSESSMENT OF EPSC SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION'S COMPREHENSIVE INSPECTION OFFICE GUIDELINES.

(20) OUTFALL POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO SURROUNDING WATERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWNSTREAM LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE ROADWAY SEDIMENT TRACKING.

(21) UPON CONCLUSION OF THE INSPECTIONS, EPSC MEASURES FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE MORE THAN 24 HOURS AFTER THE INSPECTION OR WHEN THE CONDITION IS IDENTIFIED. IF THE REPAIR, REPLACEMENT OR MODIFICATION IS NOT PRACTICAL WITHIN THE TIMEFRAME, WRITTEN DOCUMENTATION MUST BE PROVIDED IN THE FIELD BOOK AND AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION.

(22) THE TDOT PROJECT SUPERVISOR (OR THEIR DESIGNEE) AND THE CONTRACTOR'S SITE SUPERINTENDENT ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE TDOT PROJECT SUPERVISOR OR THEIR DESIGNEE WILL COMPLETE THE INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.

MATERIALS

(23) WASTE AND BORROW AREAS SHALL BE LOCATED IN NON-WETLAND AREAS AND ABOVE THE 100-YEAR, FEDERAL EMERGENCY MANAGEMENT AGENCY FLOODPLAIN. BORROW AND WASTE DISPOSAL AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE/U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY AN ARAP, 404, OR NPDES PERMIT, OBTAINED SOLELY BY THE CONTRACTOR.

SWPPP, PERMITS, PLANS, RECORDS

(24) THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO TDEC ARAP/401, USACE SECTION 404, TVA SECTION 26A, AND TDEC NPDES PERMITS, FROM FEDERAL, STATE AND/OR LOCAL AGENCIES REGARDING THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS.

(25) ANY DISAGREEMENT BETWEEN THE PROJECT PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE TDOT PROJECT ENGINEER. THE ENVIRONMENTAL DIVISION, ROADWAY DESIGN DIVISION, AND HEADQUARTERS CONSTRUCTION OFFICE SHALL BE CONTACTED IN THESE INSTANCES AND DECIDE WHICH HAS PRECEDENCE AND WHETHER PERMIT OR PLANS REVISIONS ARE NEEDED. IN GENERAL, PERMIT CONDITIONS WILL PREVAIL.

(26) THE FOLLOWING INFORMATION SHALL BE MAINTAINED ON OR NEAR THE SITE: DATES THAT MAJOR GRADING ACTIVITIES OCCUR, DATES WHERE CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, DATES WHEN STABILIZATION MEASURES ARE INITIATED, EPSC INSPECTION RECORDS, QUALITY ASSURANCE SITE ASSESSMENT RECORDS, PRECIPITATION RECORDS, SWPPP, PROJECT ENVIRONMENTAL PERMITS, AND A COPY OF THE PROJECT EPSC INSPECTOR'S TDEC LEVEL 1 CERTIFICATION.

(27) ALL WATER QUALITY AND STORM WATER PERMITS, INCLUDING A COPY OF THE NOC WITH NPDES PERMIT TRACKING NUMBER AND THE LOCATION OF THE SWPPP, SHALL BE POSTED NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE ACCESSIBLE TO THE PUBLIC. THE NAME, COMPANY NAME, EMAIL ADDRESS, TELEPHONE NUMBER AND ADDRESS OF THE PROJECT SITE OWNER, OPERATOR, OR A LOCAL CONTACT PERSON WITH A BRIEF DESCRIPTION OF THE PROJECT SHALL ALSO BE POSTED. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE, THE INFORMATION SHALL BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION NEAR WHERE THE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY. THIS LOCATION SHALL BE POSTED AT THE CONSTRUCTION SITE. ALL POSTINGS SHALL BE MAINTAINED IN LEGIBLE CONDITION.

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GENERAL NOTES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	2G

I-40W KNOX CO.
47100-3111-94 (CONST.)

GENERAL NOTES CONT'D.

SWPPP, PERMITS, PLANS, RECORDS CONT'D.

(1) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS OR MODIFICATIONS OF THE SWPPP ARE NEEDED. THE ROADWAY DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.

(2) THE SWPPP SHALL BE UPDATED BY CONSTRUCTION WHENEVER EPSC INSPECTIONS INDICATE, OR WHERE STATE OR FEDERAL OFFICIALS DETERMINE EPSC MEASURES ARE PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES OR ARE OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY. THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED WHEN MAJOR DESIGN REVISIONS ARE REQUESTED BY CONSTRUCTION. THE ENVIRONMENTAL DIVISION MAY BE CONTACTED FOR GUIDANCE ON SPECIFIC SWPPP NEEDS. A COPY OF ANY CORRESPONDENCE REGARDING THE EFFECTIVENESS OF THE SWPPP OR EPSC CONTROLS SHALL BE RETAINED IN THE SWPPP.

(3) IF A TMDL IS DEVELOPED FOR THE RECEIVING WATERS FOR A POLLUTANT OF CONCERN (SILTATION AND/OR HABITAT ALTERATION) THE SWPPP SHALL BE MODIFIED OR UPDATED.

(4) PROJECT INSPECTORS AND SUPERVISORS (INCLUDING TDOT STAFF, CONSULTANTS AND CONTRACTOR STAFF) RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF EPSC PLANS SHALL SUCCESSFULLY COMPLETE THE TDEC "LEVEL 1 - FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE AND ANY REFRESHER COURSES AS REQUIRED TO MAINTAIN CERTIFICATION. A COPY OF CERTIFICATION RECORDS FOR THE COURSES SHALL BE KEPT ON SITE AND AVAILABLE UPON REQUEST.

LITTER, DEBRIS, WASTE, PETROLEUM

(5) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS. AFTER USE, MATERIALS USED FOR EPSC WILL BE REMOVED FROM THE SITE.

(6) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS ARE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. ALL EQUIPMENT REFUELING, SERVICING, AND STAGING AREAS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS, AND ORDINANCES, INCLUDING THOSE OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA). APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED. ALL SPILLS MUST BE REPORTED TO THE APPROPRIATE AGENCY, AND MEASURES SHALL BE TAKEN IMMEDIATELY TO PREVENT THE POLLUTION OF WATERS OF THE STATE/U.S., INCLUDING GROUNDWATER, SHOULD A SPILL OCCUR.

SPECIAL NOTES

GEOTECHNICAL

(1) IN ORDER TO PROTECT THE KARST TERRAIN/SINKHOLES, WHICH MAKE THE NATURAL DRAINAGE SYSTEM FOR THE PROJECT AREA, AND DUE TO THE PROXIMITY OF TRAFFIC TO THE PROJECT AREA BLASTING SHALL NOT BE USED IF THE EXCAVATION ENCOUNTERS ROCK MATERIAL.

GRADING

(1) THE GRADING TABULATIONS AND RESULTING EARTHWORK ASSOCIATED BID QUANTITIES WERE PREPARED UTILIZING AVAILABLE GEOTECHNICAL INFORMATION AND/OR REPORTS PREPARED FOR THIS PROJECT. THIS INFORMATION IS PROVIDED FOR GENERAL INFORMATION AND ESTIMATION GUIDANCE ONLY.

(2) BORING DEPICTIONS SHOWN ON THE FOUNDATION DATA SHEETS, SOILS SHEETS, PLANS, AND CROSS-SECTIONS INDICATE SOIL AND ROCK CONDITIONS AT THE SPECIFIC BORING LOCATIONS. ANY SOIL PROFILE AND/OR ROCK LINE IS INTERPRETIVE BASED ON THE JUDGMENT OF THE GEOTECHNICAL ENGINEER/GEOLOGIST. THE TRANSITION BETWEEN BORINGS AND LAYERS MAY VARY SIGNIFICANTLY DEPENDING ON THE GEOLOGIC FORMATIONS ENCOUNTERED.

(3) TO ASSIST IN BID PREPARATION FOR EARTHWORK AND FOUNDATION CONSTRUCTION, DETAIL ROCK AND SOIL DESCRIPTION AND ON SOME PROJECTS, ROCK CORE SAMPLES ARE AVAILABLE FOR INSPECTION AT THE MATERIALS AND TESTS HEADQUARTERS AT 6601 CENTENNIAL BOULEVARD, NASHVILLE, TN OR AT THE TDOT REGION 1 BUILDING IN KNOXVILLE, TN.

(4) THE CONTRACTOR SHALL UTILIZE ALL INFORMATION PROVIDED IN THE PLANS, CROSS-SECTIONS AND CONTRACT DOCUMENTS INCLUDING ANY SPECIAL PROVISIONS AS WELL AS UTILIZING HIS PAST EXPERIENCE WITH PROJECTS OF SIMILAR NATURE, SCOPE, AND LOCATION IN PREPARATION OF HIS BID FOR EARTHWORK ITEMS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND PROVIDE EQUIPMENT AND MEANS NECESSARY TO CONDUCT THE EXCAVATION ACTIVITIES IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.

(5) EARTHWORK IS PAID FOR UNDER ITEM 203-01, ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED). NO ADDITIONAL PAYMENT WILL BE MADE FOR EARTHWORK QUANTITIES BASED SOLELY ON A CLAIM THAT THE QUANTITIES SHOWN IN THE GRADING TABULATION OR ELSEWHERE IN THE PLANS ARE INACCURATE WITH RESPECT TO THE TYPE OF MATERIALS ENCOUNTERED DURING CONSTRUCTION EXCEPT AS PROVIDED FOR BY SECTION 104.02 IN THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OR AS AMENDED IN SUPPLEMENTAL SPECIFICATIONS.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

(1) THE CONTRACTOR SHALL ENSURE THAT ALL TRAFFIC CONTROL MEASURES FOR THIS PROJECT WILL NOT BE IN CONFLICT WITH ANY TRAFFIC CONTROL MEASURES FOR ADJACENT PROJECTS.

(2) THE CONTRACTOR SHALL SUBMIT APPROVAL FOR TRAFFIC CONTROL PHASING TO THE TDOT SUPERVISOR AT THE PRE-CONSTRUCTION CONFERENCE AND OBTAIN PRIOR APPROVAL BEFORE SHIFTING TRAFFIC.

(3) ANY WORK REQUIRING LANE CLOSURES SHALL BE AT NIGHT BETWEEN THE HOURS OF 9 P.M. AND 5 A.M. SUNDAY THROUGH THURSDAY.

(4) WEEKEND LANE CLOSURES MAY BE PERMITTED FOR THE MODIFICATION OF THE INSIDE BARRIER WALL AS DIRECTED BY THE T.D.O.T. OPERATIONS DISTRICT ENGINEER.

(5) ANY WORK REQUIRING ROLLING ROADBLOCKS SHALL BE AT NIGHT BETWEEN THE HOURS OF 10 P.M. AND 5 A.M. SUNDAY THROUGH THURSDAY OR ON SUNDAYS BETWEEN THE HOURS OF 6 A.M. AND NOON OR AS OTHERWISE DIRECTED BY THE T.D.O.T. OPERATIONS DISTRICT ENGINEER.

(6) NO LANE CLOSURES WILL BE ALLOWED ON WEEKENDS (FRIDAY – SUNDAY) WHEN THERE IS A SCHEDULED NASCAR RACE IN BRISTOL.

(7) NO LANE CLOSURES WILL BE ALLOWED ON SATURDAYS WHEN THE UNIVERSITY OF TENNESSEE PLAYS FOOTBALL IN KNOXVILLE.

PAVEMENT MARKINGS

(1) BEFORE OPENING THE LANE SHIFT TO TRAFFIC, THE TRANSITIONAL MARKINGS ON THE EXISTING ROADWAY MUST BE IN PLACE. ALL EXISTING MARKINGS IN THE AREA OF THESE TRANSITIONAL MARKINGS SHALL BE OBLITERATED AND ALL EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED TO ELIMINATE CONFLICTING MARKINGS. REMOVAL OF THE EXISTING CONFLICTING MARKINGS AND SNOWABLE RAISED PAVEMENT MARKERS WILL PAID FOR UNDER ITEM NOS. 716-01.20 REMOVAL OF PAVEMENT MARKING (LINE), LIN. MI. AND 716-01.30 REMOVAL OF SNOWPLOWABLE REFLECTIVE MARKER, EACH.

SIGNALIZATION

(1) THE DESIGN OF TRAFFIC SIGNAL SUPPORT POLES, MAST ARMS, STRAIN POLES, ETC. SHALL BE IN CONFORMANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, CURRENT EDITION. OVERHEAD CANTILEVERED TRAFFIC SIGNAL STRUCTURES SHALL BE DESIGNED FOR FATIGUE CATEGORY 1.

(2) VIDEO DETECTION EQUIPMENT TO BE INSTALLED PRIOR TO DISCONNECTING EXISTING LOOPS SO AS TO ELIMINATE INTERRUPTION OF TRAFFIC PATTERNS. THE VIDEO DETECTION EQUIPMENT SHALL BECOME PART OF THE PERMANENT INSTALLATION FOR THIS INTERSECTION AFTER CONSTRUCTION OF THE WESTBOUND OFF-RAMP IS COMPLETED. SEE FOOTNOTE FOR ITEM NUMBER 730-13.02 SIGNAL QUANTITY SHEET 2A.

EROSION PREVENTION AND SEDIMENT CONTROL

NPDES

(1) REFER TO THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN, SHEET 11, FOR NOTES REGARDING SEASONAL WORK LIMITATION OR LIMITATION ON THE TOTAL AREA OF EXPOSED SOIL.

SCOPE OF WORK

(1) THIS PROJECT INCLUDES THE GRADING, DRAINAGE, BASE, AND PAVEMENT FOR I-40W/I-75S AND WESTBOUND RAMP "A" TO CAMPBELL STATION ROAD TO LINES AND GRADES AS INDICATED ON THE PLAN, PROFILE, AND TYPICAL CROSS-SECTION SHEETS OR AS DIRECTED BY THE TDOT OPERATIONS ENGINEER.

(2) CONSTRUCTION OF AN AUXILIARY LANE ON I-40W/I-75S AND LENGTHENED WESTBOUND RAMP "A" TO LINES AND GRADES AS INDICATED ON THE PLANS OR AS DIRECTED BY THE TDOT OPERATIONS ENGINEER.

(3) CONSTRUCTION OF A BARRIER WALL ON I-40W/I-75S AS INDICATED ON THE PLANS OR AS DIRECTED BY THE TDOT OPERATIONS ENGINEER.

(4) WIDEN RAMP "B" TO LINES AND GRADE AS INDICATED ON THE PLANS OR AS DIRECTED BY THE TDOT OPERATIONS ENGINEER.

(5) INSTALLATION OF A TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF EASTBOUND RAMP "C" WITH CAMPBELL STATION ROAD AS INDICATED ON THE PLANS OR AS DIRECTED BY THE TDOT OPERATIONS ENGINEER.

(6) CONSTRUCTION OF ALL DITCHES, DRAINAGE STRUCTURES, GUARDRAIL, APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL DEVICES, SEEDING, PAVEMENT MARKINGS, SIGNING, INSTALLATION OF TRAFFIC CONTROL DEVICES, AND OTHER DESIGN FEATURES INDICATED ON THE PLANS OR AS DIRECTED BY THE TDOT OPERATIONS ENGINEER.

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GENERAL NOTES, SPECIAL NOTES, AND SCOPE OF WORK

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	2H

I-40W KNOX CO.
47100-3111-94 (CONST.)

GUARDRAIL TABULATION

SHEET NO.	SIDE LT	SIDE RT	STATION FROM	STATION TO	SINGLE GUARDRAIL TYPE 2 ITEM NO. 705-02.02 (L.F.)	TERMINAL ANCHORS TYPE 12 ITEM NO. 705-04.02 (EACH)	TERMINAL ANCHORS TYPE 13 ITEM NO. 705-04.03 (EACH)	GUARDRAIL REMOVED ITEM NO. 706-01 (L.F.)	REMARKS
6	X		559+87±	569+00±				913	
7	X		569+00±	570+75±				175	
6A-7A	X		557+44±	570+50±	794		1		
6A	X		565+44±	569+00±					356' OF ITEM NO. 705-02.02 INCLUDED IN PAYMENT OF TYPE 12 TERMINAL ANCHOR
7A	X		569+00±	570+50±		1			150' OF ITEM NO. 705-02.02 INCLUDED IN PAYMENT OF TYPE 12 TERMINAL ANCHOR
TOTALS					794	1	1	1088	

NOTE: GUARDRAIL LENGTHS ARE APPROXIMATE AND MAY BE ADJUSTED BY THE TDOT OPERATIONS ENGINEER.

ESTIMATED GRADING QUANTITIES

STATION FROM	STATION TO	ROAD AND DRAINAGE EXCAVATION (UNCL.) COMMON (C.Y.)	ROAD AND DRAINAGE EXCAVATION (UNCL.) S. ROCK (C.Y.)	BORROW COMMON (C.Y.)	EMBANKMENT (C.Y.)	WASTE (C.Y.)	REMARKS
533+46.20	573+00.00	28206	9191		9873	16419	SEE NOTE (1) THIS SHEET REGARDING ROCK QUANTITY
TOTALS		28206	9191	0	9873	16419	

CROSS DRAIN TABULATION

STATION	RCP CLASS III OR CMP 14 GA. OR HDPE OR PVC OR SRTRP (L.F.) FILL HEIGHT < OR = 16 FT. 18"	24"	30"	36"	SKEW ANGLE	END TREATMENT INLET TYPE	INLET STD. DWG. NO.	OUTLET TYPE	OUTLET STD. DWG. NO.	CLASS A CONC. ITEM NO. 611-07.01 (C.Y.)	REINF. STEEL ITEM NO. 611-07.02 (LB.)	REMARKS
559+69			12		90°			2B	D-PE-9, 9A & 9C	2.30	260	I-40W
562+18	13				65°			2B	D-PE-9, 9A & 9C	1.15	164	I-40W
565+17	12				90°			2B	D-PE-9, 9A & 9C	1.07	153	I-40W
202+55		60			90°			6U	D-PE-24A & 24B			RAMP B
TOTALS	25	60	12	0						4.52	577	

RIP-RAP DITCHES

STATION FROM	STATION TO	LOCATION LT	LOCATION RT	WIDTH (FT.)	RIP-RAP CLASS "A-1" ITEM NO. 709-05.06 (C.Y.)	REMARKS
547+49	547+49	X		6	9	EROSION PROTECTION AT ENDWALL
548+10	548+10	X		6	6	EROSION PROTECTION AT ENDWALL
563+00	566+50	X		6	117	SEE SHEET 2C FOR DETAIL
TOTALS					132	

PROPOSED CONCRETE BARRIER WALL

SHEET NO.	LOCATION	SIDE LT	SIDE RT	STATION FROM	STATION TO	32" SINGLE SLOPE CONCRETE BARRIER WALL ITEM NO. 711-05.70 (L.F.)	REMARKS
4A	I-40W	X		541+25	545+00	375	
5A	I-40W	X		545+00	547+30	230	
TOTALS						605	

DRAINAGE STRUCTURES

CODE	SHEET NO.	STATION	LOCATION	OFFSET (FT.)	STRUCTURE GRATE/TOP ELEV.	STRUCTURE TYPE	DEPTH (FT.)	PIPE DIAMETER (IN.)	ENDWALL CLASS "A" CONC. (C.Y.) ITEM NO. 611-07.01	ENDWALL REINFORCING STEEL (LB.) ITEM NO. 611-07.02	STANDARD DRAWINGS
1	5A	546+24	LT.	70.68	962.47	NO. 31 CB	4.34	18			D-CB-31SD
2	5A	547+24	LT.	70.68	962.20	NO. 46 CB	5.13	18			D-CB-46SE
3	5A	547+46	LT.	144.54		6U EW		24			D-PE-30A D-PE-30B
4	5A	547+46	LT.	65.00	961.84	NO. 3 MH	5.86	15 24			D-MH-2
6	5A	549+26	LT.	123.06		6U EW		48			D-PE-48A D-PE-48B
7	5A	549+44	LT.	116.73	960.46	NO. 3 MH	7.10	24 48			D-MH-2
8	5A	549+61	LT.	137.49	958.40	NO. 38 CB	4.42	18 24			D-CB-38RB
9	5A	549+93	LT.	138.72		6U EW		18			D-PE-24A D-PE-24B
10	6A	559+69	LT.	105.32	963.07	NO. 3 MH	9.44	30			D-MH-2
11	6A	559+69	LT.	118.23		2B EW		30	2.30	260	D-PE-9 D-PE-9A D-PE-9C
12	6A	561+72	LT.	100.09	967.24	NO. 3 MH	8.25	18			D-MH-2
13	6A	561+66	LT.	112.92		2B EW		18	1.15	164	D-PE-9 D-PE-9A D-PE-9C
14	6A	565+17	LT.	98.81	972.44	NO. 3 MH	7.66	18			D-MH-2
15	6A	565+17	LT.	111.94		2B EW		18	1.07	153	D-PE-9 D-PE-9A D-PE-9C
16	4A	202+55	RT.	10.00	952.37	NO. 42 CB	3.53	24			D-CB-42S
17	4A	202+54	LT.	51.33		6U EW		24			D-PE-24A D-PE-24B
TOTALS									4.52	577	

STORM DRAINAGE PIPES

SHEET NO.	FROM CODE	FROM INLET ELEV.	FROM OUTLET ELEV.	TO CODE	TO INLET ELEV.	TO OUTLET ELEV.	% GRADE	RCP CLASS III (L.F.) 18"	24"	48"
5A	1		958.13	2	957.44		0.73	95		
5A	2		956.09	3		954.98	1.50		74	
5A	4	957.54	956.54	2	956.46	956.09	0.50		16	
5A	7		953.36	6		953.28	0.50			16
5A	10		954.64	7	954.41		1.05			22
5A	8	954.19	953.98	7	953.69	953.36	1.26		23	
5A	9	955.71		8	954.90		2.70	30		
TOTALS								125	113	38

(1) ROCK QUANTITY IS BASED ON AN ESTIMATED 25% OF THE PROPOSED TOTAL EXCAVATION DUE TO DRILLING EQUIPMENT HAVING LIMITED ACCESSABILITY TO THE PROPOSED CONSTRUCTION SITE. ROCK QUANTITY MAY BE HIGHER OR LOWER THAN THE ESTIMATED 25% (SEE SPECIAL NOTES, GRADING SECTION).

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DEPARTMENT OF TRANSPORTATION

TABULATED QUANTITIES

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TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	3
CONST.	2014	HSIP-I-40-7(168)	3

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

UTILITY NOTES

(1) THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE UTILITY COMPANIES INVOLVED. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111 AS REQUIRED BY TCA 65-31-106 WILL BE REQUIRED.

(2) UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR IT'S REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT. ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES ARE CONTRACT ITEMS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RIGHT-OF-WAY OR SLOPE STAKES, DITCH OR STREAM BED GRADES, OR OTHER ESSENTIAL SURVEY STAKING TO PREVENT CONFLICTS WITH THE HIGHWAY CONSTRUCTION. FREQUENTLY, THIS WILL BE REQUIRED AS THE FIRST ITEM OF WORK AND AT ANY LOCATION ON THE PROJECT DIRECTED BY THE ENGINEER.

(3) THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

(4) PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE, OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS. ADVANCE CLEAR CUTTING MAY BE REQUIRED BY THE ENGINEER AT ANY LOCATION WHERE CLEARING IS CALLED FOR IN THE SPECIFICATIONS AND CLEAR CUTTING IS NECESSARY FOR A UTILITY RELOCATION. ANY ADDITIONAL COST WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE CLEARING ITEM SPECIFIED IN THE PLANS.

(5) THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY IN ACCORDANCE WITH TCA 65-31-106.

UTILITY OWNERS

TELEPHONE/DATA/CATV
AT&T
9733 PARKSIDE DRIVE
KNOXVILLE, TN 37922
PHONE: 865-539-8579
FAX: 865-470-8519
CONTACT: DAVID OVERMAN

WATER
FIRST UTILITY DISTRICT OF KNOX COUNTY, TN
P.O. BOX 22580
122 DURWOOD ROAD (37922)
KNOXVILLE, TN 37933-0580
PHONE: 865-966-9741
FAX: 865-675-4955
CONTACT: TROY WEDEKIN

ELECTRIC
LENOIR CITY UTILITY BOARD
P.O. BOX 449
200 DEPOT STREET
LENOIR CITY, TN 37771
PHONE: 865-988-0725
FAX: 865-988-0855
CONTACT: LEON SHIELDS, 865-740-9104
EMAIL: LSHIELDS@LCUB.COM

GAS
KNOXVILLE UTILITIES BOARD
P.O. BOX 59017
4505 MIDDLEBROOKE PIKE (37921-5599)
KNOXVILLE, TN 37950-9017
PHONE: 865-524-2911
FAX: 865-558-2436
EMAIL: WWW.KUB.ORG
CONTACT: GABRIEL BOLAS, 865-558-2100
MIKE BOWDEN

SEWER
FIRST UTILITY DISTRICT OF KNOX COUNTY, TN
P.O. BOX 22580
122 DURWOOD ROAD (37922)
KNOXVILLE, TN 37933-0580
PHONE: 865-966-9741
FAX: 865-675-4955
CONTACT: TROY WEDEKIN

DIGITAL DATA/TELEPHONE/CATV
TDS TELECOM
701 CONCORD ROAD
KNOXVILLE, TN 37934
PHONE: 865-671-4546
FAX: 865-966-2090
CONTACT: TOM NITZ, 865-679-4779 (CELL)
EMAIL: TOM.NITZ@TDSTELECOM.COM

DIGITAL DATA/TELEPHONE/CATV
CHARTER COMMUNICATIONS
1774 HENRY G. LANE STREET
MARYVILLE, TN 37801
CONTACT: ANSIL SUFFRIDGE, 865-206-4080

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UTILITY NOTES
AND
UTILITY OWNERS

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TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	4
CONST.	2014	HSIP-I-40-7(168)	4

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

CONTROL POINTS

POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S34	575097.4290	2509617.2970	966.22	540+73.36	61.58' (LT)
S36	575296.1750	2509298.2330	965.82	538+31.68	349.49' (LT)
S37	574403.0880	2509064.5200	950.18	533+32.47	427.05' (RT)
S42	574979.9655	2509652.2250	966.09	540+70.13	60.92' (RT)

LINE	BEARING	DISTANCE
LINE SL82	N 59° 14' 14" E	184.03
LINE SL83	N 11° 35' 0" E	155.65
LINE SL84	S 79° 41' 0" E	28.57
LINE SL85	N 10° 51' 14" E	41.46

POINT	TOP	INVERT
SB2172	976.28	972.50
SB2175	971.44	968.70
SB2182	966.87	963.10
SB2237	952.62	949.60
SB2256	957.15	953.70

LINE	BEARING	DISTANCE
LINE SL78	S 16° 55' 27" E	112.02
LINE SL79	S 62° 53' 9" E	57.36
LINE SL80	S 77° 51' 1" E	29.35
LINE SL81	S 10° 9' 53" W	66.82

POINT	TOP	INVERT
SB2407	965.32	950.80
SB2408	952.98	948.78
SB2490	952.95	946.60
SB2529	954.03	947.10
SB2530	957.26	947.85
SB2537	962.16	948.20

POINT	TOP	INVERT
SB2415	948.13	943.30
SB2416	950.42	943.10
SB2424	953.58	941.30
SB2430	951.64	942.10
SB2436	959.26	953.50
SB2486	947.43	942.06
SB2499	949.45	944.10

POINT	TOP	INVERT
SB2265	946.75	944.43
SB2308	952.33	948.94
SB2431	957.80	947.53
SB2561	952.79	947.00
SB2562	952.96	947.00

CURVE RAMP A
PI 104+53.18
N 575,163.5719
E 2,509,689.7235
Δ 14° 53' 25" (LT)
D 4° 00' 00"
R 1,432.39
L 372.26
T 187.18
SE 0.047 FT/FT
DESIGN SPEED 40 MPH
TRANS. LENGTH 87

STA. 99+99.25 RAMP A=
STA. 205+02.22 CAMPBELL STATION RD.
N 575138.3928
E 2509236.4886

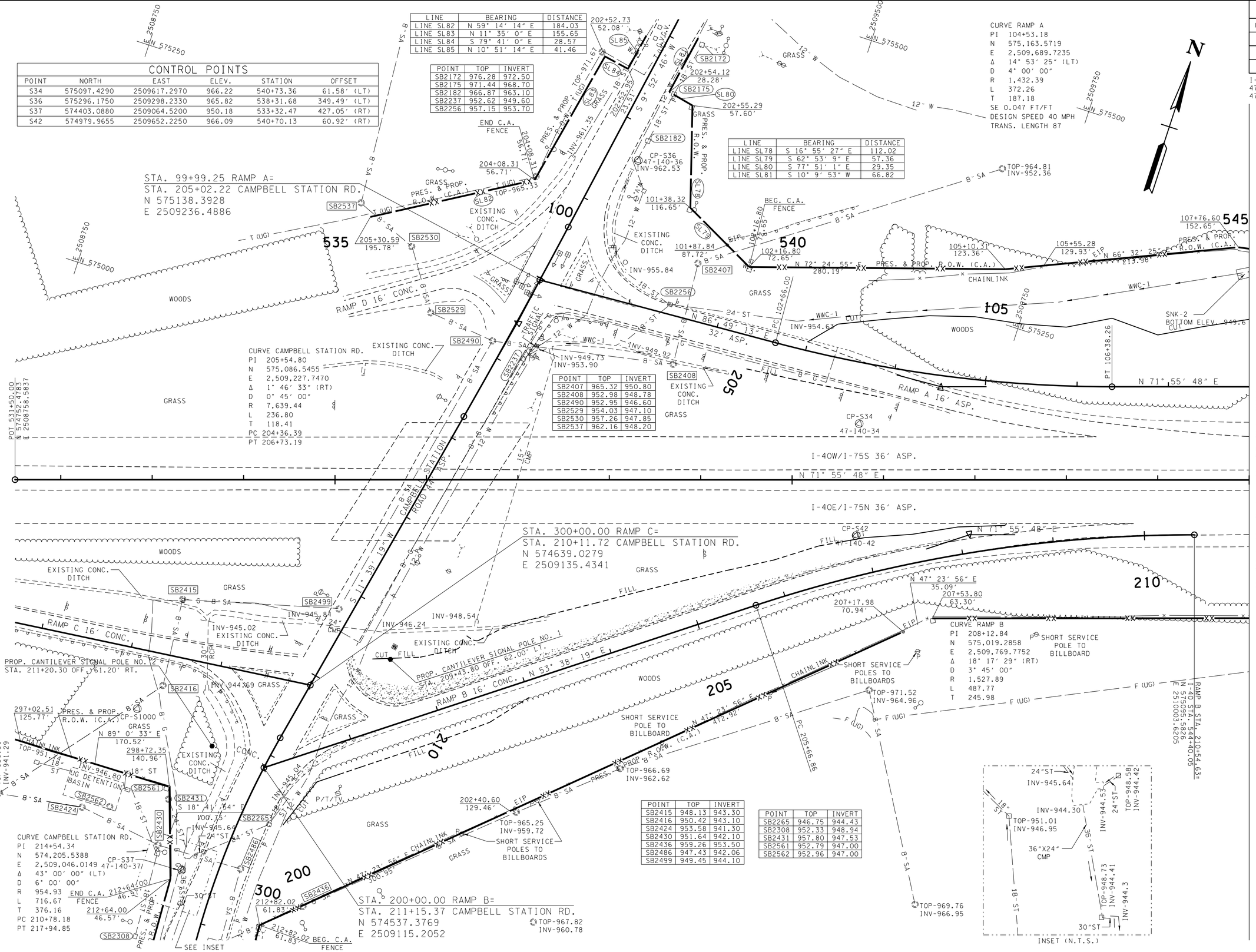
CURVE CAMPBELL STATION RD.
PI 205+54.80
N 575,086.5455
E 2,509,227.7470
Δ 1° 46' 33" (RT)
D 0° 45' 00"
R 7,639.44
L 236.80
T 118.41
PC 204+36.39
PT 206+73.19

STA. 300+00.00 RAMP C=
STA. 210+11.72 CAMPBELL STATION RD.
N 574639.0279
E 2509135.4341

CURVE CAMPBELL STATION RD.
PI 214+54.34
N 574,205.5388
E 2,509,046.0149
Δ 43° 00' 00" (LT)
D 6° 00' 00"
R 954.93
L 716.67
T 376.16
PC 210+78.18
PT 217+94.85

STA. 200+00.00 RAMP B=
STA. 211+15.37 CAMPBELL STATION RD.
N 574537.3769
E 2509115.2052

CURVE RAMP B
PI 208+12.84
N 575,019.2858
E 2,509,769.7752
Δ 18° 17' 29" (RT)
D 3° 45' 00"
R 1,527.89
L 487.77
T 245.98



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.0000900 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA.532+00.00 TO STA.545+00.00

SCALE: 1"=50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	4A
CONST.	2014	HSIP-I-40-7(168)	4A

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

47100-3111-94
BEGIN PROJECT HSIP-I-40-7(168)
STA. 533+46.20 (CONST.)

POINT	TOP	INVERT
SB2172	976.28	972.50
SB2175	971.44	968.70
SB2182	966.87	963.10
SB2237	952.62	949.60
SB2256	957.15	953.70

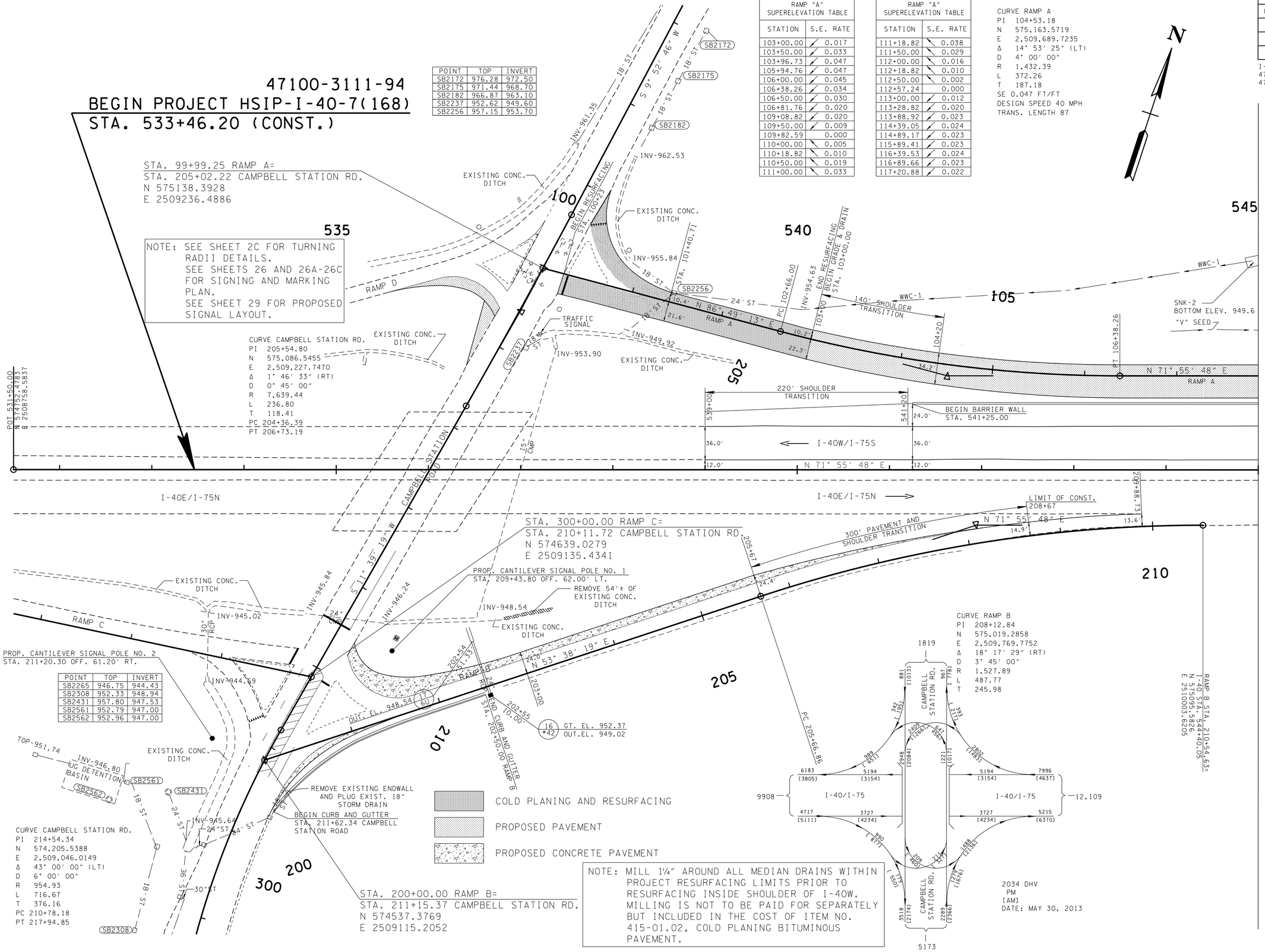
RAMP "A" SUPERELEVATION TABLE

STATION	S.E. RATE
103+00.00	0.017
103+50.00	0.033
103+96.73	0.047
105+94.76	0.047
106+00.00	0.045
106+38.26	0.034
106+50.00	0.030
106+81.76	0.020
109+08.82	0.020
109+50.00	0.009
109+82.59	0.000
110+00.00	0.005
110+18.82	0.010
110+50.00	0.019
111+00.00	0.033

RAMP "A" SUPERELEVATION TABLE

STATION	S.E. RATE
111+18.82	0.038
111+50.00	0.029
112+00.00	0.016
112+18.82	0.010
112+50.00	0.002
112+57.24	0.000
113+00.00	0.012
113+28.82	0.020
113+88.92	0.023
114+39.05	0.024
114+89.17	0.023
115+89.41	0.023
116+39.53	0.024
116+89.66	0.023
117+20.88	0.022

CURVE RAMP A
PI 104+53.18
N 575,163.5719
E 2,509,689.7235
Δ 14° 53′ 25″ (LT)
D 4° 00′ 00″
R 1,432.39
L 372.26
T 187.18
SE 0.047 FT/FT
DESIGN SPEED 40 MPH
TRANS. LENGTH 87



POINT	TOP	INVERT
SB2265	946.75	944.43
SB2308	952.33	948.94
SB2431	957.80	947.53
SB2561	952.79	947.00
SB2562	952.96	947.00

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA.533+46.20 TO STA.545+00.00

SCALE: 1"=50′

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TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	4B
CONST.	2014	HSIP-I-40-7(168)	4B

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

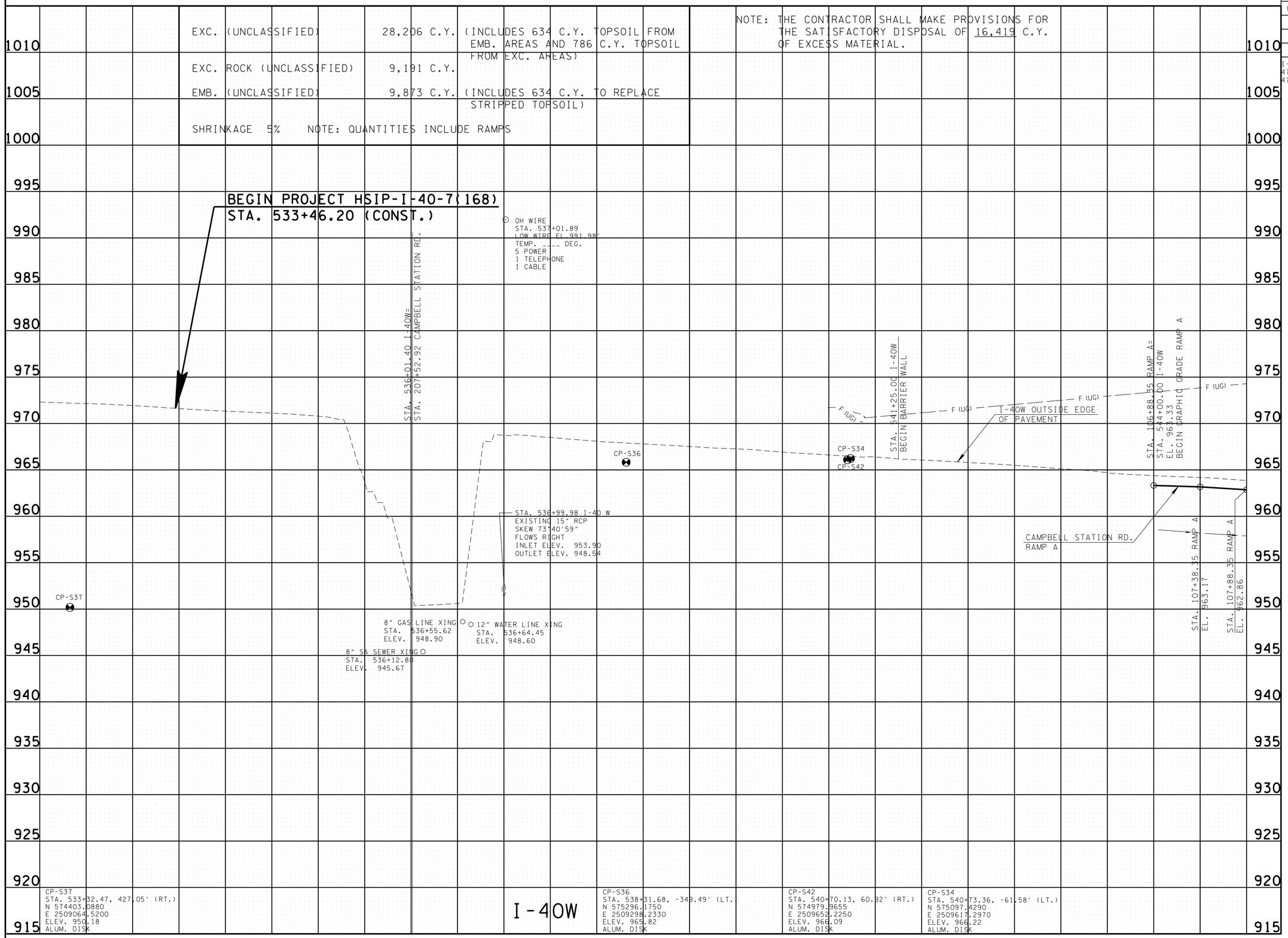
EXC. (UNCLASSIFIED) 28,206 C.Y. (INCLUDES 634 C.Y. TOPSOIL FROM EMB. AREAS AND 786 C.Y. TOPSOIL FROM EXC. AREAS)

EXC. ROCK (UNCLASSIFIED) 9,191 C.Y.

EMB. (UNCLASSIFIED) 9,873 C.Y. (INCLUDES 634 C.Y. TO REPLACE STRIPPED TOPSOIL)

SHRINKAGE 5% NOTE: QUANTITIES INCLUDE RAMPS

NOTE: THE CONTRACTOR SHALL MAKE PROVISIONS FOR THE SATISFACTORY DISPOSAL OF 16,419 C.Y. OF EXCESS MATERIAL.



SEE SHEET 4C FOR PROFILE OF RAMP A

SEE SHEET 4D FOR PROFILE OF RAMP B

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA.533+46.20 TO STA.545+00.00

SCALE: 1"=50' HORIZ.
1"=5' VERT.

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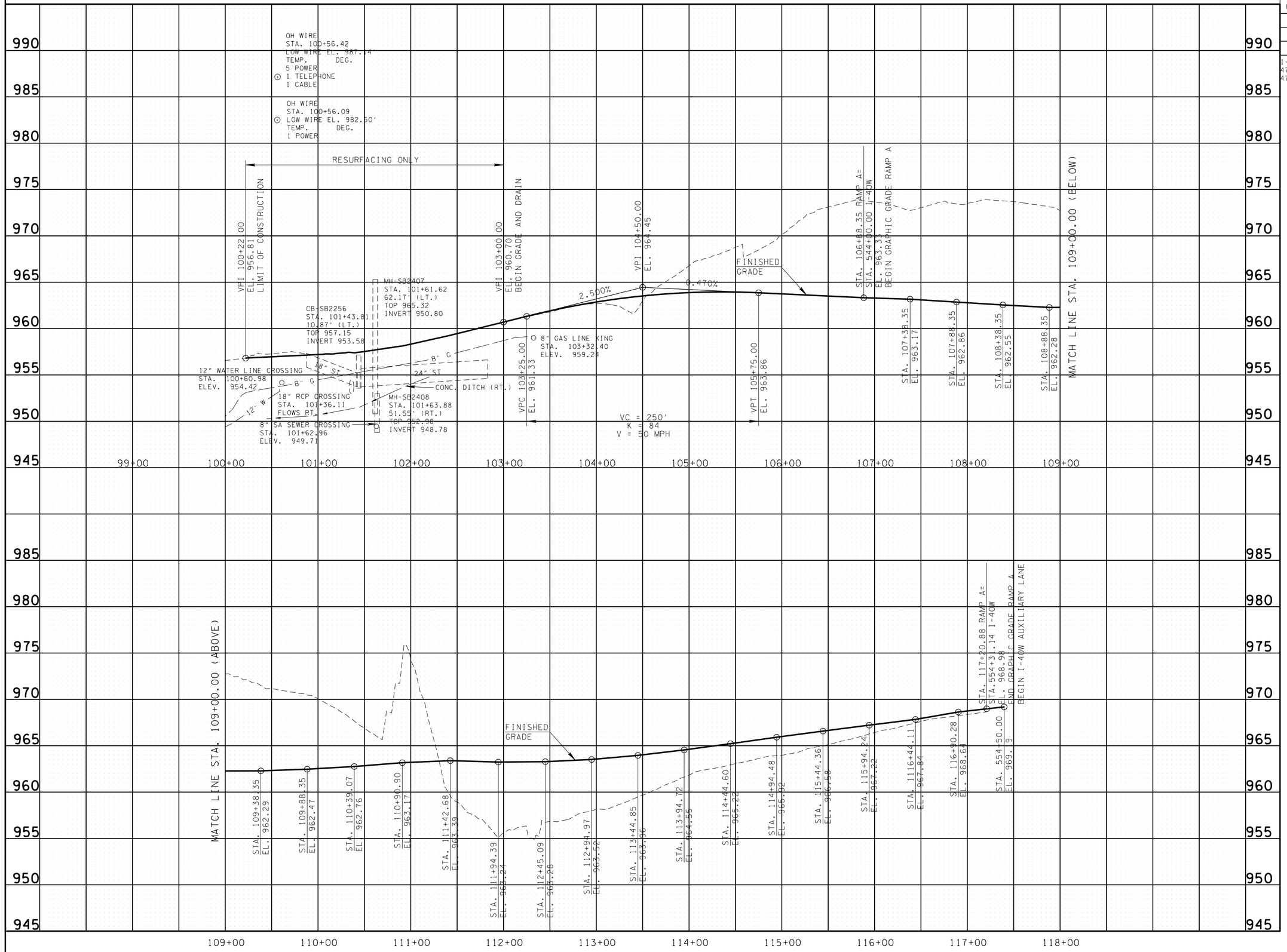
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	4C
CONST.	2014	HSIP-I-40-7(168)	4C

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)



UNOFFICIAL SET

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DEPARTMENT OF TRANSPORTATION

PROFILE OF RAMP A

SCALE: 1"=50' HORIZ.
1"=5' VERT.

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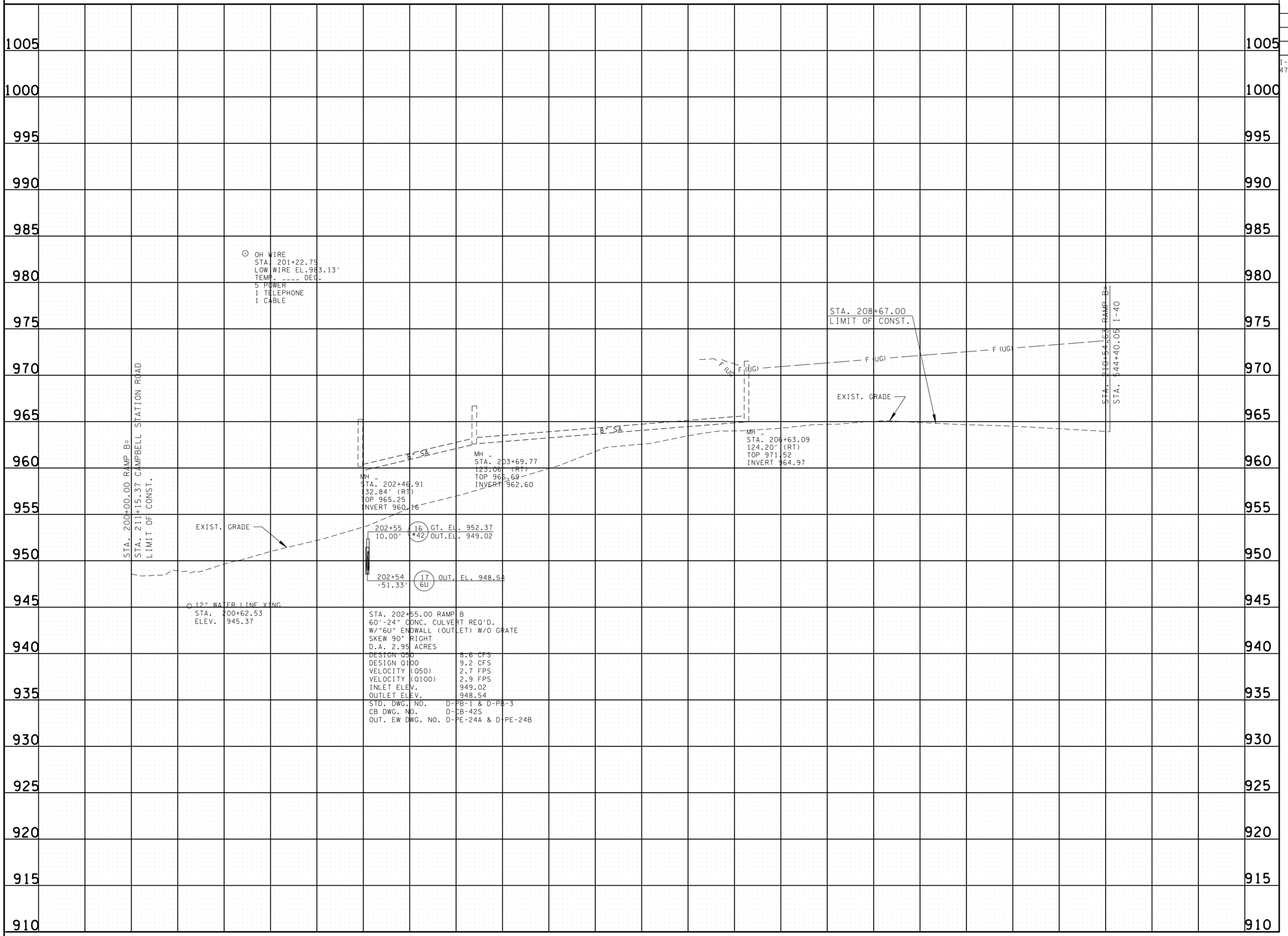
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	4D

I-40W KNOX CO.
47100-3111-94 (CONST.)



FINISHED GRADE TO 1¼" ABOVE EXISTING

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE OF RAMP B

SCALE: 1"=50' HORIZ.
1"=5' VERT.

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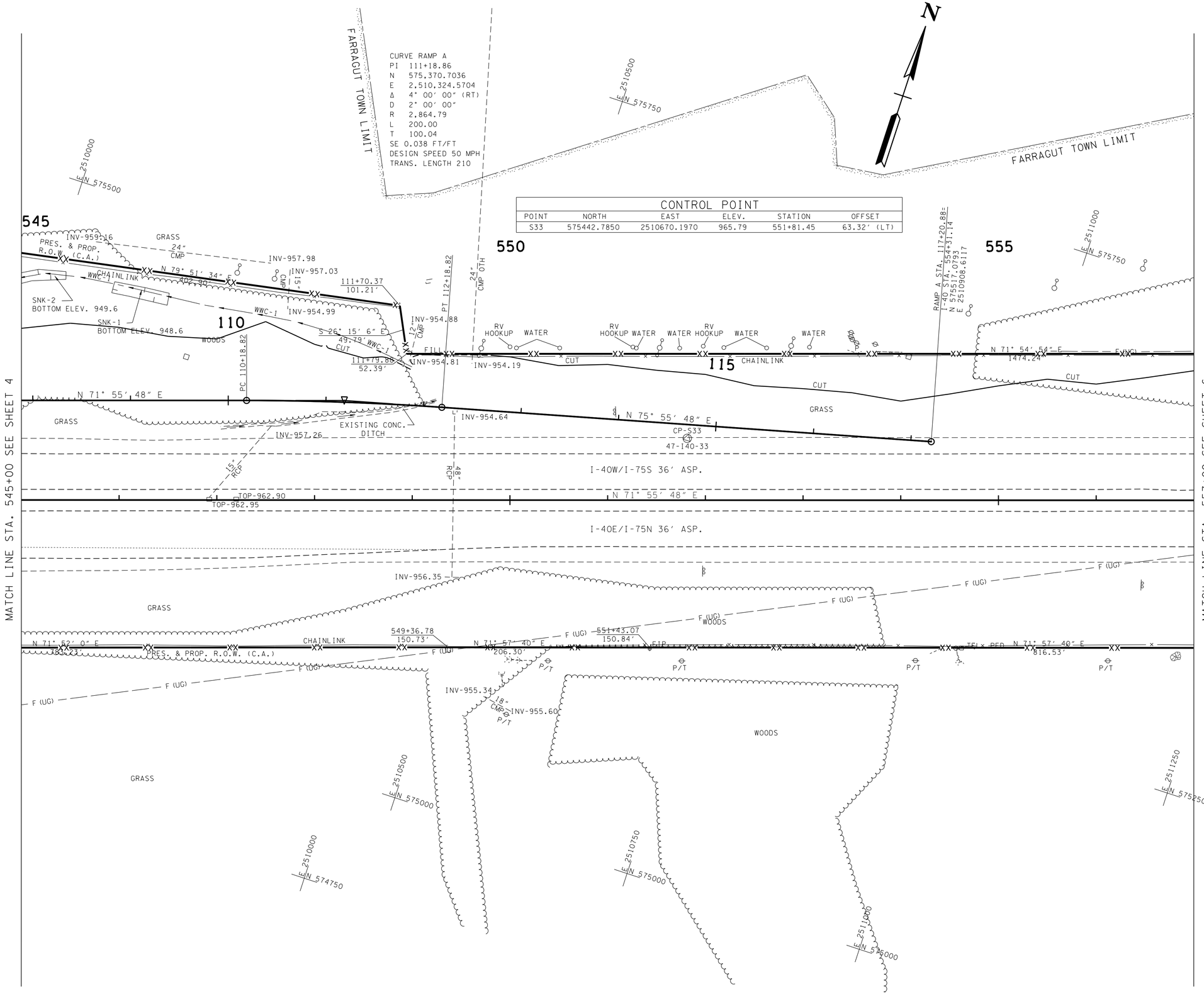
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	5
CONST.	2014	HSIP-I-40-7(168)	5

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA.545+00.00 TO STA.557+00.00

SCALE: 1"=50′

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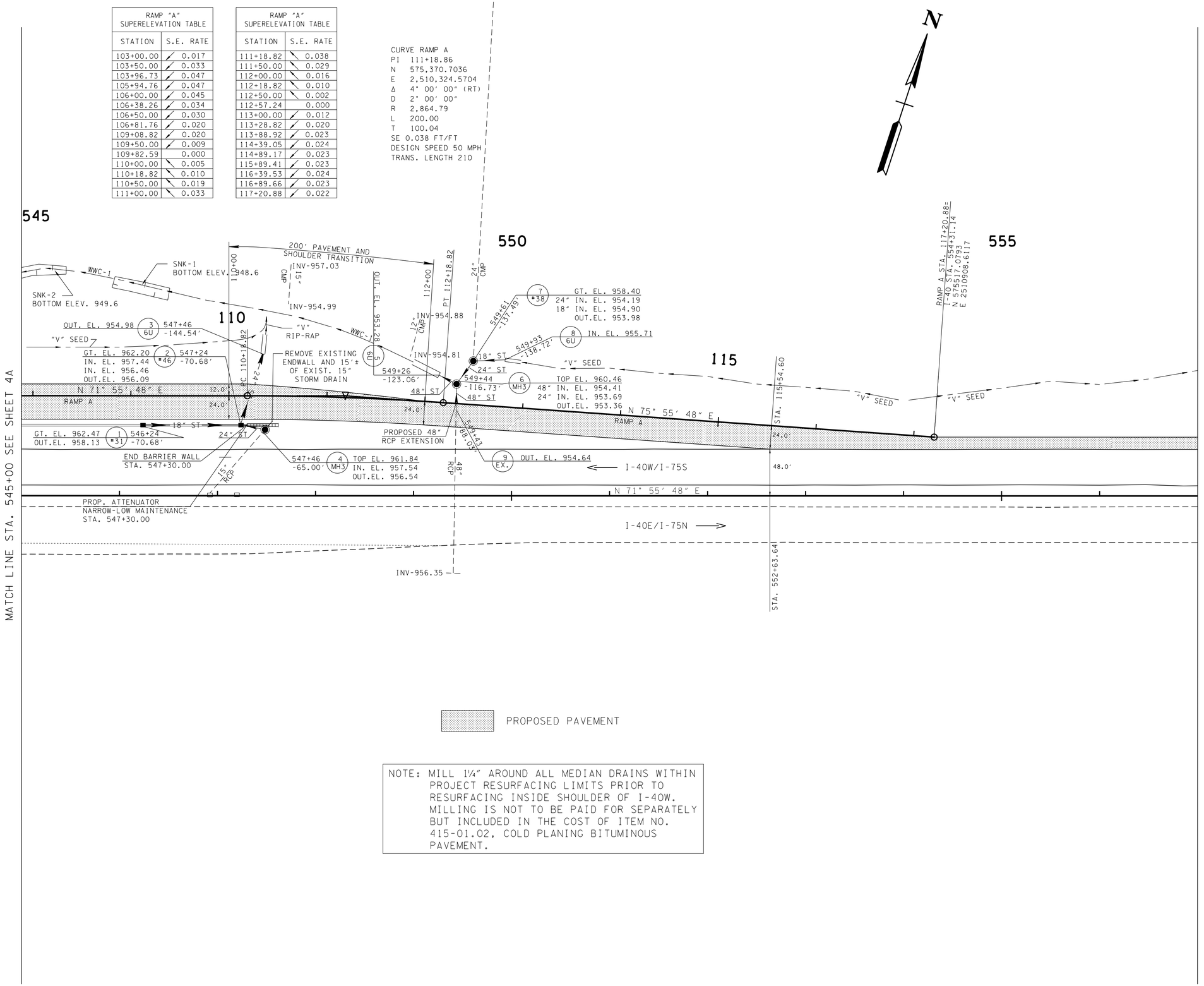
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	5A
CONST.	2014	HSIP-I-40-7(168)	5A

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

RAMP "A" SUPERELEVATION TABLE	
STATION	S.E. RATE
103+00.00	0.017
103+50.00	0.033
103+96.73	0.047
105+94.76	0.047
106+00.00	0.045
106+38.26	0.034
106+50.00	0.030
106+81.76	0.020
109+08.82	0.020
109+50.00	0.009
109+82.59	0.000
110+00.00	0.005
110+18.82	0.010
110+50.00	0.019
111+00.00	0.033

RAMP "A" SUPERELEVATION TABLE	
STATION	S.E. RATE
111+18.82	0.038
111+50.00	0.029
112+00.00	0.016
112+18.82	0.010
112+50.00	0.002
112+57.24	0.000
113+00.00	0.012
113+28.82	0.020
113+88.92	0.023
114+39.05	0.024
114+89.17	0.023
115+89.41	0.023
116+39.53	0.024
116+89.66	0.023
117+20.88	0.022

CURVE RAMP A
PI 111+18.86
N 575,370.7036
E 2,510,324.5704
Δ 4° 00′ 00″ (RT)
D 2° 00′ 00″
R 2,864.79
L 200.00
T 100.04
SE 0.038 FT/FT
DESIGN SPEED 50 MPH
TRANS. LENGTH 210



PROPOSED PAVEMENT

NOTE: MILL 1¼″ AROUND ALL MEDIAN DRAINS WITHIN PROJECT RESURFACING LIMITS PRIOR TO RESURFACING INSIDE SHOULDER OF I-40W. MILLING IS NOT TO BE PAID FOR SEPARATELY BUT INCLUDED IN THE COST OF ITEM NO. 415-01.02, COLD PLANING BITUMINOUS PAVEMENT.

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA.545+00.00 TO STA.557+00.00

SCALE: 1"=50′

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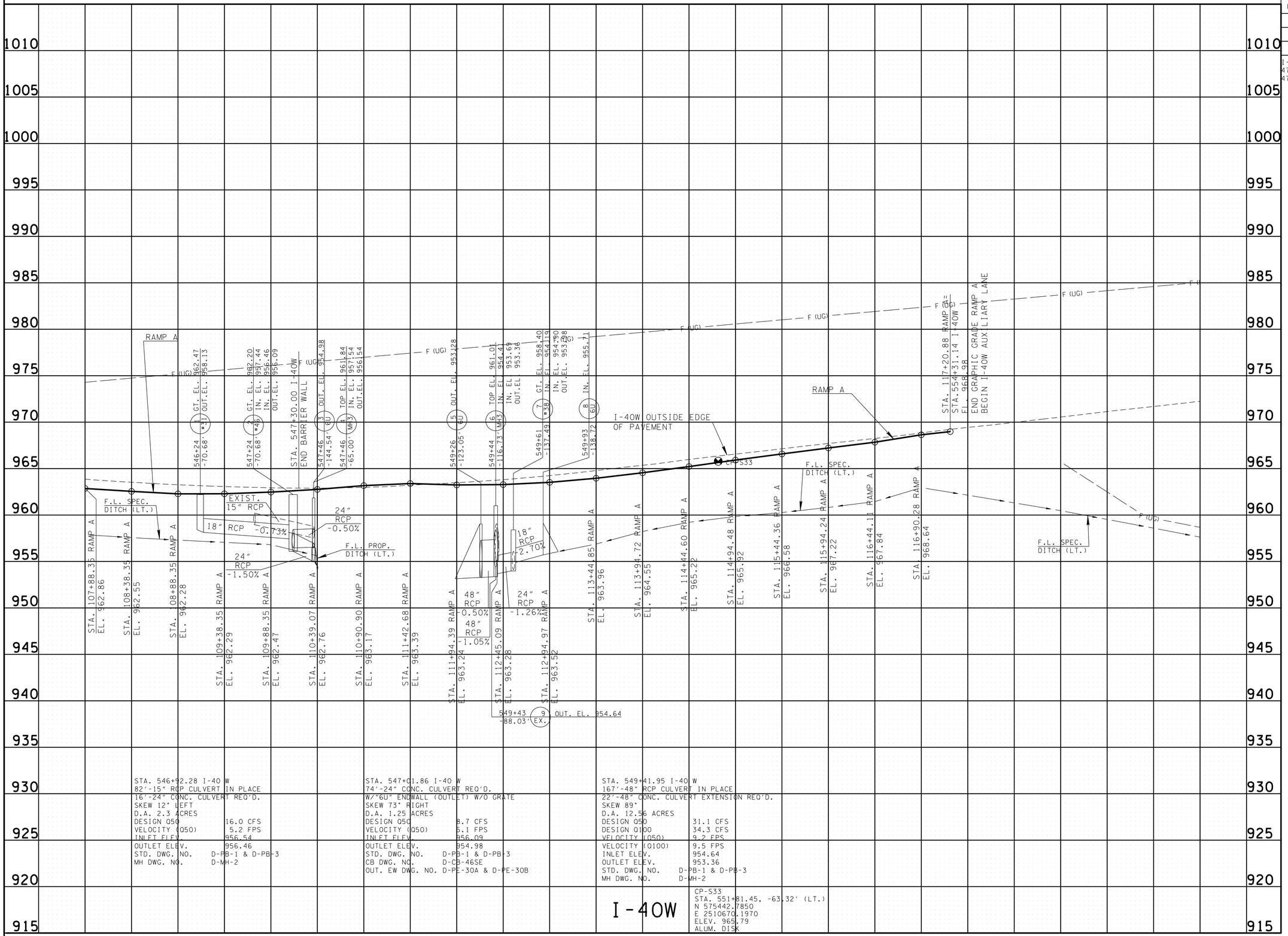
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	5B
CONST.	2014	HSIP-I-40-7(168)	5B

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA.545+00.00 TO STA.557+00.00

SCALE: 1"=50' HORIZ.
1"=5' VERT.

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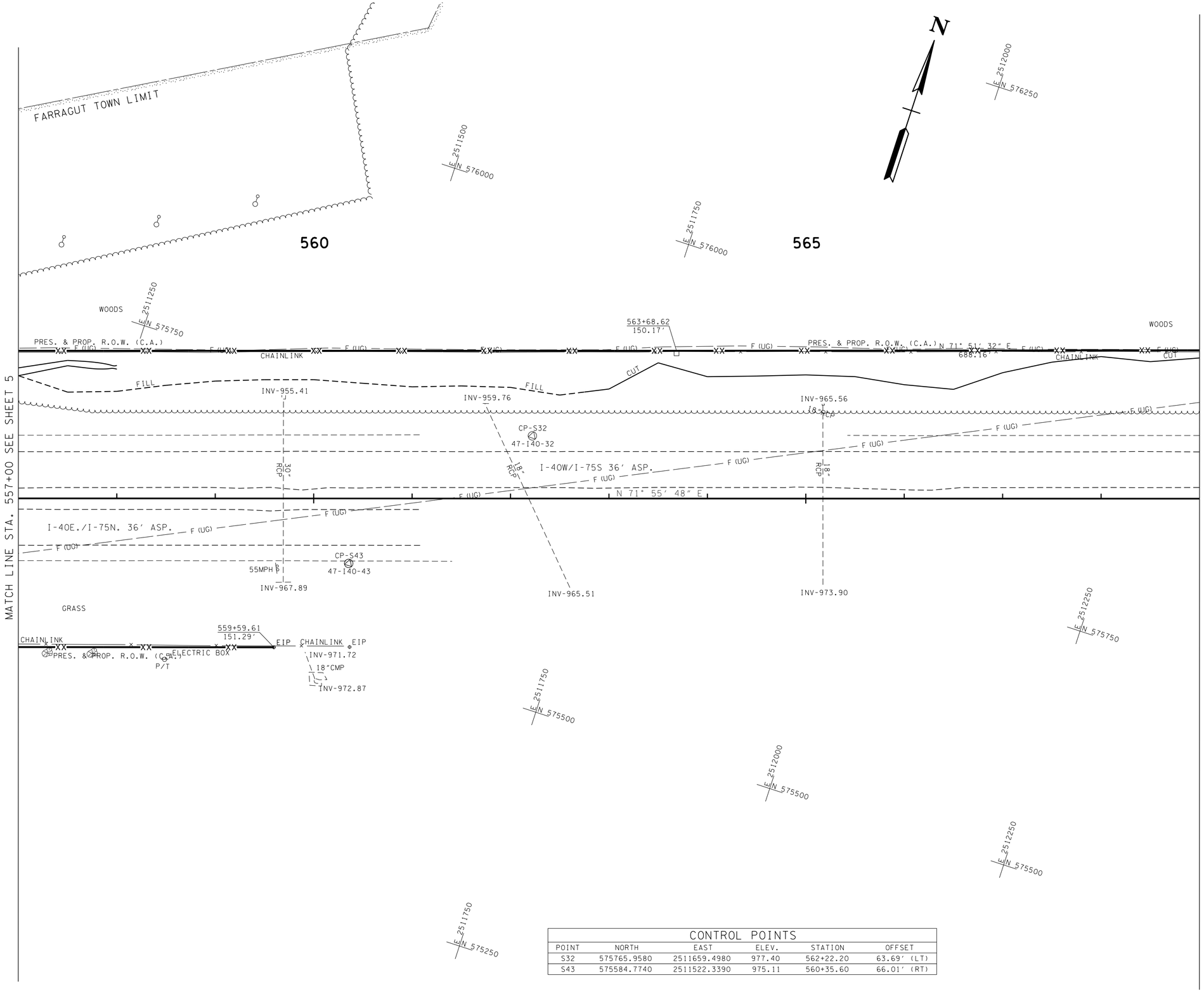
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	6
CONST.	2014	HSIP-I-40-7(168)	6

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



CONTROL POINTS					
POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S32	575765.9580	2511659.4980	977.40	562+22.20	63.69' (LT)
S43	575584.7740	2511522.3390	975.11	560+35.60	66.01' (RT)

UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA.557+00.00 TO STA.569+00.00

SCALE: 1"=50'

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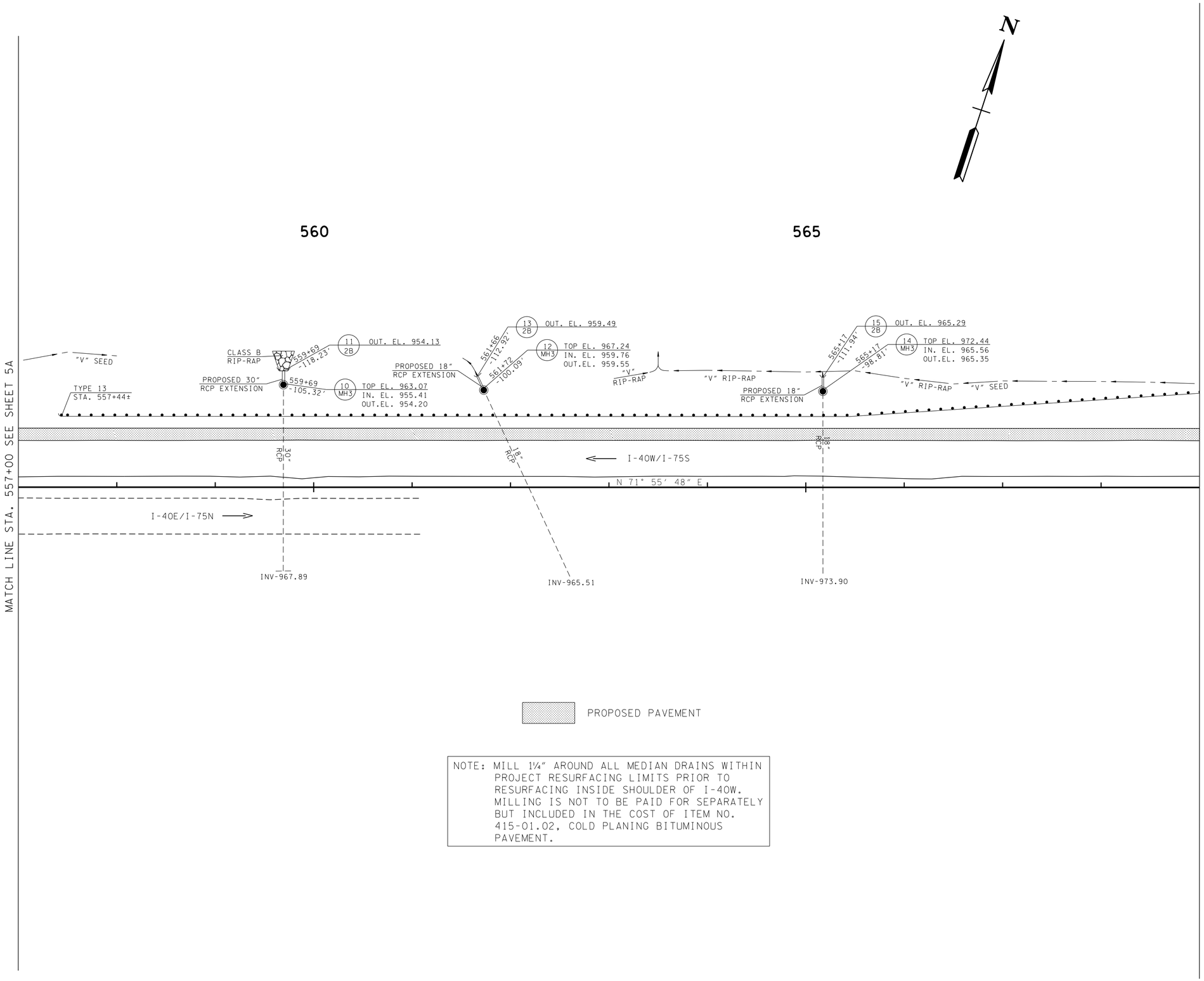
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	6A
CONST.	2014	HSIP-I-40-7(168)	6A

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



PROPOSED PAVEMENT

NOTE: MILL 1¼" AROUND ALL MEDIAN DRAINS WITHIN PROJECT RESURFACING LIMITS PRIOR TO RESURFACING INSIDE SHOULDER OF I-40W. MILLING IS NOT TO BE PAID FOR SEPARATELY BUT INCLUDED IN THE COST OF ITEM NO. 415-01.02, COLD PLANING BITUMINOUS PAVEMENT.

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA.557+00.00 TO STA.569+00.00

SCALE: 1"=50'

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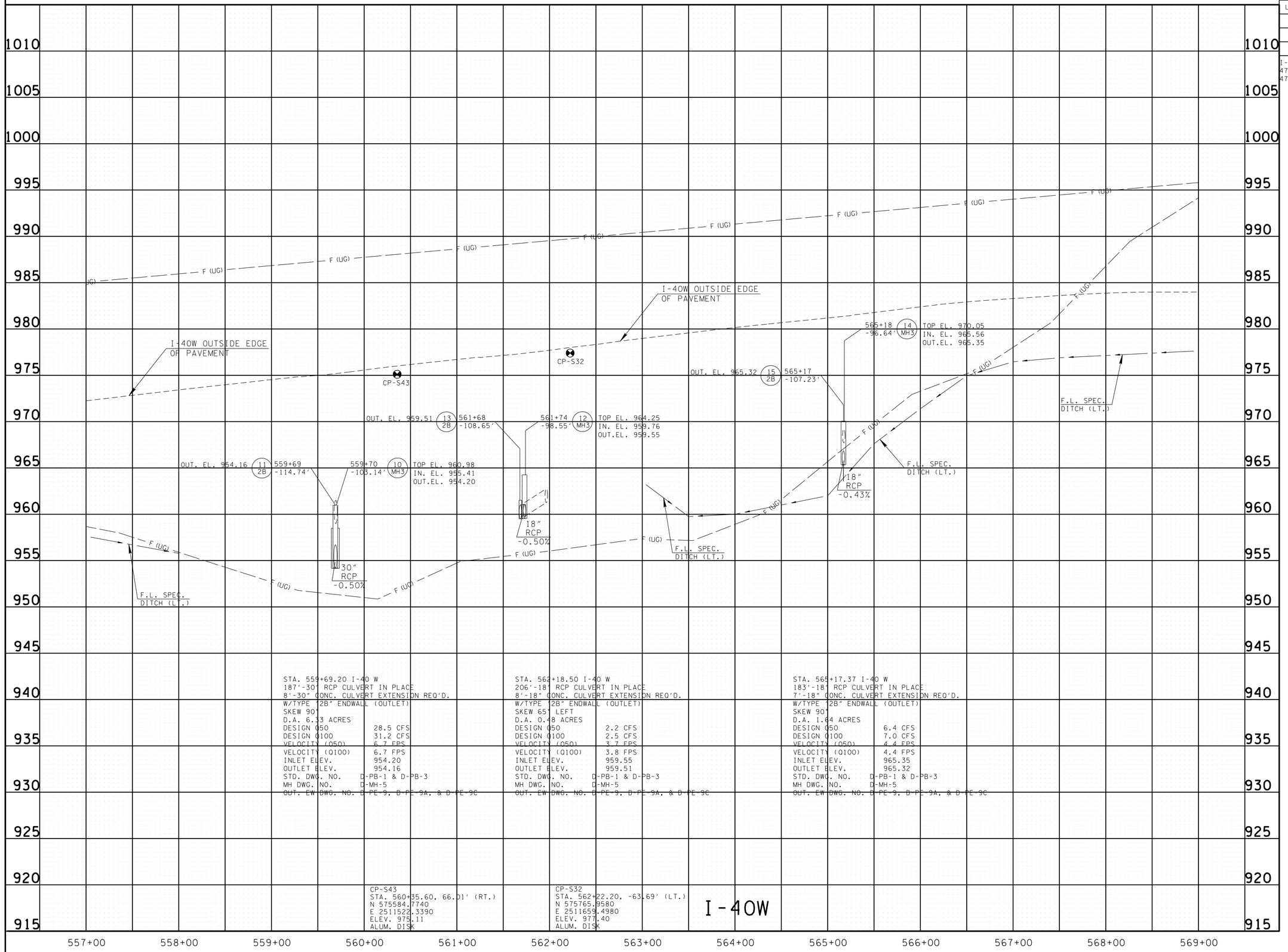
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	6B
CONST.	2014	HSIP-I-40-7(168)	6B

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA.557+00.00 TO STA.569+00.00

SCALE: 1"=50' HORIZ.
1"=5' VERT.

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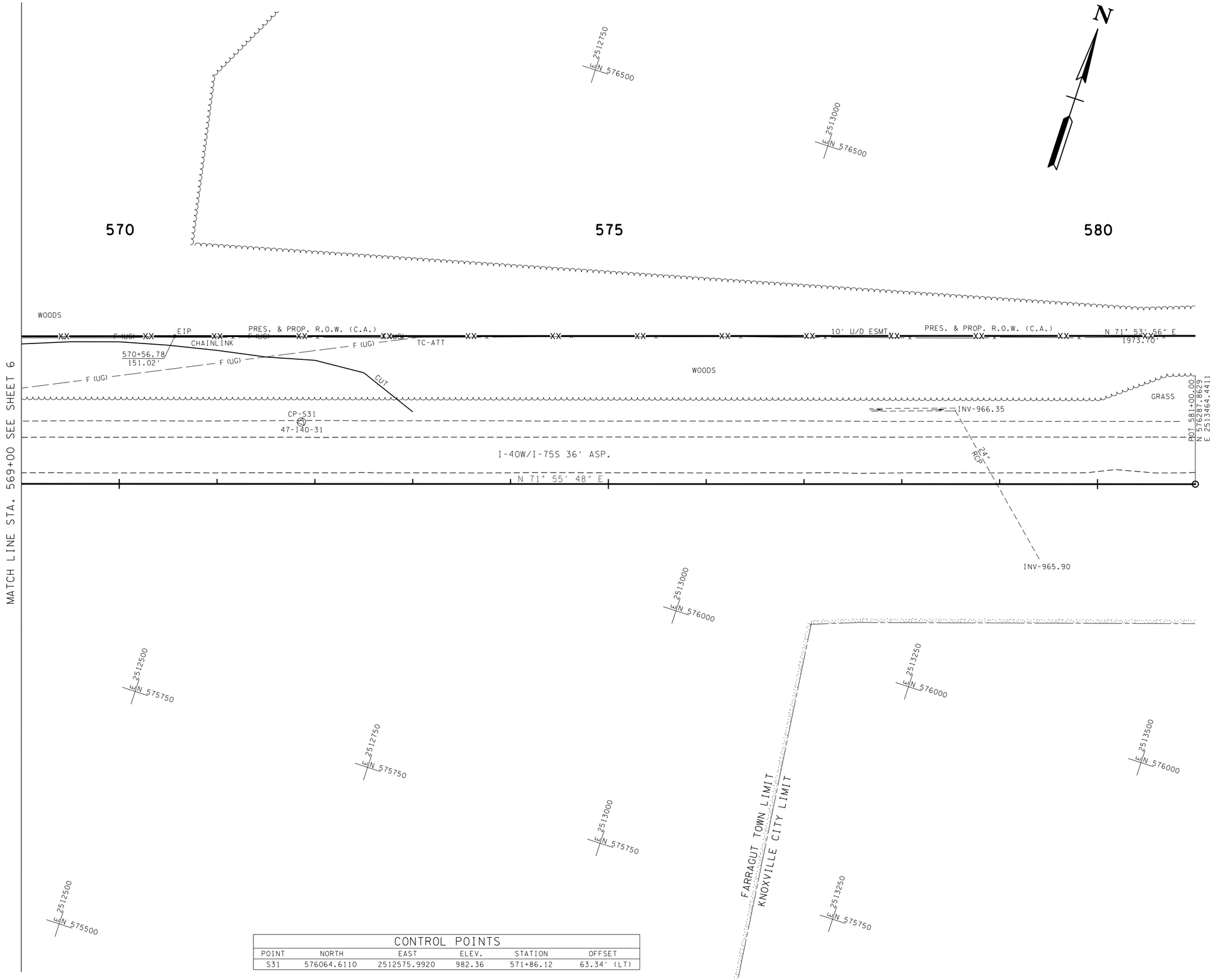
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	7
CONST.	2014	HSIP-I-40-7(168)	7

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



CONTROL POINTS

POINT	NORTH	EAST	ELEV.	STATION	OFFSET
S31	576064.6110	2512575.9920	982.36	571+86.12	63.34' (LT)

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

STA.569+00.00 TO STA.581+00.00

SCALE: 1"=50'

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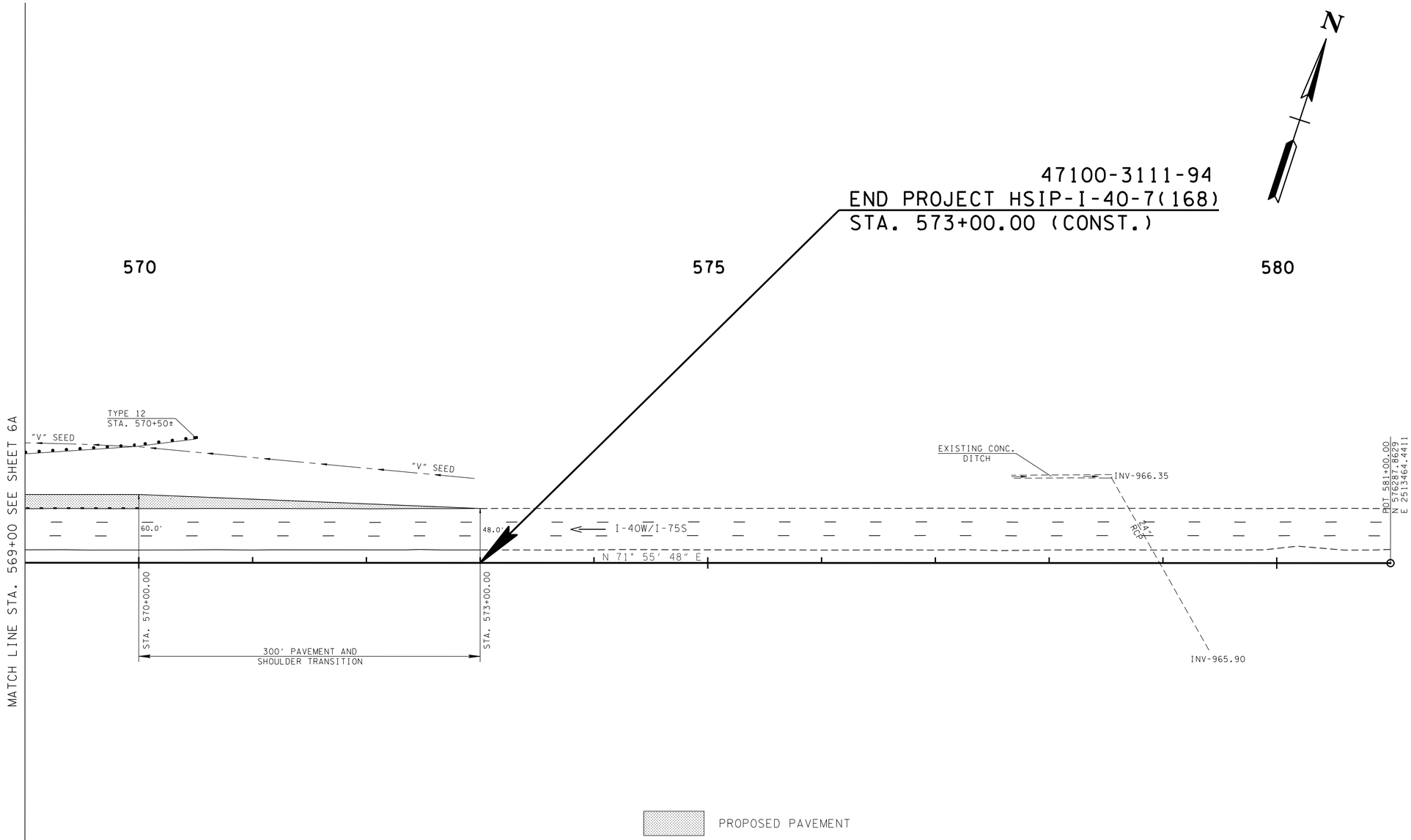
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	7A
CONST.	2014	HSIP-I-40-7(168)	7A

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)



NOTE: MILL 1¼" AROUND ALL MEDIAN DRAINS WITHIN PROJECT RESURFACING LIMITS PRIOR TO RESURFACING INSIDE SHOULDER OF I-40W. MILLING IS NOT TO BE PAID FOR SEPARATELY BUT INCLUDED IN THE COST OF ITEM NO. 415-01.02, COLD PLANING BITUMINOUS PAVEMENT.

UNOFFICIAL SET

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SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED LAYOUT

STA.569+00.00 TO STA.573+00.00

SCALE: 1"=50'

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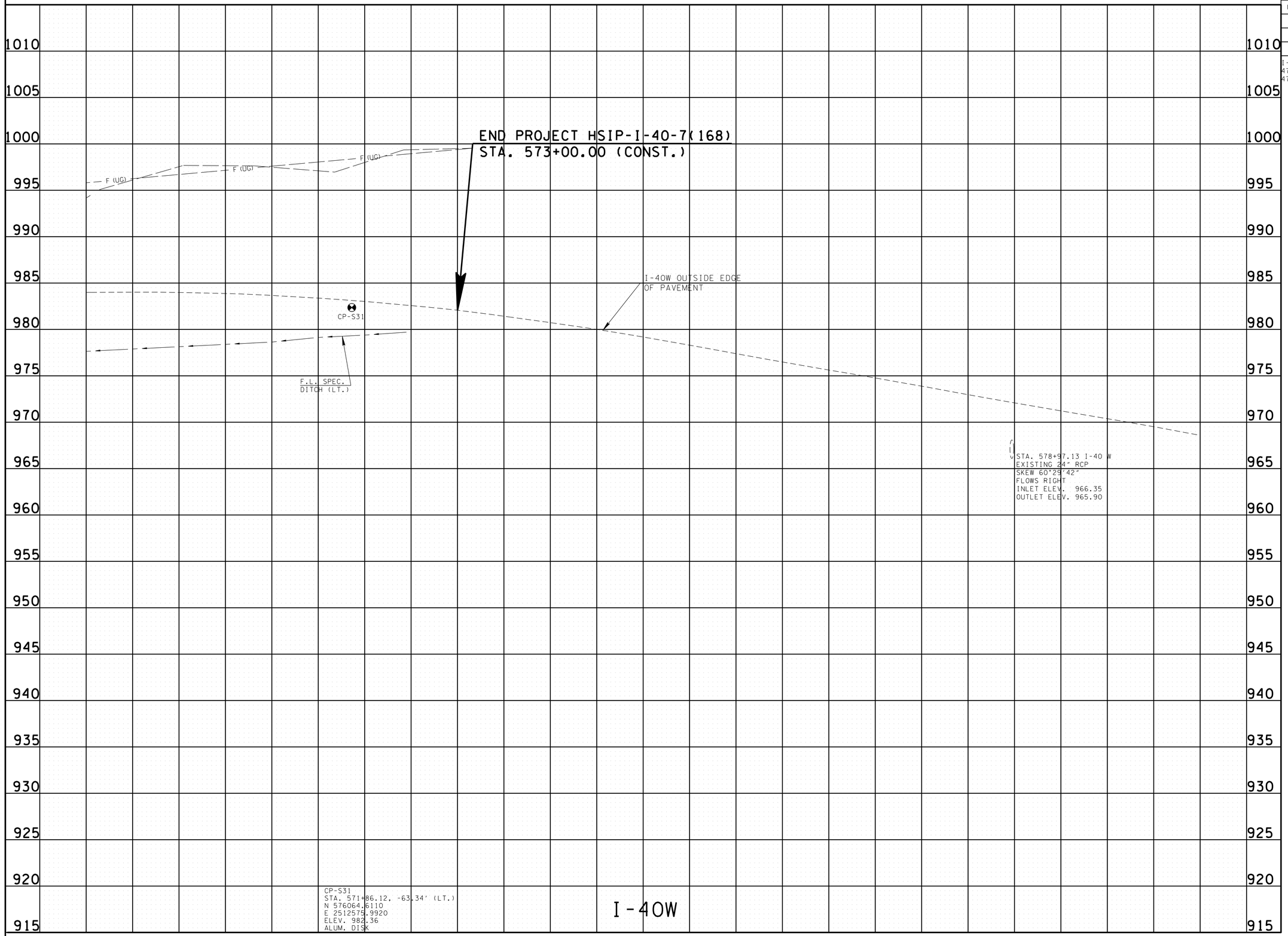
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	7B
CONST.	2014	HSIP-I-40-7(168)	7B

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

STA.569+00.00 TO STA.573+00.00

SCALE: 1"=50' HORIZ.
1"=5' VERT.

26-JUN-2014 06:49
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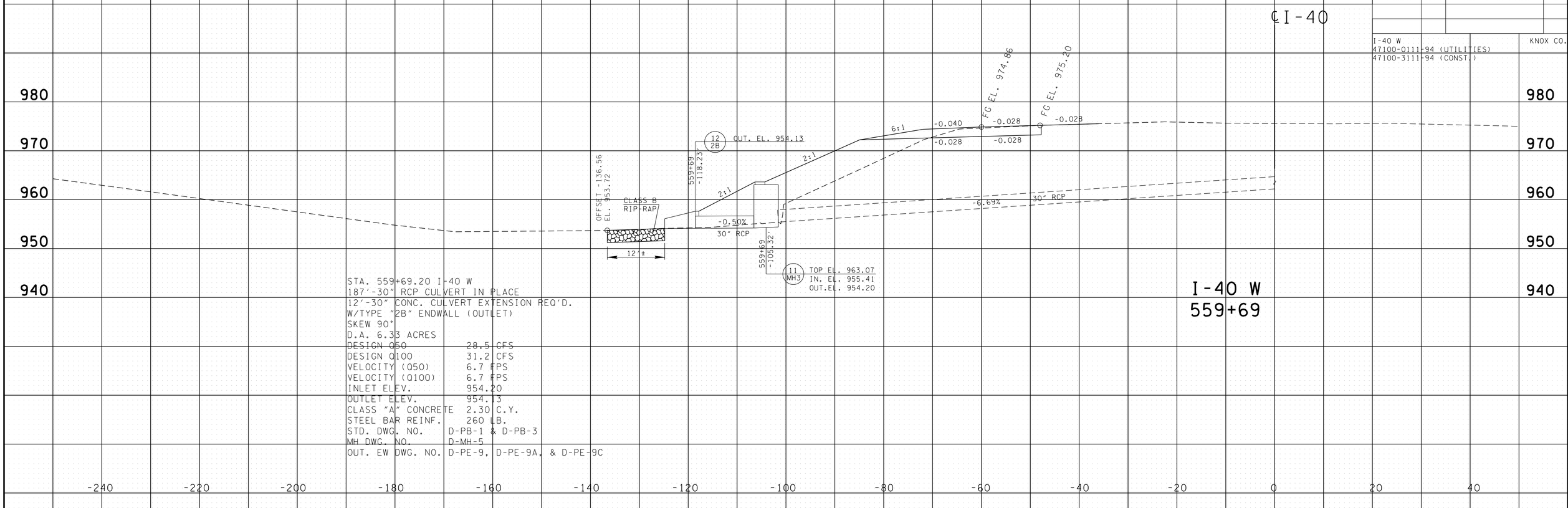
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	8
CONST.	2014	HSIP-I-40-7(168)	8

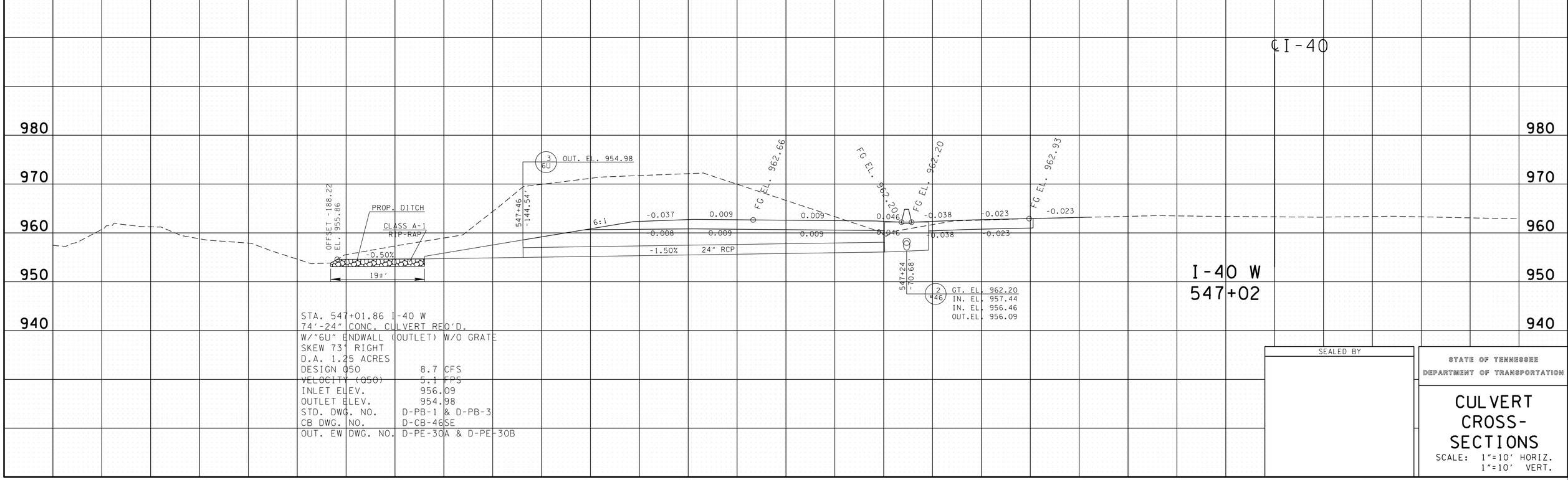
I-40 W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



STA. 559+69.20 I-40 W
187'-30" RCP CULVERT IN PLACE
12'-30" CONC. CULVERT EXTENSION REQ'D.
W/TYPE "2B" ENDWALL (OUTLET)
SKEW 90°
D.A. 6.33 ACRES

DESIGN Q50	28.5 CFS
DESIGN Q100	31.2 CFS
VELOCITY (Q50)	6.7 FPS
VELOCITY (Q100)	6.7 FPS
INLET ELEV.	954.20
OUTLET ELEV.	954.13
CLASS "A" CONCRETE	2.30 C.Y.
STEEL BAR REINF.	260 LB.
STD. DWG. NO.	D-PB-1 & D-PB-3
MH DWG. NO.	D-MH-5
OUT. EW DWG. NO.	D-PE-9, D-PE-9A, & D-PE-9C



STA. 547+01.86 I-40 W
74'-24" CONC. CULVERT REQ'D.
W/"6U" ENDWALL (OUTLET) W/O GRATE
SKEW 73° RIGHT
D.A. 1.25 ACRES

DESIGN Q50	8.7 CFS
VELOCITY (Q50)	5.1 FPS
INLET ELEV.	956.09
OUTLET ELEV.	954.98
STD. DWG. NO.	D-PB-1 & D-PB-3
CB DWG. NO.	D-CB-46SE
OUT. EW DWG. NO.	D-PE-30A & D-PE-30B

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DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

SCALE: 1"=10' HORIZ.
1"=10' VERT.

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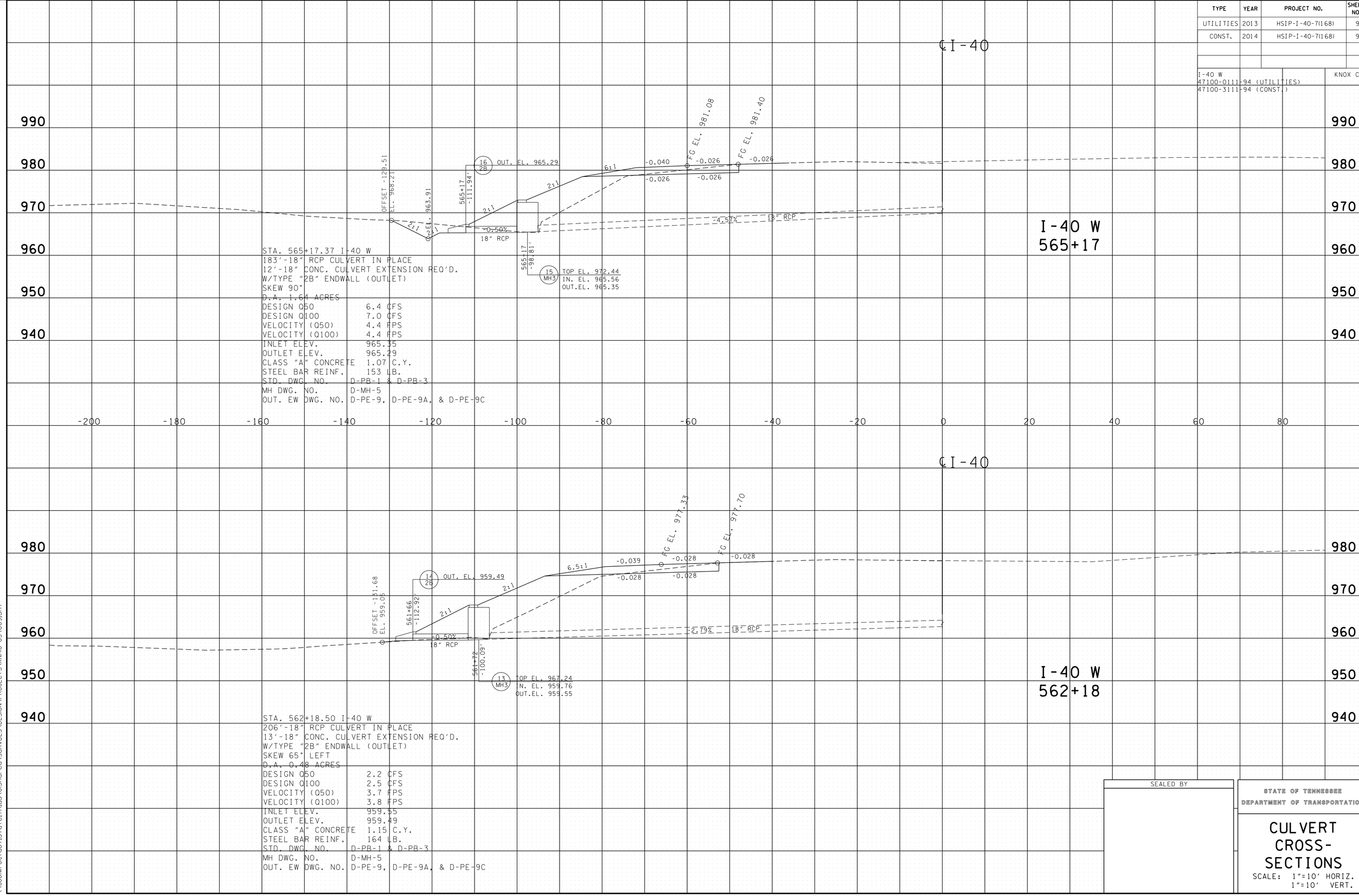
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	9
CONST.	2014	HSIP-I-40-7(168)	9

I-40 W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



STA. 565+17.37 I-40 W
183'-18" RCP CULVERT IN PLACE
12'-18" CONC. CULVERT EXTENSION REQ'D.
W/TYPE "2B" ENDWALL (OUTLET)
SKEW 90°
D.A. 1.64 ACRES

DESIGN Q50	6.4 CFS
DESIGN Q100	7.0 CFS
VELOCITY (Q50)	4.4 FPS
VELOCITY (Q100)	4.4 FPS
INLET ELEV.	965.35
OUTLET ELEV.	965.29
CLASS "A" CONCRETE	1.07 C.Y.
STEEL BAR REINF.	153 LB.
STD. DWG. NO.	D-PB-1 & D-PB-3
MH DWG. NO.	D-MH-5
OUT. EW DWG. NO.	D-PE-9, D-PE-9A, & D-PE-9C

STA. 562+18.50 I-40 W
206'-18" RCP CULVERT IN PLACE
13'-18" CONC. CULVERT EXTENSION REQ'D.
W/TYPE "2B" ENDWALL (OUTLET)
SKEW 65° LEFT
D.A. 0.48 ACRES

DESIGN Q50	2.2 CFS
DESIGN Q100	2.5 CFS
VELOCITY (Q50)	3.7 FPS
VELOCITY (Q100)	3.8 FPS
INLET ELEV.	959.55
OUTLET ELEV.	959.49
CLASS "A" CONCRETE	1.15 C.Y.
STEEL BAR REINF.	164 LB.
STD. DWG. NO.	D-PB-1 & D-PB-3
MH DWG. NO.	D-MH-5
OUT. EW DWG. NO.	D-PE-9, D-PE-9A, & D-PE-9C

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DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

SCALE: 1"=10' HORIZ.
1"=10' VERT.

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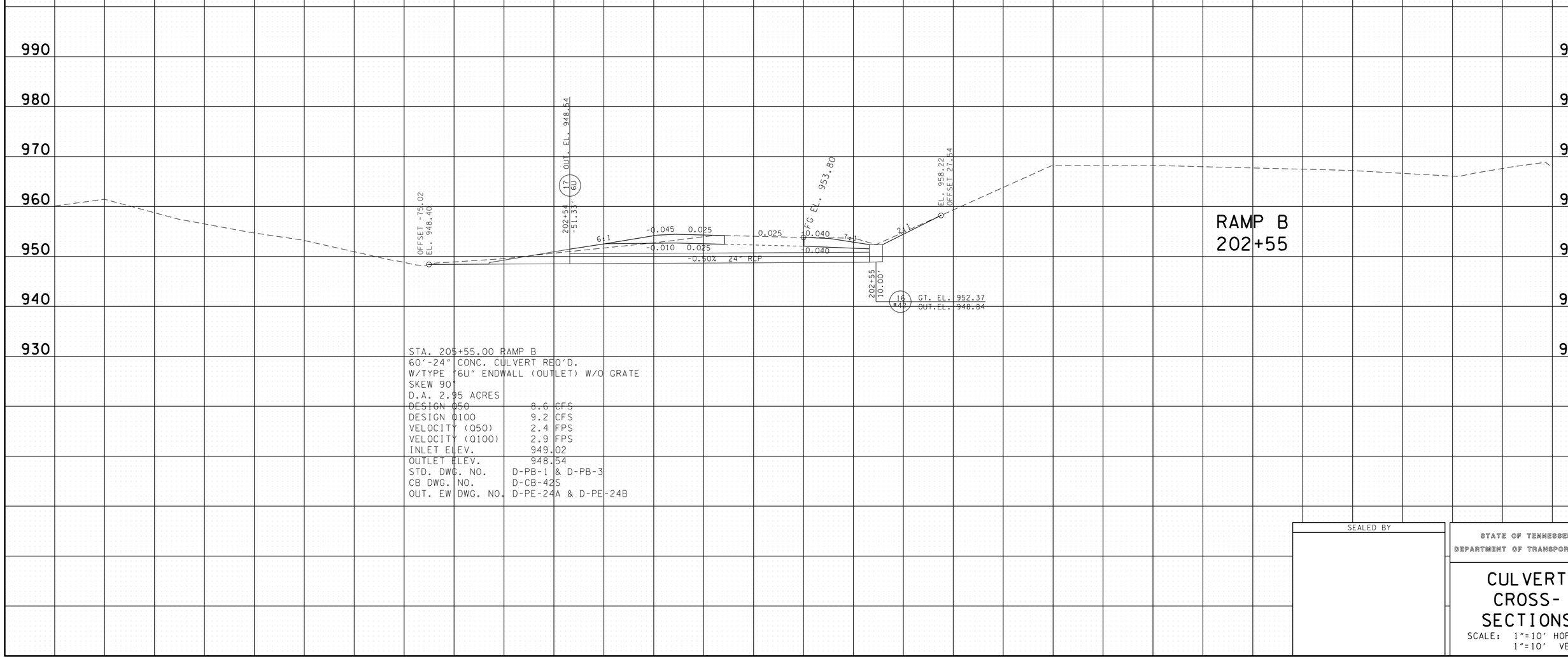
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	10
CONST.	2014	HSIP-I-40-7(168)	10

I-40 W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



STA. 205+55.00 RAMP B
60'-24" CONC. CULVERT REQ'D.
W/TYPE '6U" ENDWALL (OUTLET) W/O GRATE
SKEW 90°
D.A. 2.95 ACRES

DESIGN Q50	8.6 CFS
DESIGN Q100	9.2 CFS
VELOCITY (Q50)	2.4 FPS
VELOCITY (Q100)	2.9 FPS
INLET ELEV.	949.02
OUTLET ELEV.	948.54
STD. DWG. NO.	D-PB-1 & D-PB-3
CB DWG. NO.	D-CB-42S
OUT. EW DWG. NO.	D-PE-24A & D-PE-24B

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DEPARTMENT OF TRANSPORTATION

CULVERT CROSS-SECTIONS

SCALE: 1"=10' HORIZ.
1"=10' VERT.

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TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	11
CONST.	2014	HSIP-I-40-7(168)	11

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

NPDES

(1) NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE STAGING OF THEIR OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES, HAS BEEN ACCEPTED BY THE ENGINEER. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE BASIC EPSC DEVICES ON THE EPSC PLAN CONTAINED IN THE APPROVED SWPPP.

(2) THE EPSC MEASURES AND/OR PLAN SHALL BE MODIFIED AS NECESSARY SO THAT THEY ARE EFFECTIVE AT ALL TIMES THROUGHOUT THE COURSE OF THE PROJECT.

(3) THE ACCEPTED EPSC PLAN SHALL REQUIRE THAT EPSC MEASURES BE IN PLACE BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES, INCLUDING WITHOUT LIMITATION AS FOLLOWS:

A. INITIAL CLEARING AND GRUBBING SHALL BE LIMITED TO THAT NECESSARY FOR THE INSTALLATION OF APPLICABLE EPSC MEASURES IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

B. NO OTHER CLEARING AND GRUBBING OPERATIONS SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

C. NO CULVERT OR BRIDGE CONSTRUCTION SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

D. NO GRADING, EXCAVATION, CUTTING, FILLING, OR OTHER EARTHWORK SHALL BE STARTED BEFORE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

(4) PERMANENT EPSC MEASURES SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OF ANY SEQUENCE OR PHASE. TEMPORARY OR PERMANENT STABILIZATION SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OR WHEN CONSTRUCTION ACTIVITIES ON A PORTION OF THE SITE ARE TEMPORARILY CEASED AND EARTH DISTURBING ACTIVITIES WILL NOT RESUME UNTIL AFTER 14 CALENDAR DAYS. PERMANENT STABILIZATION WITH PERENNIAL VEGETATION OR OTHER PERMANENTLY STABLE NON-ERODING SURFACE SHALL REPLACE ANY TEMPORARY MEASURES AS SOON AS PRACTICABLE. UNPACKED GRAVEL CONTAINING FINES (SILT AND CLAY SIZED PARTICLES) OR CRUSHER-RUN WILL NOT BE CONSIDERED A NON-ERODIBLE SURFACE.

(5) STEEP SLOPES (A NATURAL OR CREATED SLOPE OF 35% GRADE (2.8H:1V) OR GREATER REGARDLESS OF HEIGHT) SHALL BE TEMPORARILY STABILIZED NO LATER THAN 7 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED.

(6) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION SUPPORT ACTIVITIES; TDOT PROJECTS ARE COVERED UNDER THE "WASTE AND BORROW" MANUAL PER THE SSWMP.

(7) EXCEPT AS OTHERWISE SPECIFIED, THERE ARE NO KNOWN SPECIAL ENVIRONMENTAL FACTORS PRESENT ON THIS PROJECT THAT INDICATE A NEED FOR SEASONAL LIMITATIONS ON THE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OPERATIONS OR ON THE TOTAL AREA OF EXPOSED SOIL.

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND

SYMBOL	ITEM	STD. DWG.
SFB SFB SFB SFB	SEDIMENT FILTER BAG (15'X15")	EC-STR-2
* SFB * SFB * SFB *	SILT FENCE WITH WIRE BACKING	EC-STR-3C
	ROCK CHECK DAM (V-DITCH)	EC-STR-6
	ENHANCED ROCK CHECK DAM (V-DITCH)	EC-STR-6A
	ENHANCED ROCK CHECK DAM (CHANNEL)	EC-STR-6A
** SOCK ** SOCK **	FILTER SOCK 12" & 24"	EC-STR-8
	CULVERT PROTECTION (TYPE 1)	EC-STR-11
D	CATCH BASIN PROTECTION (TYPE D-24" FILTER SOCK)	EC-STR-19
TCE	TEMPORARY CONSTRUCTION EXIT	EC-STR-25
	TEMPORARY SLOPE DRAIN (12") WITH TEMPORARY BERM	EC-STR-27
	EROSION CONTROL BLANKET	EC-STR-34
4	CURB INLET PROTECTION (TYPE 4)	EC-STR-39A
* HVF * HVF	HIGH VISIBILITY FENCE	S-F-1

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DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL SPECIAL NOTES AND LEGEND

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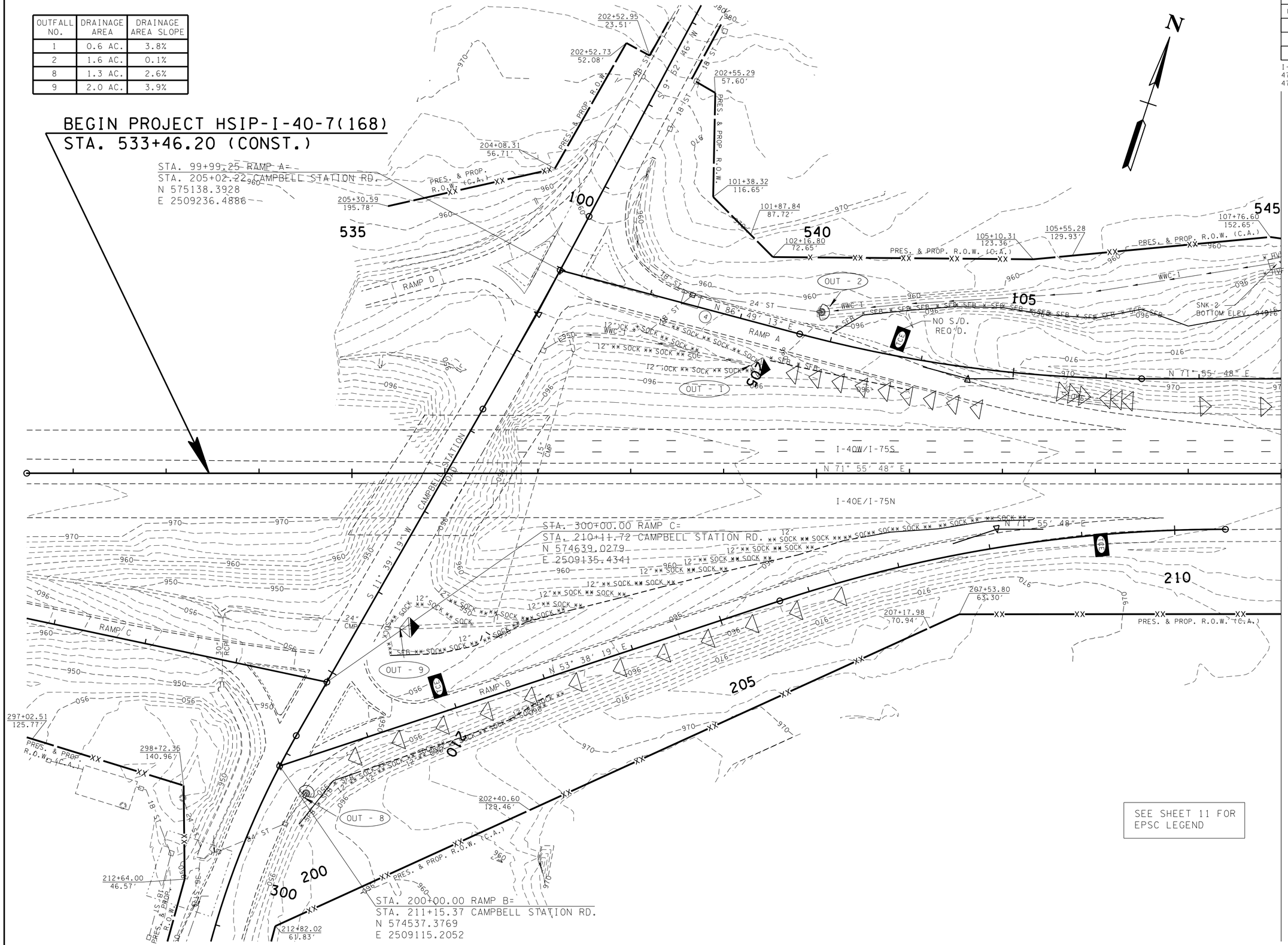
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	12
CONST.	2014	HSIP-I-40-7(168)	12

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

OUTFALL NO.	DRAINAGE AREA	DRAINAGE AREA SLOPE
1	0.6 AC.	3.8%
2	1.6 AC.	0.1%
8	1.3 AC.	2.6%
9	2.0 AC.	3.9%



SEE SHEET 11 FOR EPSC LEGEND

UNOFFICIAL SET

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SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.0000900 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (STAGE 1)

STA.533+46.20 TO STA.545+00.00
SCALE: 1"=50'

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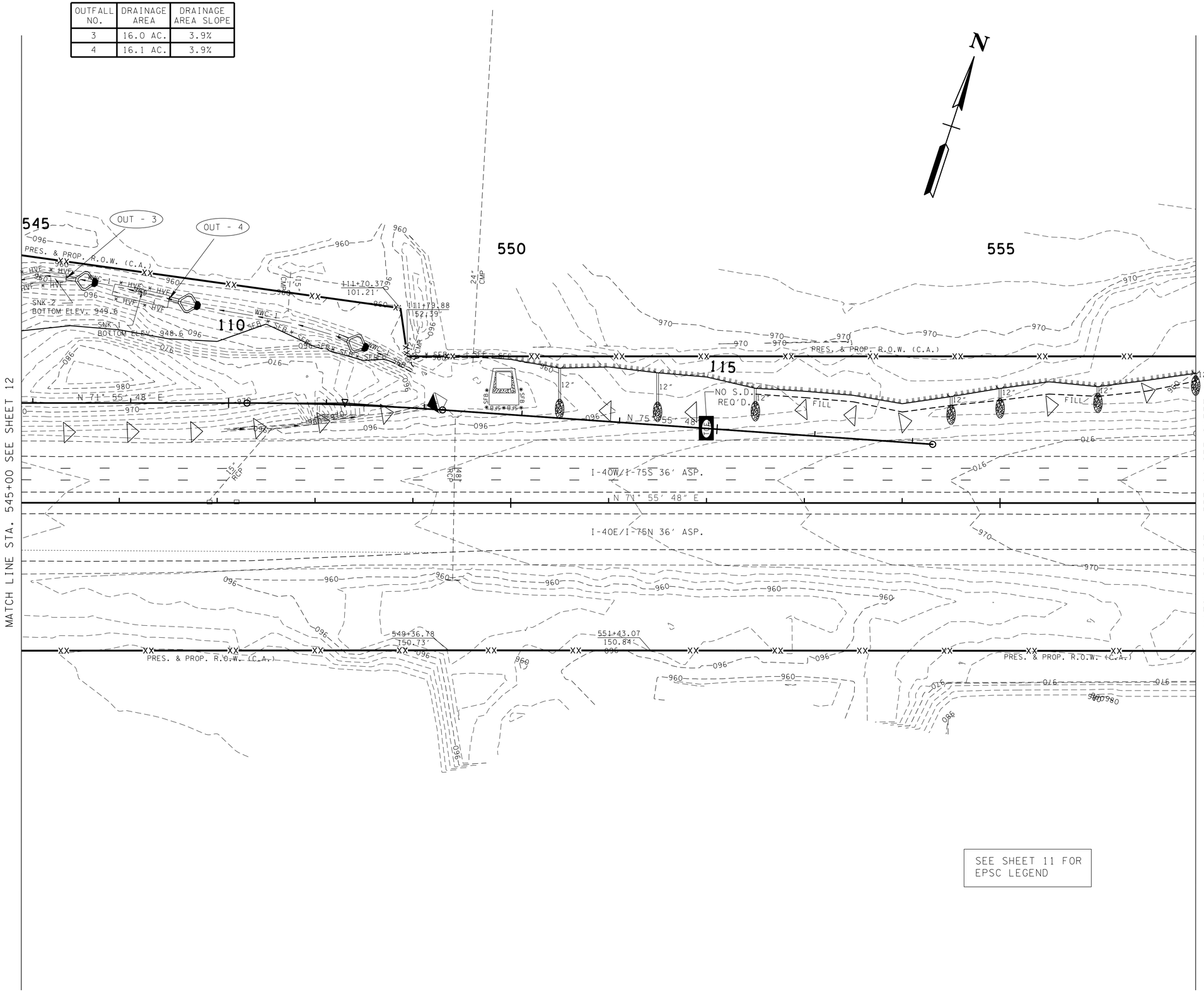
OUTFALL NO.	DRAINAGE AREA	DRAINAGE AREA SLOPE
3	16.0 AC.	3.9%
4	16.1 AC.	3.9%



SEE SHEET 11 FOR EPSC LEGEND

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	13
CONST.	2014	HSIP-I-40-7(168)	13

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (STAGE 1)

STA.545+00.00 TO STA.557+00.00
SCALE: 1"=50'

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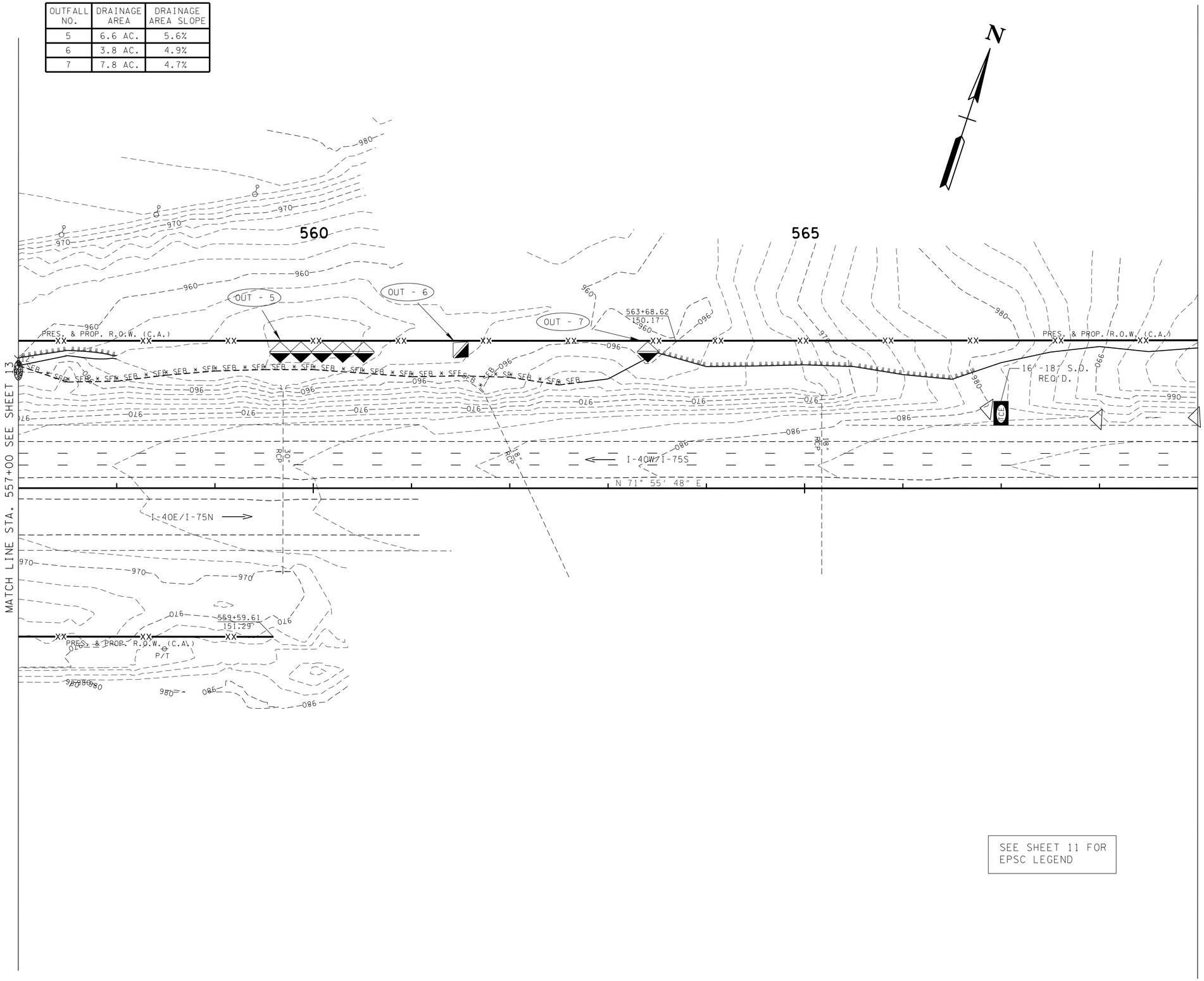
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	14
CONST.	2014	HSIP-I-40-7(168)	14

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

OUTFALL NO.	DRAINAGE AREA	DRAINAGE AREA SLOPE
5	6.6 AC.	5.6%
6	3.8 AC.	4.9%
7	7.8 AC.	4.7%



SEE SHEET 11 FOR EPSC LEGEND

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (STAGE 1)

STA.557+00.00 TO STA.569+00.00
SCALE: 1"=50'

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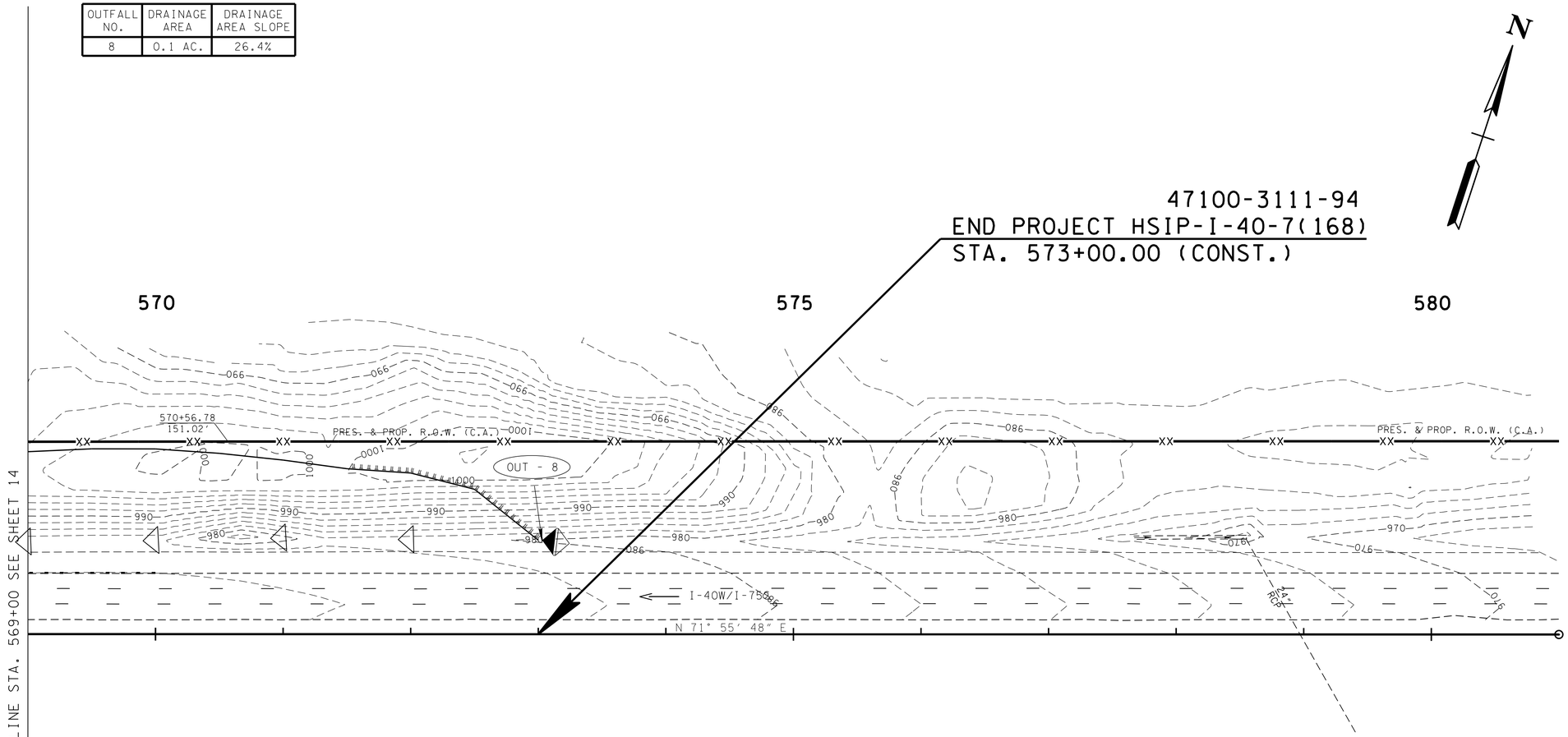
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	15
CONST.	2014	HSIP-I-40-7(168)	15

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

OUTFALL NO.	DRAINAGE AREA	DRAINAGE AREA SLOPE
8	0.1 AC.	26.4%



SEE SHEET 11 FOR EPSC LEGEND

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (STAGE 1)

STA.569+00.00 TO STA.573+00.00

SCALE: 1"=50'

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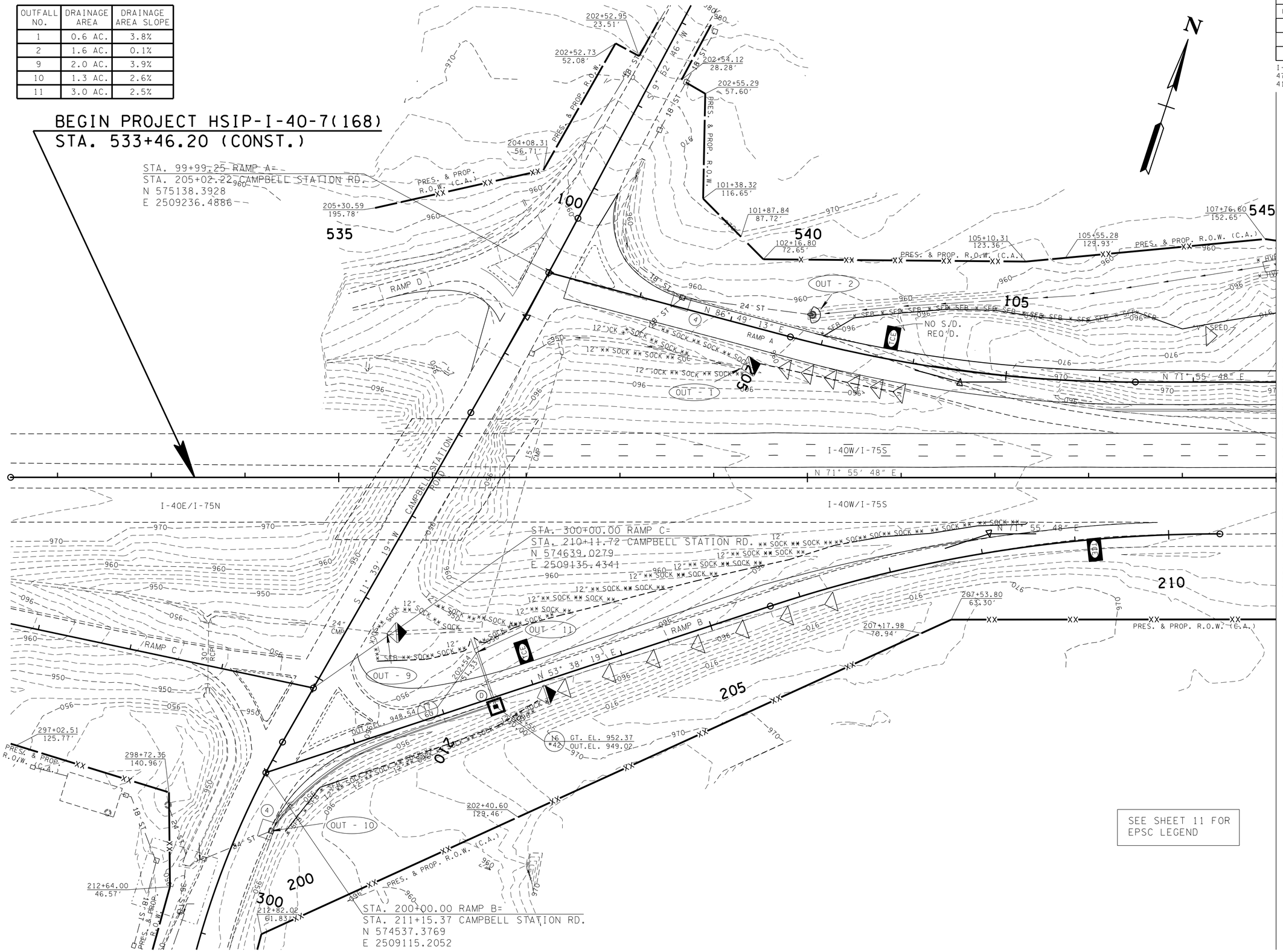
OUTFALL NO.	DRAINAGE AREA	DRAINAGE AREA SLOPE
1	0.6 AC.	3.8%
2	1.6 AC.	0.1%
9	2.0 AC.	3.9%
10	1.3 AC.	2.6%
11	3.0 AC.	2.5%

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	16
CONST.	2014	HSIP-I-40-7(168)	16

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
41700-3111-94 (CONST.)



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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (STAGE 2)

STA.533+46.20 TO STA.545+00.00
SCALE: 1"=50'

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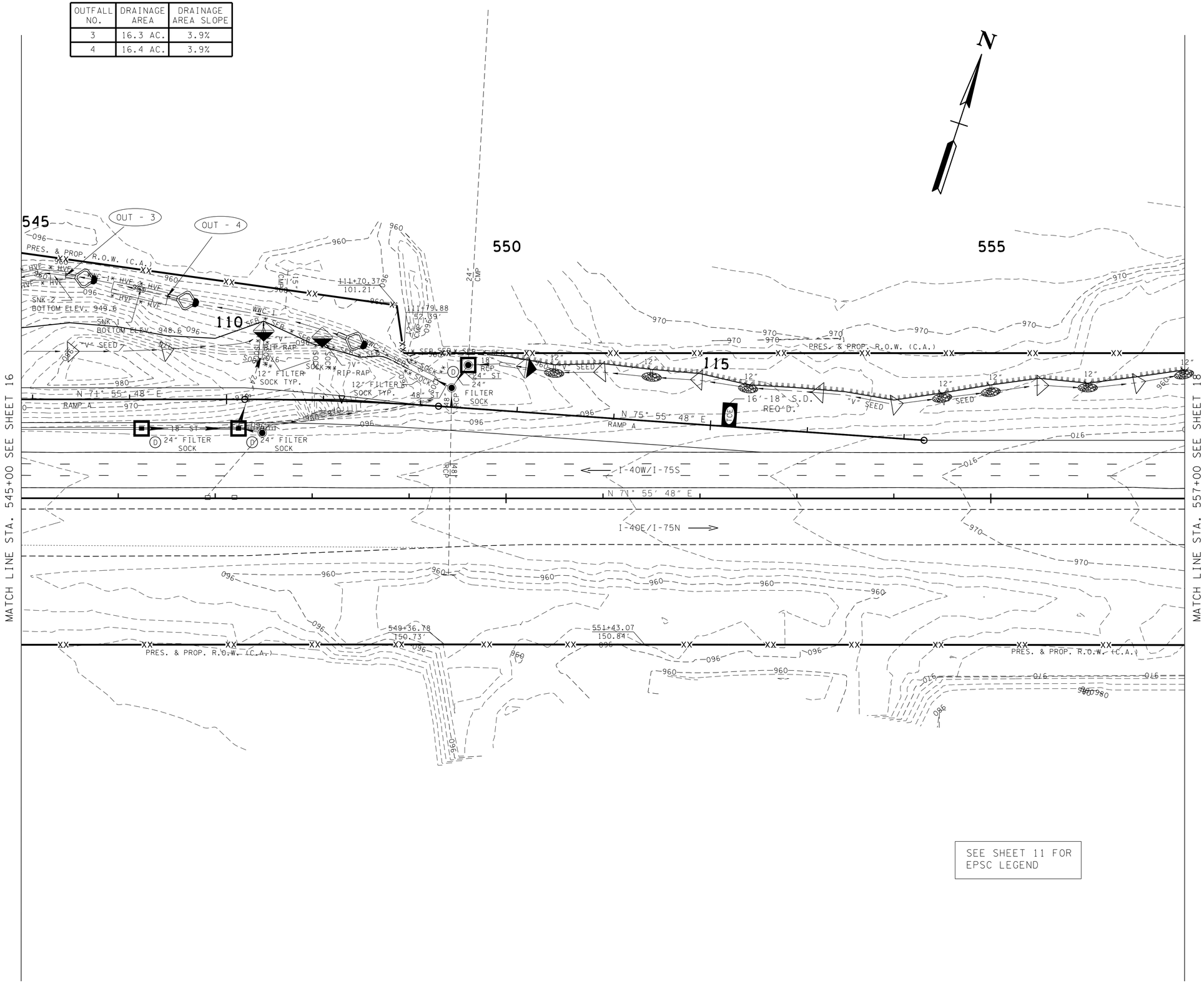
OUTFALL NO.	DRAINAGE AREA	DRAINAGE AREA SLOPE
3	16.3 AC.	3.9%
4	16.4 AC.	3.9%

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	17
CONST.	2014	HSIP-I-40-7(168)	17

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)



SEE SHEET 11 FOR EPSC LEGEND

UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (STAGE 2)

STA.545+00.00 TO STA.557+00.00
SCALE: 1"=50'

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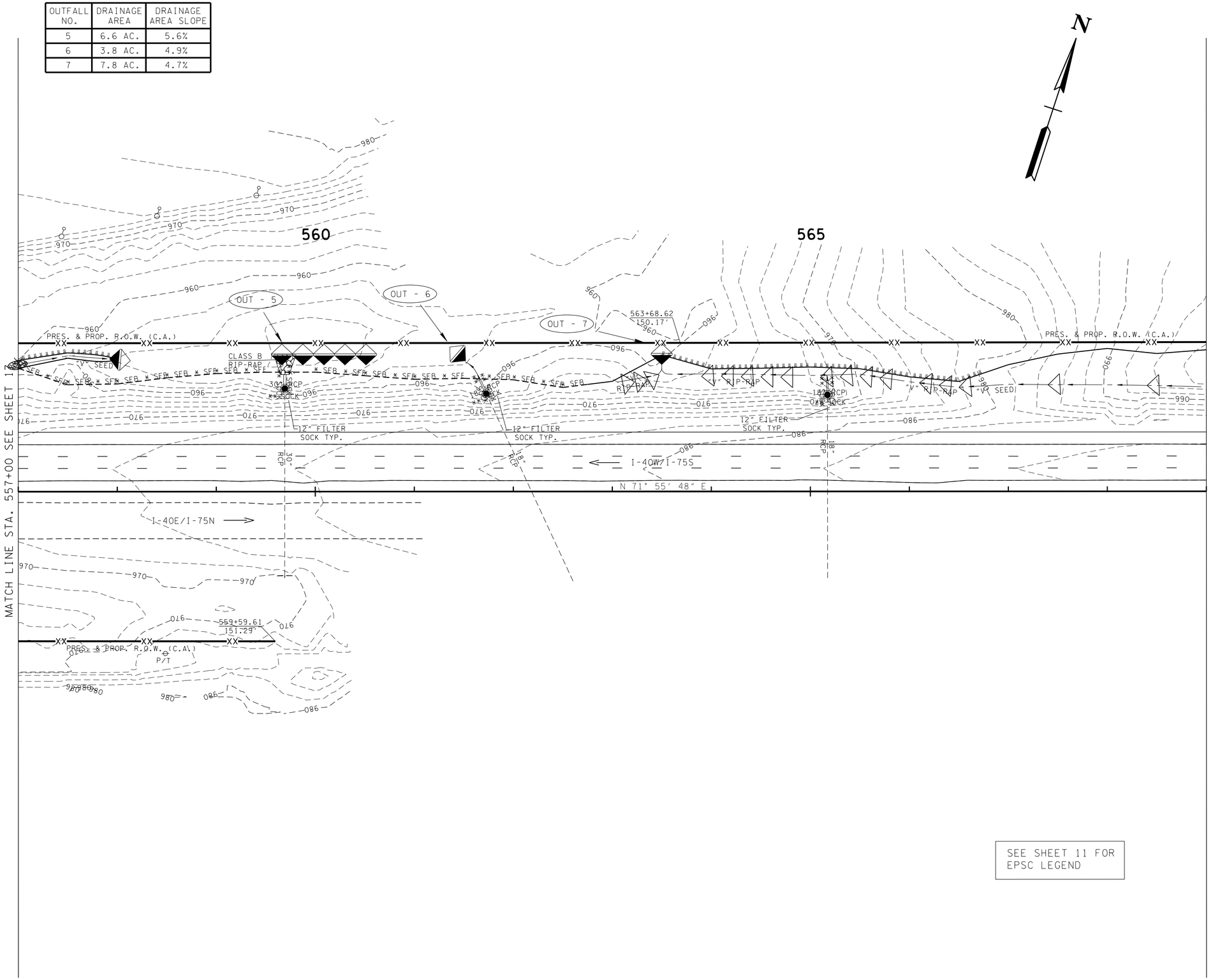
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	18
CONST.	2014	HSIP-I-40-7(168)	18

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

OUTFALL NO.	DRAINAGE AREA	DRAINAGE AREA SLOPE
5	6.6 AC.	5.6%
6	3.8 AC.	4.9%
7	7.8 AC.	4.7%



SEE SHEET 11 FOR EPSC LEGEND

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (STAGE 2)

STA.557+00.00 TO STA.569+00.00
SCALE: 1"=50'

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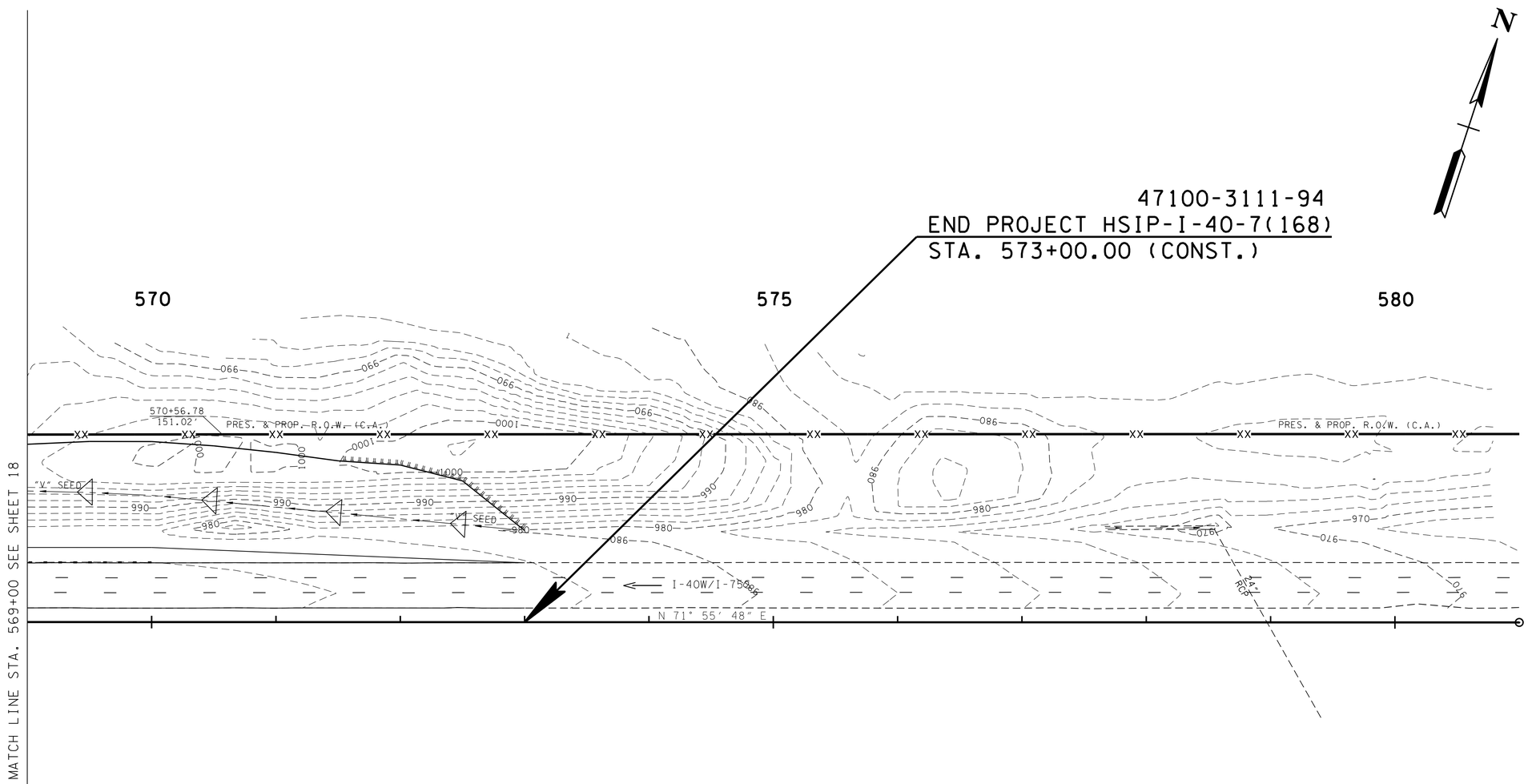
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	19
CONST.	2014	HSIP-I-40-7(168)	19

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)



SEE SHEET 11 FOR EPSC LEGEND

UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (STAGE 2)

STA.569+00.00 TO STA.573+00.00

SCALE: 1"=50'

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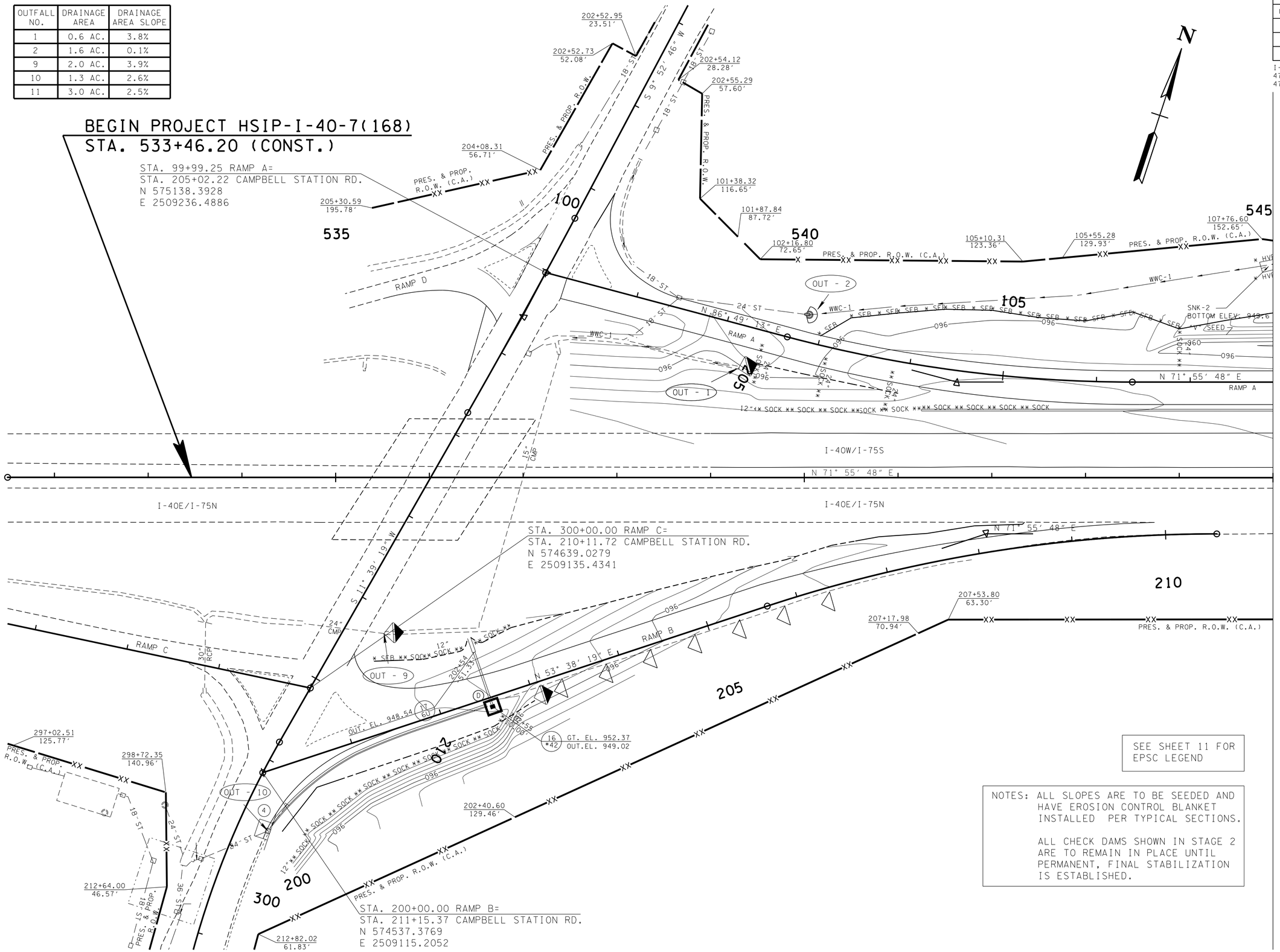
OUTFALL NO.	DRAINAGE AREA	DRAINAGE AREA SLOPE
1	0.6 AC.	3.8%
2	1.6 AC.	0.1%
9	2.0 AC.	3.9%
10	1.3 AC.	2.6%
11	3.0 AC.	2.5%

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	20
CONST.	2014	HSIP-I-40-7(168)	20

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)



SEE SHEET 11 FOR EPSC LEGEND

NOTES: ALL SLOPES ARE TO BE SEEDED AND HAVE EROSION CONTROL BLANKET INSTALLED PER TYPICAL SECTIONS.

ALL CHECK DAMS SHOWN IN STAGE 2 ARE TO REMAIN IN PLACE UNTIL PERMANENT, FINAL STABILIZATION IS ESTABLISHED.

UNOFFICIAL SET

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SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.0000900 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (STAGE 3)

STA.533+46.20 TO STA.545+00.00

SCALE: 1"=50'

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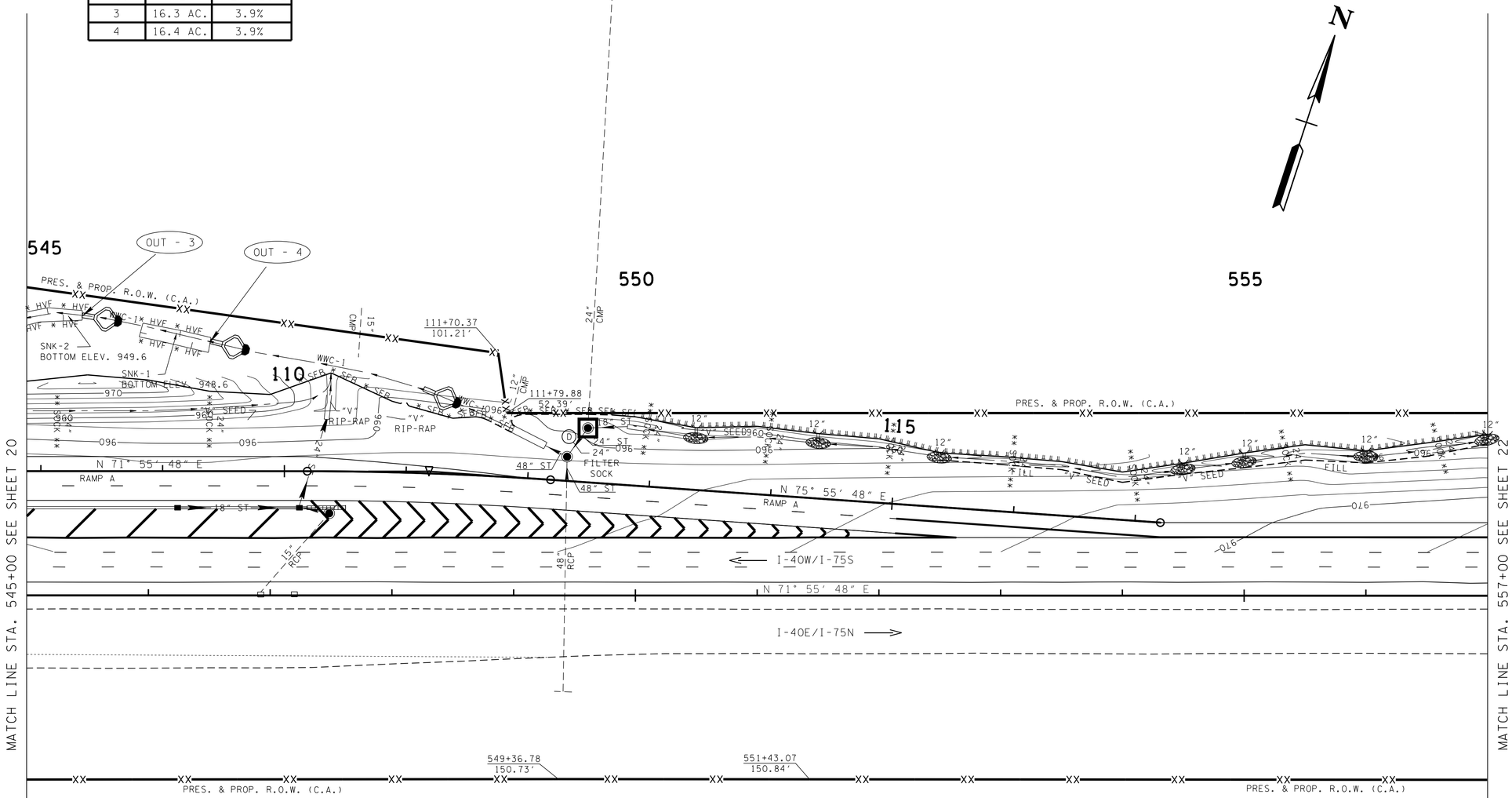
OUTFALL NO.	DRAINAGE AREA	DRAINAGE AREA SLOPE
3	16.3 AC.	3.9%
4	16.4 AC.	3.9%

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	21
CONST.	2014	HSIP-I-40-7(168)	21

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)



SEE SHEET 11 FOR EPSC LEGEND

NOTES: ALL SLOPES ARE TO BE SEEDED AND HAVE EROSION CONTROL BLANKET INSTALLED PER TYPICAL SECTIONS.

ALL CHECK DAMS SHOWN IN STAGE 2 ARE TO REMAIN IN PLACE UNTIL PERMANENT, FINAL STABILIZATION IS ESTABLISHED.

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.0000900 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (STAGE 3)

STA.545+00.00 TO STA.557+00.00
SCALE: 1"=50'

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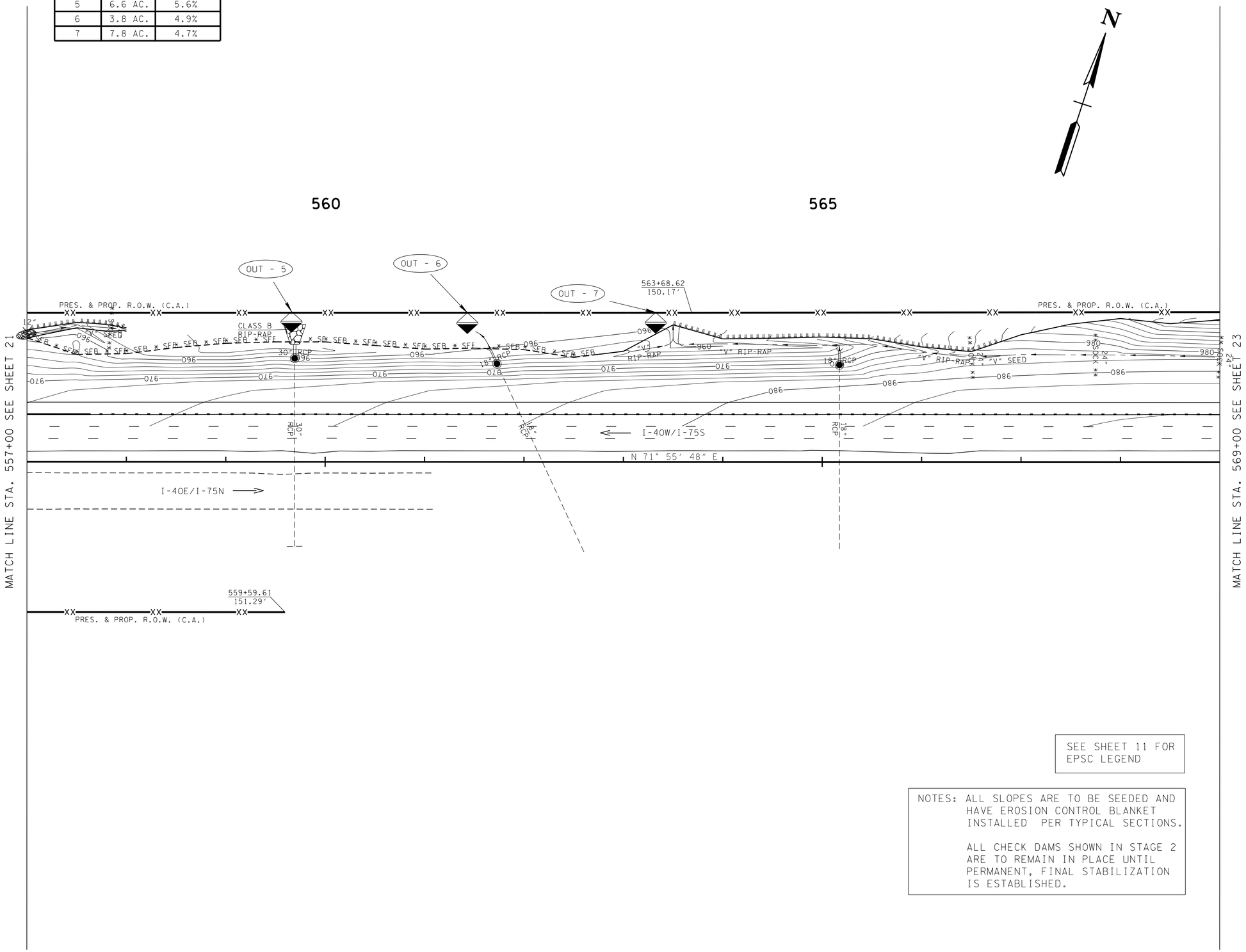
OUTFALL NO.	DRAINAGE AREA	DRAINAGE AREA SLOPE
5	6.6 AC.	5.6%
6	3.8 AC.	4.9%
7	7.8 AC.	4.7%



SEE SHEET 11 FOR EPSC LEGEND

NOTES: ALL SLOPES ARE TO BE SEEDED AND HAVE EROSION CONTROL BLANKET INSTALLED PER TYPICAL SECTIONS.

ALL CHECK DAMS SHOWN IN STAGE 2 ARE TO REMAIN IN PLACE UNTIL PERMANENT, FINAL STABILIZATION IS ESTABLISHED.

TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	22
CONST.	2014	HSIP-I-40-7(168)	22

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

UNOFFICIAL SET

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COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.0000900 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (STAGE 3)

STA.557+00.00 TO STA.569+00.00
SCALE: 1"=50'

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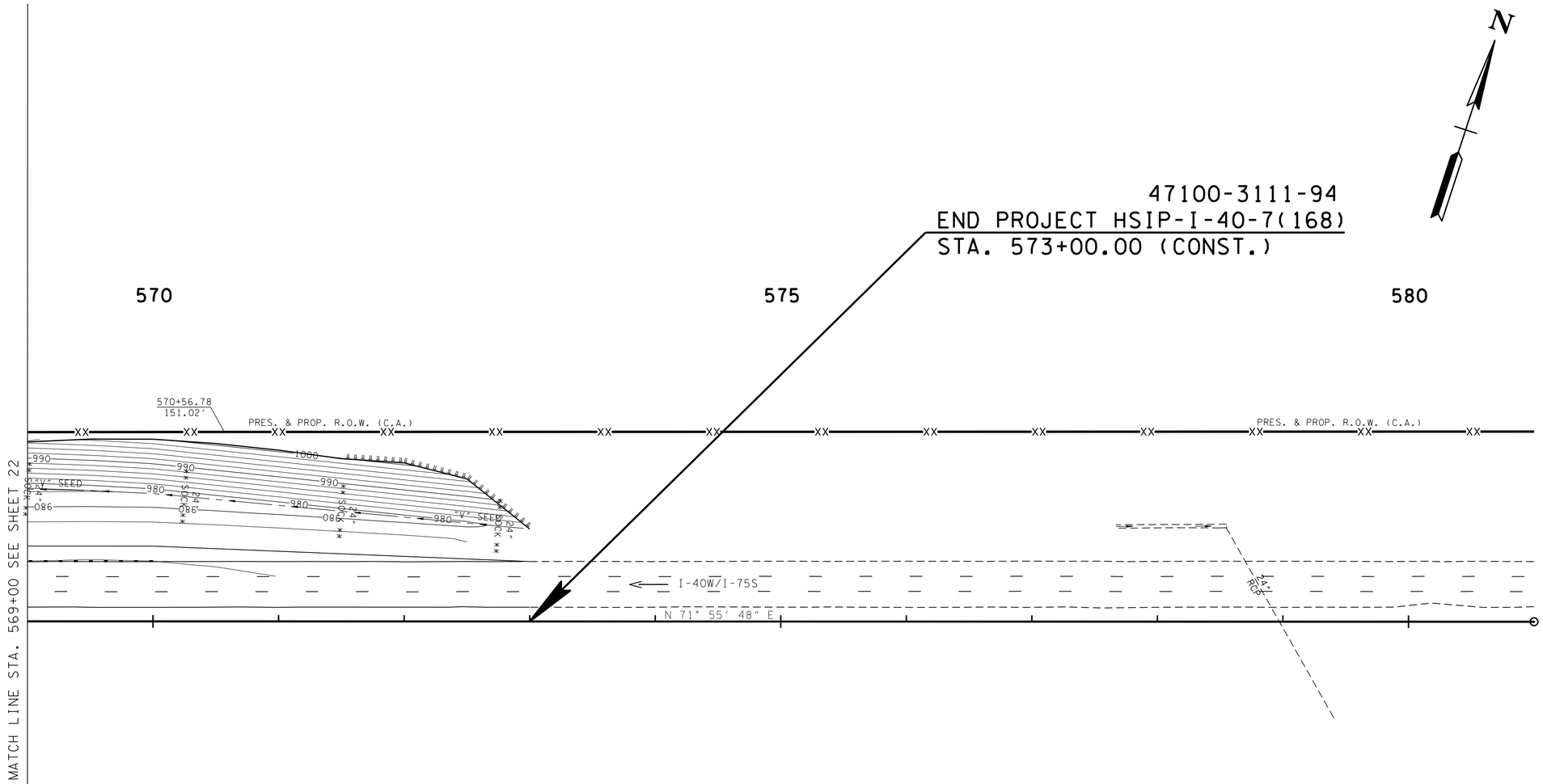
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	23
CONST.	2014	HSIP-I-40-7(168)	23

I-40W KNOX CO.
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)



SEE SHEET 11 FOR EPSC LEGEND

NOTE: ALL SLOPES ARE TO BE SEEDED AND HAVE EROSION CONTROL BLANKET INSTALLED PER TYPICAL SECTIONS.

UNOFFICIAL SET

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COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.0000900 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN (STAGE 3)

STA.569+00.00 TO STA.573+00.00

SCALE: 1"=50'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	24

I-40W KNOX CO.
47100-3111-94 (CONST.)

PHASE I

MILL AND RESURFACE THE RUMBLE STRIP ON THE INSIDE SHOULDER OF I-40 WEST. TO MAINTAIN 3 LANES OF TRAFFIC DURING CONSTRUCTION, SHIFT 3 LANES OF I-40 WEST 8' TO THE INSIDE SHOULDER. BEGIN CONSTRUCTION OF I-40 WEST WIDENING AND RESURFACING. BEGIN CONSTRUCTION OF RAMP A WIDENING AND LENGTHENING. EXISTING RAMP A ENTRANCE FROM I-40 WEST TO CAMPBELL STATION ROAD TO REMAIN OPEN DURING PHASE I CONSTRUCTION.

PHASE II

AFTER OUTSIDE WIDENING OF I-40 WEST AND WIDENING AND LENGTHENING OF RAMP A IS COMPLETED, COMPLETE TIE-IN OF NEWLY CONSTRUCTED RAMP A TO EXISTING RAMP A AND SHIFT TRAFFIC TO NEW RAMP A. INSTALL AND BEGIN OPERATION OF VIDEO DETECTION EQUIPMENT FOR THE SIGNAL AT INTERSECTION OF RAMP A AND CAMPBELL STATION ROAD. DISCONNECT EXISTING VEHICLE DETECTION LOOPS FROM SIGNAL EQUIPMENT. BEGIN COLD PLANING AND RESURFACING OF EXISTING RAMP A WITHIN STATION LIMITS SHOWN IN TYPICAL SECTION ON SHEET 2A. BEGIN CONSTRUCTION OF SIGNAL AT THE INTERSECTION OF RAMPS B AND C AND CAMPBELL STATION ROAD. BEGIN CONSTRUCTION OF RAMP B WIDENING.

PHASE III

AFTER OUTSIDE WIDENING OF I-40 WEST IS COMPLETED, CLOSE I-40 EASTBOUND AND WESTBOUND INSIDE SHOULDERS THROUGH THE LENGTH OF THE PROJECT. USE INTERCONNECTED PORTABLE BARRIER RAIL TO PROTECT, FROM EACH DIRECTION, THE IMMEDIATE AREA OF CONSTRUCTION OF THE FOUNDATIONS FOR OVERHEAD SIGNS. USE FLEXIBLE DRUMS BETWEEN FOUNDATION CONSTRUCTION SITES.

TRAFFIC CONTROL LEGEND

SYMBOL	ITEM
	FLEXIBLE DRUMS (CHANNELIZING)
	SIGN (CONSTRUCTION)
	PORTABLE BARRIER RAIL (WITH BARRIER RAIL DELINEATORS)
	TEMPORARY ATTENUATOR
	ARROW BOARD TYPE C
	ARROW BOARD TYPE C (CAUTION)
	ARROW BOARD TYPE C (SINGLE ARROW)

TRAFFIC CONTROL NOTES

THE CONSTRUCTION SIGNING PLANS ARE TO SERVE AS A GUIDE ONLY. OTHER SIGNS MAY BE REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION.

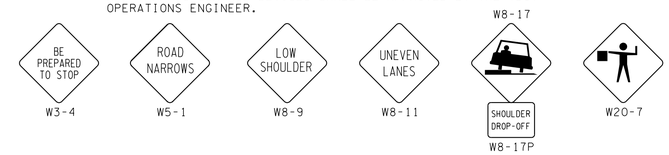
THIS TRAFFIC CONTROL PLAN DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CONTRACTOR IS TO MAINTAIN ACCESS TO ALL LOCAL PROPERTY OWNERS.

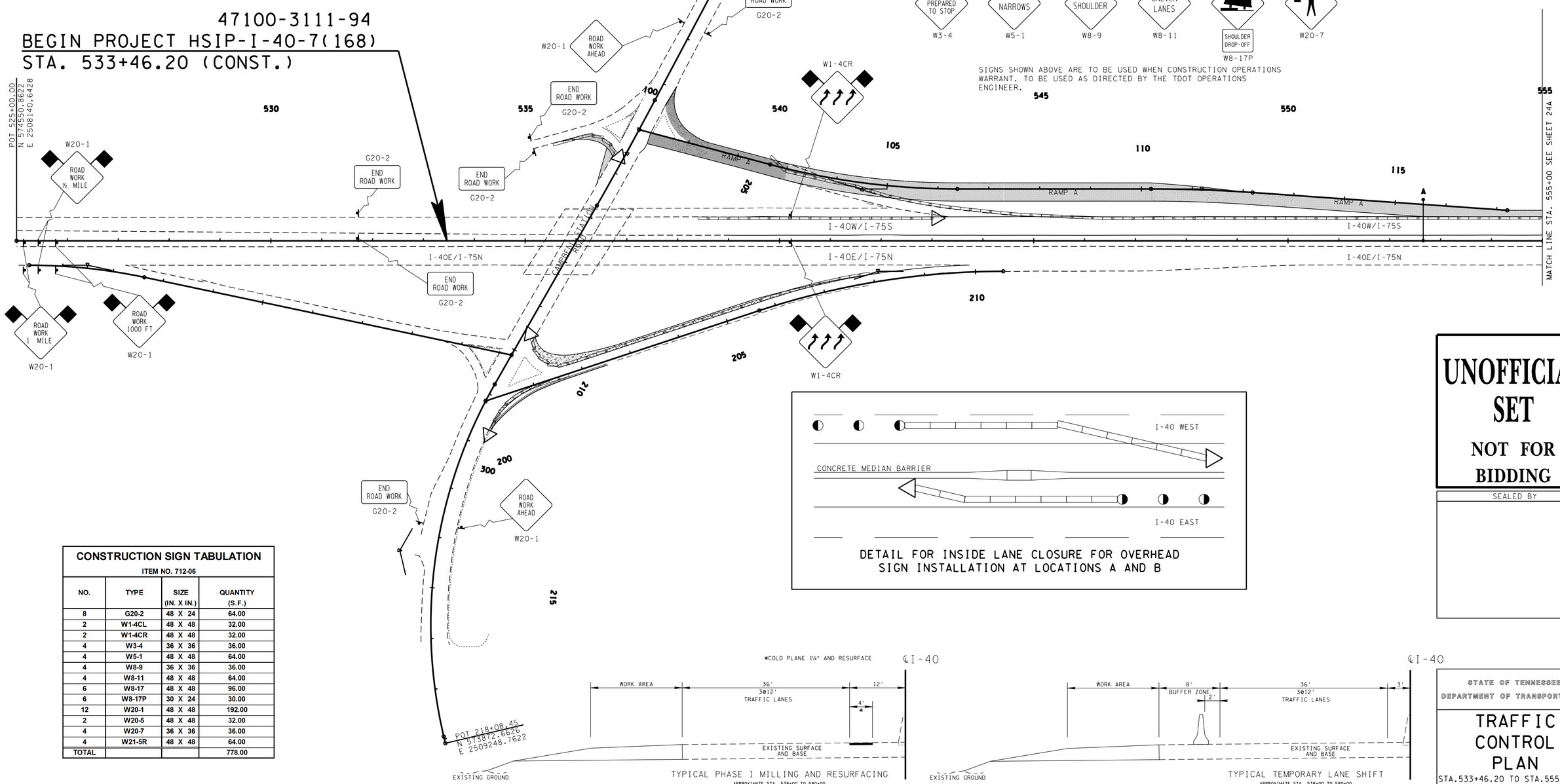
2 FLAGS ARE TO BE MOUNTED ON ALL ROAD WORK ADVANCE WARNING SIGNS. FLAGS ARE TO BE 18"X18" AND FLOURESCENT RED-ORANGE IN COLOR. COST OF FLAGS IS TO BE INCLUDED IN THE COST OF OTHER ITEMS.

ALL CONSTRUCTION SIGNS ON I-40 EASTBOUND AND WESTBOUND SHALL BE COVERED WHEN WORK WILL NOT BE AFFECTING EASTBOUND AND WESTBOUND TRAFFIC. COST OF COVERING/UNCOVERING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COST SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO. 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.

ALL TRAFFIC CONTROL DEVICES SHALL BE APPROVED BY THE TDOT OPERATIONS ENGINEER.



SIGNS SHOWN ABOVE ARE TO BE USED WHEN CONSTRUCTION OPERATIONS WARRANT. TO BE USED AS DIRECTED BY THE TDOT OPERATIONS ENGINEER.



DETAIL FOR INSIDE LANE CLOSURE FOR OVERHEAD SIGN INSTALLATION AT LOCATIONS A AND B

CONSTRUCTION SIGN TABULATION

ITEM NO. 712-06

NO.	TYPE	SIZE (IN. X IN.)	QUANTITY (S.F.)
8	G20-2	48 X 24	64.00
2	W1-4CL	48 X 48	32.00
2	W1-4CR	48 X 48	32.00
4	W3-4	36 X 36	36.00
4	W5-1	48 X 48	64.00
4	W8-9	36 X 36	36.00
4	W8-11	48 X 48	64.00
6	W8-17	48 X 48	96.00
6	W8-17P	30 X 24	30.00
12	W20-1	48 X 48	192.00
2	W20-5	48 X 48	32.00
4	W20-7	36 X 36	36.00
4	W21-5R	48 X 48	64.00
TOTAL			778.00

TYPICAL PHASE I MILLING AND RESURFACING
APPROXIMATE STA. 538+00 TO 580+00

TYPICAL TEMPORARY LANE SHIFT
APPROXIMATE STA. 538+00 TO 580+00

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DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN
STA.533+46.20 TO STA.555+00.00
SCALE: 1"=100'

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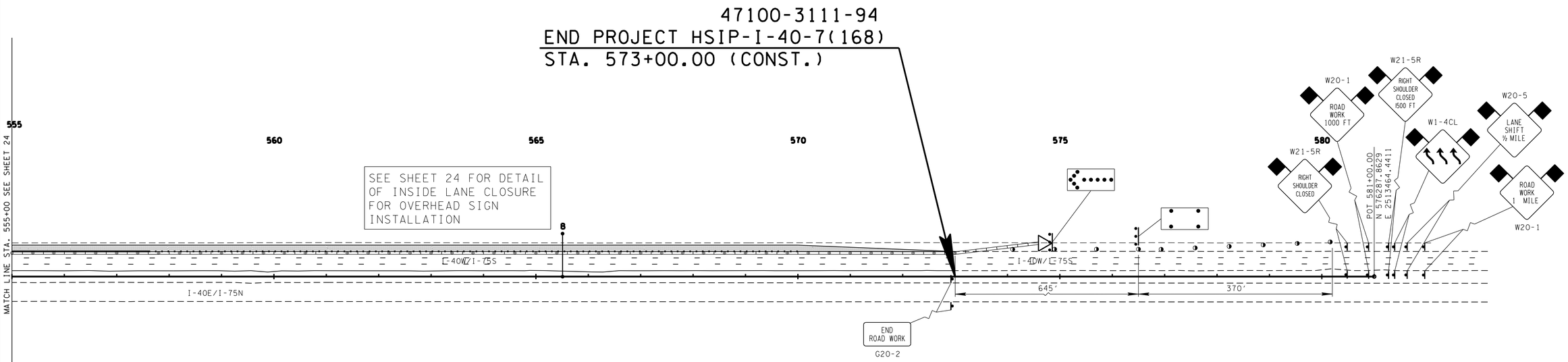
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	24A

I-40W KNOX CO.
47100-3111-94 (CONST.)



SEE SHEET 24 FOR LEGEND AND QUANTITIES

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DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN

STA.555+00.00 TO STA.573+00.00

SCALE: 1"=100'

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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	25

I-40W KNOX CO.
47100-3111-94 (CONST.)

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

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

1. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 2 INCHES:

a. WARNING SIGNS, UNEVEN LANES (W8-11) AND/OR SHOULDER DROP-OFF WITH PLAQUE (W8-17 AND W8-17P), SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

b. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY ADDED PAVEMENT SHALL BE ELIMINATED WITHIN THREE WORKDAYS.

c. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY COLD PLANING SHALL BE ELIMINATED WITHIN THREE WORKDAYS.

d. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE TRAFFIC LANE BEING UTILIZED BY TRAFFIC AND SHOULDER THE DIFFERENCE IN ELEVATION SHALL BE ELIMINATED WITHIN SEVEN WORKDAYS AFTER THE CONDITION IS CREATED.

2. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES. TRAFFIC IS NOT TO BE ALLOWED TO TRAVERSE THIS DIFFERENCE IN ELEVATION.

a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

(1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

(2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

b. IF THE DIFFERENCE IN ELEVATION IS ELIMINATED OR DECREASED TO 2 INCHES OR LESS BY THE END OF EACH WORKDAY, CONES MAY BE USED DURING DAYLIGHT HOURS IN LIEU OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES MENTIONED IN PARAGRAPH a, PROVIDED WARNING SIGNS ARE ERECTED. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

c. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE THROUGH TRAFFIC LANE AND THE SHOULDER AND THE ELEVATION DIFFERENCE IS LESS THAN 3.5 INCHES, THE CONTRACTOR MAY USE WARNING SIGNS AND/OR PROTECTIVE DEVICES AS APPLICABLE AND APPROVED BY THE ENGINEER. SEE PARAGRAPH a REGARDING USE OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) WILL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

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

3. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 6 INCHES BUT NOT EXCEEDING 18 INCHES, THE CONTRACTOR, WITH THE ENGINEER'S APPROVAL, MAY UTILIZE ONE OF THE FOLLOWING:

a. THE CONTRACTOR SHALL ACCOMPLISH SEPARATION BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

(1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

(2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

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

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

c. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a AND IF THE LOWER ELEVATION IS BASE STONE OR ASPHALT PAVEMENT, PLACEMENT OF SUBSEQUENT LAYERS OF PAVEMENT MUST BEGIN THE NEXT WORK DAY AND PROGRESS CONTINUOUSLY UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED OR REDUCED TO 6 INCHES OR LESS.

d. THE CONTRACTOR SHALL PROVIDE SEPARATION BY PORTABLE BARRIER RAIL.

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

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

SEPARATION WILL BE PROVIDED BY USE OF PORTABLE BARRIER RAIL.

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

B. IF THE DIFFERENCE IN ELEVATION IS WITHIN 30 FEET OF THE NEAREST TRAFFIC LANE BEING USED BY TRAFFIC CAUSED BY GRADING, EXCAVATION FOR UTILITIES, DRAINAGE STRUCTURES, UNDERCUTTING, ETC.:

1. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 3/4 INCH AND NOT EXCEEDING 2 INCHES.

WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

2. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES:

a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

(1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

(2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

3. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 6 INCHES:

a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

(1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

(2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

b. ELIMINATE VERTICAL OFFSET BY CONSTRUCTING A STONE WEDGE OR GRADING TO A 4:1 SLOPE, OR FLATTER, OR USE PORTABLE BARRIER RAIL.

THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE WITHIN 8 FEET OF A TRAFFIC LANE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

C. IF THE DIFFERENCE IN ELEVATION IS FARTHER THAN 8 FEET FROM THE NEAREST TRAFFIC LANE BUT NOT MORE THAN 30 FEET FROM THE NEAREST TRAFFIC LANE:

SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

1. WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

2. WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

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

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PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

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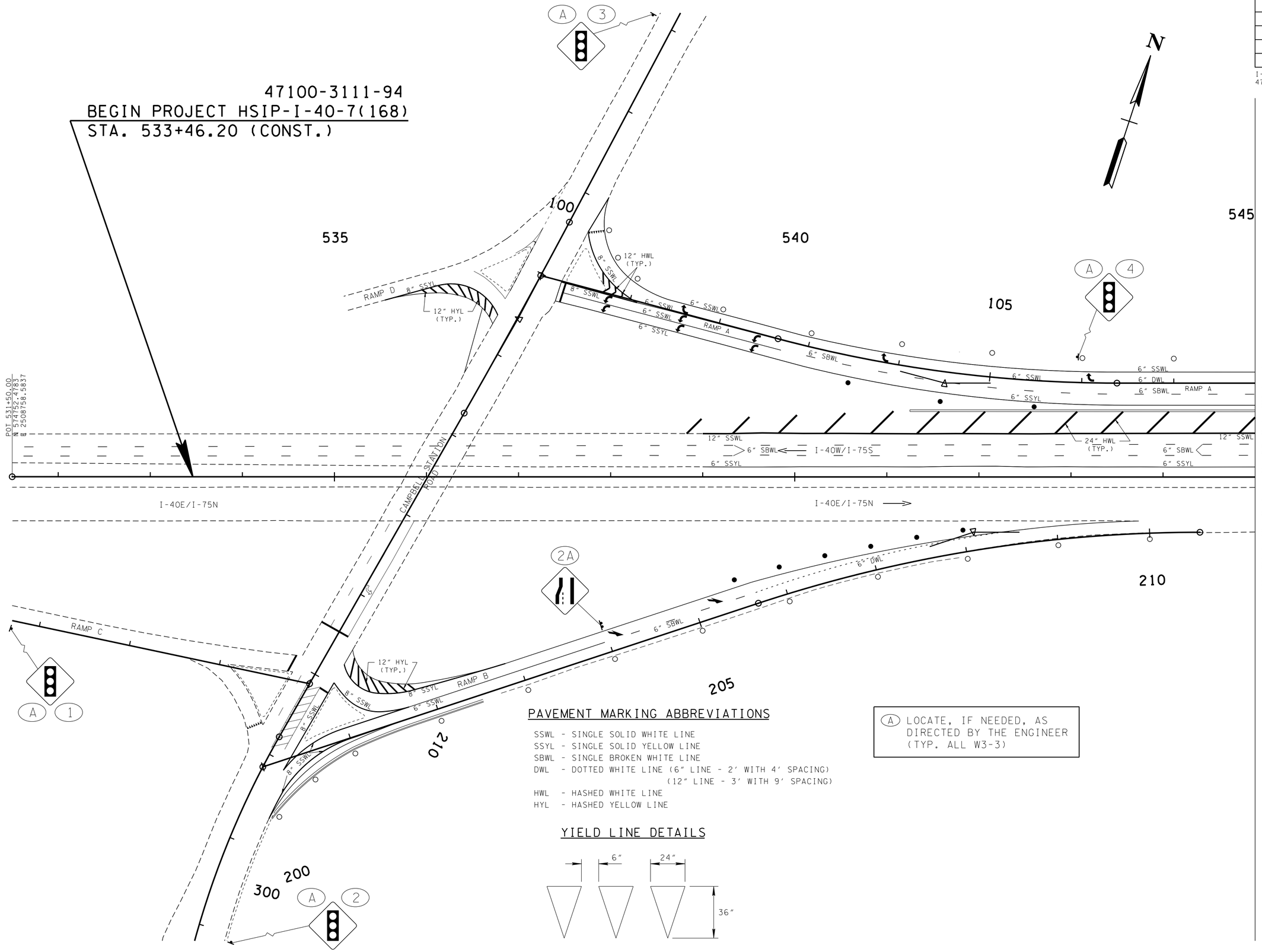
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	26

I-40W KNOX CO.
47100-3111-94 (CONST.)



PAVEMENT MARKING ABBREVIATIONS

SSWL - SINGLE SOLID WHITE LINE
SSYL - SINGLE SOLID YELLOW LINE
SBWL - SINGLE BROKEN WHITE LINE
DWL - DOTTED WHITE LINE (6" LINE - 2' WITH 4' SPACING)
(12" LINE - 3' WITH 9' SPACING)
HWL - HASHED WHITE LINE
HYL - HASHED YELLOW LINE

YIELD LINE DETAILS

(A) LOCATE, IF NEEDED, AS DIRECTED BY THE ENGINEER (TYP. ALL W3-3)

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

STA.533+46.20 TO STA.545+00.00

SCALE: 1"=50'

26-JUN-2014 06:53
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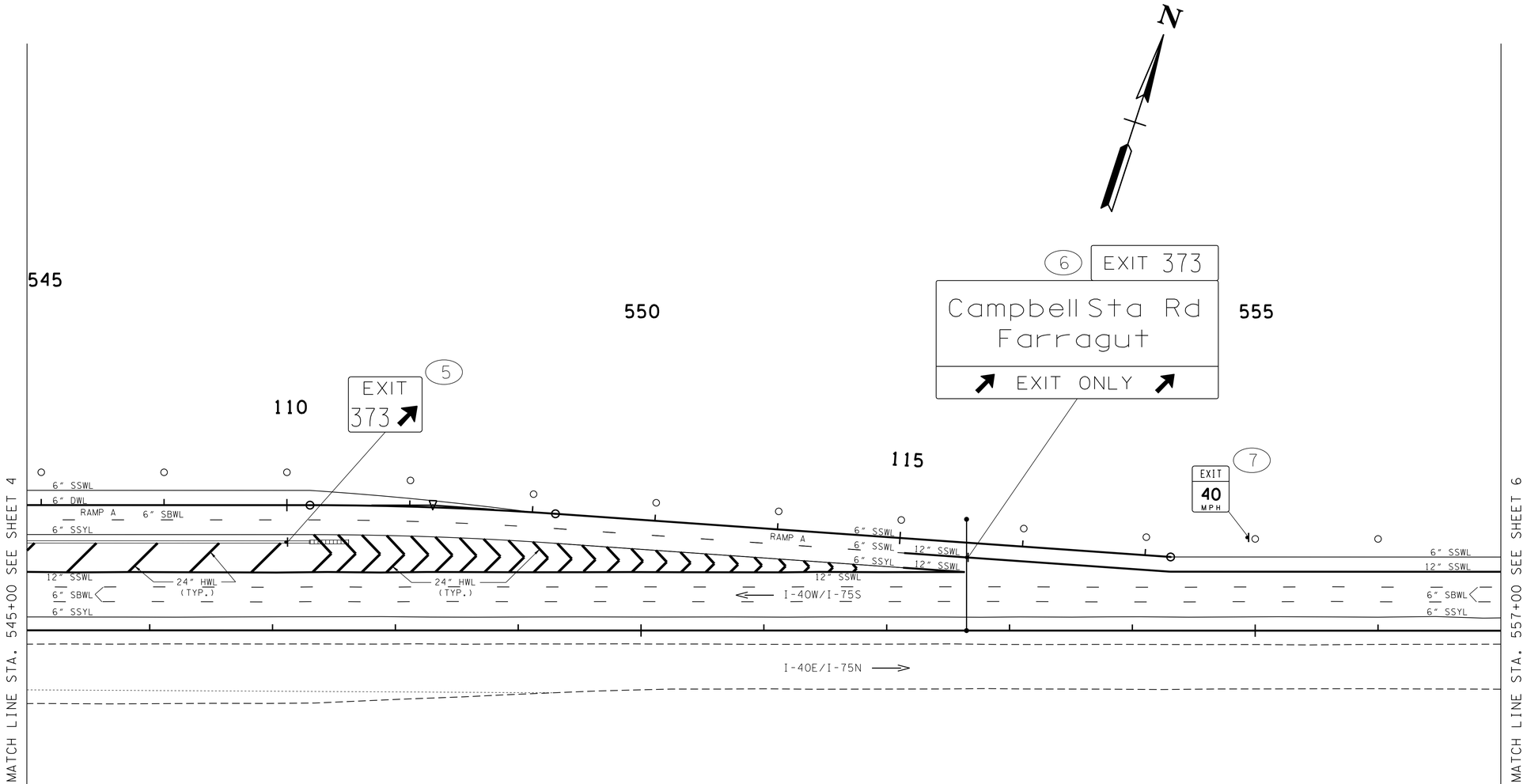
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	26A

I-40W KNOX CO.
47100-3111-94 (CONST.)



NOTE: SEE SHEET 26 FOR PAVEMENT MARKING ABBREVIATIONS

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

STA.545+00.00 TO STA.557+00.00

SCALE: 1"=50'

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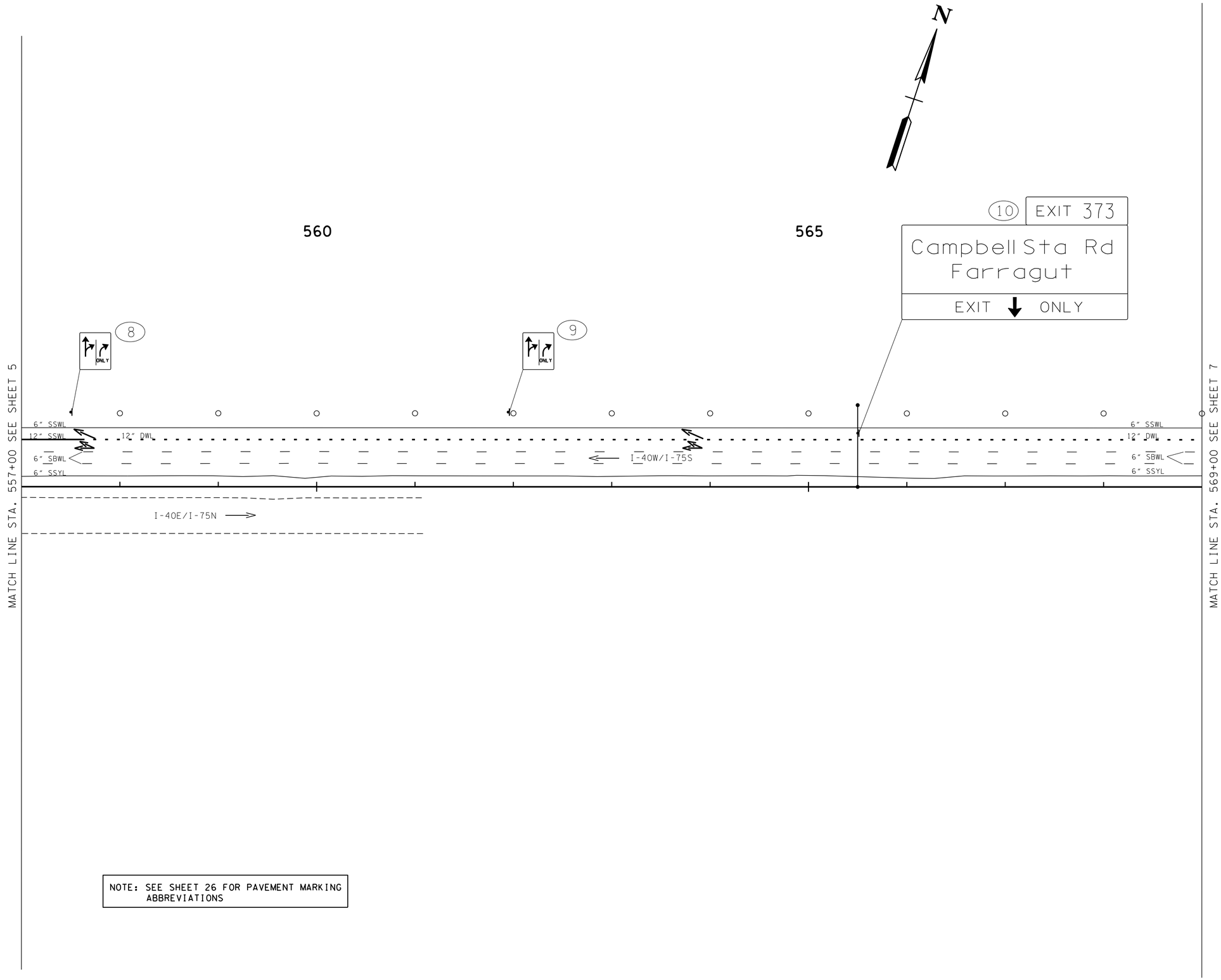
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	26B

I-40W
47100-3111-94 (CONST.)

KNOX CO.



NOTE: SEE SHEET 26 FOR PAVEMENT MARKING ABBREVIATIONS

UNOFFICIAL SET

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

STA.557+00.00 TO STA.569+00.00

SCALE: 1"=50'

26-JUN-2014 06:53
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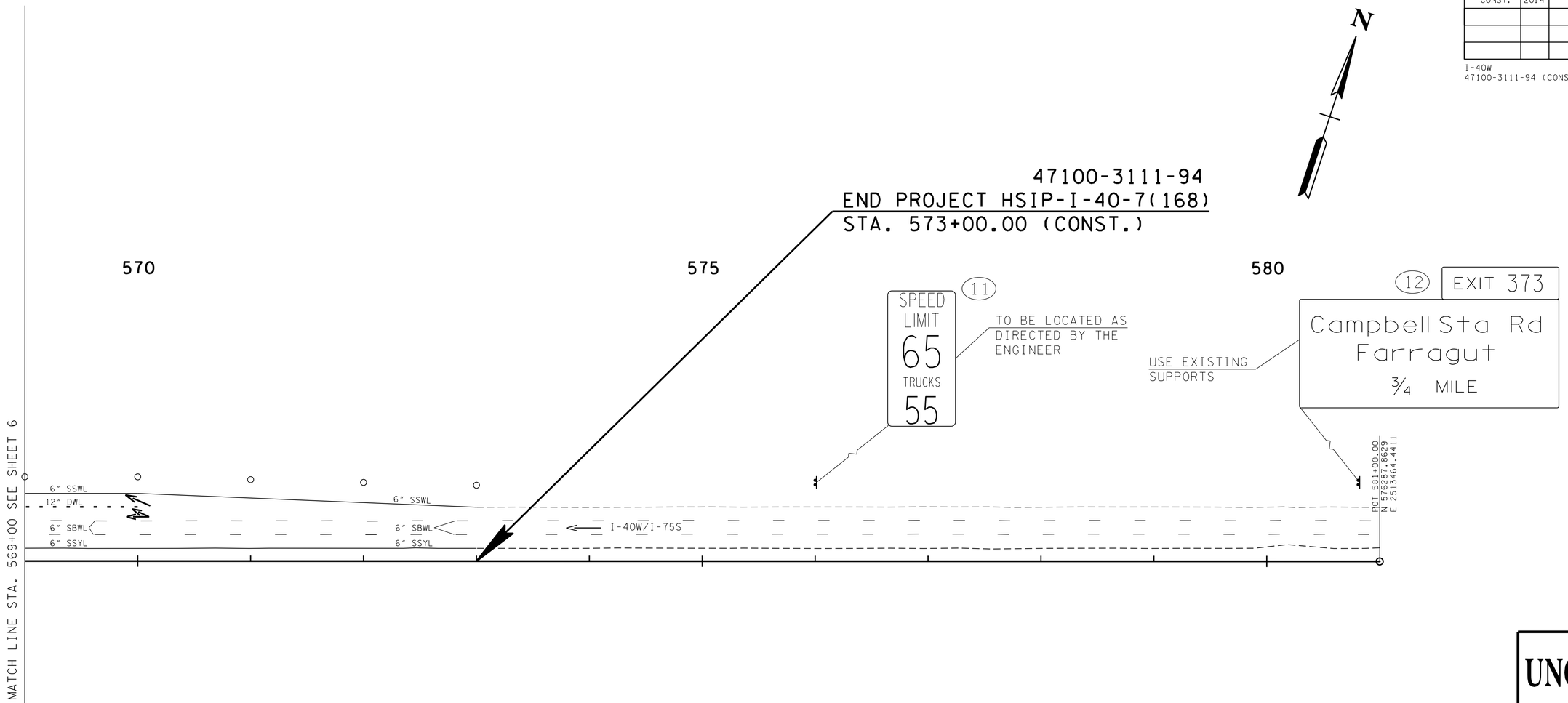
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	26C

I-40W
47100-3111-94 (CONST.)

KNOX CO.



NOTE: SEE SHEET 26 FOR PAVEMENT MARKING ABBREVIATIONS

UNOFFICIAL SET

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DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING PLAN

STA.569+00.00 TO STA.573+00.00

SCALE: 1"=50'

26-JUN-2014 06:53
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	27

ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)

SEE STD. DWG. NO. T-S-19

SIGN NO	LEGEND		SHEET NO	SIZE				COPY				SHIELD	ARROW	SIGN FACE			STEEL DESIGN (BREAK-AWAY)					MINIMUM VERTICAL CLEARANCE	REMARKS
				LENGTH	HEIGHT	RADIUS	BORDER WIDTH	CAPITAL	LOWER CASE	NUMERAL	SERIES			COPY	BACKGROUND	MATERIAL	SUPPORT TYPE	SUPPORT LENGTH	FOOTING	CONC. CU. YD.	REIN STEEL LBS.		
7	EXIT 40 MPH	W13-2		48"	60"									BLACK	WHITE (REF.)	0.100" SHEET ALUMINUM	S3X5.7	h_1=15'-0" h_2=15'-6"	TYPE 5 D=1'-3"	0.18	50.1	7'-0"	
1		W3-3		36"	36"									BLACK RED (REF.)	YELLOW (REF.)	0.100" SHEET ALUMINUM	P8	h =13'-6"				7'-0"	
2																		h =13'-6"					
3																		h =13'-6"					
4														GREEN (REF.)				h =13'-6"					
8	ONLY	R3-8a (MOD)		48"	48"									BLACK	WHITE (REF.)	0.100" SHEET ALUMINUM	S3X5.7	h_1=14'-3" h_2=14'-9"	TYPE 5 D=1'-3"	0.18	50.1	7'-0"	
9																		h_1=14'-3" h_2=14'-9"					
11	SPEED LIMIT 65 TRUCKS 55	TN-7C		48"	96"									BLACK	WHITE (REF.)	0.100" SHEET ALUMINUM	S4X7.7	h_1=18'-6" h_2=19'-0"	TYPE 5 D=1'-3"	0.18	50.1	7'-0"	
5	EXIT 373			48"	72"	6"	1.25"	10"		15"	"EMOD"		TYPE "F" @45	WHITE (REF.)	GREEN (REF.)	0.100" SHEET ALUMINUM						7'-0"	REDUCE LETTER SPACING TO FIT MOUNT ON BARRIER WALL 3"X3" -ITEM NO. 713-30.10
6	EXIT 373 Campbell Sta Rd Farragut EXIT ONLY			10'-0" 20'-0"	2'-0" 9'-0"	12"	2"	10" 16" 16" 12"	12" 12"	15" 12"	EMOD		TYPE "H" @45°	WHITE (REF.) BLACK	GREEN (REF.) YELLOW (REF.)	2-12" ALUMINUM EXTRUSIONS 9-12" ALUMINUM EXTRUSIONS							OVERHEAD STRUCTURE
10	EXIT 373 Campbell Sta Rd Farragut EXIT ONLY			10'-0" 20'-0"	2'-0" 9'-0"	12"	2"	10" 16" 16" 12"	12" 12"	15" 12"	EMOD		TYPE "H"	WHITE (REF.) BLACK	GREEN (REF.) YELLOW (REF.)	2-12" ALUMINUM EXTRUSIONS 9-12" ALUMINUM EXTRUSIONS							OVERHEAD STRUCTURE
12	EXIT 373 Campbell Sta Rd Farragut ¾ MILE			10'-0" 20'-0"	2'-0" 8'-0"	12"	2"	10" 16" 16"	12" 12"	10"/10"	EMOD			WHITE (REF.)	GREEN (REF.)	2-12" ALUMINUM EXTRUSIONS 8-12" ALUMINUM EXTRUSIONS			USE EXISTING SUPPORTS				
2A		W4-2L		48"	48"									BLACK	YELLOW (REF.)	0.100" SHEET ALUMINUM	S3X5.7	h1=14'-3" h2=14'-9"	TYPE 5 D=1'-3"	0.18	50.1	7'-0"	

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SIGN SCHEDULE

26-JUN-2014 07:43
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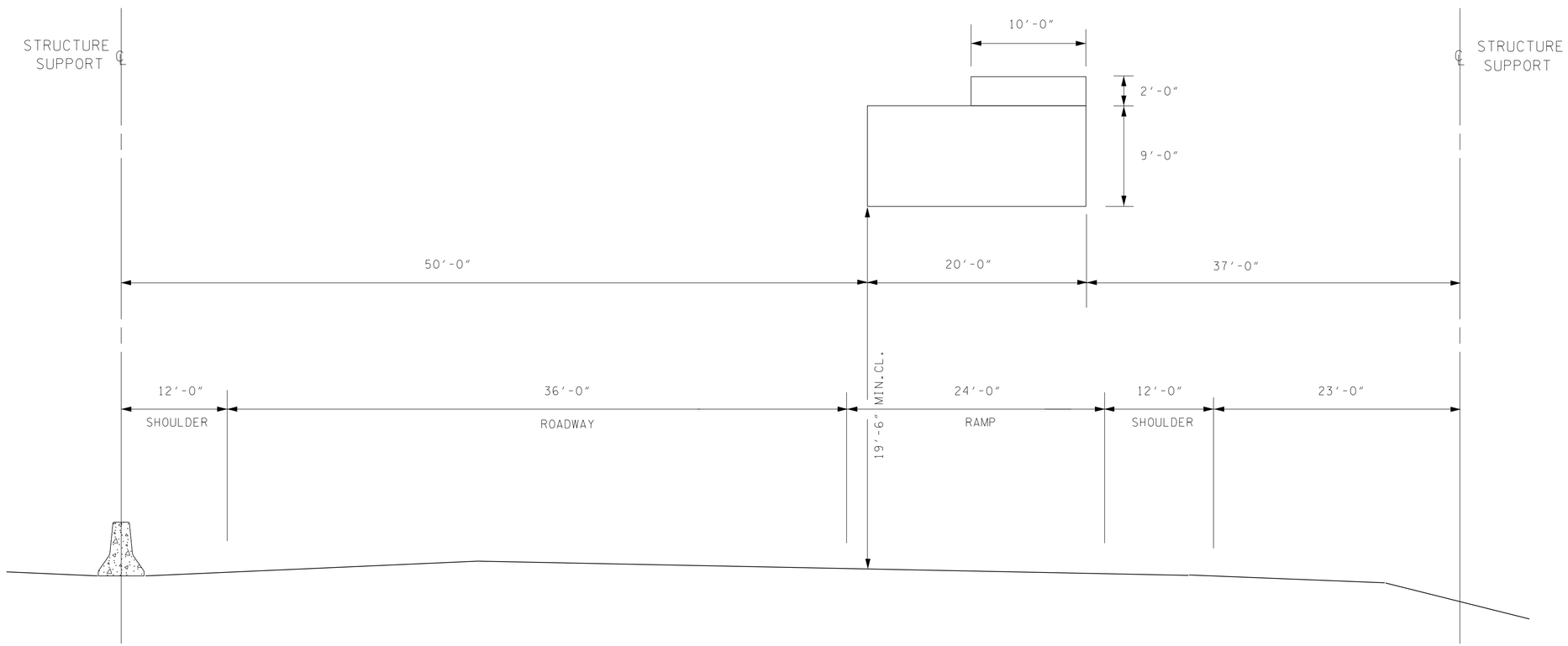
PROJECT NO.	YEAR	SHEET NO.
HSIP-I-40-7(168)	2014	28

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SPAN = 107'-0"



NOTES

PRIOR TO ORDERING ANY MATERIAL THE CONTRACTOR SHALL FIELD MEASURE THE SIGN STRUCTURE TO VERFIY SPAN LENGTH.

THE CONTRACTOR SHALL REFER TO "STANDARD BRIDGE DRAWING" "STD-8-4". IF THIS DRAWING IS NOT IN THE PLANS THE CONTRACTOR CAN FIND THIS DRAWING ON THE T.D.O.T. WEBSITE.

THE COST OF THE FOOTINGS ARE TO BE INCLUDED IN THE BID ITEM FOR THIS SIGN STRUCTURE.

OVERHEAD SIGN SHEETING TO BE TYPE III PRISMATIC OR BETTER.

LOCATION AND LENGTH OF THIS STRUCTURE CAN BE ADJUSTED TO MISS ANY EXISTING UTILITIES AND/OR DRAINAGE STRUCTURES AS DIRECTED BY THE ENGINEER.

OVERHEAD STRUCTURE

SIGN NO. 6
STA. 552+63+-

DESIGN DATA

SIGN DESIGN AREA = 540 sq.ft.
WIND VELOCITY=90mph
SOIL DATA:N=12,Pp=1.89Ksf & K=94.3Kcf

SIGN STRUCTURE
ID.NUMBER
47SNM4702863

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

KNOX CO.
I-40
SIGN NO. 6

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

M-470-286

26-JUN-2014 07:02
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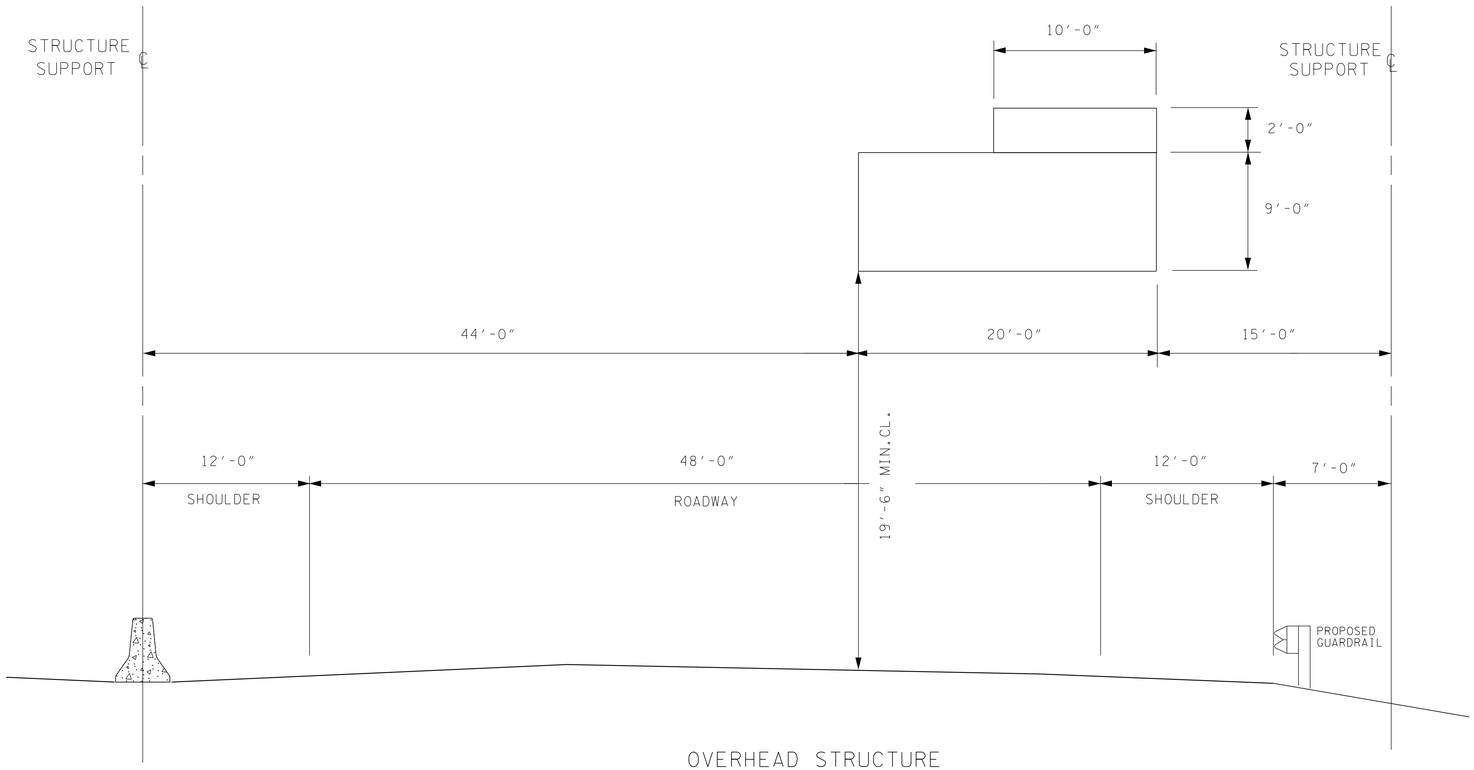
PROJECT NO.	YEAR	SHEET NO.
HSIP-I-40-7(168)	2014	28A

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION

SPAN = 79'-0"



OVERHEAD STRUCTURE

SIGN NO. 10
STA. 565+40+-

DESIGN DATA

SIGN DESIGN AREA = 432 sq.ft.
WIND VELOCITY=90mph
SOIL DATA:N=12,Pp=1.89Ksf & K=94.3Kcf

SIGN STRUCTURE
ID.NUMBER
47SNM4702873

NOTES

PRIOR TO ORDERING ANY MATERIAL THE CONTRACTOR SHALL FIELD MEASURE THE SIGN STRUCTURE TO VERFIY SPAN LENGTH.

THE CONTRACTOR SHALL REFER TO "STANDARD BRIDGE DRAWING" "STD-8-4". IF THIS DRAWING IS NOT IN THE PLANS THE CONTRACTOR CAN FIND THIS DRAWING ON THE T.D.O.T. WEBSITE.

THE COST OF THE FOOTINGS ARE TO BE INCLUDED IN THE BID ITEM FOR THIS SIGN STRUCTURE.

OVERHEAD SIGN SHEETING TO BE TYPE III PRISMATIC OR BETTER.

LOCATION AND LENGTH OF THIS STRUCTURE CAN BE ADJUSTED TO MISS ANY EXISTING UTILITIES AND/OR DRAINAGE STRUCTURES AS DIRECTED BY THE ENGINEER.

UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

KNOX CO.
I-40
SIGN NO. 10

CORRECT _____
ENGINEER OF STRUCTURES

APPROVED _____
DIRECTOR OF HIGHWAYS

M-470-287

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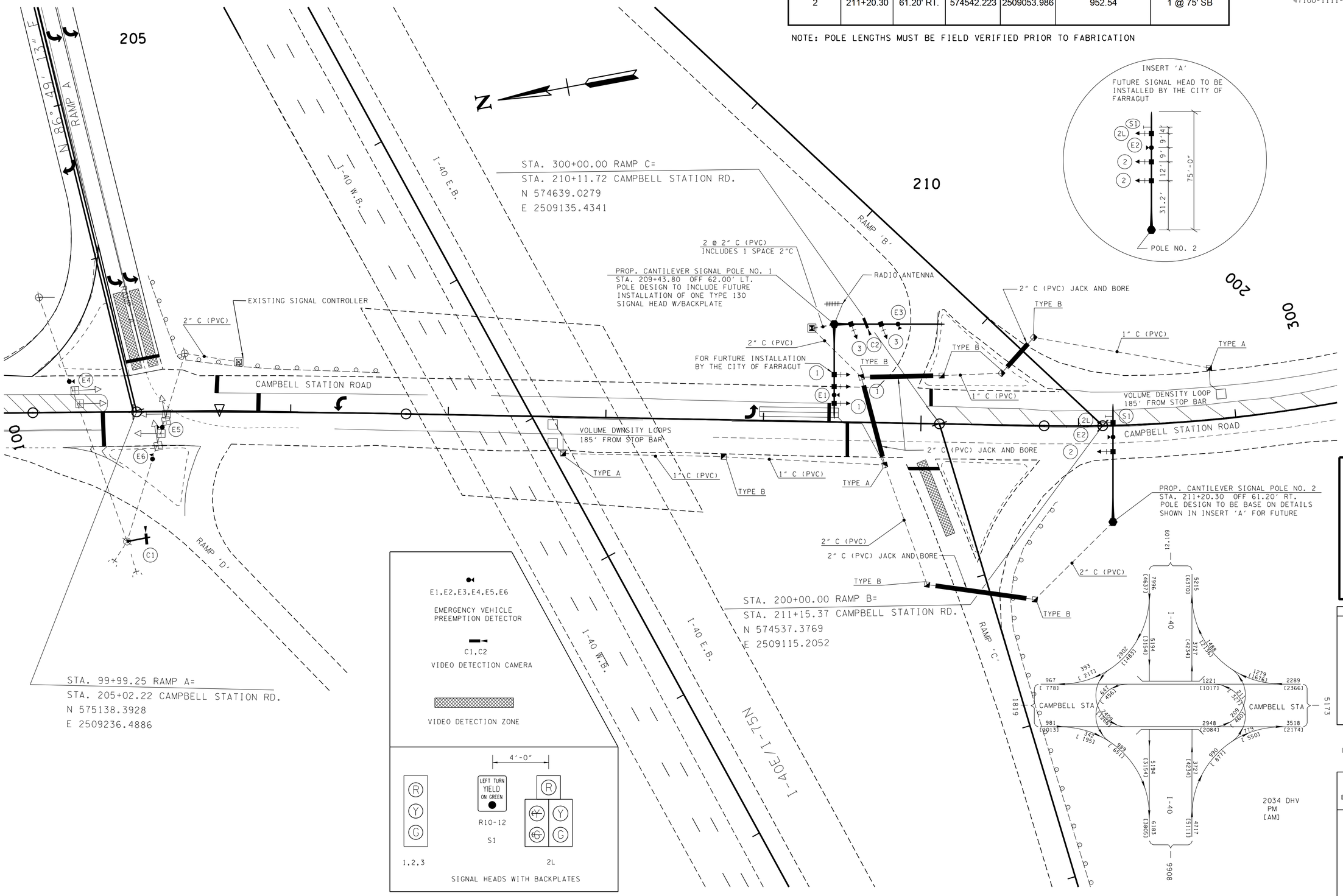
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	24
CONST.	2014	HSIP-I-40-7(168)	29

I-40 W.B. & E.B. OFF-RAMPS KNOX CO.
47100-1111-94 (UTILITIES)

CANTILEVER SIGNAL SUPPORT POLE DATA

POLE NO.	STATION	OFFSET	NORTHING	EASTING	GRND ELEV @ POLE	ARM LENGTH
1	209+43.80	62.00' LT.	5744693.024	2509209.878	948.26	1 @ 60' NB 1 @ 70' EB
2	211+20.30	61.20' RT.	574542.223	2509053.986	952.54	1 @ 75' SB

NOTE: POLE LENGTHS MUST BE FIELD VERIFIED PRIOR TO FABRICATION



UNOFFICIAL SET

NOT FOR BIDDING

SEALED BY

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.0000900 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROPOSED SIGNAL LAYOUT
INTERSECTION OF CAMPBELL STATION RD WITH I-40 E.B. RAMP

SCALE: 1"=30 '

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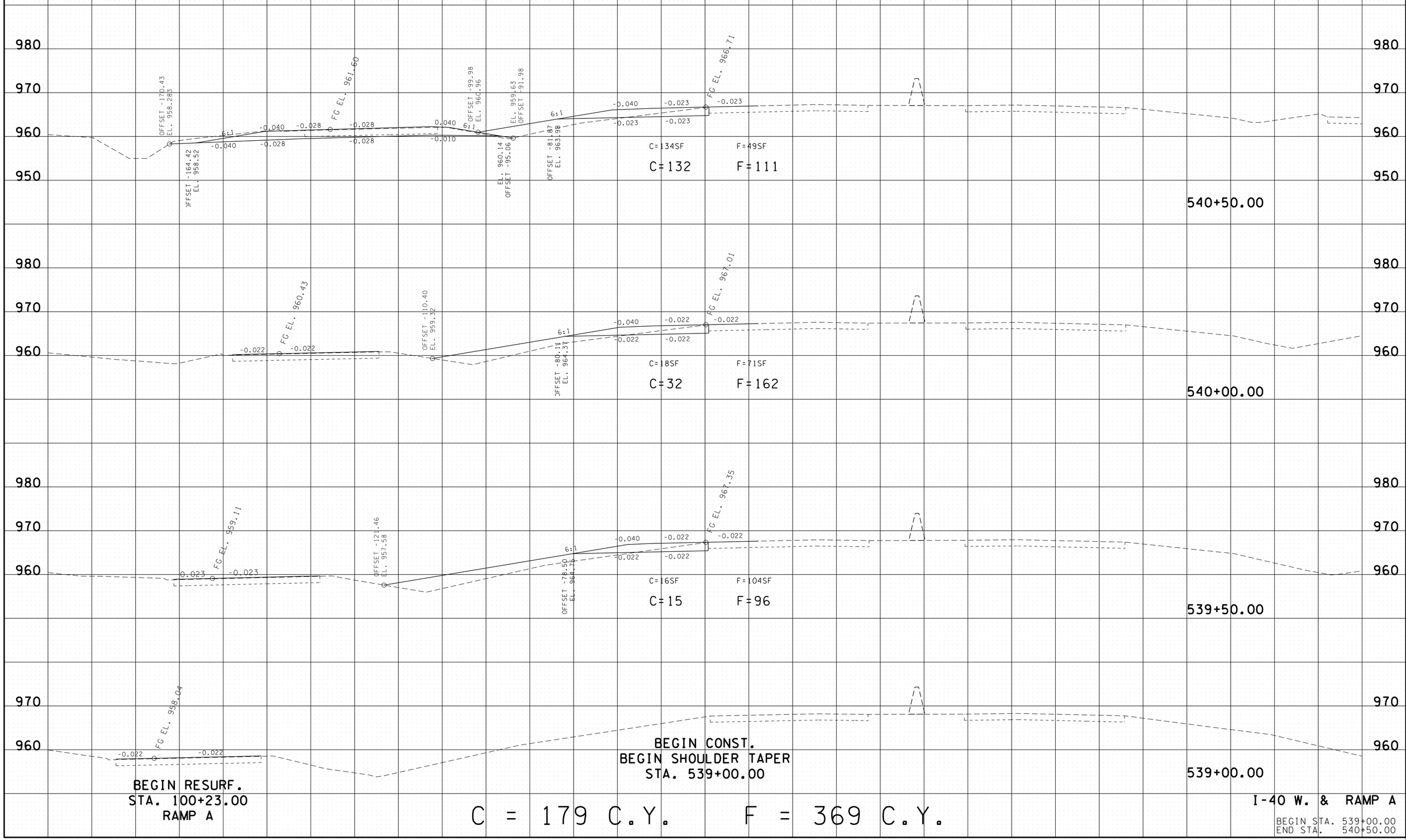
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	25
CONST.	2014	HSIP-I-40-7(168)	31

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



I-40 W. & RAMP A

BEGIN STA. 539+00.00
END STA. 540+50.00

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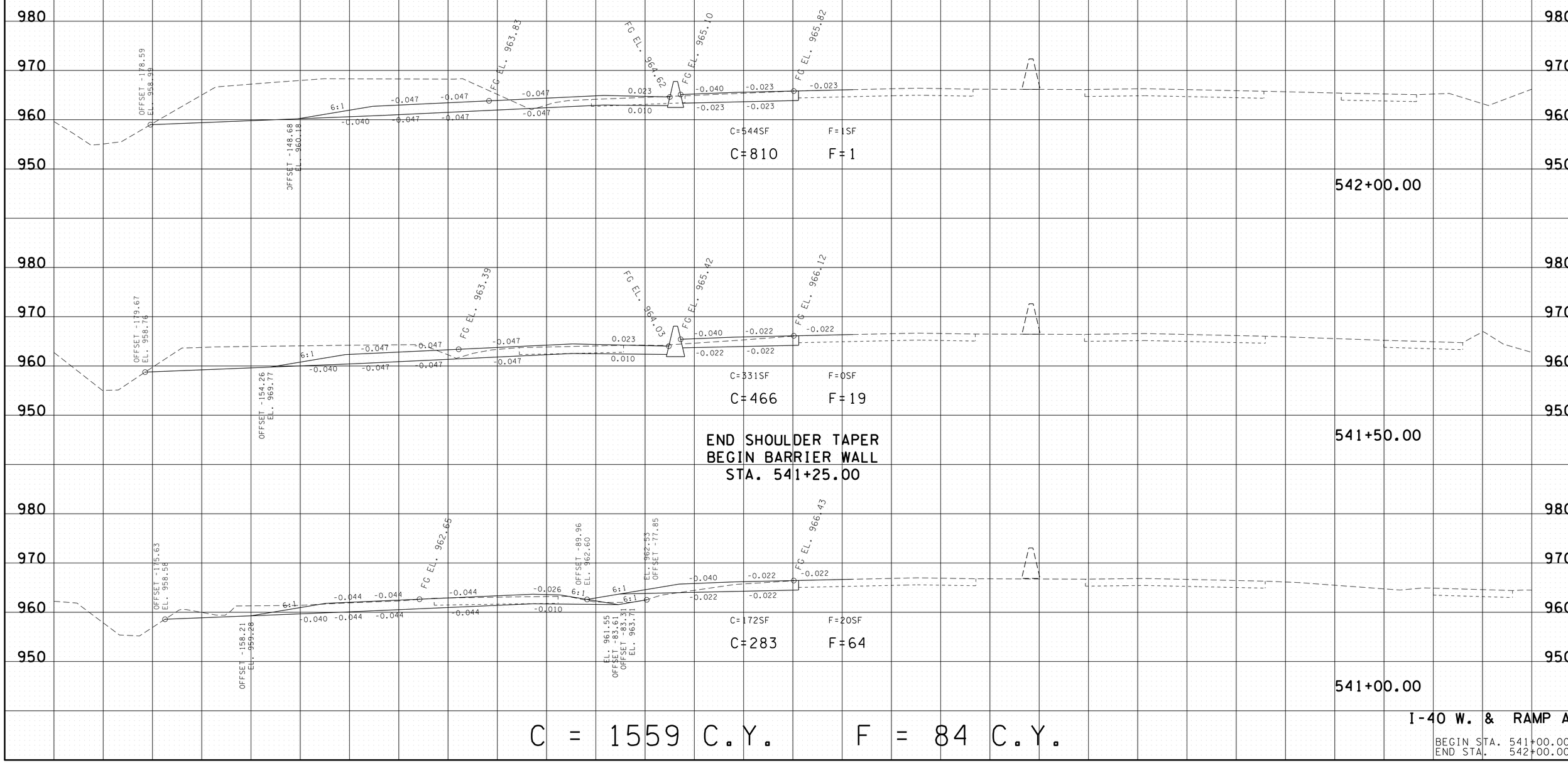
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	26
CONST.	2014	HSIP-I-40-7(168)	32

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 1559 C.Y. F = 84 C.Y.

I-40 W. & RAMP A

BEGIN STA. 541+00.00
END STA. 542+00.00

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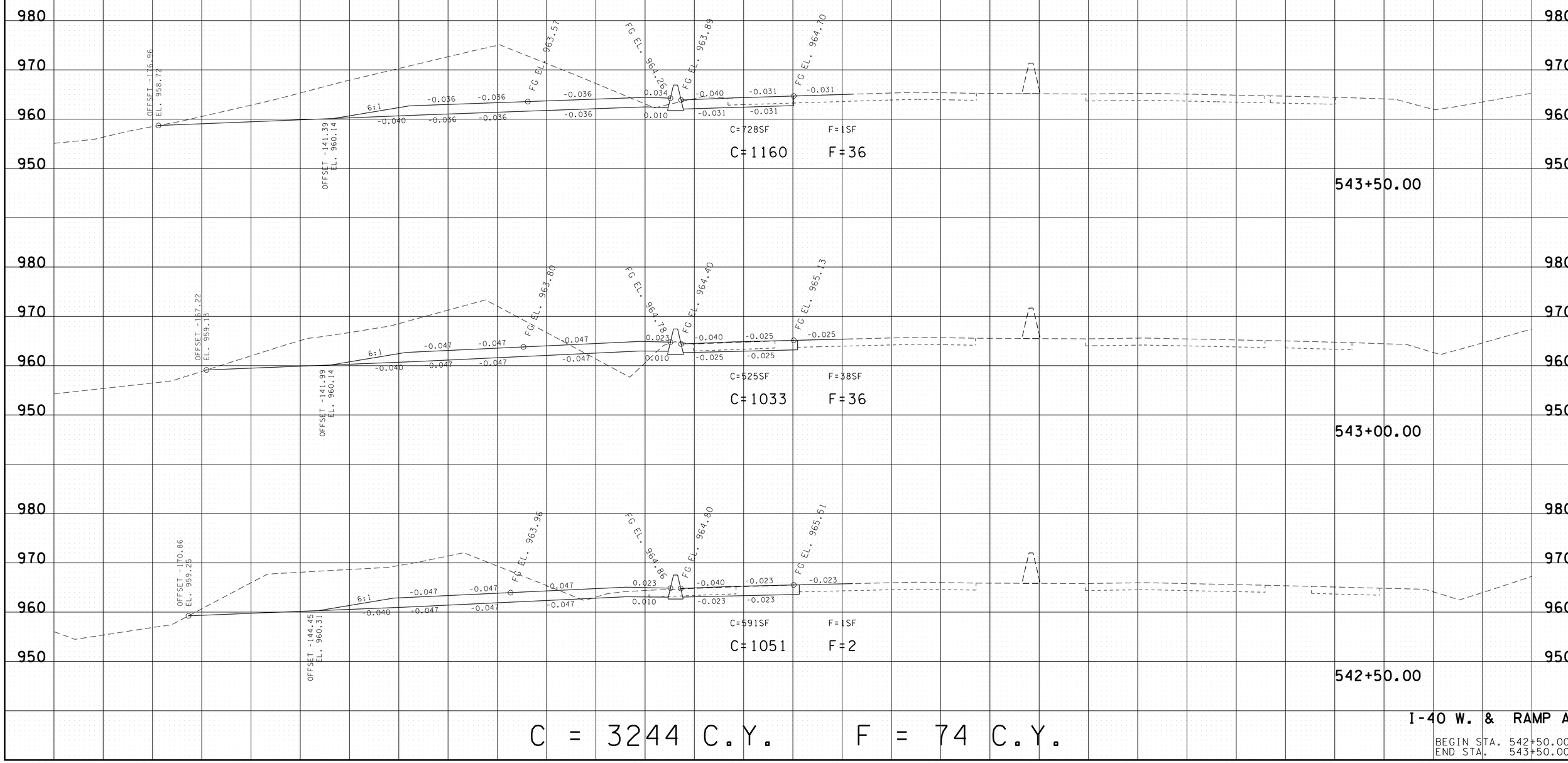
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	27
CONST.	2014	HSIP-I-40-7(168)	33

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 3244 C.Y. F = 74 C.Y.

I-40 W. & RAMP A

BEGIN STA. 542+50.00
END STA. 543+50.00

200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100

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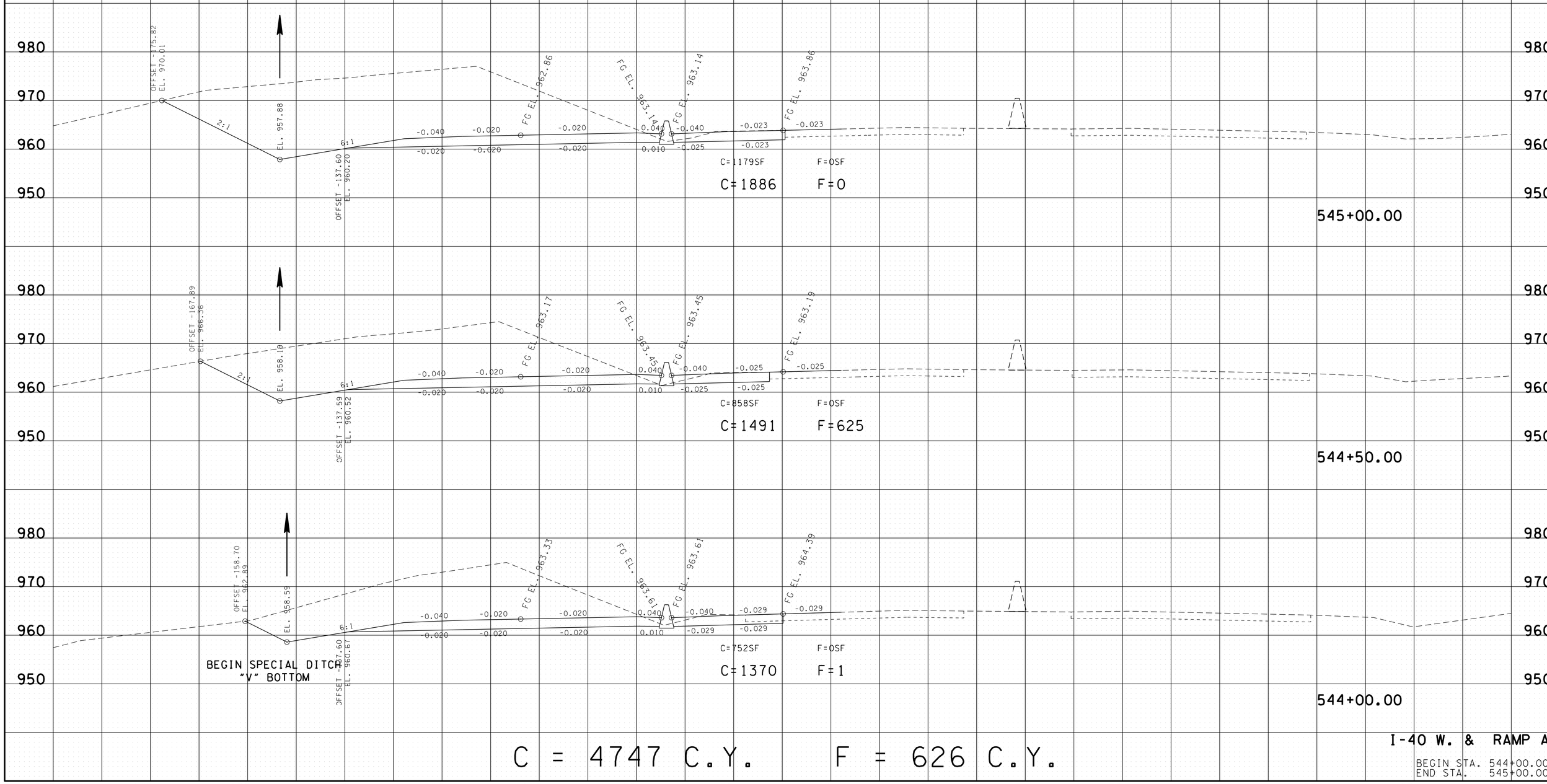
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	28
CONST.	2014	HSIP-I-40-7(168)	34

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 4747 C.Y. F = 626 C.Y.

I-40 W. & RAMP A

BEGIN STA. 544+00.00
END STA. 545+00.00

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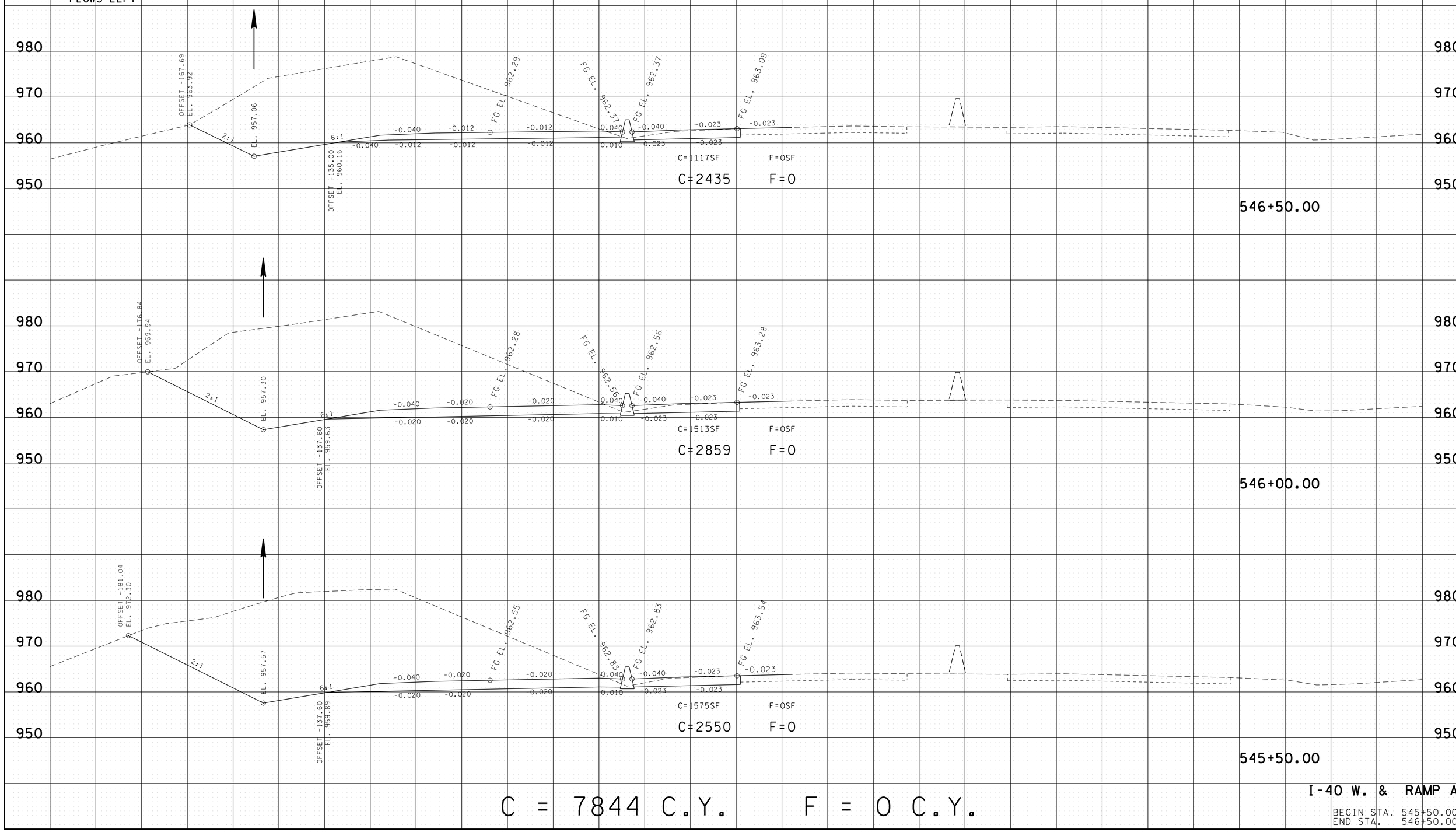
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	29
CONST.	2014	HSIP-I-40-7(168)	35

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.

STA. 546+92.28 15" RCP CULVERT IN PLACE
24" CONC. CULVERT EXTENSION REQ'D.
FLOWS LEFT



C = 7844 C.Y. F = 0 C.Y.

I-40 W. & RAMP A

BEGIN STA. 545+50.00
END STA. 546+50.00

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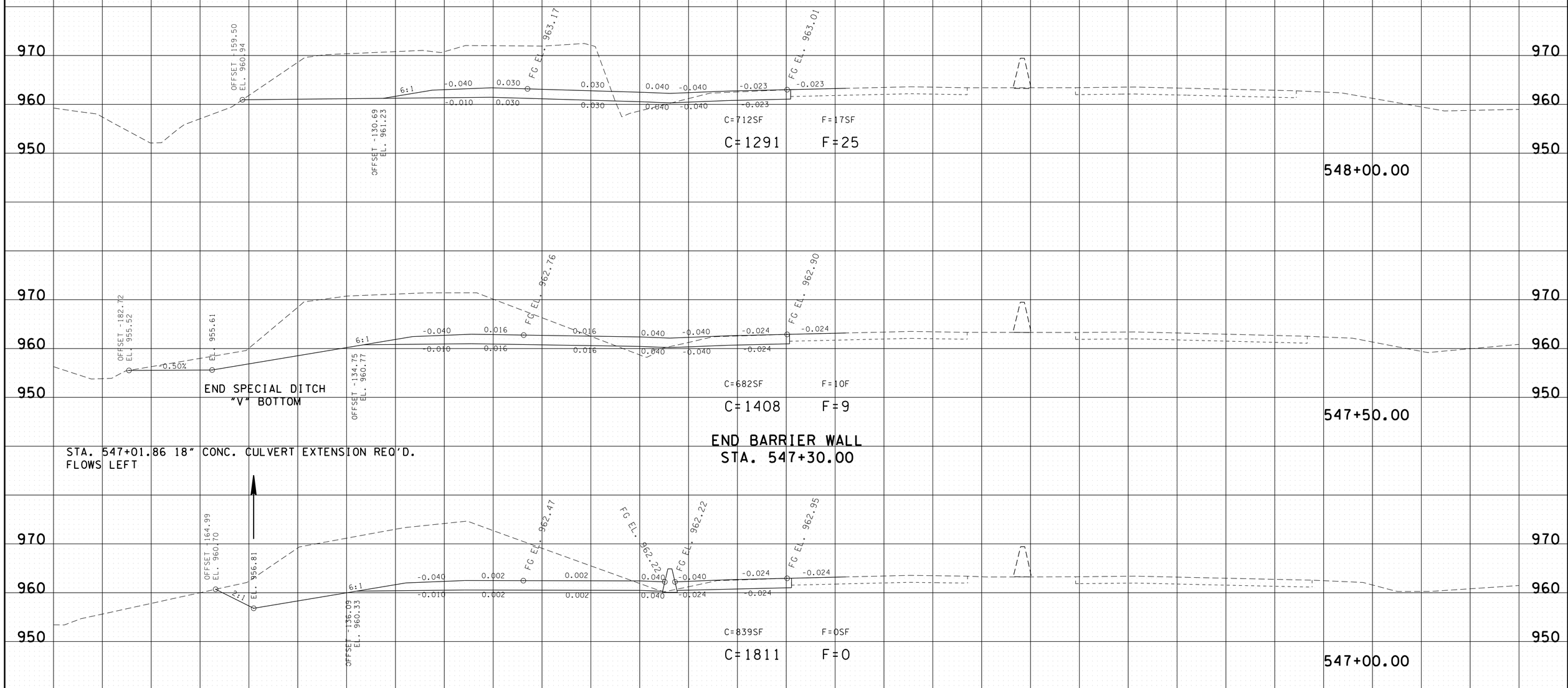
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	30
CONST.	2014	HSIP-I-40-7(168)	36

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



I-40 W. & RAMP A

BEGIN STA. 547+00.00
END STA. 548+00.00

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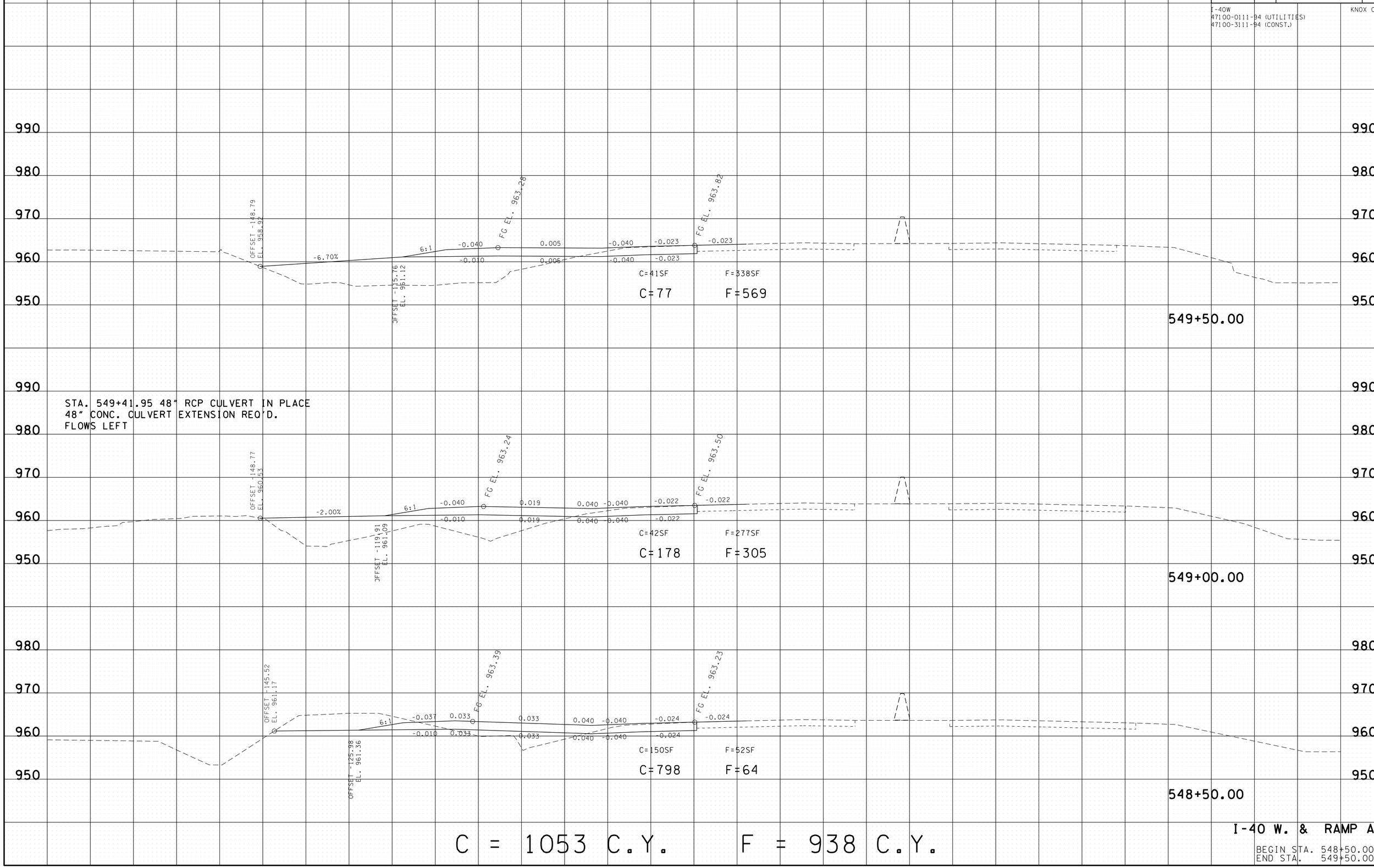
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	31
CONST.	2014	HSIP-I-40-7(168)	37

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 1053 C.Y. F = 938 C.Y.

I-40 W. & RAMP A

BEGIN STA. 548+50.00
END STA. 549+50.00

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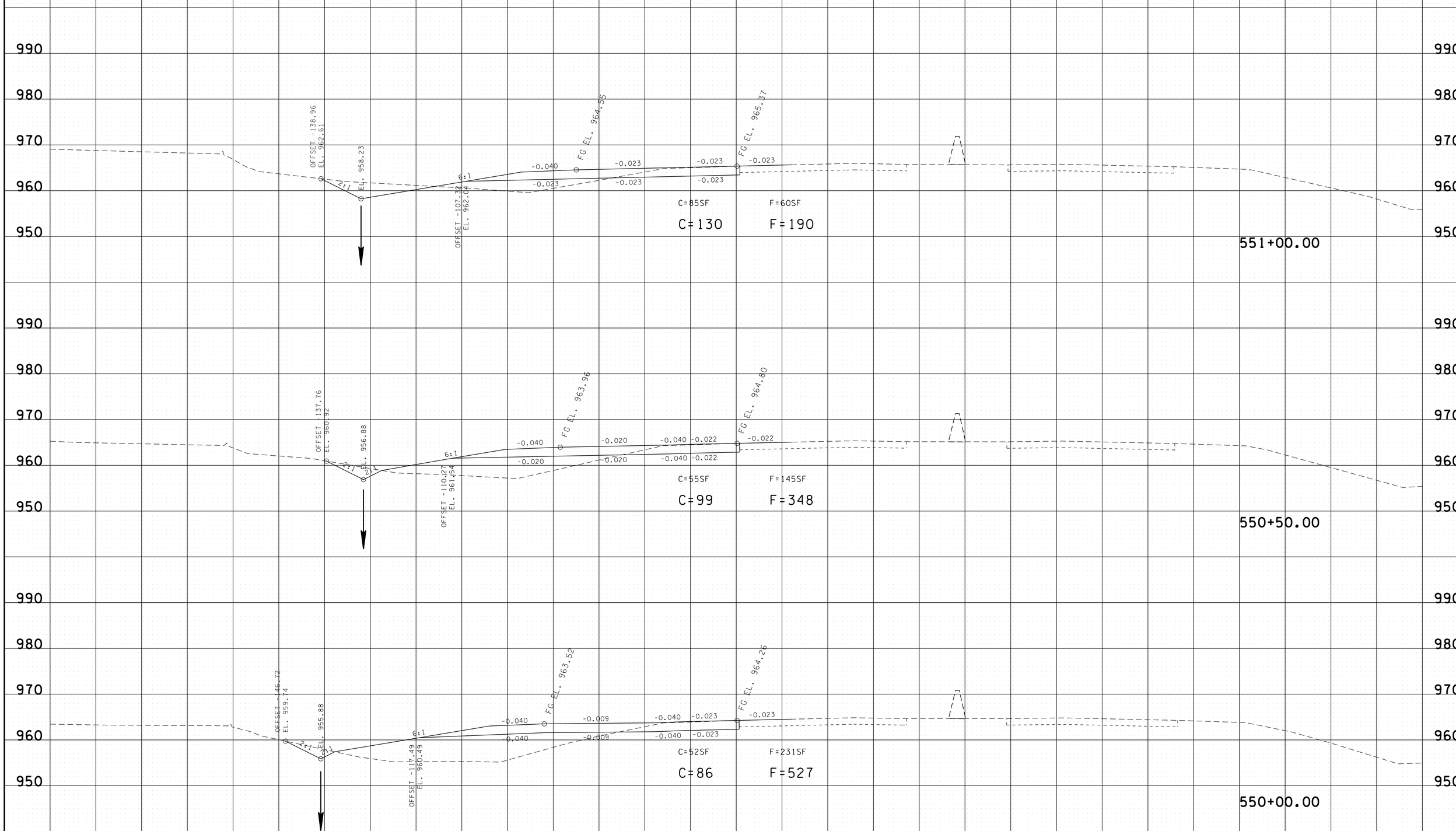
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	32
CONST.	2014	HSIP-I-40-7(168)	38

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



I-40 W. & RAMP A

BEGIN STA. 550+00.00
END STA. 551+00.00

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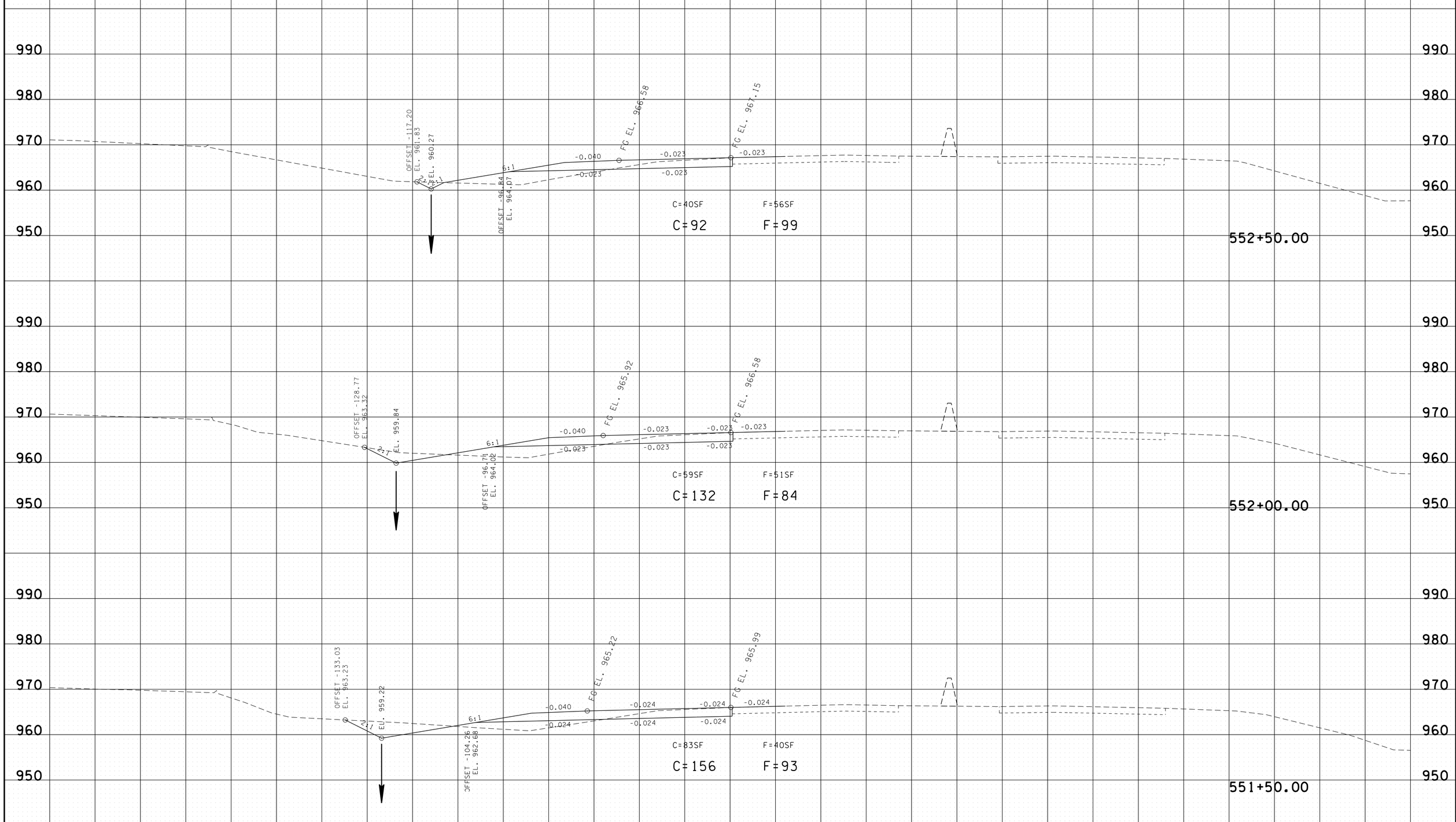
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	33
CONST.	2014	HSIP-I-40-7(168)	39

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 380 C.Y. F = 267 C.Y.

I-40 W. & RAMP A

BEGIN STA. 551+50.00
END STA. 552+50.00

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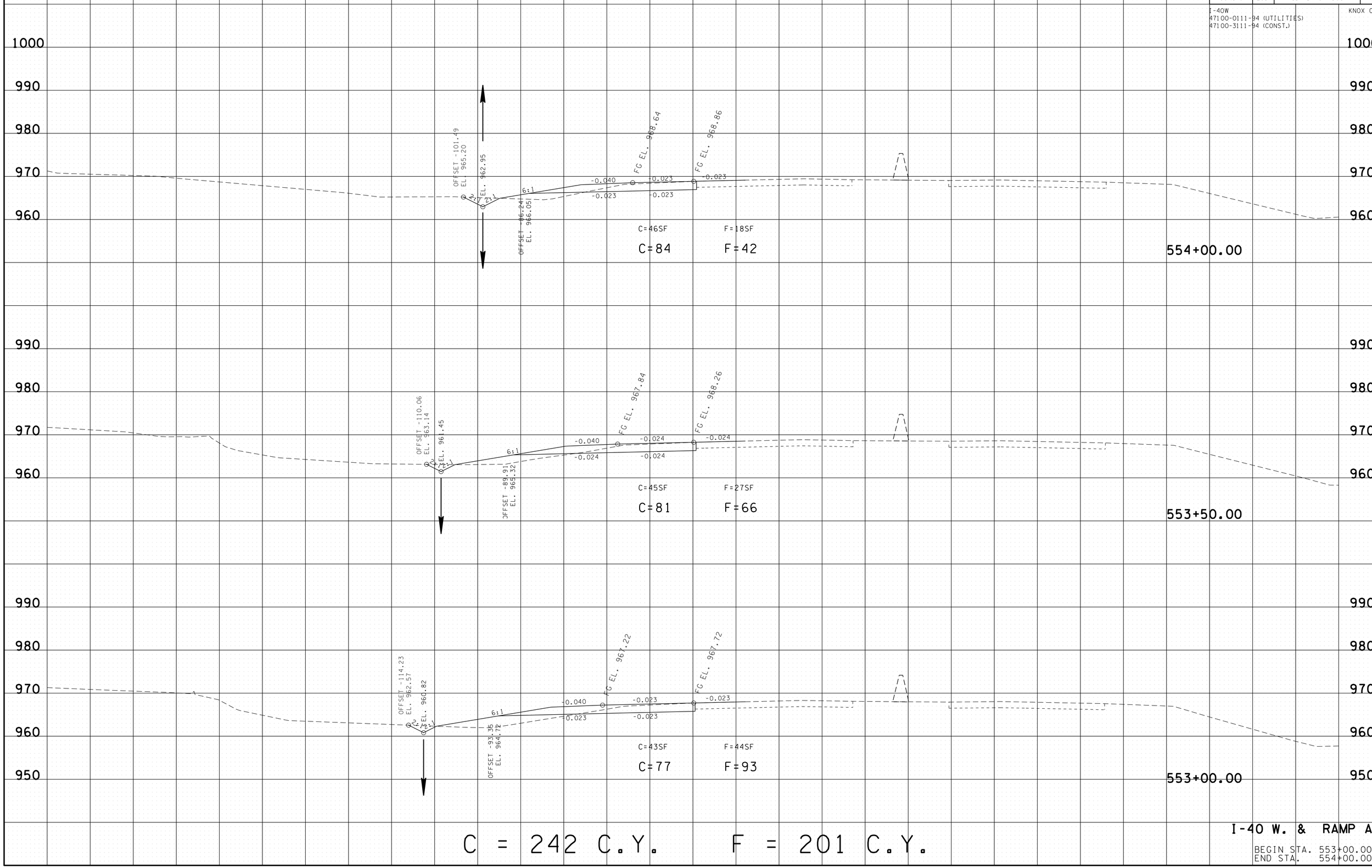
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	34
CONST.	2014	HSIP-I-40-7(168)	40

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 242 C.Y. F = 201 C.Y.

I-40 W. & RAMP A

BEGIN STA. 553+00.00
END STA. 554+00.00

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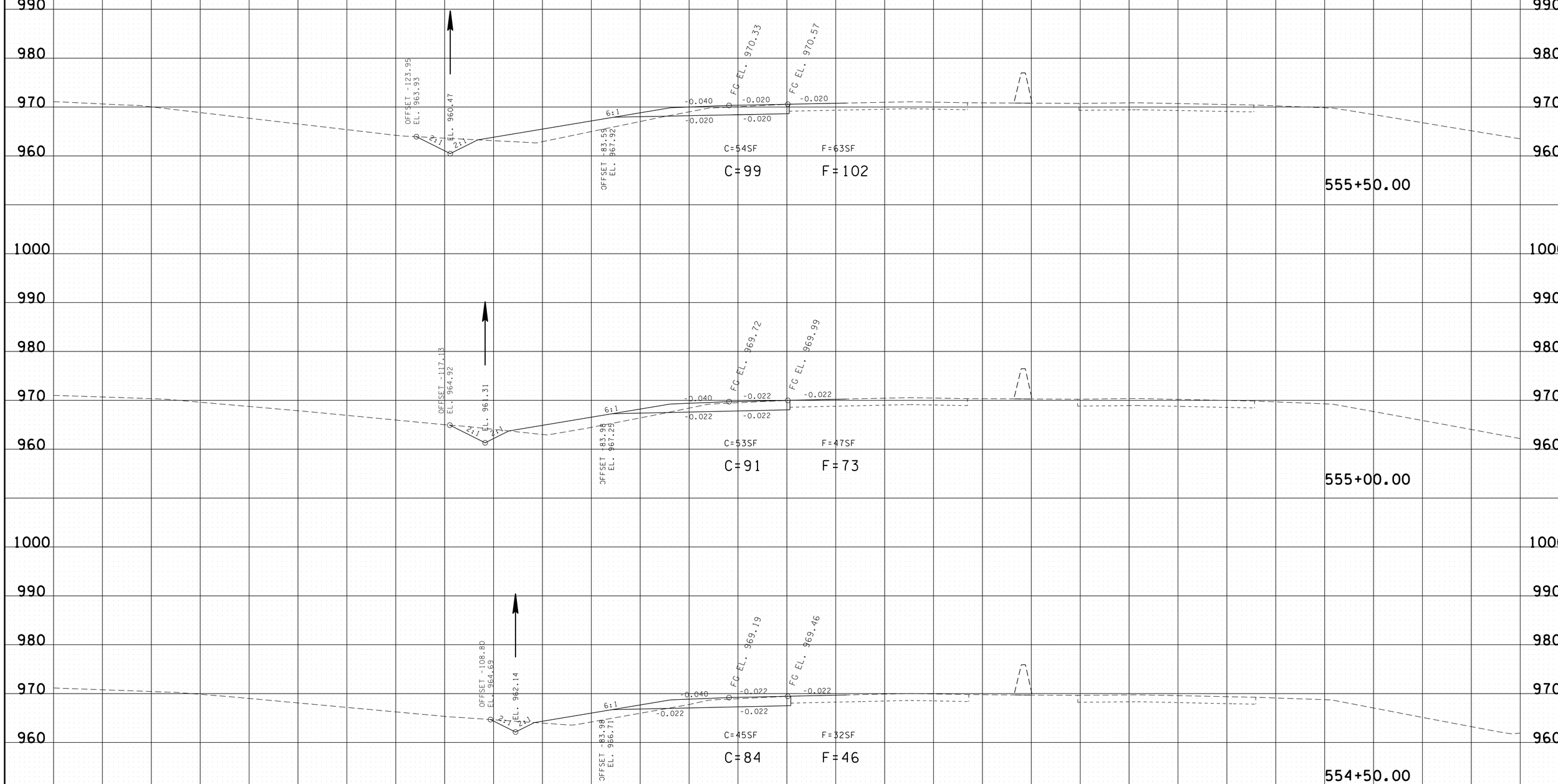
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	35
CONST.	2014	HSIP-I-40-7(168)	41

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 274 C.Y. F = 221 C.Y.

I-40 W. & RAMP A

BEGIN STA. 554+50.00
END STA. 555+50.00

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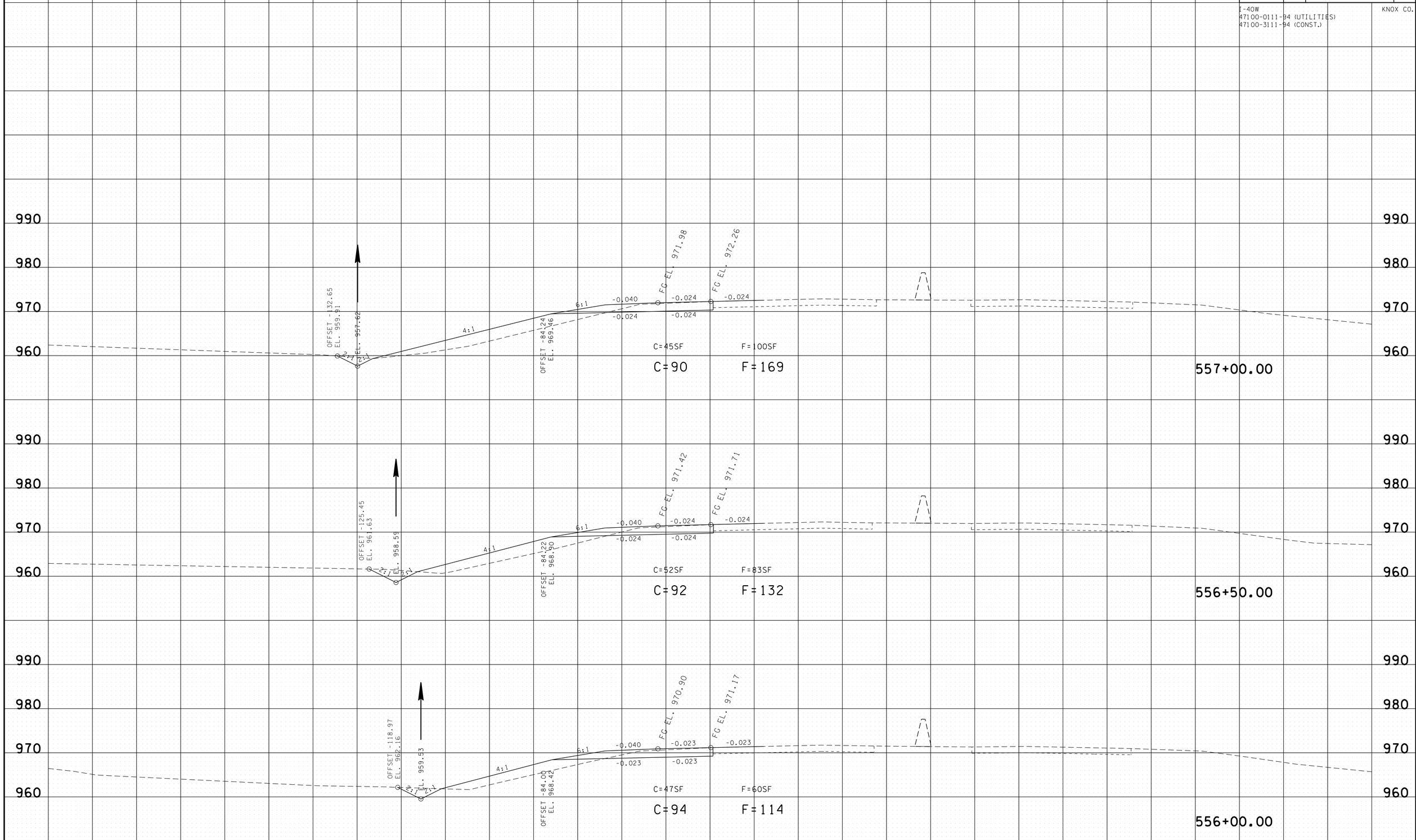
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	36
CONST.	2014	HSIP-I-40-7(168)	42

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 276 C.Y. F = 415 C.Y.

I-40 W. & RAMP A

BEGIN STA. 556+00.00
END STA. 557+00.00

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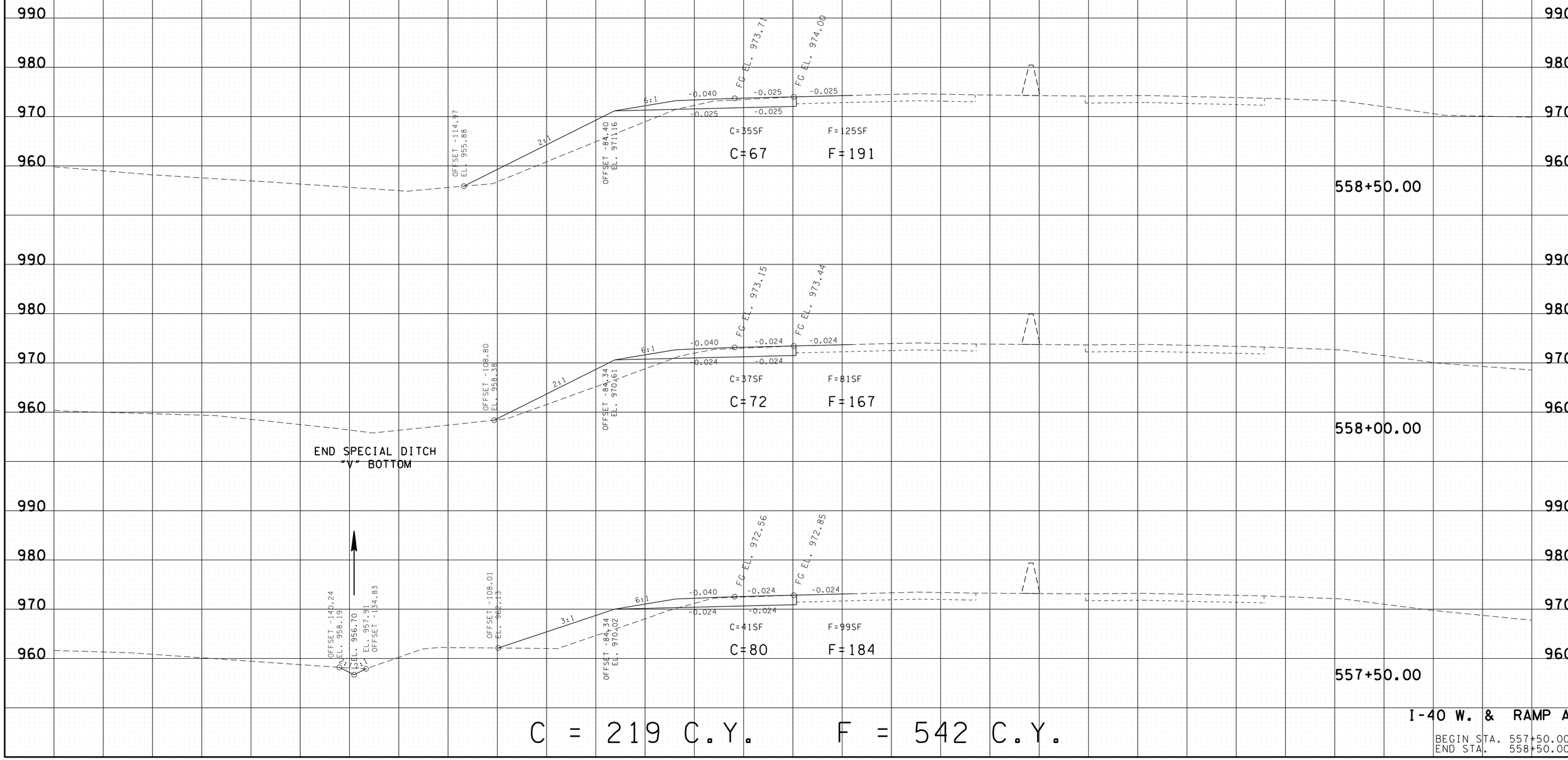
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	37
CONST.	2014	HSIP-I-40-7(168)	43

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 219 C.Y. F = 542 C.Y.

I-40 W. & RAMP A

BEGIN STA. 557+50.00
END STA. 558+50.00

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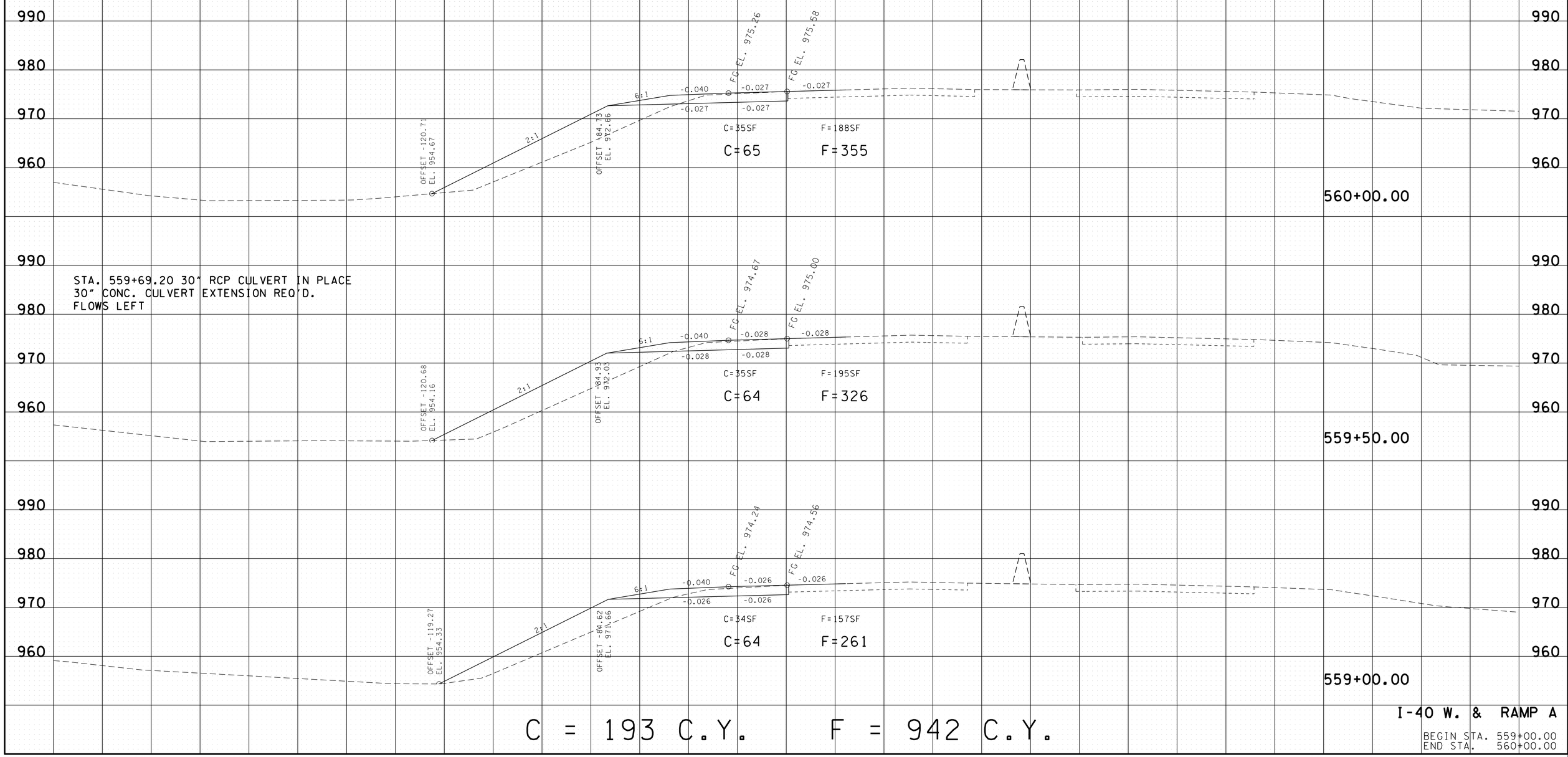
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	38
CONST.	2014	HSIP-I-40-7(168)	44

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 193 C.Y. F = 942 C.Y.

I-40 W. & RAMP A

BEGIN STA. 559+00.00
END STA. 560+00.00

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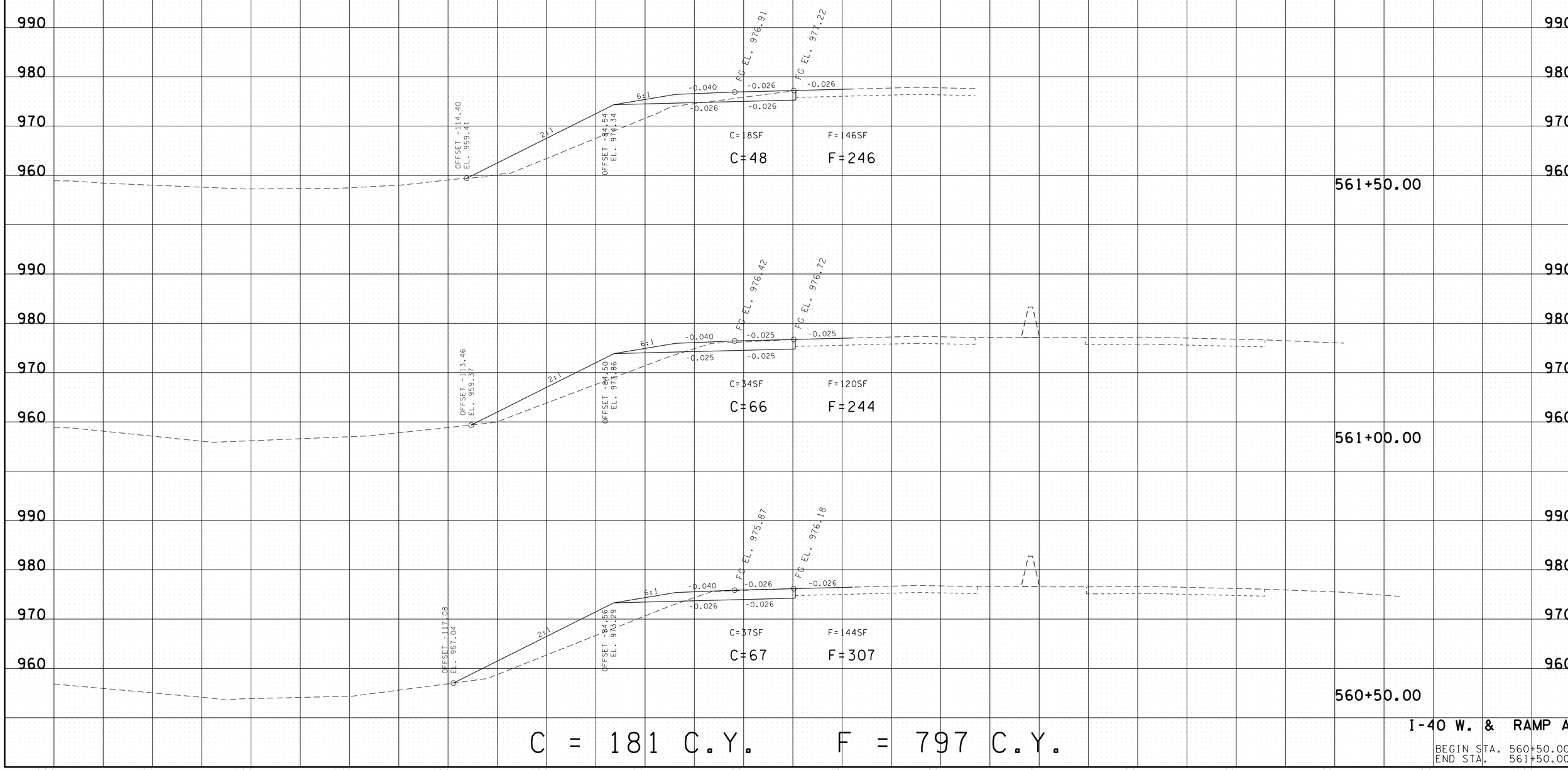
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	39
CONST.	2014	HSIP-I-40-7(168)	45

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 181 C.Y. F = 797 C.Y.

I-40 W. & RAMP A

BEGIN STA. 560+50.00
END STA. 561+50.00

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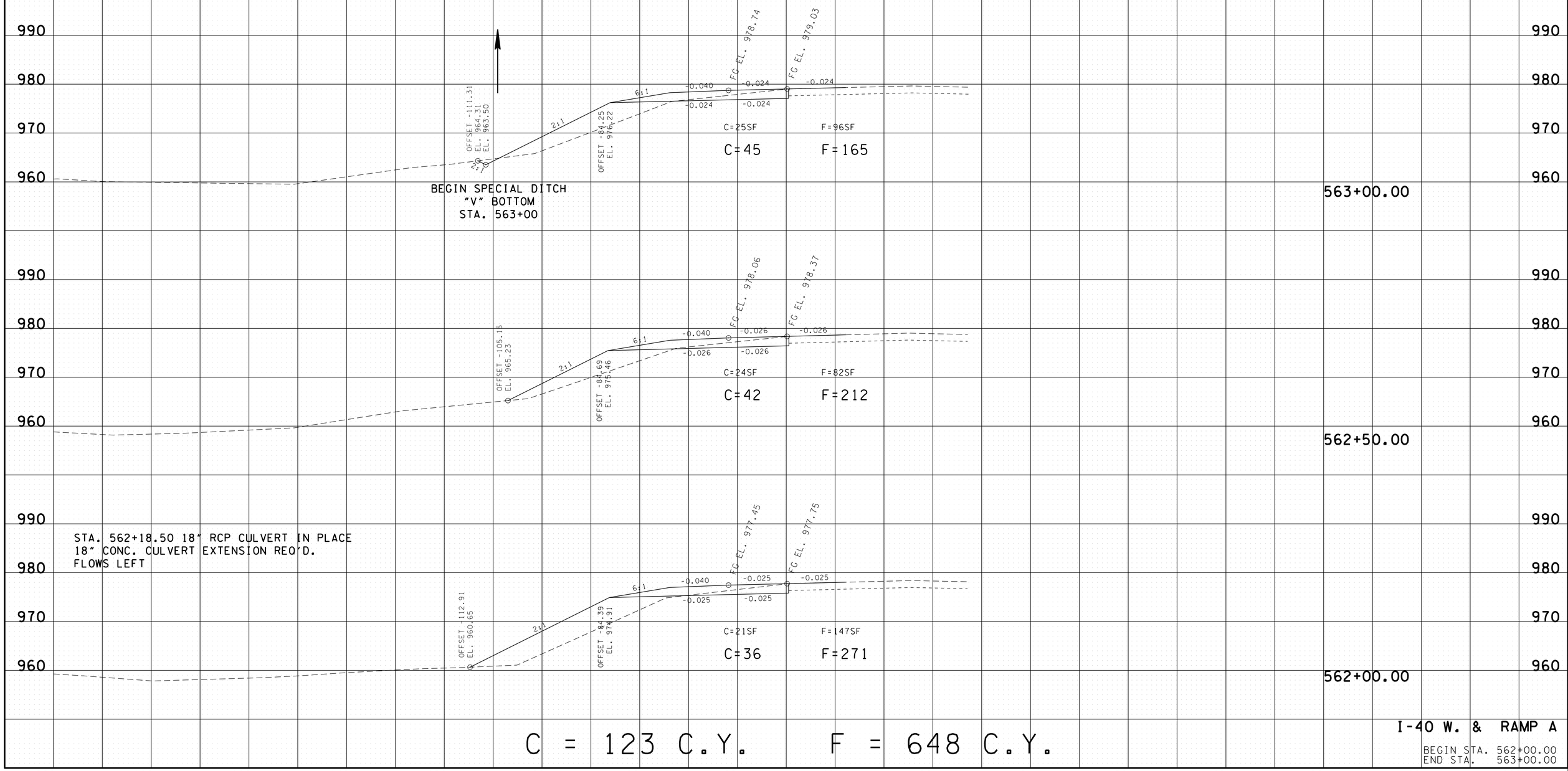
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	40
CONST.	2014	HSIP-I-40-7(168)	46

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 123 C.Y. F = 648 C.Y.

I-40 W. & RAMP A

BEGIN STA. 562+00.00
END STA. 563+00.00

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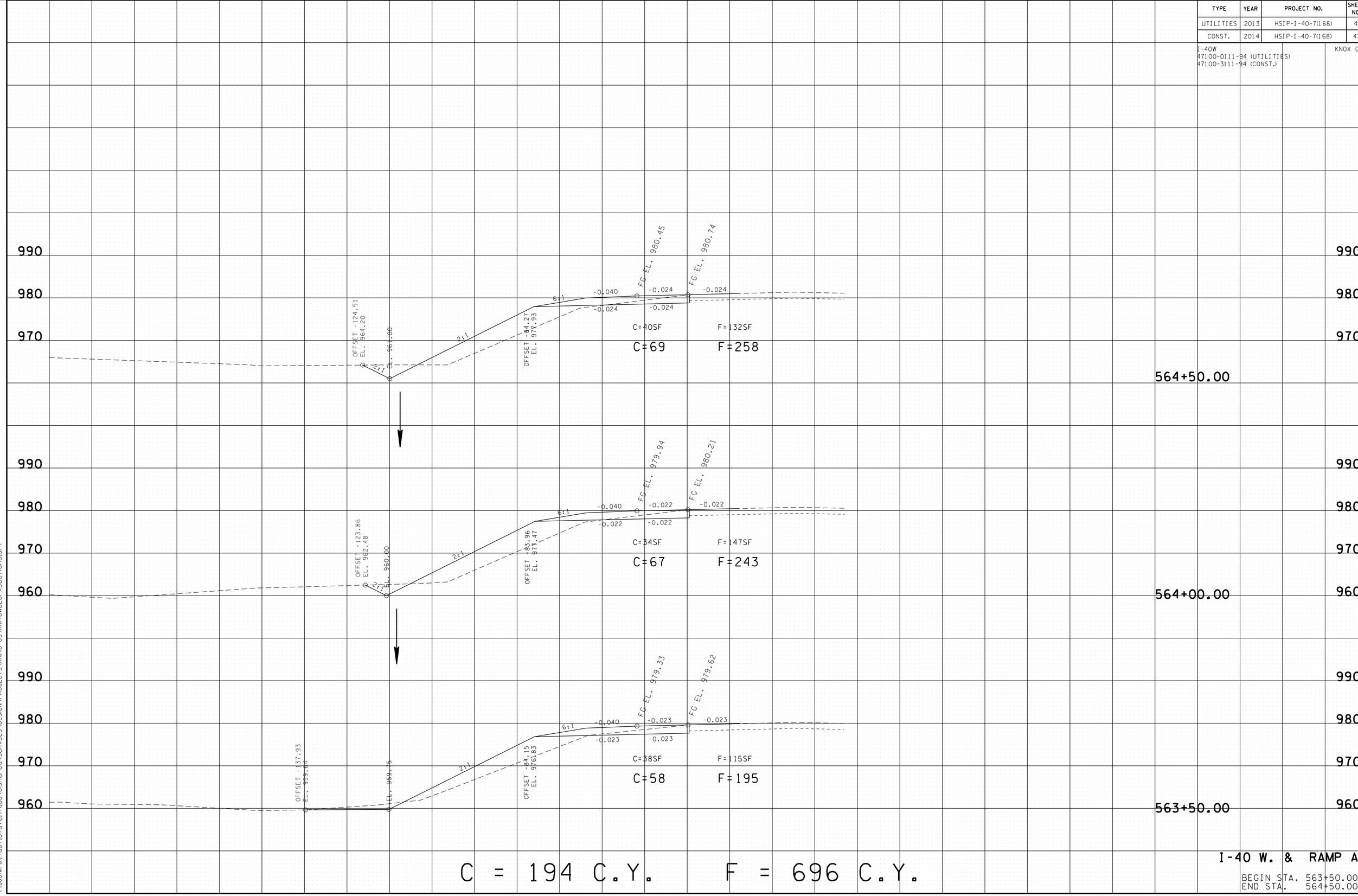
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	41
CONST.	2014	HSIP-I-40-7(168)	47

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 194 C.Y. F = 696 C.Y.

I-40 W. & RAMP A

BEGIN STA. 563+50.00
END STA. 564+50.00

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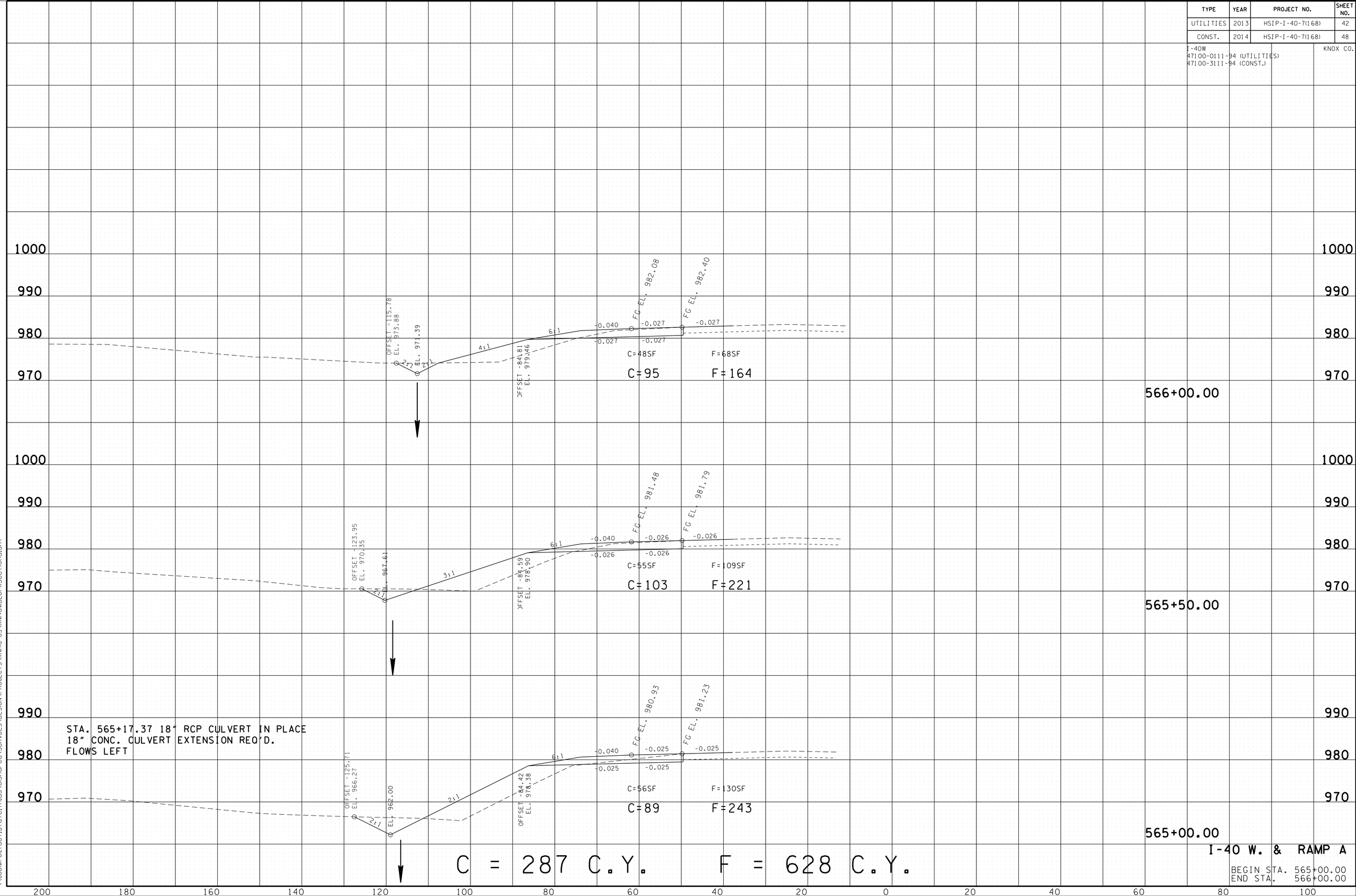
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	42
CONST.	2014	HSIP-I-40-7(168)	48

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



I-40 W. & RAMP A

BEGIN STA. 565+00.00
END STA. 566+00.00

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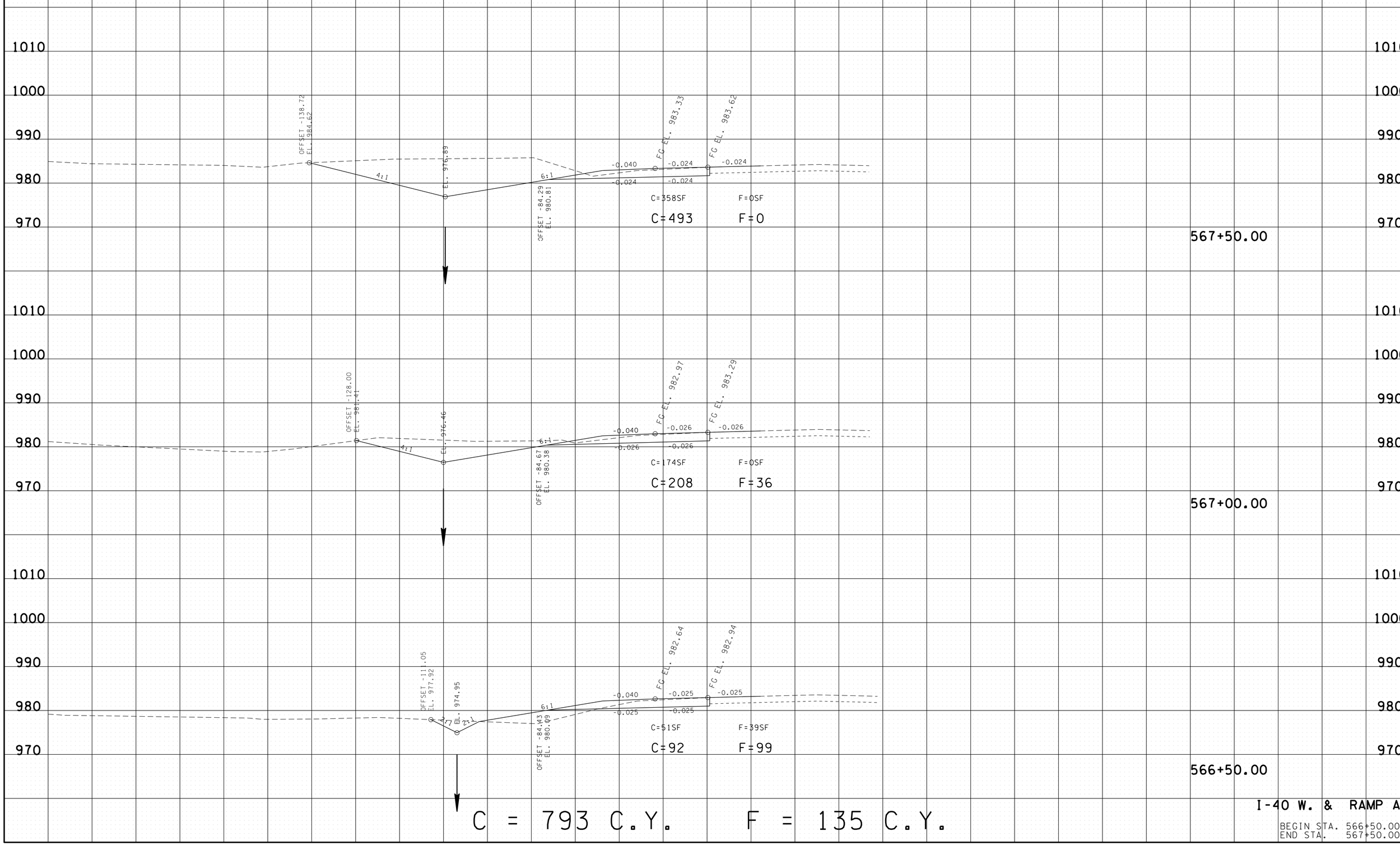
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	43
CONST.	2014	HSIP-I-40-7(168)	49

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



I-40 W. & RAMP A

BEGIN STA. 566+50.00
END STA. 567+50.00

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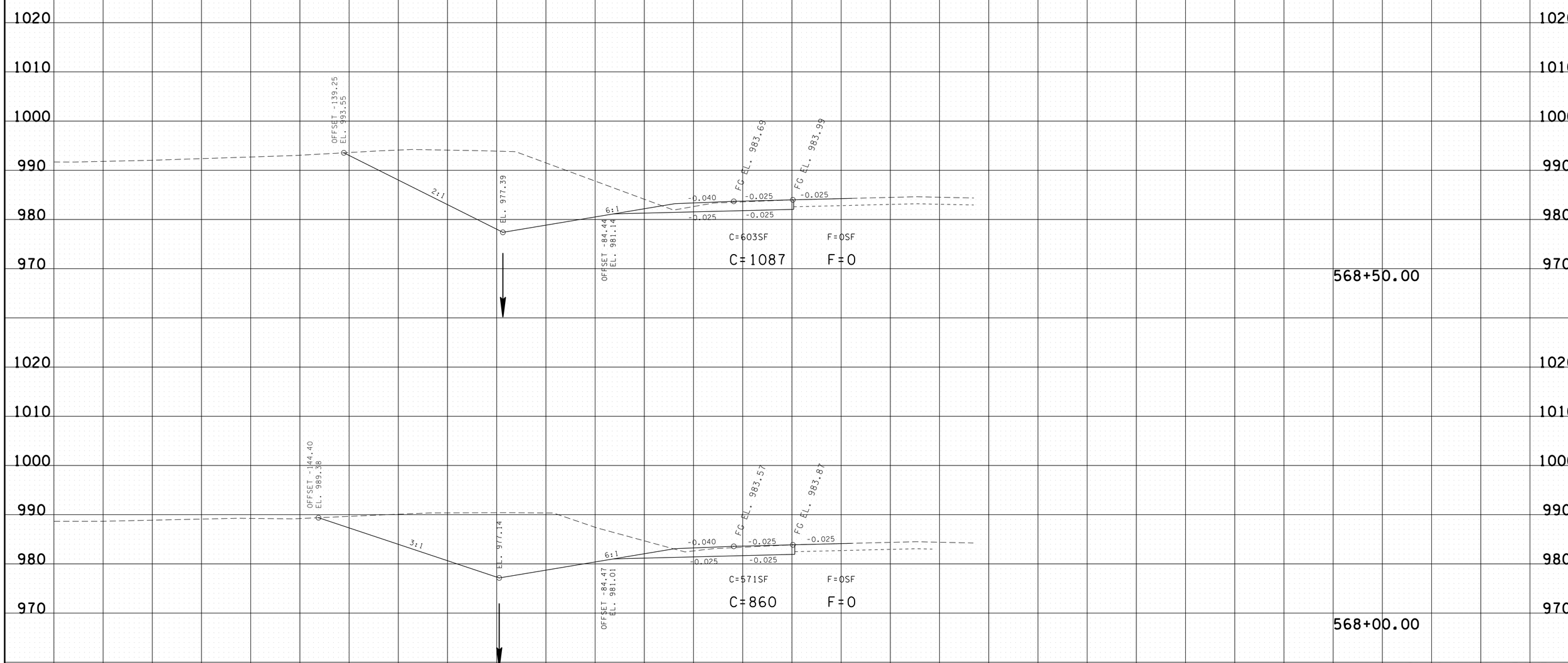
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	44
CONST.	2014	HSIP-I-40-7(168)	50

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



I-40 W. & RAMP A

BEGIN STA. 568+00.00
END STA. 568+50.00

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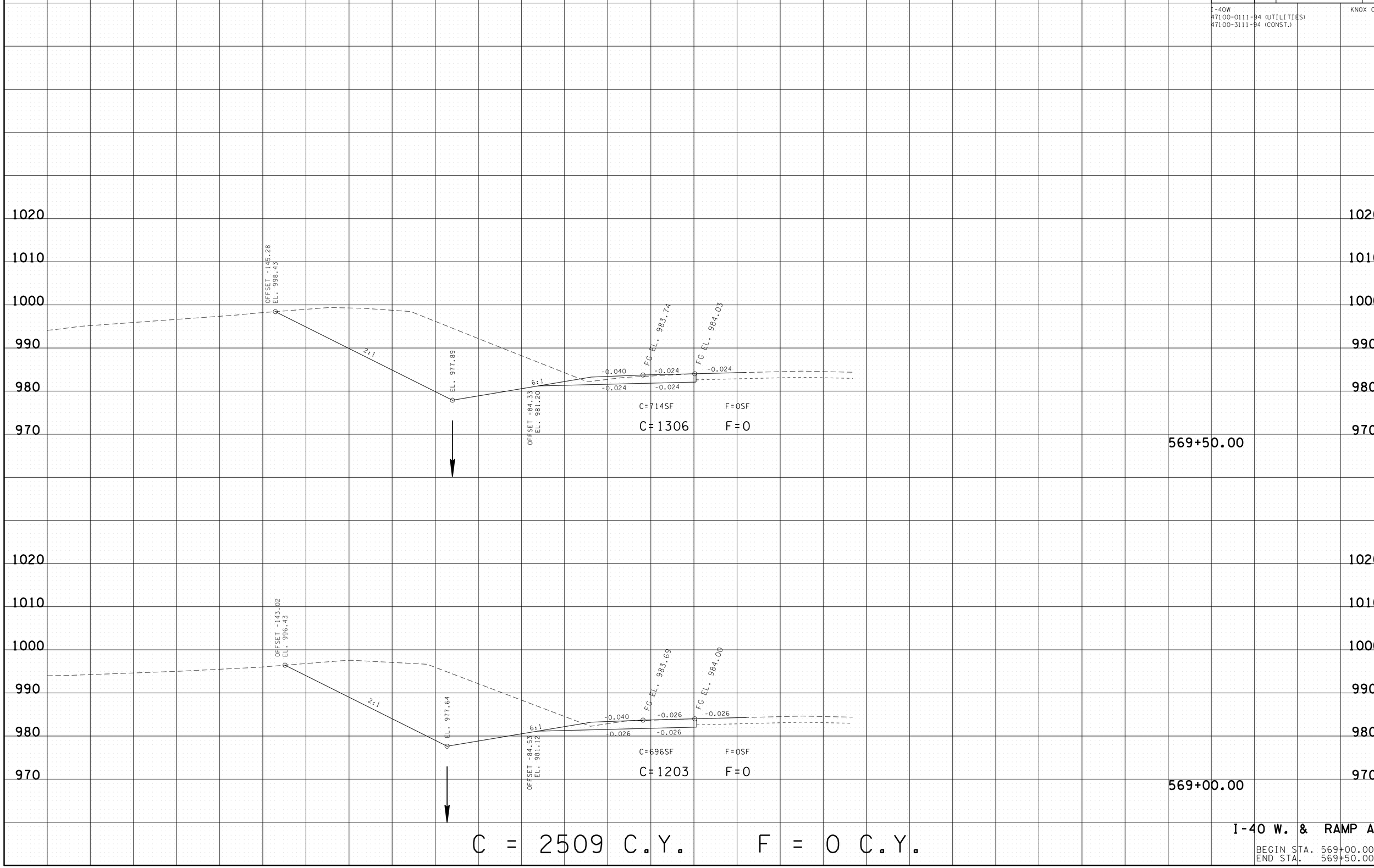
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	45
CONST.	2014	HSIP-I-40-7(168)	51

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 2509 C.Y. F = 0 C.Y.

I-40 W. & RAMP A

BEGIN STA. 569+00.00
END STA. 569+50.00

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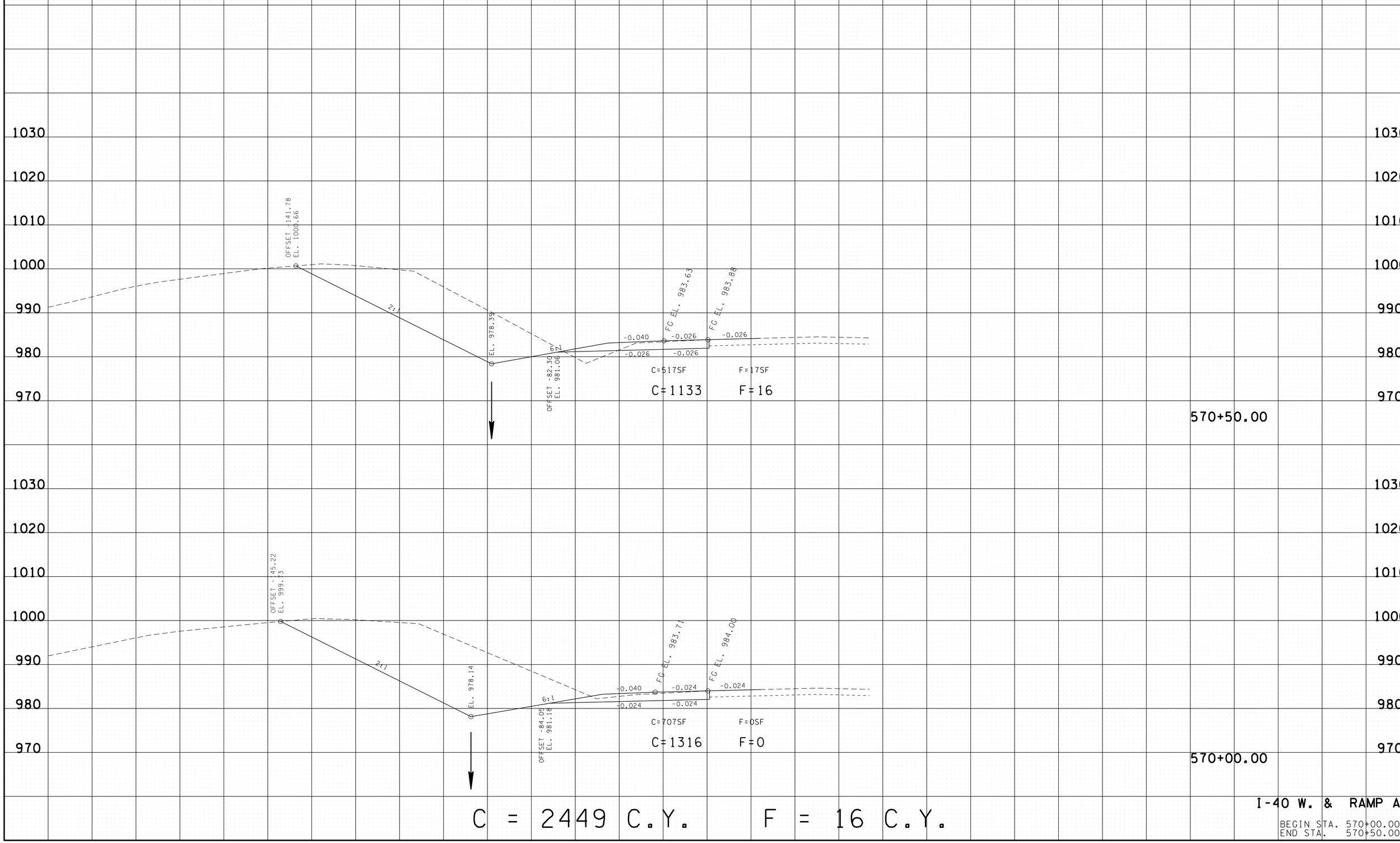
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	46
CONST.	2014	HSIP-I-40-7(168)	52

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 2449 C.Y. F = 16 C.Y.

I-40 W. & RAMP A

BEGIN STA. 570+00.00
END STA. 570+50.00

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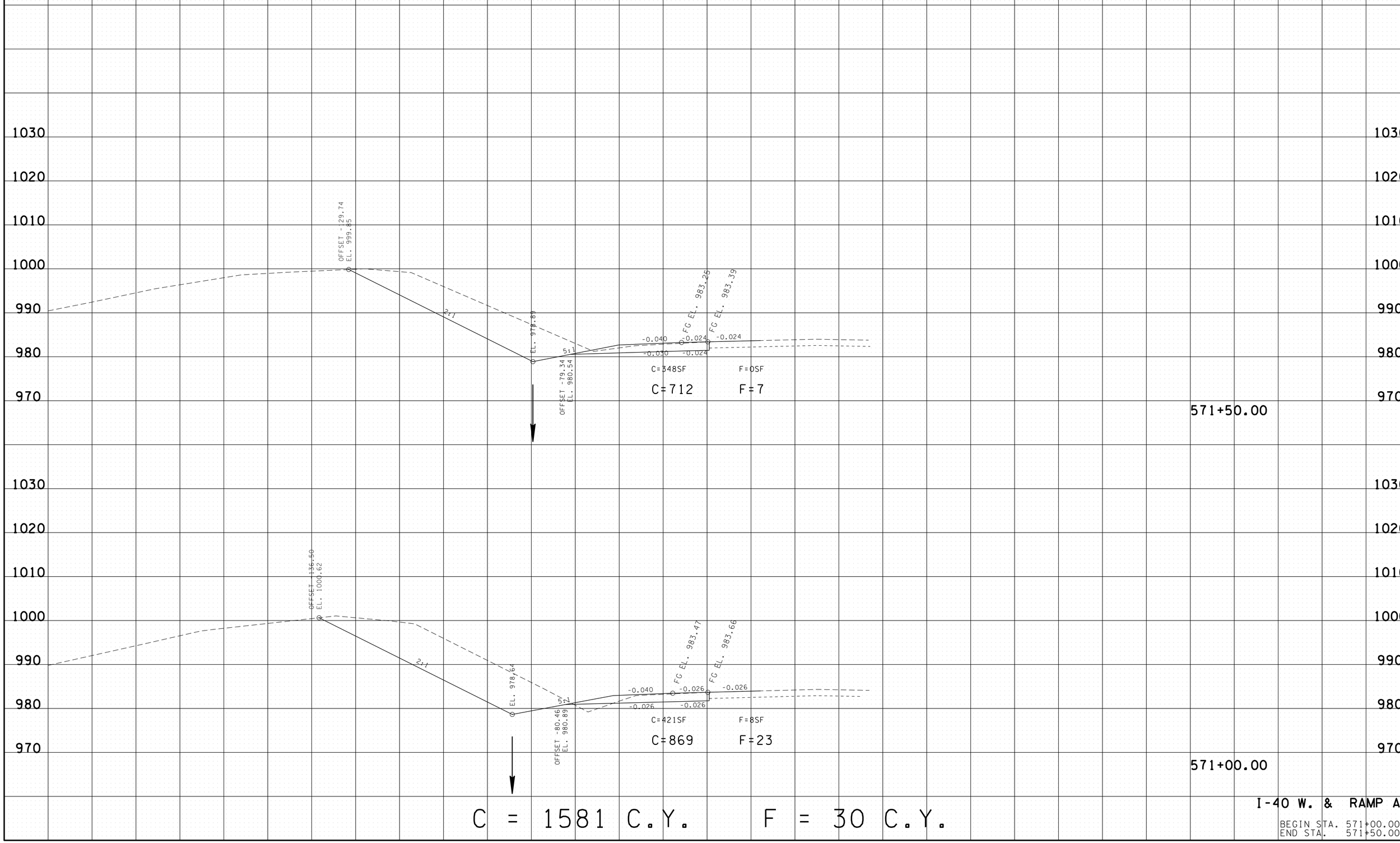
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	47
CONST.	2014	HSIP-I-40-7(168)	53

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 1581 C.Y. F = 30 C.Y.

I-40 W. & RAMP A

BEGIN STA. 571+00.00
END STA. 571+50.00

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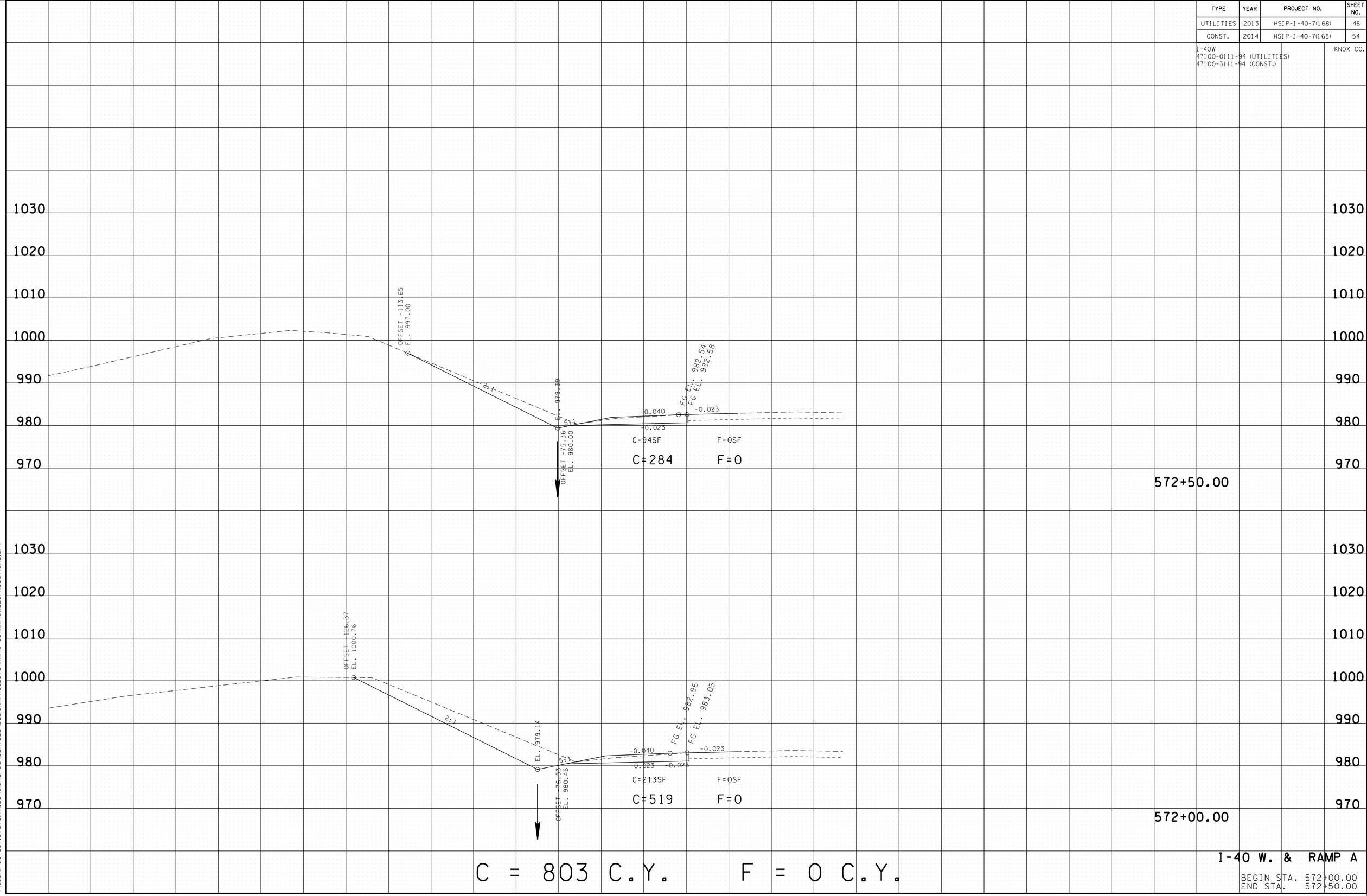
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	48
CONST.	2014	HSIP-I-40-7(168)	54

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 803 C.Y. F = 0 C.Y.

I-40 W. & RAMP A

BEGIN STA. 572+00.00
END STA. 572+50.00

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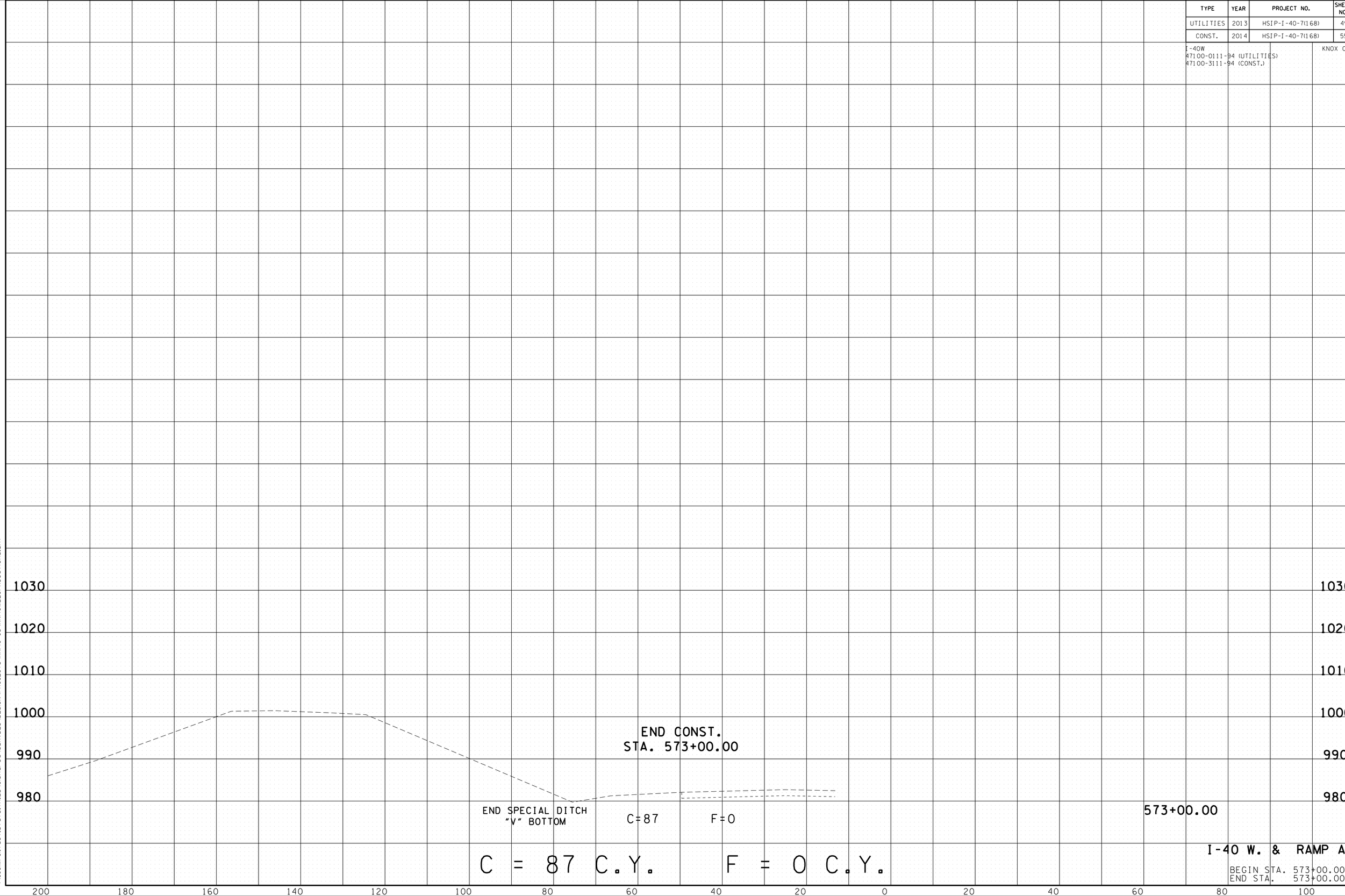
TYPE	YEAR	PROJECT NO.	SHEET NO.
UTILITIES	2013	HSIP-I-40-7(168)	49
CONST.	2014	HSIP-I-40-7(168)	55

I-40W
47100-0111-94 (UTILITIES)
47100-3111-94 (CONST.)

KNOX CO.



C = 87 C.Y. F = 0 C.Y.

I-40 W. & RAMP A

BEGIN STA. 573+00.00
END STA. 573+00.00

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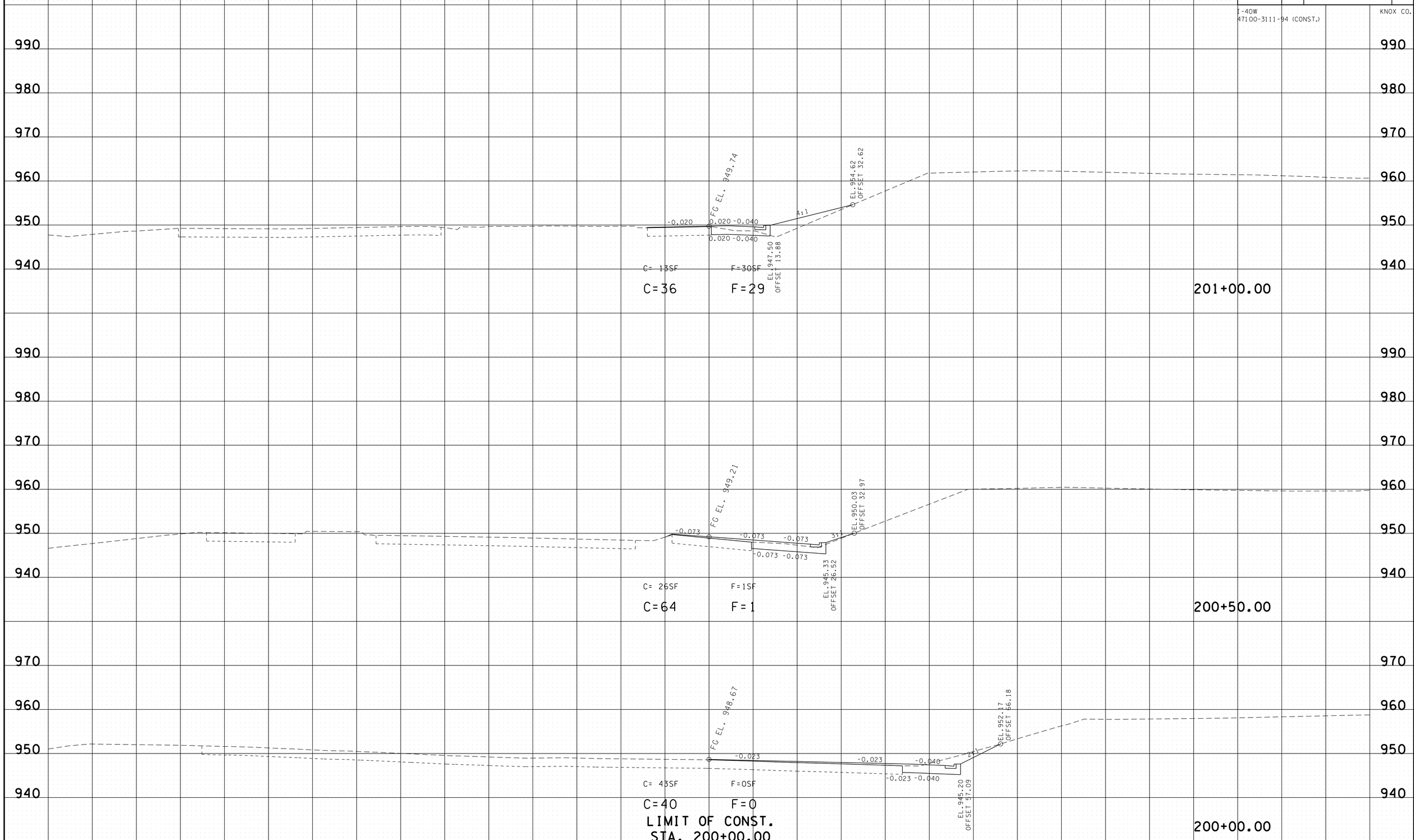
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	56

I-40W
47100-3111-94 (CONST.)

KNOX CO.



RAMP B

C = 110 C.Y. F = 30 C.Y.

BEGIN STA. 200+00.00
END STA. 201+00.00

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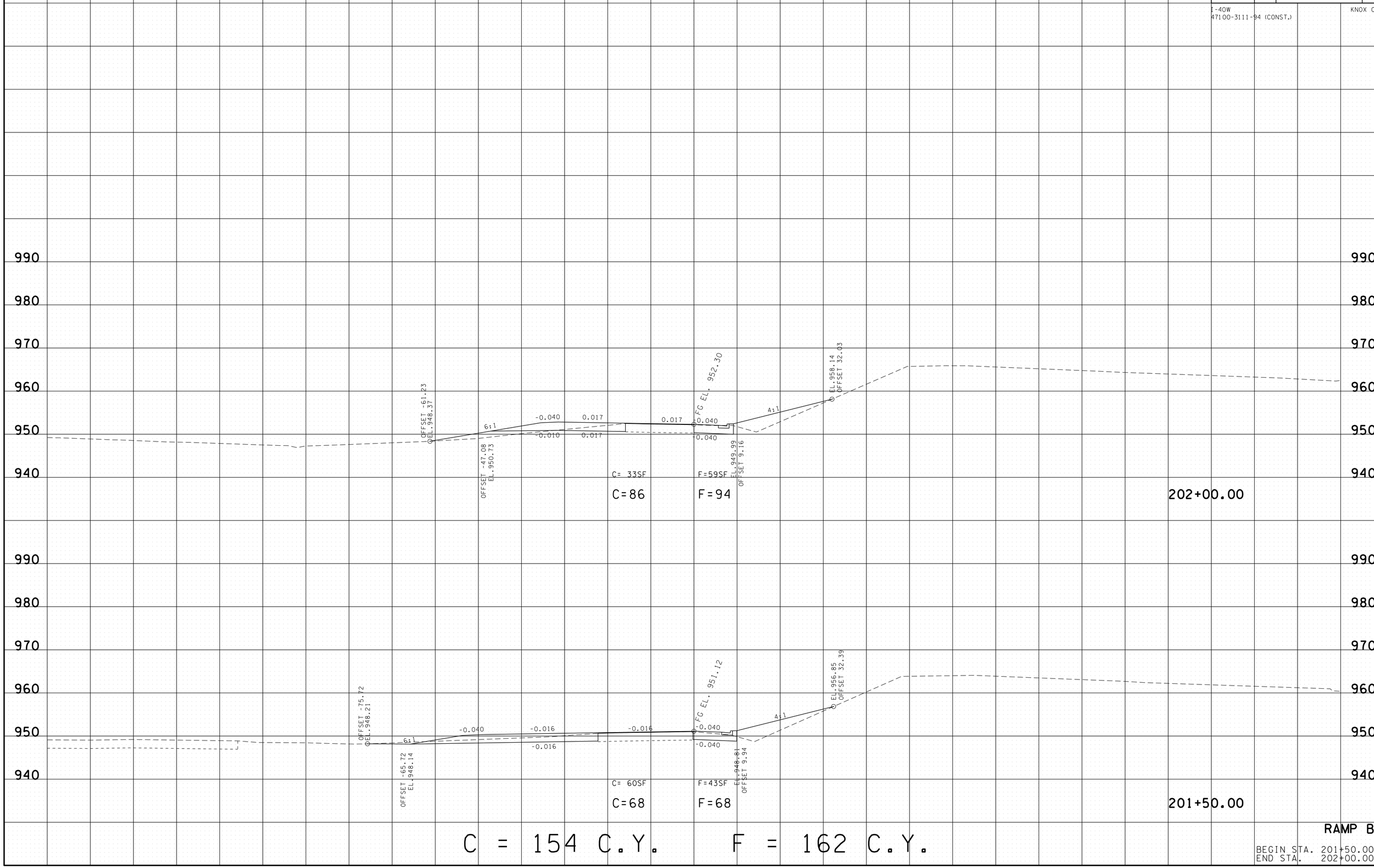
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	57

I-40W
47100-3111-94 (CONST.)

KNOX CO.



C = 154 C.Y. F = 162 C.Y.

RAMP B

BEGIN STA. 201+50.00
END STA. 202+00.00

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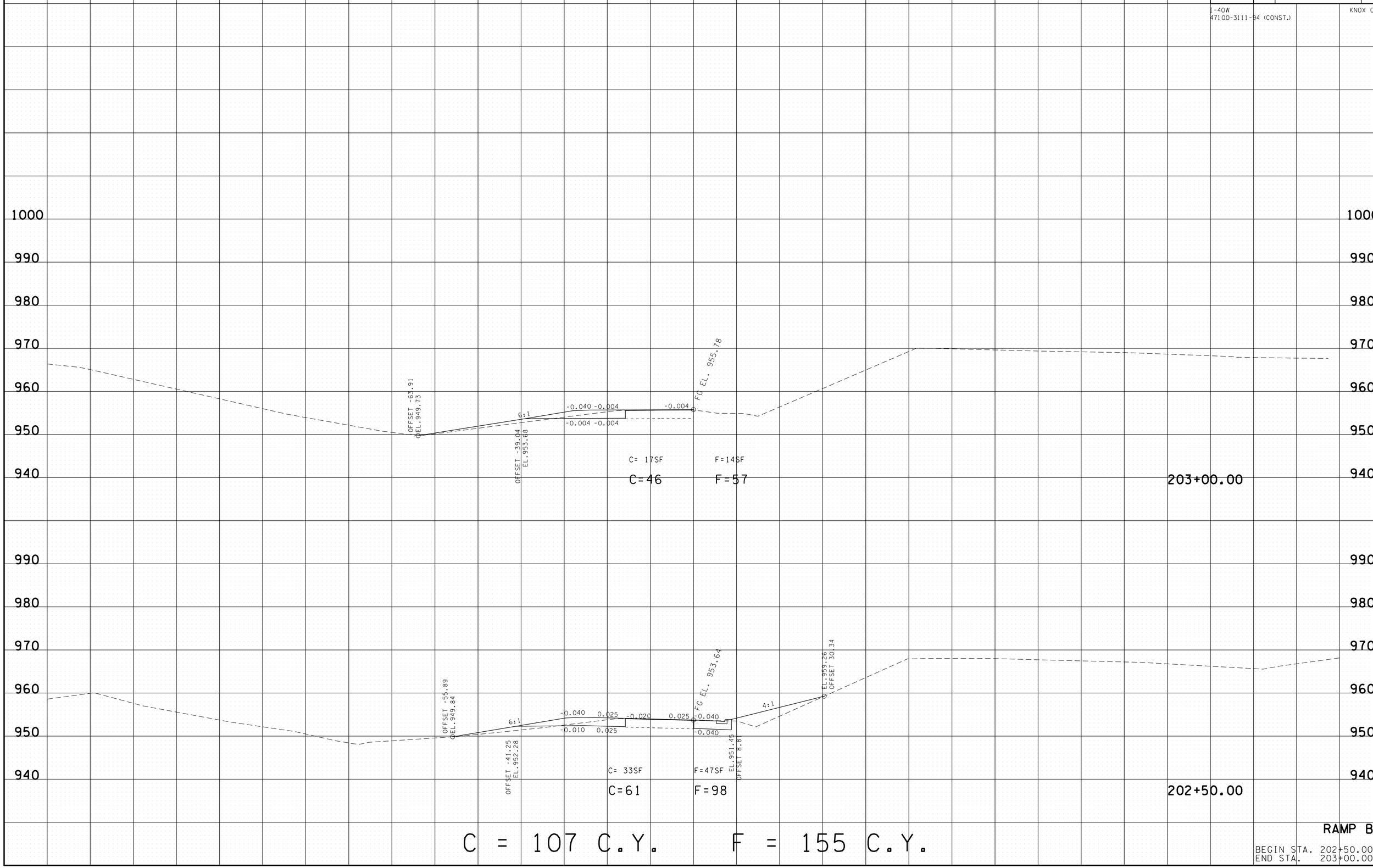
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	58

I-40W
47100-3111-94 (CONST.)

KNOX CO.



C = 107 C.Y. F = 155 C.Y.

RAMP B

BEGIN STA. 202+50.00
END STA. 203+00.00

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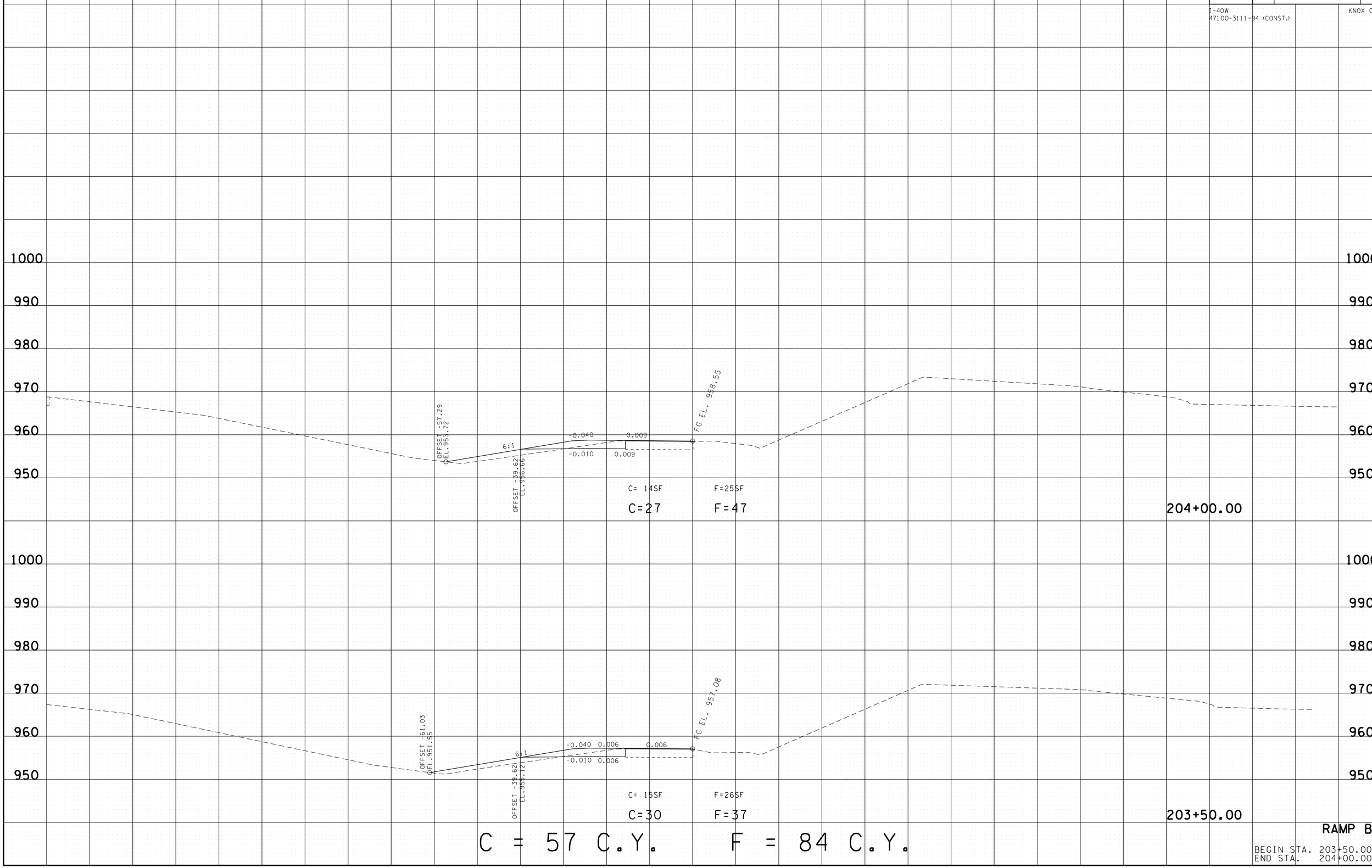
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	59

I-40W
47100-3111-94 (CONST.)

KNOX CO.



C = 57 C.Y. F = 84 C.Y.

RAMP B

BEGIN STA. 203+50.00
END STA. 204+00.00

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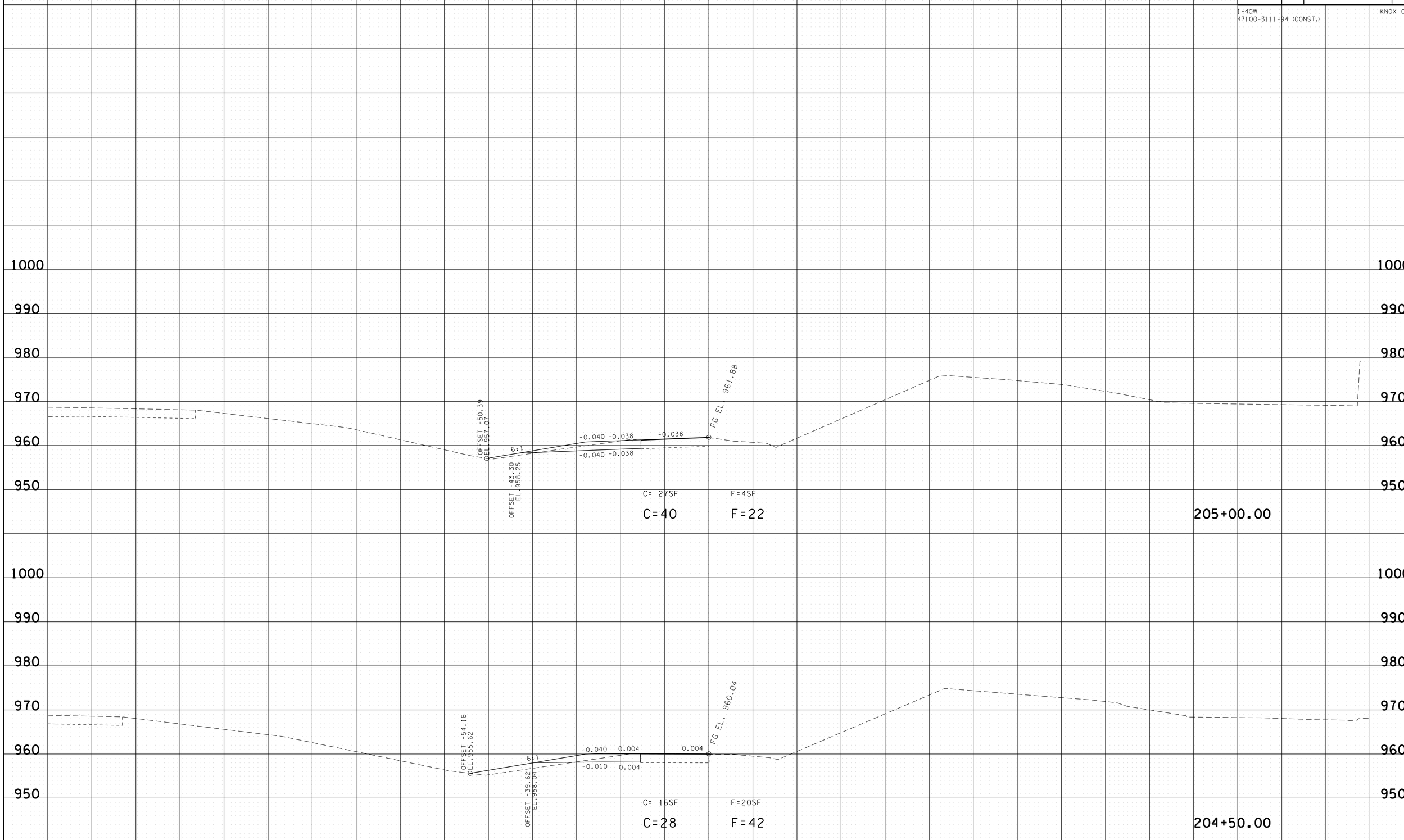
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	60

I-40W
47100-3111-94 (CONST.)

KNOX CO.



C = 68 C.Y. F = 64 C.Y.

RAMP B

BEGIN STA. 204+50.00
END STA. 205+00.00

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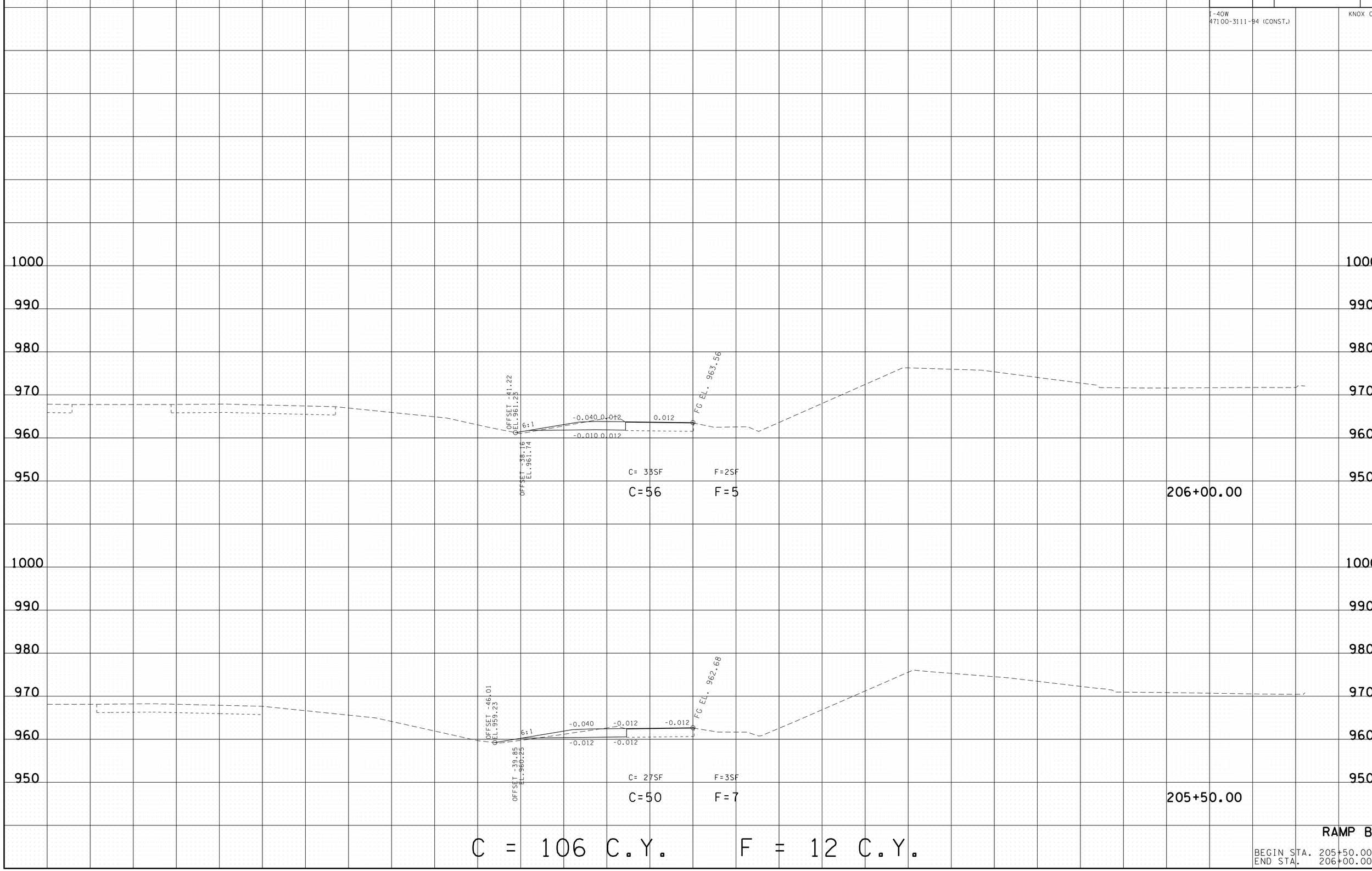
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	61

I-40W
47100-3111-94 (CONST.)

KNOX CO.



C = 106 C.Y. F = 12 C.Y.

RAMP B

BEGIN STA. 205+50.00
END STA. 206+00.00

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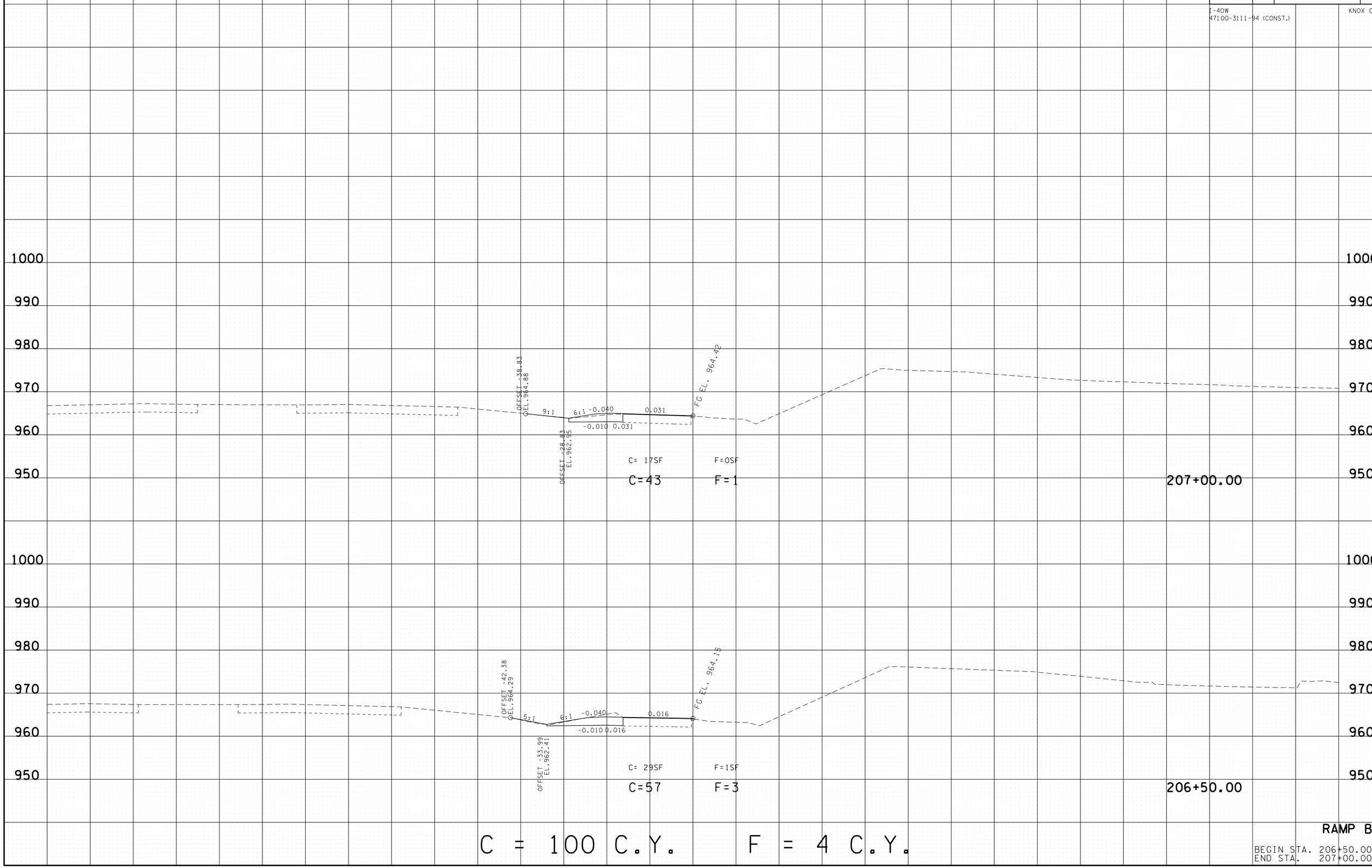
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	62

I-40W
47100-3111-94 (CONST.)

KNOX CO.



C = 100 C.Y. F = 4 C.Y.

RAMP B

BEGIN STA. 206+50.00
END STA. 207+00.00

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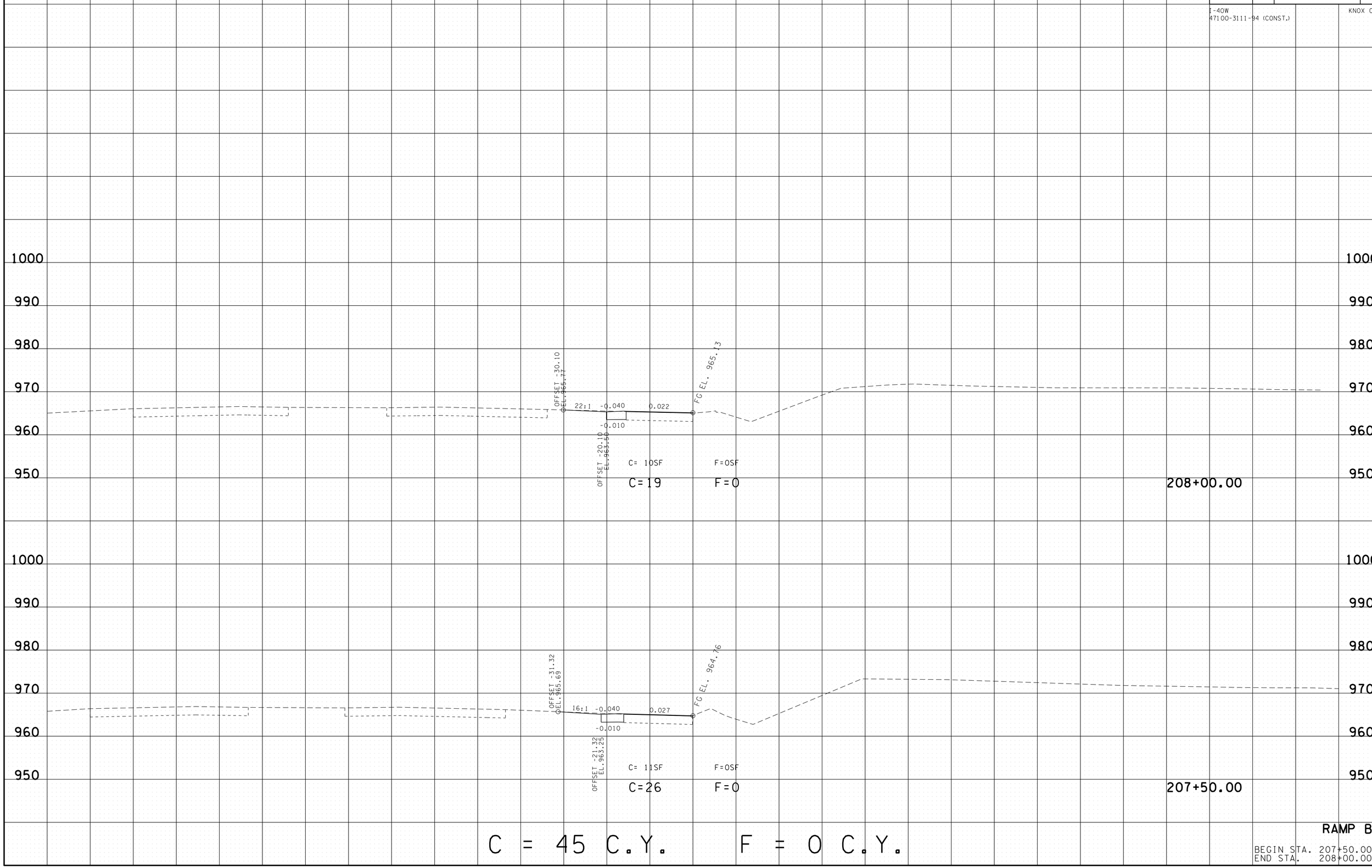
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	63

I-40W
47100-3111-94 (CONST.)

KNOX CO.



C = 45 C.Y. F = 0 C.Y.

RAMP B

BEGIN STA. 207+50.00
END STA. 208+00.00

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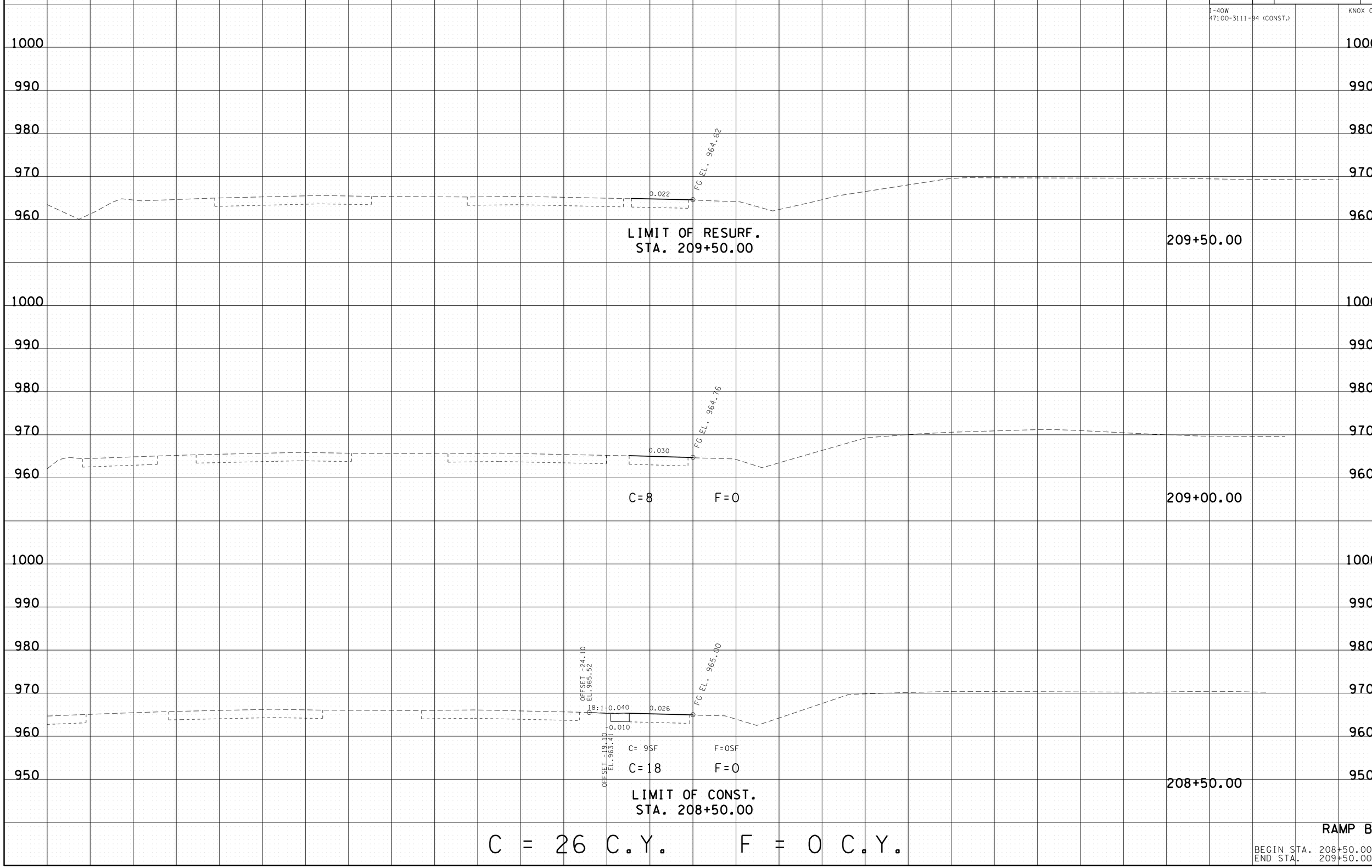
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	64

I-40W
47100-3111-94 (CONST.)

KNOX CO.



C = 26 C.Y. F = 0 C.Y.

RAMP B

BEGIN STA. 208+50.00
END STA. 209+50.00

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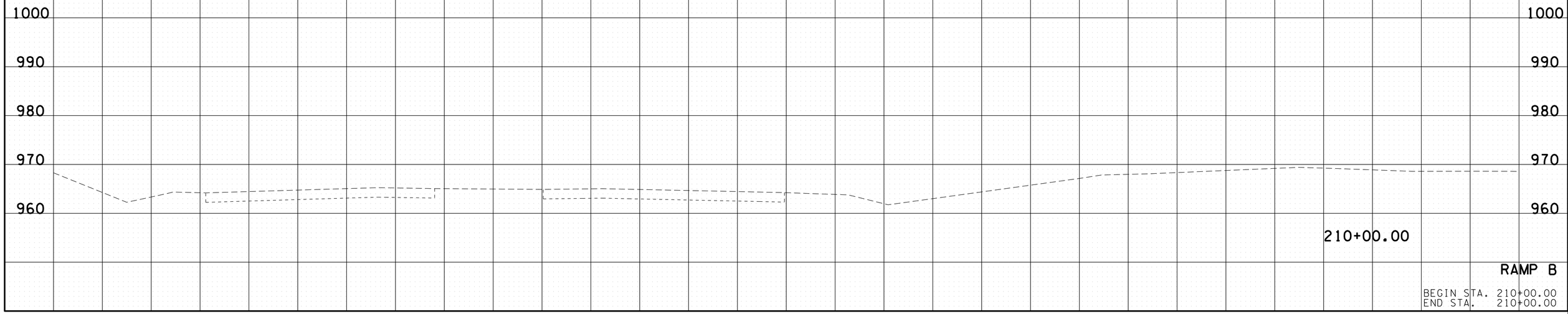
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	HSIP-I-40-7(168)	65

I-40W
47100-3111-94 (CONST.)

KNOX CO.



RAMP B

BEGIN STA. 210+00.00
END STA. 210+00.00

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