

MIKE SPARKS – COUNTY COMMISSIONER
DISTRICT NO. 2

TYLER D. SCHRODER, P.E. 25837
CIRCUIT ENGINEERING DISTRICT 8
2901 N. VAN BUREN
ENID, OK. 73703

SARAH HAMBY
LOCAL GOVERNMENT COORDINATION DIVISION
P.E. NO. 29362(01)

DESIGN DATA

ADT 2025=340
ADT 2045=505
DESIGN SPEED=45 M.P.H.
TERRAIN=LEVEL

FLEX ESALS= 0.55M

SURVEY DATA

- HORIZONTAL CONTROL
 - HORIZONTAL CONTROL FOR THIS SURVEY IS THE ESTABLISHED SECTION CORNERS ALONG THE CONSTRUCTION REFERENCE LINE & SECTION LINE
- VERTICAL CONTROL
 - LEVEL DATUM IS MEAN SEA LEVEL (U.S.C. & G.S.)

STATE OF OKLAHOMA
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED
COUNTY BRIDGE
FEDERAL AID PROJECT NO. XXX(004)CI
BRIDGE AND APPROACH PLANS
KINGFISHER COUNTY

TURKEY CREEK
STATE JOB NO. 29362(04)

BRIDGE "A"
(OLD NBI NO. 15187)(NEW NBI NO. XXXX)
LOCATION NO. 37E0715N2850000
LAT. 35° 58' 43" N LONG. 97° 55' 31" W

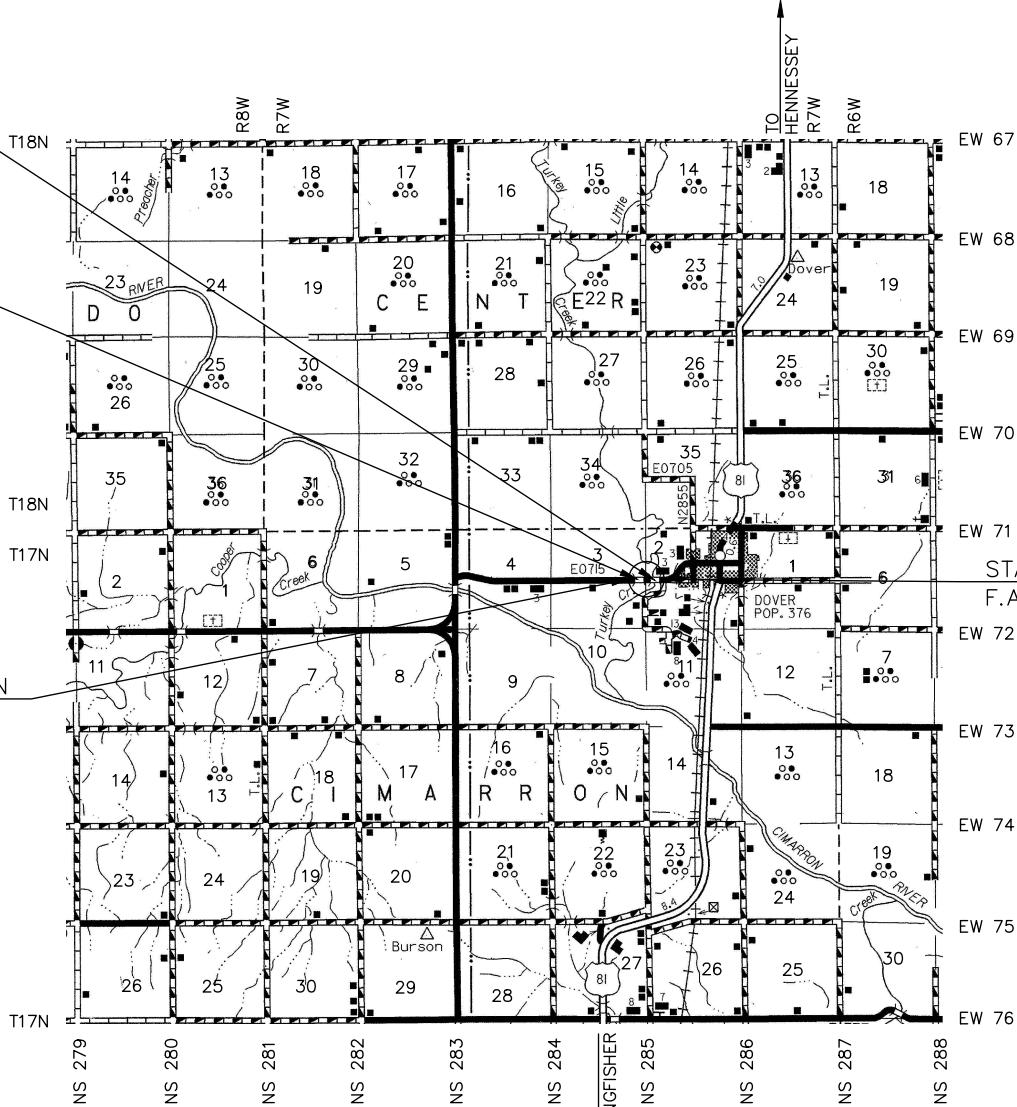
BRIDGE "B"
(OLD NBI NO. 15106)(NEW NBI NO. XXXX)
LOCATION NO. 37E0715N2850002
LAT. 35° 58' 43" N LONG. 97° 55' 23" W

END BRIDGE STA. 213+09.75
BRIDGE "B" LENGTH 184.50'
BEGIN BRIDGE STA. 211+25.25

END BRIDGE STA. 207+26.58
BRIDGE "A" LENGTH 303.17'
BEGIN BRIDGE STA. 204+23.42

STA. 198+00.00 BEGIN CONSTRUCTION
F.A. PROJ. NO. XXX(004)CI

PROJECT LENGTHS BASED ON CRL



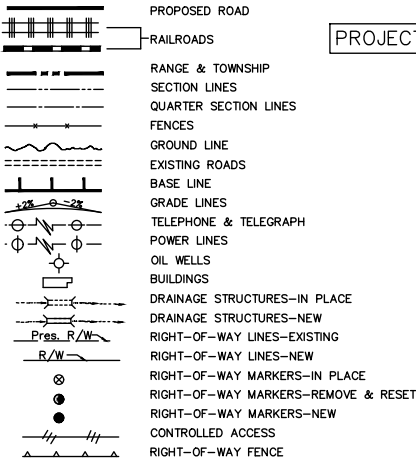
ROADWAY LENGTH	1242.33 FT.	0.235 MI.
BRIDGE A LENGTH	303.17 FT.	0.057 MI.
BRIDGE B LENGTH	184.50 FT.	0.035 MI.
PROJECT LENGTH	1730.00 FT.	0.327 MI.
EXCEPTIONS	NONE	
EQUATIONS	NONE	

THIS DOCUMENT IS PRELIMINARY
IN NATURE AND IS NOT A FINAL,
SIGNED AND SEALED DOCUMENT.

60% PLANS
3/7/25

SCALES
PLAN 1"=50'
PROFILE HOR. 1"=50'
VER. 1"=5'
LAYOUT MAP 1"=5,280'

CONVENTIONAL SIGNS



"2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION-ENGLISH GOVERN, APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, DECEMBER 8, 2019."

FED. ROAD DIST. NO.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
6	XXX(004)CI	1	22

INDEX OF SHEETS
DESCRIPTION

SHEET NO.

0001	TITLE
0002	TYPICAL SECTION
0003	SCHEDULES
AB01	SUMMARY OF PAY QUANTITIES & GENERAL NOTES (BRIDGE)
AR01	SUMMARY OF PAY QUANTITIES & GENERAL NOTES (ROADWAY)
AT01	SUMMARY OF PAY QUANTITIES & GENERAL NOTES (TRAFFIC)
B001	GENERAL PLAN & ELEVATION BRIDGE A
B002	GENERAL PLAN & ELEVATION BRIDGE B
B003	STAKING LAYOUT, ANCHOR BOLT & PEDESTAL LAYOUT BRIDGE A
B004	STAKING LAYOUT, ANCHOR BOLT & PEDESTAL LAYOUT BRIDGE B
B005-	BORING LOGS
RO01	STORMWATER MANAGEMENT PLAN
RO02	EROSION CONTROL PLAN
R003-R004	PLAN AND PROFILE
S001	ALIGNMENT, SURVEY REFERENCE & R/W BRIDGE A
S002	ALIGNMENT, SURVEY REFERENCE & R/W BRIDGE B
X001-X006	CROSS SECTIONS

THE FOLLOWING STANDARDS SHALL BE USED:

2019 ROADWAY

ASCD-6-1
CWA-0
PCES-5-1
PSE-2-1
RDI-4-1

RSF-0
SSS-2-1
TSD-0
TESCA-0

2009 TRAFFIC

DU1-1-00E
TCS1-1-01
TCS2-1-00
TCS4-1-01
TCS5-1-00
GMS1-1-00
SSA1-1-00

TCS6-1-02
TCS7-1-01
TCS8-1-00
TCS9-1-01
SSP1-1-02
WSD1-1-00
WSD3-1-00

2009 MAINTENANCE

GET-2-00
GRH1-1-00
GRH2-1-00
GRH3-1-00

2009 BRIDGE

CB26-C-SK0-ABUT-PC2-02E
CB26-C-SK0-ABUT-PC3-02E
CB26-C-SK0-XSECT-PC234-01E
CB26-C-SK0-LSECT-PCB-01E
CB26-C-SK0-DKSLB-BLIST-01E
CB26-C-SK0-DIA-END-PC234-01E
CB26-C-SK0-SPR-QUAN-PCB-1-01E

CB26-C-SK0-SPR-QUAN-PCB-2-01E
CB26-C-SK0..30-PCB-II-50-01E
CB26-C-SK0..30-PCB-II-60-01E
CB26-C-SK0..30-PCB-III-80-01E
CB26-C-SK0..30-DIA-INT-PCB-01E
CB26-C-SK0..30-BRG-PC2-01E
CB26-C-SK0..30-BRG-PC3-01E

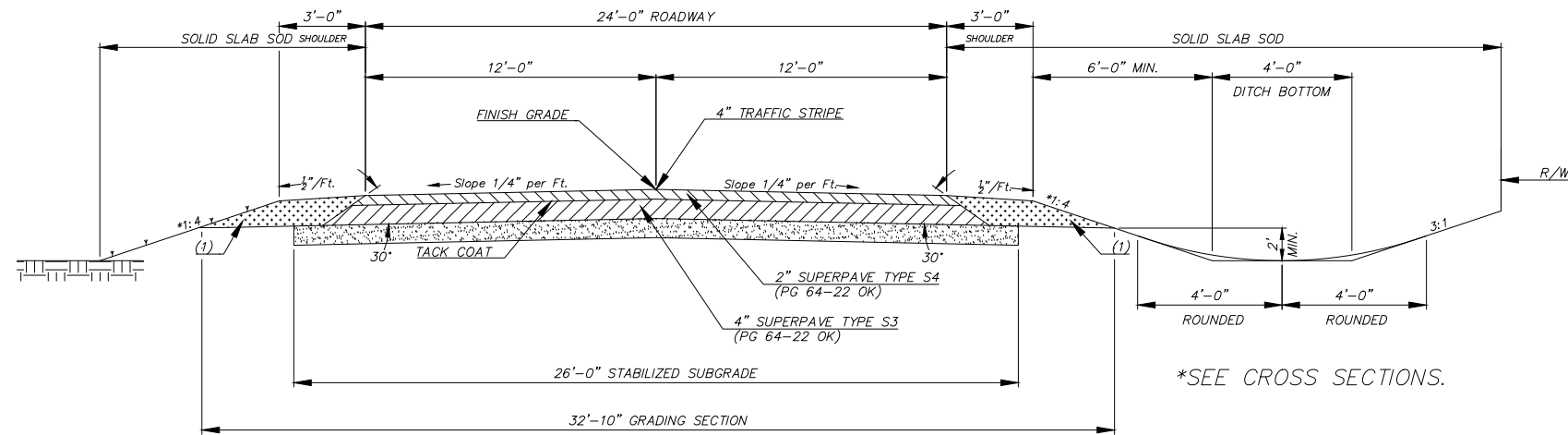
CB26..32-C-SK0-WING-PC2-01E
CB26..32-C-SK0-ABUT-MISC-01E
CB26..32-C.I-SK0..30-PCB-DTL-1-01E
CB26..32-C.I-SK0..30-PCB-DTL-2-01E
CB26..32-C.I-SK0..30-GRAU-BC-00E
CB26-XTBM-SK0-XSECT-00E

EJ-DTL-01E
EJ-SQ-03E
HP1-2-00E
TR3-2-01E

DATE	
COMM. DIST. 1	
COMM. DIST. 2	
COMM. DIST. 3	
ATTEST	COUNTY CLERK

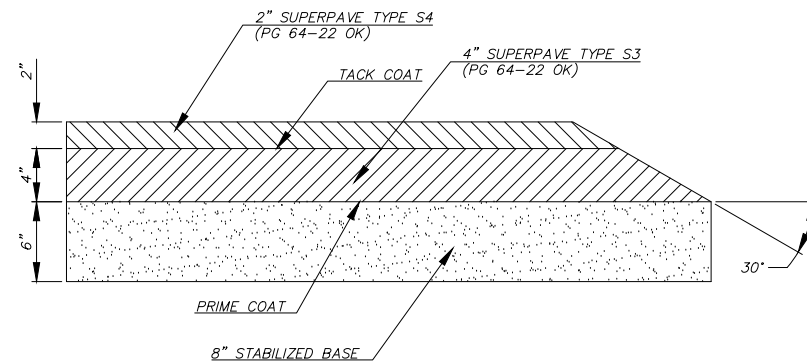
TYLER D. SCHRODER
REGISTERED PROFESSIONAL ENGINEER NO. 25837
J/P NO. 29362(04)

CIRCUIT ENGINEERING DIST. 8 2901 N. VAN BUREN ENID, OK 73703 (580) 237-4810	
OKLAHOMA DEPARTMENT OF TRANSPORTATION	DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION
DATE APPROVED	DATE APPROVED
BY	BY
CHIEF ENGINEER	DIVISION ADMINISTRATION
SWO.	F.A. Project No. XXX(004)CI SHEET NO 001



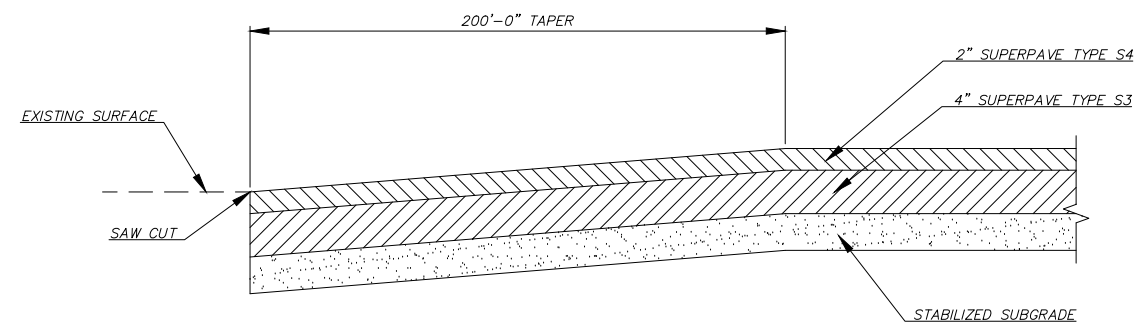
TYPICAL SECTION

(1) SHOULDERING UP WILL BE INCLUDED IN THE EARTHWORK PAY ITEM.

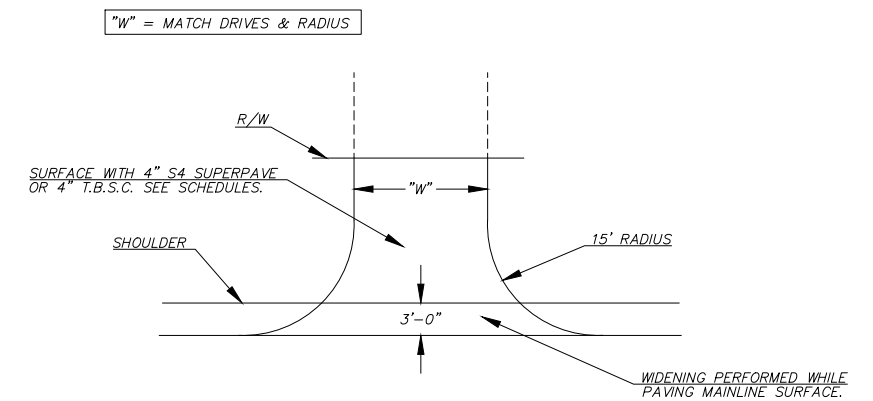


LAYER DETAIL

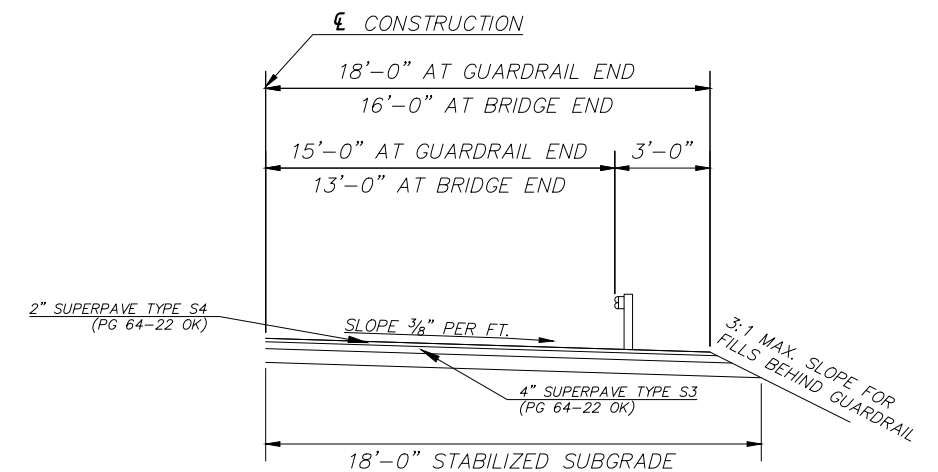
STA. 198+00.00 TO 204+23.42
STA. 207+26.58 TO 211+25.25
STA. 213+09.75 TO 215+30.00



TAPERING DETAIL
BOP, EOP (WEST & EAST)



TYPICAL PRIVATE DRIVE OR FIELD ENTRANCE



SHOULDER WIDENING FOR GUARDRAIL

KINGFISHER COUNTY TURKEY CREEK

TYPICAL SECTION

J/P NO. 29362(04)

SHEET NO. 0002

SUMMARY OF DRAINAGE STRUCTURES							
STR. NO.	P & P SHEET NO.	STATION	DESCRIPTION	DESIGN	FILL HEIGHT	CORRUGATED GALVANIZED STEEL PIPE	CULVERT END TREATMENT
						613(B)	613(M)
						ARCH	
						21"x15"	A4
					FT.	L.F.	EA.
						90.00	2.00
SHEET TOTAL						90.00	2.00

SUMMARY OF MAINLINE SURFACING QUANTITIES						
STATION EXTENT	LENGTH	SUPERPAVE TYPE S3 PG(64–220K)	SUPERPAVE TYPE S4 PG(64–220K)	TACK COAT	PRIME COAT	STABILIZED SUBGRADE
	FT.	TONS	TONS	GALS.	GALS.	S.Y.
198+00.00 TO 204+98.42	623.42	0.00	0.00	0.00	0.00	0.00
208+01.58 TO 211+13.92	398.67	0.00	0.00	0.00	0.00	0.00
213+21.08 TO 215+30.00	220.25	0.00	0.00	0.00	0.00	0.00
SHEET TOTALS		1,242.34	0.00	0.00	0.00	0.00

BRIDGE A GUARDRAIL SCHEDULE					
SHEET	STATION TO STATION	ANCHOR UNITS		W-BEAM	LENGTH OF RAIL
		GET	TYPE D-BF	SINGLE	
		EA.	EA.	L.F.	
R003	203+87.08 TO 204+87.08 RT.	1.00	1.00	50.00	100.00
R003	203+87.08 TO 204+87.08 LT.	1.00	1.00	50.00	100.00
R003	208+12.92 TO 209+12.92 RT.	1.00	1.00	50.00	100.00
R003	208+12.92 TO 209+12.92 LT.	1.00	1.00	50.00	100.00
SHEET TOTALS		4.00	4.00	200.00	400.00

BRIDGE B GUARDRAIL SCHEDULE					
SHEET	STATION TO STATION	ANCHOR UNITS		W-BEAM	LENGTH OF RAIL
		GET	TYPE D-BF	SINGLE	
		EA.	EA.	L.F.	
R003	210+13.92 TO 211+13.92 RT.	1.00	1.00	50.00	100.00
R003	210+13.92 TO 211+13.92 LT.	1.00	1.00	50.00	100.00
R004	213+21.08 TO 213+99.85 RT.*	1.00	1.00	50.00	100.00
R004	213+21.08 TO 214+21.08 LT.	1.00	1.00	50.00	100.00
SHEET TOTALS		4.00	4.00	200.00	400.00

*INCLUDES XX L.F. OF 25’ RADIUS BENDED INCLUDES W-BEAM END SECTION (FLARED).

SUMMARY OF DRIVES			
STATION	LOCATION	STYLE	T.B.S.C.
198+14.00	LT.	PRIVATE	0.00
198+40.00	RT.	FIELD	0.00
209+42.00	RT.	FIELD	0.00
209+53.00	LT.	FIELD	0.00
214+15.00	RT.	COUNTY	0.00
214+82.00	LT.	PRIVATE	0.00
TOTAL			0.00

KINGFISHER COUNTY TURKEY CREEK

SCHEDULES

GENERAL CONSTRUCTION NOTES (BRIDGE)

ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION ENGLISH VERSION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

THE BRIDGE SITE WILL BE CLOSED TO ALL PUBLIC TRAFFIC DURING CONSTRUCTION, ACCESS WILL BE OPEN TO LOCAL TRAFFIC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TRAFFIC CONTROL. ALL SIGNS, BARRICADES, LIGHTS, AND OTHER TRAFFIC CONTROL DEVICES AND MEASURES, ETC. SHALL BE PROVIDED IN ACCORDANCE WITH THE STANDARDS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION AS REVISED, AS SHOWN ON THE TCS STANDARDS AND ON DETAIL SHEETS. ALL CONSTRUCTION SIGNS WITH (10) SQUARE FEET OR MORE WILL BE DOUBLE POSTED.

ABUTMENT PILING CAPACITY:

THE MAXIMUM FACTORED PILE LOAD FOR EACH HP 12X53 PILE IN BRIDGE A IS 70.6 TONS. ALL PILE SHALL BE AASHTO M270 GRADE 50.

THE MAXIMUM FACTORED PILE LOAD FOR EACH HP 12X53 PILE IN BRIDGE B IS 65.5 TONS. ALL PILE SHALL BE AASHTO M270 GRADE 50.

THE FOLLOWING FORMULA (GATES EQUATION) SHALL BE USED TO DETERMINE THE AXIAL LOAD RESISTANCE OF THE DRIVEN FOUNDATION PILES:

AXIAL LOAD RESISTANCE = $\phi [(0.875\sqrt{E} \log_{10}(10N)) - 50]$ (TONS)

WHERE:

ϕ = RESISTANCE FACTOR OF 0.4

E = ENERGY PRODUCED BY THE HAMMER PER BLOW IN FOOT-POUNDS. FOR GRAVITY AND SINGLE ACTING DIESEL HAMMERS, THE VALVE IS BASED ON THE ACTUAL RAM STROKE OBSERVED IN THE FIELD AND MEASURED IN FEET MULTIPLIED BY THE RAM WEIGHT IN POUNDS.

N = AVERAGE NUMBER OF HAMMER BLOWS PER INCH OF PILE PENETRATION FOR THE LAST 10 TO 20 BLOWS DELIVERED TO THE PILE HEAD.

THE ABOVE FORMULA IS ONLY APPLICABLE WHEN:

- THE PILE DRIVING HAMMER HAS A FREE FALL (GRAVITY & SINGLE ACTING HAMMERS ONLY).
- THE HEAD OF THE PILE IS NOT BROOMED, CRUSHED OR OTHERWISE DAMAGED.
- THE PENETRATION IS QUICK AND UNIFORM.
- THERE IS NO APPRECIABLE REBOUND OF THE HAMMER, AND
- A FOLLOWER IS NOT USED.

THE NUMBER OF BLOWS PER INCH OF PILE PENETRATION MAY BE MEASURED EITHER DURING INITIAL DRIVING OR BY RE-DRIVING WITH A WARM HAMMER OPERATED AT FULL ENERGY AFTER A PILE SET PERIOD, AS DETERMINED BY THE ENGINEER.

IF WATER JETS ARE USED IN CONNECTION WITH THE DRIVING, DETERMINE THE AXIAL LOAD RESISTANCE BY THE FORMULA SHOWN ONLY AFTER THE JETS HAVE BEEN WITHDRAWN.

PAY QUANTITIES

200 BRIDGE A NBI NO. XXXXX PCB 5-60FT. SPANS, STANDARD ABUTMENTS, SKEW 0', 26'-0" CL. RDY, TR3 RAILS

ITEM	DESCRIPTION	UNIT	QUANTITY
501(B) 1300	SUBSTRUCTURE EXCAVATION COMMON (1)	C. Y.	0.00
501(G) 1800	CLSM BACKFILL (1)	C. Y.	0.00
503(A) 4220	PRESTRESSED CONCRETE BEAMS (TYPE II) (1)	L. F.	0.00
504(B) 2300	SAW-CUT GROOVING	S. Y.	0.00
518(B) 0300	SEALED EXPANSION JOINT (1)	L. F.	0.00
504(D) 5410	CONCRETE RAIL (TR3) (1)	L. F.	0.00
506(A) 7200	STRUCTURAL STEEL (1)	LB.	0.00
507(A) 8210	WEATHERING STEEL FIXED BEARING ASSEMBLY	EA.	0.00
507(B) 8310	WEATHERING STEEL EXP. BEARING ASSEMBLY	EA.	0.00
509(A) 0210	CLASS AA CONCRETE (1)	C. Y.	0.00
509(B) 0320	CLASS A CONCRETE (1)	C. Y.	0.00
511(A) 2210	REINFORCING STEEL (1)	C. Y.	0.00
514(A) 5210	PILES, FURNISHED (HP10X42)	L. F.	0.00
514(A) 5220	PILES, FURNISHED (HP12X53)	L. F.	0.00
514(B) 5310	PILES, DRIVEN (HP10X42)	L. F.	0.00
514(B) 5320	PILES, DRIVEN (HP12X53)	L. F.	0.00
516(A) 8225	DRILLED SHAFTS 42" DIA. (2)	L. F.	0.00
516(C) 8400	CROSSHOLE SONIC LOGGING	EA.	0.00
601(A) 1110	TYPE I-A PLAIN RIPRAP	TON	0.00
601(C) 1310	TYPE I-A FILTER BLANKET	TON	0.00
613(H) 6205	6" PERFORATED PIPE UNDERDRAIN ROUND	L. F.	0.00
613(I) 6310	6" NON-PERFORATED PIPE UNDERDRAIN ROUND	L. F.	0.00
619(D) 6700	REMOVAL OF EXISTING BRIDGE STRUCTURE (3)	L. SUM	0.00

PAY QUANTITIES

201 BRIDGE B NBI NO. XXXXX PCB 50-80-50 FT. SPANS, STANDARD ABUTMENTS, SKEW 0', 26'-0" CL. RDY, TR3 RAILS

ITEM	DESCRIPTION	UNIT	QUANTITY
501(B) 1300	SUBSTRUCTURE EXCAVATION COMMON (1)	C. Y.	0.00
501(G) 1800	CLSM BACKFILL (1)	C. Y.	0.00
503(A) 4220	PRESTRESSED CONCRETE BEAMS (TYPE II) (1)	L. F.	0.00
503(A) 4230	PRESTRESSED CONCRETE BEAMS (TYPE III) (1)	L. F.	0.00
504(B) 2300	SAW-CUT GROOVING	S. Y.	0.00
518(B) 0300	SEALED EXPANSION JOINT (1)	L. F.	0.00
504(D) 5410	CONCRETE RAIL (TR3) (1)	L. F.	0.00
506(A) 7200	STRUCTURAL STEEL (1)	LB.	0.00
507(A) 8210	WEATHERING STEEL FIXED BEARING ASSEMBLY	EA.	0.00
507(B) 8310	WEATHERING STEEL EXP. BEARING ASSEMBLY	EA.	0.00
509(A) 0210	CLASS AA CONCRETE (1)	C. Y.	0.00
509(B) 0320	CLASS A CONCRETE (1)	C. Y.	0.00
511(A) 2210	REINFORCING STEEL (1)	C. Y.	0.00
514(A) 5210	PILES, FURNISHED (HP10X42)	L. F.	0.00
514(A) 5220	PILES, FURNISHED (HP12X53)	L. F.	0.00
514(B) 5310	PILES, DRIVEN (HP10X42)	L. F.	0.00
514(B) 5320	PILES, DRIVEN (HP12X53)	L. F.	0.00
516(A) 8225	DRILLED SHAFTS 42" DIA. (2)	L. F.	0.00
516(C) 8400	CROSSHOLE SONIC LOGGING	EA.	0.00
601(A) 1110	TYPE I-A PLAIN RIPRAP	TON	0.00
601(C) 1310	TYPE I-A FILTER BLANKET	TON	0.00
613(H) 6205	6" PERFORATED PIPE UNDERDRAIN ROUND	L. F.	0.00
613(I) 6310	6" NON-PERFORATED PIPE UNDERDRAIN ROUND	L. F.	0.00
619(D) 6700	REMOVAL OF EXISTING BRIDGE STRUCTURE (4)	L. SUM	0.00

PAY ITEM NOTES

(F-50) INCLUDES COST OF 4 TYPE 1 CODE 3 DELINEATORS (AMBER COLOR).

(R-51) INCLUDES 18.75 L.F. OF 15' RADIUS BEND.

(1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY. SEE 2019 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, "PLAN QUANTITIES" SECTION 109.01(B).

(2) PRICE BID TO INCLUDE THE COST OF 42" DIAMETER CORRUGATED GALVANIZED STEEL PIPE TO BE USED AS INNER CASING IN DRILL SHAFTS, FOR USE IN DOUBLE CASING METHOD.

(3) ITEM "REMOVAL OF EXISTING BRIDGE STRUCTURE" CONSIST OF REMOVAL AND DISPOSAL OF THE EXISTING 284'X23.5' BRIDGE A, 7-40' I-BEAM SPANS. THE CONTRACTOR SHALL SALVAGE THE STEEL BEAMS, GUARDRAIL, & GUARDRAIL POSTS AND STOCKPILE ON THE R/W TO BECOME PROPERTY OF THE COUNTY AND REMOVED FROM THE JOBSITE BY COUNTY FORCES. THE REMOVAL SHALL BE IN ACCORDANCE WITH SPECIFICATION 619.04(b)1 OF STANDARD SPECIFICATION AND IN A MANNER APPROVED BY THE ENGINEER.

(4) ITEM "REMOVAL OF EXISTING BRIDGE STRUCTURE" CONSIST OF REMOVAL AND DISPOSAL OF THE EXISTING 141'X23.5' BRIDGE B, 38', 60' & 38' I-BEAM SPANS. THE CONTRACTOR SHALL SALVAGE THE STEEL BEAMS, GUARDRAIL, & GUARDRAIL POSTS AND STOCKPILE ON THE R/W TO BECOME PROPERTY OF THE COUNTY AND REMOVED FROM THE JOBSITE BY COUNTY FORCES. THE REMOVAL SHALL BE IN ACCORDANCE WITH SPECIFICATION 619.04(b)1 OF STANDARD SPECIFICATION AND IN A MANNER APPROVED BY THE ENGINEER.

KINGFISHER COUNTY TURKEY CREEK

SUMMARY OF PAY QUANTITIES & GENERAL NOTES (BRIDGES)

J/P NO. 29362(04)

SHEET NO. AB01

GENERAL CONSTRUCTION NOTES

THIS PROJECT IS TO BE CONSTRUCTED WHILE CLOSED TO THROUGH TRAFFIC. THE CONTRACTOR MUST PROVIDE ACCESS TO LOCAL TRAFFIC. SEE STANDARD SPECIFICATIONS FOR MAINTENANCE OF LOCAL TRAFFIC AND SHEET 5 FOR DETOUR DETAILS. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL CONSTRUCTION SIGNING IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND TCS STANDARDS. CONSTRUCTION SIGNS OVER 10 SQ. FT. SHALL BE DOUBLE POSTED.

THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO THE COUNTY, CED #8, AND ODOT DIV. 4 FOURTEEN (14) CALENDAR DAYS BEFORE ANY CONSTRUCTION OR DEMOLITION BEGINS ON THIS PROJECT.

THE COUNTY SHALL RELOCATE EXISTING MAIL BOXES AS NECESSARY DURING CONSTRUCTION. MAIL BOXES ARE TO BE MAINTAINED IN AN UPRIGHT POSITION AND ACCESSIBLE TO MAIL CARRIER'S CAR DURING CONSTRUCTION. ANY DAMAGE TO BOXES OR SUPPORTS IS TO BE THE RESPONSIBILITY OF THE COUNTY.

ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH THE 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION ENGLISH VERSION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 72 HOURS "CALL OKIE" 1-800-522-6543 OR 811.

THE CONTRACTOR SHALL PROVIDE LANDOWNERS ACCESS TO ALL DRIVES AND ENTRANCES AT ALL TIMES DURING CONSTRUCTION.

GENERAL CONSTRUCTION NOTES-EROSION CONTROL

GRASS: ALL DISTURBED AREAS AROUND STRUCTURES ONLY SHALL BE SODDED WITH BERMUDA SOLID SLAB SOD IN ACCORDANCE WITH SECTION 230.04(A) OF THE STANDARD SPECIFICATIONS.

FERTILIZER: AREAS ON WHICH BERMUDA SOLID SLAB SOD IS TO BE PLANTED SHALL HAVE 10-20-10 FERTILIZER APPLIED AT THE RATE OF 200 LBS. PER 1,000 SQ. YDS. OF SODDING, ONE HALF AFTER WATERING THE PREPARED SURFACE AND PRIOR TO PLANTING OF SOD, AND ONE HALF AFTER SODDING IS COMPLETED WITH WATERING USED TO INCORPORATE THE FERTILIZER INTO THE SOIL.

WATERING: ALL AREAS TO BE SODDED SHALL BE WATERED BEFORE SOD IS PLANTED TO OBTAIN ADEQUATE SOIL MOISTURE TO A DEPTH OF AT LEAST 5".

SEASONAL PLANTING RESTRICTIONS:

AT THE BEGINNING OF TURFING OPERATIONS, ANY AREAS INCLUDED IN PLANNED QUANTITIES THAT HAVE GROWN A SATISFACTORY VOLUNTEER TURF OF PERENNIAL GRASS, AS DETERMINED BY THE ENGINEER SHALL NOT BE SODDED.

COUNTY TO BE RESPONSIBLE FOR THE FOLLOWING:

- 1. ACQUIRING ALL REQUIRED R/W.
- 2. REMOVAL AND RESETTING ALL FENCES ON RIGHT-OF-WAY LINES.
- 3. RELOCATING ALL UTILITIES.

PAY QUANTITY NOTES

(R-1) PAYMENT FOR THIS ITEM WILL BE BASED ON PLAN QUANTITY ONLY. SEE SECTION 109.01B OF THE STANDARD SPECIFICATIONS.

(R-4) AN ESTIMATED QUANTITY OF C.Y. TOPSOIL TO BE RESERVED FOR REPLACEMENT OF APPROXIMATELY 5" ON COMPLETED FORESLOPES, DITCHES, AND BACKSLOPES. THIS QUANTITY IS INCLUDED IN THE EARTHWORK BALANCE. ANY ADDITIONAL EXCAVATION REQUIRED IN CUT SECTIONS TO ALLOW FOR PLACEMENT OF TOPSOIL TO FINAL GRADE, SHALL BE INCLUDED IN THE PRICE BID.

(R-6) FOR SPD PRICE BID TO INCLUDE COST OF 10-20-10 FERTILIZER, ESTIMATED AT 200 POUNDS PER 1,000 S.Y. FOR SALVAGED TOPSOIL 18-46-0 FERTILIZER AT 150 POUNDS PER ACRE.

(R-7) FOR SOD PRICE BID TO INCLUDE COST OF WATERING, ESTIMATED AT 40 GALLONS PER S.Y.

(R-8) PRICE BID TO INCLUDE COST OF ALL NECESSARY MAINTENANCE, MAINTAINING DEVICE IN PROPER UPRIGHT POSITION, REMOVAL OF DEVICE, AND REMOVAL OF SEDIMENT WHEN IT REACHES HALF THE HEIGHT OF THE DEVICE.

(R-11) THE QUANTITIES ESTIMATED FOR TEMPORARY EROSION AND SEDIMENT CONTROL IS X.XX ACRES.

(R-19) PRICE BID TO INCLUDE THE CHEMICAL ADDITIVE(S) TO ACHIEVE THE RATE SPECIFIED FOR THE APPROPRIATE SOIL CLASSIFICATION AS SPECIFIED IN THE MOST CURRENT ODOT MATERIALS DIVISION OHD L-50. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CLASSIFY THE SOIL AND DETERMINE THE APPROPRIATE ADDITIVE(S).

(R-20) ESTIMATED AT 141 LBS. PER C. F.

(R-23) PRIME COAT SHALL BE APPLIED AT AN ESTIMATED RATE OF 0.35 GAL. PER SQ. YD. WHEN APPLIED TO SUBGRADE, AND 0.25 GAL. PER SQ. YD. WHEN APPLIED TO AGGREGATE BASE. THE ACTUAL CUTBACK PRIME COAT REQUIRED FOR PLACEMENT OPERATIONS WILL BE DETERMINED BY THE CONTRACTOR, AND SHALL CONSIDER THE RESIDUE FROM DISTILLATION PERCENTAGE SHOWN IN SECTION 708.03 OF THE STANDARD SPECIFICATIONS.

(R-24) PRICE BID TO INCLUDE COST OF _____ GALLONS OF TACK COAT, MEETING THE REQUIREMENTS OF SECTION 407 OF THE STANDARD SPECIFICATIONS.

(R-28) PRIME COAT SHALL BE APPLIED AT AN ESTIMATED RATE OF 0.21 GAL. PER SQ. YD. WHEN APPLIES TO SUBGRADE, AND 0.15 GAL. PER SQ. YD. WHEN APPLIED TO AGGREGATED BASE. THE ACTUAL CUTBACK PRIME COAT REQUIRED FOR PLACEMENT OPERATIONS WILL BE DETERMINED BY THE CONTRACTOR, AND SHALL CONSIDER THE RESIDUE FROM DISTILLATION PERCENTAGE SHOWN IN SECTION 708.03 OF THE STANDARD SPECIFICATIONS.

(R-26) ESTIMATED AT 112 LBS. PER SQ. YD. PER 1" THICK.

(R-33) QUANTITY INCLUDES AN ESTIMATED ____C.Y. TO BE USED AS DIRECTED BY THE ENGINEER.

(R-40) TO BECOME THE PROPERTY OF AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.

(1) ESTIMATED QUANTITY ONLY TO BE USED FOR EROSION AND SEDIMENT CONTROL IN A MANNER APPROVED BY THE ENGINEER.

(2) IN ADDITION TO THE RESPONSIBILITIES SHOWN IN THE SPECIFICATIONS, CONTRACTOR SHALL PROVIDE 1) STATIONING FOR ASPHALT FIELD CALCULATIONS, 2) HORIZONTAL AND VERTICAL CONTROL, AND 3) A LICENSED LAND SURVEYOR TO RESET ALL SECTION CORNERS AND STAKE ANY AND ALL RIGHT-OF-WAY FOR CLEARING AND GRUBBING.

29362(04)

PAY QUANTITIES				
0100 ROADWAY				
ITEM NO.		DESCRIPTION	UNIT	QUANT.
201(A)	1200	CLEARING AND GRUBBING	L.SUM	0.00
202(A)	2200	UNCLASSIFIED EXCAVATION (R-1)	C. Y.	0.00
202(D)	2500	UNCLASSIFIED BORROW	C. Y.	0.00
205(A)	6200	TYPE A-SALVAGED TOPSOIL (R-4)(R-6)	L.SUM	0.00
221(B)	2300	TEMPORARY SILT FENCE (R-8)(1)	L.F.	0.00
221(E)	2600	TEMPORARY SILT DIKE (R-8)(1)	L.F.	0.00
230(A)	7200	SOLID SLAB SODDING (R-6)(R-7)	S. Y.	0.00
233(A)	0200	VEGETATIVE MULCHING (R-11)	AC	0.00
307(K)	4200	STABILIZED SUBGRADE (R-19)	S. Y.	0.00
402(E)	2600	TRAFFIC BOUND SURFACE COURSE TYPE E (R-20)	TON	0.00
408	8100	PRIME COAT (R-23)	GAL.	0.00
411(B)	1330	SUPERPAVE, TYPE S3 (PG 64-22 OK) (R-24)(R-26)	TON	0.00
411(C)	1430	SUPERPAVE, TYPE S4 (PG 64-22 OK) (R-26)	TON	0.00
509(D)	0500	CLASS C CONCRETE (R-33)	C. Y.	0.00
613(B)	5604	21"X15" CORR. GALV. STEEL PIPE ARCH	L.F.	70.00
613(M)	6960	TYPE A4 CULVERT END TREATMENT	EA.	2.00
619(B)	6364	REMOVAL OF ASPHALT PAVEMENT (R-40)	S. Y.	0.00
619(C)	6600	SAWING PAVEMENT	L.F.	0.00

29362(04)

PAY QUANTITIES

0600 STAKING

ITEM NO.	DESCRIPTION	UNIT	QUANT.
642(B) 3200	CONSTRUCTION STAKING LEVEL II (2)	L. SUM	1.00

29362(04)

PAY QUANTITIES				
0640 CONSTRUCTION				
ITEM NO.		DESCRIPTION	UNIT	QUANT.
220	1100	SWPPP DOCUMENTATION AND MANAGEMENT	L. SUM	1.00
641	2110	MOBILIZATION	L. SUM	1.00

KINGFISHER COUNTY TURKEY CREEK

SUMMARY OF PAY QUANTITIES
AND GENERAL NOTES (ROADWAY)

J/P NO. 29362(04)

SHEET NO. AR01

GENERAL CONSTRUCTION NOTES

THE SITE WILL BE CLOSED TO ALL PUBLIC TRAFFIC DURING CONSTRUCTION, ACCESS WILL BE OPEN TO LOCAL TRAFFIC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TRAFFIC CONTROL. ALL SIGNS, BARRICADES, LIGHTS, AND OTHER TRAFFIC CONTROL DEVICES AND MEASURES, ETC. SHALL BE PROVIDED IN ACCORDANCE WITH THE STANDARDS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION AS REVISED, AS SHOWN ON THE TCS STANDARDS AND ON DETAIL SHEETS. ALL CONSTRUCTION SIGNS WITH (10) SQUARE FEET OR MORE WILL BE DOUBLE POSTED.

PAY ITEM NOTES

(TC-14) SEE STANDARD DRAWING PM1-1, PM2-1, PM3-1, PM4-1, PM5-1, PM6-1, PM7-1, PM8-1 (LATEST REVISION). A PART, OR ALL, OF THE QUANTITY SHOWN IS TO BE USED AS FINAL PAVEMENT MARKING.

(TC-25) ALL CONSTRUCTION TRAFFIC CONTROL WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS, AND INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (CURRENT EDITION), AND COMPLIANT WITH APPLICABLE O.D.O.T. STANDARD DRAWINGS. PRICE BID FOR THIS ITEM SHALL BE PAYMENT IN FULL FOR THE INSTALLATION, MAINTENANCE AND SUBSEQUENT REMOVAL OF ALL NECESSARY CONSTRUCTION TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS REQUIRED FOR COMPLETION OF THE PROJECT.

ALL SIGNS AND BARRICADES, WHICH ARE SHOWN WITH TYPE 'A' LIGHTS IN THE STANDARD DRAWINGS SHALL HAVE THE CORRESPONDING LIGHT ATTACHED DURING NON-DAYLIGHT HOURS.

(TC-28) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 0.00 S.F. AND 6.25 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.

(TC-29) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 6.26 S.F. AND 15.99 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.

(TC-30) INCLUDED IN THIS ITEM ARE ALL S.C.S. (SPECIAL CONSTRUCTION SIGNING) SIGNS WHICH ARE BETWEEN 16.00 S.F. AND 32.99 S.F. ALSO INCLUDED IN THIS ITEM SHALL BE THE COST OF INSTALLATION, MAINTENANCE, AND REMOVAL OF THESE SIGNS.

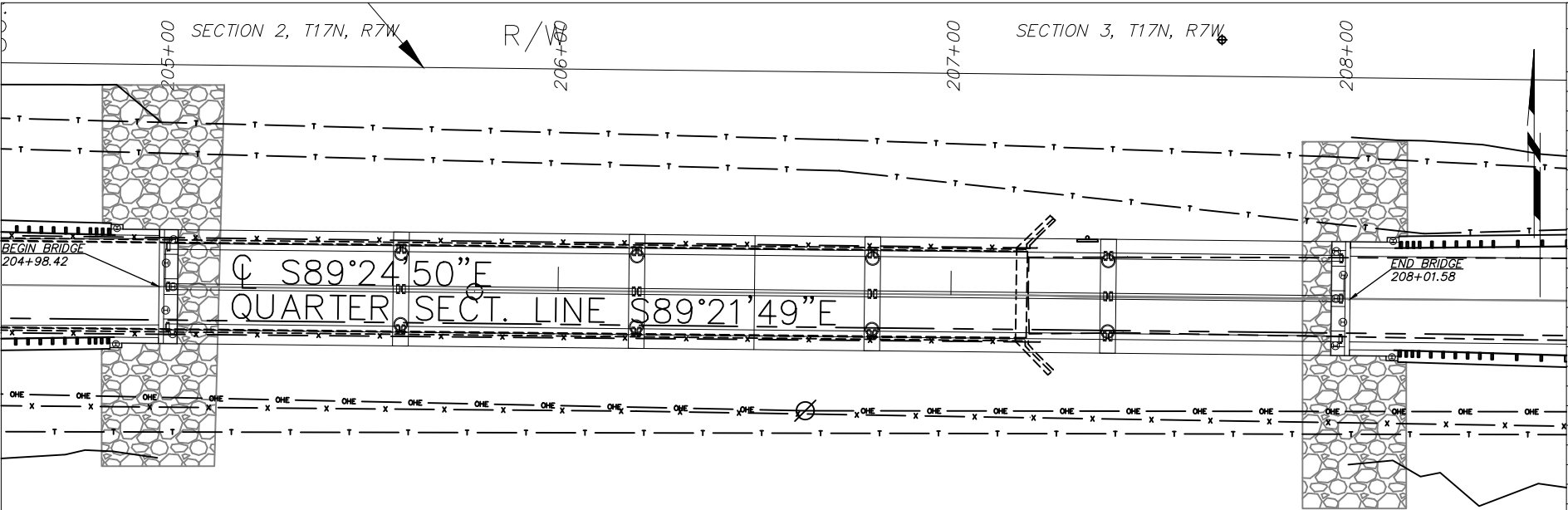
(TC-33) ALL CONSTRUCTION WORK ZONE SIGNS SHALL HAVE FLUORESCENT SHEETING. THE FLUORESCENT SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956 (LATEST REVISION)

THE MANUFACTURER SHALL FURNISH A TYPE 'D' CERTIFICATION IN ACCORDANCE WITH O.D.O.T. STANDARD SPECIFICATIONS (CURRENT EDITION) SUBSECTION 106.04. THE CERTIFICATION SHALL INCLUDE TEST RESULTS ON MATERIAL SUBMITTED FOR APPROVAL.

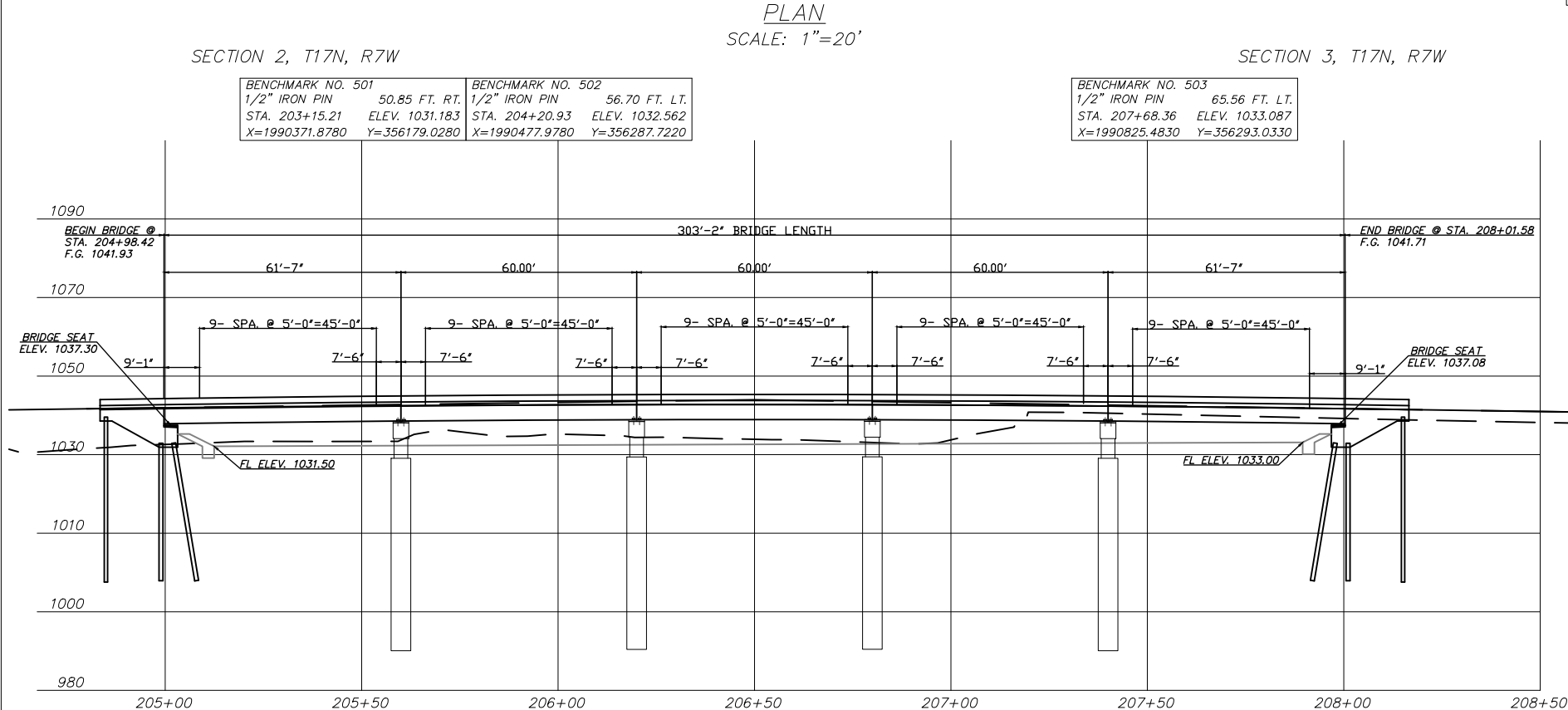
(TC-84) 90 CONSTRUCTION CALENDAR DAYS WERE USED TO COMPUTE THE SIGN DAY PAY ITEMS THE AMOUNT OF CALENDAR DAYS USED TO COMPUTE THE SIGN DAY PAY ITEMS IS AN ESTIMATED QUANTITY ONLY, BASED ON THE CURRENT O.D.O.T. STANDARDS AND SUGGESTED CONSTRUCTION SEQUENCE FOR THIS PROJECT. THESE ESTIMATED SIGN DAY QUANTITIES MAY CHANGE AS THE PROJECT'S CONSTRUCTION TRAFFIC CONTROL IS MODIFIED DURING CONSTRUCTION.

(TS-24) QUANTITY SHOWN INCLUDES 0.00 L.F. TRAFFIC STRIPE (MULTI-POLYMER)(WHITE) AND 2,000.00 L.F. TRAFFIC STRIPE(MULTI-POLYMER)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF FOUR INCH (4") WIDE TRAFFIC STRIPE.

J/P NO. 293602(04)					
PAY QUANTITIES					
300 TRAFFIC					
ITEM		DESCRIPTION		UNIT	QUANTITY
856(A)	8201	(SP) TRAFFIC STRIPE (MULTI-POLY)(4" WIDE)	(TC-14)(TS-24)	L.F.	0.00
880(B)	6300	CONSTRUCTION SIGNS 0 S.F. TO 6.25 S.F.	(TC-25)(TC-28)(TC-33)(TC-84)	S.D.	0.00
880(B)	6310	CONSTRUCTION SIGNS 6.26 S.F. TO 15.99 S.F.	(TC-25)(TC-29)(TC-33)(TC-84)	S.D.	0.00
880(B)	6320	CONSTRUCTION SIGNS 16.0 S.F. TO 32.99 S.F.	(TC-30)(TC-84)	S.D.	0.00
880(C)	6410	CONSTRUCTION BARRICADES (TYPE III)	TC-25)(TC-33)(TC-84)	S.D.	0.00
880(E)	6600	WARNING LIGHTS (TYPE A)	(TC-84)	S.D.	0.00



PAY QUANTITIES						
ITEM		DESCRIPTION	UNIT	ABUTMENT	SUPER STRUCTURE	PIER
501(B)	1300	SUBSTRUCTURE EXCAVATION COMMON	C.Y.			
501(G)	1800	CLSM BACKFILL	C.Y.			
503(A)	4220	PRESTRESSED CONCRETE BEAMS (TYPE II)	L.F.			
504(B)	2300	SAW-CUT GROOVING	S.Y.			
518(B)	0300	SEALED EXPANSION JOINT	L.F.			
504(D)	5410	CONCRETE RAIL (TR3)	L.F.			
506(A)	7200	STRUCTURAL STEEL	LB.			
507(A)	8210	WEATHERING STEEL FIXED BEARING ASSEMBLY	EA.			
507(B)	8310	WEATHERING STEEL EXP. BEARING ASSEMBLY	EA.			
509(A)	0210	CLASS AA CONCRETE	C.Y.			
509(B)	0320	CLASS A CONCRETE	C.Y.			
511(A)	2210	REINFORCING STEEL	C.Y.			
514(A)	5210	PILES, FURNISHED (HP10X42)	L.F.			
514(A)	5220	PILES, FURNISHED (HP12X53)	L.F.			
514(B)	5310	PILES, DRIVEN (HP10X42)	L.F.			
514(B)	5320	PILES, DRIVEN (HP12X53)	L.F.			
516(A)	8225	DRILLED SHAFTS 42" DIA.	L.F.			
516(C)	8400	CROSSHOLE SONIC LOGGING	EA.			
601(A)	1110	TYPE I-A PLAIN RIPRAP	TON			
601(C)	1310	TYPE I-A FILTER BLANKET	TON			
613(H)	6205	6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.			
613(I)	6310	6" NON-PERFORATED PIPE UNDERDRAIN ROUND	L.F.			
619(D)	6700	REMOVAL OF EXISTING BRIDGE STRUCTURE	L. SUM			



LOADING DATA	
ABUTMENT PILES (HP 12X53):	
FACTOR PILE REACTION = 70.6 TONS/PILE. ALL ABUTMENT PILING SHALL BE DRIVEN THROUGH THE COMPACTED FILL. STEEL PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL UNTIL THE REQUIRED FACTOR PILE CAPACITY OF 70.6 TONS PER PILE IS OBTAINED.	
PIERS (42 INCH DIAMETER DRILLED SHAFTS):	
MAXIMUM DIRECT FACTORED REACTION = 378.0 TONS/SHAFT	
NOMINAL UNIT BEARING RESISTANCE = 34.0 TONS/S.F.	
BEARING RESISTANCE FACTOR = 0.50	
BEARING CAPACITY = 164.0 TONS/SHAFT	
NOMINAL UNIT FRICTION RESISTANCE = 5.4 TONS/S.F.	
FRICTION RESISTANCE FACTOR = 0.55	
FRICTION CAPACITY = 228.60 TONS/SHAFT	
TOTAL CAPACITY = 392.0 TONS/SHAFT	

DESIGN DATA	
CONCRETE (CLASS A)	F'C=3,000 PSI
CONCRETE (CLASS AA)	F'C=4,000 PSI
REINFORCING STEEL (GR 60)	FY=60,000 PSI
STRUCTURAL STEEL (GR 50W)	FY=50,000 PSI
LOADING: HL-93 20 PSF FUTURE WEARING SURFACE	
5 PSF STAY-IN-PLACE FORMS	
DESIGN SPECIFICATIONS - AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION WITH 2010 INTERIMS, EXCEPT AS MODIFIED BY CURRENT ODOT BRIDGE DIVISION DESIGN POLICIES.	
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.	
LFD OPERATING RATING: HS 31.4	

HYDRAULIC DATA	
D.A. = 411.53 SQ. MI.	
SCS CONTROLLED D.A. = 2.50 SQ. MI.	
EFFECTIVE DRAINAGE AREA = 409.03 SQ. MI.	
Q25 = 6,422.43 C.F.S.	
V25 = 0.38 F.P.S.	
Q25 CALC. B.W. 1,036.82 FEET	
Q50 = 13,721.86 C.F.S.	
V50 = 0.70 F.P.S.	
Q50 = CALC. B.W. 1,037.68 FEET	
Q100 = 22,049.81 C.F.S.	
V100 = 0.92 F.P.S.	
Q100 = CALC. B.W. 1,038.10 FEET	
Qo.r. = 6,422.43 C.F.S.	
OVERTOPPING ELEV. (LOW) = 1,035.01 FEET	
V.o.r. (BRIDGE) = 0.38 F.P.S.	
EXTREME HIGH WATER ON RECORD = N/A	
MAXIMUM SCOUR DEPTH = 12.34 FEET	

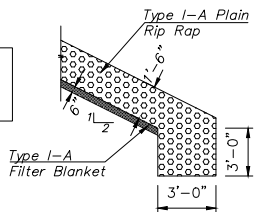
NOTE:
SEE SHEET NO. XX-XX
FOR BORING INFORMATION
*USE SLOTTED ANCHOR PLATES,
SEE STD.
CB26-C-SK0..30-BRG-PC2-01E

B-1 PENETROMETER TEST			B-2 PENETROMETER TEST			B-3 PENETROMETER TEST			B-4 PENETROMETER TEST		
50/4.0"	50/1.8"	-	50/4.5"	50/2.0"	-	50/1.9"	50/0.8"	-	50/1.5"	50/3.0"	-
50/1.3"	50/1.0"	-	50/1.8"	50/0.8"	-	50/1.5"	50/0.8"	-	50/0.5"	50/1.0"	-
50/1.6"	50/0.3"	-	50/1.5"	50/0.3"	-	50/2.4"	50/1.1"	-	50/0.5"	50/0.5"	-
50/0.8"	50/0.3"	-	50/1.0"	50/0.3"	-	50/1.0"	50/0.5"	-	50/0.5"	50/0.3"	-
50/0.5"	50/0.1"	-	50/0.5"	50/0.4"	-	50/0.8"	50/0.3"	-	50/0.8"	50/0.4"	-
50/0.3"	50/0.1"	-	50/.03"	50/0.3"	-	50/0.4"	50/0.3"	-	50/0.3"	50/0.3"	-
50/0.3"	50/0.1"	-	50/0.3"	50/0.1"	-	50/0.3"	50/0.1"	-	50/0.5"	50/0.1"	-

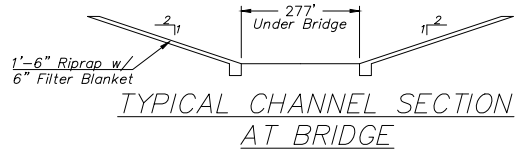
	-SILTY CLAY
	-SANDY SILTY CLAY
	-SILTY SAND
	-CLAYEY SAND
	-LEAN CLAY
	-WEATHERED SHALE
BORING LEGEND	

CONTRACTOR NOTE:
EXTEND RIP RAP TO THE
SECOND GUARDRAIL POST.

NOTE:
"TOEING-IN" APPLIES TO
THE ENTIRE LENGTH OF
THE BASE OF RIPRAP.

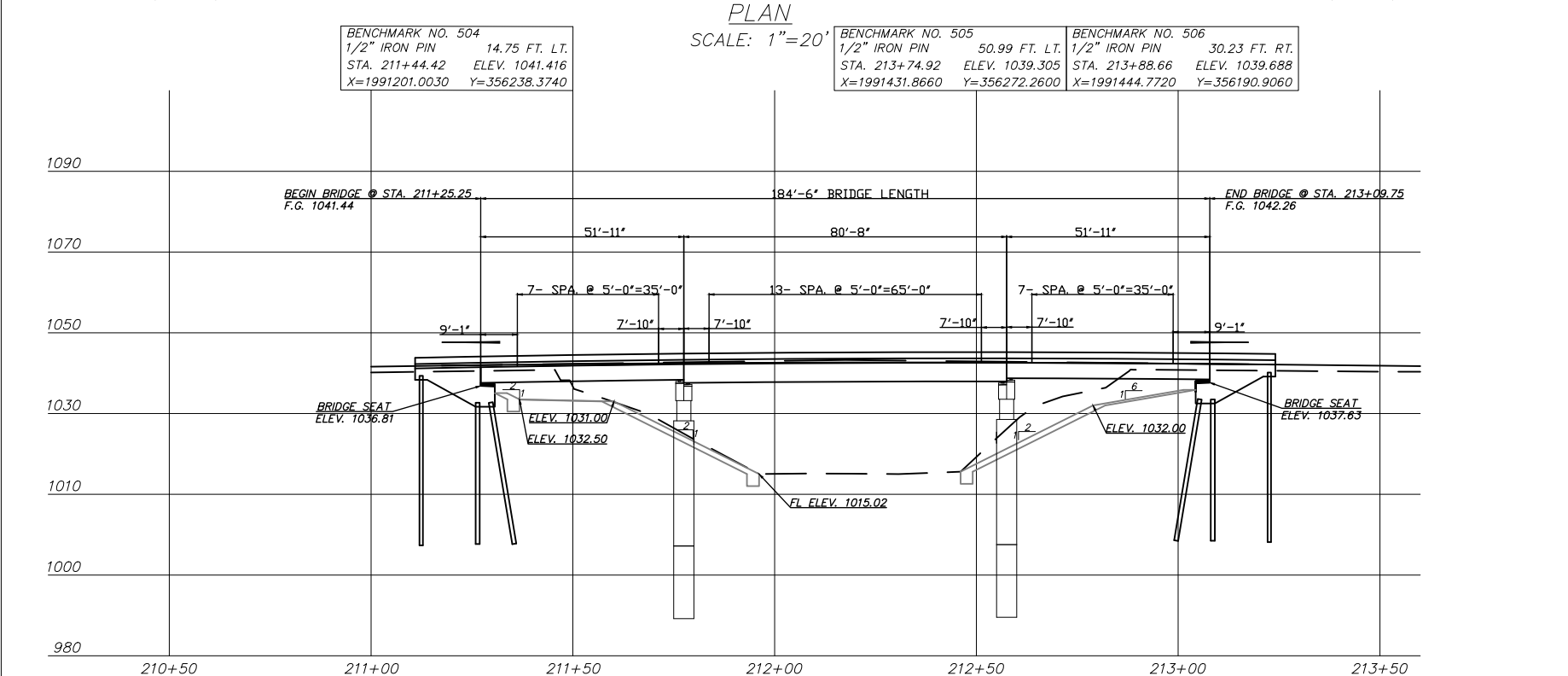
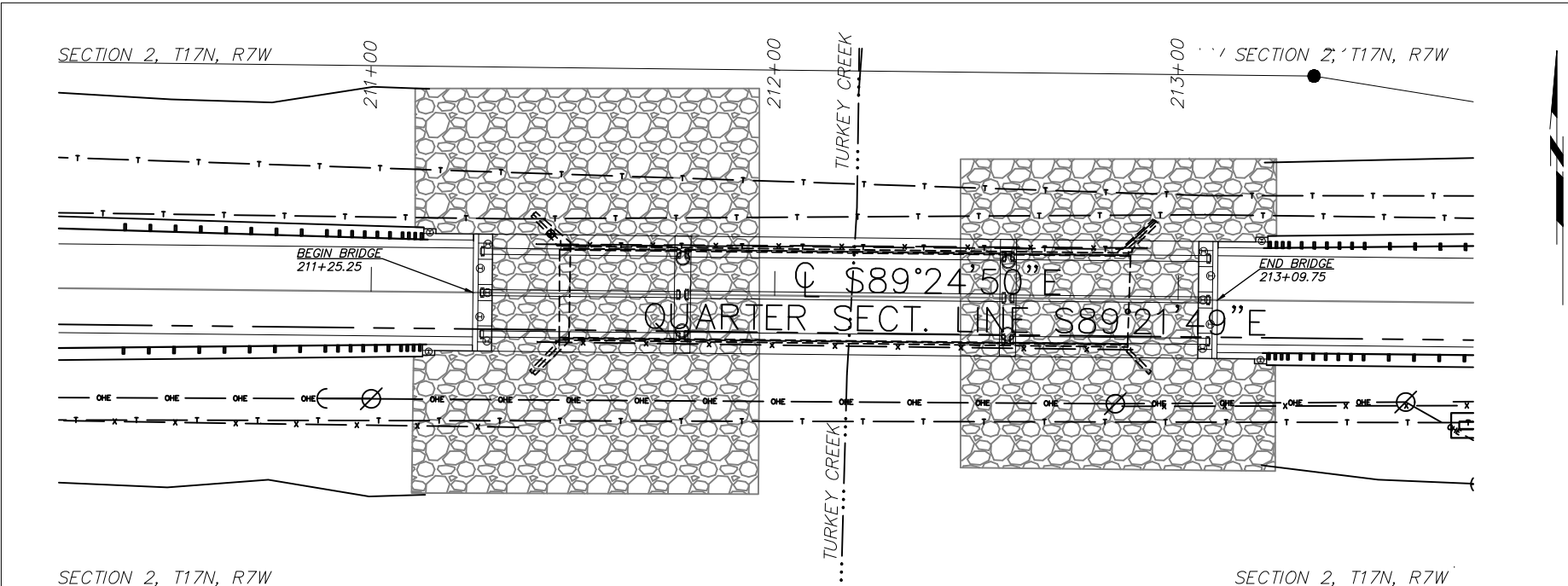


DETAIL OF TYPE I-A PLAIN RIPRAP



TYPICAL CHANNEL SECTION
AT BRIDGE

KINGFISHER COUNTY TURKEY CREEK
GENERAL PLAN & ELEVATION
BRIDGE "A" CL STA. 206+50.00
5-60' PCB SPANS W/26'-0" CL. RDY.
0 DEG. W/1'-1" TR3 CONC. RAILS
J/P NO. 29362(04) SHEET NO. B001



NOTE:
SEE SHEET NO. XX-XX
FOR BORING INFORMATION

*USE SLOTTED ANCHOR PLATES,
SEE STD.
CB26-C-SK0..30-BRG-PC2-01E
CB26-C-SK0..30-BRG-PC3-01E

B-1 PENETROMETER TEST				B-2 PENETROMETER TEST				B-3 PENETROMETER TEST				B-4 PENETROMETER TEST			
50/4.0"	50/1.8"	-		50/4.5"	50/2.0"	-		50/1.9"	50/0.8"	-		50/1.5"	50/3.0"	-	
50/1.3"	50/1.0"	-		50/1.8"	50/0.8"	-		50/1.5"	50/0.8"	-		50/0.5"	50/1.0"	-	
50/1.6"	50/0.3"	-		50/1.5"	50/0.3"	-		50/2.4"	50/1.1"	-		50/0.5"	50/0.5"	-	
50/0.8"	50/0.3"	-		50/1.0"	50/0.3"	-		50/1.0"	50/0.5"	-		50/0.5"	50/0.3"	-	
50/0.5"	50/0.1"	-		50/0.5"	50/0.4"	-		50/0.8"	50/0.3"	-		50/0.8"	50/0.4"	-	
50/0.3"	50/0.1"	-		50/.03"	50/0.3"	-		50/0.4"	50/0.3"	-		50/0.3"	50/0.3"	-	
50/0.3"	50/0.1"	-		50/0.3"	50/0.1"	-		50/0.3"	50/0.1"	-		50/0.5"	50/0.1"	-	

PAY QUANTITIES						
ITEM		DESCRIPTION	UNIT	ABUTMENT	SUPER STRUCTURE	PIER
501(B)	1300	SUBSTRUCTURE EXCAVATION COMMON	C.Y.			
501(G)	1800	CLSM BACKFILL	C.Y.			
503(A)	4220	PRESTRESSED CONCRETE BEAMS (TYPE II)	L.F.			
503(A)	4230	PRESTRESSED CONCRETE BEAMS (TYPE III)	L.F.			
504(B)	2300	SAW-CUT GROOVING	S.Y.			
518(B)	0300	SEALED EXPANSION JOINT				
504(D)	5410	CONCRETE RAIL (TR3)	L.F.			
506(A)	7200	STRUCTURAL STEEL	LB.			
507(A)	8210	WEATHERING STEEL FIXED BEARING ASSEMBLY	EA.			
507(B)	8310	WEATHERING STEEL EXP. BEARING ASSEMBLY	EA.			
509(A)	0210	CLASS AA CONCRETE	C.Y.			
509(B)	0320	CLASS A CONCRETE	C.Y.			
511(A)	2210	REINFORCING STEEL	C.Y.			
514(A)	5210	PILES, FURNISHED (HP10X42)	L.F.			
514(A)	5220	PILES, FURNISHED (HP12X53)	L.F.			
514(B)	5310	PILES, DRIVEN (HP10X42)	L.F.			
514(B)	5320	PILES, DRIVEN (HP12X53)	L.F.			
516(A)	8225	DRILLED SHAFTS 42" DIA.	L.F.			
516(C)	8400	CROSSHOLE SONIC LOGGING	EA.			
601(A)	1110	TYPE I-A PLAIN RIPRAP	TON			
601(C)	1310	TYPE I-A FILTER BLANKET	TON			
613(H)	6205	6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.			
613(I)	6310	6" NON-PERFORATED PIPE UNDERDRAIN ROUND	L.F.			
619(D)	6700	REMOVAL OF EXISTING BRIDGE STRUCTURE	L. SUM			

LOADING DATA

ABUTMENT PILES (HP 12X53):

FACTOR PILE REACTION = 65.5 TONS/PILE. ALL ABUTMENT PILING SHALL BE DRIVEN THROUGH THE COMPACTED FILL. STEEL PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL UNTIL THE REQUIRED FACTOR PILE CAPACITY OF 65.5 TONS PER PILE IS OBTAINED.

PIERS (42 INCH DIAMETER DRILLED SHAFTS):

MAXIMUM DIRECT FACTORED REACTION = 378.0 TONS/SHAFT
NOMINAL UNIT BEARING RESISTANCE = 34.0 TONS/S.F.
BEARING RESISTANCE FACTOR = 0.50
BEARING CAPACITY = 164.0 TONS/SHAFT
NOMINAL UNIT FRICTION RESISTANCE = 5.4 TONS/S.F.
FRICTION RESISTANCE FACTOR = 0.55
FRICTION CAPACITY = 228.60 TONS/SHAFT
TOTAL CAPACITY = 392.0 TONS/SHAFT

DESIGN DATA

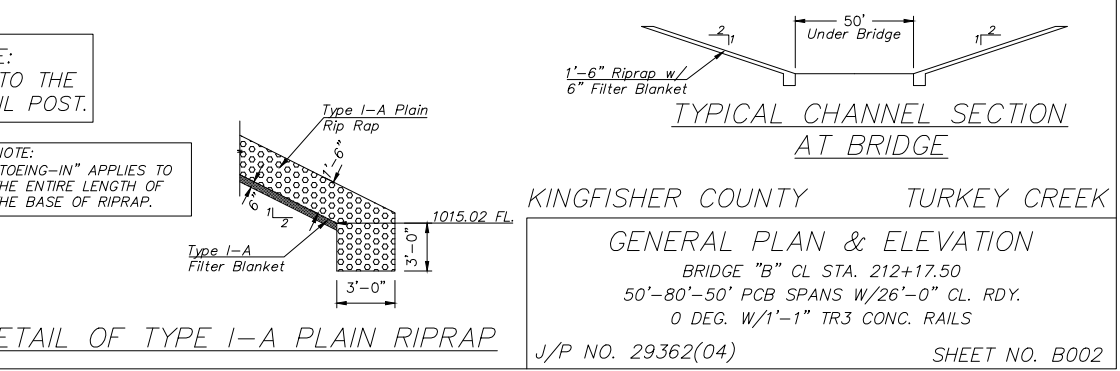
CONCRETE (CLASS A) F'C=3,000 PSI
CONCRETE (CLASS AA) F'C=4,000 PSI
REINFORCING STEEL (GR 60) FY=60,000 PSI
STRUCTURAL STEEL (GR 50W) FY=50,000 PSI

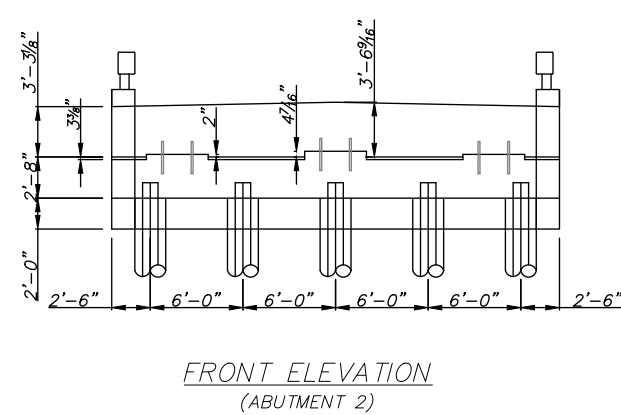
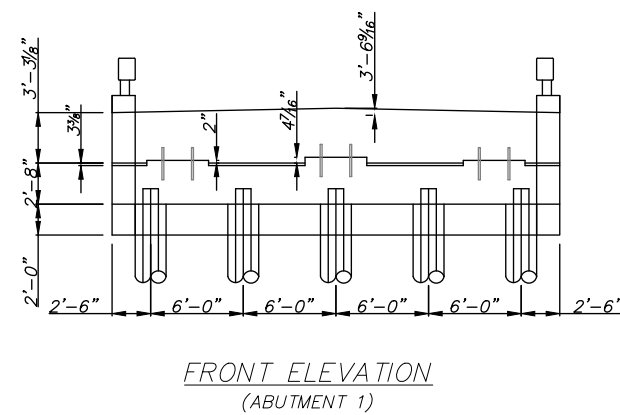
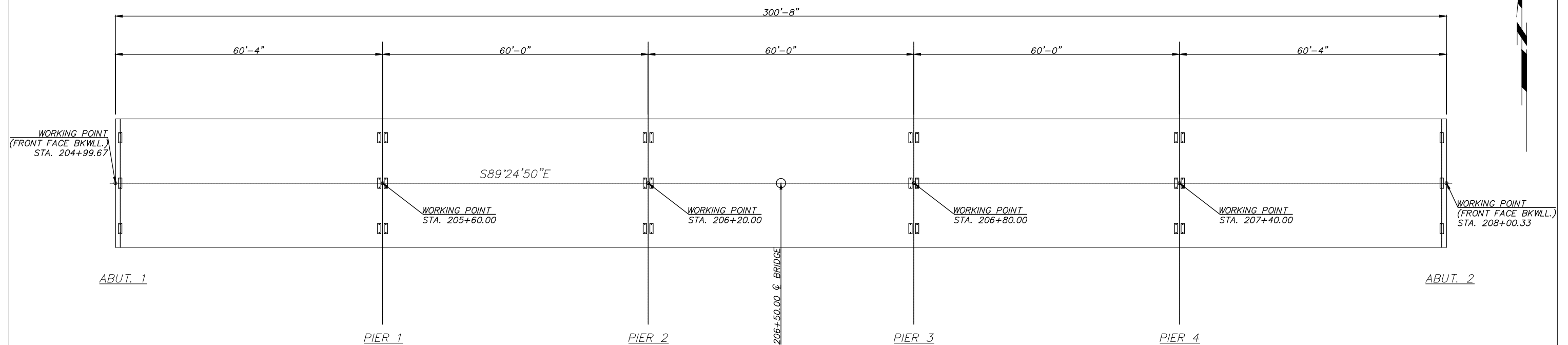
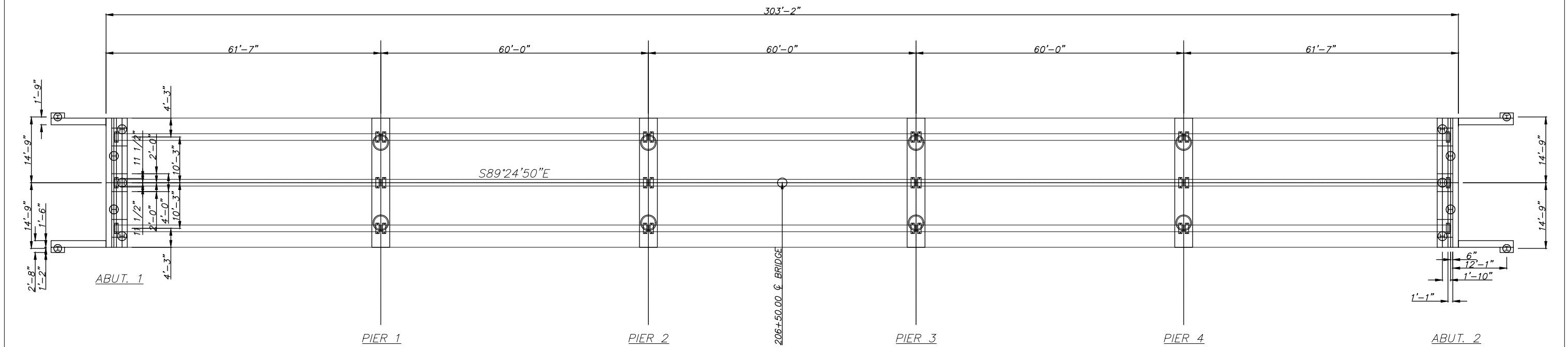
LOADING: HL-93 20 PSF FUTURE WEARING SURFACE
5 PSF STAY-IN-PLACE FORMS

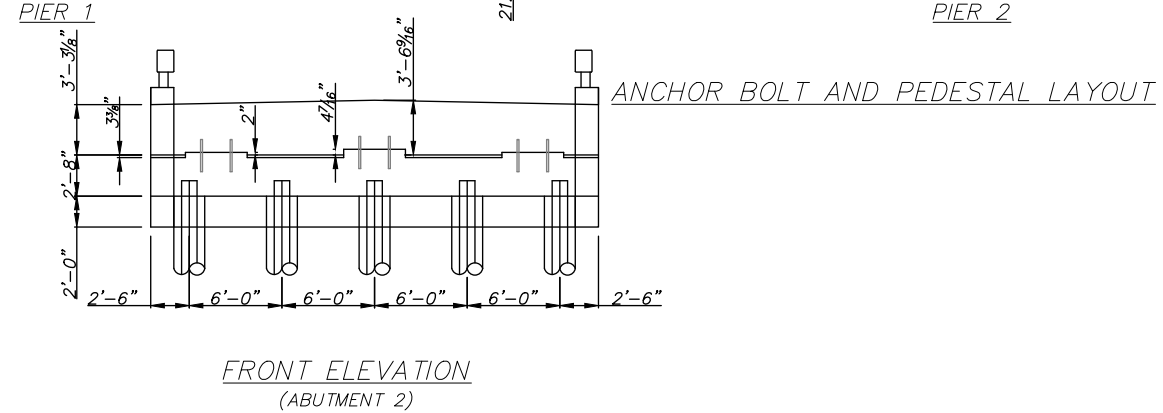
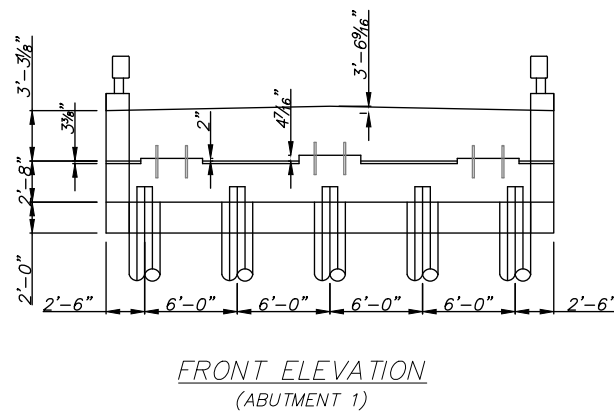
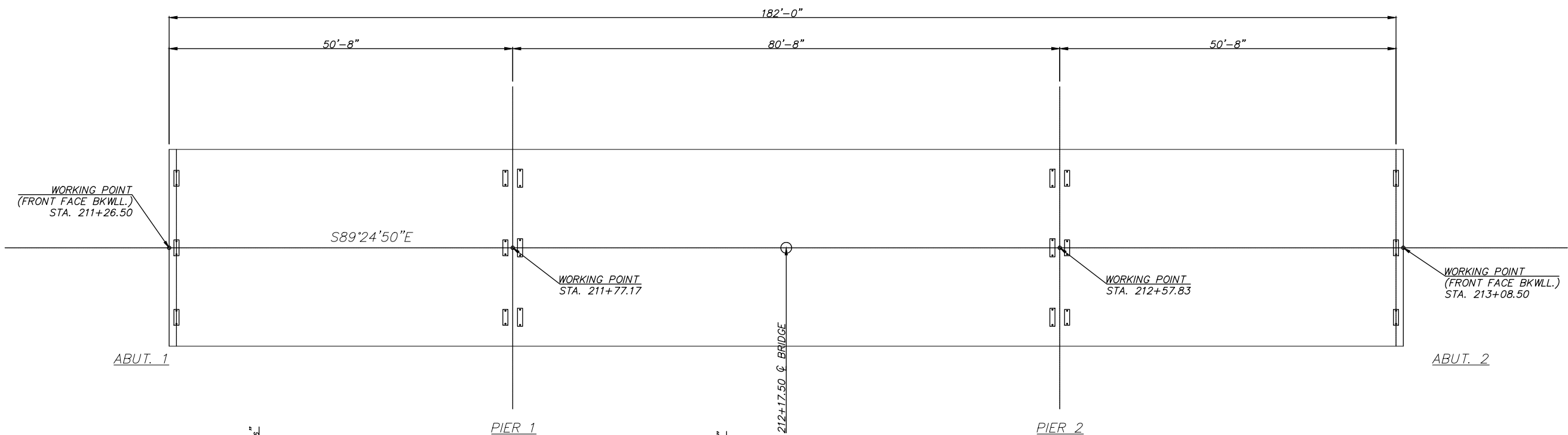
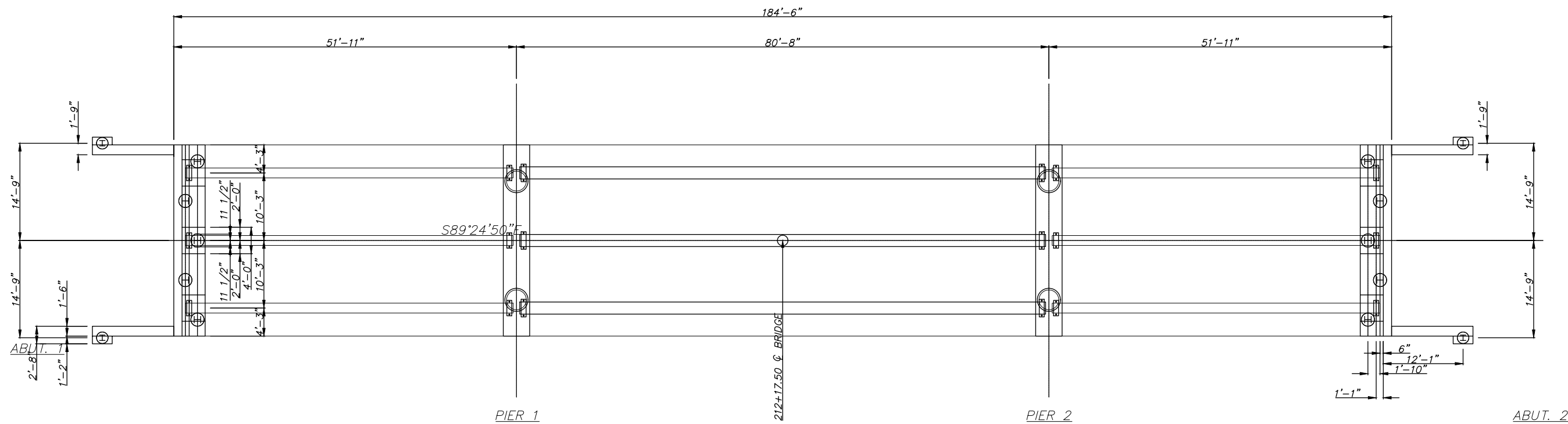
DESIGN SPECIFICATIONS - AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION WITH 2010 INTERIMS, EXCEPT AS MODIFIED BY CURRENT ODOT BRIDGE DIVISION DESIGN POLICIES.
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.
LFD OPERATING RATING: HS 29.0

HYDRAULIC DATA

D.A. = 411.53 SQ. MI.
SCS CONTROLLED D.A. = 2.50 SQ. MI.
EFFECTIVE DRAINAGE AREA = 409.03 SQ. MI.
Q25 = 19,716.57 C.F.S.
V25 = 9.66 F.P.S.
Q25 CALC. B.W. 1,034.89 FEET
Q50 = 21,164.14 C.F.S.
V50 = 8.80 F.P.S.
Q50 = CALC. B.W. 1,036.00 FEET
Q100 = 22,049.81 C.F.S.
V100 = 8.48 F.P.S.
Q100 = CALC. B.W. 1,036.58 FEET
Qo.t. = 19,716.57 C.F.S.
OVERTOPPING ELEV. (LOW) = 1,035.01 FEET
Vo.t. (BRIDGE) = 9.66 F.P.S.
EXTREME HIGH WATER ON RECORD = N/A
MAXIMUM SCOUR DEPTH = 17.83 FEET







STORM WATER MANAGEMENT PLAN

REVISIONS

DESCRIPTION

DATE

SITE DESCRIPTION

PROJECT LIMITS:COUNTY BRIDGES OVER TURKEY CREEK,
0.7 MILES WEST OF DOVER.

PROJECT DESCRIPTION:BRIDGE AND APPROACH PLANS:
1,242.33 FT. OF ROADWAY (4" SUPERPAVE S3 AND 2" SUPERPAVE S4),
5–60' PCB SPANS, STANDARD ABUTMENTS = 303.17' LONG BRIDGE,
50'–80'–50' PCB SPANS, STANDARD ABUTMENTS = 184.50' LONG BRIDGE,
SKEWED 0°, GUARDRAIL BRIDGE & RIP RAP CHANNEL,
XXX.00 S.Y. OF SOLID SLAB SODDING.

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES: PRIOR TO INITIATING
SOIL DISTURBING ACTIVITIES, THE CONTRACTOR WILL INSTALL ALL PERIMETER TEMPORARY SEDIMENT
CONTROLS SPECIFIED. STRIP, STOCKPILE AND STABILIZE TOPSOIL. CLEAR AND GRUB ONLY IN
NECESSARY AREAS, PRESERVING AS MUCH NATIVE VEGETATION AS POSSIBLE. INSTALL, MAINTAIN
AND/OR MOVE TEMPORARY SEDIMENT ITEMS WITH CONSTRUCTION OPERATIONS AS PRACTICAL. IF
DIRECTED BY THE ENGINEER, PLANT TEMPORARY SEEDING. REPLACE SALVAGED TOPSOIL. REMOVE
TEMPORARY DEVICES WHEN AN ACCEPTABLE VEGETATIVE COVER (AT LEAST 70%) HAS BEEN
ATTAINED. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR
ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE
ENGINEER. THE CONTRACTOR WILL MAINTAIN A LOG OF THE DATES OF MAJOR SOIL DISTURBANCE
ACTIVITIES, AND ALSO THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES.

SOIL TYPE:YAHOLA FINE SANDY LOAM, YA

TOTAL AREA OF THE
CONSTRUCTION SITE:X AC

ESTIMATED AREA TO BE DISTURBED:X AC

OFFSITE AREA TO BE DISTURBED:
(FOR CONTRACTOR USE)

TOTAL IMPERVIOUS AREA
PRE-CONSTRUCTION:X AC

TOTAL IMPERVIOUS AREA
POST-CONSTRUCTION:X AC

POST-CONSTRUCTION RUNOFF
COEFFICIENT OF THE SITE:0.X

LATITUDE & LONGITUDE
OF CENTER OF PROJECT:LAT. 35° 58' 42"N LONG. 97° 55' 32"W
LAT. 36° 08' 45"N LONG. 97° 56' 13"W

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS:TURKEY CREEK

SENSITIVE WATERS OR WATERSHEDS: YES NO X

303(d) IMPAIRED WATERS: YES X NO

IF YES, LIST IMPAIRMENT:

LOCATED IN A TMDL: YES NO X

LAKE THUNDERBIRD TMDL: YES NO X

MS4 ENTITY YES NO X

IF YES, LOCATION:

NOTE:
THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE MAP THAT
ILLUSTRATES THE DRAINAGE PATTERNS/PATHWAYS AND RECEIVING WATERS
FOR THIS PROJECT. THIS SHEET SHOULD ALSO BE USED WITH THE EROSION
CONTROL SUMMARIES, PAY ITEMS, & NOTES.

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

TEMPORARY SEEDING

X PERMANENT SODDING, SPRIGGING OR SEEDING

X VEGETATIVE MULCHING

SOIL RETENTION BLANKET

X PRESERVATION OF EXISTING VEGETATION

HYDROMULCH / HYDROSEED

NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON
ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED
FOR OVER 14 DAYS. METHODS USED WILL BE AS SHOWN ON PLANS,
OR AS DIRECTED BY THE ENGINEER.

STRUCTURAL PRACTICES:

STABILIZED CONSTRUCTION EXIT

X TEMPORARY SILT FENCE

X TEMPORARY SILT DIKES

TEMPORARY FIBER LOG

DIVERSION, INTERCEPTOR OR PERIMETER DIKES

DIVERSION, INTERCEPTOR OR PERIMETER SWALES

ROCK FILTER DAMS

TEMPORARY SLOPE DRAIN

PAVED DITCH W/ DITCH LINER PROTECTION

TEMPORARY DIVERSION CHANNELS

TEMPORARY SEDIMENT BASINS

TEMPORARY SEDIMENT TRAPS

TEMPORARY SEDIMENT FILTERS

X TEMPORARY SEDIMENT REMOVAL

X RIP RAP

INLET PROTECTION

TEMPORARY BRUSH SEDIMENT BARRIERS

SANDBAG BERMS

X TEMPORARY STREAM CROSSINGS

FLEXAMAT / ARTICULATED CONCRETE BLOCK

COMPOST FILTER SOCKS

EROSION CONTROL MATS AND BLANKETS

OFFSITE VEHICLE TRACKING:

X HAUL ROADS DAMPENED FOR DUST CONTROL

X LOADED HAUL TRUCKS TO BE COVERED WITH TARPULIN

EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

MAINTENANCE AND INSPECTION:

ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER FROM
THE BEGINNING OF CONSTRUCTION UNTIL AN ACCEPTABLE VEGETATIVE COVER IS ESTABLISHED.
INSPECTION BY THE CONTRACTOR AND ANY NECESSARY REPAIRS SHALL BE PERFORMED ONCE EVERY
7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCH AS
RECORDED BY A NON-FREEZING RAIN GAUGE TO BE LOCATED ON SITE. POTENTIALLY ERODIBLE
AREAS, DRAINAGEWAYS, MATERIAL STORAGE, STRUCTURAL DEVICES, CONSTRUCTION ENTRANCES
AND EXITS ALONG WITH EROSION AND SEDIMENT CONTROL LOCATIONS ARE EXAMPLES OF SITES THAT
NEED TO BE INSPECTED.

WASTE MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF CONSTRUCTION WASTE MATERIAL IS REQUIRED BY THE
CONTRACTOR. MATERIALS INCLUDE STOCKPILES, SURPLUS, DEBRIS AND ALL OTHER BY-PRODUCTS
FROM THE CONSTRUCTION PROCESS. PRACTICES INCLUDE DISPOSAL, PROPER MATERIALS HANDLING,
SPILL PREVENTION AND CLEANUP MEASURES. CONTROLS AND PRACTICES SHALL MEET THE
REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL AGENCIES.

HAZARDOUS MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF HAZARDOUS WASTE MATERIALS IS REQUIRED. THE
CONTRACTOR IS RESPONSIBLE FOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, STATE AND
FEDERAL REGULATIONS TO ENSURE CORRECT HANDLING, DISPOSAL, SPILL PREVENTION AND CLEANUP
MEASURES. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: PAINTS, ACIDS, CLEANING SOLVENTS,
CHEMICAL ADDITIVES, CONCRETE CURING COMPOUNDS AND CONTAMINATED SOILS.

GENERAL NOTES:

A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO COMPLY WITH THE
OKLAHOMA POLLUTION DISCHARGE ELIMINATION SYSTEM (OPDES) REGULATIONS. THIS PLAN IS
INITIATED DURING THE DESIGN PHASE, CONFIRMED IN THE PRE-WORK MEETINGS AND AVAILABLE
ON THE JOB SITE ALONG WITH COPIES OF THE NOTICE OF INTENT (NOI) FORM AND PERMIT
CERTIFICATE THAT HAVE BEEN FILED WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL
QUALITY (ODEQ). THE PLAN MUST BE KEPT CURRENT WITH UP-TO-DATE AMENDMENTS DURING
THE PROGRESSION OF THE PROJECT. ALL CONTRACTOR OFF-SITE OPERATIONS ASSOCIATED WITH
THE PROJECT MUST BE DOCUMENTED IN THE SWPPP, I.E., BORROW PITS, WORK ROADS, DISPOSAL
SITES, ASPHALT/CONCRETE PLANTS, ETC. THE BASIC GOAL OF STORM WATER MANAGEMENT IS TO
IMPROVE WATER QUALITY BY REDUCING POLLUTANTS IN STORM WATER DISCHARGES. RUNOFF
FROM CONSTRUCTION SITES HAS A POTENTIAL FOR POLLUTION DUE TO EXPOSED SOILS AND
THE PRESENCE OF HAZARDOUS MATERIALS USED IN THE CONSTRUCTION PROCESS. THE
PREVENTION OF SOIL EROSION, CONTAINMENT OF HAZARDOUS MATERIALS AND/OR THE
INTERCEPTION OF THESE POLLUTANTS BEFORE LEAVING THE CONSTRUCTION SITE ARE THE BEST
PRACTICES FOR CONTROLLING STORM WATER POLLUTION.

THE FOLLOWING SECTIONS OF THE 2019 ODOT STANDARD SPECIFICATIONS SHOULD
BE NOTED:

103.05 BONDING REQUIREMENTS

104.10 FINAL CLEANING UP

104.12 CONTRACTOR'S RESPONSIBILITY FOR WORK

104.13 ENVIRONMENTAL PROTECTION

106.08 STORAGE AND HANDLING OF MATERIAL

107.01 LAWS, RULES AND REGULATIONS TO BE OBSERVED

107.20 STORM WATER MANAGEMENT

220 MANAGEMENT OF EROSION, SEDIMENTATION, AND STORM WATER POLLUTION PREVENTION

221 TEMPORARY SEDIMENT CONTROL

IN ADDITION:

"ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE
STATE OF OKLAHOMA." ODEQ, WATER QUALITY DIVISION, OCTOBER 18, 2022.

ADDITIONAL PERMITS REQUIRED FROM OKLAHOMA WATER RESOURCES BOARD AND/OR MUNCIPALITY FOR USE
OF SURFACE, GROUND OR CITY WATER SOURCES FOR ACTIVITIES SUCH AS WATERING.

DESIGN

DRAWN

CHECKED

APPROVED

SQUAD

JRR

XXXXX

2/25

OKLAHOMA DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION

STORM WATER
MANAGEMENT PLAN

COUNTY: KINGFISHER COUNTY HIGHWAY: EW-71.5 STATE JOB NO. JP29362(04) SHEET: R001

SECTION 3, T17N, R7W

SECTION 2, T17N, R7W

CONSTRUCT SILT STRUCTURES LT. AS SHOWN OR AS DIRECTED BY RESIDENT ENGINEER

CONSTRUCT SILT STRUCTURES RT. AS SHOWN OR AS DIRECTED BY RESIDENT ENGINEER

NOTE: R/W OFFSET DIMENSIONS
ARE MEASURED FROM THE
CENTERLINE.

NOTE: CONTRACTOR SHALL
MEET & MATCH EXISTING
ROADWAY & DITCHES AT BEG.
& END OF PROJECT.

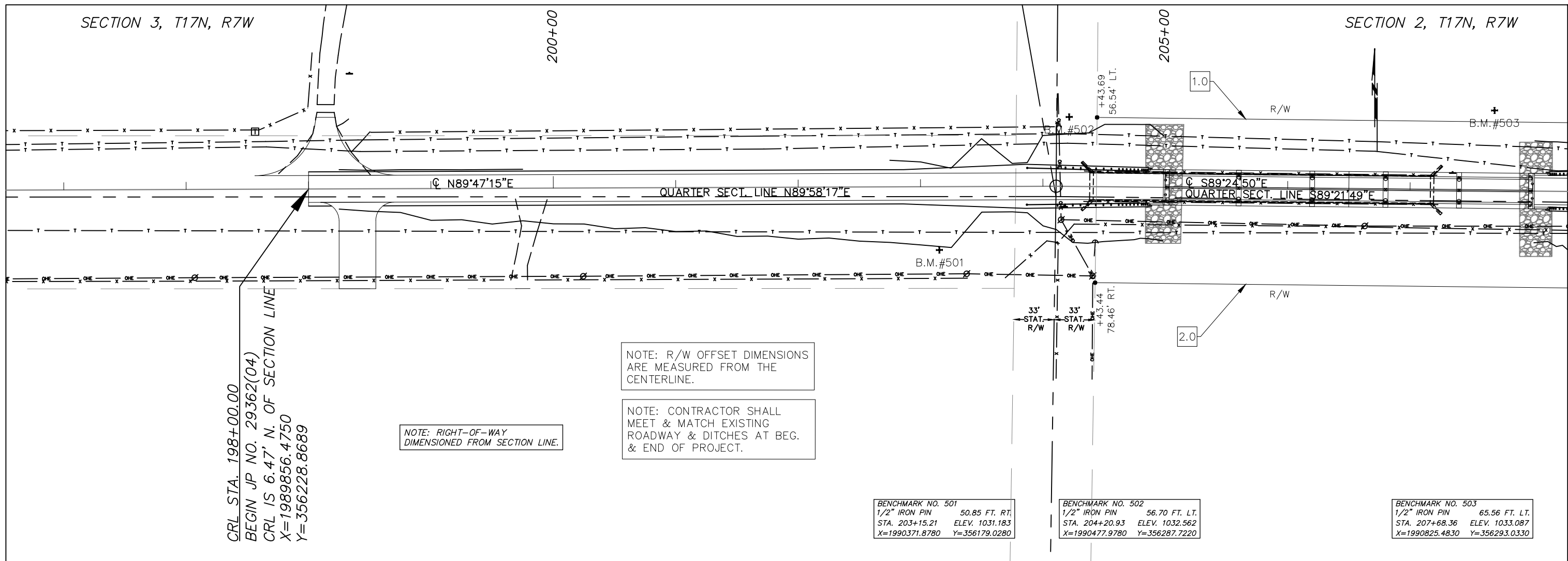
LEGEND	
TEMPORARY SILT DIKE	△△△△△△
TEMPORARY SILT FENCE	××××××

KINGFISHER COUNTY TURKEY CREEK

EROSION CONTROL

J/P NO. 29362(04)

SHEET NO. R002



NOTE: R/W OFFSET DIMENSIONS ARE MEASURED FROM THE CENTERLINE.

NOTE: CONTRACTOR SHALL MEET & MATCH EXISTING ROADWAY & DITCHES AT BEG. & END OF PROJECT.

NOTE: RIGHT-OF-WAY DIMENSIONED FROM SECTION LINE.

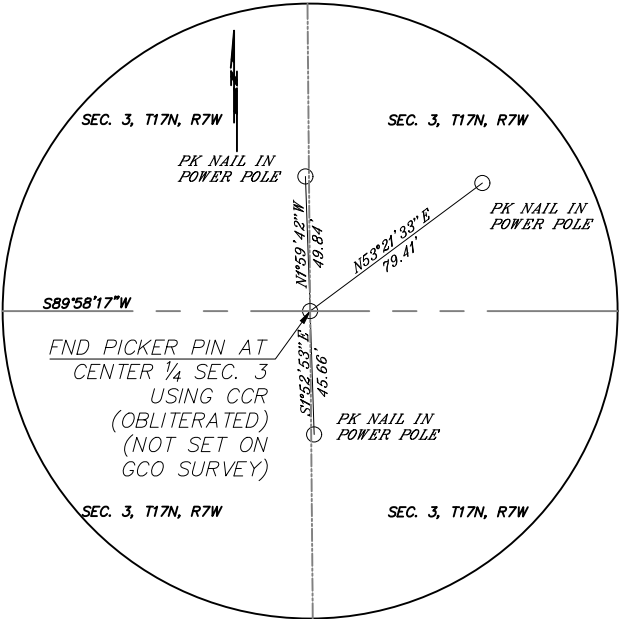
BENCHMARK NO. 501
1/2" IRON PIN 50.85 FT. RT.
STA. 203+15.21 ELEV. 1031.183
X=1990371.8780 Y=356179.0280

BENCHMARK NO. 502
1/2" IRON PIN 56.70 FT. LT.
STA. 204+20.93 ELEV. 1032.562
X=1990477.9780 Y=356287.7220

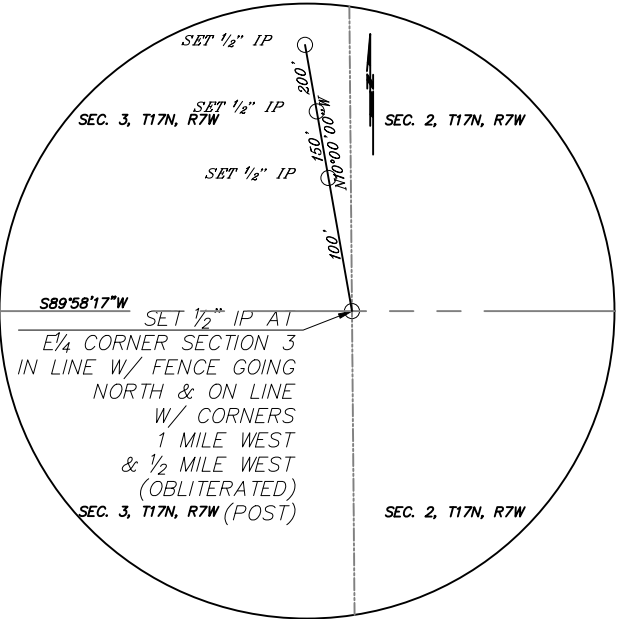
BENCHMARK NO. 503
1/2" IRON PIN 65.56 FT. LT.
STA. 207+68.36 ELEV. 1033.087
X=1990825.4830 Y=356293.0330

SECTION 3, T17N, R7W

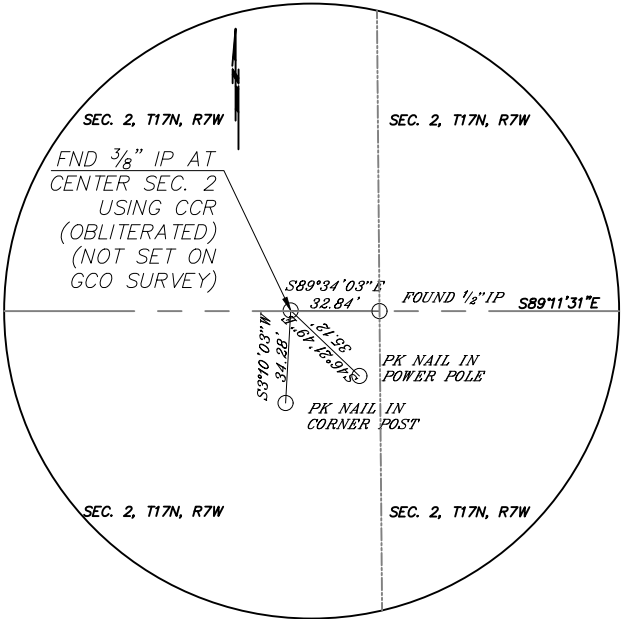
SECTION 2, T17N, R7W



CENTER SECTION CORNER
SECTION 3, T17N, R7W
STA. 177+83.93
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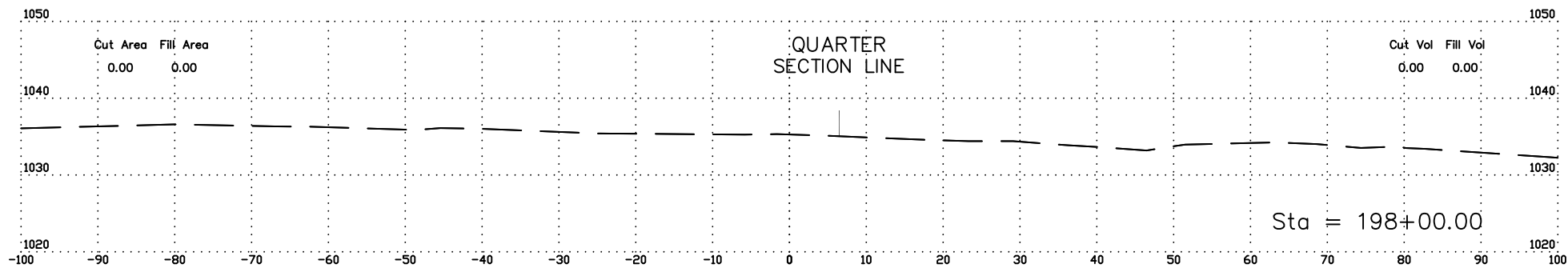
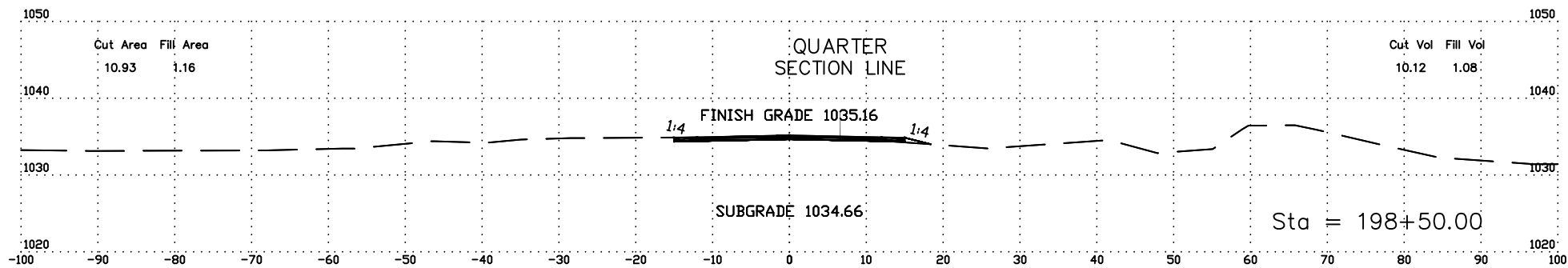
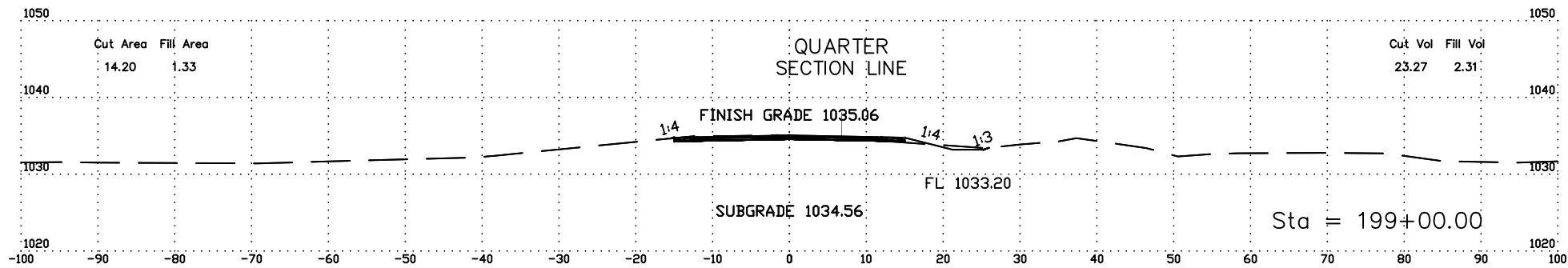
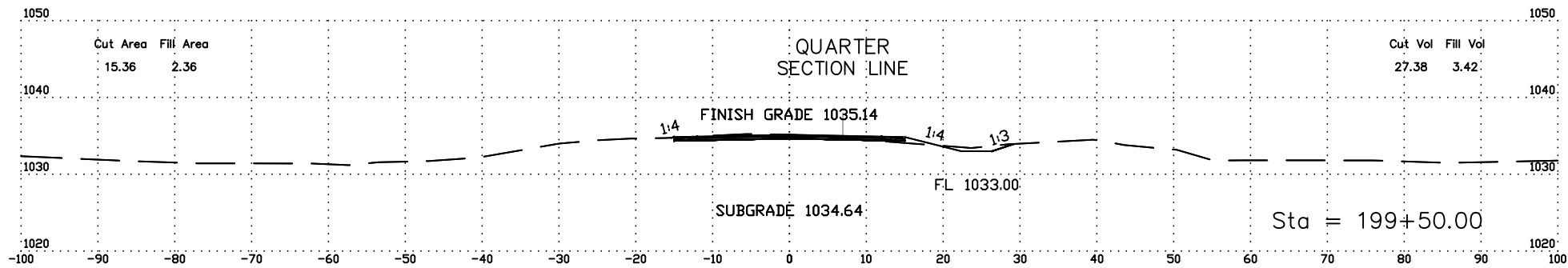
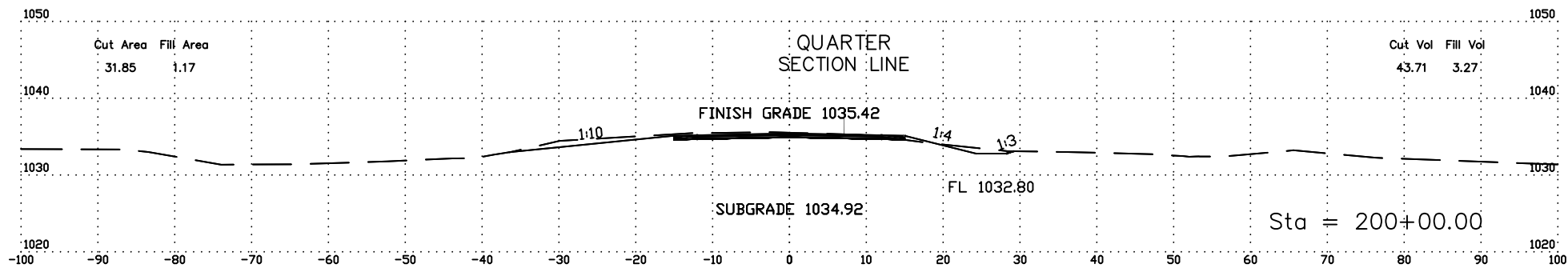


E. 1/4 SECTION CORNER
SECTION 3, T17N, R7W
STA. 204+10.77
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Y=356231.1338

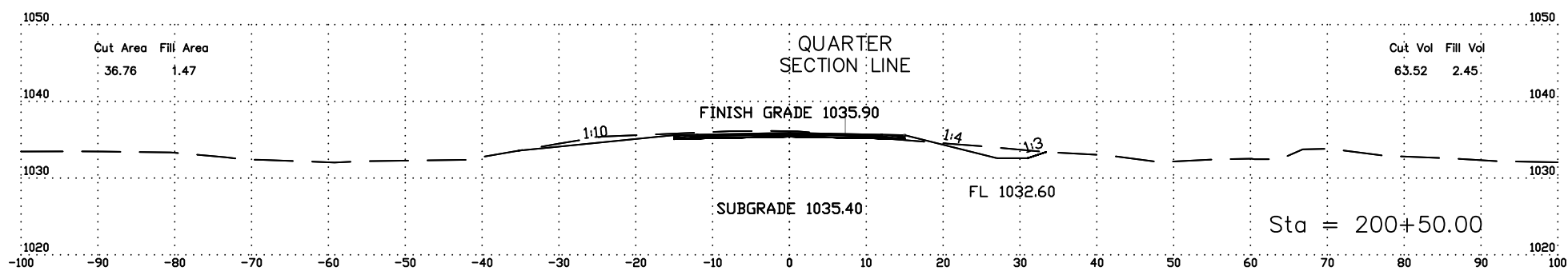
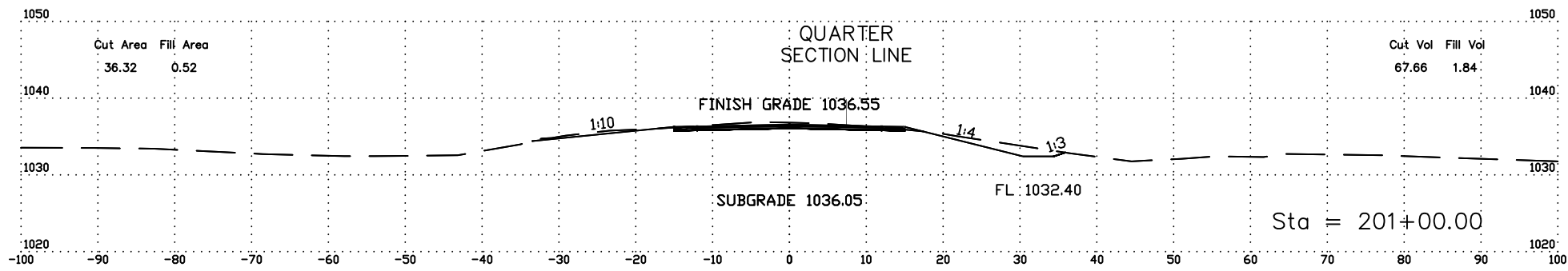
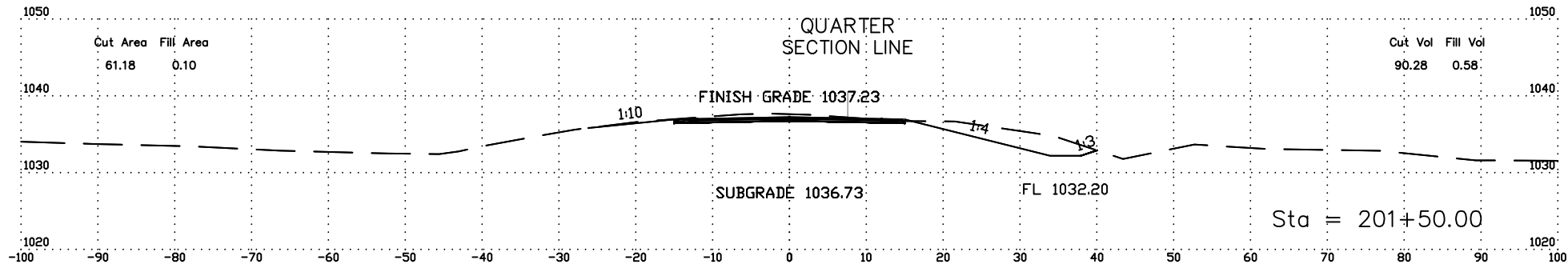
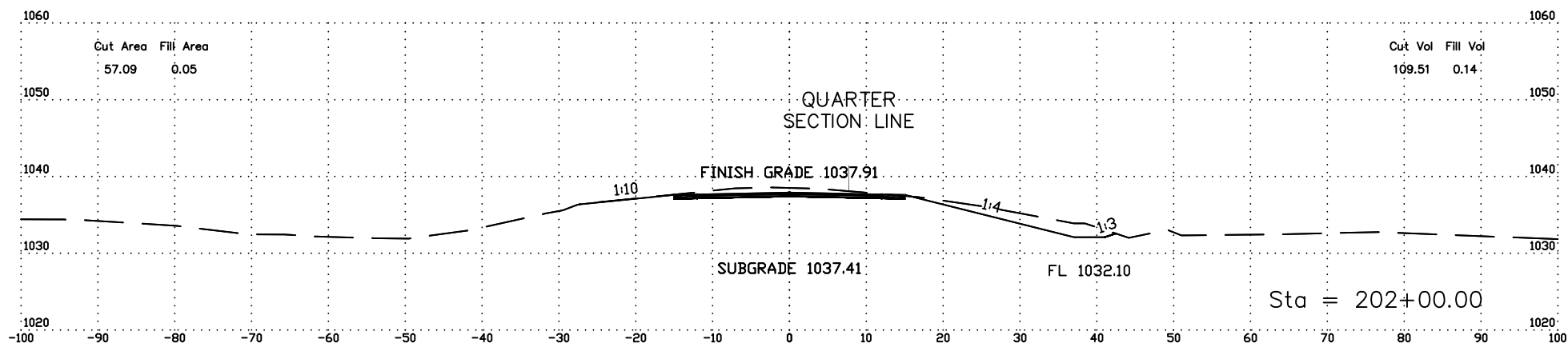
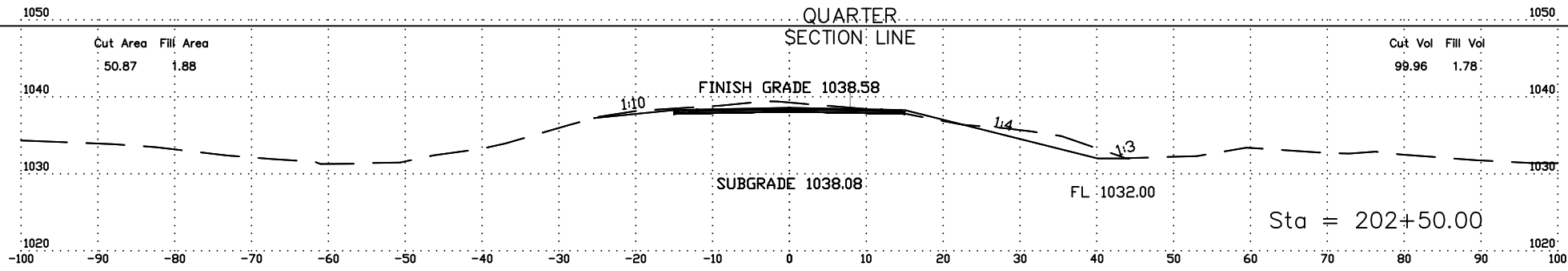


CENTER SECTION CORNER
SECTION 2, T17N, R7W
2645' E. OF NS 285
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Y=356193.3310

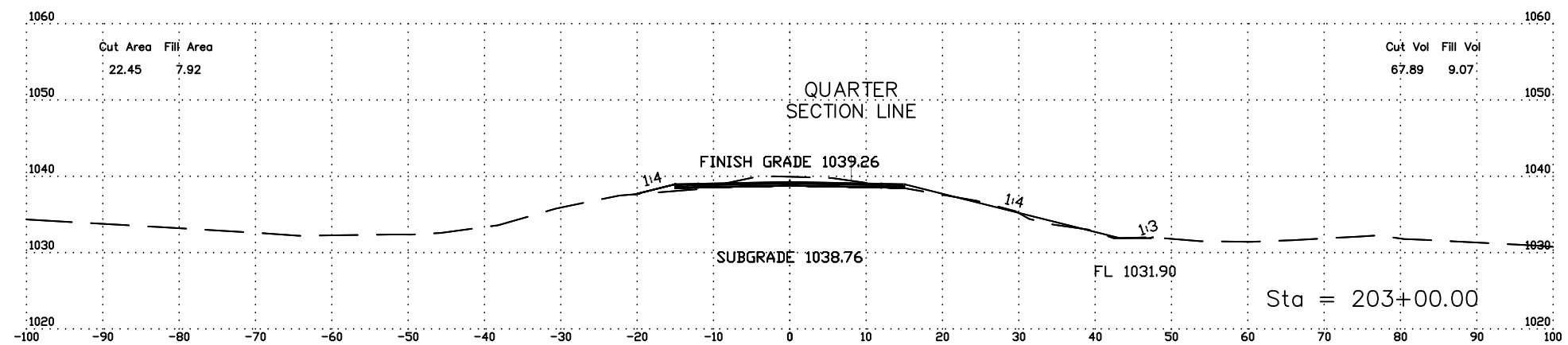
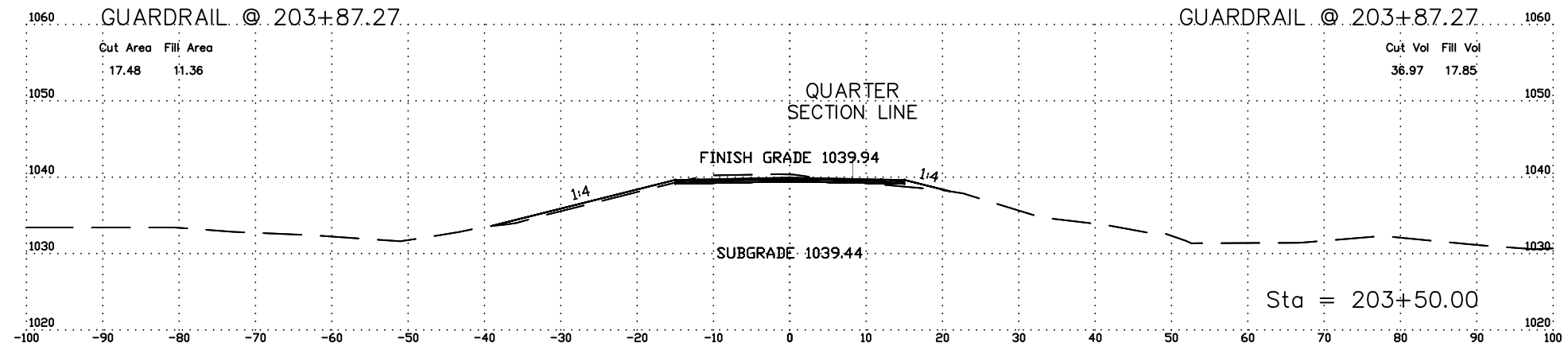
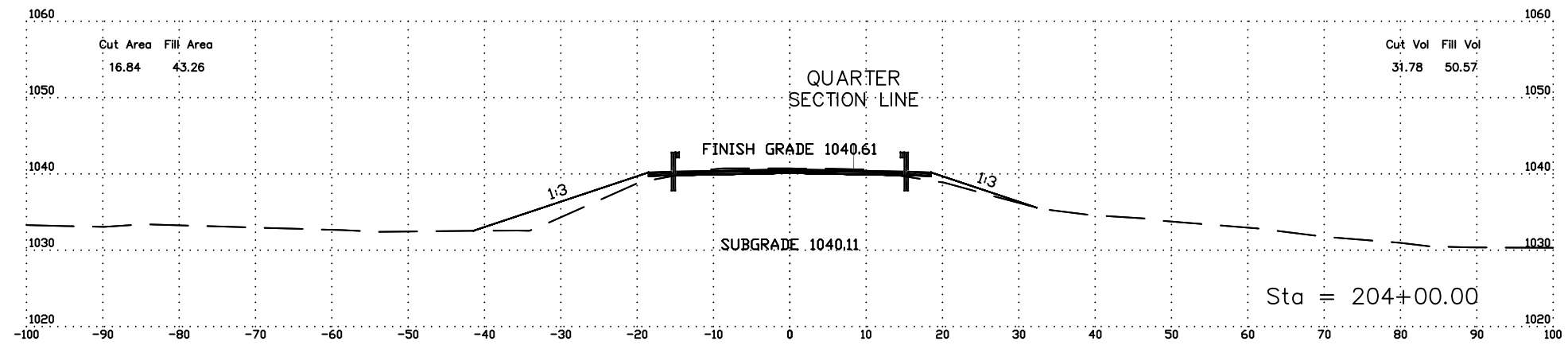
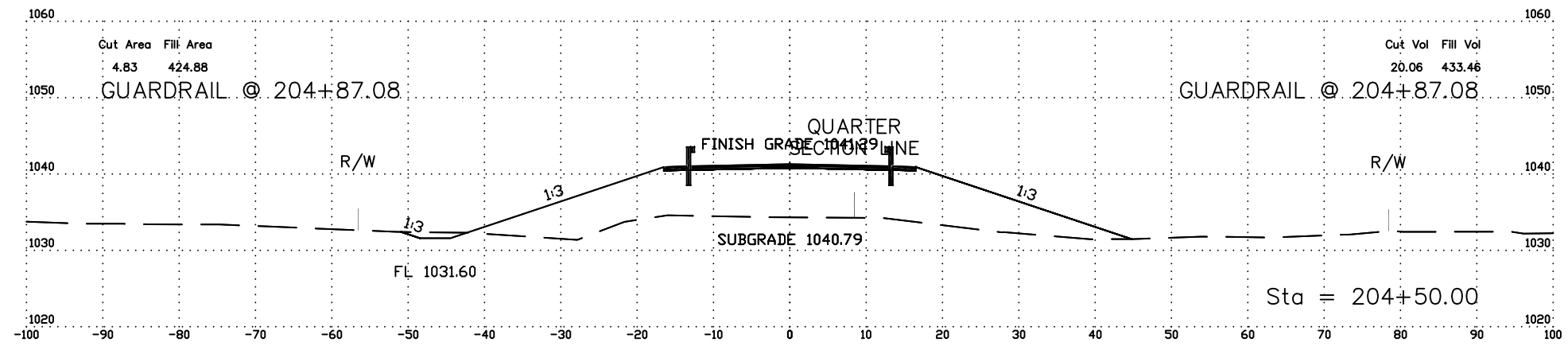
KINGFISHER COUNTY TURKEY CREEK
ALIGNMENT, SURVEY
REFERENCES AND R/W
BRIDGE A
J/P NO. 29362(04) SHEET NO. S001



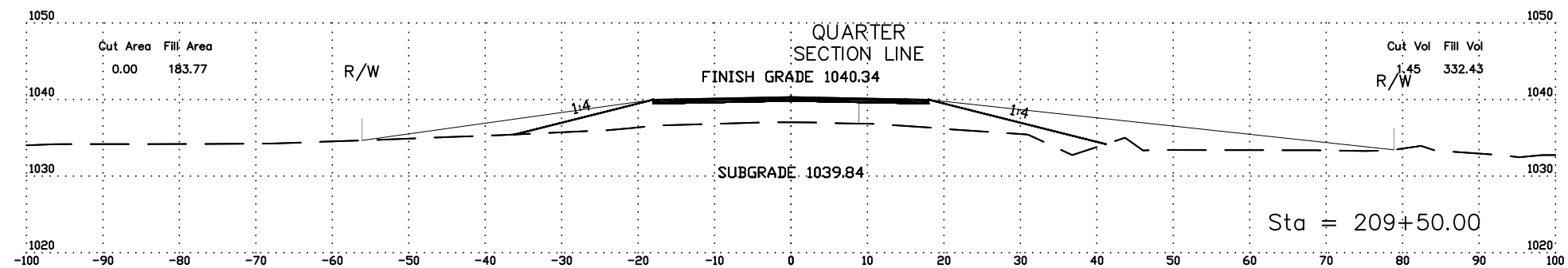
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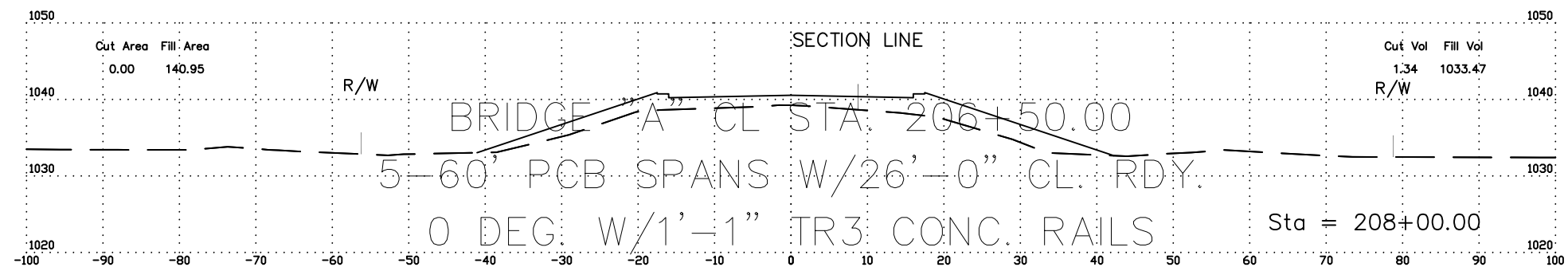
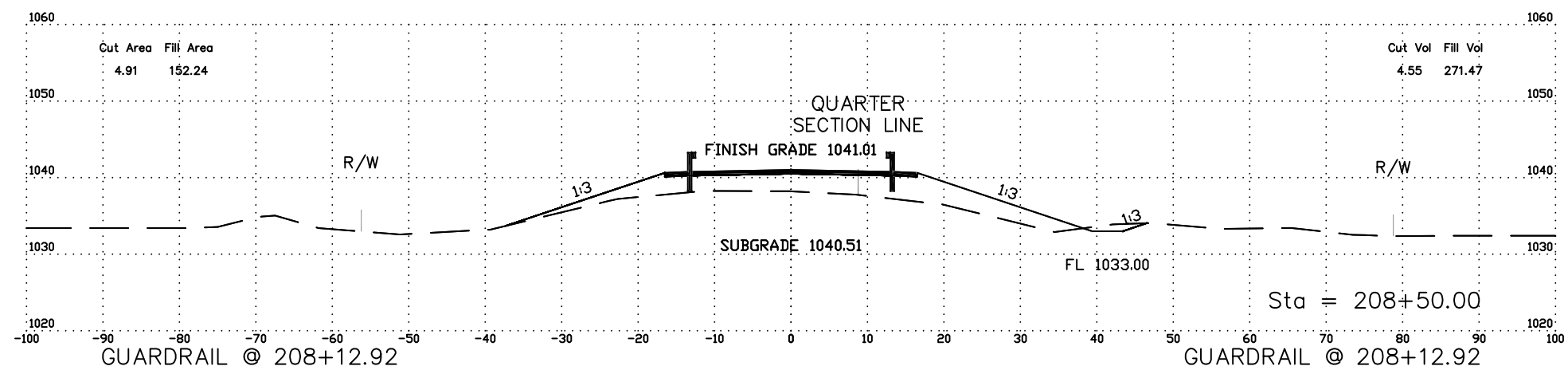
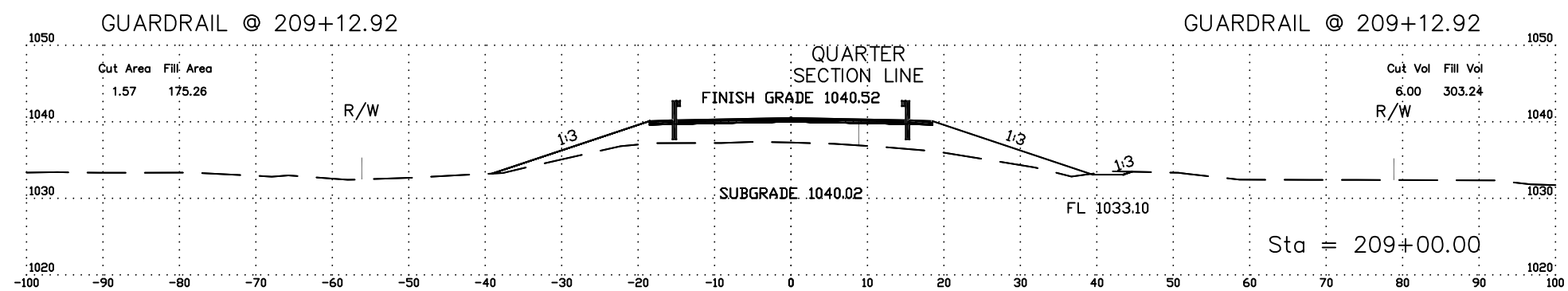
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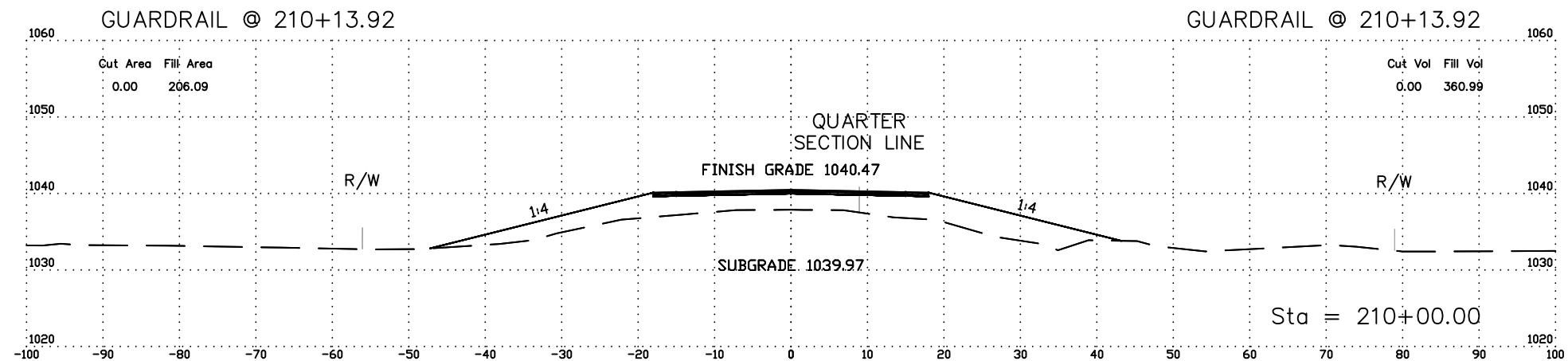
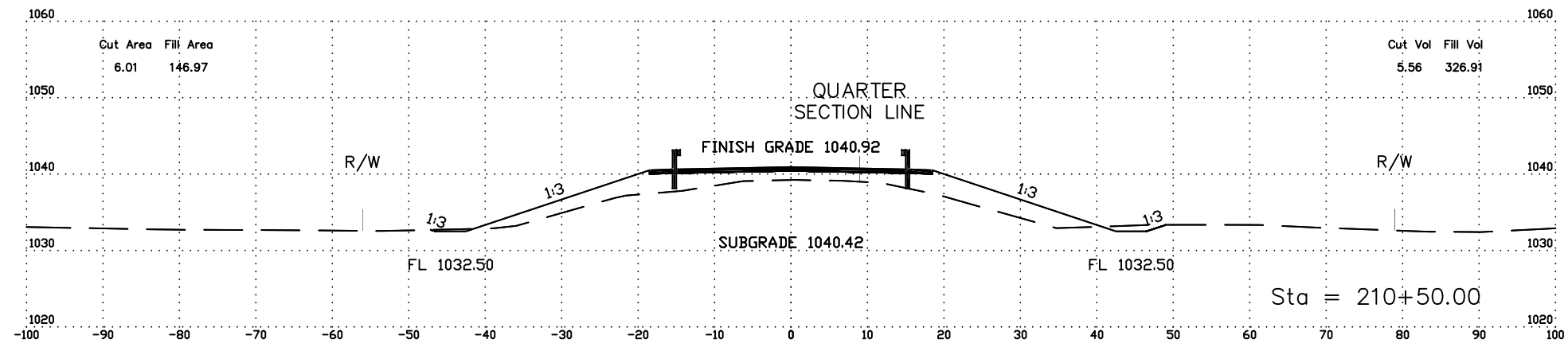
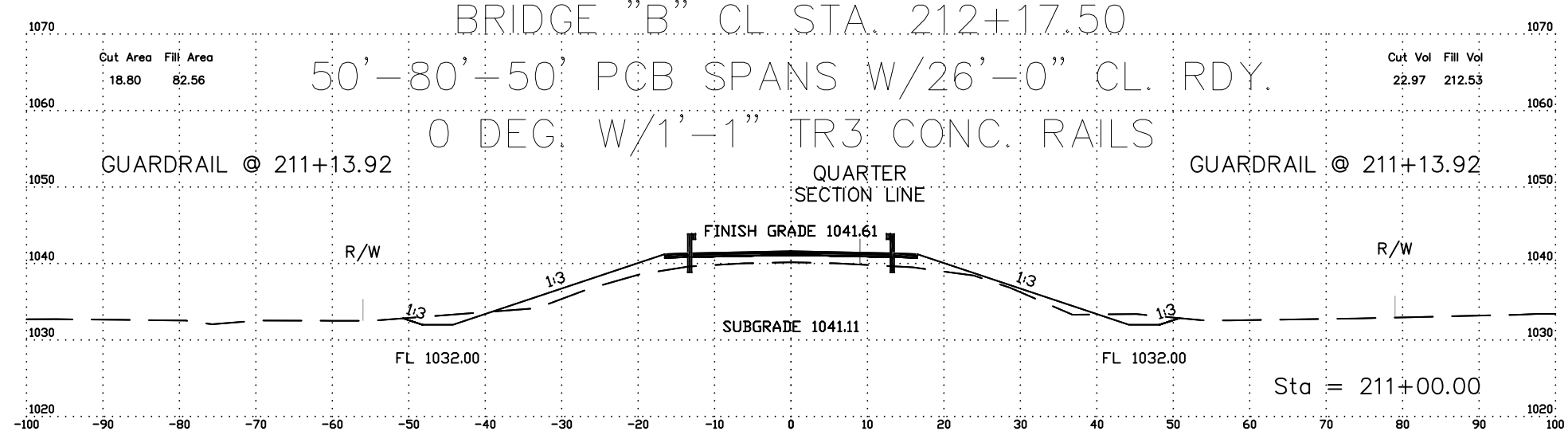
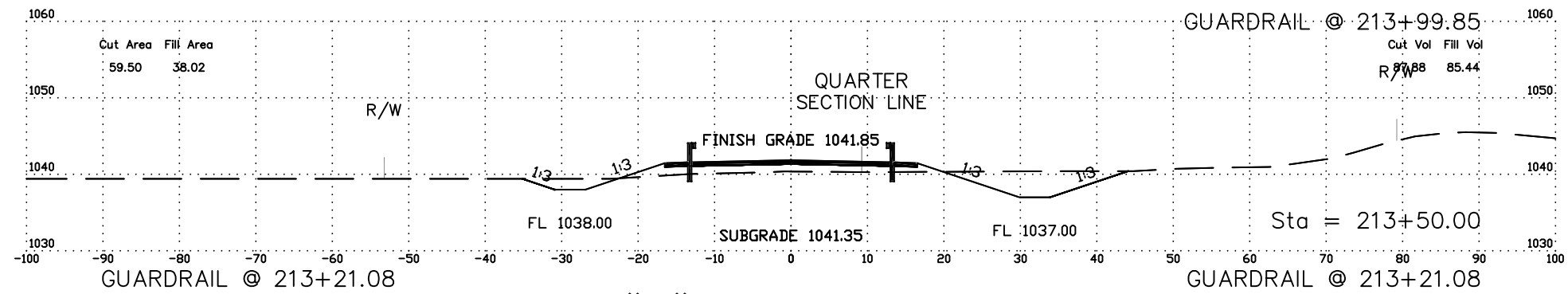
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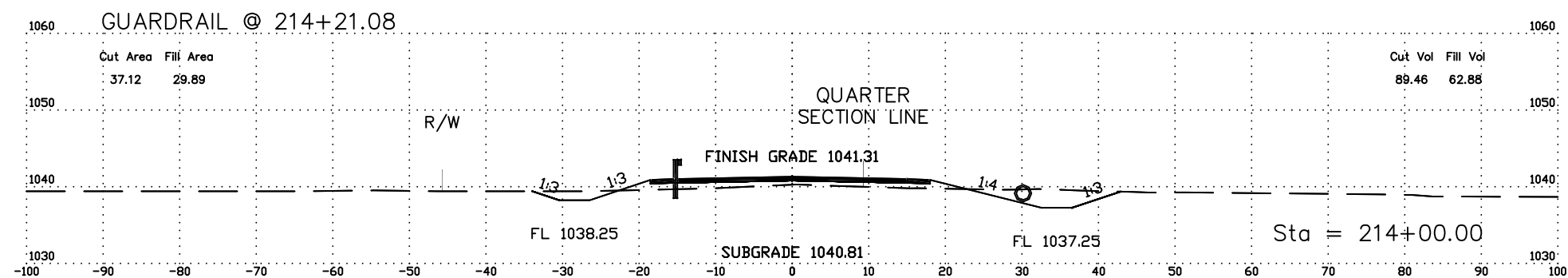
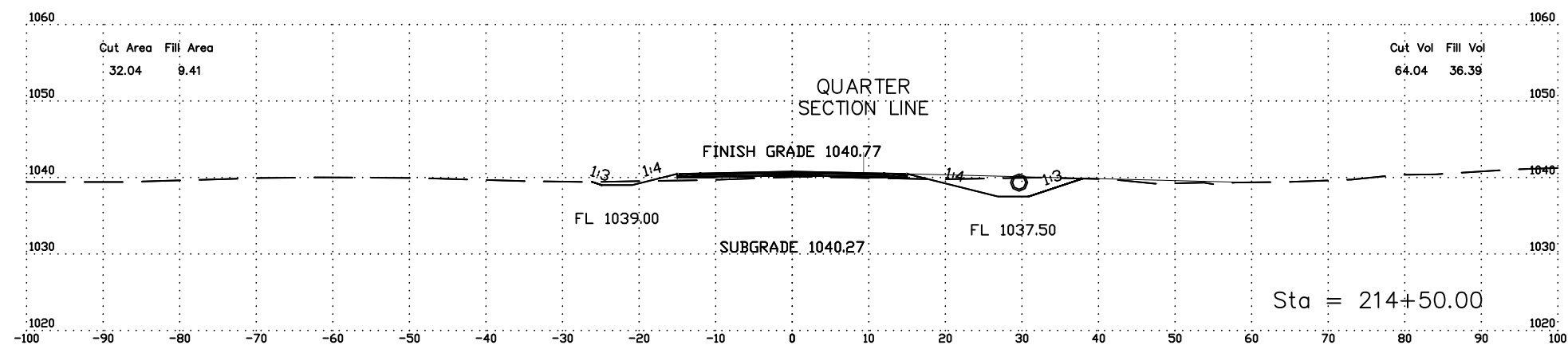
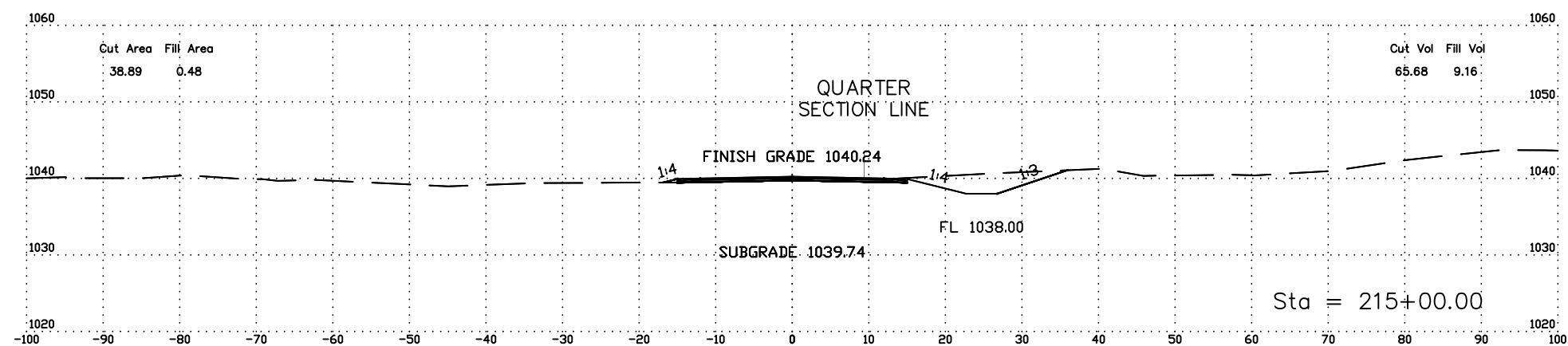
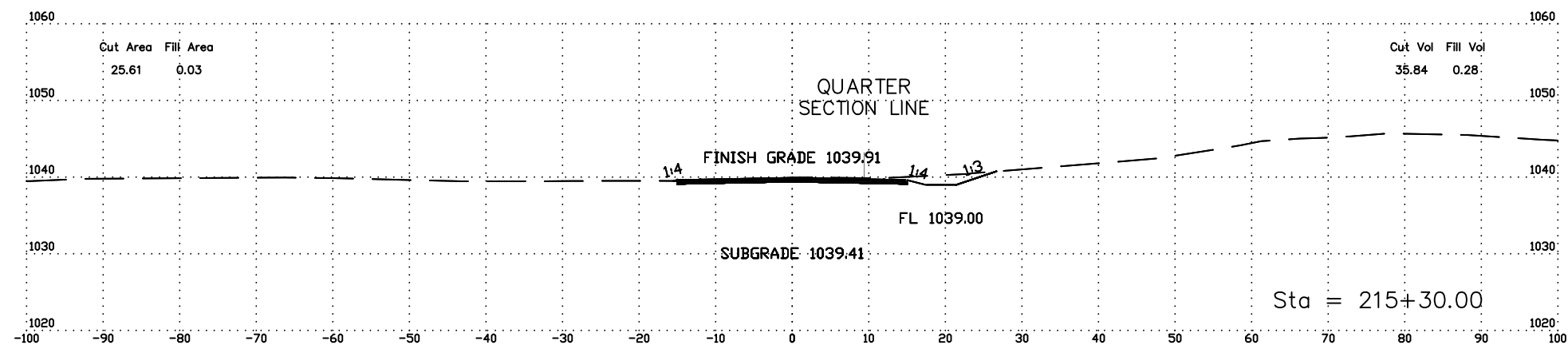
STA. 209+53.00
CONST. FIELD ENTRANCE



SCALE:
1" = 10'



SCALE:
1" = 10'



STR. NO. 1
STA. 214+15.00- 30' RT.
CONST. 21"X15"X90' LG. CGSPA
W/ A4 CET
FL IN = 1038.50
FL OUT = 1038.16

SCALE:
1" = 10'