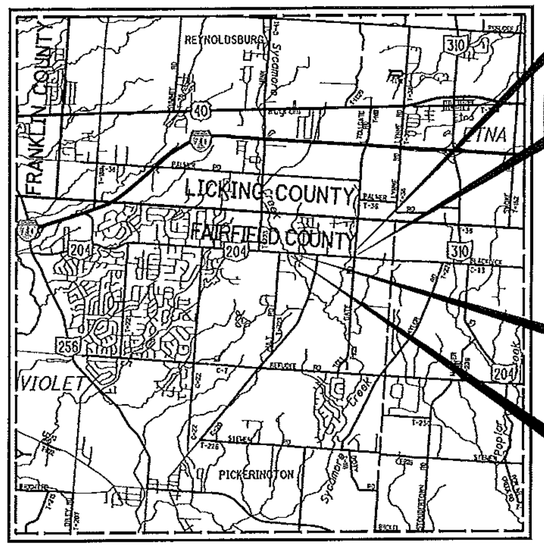
FAI - SR 204-03.46/04.32
190366 PID - 96015
Dist 5 6/20/2019

Contract Proposal Available @
www.contracts.dot.state.oh.us/home



LOCATION MAP

LATITUDE: 39° 55' 44" LONGITUDE: -82° 42' 58"

SCALE IN MILES 0 1 2 3 4

N

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2021)	5200
DESIGN YEAR ADT (2041)	6800
DESIGN HOURLY VOLUME (2041)	680
DIRECTIONAL DISTRIBUTION	0.61
TRUCKS (24 HOUR B&C)	4%
DESIGN SPEED	45 MPH (SLM 3.46) / 55 MPH (SLM 4.32)
LEGAL SPEED	45 MPH (SLM 3.46) / 55 MPH (SLM 4.32)
DESIGN FUNCTIONAL CLASSIFICATION: 04 MINOR ARTERIAL (URBAN)	
NHS PROJECT	NO

DESIGN EXCEPTIONS

DESIGN FEATURE	APPROVAL DATE	SHEET NO.
SHOULDER WIDTH (4.32)	03/11/2019	19

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

FAI-204-(3.46)(4.32)

VIOLET TOWNSHIP

FAIRFIELD COUNTY

INDEX OF SHEETS:

PROJECT DESCRIPTION

REPLACEMENT OF STRUCTURES FAI-204-0346 (SFN 2302616) OVER SYCAMORE CREEK AND FAI-204-0432 (SFN 2302640) OVER A BRANCH OF SYCAMORE CREEK WITH MINOR ROADWAY APPROACH WORK INCLUDING REPLACEMENT OF EXISTING GUARDRAIL AND FULL DEPTH SHOULDER WIDENING TO MATCH THE STRUCTURES.

EARTH DISTURBED AREAS - 3.46

PROJECT EARTH DISTURBED AREA: 0.36 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.33 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A
(NOI NOT REQUIRED)

EARTH DISTURBED AREAS - 4.32

PROJECT EARTH DISTURBED AREA: 0.61 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.33 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A
(NOI NOT REQUIRED)

2016 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE PART TIME CLOSING OF THE HIGHWAY TO TRAFFIC, AS NOTED ON SHEET 9 . DURING WHICH TIME DETOURS WILL BE PROVIDED AS SHOWN HEREIN. PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

UNDERGROUND UTILITIES
OHIO811.org Before You Dig

PLAN PREPARED BY:
PRIME AE

ENGINEERS SEAL:
STATE OF OHIO Gregory T. Boyer E-51391 PROFESSIONAL ENGINEER
SIGNED: Gregory T. Boyer
DATE: 03/12/2019

STANDARD CONSTRUCTION DRAWINGS

BP 3.1	07/18/14	TC 41.20	10/18/13	AS-1-15	7/17/15						
		TC 42.20	10/18/13	AS-2-15	1/19/18						
BP 4.1	07/19/13	TC 52.10	10/18/13	CPA-1-08	7/18/08						
		TC 52.20	07/20/18	CPP-1-08	7/21/17						
MGS 1.1	01/19/18			CS-1-08	1/19/18						
MGS 2.1	01/19/18			DS-1-92	7/18/03						
MGS 3.1	01/19/18			EXJ-3-82	1/18/13						
MGS 4.2	07/19/13			TST-1-99	7/20/18						
MGS 4.3	01/18/13	MT 101.60	1/20/17								
MGS 5.3	07/15/16	MT 105.10	7/19/13								

SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
800	04/19/19	WATERWAY PERMITS CONDITIONS DATED: 2/12/19
832	10/19/18	
836	01/19/18	
878	01/18/19	
902	12/31/12	
940	4/17/15	ASBESTOS SURVEY REPORTS DATED: 2/4/19

APPROVED
DATE 3/21/19 DISTRICT DEPUTY DIRECTOR

APPROVED
DATE 4/1/19 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. E161 (300)
PID NO. 96015
CONSTRUCTION PROJECT NO. FAI-204-(3.46)(4.32)
RAILROAD INVOLVEMENT NONE
1/43

Q:\Transportation\Projects\ODOT\Distri

BENCH MARK DATA
BM #1 - GOV CON ON THE NW WINGWALL OF FAI-204-0346 BRIDGE. STA. 182+39.14, 14.93' LT ELEV. 1005.301
BM #2 - GOV CON ON THE NW WINGWALL OF FAI-204-0432 BRIDGE STA. 227+07.66, 17.13' LT ELEV. 1030.478

CONTROL POINT NO.	NORTHING	EASTING	DESCRIPTION	ALIGNMENT	STATION	OFFSET	SIDE	ELEV.
1	702859.20	1905300.92	CONCRETE MON.	℄ EX. R/W SR 204	178+19.04	24.73	LT	1020.30
2	702799.47	1906228.15	CONCRETE MON.	℄ EX. R/W SR 204	187+48.02	29.23	LT	1019.61
3	702406.66	1910616.89	CONCRETE MON.	℄ EX. R/W SR 204	231+53.08	26.84	RT	1031.98
4	702372.68	1911152.86	CONCRETE MON.	℄ EX. R/W SR 204	236+90.12	21.16	RT	1031.72

E161 (300)
BEGIN PROJECT
STA. 182+15.00
SLM = 3.44

POT Sta. 175+00.05

℄ EX. R/W SR 204

CONTROL POINT #1

S 86° 02' 09" E

Sta. 179+00.00 ℄ CONSTRUCTION SR 204 =
Sta. 179+00.00 ℄ EX. R/W SR 204
Δ = 00°57'25" LT

PI Sta. 181+50.03 (℄ CONST. SR 204)
Δ = 01°23'05" RT

SYCAMORE CREEK

STRUCTURE NO. FAI-204-0346

PI Sta. 184+50.04 (℄ CONST. SR 204)
Δ = 00°40'54" RT

Sta. 185+50.06 ℄ CONSTRUCTION SR 204 =
Sta. 185+50.00 ℄ EX R/W SR 204
Δ = 01°06'33" LT

SUSPEND WORK
STA. 185+05.00

CONTROL POINT #2

180

S 86° 59' 34" E

185

S 84° 55' 35" E

BM #1

S 85° 36' 29" E

AULT RD
S04°13'46"W

I.P.F.

℄ CONSTRUCTION SR 204

BEGIN WORK
STA. 180+85.00

E161 (300)
SUSPEND PROJECT
STA. 184+00.00
SLM = 3.48

℄ EX. R/W SR 204

195

200

S 86° 02' 09" E

POT Sta. 203+63.09
Δ = 00°41'09"

S 85° 20' 59" E

MATCH LINE STA. 205+00 SEE BELOW

MATCH LINE STA. 205+00 SEE BELOW

215

S 85° 20' 59" E

℄ EX. R/W SR 204

210

220

S 85° 20' 59" E

225

E161 (300)
RESUME PROJECT
STA. 226+75.00
SLM = 4.29

E161 (300)
END PROJECT
STA. 228+50.00
SLM = 4.34

BRANCH OF SYCAMORE CREEK

BM #2

PI Sta. 230+14.90
Δ = 00°25'00"

230

235

S 85° 45' 59" E

CONTROL POINT #4

238

℄ R/W & CONSTRUCTION SR 204

PROP. CULVERT

STRUCTURE NO. FAI-204-0432

CONTROL POINT #3

RESUME WORK
STA. 225+30.00

END WORK
STA. 229+62.00

TOLL GATE RD

EX. BRIDGE
(TO BE REMOVED)

M.N.F.

P.F.

HORIZONTAL SCALE IN FEET
0 50 100 200

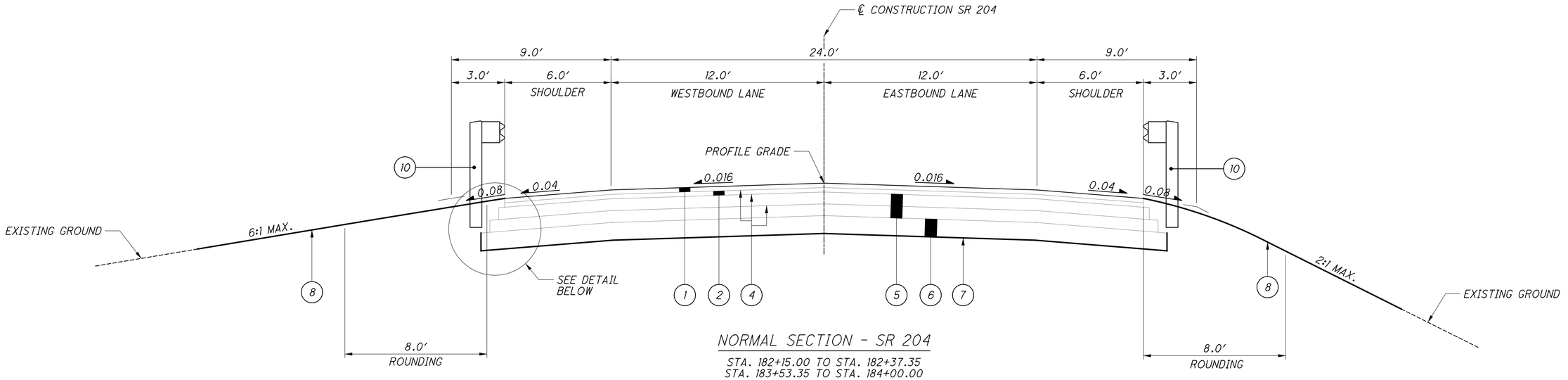
CALCULATED AA
CHECKED EAK

SCHEMATIC PLAN

FAI-204-(3.46)(4.32)

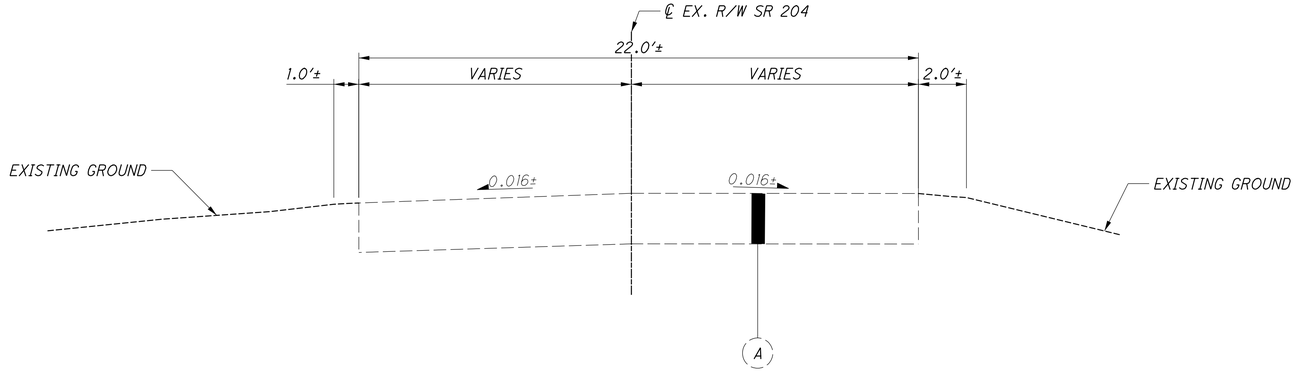
2
43

D:\Transportation\Projects\ODOT\District 5\FAI204 03.46 04.32\96015\Design\Roadway\Sheets\96015_GB001.dgn 3/12/2019 2:35:29 PM Aakuraju



NORMAL SECTION - SR 204

STA. 182+15.00 TO STA. 182+37.35
STA. 183+53.35 TO STA. 184+00.00

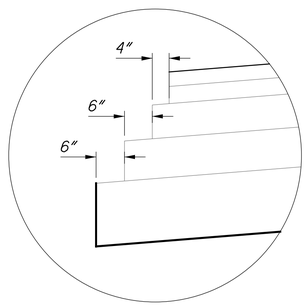


EXISTING NORMAL SECTION - SR 204

LEGEND

1. ITEM 441 - 1¼″ ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22
2. ITEM 441 - 1¾″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
3. ITEM 254 - PAVEMENT PLANING (1½″ THICK)
4. ITEM 407 - TACK COAT
5. ITEM 301 - 8″ ASPHALT CONCRETE BASE (PLACED IN TWO LIFTS)
6. ITEM 304 - 6″ AGGREGATE BASE
7. ITEM 204 - SUBGRADE COMPACTION
8. ITEM 659 - SEEDING AND MULCHING
9. ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T = 12″)
10. ITEM 606 - GUARDRAIL, TYPE MGS
11. ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22 (VARIABLE THICKNESS, 1¼″ MIN.)
12. ITEM 606 - GUARDRAIL, TYPE MGS WITH LONG POSTS

A. 12″± ASPHALT CONCRETE

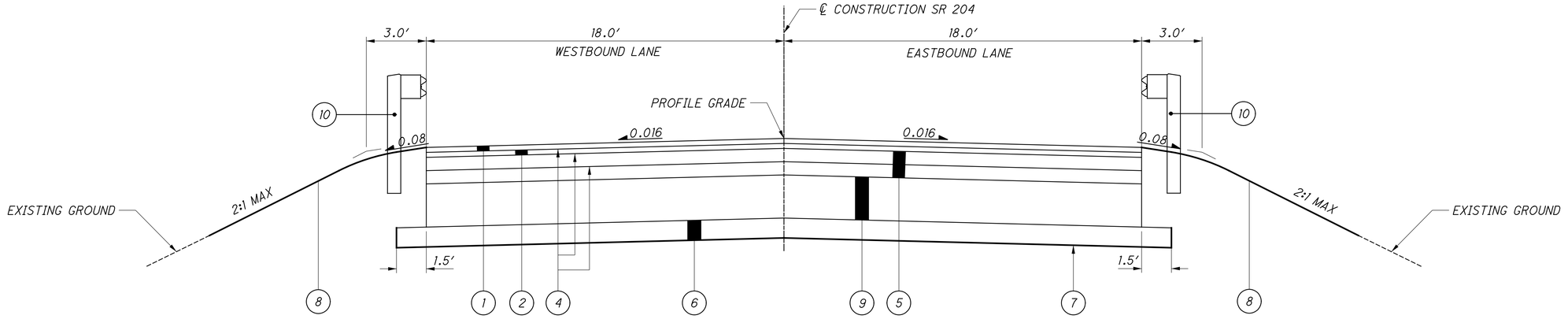


BASE AND SUBBASE STEP DETAIL

TYPICAL SECTIONS-3.46

FAI-204-(3.46)(4.32)

3
43



APPROACH SLAB SECTION - SR 204

STA. 182+37.35 TO STA. 182+52.35
STA. 183+38.35 TO STA. 183+53.35

[A] = 1.7′± TO 6.0′ STA. 181+00.00 TO STA. 182+00.00
6.0′ STA. 182+00.00 TO STA. 182+15.00
6.0′ STA. 184+00.00 TO STA. 184+10.00
6.0′ TO 4.6′± STA. 184+10.00 TO STA. 184+50.04

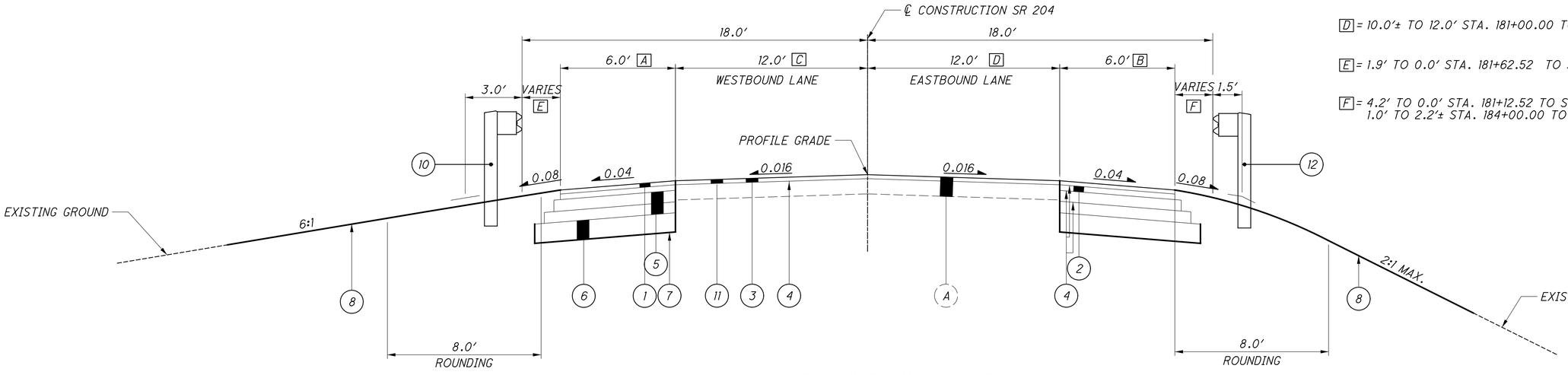
[B] = 1.3′± TO 6.0′ STA. 181+00.00 TO STA. 181+50.03
6.0′ STA. 181+50.03 TO STA. 182+15.00
5.0′ TO 3.0′ STA. 184+00 TO STA. 184+50.04
3.0′ TO 1.5′± STA. 184+50.04 TO STA. 185+00.00

[C] = 12.0′ TO 11.0′± STA. 184+10.00 TO STA. 184+50.04

[D] = 10.0′± TO 12.0′ STA. 181+00.00 TO STA. 181+50.00

[E] = 1.9′ TO 0.0′ STA. 181+62.52 TO STA. 182+00.00

[F] = 4.2′ TO 0.0′ STA. 181+12.52 TO STA. 181+50.00
1.0′ TO 2.2′± STA. 184+00.00 TO STA. 184+30.00

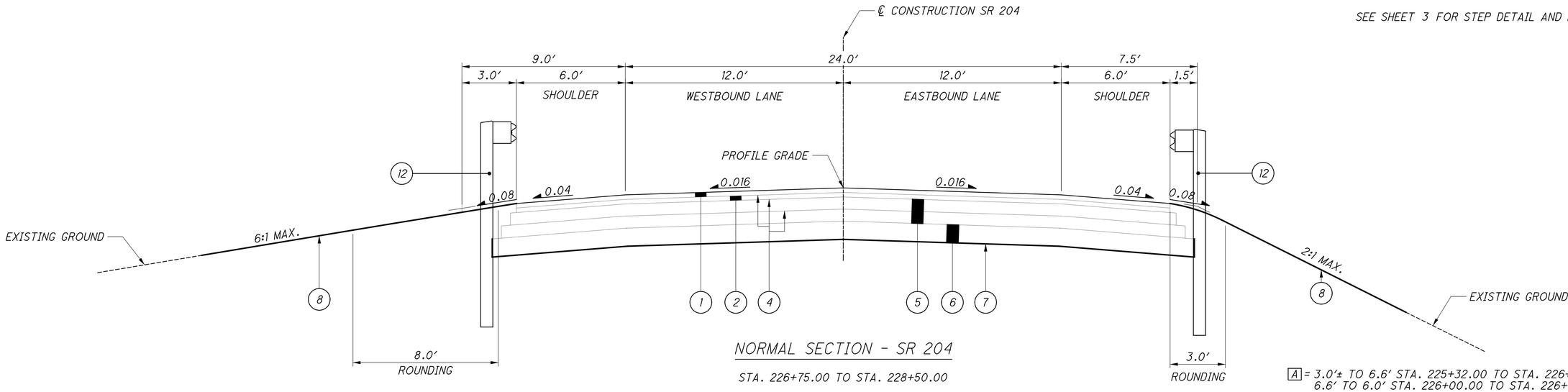


RESURFACING SECTION - SR 204

STA. 181+00.00 TO STA. 182+15.00
STA. 184+00.00 TO STA. 184+50.04

TYPICAL SECTIONS-3.46

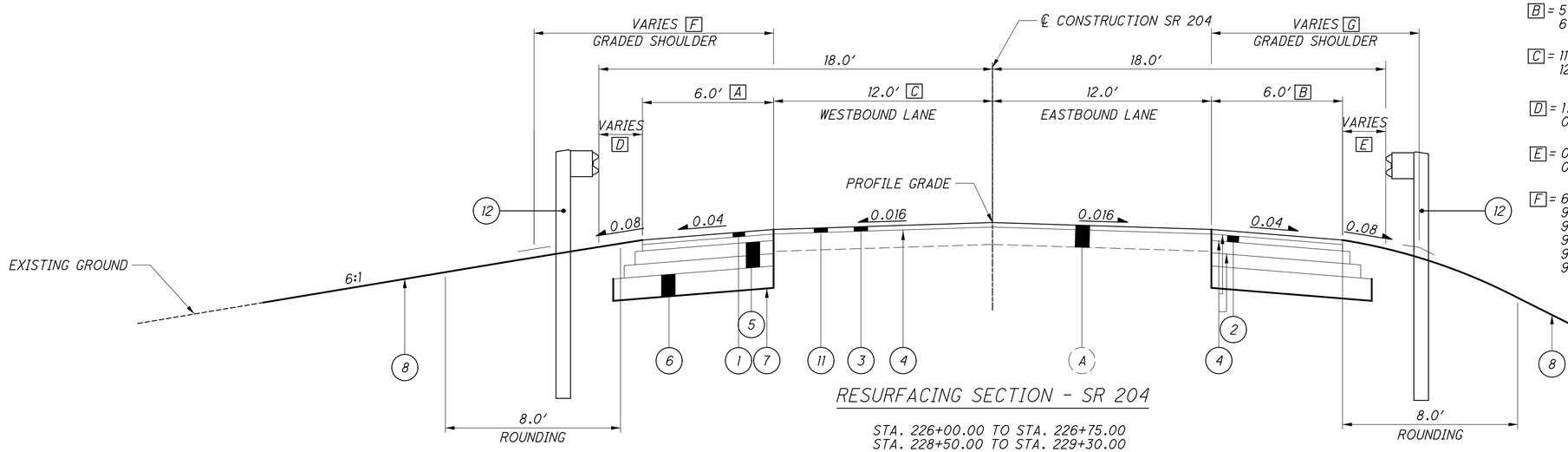
FAI-204-(3.46)(4.32)



NORMAL SECTION - SR 204

STA. 226+75.00 TO STA. 228+50.00

SEE SHEET 3 FOR STEP DETAIL AND LEGEND.



RESURFACING SECTION - SR 204

STA. 226+00.00 TO STA. 226+75.00
STA. 228+50.00 TO STA. 229+30.00

[A] = 3.0′± TO 6.6′ STA. 225+32.00 TO STA. 226+00.00
6.6′ TO 6.0′ STA. 226+00.00 TO STA. 226+50.00
6.0′ TO 2.2′± STA. 228+50.00 TO STA. 229+30.00

[B] = 5.0′± TO 6.0′ STA. 225+64.00 TO STA. 225+90.00
6.0′ TO 2.0′± STA. 228+50.00 TO STA. 229+50.00

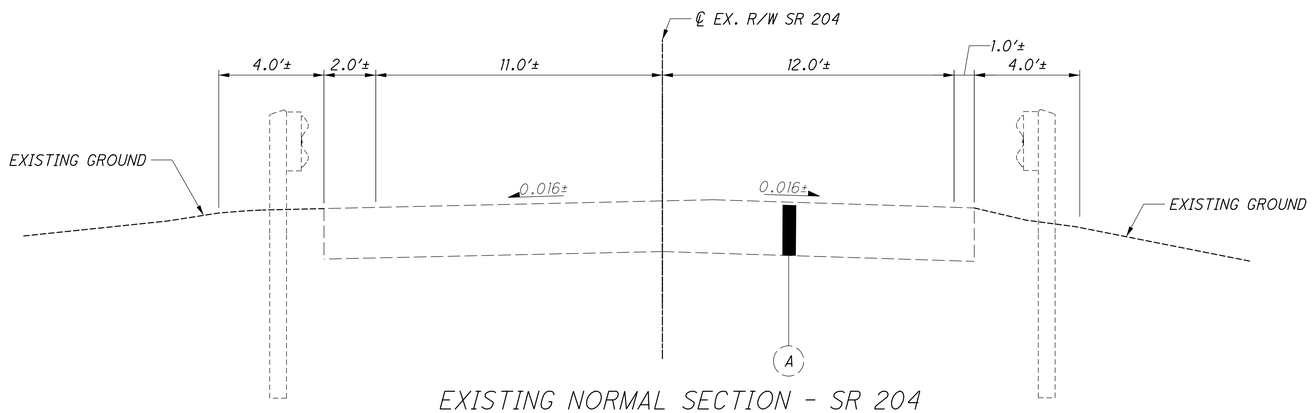
[C] = 11.0′± TO 12.0′ STA. 226+00.00 TO STA. 226+50.00
12.0′ TO 10.7′± STA. 228+50.00 TO STA. 229+30.00

[D] = 1.3′ TO 0.0′ STA. 225+75.00 TO STA. 226+08.00
0.0′ TO 5.1′± STA. 228+50.00 TO STA. 229+30.00

[E] = 0.6′ TO 0.0′ STA. 225+75.00 TO STA. 225+90.00
0.0′ TO 4.1′± STA. 228+50.00 TO STA. 229+50.00

[F] = 6.5′ TO 9.7′ STA. 225+32.00 TO STA. 225+75.00
9.7′ TO 9.9′ STA. 225+75.00 TO STA. 226+00.00
9.9′ TO 9.8′ STA. 226+00.00 TO STA. 226+08.00
9.8′ TO 9.0′ STA. 226+08.00 TO STA. 226+50.00
9.0′ STA. 226+50.00 TO STA. 228+50.00
9.0′ TO 9.3′ STA. 228+50.00 TO STA. 229+30.00

[G] = 7.8′ TO 7.5′ STA. 225+64.00 TO STA. 225+75.00
7.5′ STA. 225+75.00 TO 228+50.00
7.5′ TO 8.5′ STA. 228+50.00 TO STA. 229+50.00



EXISTING NORMAL SECTION - SR 204

TYPICAL SECTIONS-4.32

FAI-204-(3.46)(4.32)

5
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ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

PHONE/CABLE:
AT&T OHIO
TELECOMMUNICATION SPECIALIST
ATTN: GARY VAN ALMSICK
614-223-7276
GV2758@ATT.COM

CENTURY LINK TELEPHONE
175 ASHLAND ROAD
MANSFIELD, OH 44905
ATTN: DANIEL BECKETT
740-927-8282
DANIEL.E.BECKETT@CENTURYLINK.COM

SPECTRUM CABLE TV
3770 LIVINGSTON AVE.
COLUMBUS, OH 43227-2280
ATTN: ANTHONY ADAMS
614-827-7971
ANTHONY.ADAMS@CHARTER.COM

POWER:
SOUTH CENTRAL POWER
DIRECTOR OF ENGINEERING
2780 COONPATH ROAD, NE
P.O. OFFICE BOX 250
LANCASTER, OH 43130
ATTN: ZACK REED
740-689-6150
ZREED@SOUTHCENTRALPOWER.COM

GAS/OIL
COLUMBIA GAS OF OHIO
3550 JOHNNY APPLESEED
COLUMBUS, OH 43231
ATTN: MARK CHRISTMAN
614-818-2109
MCHRISTMAN@NISOURCE.COM

NATIONAL GAS & OIL COOPERATIVE
120 O'NEIL DRIVE
HEBRON, OH 43025
ATTN: GREG WILSON
740-348-1254
GWILSON@THEENERGYCOOP.COM

WATER/SEWER:
FAIRFIELD COUNTY UTILITIES
6670 LOCKVILLE ROAD
CARROLL, OH 43112
ATTN: TONY J. VOGEL
DIRECTOR OF UTILITIES
614-322-5200
740-652-7120
TONY.VOGEL@FAIRFIELDCOUNTYOHIO.GOV

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

EXISTING PLANS

EXISTING PLANS ENTITLED "BLACKLICK-EASTERN ROAD" MAY BE INSPECTED IN THE ODOT DISTRICT 5 OFFICE IN JACKSONTOWN, OHIO.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CLEARING AND GRUBBING

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	NO. TREES	NO. STUMPS	TOTAL
18"	1		1

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE THE NEXT SHEET FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL

POSITIONING METHOD: ODOT VRS
MONUMENT TYPE: CONCRETE MONUMENT W/ ALUMINUM DISK
VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: GEOID12A

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD 83 (2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH ZONE (3402)
COMBINED SCALE FACTOR: 1.00006233(GRID TO GROUND COORDINATES)
ORIGIN OF COORDINATE SYSTEM: 0, 0

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 823.

UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR: 1 METER = 3.280833333 U.S. SURVEY FEET.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, TOPSOIL	298 CU. YD.
659, SEEDING AND MULCHING, CLASS I	= 544+2143 = 2687 SQ. YD.
659, REPAIR SEEDING AND MULCHING	134 SQ. YD.
659, COMMERCIAL FERTILIZER	0.36 TON
659, LIME	0.56 ACRES
659, WATER	15 M. GAL.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN 203.05. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.05.

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204 - PROOF ROLLING 1 HOUR.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM SPECIAL - MAILBOX SUPPORT

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 4 INCHES BY 4 INCHES SQUARE OR 4.5 INCHES DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2 INCHES I.D., AND CONFORM TO AASHTO M 181.

ALL HARDWARE INCLUDING BUT NOT LIMITED TO PLATES, SCREWS, BOLTS, AND ETC. SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

ITEM SPECIAL - MAILBOX SUPPORT (CONTINUED)

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT SYSTEM, (SINGLE) (DOUBLE).

COOPERATION BETWEEN CONTRACTORS

ODOT HAS A CONTRACT TO RESURFACE FAI-204/204A-0.00/0.00 FROM SR 256 INTERSECTION TO SR 158 INTERSECTION (PID# 95506) CONCURRENTLY WITH THIS PROJECT. IT IS PERTINENT THAT THIS CONTRACTOR COOPERATE FULLY WITH THE ROADWAY CONTRACTOR AS OUTLINED IN THE CMS 105.08

ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION TO THE DEPARTMENT:

THE CONTRACTOR SHALL PROVIDE AS-BUILT DATA FOR THE SPECIFIED COMPLETED CONSTRUCTION ITEMS IN OHIO STATE PLANE COORDINATES (GRID). THE CONSTRUCTION ITEMS SHALL BE LOCATED AS PER THE SURVEY FEATURE CODE LIST FOUND ON THE OHIO DEPARTMENT OF TRANSPORTATION OFFICE OF CADD & MAPPING SERVICES WEBSITE. AN EMAIL CONTAINING A COMMA DELIMITED ASCII FILE AND A SURVEYOR'S CERTIFICATION SHALL BE DELIVERED TO Cody.Gierhart@dot.ohio.gov AFTER ALL INFORMATION HAS BEEN COLLECTED. THE ASCII FILE SHALL INCLUDE A HEADER CONTAINING NAME OF SURVEYOR, DATE(S) OF COLLECTION, HORIZONTAL DATUM (I.E. NAD83 (2011), OHIO STATE PLANE COORDINATE SYSTEM NORTH OR SOUTH), VERTICAL DATUM (I.E. NAVD 88, GEOID12A) AND METHOD OF COLLECTION (I.E. OHIO VRS, GPS RTK, TOTAL STATION, ETC.) AND BE IN A TABLE FORM AS FOLLOWS:

POINT NUMBER, NORTHING, EASTING, ELEVATION, FEATURE CODE, DESCRIPTION

BELOW IS A LIST OF THE ITEMS THE CONTRACTOR IS REQUIRED TO PROVIDE.
- GUARDRAIL AND CABLE BARRIER
- SIGNS

THE ABOVE ITEMS SHALL BE COLLECTED USING SURVEY GRADE EQUIPMENT MEETING THE REQUIREMENTS OF SECTION 400 IN THE OHIO DEPARTMENT OF TRANSPORTATION SURVEY & MAPPING SPECIFICATIONS MANUAL.

CALCULATED JEP CHECKED EAK

GENERAL NOTES

FAI-204-(3.46)(4.32)

ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN (CONTINUED)

ALL COST ASSOCIATED WITH OBTAINING THE INFORMATION LISTED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN.

IN ADDITION TO THE ABOVE REQUIREMENTS, THE LOCATIONS OF ALL PROPOSED GUARDRAIL INSTALLATIONS SHALL BE STAKED BY THE CONTRACTOR PRIOR TO INSTALLATION ON THIS PROJECT. THE CONTRACTOR IS REQUIRED TO STAKE EACH LOCATION TO INDICATE THE BEGINNING AND END OF THE PROPOSED GUARDRAIL RUN. THIS WILL ALSO INCLUDE INDICATING THE TYPE OF END TREATMENT TO BE INSTALLED AT EACH LOCATION. THE CONTRACTOR SHALL STAKE EACH LOCATION AT LEAST TWO (2) DAYS PRIOR TO INSTALLATION.

BEFORE GIVING THE CONTRACTOR FINAL APPROVAL TO INSTALL THE RUN OF GUARDRAIL, THE PROJECT ENGINEER MAY ADJUST THE LOCATION AS STAKED TO PROVIDE THE MAXIMUM PROTECTION FOR THE TRAVELING PUBLIC. NO GUARDRAIL WILL BE INSTALLED UNTIL THE PROJECT ENGINEER GIVES THE CONTRACTOR APPROVAL FOR EACH LOCATION.

PAYMENT FOR STAKING WILL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO PERFORM THE WORK AS DESCRIBED ABOVE AND WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO PERFORM THE WORK AS DESCRIBED ABOVE.

ITEM 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN LUMP

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

NOTE TO CONTRACTOR

DUE TO THE NATURE OF THIS PROJECT AT NO TIME SHALL ANY OF THESE BRIDGES BE CLOSED AT THE SAME TIME. THE CONTRACTOR IS INSTRUCTED TO BUILD THESE BRIDGES IN THE FOLLOWING ORDER:

1. FAI-204-0432 (CALENDAR YEAR 2019)
2. FAI-204-0346 (CALENDAR YEAR 2020)

FAI-204-0346:
IT IS THE INTENT OF THIS PROJECT TO KEEP ANY DISRUPTION TO THE SCHOOLS AT A MINIMUM. CONSTRUCTION WILL NOT BE ALLOWED TO BEGIN UNTIL AFTER THE SCHOOL YEAR HAS ENDED. FOR CALENDAR YEAR 2020 THE LAST DAY OF SCHOOL IS MAY 22, 2020. CONSTRUCTION SHALL BE COMPLETED BEFORE SCHOOL BEGINS AUGUST 12, 2020.

A+B BIDDING WITH MULTIPLE SECTIONS CONTRACT TABLE

USE THE FOLLOWING INFORMATION IN COMBINATION WITH PROPOSAL NOTE A+B BIDDING WITH MULTIPLE SECTIONS: THE CONTRACTOR WILL BID THE NUMBER OF CALENDAR DAYS TO COMPLETE THE CONTRACT SEGMENT AS LISTED IN THE PROPOSAL.

CONTRACT SEGMENT - LOCATION OF CRITICAL WORK	MINIMUM DAYS	MAXIMUM DAYS	MAXIMUM INCENTIVE DAYS	INCENTIVE/DISINCENTIVE $ PER DAY	MAXIMUM INCENTIVE $
FAI-204-0346: BRIDGE REPLACEMENT 2 LANE OF S.R. 204 CLOSED WITHIN SHOWN WORK LIMITS	45	60	10	$3000	$30,000
FAI-204-0432: BRIDGE REPLACEMENT WITH PRECAST REIN. CONCRETE BOX CULVERT 2 LANE OF S.R. 204 CLOSED WITHIN SHOWN WORK LIMITS	9	12	4	$3000	$12,000

OEPA NOTIFICATION OF DEMOLITION AND RENOVATION

ASBESTOS SURVEYS FOR THE FAI-204-3.46 & FAI-204-4.32 BRIDGES SCHEDULED FOR DEMOLITION WORK WERE CONDUCTED BY A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST. A COPY OF THE ASBESTOS SURVEY REPORT FOR EACH BRIDGE HAS BEEN INCLUDED IN THE PLAN PACKAGE FOR THIS PROJECT. THE ASBESTOS SURVEY REPORTS DID NOT IDENTIFY THE PRESENCE OF ANY ASBESTOS CONTAINING MATERIALS. (THE REMOVAL AND DISPOSAL OF THE ASBESTOS CONTAINING MATERIAL MUST COMPLY WITH THE OHIO ADMINISTRATIVE CODE (OAC) REGULATIONS AND THE NATIONAL EMISSION STANDARD FOR HAZARDOUS AIR POLLUTANTS (NESHAP) STANDARD FOR ASBESTOS.)

A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM, PARTIALLY COMPLETED BY THE ASBESTOS HAZARD EVALUATION SPECIALIST, HAS BEEN INCLUDED AT THE END OF THE ASBESTOS SURVEY REPORTS FOR EACH BRIDGE. THE CONTRACTOR SHALL COMPLETE AND SIGN THE FORMS AND SUBMIT TO:

ASBESTOS PROGRAM
OHIO EPA, DAPC
PO BOX 1049
COLUMBUS OH 43216-1049

AT LEAST 10 WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION WORK ON EITHER BRIDGE. THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED AND SIGNED FORMS TO THE ENGINEER. INFORMATION REQUIRED ON THE FORMS SHALL INCLUDE AT A MINIMUM: 1) THE ODOT PROJECT NUMBER, 2) THE CONTRACTORS NAME, ADDRESS AND TELEPHONE NUMBER, 3) THE SCHEDULED DATES FOR THE START AND COMPLETION OF BRIDGE DEMOLITIONS.

BASIS FOR PAYMENT: THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIAL NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORMS. PAYMENTS FOR THIS WORK SHALL BE INCIDENTAL TO THE ITEM 202 STRUCTURE REMOVAL ITEM(S) IN THE PLAN.

CENTERLINE REFERENCE - GROUND COORDINATES

STATION	OFFSET	STREET	NORTHING	EASTING	DESCRIPTION
179+00.00	0.00	SR 204	702828.95	1905380.06	POT
181+50.03	0.00	SR 204	702815.83	1905629.75	PI
184+50.04	0.00	SR 204	702792.86	1905928.88	PI
185+50.06	0.00	SR 204	702784.01	1906028.50	POT
222+00.00	0.00	SR 204	702509.69	1909668.84	POT
230+14.90	0.00	SR 204	702443.63	1910481.06	PI
233+00.00	0.00	SR 204	702422.58	1910765.38	POT

CALCULATED JEP CHECKED EAK

GENERAL NOTES

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ITEM 614, MAINTAINING TRAFFIC

THE REPLACEMENT OF FAI-204-0346 AND FAI-204-0432 BRIDGES OVER SYCAMORE CREEK AND TRIBUTARY OF SYCAMORE CREEK REQUIRE THE TOTAL CLOSURE OF S.R. 204. TRAFFIC WILL BE MAINTAINED BY THE USE OF A SIGNED DETOUR ROUTE. REPLACEMENT OF FAI-204-0432 STRUCTURE SHALL BE COMPLETED PRIOR TO BEGINNING ANY WORK ON THE FAI-204-0346 STRUCTURE. TRAFFIC SHALL BE DETOURED AS SHOWN ON SHEET 9 FOR CONSTRUCTION OF BOTH THE STRUCTURES.

ACCESS TO RESIDENTIAL DRIVES SHALL BE MAINTAINED AT ALL TIMES. IF EXISTING AREAS BEYOND THE CONSTRUCTION LIMITS ARE DAMAGED OR DESTROYED DUE TO THE CONTRACTOR'S NEGLIGENCE OR FAILURE TO PROVIDE ADEQUATE SIGNS, DRUMS OR OTHER TRAFFIC CONTROL DEVICES, THE RESTORATION OF AFFECTED AREAS WILL BE AT THE CONTRACTOR'S EXPENSE.

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 45 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 9 . A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $2,000 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 AND AS SHOWN ON THE DETOUR MAP ON SHEET 9 DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. [AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.

OH 204 WILL BE
CLOSED (DATE)
FOR 45 DAYS
INFO:

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN) (CONTINUED)

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE

ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP &	>=2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
ROAD	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
CLOSURES	< 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

DESIGNATED LOCAL DETOUR ROUTE

IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE." THIS ROUTE IS SHOWN ON SHEET NO. 9. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DETERMINED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE.

ITEM 301,	ASPHALT CONCRETE BASE, PG 64-22	50 CU. YD.
ITEM 304,	AGGREGATE BASE	50 CU. YD.
ITEM 441,	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22	50 CU. YD.
ITEM 407,	TACK COAT	100 GAL.
ITEM 614,	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	50 CU. YD.
ITEM 616,	WATER	1 M. GAL.
ITEM 642,	CENTER LINE	0.10 MILE

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 13 M. GAL.

DETOUR SIGNING

THE CONTRACTOR SHALL FURNISH ERECT, MAINTAIN AND REMOVE THE DETOUR SIGNING AS SHOWN HEREIN. THE PAYMENT FOR ALL THE MATERIAL, LABOR AND EQUIPMENT TO PERFORM THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, DETOUR SIGNING.

DETOUR NOTIFICATION

THE CONTRACTOR SHALL ADVISE THE FAIRFIELD COUNTY ENGINEER'S DEPARTMENT (740-652-2300) AND THE ODOT DISTRICT 5 PUBLIC INFORMATION OFFICE (740-323-5204) EIGHTEEN (21) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTE SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SEE SHEET 9/43 FOR THE DETOUR PLAN.

PAYMENT FOR ALL WORK ASSOCIATED WITH THE DETOUR SHALL BE INCLUDED UNDER THE LUMP SUM BID FOR:

ITEM 614, DETOUR SIGNING LUMP

NOTIFICATION OF TRAFFIC RESTRICTIONS

THE CONTRACTOR SHALL ADVISE THE PROJECT ENGINEER A MINIMUM OF TWENTY-ONE (21) DAYS PRIOR TO THE FOLLOWING: THE START OF CONSTRUCTION ACTIVITIES, LANE RESTRICTIONS, LANE CLOSURES, AND/OR ROAD CLOSURES.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER. ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER.

THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY
FAX AT (614) 887-4510
OR EMAIL AT: D05.PIO@dot.ohio.gov

DISTRICT PERMIT SECTION BY
FAX AT (614) 887-4525
OR EMAIL AT: brian.bosch@dot.ohio.gov

CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY
FAX AT (614) 728-4099
OR EMAIL AT: hauling.permits@dot.ohio.gov

THE PIO WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS, VIA MEDIA SOURCES.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 9:00 PM AND 7:00 AM IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

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MAINTENANCE OF TRAFFIC GENERAL NOTES

FAI-204-(3.46)(4.32)

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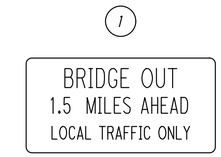


R11-3B-60
ON TYPE III BARRICADE

M4-10R-48

* M1-5-30-3

M3-2-30

* M1-5-30-3

M3-4-30

M4-9L-30

M4-9R-30

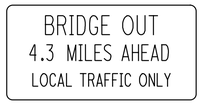
* - SIGNS SHALL BE SUPPLIED BY ODOT

M4-9T-30

W20-2-36

M4-8A-24

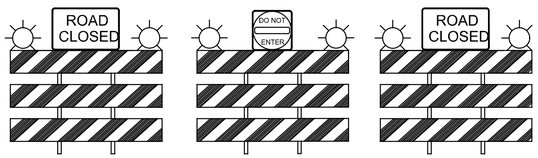
E11-1A-54



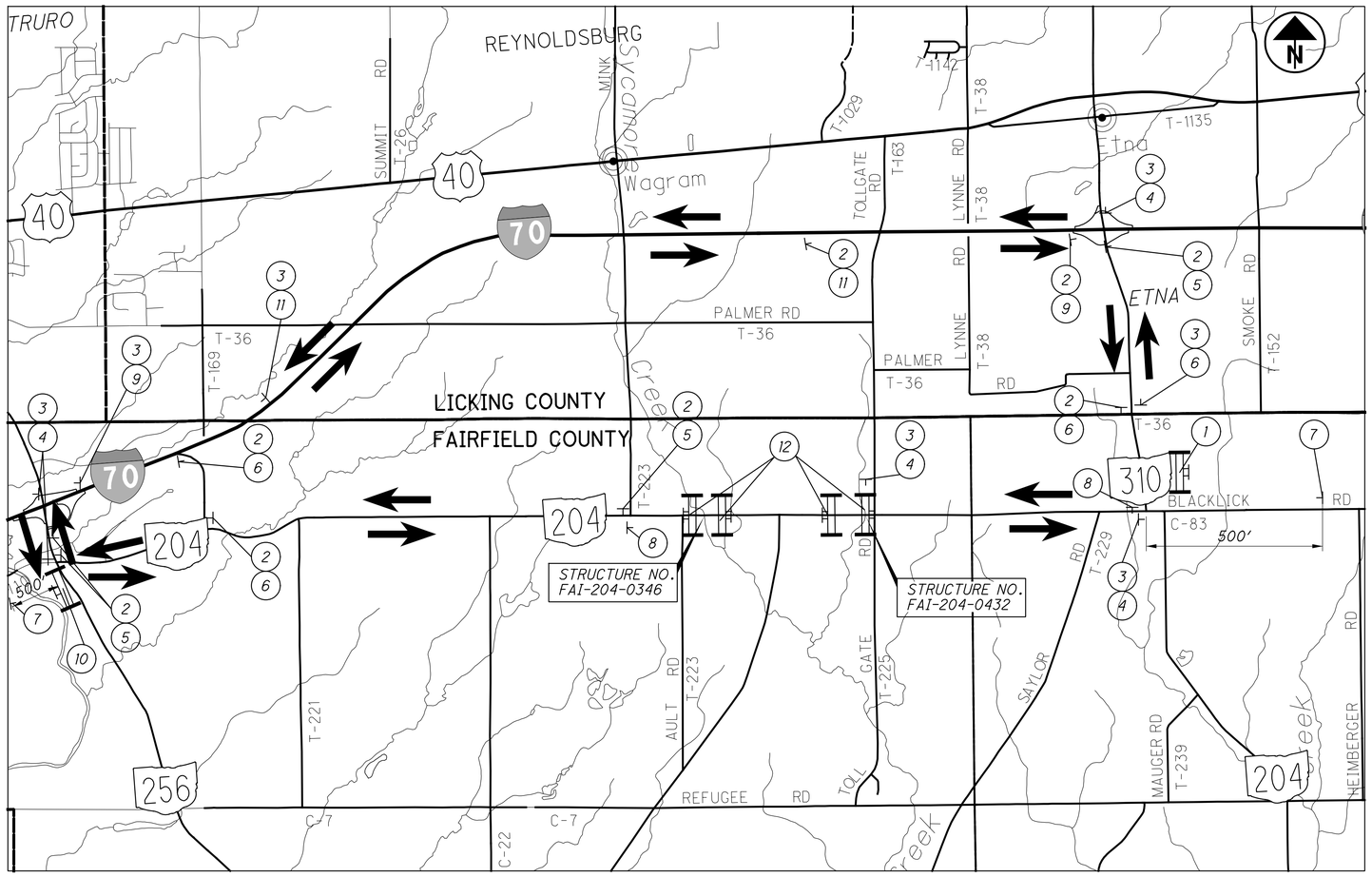
R11-3B-60
ON TYPE III BARRICADE

M4-10L-48

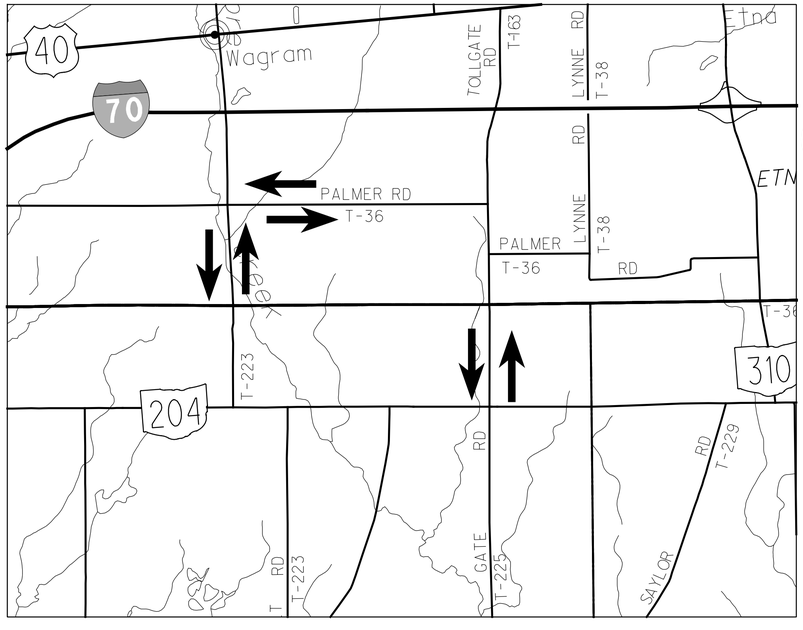
M5-1R-30



10' TYPE 3 BARRICADE (3) ACROSS ROAD



PROPOSED DETOUR



LOCAL DETOUR

LEGEND

- SIGN POST
- (X) SIGN
- TYPE III BARRICADE

NOTES:

1. STRUCTURE 0346 TO BE CONSTRUCTED AFTER COMPLETION OF STRUCTURE 0432 CONSTRUCTION. DETOUR ROUTE TO REMAIN THE SAME FOR BOTH CONSTRUCTION SITES. THE BARRICADES PLACED AT THE ENDS OF THE STRUCTURE AND DETOUR SIGNS WILL NEED TO BE RELOCATED/ADJUSTED ACCORDINGLY.
2. DISTANCE SHOWN ON SIGNS (1) & (10) SHALL BE REPLACED WITH 2.3 MILES AND 3.5 MILES RESPECTIVELY DURING CONSTRUCTION OF 0346 STRUCTURE.

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CHECKED EAK

MAINTENANCE OF TRAFFIC - DETOUR PLAN

FAI-204-(3.46)(4.32)

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
6	8	12	13	18	23	34					OFFICE CALCS		01/S>2BR						
																		ROADWAY	
													LS	201	11000	LS		CLEARING AND GRUBBING	
		45									814		859	202	23000	859	SY	PAVEMENT REMOVED	
		26											26	202	32800	26	SY	CONCRETE SLOPE PROTECTION REMOVED	
		1,253											1,253	202	38000	1,253	FT	GUARDRAIL REMOVED	
		271											271	202	75000	271	FT	FENCE REMOVED	
				241	1,011								1,252	203	10000	1,252	CY	EXCAVATION	
				121	2,676								2,797	203	20000	2,797	CY	EMBANKMENT	
		72									1,769		1,841	204	10000	1,841	SY	SUBGRADE COMPACTION	
1													1	204	45000	1	HOUR	PROOF ROLLING	
		187.5											187.5	606	15050	187.5	FT	GUARDRAIL, TYPE MGS	
		637.5											637.5	606	15100	637.5	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
		6											6	606	26150	6	EACH	ANCHOR ASSEMBLY, MGS TYPE E	6
		2											2	606	26550	2	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
		4											4	606	35002	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
						40							40	SPECIAL	69012050	40	SY	REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS	34
		2											2	SPECIAL	69050350	2	EACH	MAILBOX REMOVED AND RESET	6
																		EROSION CONTROL	
		354											354	601	32204	354	CY	ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC	
298													298	659	00300	298	CY	TOPSOIL	
2,687													2,687	659	00500	2,687	SY	SEEDING AND MULCHING, CLASS 1	
134													134	659	14000	134	SY	REPAIR SEEDING AND MULCHING	
0.36													0.36	659	20000	0.36	TON	COMMERCIAL FERTILIZER	
0.56													0.56	659	31000	0.56	ACRE	LIME	
15													15	659	35000	15	MGAL	WATER	
		80											80	660	25000	80	SY	SODDING STAKED	
													15,000	832	30000	15,000	EACH	EROSION CONTROL	
		93											93	836	10000	93	SY	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1	
																		PAVEMENT	
											814		814	254	01000	814	SY	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" MIN. THICK)	
	50	5									363		418	301	46000	418	CY	ASPHALT CONCRETE BASE, PG64-22	
	50										291		341	304	20000	341	CY	AGGREGATE BASE	
	100	3									170		273	407	10000	273	GAL	TACK COAT	
		6											6	411	10000	6	CY	STABILIZED CRUSHED AGGREGATE	
	50	3											53	441	50000	53	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
											82		82	441	50100	82	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG70-22M	
											115		115	441	50300	115	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	
																		TRAFFIC CONTROL	
			10										10	621	54000	10	EACH	RAISED PAVEMENT MARKER REMOVED	
			6										6	626	00102	6	EACH	BARRIER REFLECTOR, TYPE 1, (BIDIRECTIONAL)	
			22										22	626	00110	22	EACH	BARRIER REFLECTOR, TYPE 2, (BIDIRECTIONAL)	
			52										52	630	02100	52	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
			37										37	630	03100	37	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
			41										41	630	80100	41	SF	SIGN, FLAT SHEET	
			15										15	630	85000	15	EACH	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE	
			12										12	630	86002	12	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
			0.35										0.35	646	10010	0.35	MILE	EDGE LINE, 6"	
			0.17										0.17	646	10200	0.17	MILE	CENTER LINE	

CALCULATED AA
CHECKED EAK

GENERAL SUMMARY

FAI-204-(3.46)(4.32)

10
4.3

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
7	8	27	38										01/S>2BR						
																		STRUCTURE REPAIR (FAI-204-0346)	
		LS											LS	202	11002	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN	
		123											123	202	22900	123	SY	APPROACH SLAB REMOVED	
		LS											LS	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
		LS											LS	503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN	26
		LS											LS	505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION	
		280											280	507	00500	280	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	26
		350											350	507	00550	350	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	26
		330											330	507	00700	330	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	26
		390											390	507	00750	390	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	26
		26											26	507	93300	26	EACH	STEEL POINTS OR SHOES	26
		56,722											56,722	509	10000	56,722	LB	EPOXY COATED REINFORCING STEEL	
		196											196	511	33312	196	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE	
		55											55	511	43510	55	CY	CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING	
		146											146	512	10050	146	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
		59											59	516	13201	59	SF	1/2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	26
		83											83	516	13601	83	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	26
		101											101	516	14020	101	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
		72											72	516	14600	72	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.:ANGLE STEEL AND ANCHOR PLATES	26
		72											72	516	31011	72	FT	2" DEEP JOINT SEALER, AS PER PLAN	26
		179.34											179.34	517	70000	179.34	FT	RAILING (TWIN STEEL TUBE)	
		49											49	518	21200	49	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	26
		204											204	SPECIAL	51822300	204	FT	STEEL DRIP STRIP	
		104											104	518	40000	104	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
		116											116	518	40010	116	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
		2											2	523	20000	2	EACH	DYNAMIC LOAD TESTING	
		120											120	526	10001	120	SY	REINFORCED CONCRETE APPROACH SLABS (T=12"), AS PER PLAN	26
																		STRUCTURE OVER 20 FOOT SPAN (FAI-204-0432)	
			LS										LS	202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	37
			123										123	202	22900	123	SY	APPROACH SLAB REMOVED	
			LS										LS	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
			354										354	503	21100	354	CY	UNCLASSIFIED EXCAVATION	
			7,465										7,465	509	10000	7,465	LB	EPOXY COATED REINFORCING STEEL	
			84										84	511	46001	84	SY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING, AS PER PLAN (PRECAST WINGWALL INSTALLATION ONLY)	37
			112										112	511	46510	112	CY	CLASS QC1 CONCRETE, FOOTING	
			8										8	511	71300	8	SY	CONCRETE, MISC.:CLASS QC1 CONCRETE, PRECAST HEADWALLS (INSTALLATION ONLY)	37
			112										112	512	10050	112	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
			387										387	512	33000	387	SY	TYPE 2 WATERPROOFING	37
			68										68	516	13601	68	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	37
			36										36	518	21200	36	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	37
			72										72	611	96461	72	FT	20' X 10' CONDUIT, TYPE A, 706.05, AS PER PLAN (INSTALLATION ONLY)	37
																		MAINTENANCE OF TRAFFIC	
	LS												LS	614	11000	LS		MAINTAINING TRAFFIC	8
	LS												LS	614	12420	LS		DETOUR SIGNING	8
	50												50	614	13000	50	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
	14												14	616	10000	14	MGAL	WATER	
	0.1												0.1	642	00290	0.1	MILE	CENTER LINE	
																		INCIDENTALS	
LS													LS	623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	7
													LS	624	10000	LS		MOBILIZATION	

CALCULATED AA
CHECKED EAK

GENERAL SUMMARY

FAI-204-(3.46)(4.32)

1.1
4.3

REF NO.	SHEET NO.	STATION TO STATION	SIDE	202 PAVEMENT REMOVED (SY)	202 CONCRETE SLOPE PROTECTION REMOVED (SY)	202 GUARDRAIL REMOVED (FT)	202 FENCE REMOVED (FT)		204 SUBGRADE COMPACTION (SY)	301 ASPHALT CONCRETE BASE, PG64-22 (CY)	407 TACK COAT (GAL)	411 STABILIZED CRUSHED AGGREGATE, 8" (CY)	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 (CY)	601 ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC (CY)	606 GUARDRAIL, TYPE MGS (FT)	606 GUARDRAIL, TYPE MGS WITH LONG POSTS (FT)	606 ANCHOR ASSEMBLY, MGS TYPE E (EACH)	606 ANCHOR ASSEMBLY, MGS TYPE T (EACH)	606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1 (EACH)		660 SODDING STAKED (SY)	SPECIAL MAILBOX REMOVED AND RESET (EACH)	836 SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1 (SY)
		TO																					
FAI-204-3.46																							
GR-1	14	181+62.52	182+50.02	LT											37.5		1		1				
GR-2	14	181+12.52	182+50.02	RT											87.5		1		1				
GR-3	14	183+40.68	183+71.69	LT														1	1				
GR-4	14	183+40.68	184+38.20	RT											62.5			1	1				
R-1	14	181+24.00	183+64.00	LT			244																
R-2	14	181+10.00	184+38.00	RT			326																
DR-1	14	183+85.00		LT	45					46	5	3		3									
DR-2	14	184+54.00		RT						26			6										
V-1	14	182+54.00	182+80.00	LT/RT											103								
V-2	14	183+16.00	183+37.00	LT/RT											83								
MB-1	14	183+66.00		LT																		1	
MB-2	14	184+72.00		RT																		1	
R-6	14	180+50.00	180+91.00	LT				41															
R-7	14	182+00.00	182+67.27	LT				93															
R-8	14	183+07.72	18442..52	RT				137															
FAI-204-4.32																							
GR-5	19	225+75.00	229+37.50	LT												312.5	2						
GR-6	19	225+75.00	229+50.00	RT												325	2						
R-3	19	225+79.00	229+32.00	LT			332																
R-4	19	225+79.00	229+31.00	RT			351																
R-5	19	228+92.00	229+40.00	RT		26																	
V-3	19	227+37.00	227+62.00	LT											23								
V-4	19	227+77.00	227+99.00	LT											23								
V-5	19	227+26.00	227+76.00	RT											97								
V-6	19	227+00.00	227+60.00	LT																	38		
V-7	19	228+50.00	229+00.00	LT																	42		
V-8	19	229+00.00	229+33.00	LT											25								
V-9	19	228+50.00	229+58.00	RT																			93
TOTALS CARRIED TO GENERAL SUMMARY					45	26	1253	271		72	5	3	6	3	354	187.5	637.5	6	2	4		80	2	93

CALCULATED AA
CHECKED EAK

ROADWAY SUBSUMMARY

FAI-204-(3.46)(4.32)

12
43

REF NO.	SHEET NO.	STATION TO STATION			SIDE	SIZE		621	626	626		630	630	630	630	630		646	646	646						
								RAISED PAVEMENT MARKER REMOVED	BARRIER REFLECTOR, TYPE 1, (BIDIRECTIONAL)	BARRIER REFLECTOR, TYPE 2, (BIDIRECTIONAL)		GROUND MOUNTED SUPPORT, NO. 2 POST	GROUND MOUNTED SUPPORT, NO. 3 POST	SIGN, FLAT SHEET	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL		EDGE LINE, 6"	CENTER LINE DOUBLE SOLID YELLOW	CENTER LINE DASHED YELLOW						
			TO					EACH	EACH	EACH		FT	FT	SF	EACH	EACH		MILE	MILE	MILE						
FAI-204-3.46																										
EL-1	24	181+00.00		185+00.00	LT													0.08								
EL-2	24	181+00.00		185+00.00	RT													0.08								
CL-1	24	181+00.00		185+00.00	CL			4											0.08							
BR-1	24	181+63.00		182+52.00	LT					3																
BR-2	24	181+13.00		182+52.00	RT					3																
BR-3	24	182+52.00		183+38.00	LT				3																	
BR-4	24	182+52.00		183+38.00	RT				3																	
BR-5	24	183+38.00		183+72.00	LT					3																
BR-6	24	183+38.00		184+38.00	RT					3																
S-1	24	181+94.00			LT																					
		W2-2L-30				(30"X30")							12.5	6.25	1	1										
		D3-1-VAR				(24"X12")								2	1											
S-2	24	181+59.00			RT																					
		W2-2R-30				(30"X30")							12.5	6.25	1	1										
		D3-1-VAR				(24"X12")								2	1											
S-3	24	182+50.00			LT																					
		OM-3L-12										10		3	1	1										
S-4	24	182+50.00			RT																					
		OM-3R-12										10		3	1	1										
S-5	24	183+39.00			LT																					
		OM-3R-12										10		3	1	1										
S-6	24	183+39.00			RT																					
		OM-3L-12										10		3	1	1										
S-7	24	184+80.00			RT																					
		R2-1-24				(24"X30")						12		5	1	1										
FAI-204-4.32																										
EL-3		224+59.00		229+50.00	LT													0.1								
EL-4		225+00.00		229+50.00	RT													0.09								
CL-2		225+00.00		229+50.00	CL			6											0.06	0.03						
BR-7		225+75.00		229+38.00	LT					5																
BR-8		225+75.00		229+50.00	RT					5																
S-8		227+10.00			LT										1	1										
S-9		227+10.00			RT										1	1										
S-10		228+10.00			LT										1	1										
S-11		228+10.00			RT										1	1										
S-12		229+11.00			LT																					
		M3-4-24				(24"X12")							11.5	2	1	1										
		M1-5-3-30				(30"X24")								5	1											
																			0.14	0.03						
TOTALS CARRIED TO GENERAL SUMMARY								10	6	22		52	37	41	15	12		0.35	0.17							

CALCULATED AA
CHECKED EAK

SIGNING & PAVEMENT MARKING SUBSUMMARY

FAI-204-(3.46)(4.32)

LEGEND

FULL DEPTH PAVEMENT
STRUCTURE
RESURFACING
GRAVEL DRIVE
EXISTING WETLAND

Ⓔ ANCHOR ASSEMBLY, MGS TYPE E
Ⓣ ANCHOR ASSEMBLY, MGS TYPE T
(TBR) TO BE REMOVED
(DND) DO NOT DISTURB
BTA-1 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1

FIRST POST OFF BRIDGE
STA. 182+49.22, 20.0′ LT
STA. 182+49.22, 20.0′ RT
STA. 183+41.47, 20.0′ LT
STA. 183+41.47, 20.0′ RT

Ⓐ BEGIN APPROACH SLAB STA. 182+37.35
Ⓑ END APPROACH SLAB STA. 183+53.35

HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED AA CHECKED EAK

PLAN AND PROFILE - 3.46
STA. 180+00.00 TO STA. 185+50.00

FAI-204-(3.46)(4.32)

14 / 43

BEGIN WORK STA. 180+85.00

E161 (300) BEGIN PROJECT STA. 182+15 SLM = 3.44

E161 (300) SUSPEND PROJECT STA. 184+00.00 SLM = 3.48

SUSPEND WORK STA. 185+05.00

STRUCTURE NO. FAI-204-0346

100.0′ TAPER

50.0′ TAPER

40.0′ TAPER

125.0′ TAPER

PI Sta. 181+50.03 Δ = 01°23′05″ RT

PI Sta. 184+50.04 Δ = 00°40′54″ RT

PI Sta. 185+50.06

B001-0-18 S 86° 02′ 09″ E

B002-0-18 183

B003-0-18 S 85° 36′ 29″ E

B004-0-18

S 84° 55′ 38″ E

84.5°

84.9°

22.18′

32.0′

23.0′

23.2′

11.0′

12.0′

10.0′

6.0′

4.6′

1.74′

1.3′

1.5′

+62.52

+12.52

+10

+75

+00

R-1 R-2 R-6 R-7 R-8

GR-1 GR-2 GR-3 GR-4

V-1 V-2 W-1

DR-1 DR-2

MB-1 MB-2

EXISTING FENCE ENCROACHES R/W (TBR)

TO BE RELOCATED BY OTHERS

TO REMAIN (DND)

CONST. LIMITS

PROP. E/SHOULDER (TYP)

PROP. E/P (TYP)

EX. E/P (TYP)

EX. E/SHOULDER (TYP)

EX. GUARDRAIL (TBR)

EXISTING POLE (DND)

EXISTING POLE (TO REMAIN)

℄ CONSTRUCTION SR 204

℄ EX. R/W SR 204

℄ ASPHALT DRIVE STA. 183+85.00

℄ GRAVEL DRIVE STA. 184+54.00

EX. SAN MH (DND)

12″ SPP (DND)

12″ RCP (DND)

15″ CPP (DND)

12″ SAN (DND)

8″ FSAN

SAN

OH-ELEC/TELE

OH-ELECTRIC OH-TELECOM

UG TELECOM

ENERGY COOP

COLUMBIA GAS

EX. FH

SYCAMORE CREEK

RESIDENTIAL DRIVE (GRAVEL)

RESIDENTIAL DRIVE (ASPHALT)

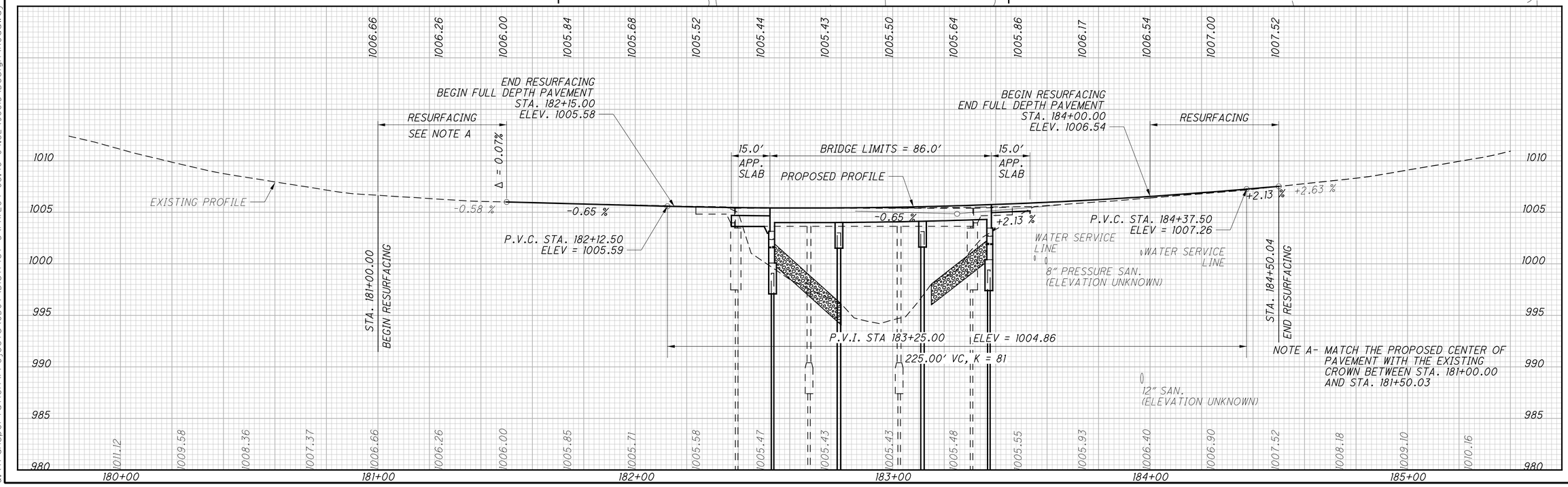
Ex CH

Ex SH

6″G

12″W

12″ CMP



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SEEDING END WIDTH	SEEDING SQ. YDS.
100	
20	
69	
5	
13	
0	
0	
0	
182	

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		34	9
15	7		
		26	7
13	1		
		12	1
0	0		
		0	0
0	0		
		72	17

CALCULATED JEP
CHECKED EAK

CROSS SECTIONS - 3.46
STA. 180+00.00 TO STA. 181+50.03

FAI-204-(3.46)(4.32)

15
43

C CONSTRUCTION S.R. 204

Ex SH

6:1

12.5:1

EX. TELECOM (DND)

EX. GAS (DND)

8" PRESSURE SAN. (TO BE RELOCATED BY OTHERS)

12" W/L (DND)

6" GAS (DND)

1006.00
181+50.03
1006.00

1006.66
181+00.00
1006.66

180+50.00
1008.36

180+00.00
1011.12

(DND) DO NOT DISTURB

1010
1005
1000
1015

60 50 40 30 20 10 0 10 20 30 40 50 60

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SEEDING END WIDTH	SEEDING SQ. YDS.
	27
	70
	36
	47
	13
	24
	16
	141

60 50 40 30 20 10 0 10 20 30 40 50 60

℄ CONSTRUCTION S.R. 204

1010 / 1005 / 1000

EX SH

PROP. WINGWALL

2:1

EX. GAS (DND)

EX. TELECOM (DND)

EX. TELECOM (DND)

8" PRESSURE SAN. (TO BE RELOCATED BY OTHERS)

1005.43
182+52.35
1005.55
END APPROACH SLAB

PROP. WINGWALL

2:1

12" W/L (DND)

EX. TELECOM (DND)

EX. TELECOM (DND)

6" GAS (DND)

EX SH

4:1

EX. GAS (DND)

EX. TELECOM (DND)

EX. TELECOM (DND)

8" PRESSURE SAN. (TO BE RELOCATED BY OTHERS)

1005.47
182+37.35
1005.53
BEGIN APPROACH SLAB

3:1

12" W/L (DND)

EX. TELECOM (DND)

EX. TELECOM (DND)

6" GAS (DND)

EX SH

APPROXIMATE BENCHING LIMITS

6:1

EX. GAS (DND)

EX. TELECOM (DND)

EX. TELECOM (DND)

8" PRESSURE SAN. (TO BE RELOCATED BY OTHERS)

1005.58
182+15.00
1005.62
BEGIN PROJECT

3:1

12" W/L (DND)

EX. TELECOM (DND)

EX. TELECOM (DND)

6" GAS (DND)

EX SH

7.7:1

EX. GAS (DND)

EX. TELECOM (DND)

EX. TELECOM (DND)

8" PRESSURE SAN. (TO BE RELOCATED BY OTHERS)

1005.68
182+00.00
1005.71

3:1

12" W/L (DND)

EX. TELECOM (DND)

EX. TELECOM (DND)

6" GAS (DND)

EX SH

(DND) DO NOT DISTURB

℄ CONSTRUCTION S.R. 204

60 50 40 30 20 10 0 10 20 30 40 50 60

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	199		
		22	80
FORWARD ONLY 60	17		
BACK ONLY 25	17		
		16	6
25	2		
		13	1
22	3		
		51	87

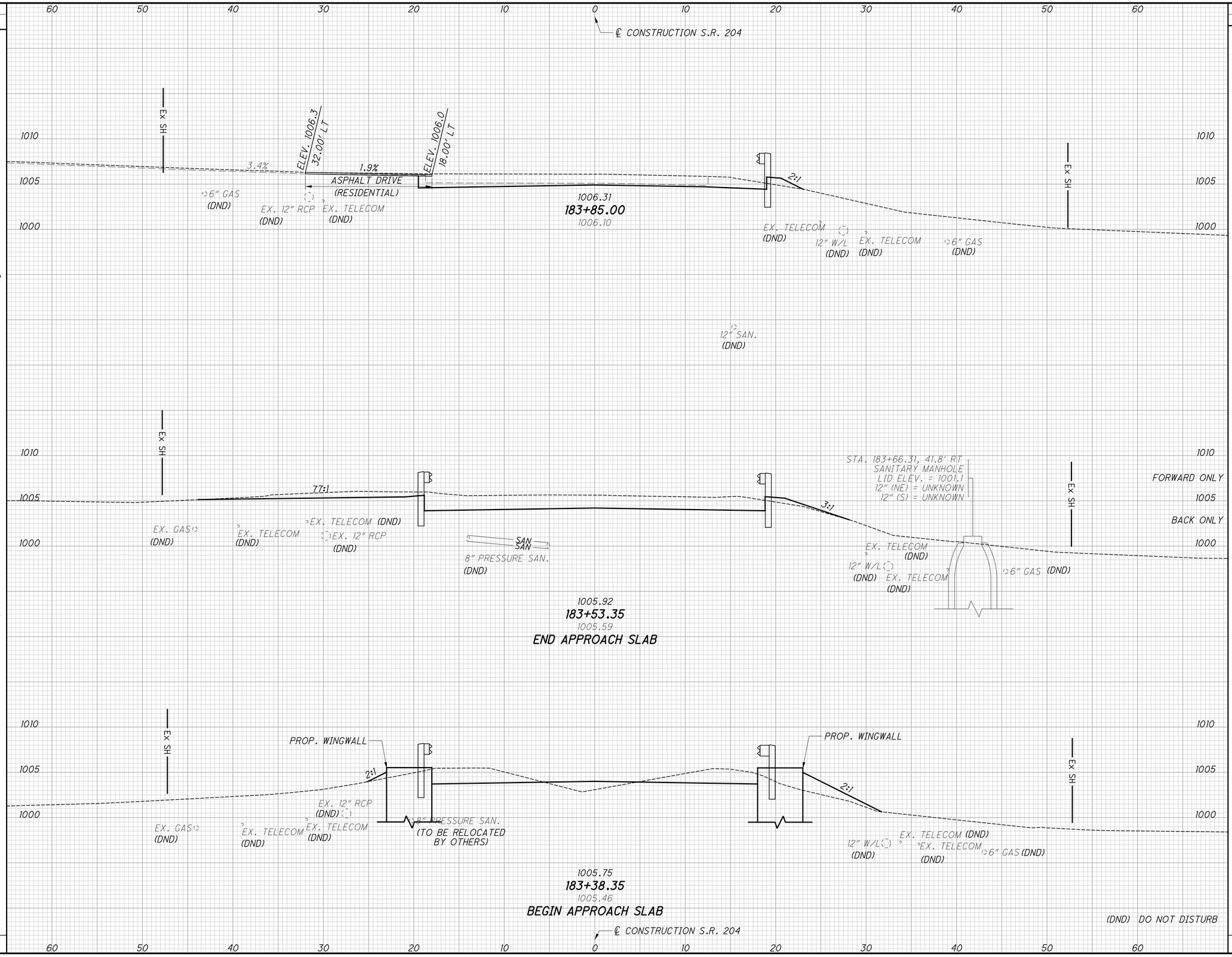
CALCULATED JEP
CHECKED EAK

CROSS SECTIONS - 3.46
STA. 182+00.00 TO STA. 182+52.35

FAI-204-(3.46)(4.32)

16
43

SEEDING END WIDTH	SEEDING SQ. YDS.
	11
6	
	62
36	
	54
12	
	127



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		10	2
17	2		
		22	2
		36	6
FORWARD ONLY 28	3		
BACK ONLY 67	3		
30	15		
		68	10

CALCULATED JEP
CHECKED EAK

CROSS SECTIONS - 3.46
STA. 183+38.35 TO STA. 183+85.00

FAI-204-(3.46)(4.32)

17
43

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SEEDING END WIDTH	SEEDING SQ. YDS.
0	
	30
11	
	27
0	
	1
6	
	36
7	
	94

SHEET	CUT	FILL	SEEDING
15	72	17	182
16	51	87	141
17	68	10	127
18	50	7	94
TOTAL	241*	121*	544**

* TOTAL CARRIED TO THE GENERAL SUMMARY SHEET 10
** TOTAL CARRIED TO SHEET 6

℄ CONSTRUCTION S.R. 204

STA. 185+50
1015
1010
1005
1000

185+05.00
SUSPEND WORK

185+00.00
1009.10

184+54.00
1007.63

184+50.00
1007.52

184+00.00
1006.40
SUSPEND PROJECT

Ex SH

EX. GAS (DND)
EX. TELECOM (DND)
12" SAN. (DND)
6" GAS (DND)
EX. TELECOM (DND)
12" W/L (DND)
EX. 15" CPP (DND)

3.8:1
ELEV. 1007.2
14.83' RT.
ELEV. 1006.1
23.00' RT.
13.3%
6.4%
GRAVEL DRIVE (RESIDENTIAL)

15:1
ELEV. 1007.1
14.95' RT.
ELEV. 1006.0
23.00' RT.
13.5%
6.5%

STA. 184+19.10, 32.7' LT
SANITARY MANHOLE
LID ELEV. = 1005.8±
12" (E) = 992.9±
12" (SW) = 988.4±
ASPHALT DRIVE (RESIDENTIAL)
3.9%
2:1
EX. 12" RCP (NO CONFLICT WITH SAN. MH)
12" SAN.

(DND) DO NOT DISTURB

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0	0		
		4	2
4	2		
		11	2
9	0		
		2	0
17	0		
		33	3
18	3		
		50	7

CALCULATED JEP
CHECKED EAK

CROSS SECTIONS - 3.46
STA. 184+00.00 TO STA. 185+00.00

FAI-204-(3.46)(4.32)

18
43

D:\Transportation\Projects\000T\District 5\FAI 204 03.46 04.32\96015\Design\Roadway\Sheets\96015_XS001.dgn 3/12/2019 2:35:39 PM Aakuraju

STRUCTURE NO. FAI-204-0432

E161 (300)
RESUME PROJECT
STA. 226+75.00
SLM = 4.29

RESUME WORK
STA. 225+30.00

END PROJECT
STA. 228+50.00
SLM = 4.34

END WORK
STA. 229+62.00

75.5' TAPER

80.0' TAPER

100.0' TAPER

25.7'± TAPER

CONST. LIMITS

TO REMAIN (DND)

TO BE RELOCATED BY OTHERS

EX. GUARDRAIL (TBR)

PROP. E/SHOULDER (TYP.)

EX. E/SHOULDER (TYP)

PROP. E/P (TYP.)

EX. E/P (TYP)

S 85° 20' 59" E

℄ EX. R/W & CONSTRUCTION SR 204

℄ CULVERT STA. 227+60.00

ENDS OF UNDER DRAINS UNKNOWN.

BRANCH OF SYCAMORE CREEK

B005-0-18

B006-0-18

V-1 V-2 V-3 V-4 V-5 V-6 V-7 V-8 V-9

R-3 R-4 R-5

GR-5 GR-6

18" CPP (DND)

15" CMP (DND)

12" CMP (DND)

CONCRETE DRIVE

WATER SERVICE

GAS, ENERGY COOP

OH-ELEC

OH-TELE CHARTER

ELEC. SERVICE LINE

CTV

EX. TEL

ASPHALT

1 STORY FRAME

TOLL GATE ROAD

EX SH

I.P.S.

M.N.S.

PI Sta. 230+14.90
N04°11'09"E
S04°11'09"W

LEGEND

FULL DEPTH PAVEMENT

RESURFACING

ROCK CHANNEL PROTECTION

SODDING

TURF REINFORCING MAT

Ⓔ ANCHOR ASSEMBLY, MGS TYPE E

(TBR) TO BE REMOVED

(DND) DO NOT DISTURB

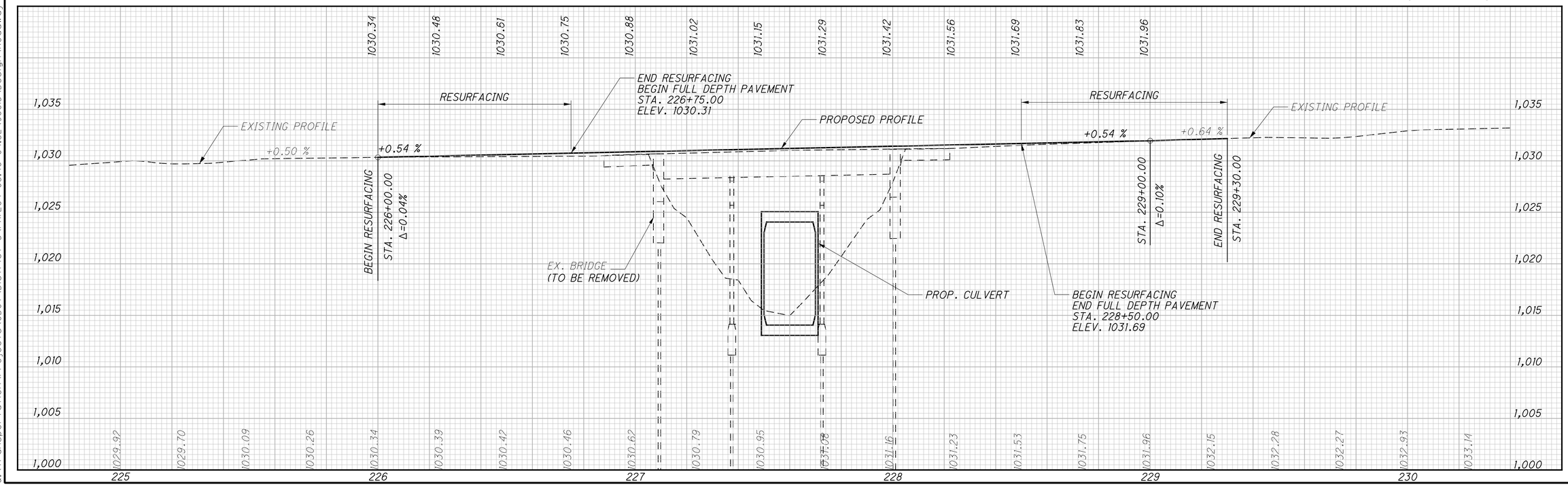
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED AA
CHECKED EAK

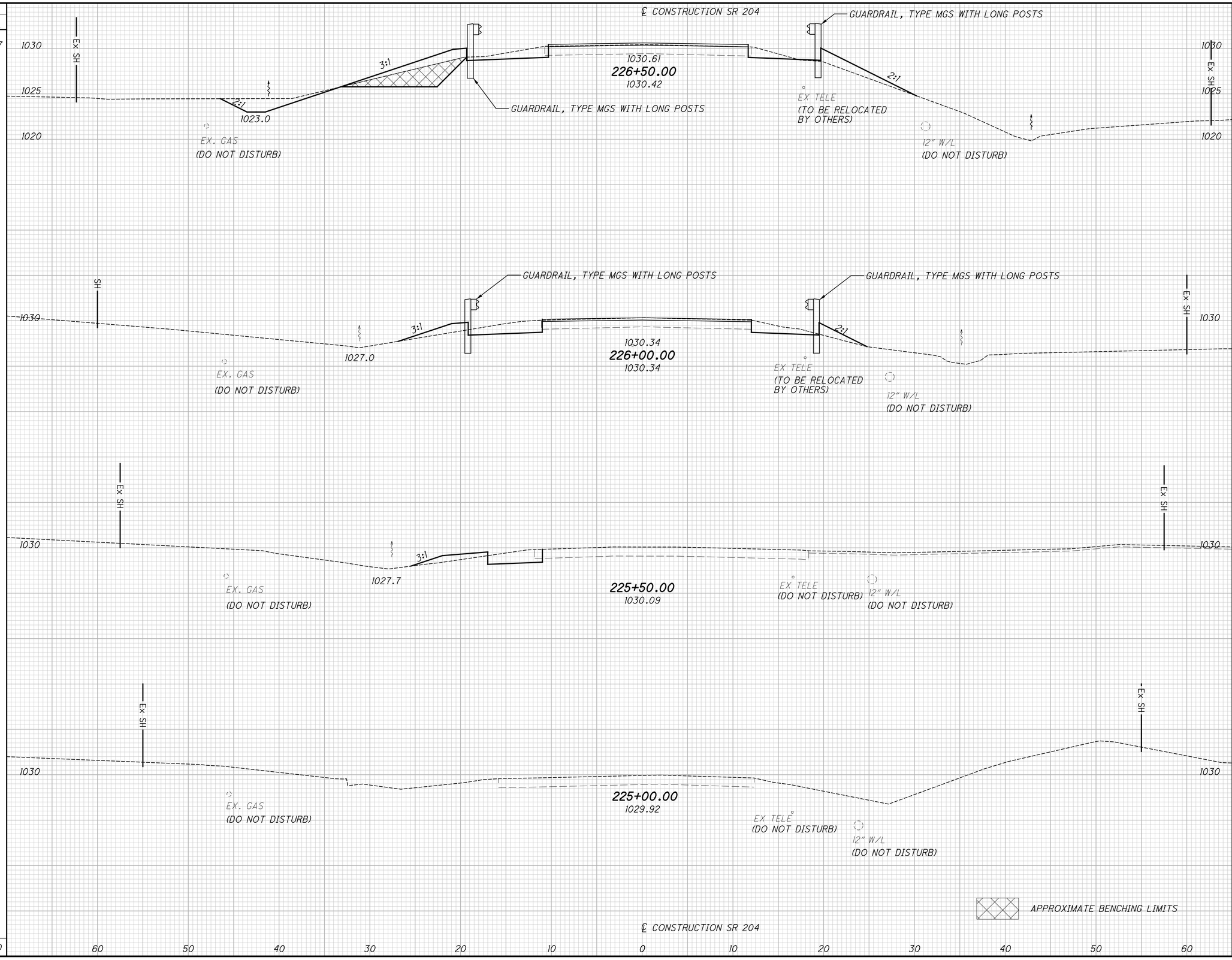
PLAN AND PROFILE - 4.32
STA. 225+00.00 TO STA. 230+50.00

FAI-204-(3.46)(4.32)

19
43



SEEDING END WIDTH	SEEDING SQ. YDS.
	267
41	
	160
17	
	75
10	
	28
0	
	530



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		177	195
36	34		
		47	39
14	8		
		20	11
6	4		
		6	4
0	0		
		250	249

CALCULATED AA
CHECKED EAK

CROSS SECTIONS - 4.32
STA. 225+00.00 TO STA. 226+50.00

FAI-204-(3.46)(4.32)

20
43

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CROSS SECTIONS - 4.32

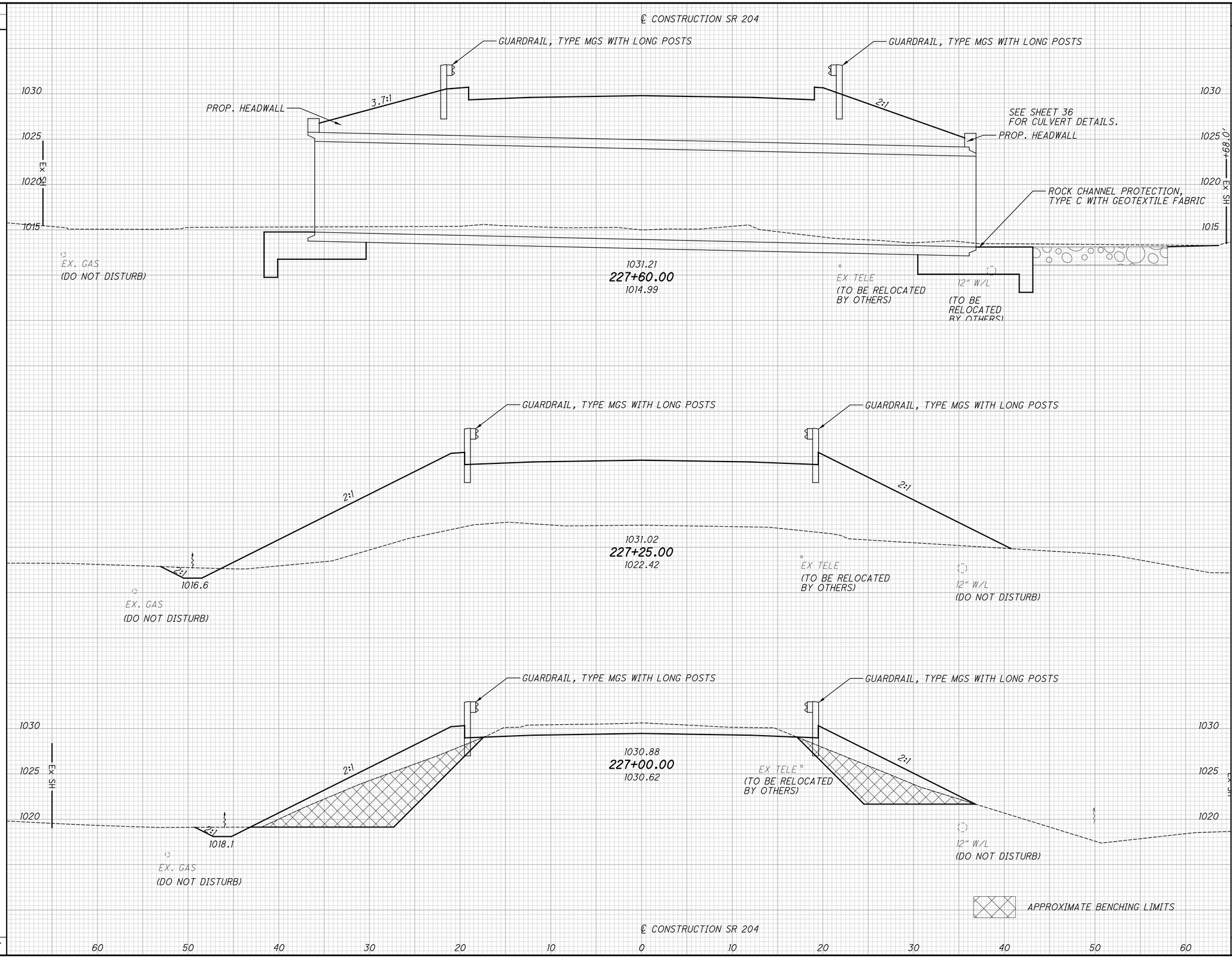
STA. 227+00.00 TO STA. 227+60.00

FAI-204-(3.46)(4.32)

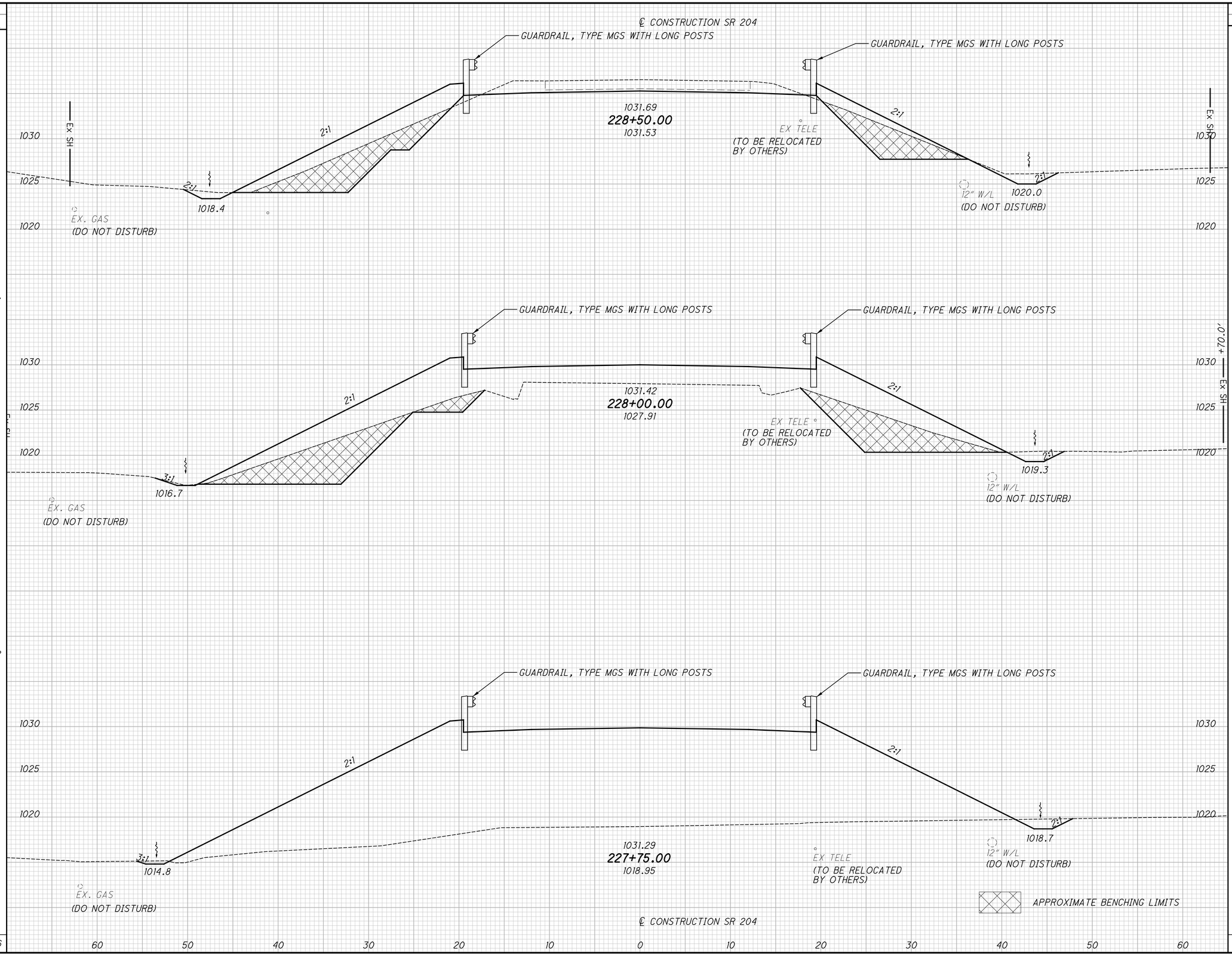
21
43

CALCULATED AA
CHECKED EAK

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	86			48	297
	29	168	309		
	177			112	529
	62	5	507		
	164			74	316
	55	155	176		
	427			234	1142



SEEDING END WIDTH	SEEDING SQ. YDS.
	351
67	
	383
71	
	202
74	
	936



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		172	227
107	143		
		213	434
123	327		
		60	504
6	762		
		445	1165

CALCULATED AA
CHECKED EAK

CROSS SECTIONS - 4.32
STA. 227+75.00 TO STA. 228+50.00

FAI-204-(3.46)(4.32)

22
43

SHEET	CUT	FILL	SEEDING
20	250	249	530
21	234	1142	427
22	445	1165	936
23	82	120	250
TOTAL	1011	2676	2143**

* TOTAL CARRIED TO THE GENERAL SUMMARY SHEET 10
** TOTAL CARRIED TO SHEET 6

℄ CONSTRUCTION SR 204

230+00.00
1032.93

229+50.00
1032.28

229+00.00
1031.96
1031.96

EX. GAS
(DO NOT DISTURB)

12" W/L
(DO NOT DISTURB)

EX TELE
(DO NOT DISTURB)

EX TELE
(TO BE RELOCATED BY OTHERS)

Ex SH

GUARDRAIL, TYPE MGS WITH LONG POSTS

2:1

2.5:1

1028.0

1028.5

1021.5

1024.0

1030

1025

APPROXIMATE BENCHING LIMITS

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0		0	0		
	42			5	12
15		5	13		
	208			77	108
60		78	103		
	250			82	120

60 50 40 30 20 10 0 10 20 30 40 50 60

CALCULATED AA
CHECKED EAK

CROSS SECTIONS - 4.32
STA. 229+00.00 TO STA. 230+00.00

FAI-204-(3.46)(4.32)

23
43

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LEGEND

PROPOSED SIGN

EXISTING SIGN TO REMAIN

EXISTING SIGN TO REMOVED

CL CENTER LINE, DOUBLE, SOLID, 4" (YELLOW)

EL EDGE LINE, 6" (WHITE)

BR BARRIER REFLECTOR

NOTE

1. RPM'S SHALL NOT BE INSTALLED ON STRUCTURE LAW-141-1298 AS PER ODOT STANDARD CONSTRUCTION DRAWING TC-65.11.

BEGIN PAVEMENT MARKING STA. 181+00.00

AULT RD

Ault Rd

W2-2L-30
D3-1-VAR
(VARX12")
STA. 181+94 LT

PI Sta. 181+50.03

OM-3L-12
STA. 182+50 LT

OM-3R-12
STA. 183+39 LT

PI Sta. 184+50.04

PI Sta. 185+50.06

SPEED LIMIT 45

MATCH WITH EX. PAVEMENT MARKINGS

℄ CONSTRUCTION SR 204

S 84° 55' 35" E

181 182 183 184 185

BR-1 BR-2 BR-3 BR-4 BR-5 BR-6

EL-1 EL-2

CL-1

S-1 S-2 S-3 S-4 S-5 S-6 S-7

Calhoun Ct

W2-2R-30
D3-1-VAR
(VARX12")
STA. 181+59 RT

OM-3R-12
STA. 182+50 RT

OM-3L-12
STA. 183+39 RT

R2-1-24
(24" X 30")
STA. 184+80 RT

END PAVEMENT MARKING STA. 185+00.00

END PAVEMENT MARKING (LT EDGE LINE) STA. 224+59.00

Toll Gate

END PAVEMENT MARKING STA. 229+50.00

S-8 S-9 S-10 S-11 S-12

BR-7 BR-8

EL-3 EL-4

CL-2

WEST 204

M3-4-24
M1-5-3-30
STA. 229+11 LT

STOP

PI Sta. 230+14.90

℄ R/W & CONSTRUCTION SR 204

225 226 227 228 229 230

S 85° 20' 59" E

END PAVEMENT MARKING (RT EDGE LINE & CENTER LINE) STA. 225+00.00

MATCH WITH EX. PAVEMENT MARKINGS

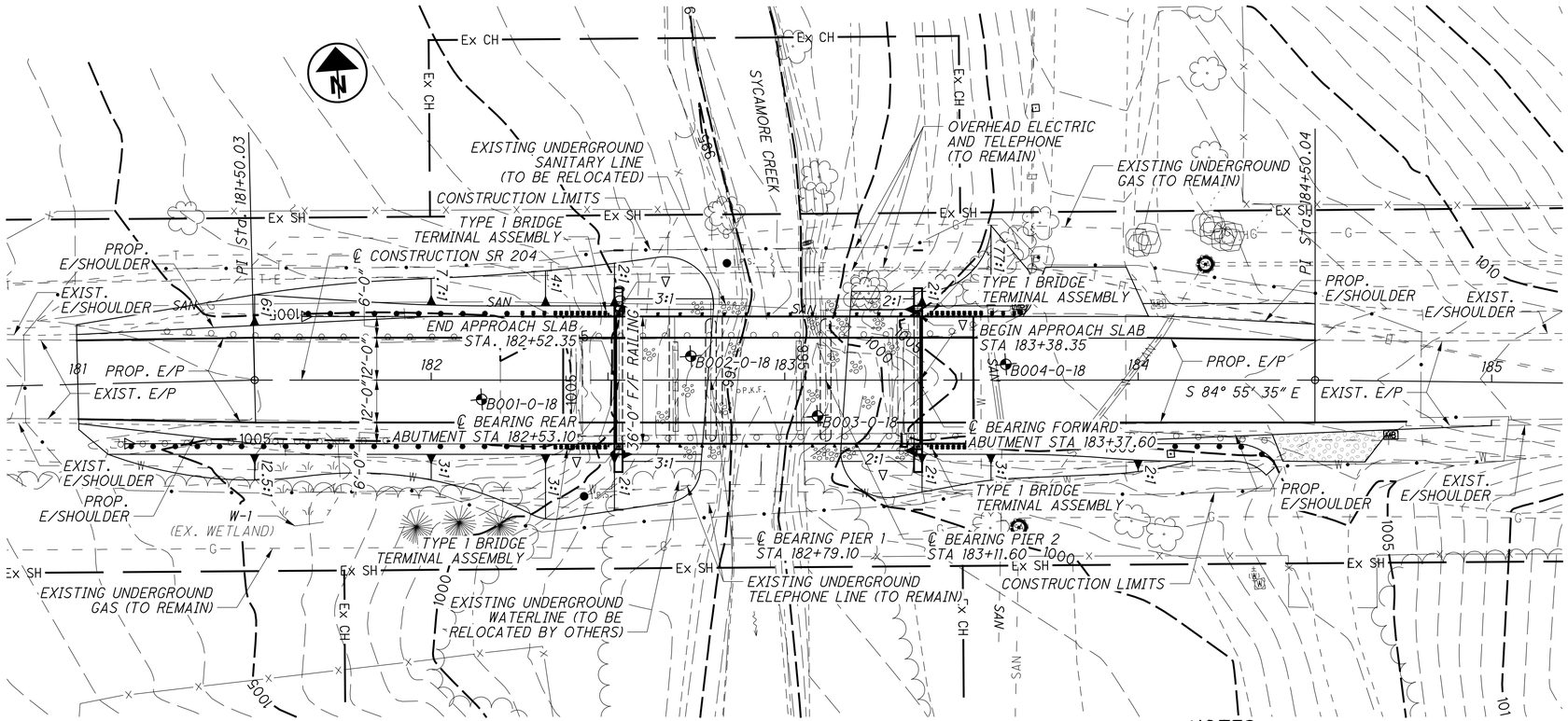
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED AA
CHECKED EAK

SIGNING AND PAVEMENT MARKING PLAN

FAI-204-(3.46)(4.32)

24
43



∇ STATIONING FOR ABUTMENT MOUNTED RAILING POSTS:

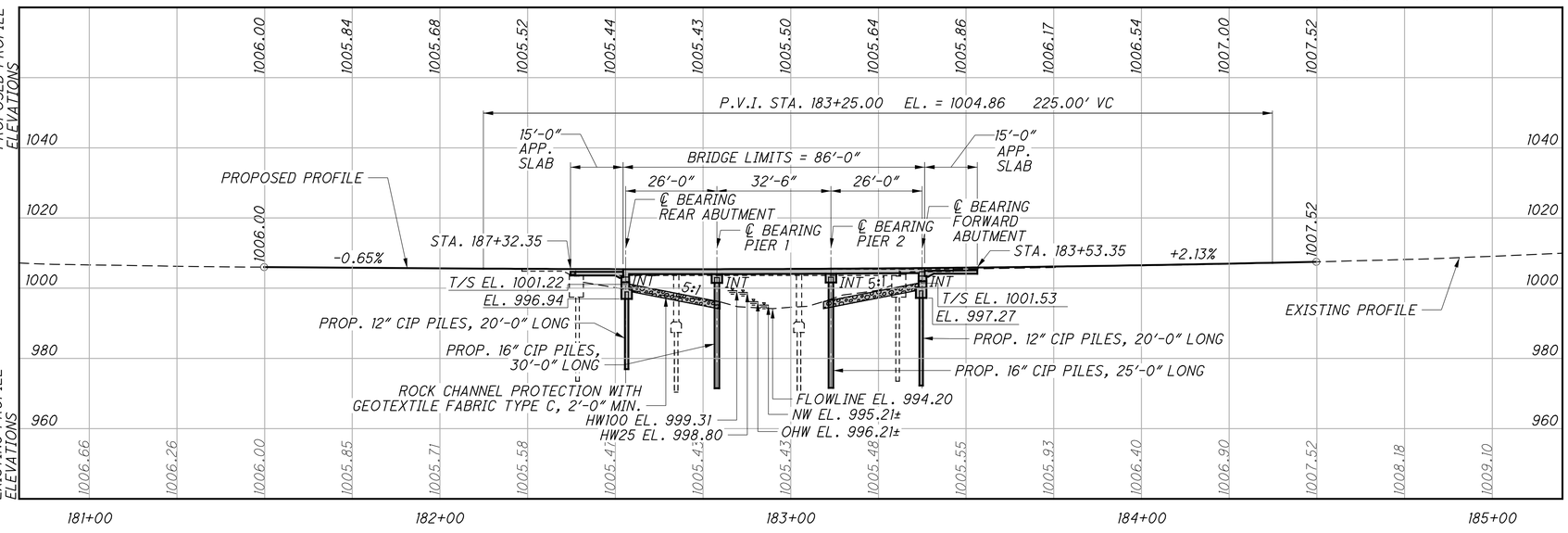
LEFT REAR =	STA. 182+52.98	OFFSET = 18.60 LEFT
RIGHT REAR =	STA. 182+52.98	OFFSET = 18.60 RIGHT
LEFT FORWARD =	STA. 183+37.73	OFFSET = 18.60 LEFT
RIGHT FORWARD =	STA. 183+37.73	OFFSET = 18.60 RIGHT

STATIONING AND OFFSETS ARE TO THE CENTER OF POST.

PLAN

NOTES:

1. FOR GUARDRAIL POST STATIONING, SEE ROADWAY PLAN AND PROFILE SHEET (14/43).
2. THE QUANTITY FOR ROCK CHANNEL PROTECTION, WITH GEOTEXTILE FABRIC, TYPE C IS CARRIED IN THE ROADWAY GENERAL SUMMARY. RCP EXCAVATION SHALL REMAIN 1'-0" ABOVE NORMAL WATER ELEVATION.



PROFILE ALONG ℄ CONSTRUCTION SR 204

BENCHMARK DATA

BM #1 STA. 182+39.41, ELEV. 1005.30, OFFSET 14.93' LT
BM #2 STA. 227+07.66, ELEV. 1030.48, OFFSET 17.13' LT

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET (2/43)

NOTES

1. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS

DESIGN TRAFFIC:
2021 ADT = 5200 2021 ADTT = 208
2041 ADT = 6800 2041 ADTT = 272
DIRECTIONAL DISTRIBUTION = 0.61

LEGEND

- BORING LOCATION
- PROPOSED ROCK CHANNEL PROTECTION

HYDRAULIC DATA

DRAINAGE AREA = 4.09 SQ. MILES
Q (25) = 681 CFS V (25) = 5.05 FT/S
Q (100) = 898 CFS V (100) = 5.59 FT/S
STRUCTURE CLEARS THE 25 YEAR DESIGN HW BY 5.21 FEET.

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAMS WITH REINFORCED CONCRETE DECK ON REINFORCED CONCRETE SUBSTRUCTURES WITH CAST-IN-PLACE PILES UNDER THE ABUTMENTS AND TIMBER PILES UNDER THE PIERS
SPANS: 28'-0"±, 35'-0"±, 28'-0"± C/C BEARINGS
ROADWAY: 27'-6" F/F GUARDRAIL
LOADING: HS20-44
SKEW: NONE
APPROACH SLABS: 20'-0" (±) LONG
ALIGNMENT: TANGENT
CROWN: 0.0156 FT/FT
STRUCTURAL FILE NUMBER: 2302616
DATE BUILT: 1946
DISPOSITION: FULL REPLACEMENT

PROPOSED STRUCTURE

TYPE: NEW REINFORCED CONCRETE CONTINUOUS SLAB BRIDGE WITH NEW CAPPED PILE ABUTMENTS ON CAST-IN-PLACE PILES AND NEW CAP PILE PIERS
SPANS: 26'-0", 32'-6", 26'-0" C/C BEARINGS
ROADWAY: 36'-0" F/F GUARDRAIL
LOADING: HL-93 WITH 60 PSF FWS
SKEW: NONE
APPROACH SLABS: 15'-0" LONG (AS-1-15)
ALIGNMENT: TANGENT
CROWN: 0.016 FT/FT
WEARING COURSE: 1" MONOLITHIC CONCRETE
STRUCTURE FILE NUMBER: 2302617
COORDINATES: LATITUDE N 39° 55' 45.38"
LONGITUDE W 82° 43' 28.01"

DESIGN AGENCY
PRIME AE
8415 Pulsar Place, Suite 300
Columbus, Ohio 43240

DRAWN	REVIEWED	DATE
AMT	GTB	12/18/2018
DESIGNED	CHECKED	STRUCTURE FILE NUMBER
AMT	CCJ	2302617
	REVISED	
	—	

FAIRFIELD COUNTY
STA. 182+52.35
STA. 183+38.35

SITE PLAN
BRIDGE NO. FAR-204-0346
SR 204 OVER SYCAMORE CREEK

FAI-204-3.46/4.32
PID No. 96015

1 / 11

25 / 43

GENERAL NOTES

REFERENCE SHALL BE MADE TO THE FOLLOWING STANDARD DRAWINGS

AS-1-15	REVISED 07/17/15
AS-2-15	REVISED 01/19/18
CPA-1-08	DATED 07/18/08
CPP-1-08	REVISED 07/21/17
CS-1-08	DATED 01/19/18
DS-1-92	REVISED 07/18/03
EXJ-3-82	REVISED 01/18/13
TST-1-99	REVISED 07/20/18

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS", 8TH EDITION, ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2018, AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

DESIGN LOADING

DESIGN LOADING: HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ FT

DESIGN DATA

CONCRETE, QC/QA CLASS CSC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
CONCRETE, CLASS QSC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
REINFORCING STEEL - ASTM A615 OR A996, GRADE 60, MINIMUM YIELD STRENGTH 60.0 KSI

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL
2½" CONCRETE COVER
STEEL DRIP STRIP

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

PILE DRIVING CONSTRAINTS

PRIOR TO DRIVING PILES, CONSTRUCT THE SPILL THROUGH SLOPES AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENTS UP TO THE LEVEL OF THE SUBGRADE ELEVATION FOR A MINIMUM DISTANCE OF 50 FEET BEHIND EACH ABUTMENT. DO NOT BEGIN THE EXCAVATION FOR THE ABUTMENT FOOTINGS AND THE INSTALLATION OF THE ABUTMENT AND PIER PILES FOR PIERS 1 AND 2 UNTIL AFTER THE ABOVE REQUIRED EMBANKMENT HAS BEEN CONSTRUCTED.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE)

THE ULTIMATE BEARING VALUE IS 180 KIPS PER PILE FOR THE ABUTMENT PILES.
THE ULTIMATE BEARING VALUE IS 245 KIPS PER PILE FOR THE PIER PILES.

REAR ABUTMENT PILES:
12" CAST-IN-PLACE PILES 25 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEM

FORWARD ABUTMENT PILES:
12" CAST-IN-PLACE PILES 25 FEET LONG, ORDER LENGTH

PIER 1 PILES:
16" CAST-IN-PLACE PILES 35 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEM

PIER 2 PILES:
16" CAST-IN-PLACE PILES 30 FEET LONG, ORDER LENGTH

UTILITY LINES

THE UTILITIES SHALL BEAR ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITIES ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVIENCE TO EITHER WILL BE HELD TO A MINIMUM.

PILE DRIVING CONSTRAINTS

BASED ON ANALYSIS USING A DELMAG D19-42 DIESEL HAMMER AND MINIMUM WALL THICKNESSES CALCULATED IN ACCORDANCE WITH THE ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS (CSM), THE PILES AT THE PIER LOCATIONS WOULD POTENTIALLY BE OVERSTRESSED DURING THE PILE INSTALLATION PROCESS AND IT IS RECOMMENDED THAT CONSIDERATIONS FOR AN INCREASED CIP WALL THICKNESS OR A HIGHER GRADE OF STEEL BE MADE. HOWEVER, DRIVEABILITY IS DIFFICULT TO ASSESS QUANTITATIVELY DUE TO THE SOIL CONDITIONS ENCOUNTERED (HARD AND VERY DENSE MATERIAL); THEREFORE, THE CONTRACTOR SHALL PROVIDE AN ANALYSIS TO DEMONSTRATE THAT THE EQUIPMENT PLANNED FOR USE CAN PERFORM WITHOUT OVERSTRESSING THE PILES.

DUE TO ENCOUNTERED HARD SANDY SILTS WITH POSSIBLE BOULDERS AND COBBLES, IT IS RECOMMENDED THAT PILES DRIVEN FOR THE PROJECT BE DRIVEN WITH PILE POINTS.

CAMBER

TO COMPENSATE FOR FALSEWORK DEFLECTION AND FOR THE DEFLECTION OF THE SLAB AFTER THE FALSEWORK IS REMOVED, BUILD CAMBER INTO THE FALSEWORK ACCORDING TO CMS 508.02

POROUS BACKFILL WITH GEOTEXTILE FABRIC

POROUS BACKFILL WITH GEOTEXTILE FABRIC, THE THICKNESS AS DETAILED IN THIS PLAN, SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE WINGWALLS.

FILL UNDER APPROACH SLABS

ITEM 304, AGGREGATE BASE SHALL BE USED TO BRING THE SUBBASE TO GRADE FOR THE PROPOSED APPROACH SLABS AS DETAILED ON THE APPROACH SLAB DETAIL SHEETS AND SHALL EXTEND 1'-6" ON BOTH SIDES OF EACH APPROACH SLAB.

REMOVALS OVER WATER

REASONABLE CARE SHALL BE USED WHEN REMOVING MATERIAL OVER WATER. ANY MATERIAL DROPPED SHALL BE IMMEDIATELY REMOVED FROM THE WATER AND DISPOSED OF AWAY FROM THE SITE EXCEPT FOR MASONARY MATERIAL WHICH MAY BE USED FOR BANK PROTECTION AS APPROVED BY THE ENGINEER.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

THIS ITEM SHALL CONSIST OF REMOVING MATERIALS FROM BEHIND THE EXISTING BACKWALL IN ORDER TO PERFORM ITEM 202, STRUCTURE REMOVED, OVER 20 FOOT SPAN. LIMITS OF THIS EXCAVATION SHALL BE LIMITED BETWEEN THE EXISTING WINGWALLS AND EXTEND TO THE END OF THE PROPOSED APPROACH SLABS AS DETAILED ON SHEET 10/11.

THE BACKFILL MATERIAL FOR ALL EXCAVATION BEHIND THE ABUTMENTS AND UNDER THE APPROACH SLABS SHALL BE LOW STRENGTH MORTAR BACKFILL (LSM). LSM, TYPE 1 SHALL CONFORM TO CMS SECTION 613 AND BE PLACED WITHIN THE LIMITS OF THE APPROACH SLABS AND IT MAY ALSO BE USED TO CONSTRUCT THE SLOPES IN THIS SAME AREA AS LONG AS IT IS COVERED WITH ONE FOOT OF SOIL TO MATCH EXISTING GRADE. THE AREA FOR THE POROUS BACKFILL WITH GEOTEXTILE FABRIC SHALL BE FORMED PRIOR TO THE PLACEMENT OF THE LSM, TYPE 1 BACKFILL AND PLACEMENT OF THE GEOTEXTILE FABRIC SHALL BE PLACED AFTER THE LSM HAS CURED AND THE FORMS HAVE BEEN REMOVED.

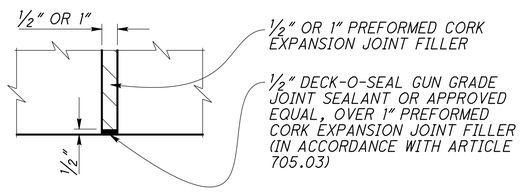
PAYMENT TO PERFORM ALL THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THE PLANS.

ITEM 516 1/2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ITEM 516 1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ALL 1" P.E.J.F., AS PER PLAN AND ½" P.E.J.F., AS PER PLAN CALLED FOR IN THE PLANS SHALL BE PREFORMED CORK JOINT FILLER (IN ACCORDANCE WITH ARTICLE 705.03). RECESS JOINT FILLER ½" FOR ALL JOINTS (SEE DETAIL). SEAL ALL JOINTS THAT ARE ABOVE GRADE WITH DECK-O-SEAL GUN GRADE-JOINT SEALANT OR AN APPROVED EQUAL. THE COLOR SHALL STONE GRAY. APPROVED MANUFACTURER'S APPLICATION METHODS SHALL BE FOLLOWED DURING SURFACE PREPARATION AND APPLICATION FOR MAXIMUM EFFECTIVENESS.

DECK-O-SEAL
P.O. BOX 397
HAMPHIRE, IL 60140
PHONE: 800-542-7665



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - ½" P.E.J.F., AS PER PLAN, SQ. FT. AND ITEM 516 - 1" P.E.J.F., AS PER PLAN, SQ. FT. AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.

SURFACE SMOOTHNESS FOR BRIDGES AND APPROACHES

AT THE COMPLETION OF WORK FOR ALL PHASES OF CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE DISTRICT 5 SMOOTHNES CORDINATOR. PERFORM THE FOLLOWING AS PER PROPOSAL NOTE 555:

1. CLEAN, SWEEP, AND PREPARE THE FINAL DECK AND FINAL ROADWAY SURFACE.
2. MEASURE, GRIND, AND RE-MEASURE THE BRIDGE AND/OR ROADWAY AS NECESSARY.
3. PERFORM GROOVING OF THE BRIDGE DECK.

ITEM 516 - 2" DEEP JOINT SEALER, AS PER PLAN

UPON COMPLETION OF THE PROPOSED BRIDGE DECK, APPROACH SLAB, AND ASPHALT PAVEMENT THE CONTRACTOR SHALL SAW CUT ALONG THE END OF THE BRIDGE DECK ENDS (WITHOUT CUTTING THE DECK) AN AREA 1" WIDE BY 2" DEEP AND FILL THIS AREA WITH HOT APPLIED JOINT SEALER 705.04.

ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC.: ANGLE STEEL AND ANCHOR PLATES

ANGLE STEEL AND ANCHOR PLATES: FURNISH THE FOLLOWING MATERIAL AS DETAILED ON SHEET 6 / 11. SEE S.B.D. (EXJ-3-82) FOR ADDITIONAL DETAILS.

PAYMENT FOR ALL OF THE ABOVE DESCRIBED LABOR, EQUIPMENT, AND MATERIALS INCLUDING NO. 4 STEEL REINFORCING BARS WILL BE MADE AT THE CONTRACT PRICE BID ITEM 516 - STRUCTURAL JOINT OR JOINT SEALER, MISC.: ANGLE STEEL AND ANCHOR PLATES.

ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=12"), AS PER PLAN

FURNISH APPROACH SLABS CONFORMING TO CMS 526. THE ACCEPTED QUANTITIES SHALL INCLUDE: CONCRETE, REINFORCING STEEL, JOINT FILLERS, JOINT SEALERS, JOINT SEALS, WATERPROOFING, AND ANY OTHER INCIDENTALS SHOWN ON THE APPROACH SLAB DETAIL SHEETS UNLESS OTHERWISE NOTED IN THE PLAN. THE DEPARTMENT WILL MEASURE APPROACH SLABS BY THE NUMBER OF SQUARE YARDS.

STANDARD ABBREVIATIONS

A.S.	-	APPROACH SLAB
BRG.	-	BEARING
C/C	-	CENTER TO CENTER
C.J.	-	CONSTRUCTION JOINT
CPP	-	CORRUGATED PLASTIC PIPE
CLR.	-	CLEAR
DIA.	-	DIAMETER
E.F.	-	EACH FACE
EQ.	-	EQUAL
EXIST.	-	EXISTING
EXP.	-	EXPANSION
F.A.	-	FORWARD ABUTMENT
F.F.	-	FAR FACE
MIN.	-	MINIMUM
N.F.	-	NEAR FACE
PEJF	-	PREFORMED EXPANSION JOINT FILLER
R.A.	-	REAR ABUTMENT
SPA.	-	SPACING/SPACES
TYP.	-	TYPICAL

DESIGN AGENCY
PRIME AE
845 Pulsar Place, Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
BTJ	BTJ	GTB	12/18/2018
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CCJ		2302617	

GENERAL NOTES
BRIDGE NO. FAI-204-0346
SR 204 OVER SYCAMORE CREEK

FAI-204-3.46/4.32
PID No. 96015

2 / 11

26
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CALC:	GTB	DATE:	11/7/2018
CHECKED:	BTJ	DATE:	12/5/2018

ESTIMATED QUANTITIES (01/S>2/BR)

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SEE SHEET
202	11002	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN				LS	
202	22900	123	SY	APPROACH SLAB REMOVED				123	
503	11100	LS		COFFERDAMS AND EXCAVATION BRACING				LS	
503	21301	LS		UNCLASSIFIED EXCAVATION, AS PER PLAN	LS				2, 10
505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION				LS	
507	00500	280	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	280				
507	00550	350	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	350				
507	00700	330	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN		330			
507	00750	390	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED		390			
507	93300	26	EACH	STEEL POINTS OR SHOES	14	12			
509	10000	56722	LB	EPOXY COATED REINFORCING STEEL	6336	6635	43751		
511	33312	196	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE		18	178		
511	43510	55	CY	CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING	55				
512	10050	146	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	16	57	73		
516	13201	59	SF	1/2" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	59				2
516	13601	83	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN	83				2
516	14020	101	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	101				
516	14600	72	FT	STRUCTURAL JOINT OR JOINT SEALER, MISC.: ANGLE STEEL AND ANCHOR PLATES			72		
516	31011	72	FT	2" DEEP JOINT SEALER, AS PER PLAN				72	2
517	70000	179.34	FT	RAILING (TWIN STEEL TUBE)			179.34		
518	21200	49	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	49				
SPECIAL	51822300	204	FT	STEEL DRIP STRIP			204		
518	40000	104	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	104				
518	40010	116	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	116				
523	20000	2	EACH	DYNAMIC LOAD TESTING	1	1			
526	10001	120	SY	REINFORCED CONCRETE APPROACH SLABS (T=12"), AS PER PLAN				120	2

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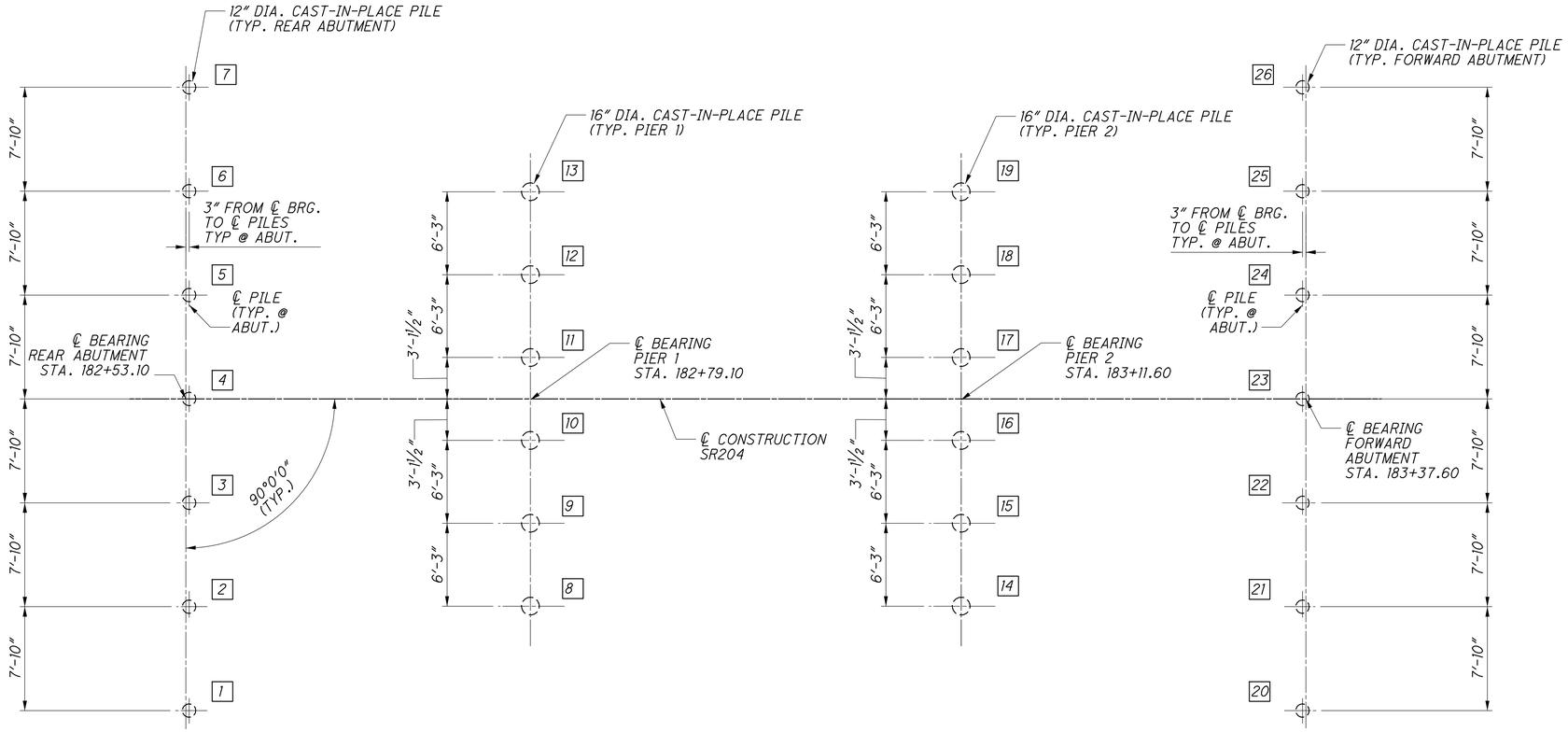
ESTIMATED QUANTITIES
BRIDGE NO. FAI-204-0346
SR 204 OVER SYCAMORE CREEK

FAI-204-3.46 / 4.32
PID No. 96015

3 / 11

27
43



FOUNDATION PLAN

LEGEND:

5 = INDICATES PILE NUMBER

⊕ = INDICATES VERTICAL CAST-IN-PLACE PILE

Q:\Transportation\Projects\ODOT\District 5\FAI 204 03.46 04.32\96015\Design\Structures\FAI204_0346C\Sheets\204_0346C_FP001.dgn 3/12/2019 2:39:18 PM Agkuraju

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FOUNDATION PLAN
BRIDGE NO. FAI-204-0346
SR 204 OVER SYCAMORE CREEK

FAI-204-3.46/4.32
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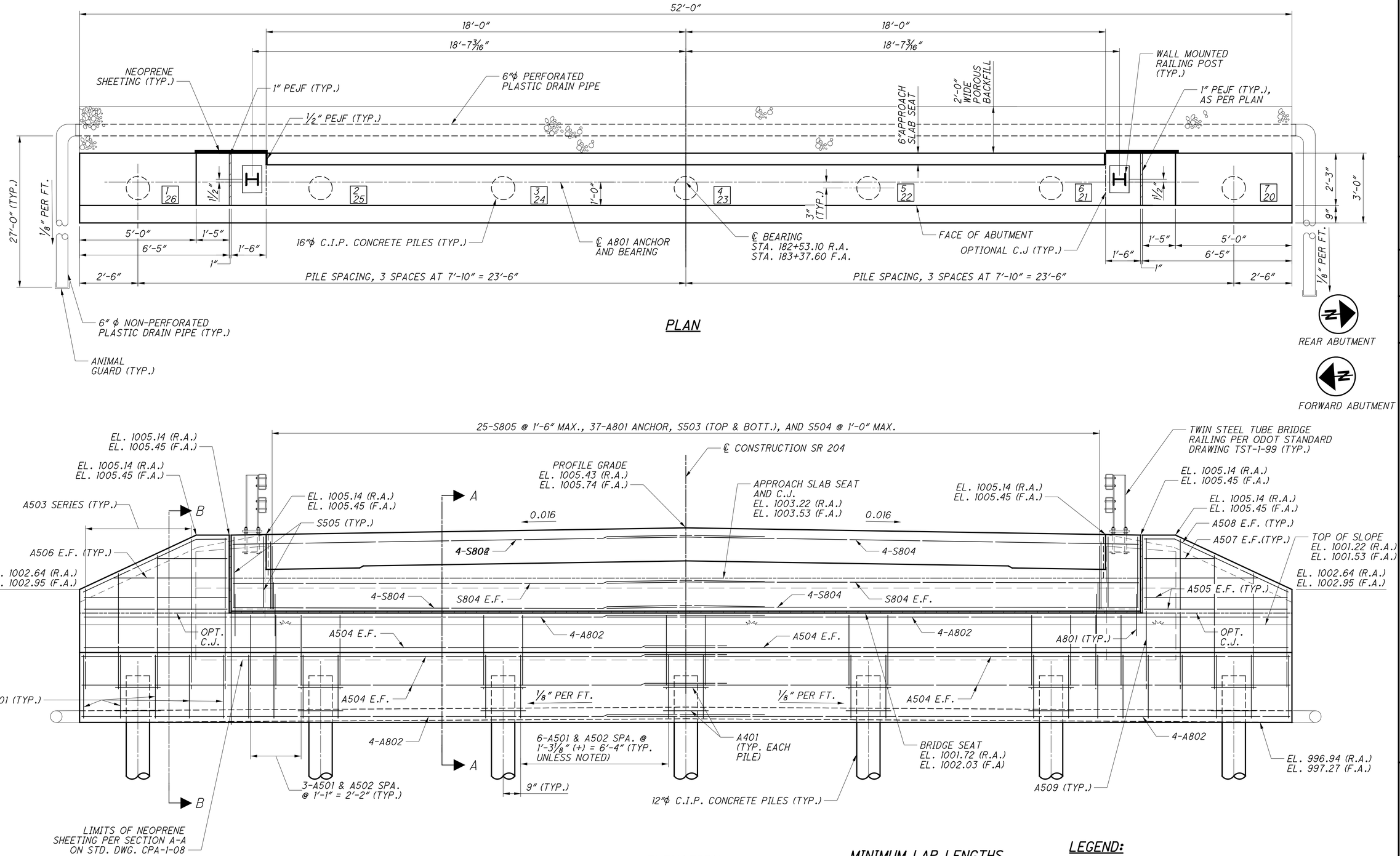
28
43



PLAN

ELEVATION

MINIMUM LAP LENGTHS

#5 BAR = 3'-7"
#8 BAR = 7'-3"

LEGEND:

5/20 = INDICATES REAR ABUTMENT PILE NUMBER (TOP)
INDICATES FORWARD ABUTMENT PILE NUMBER (BOTTOM)

NOTES:

1. ELEVATIONS SHOW ABOVE ARE LOCATED AT THE FACE OF WINGWALL.
2. SEE SHEET 6/11 FOR SECTION A-A AND B-B.

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ABUTMENT PLAN AND ELEVATION
BRIDGE NO. FAI-204-0346
SR 204 OVER SYCAMORE CREEK

FAI-204-3.46/4.32
PID No. 96015

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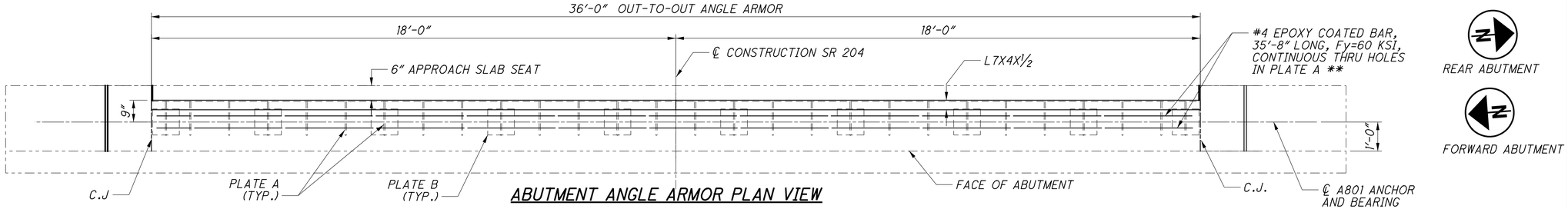
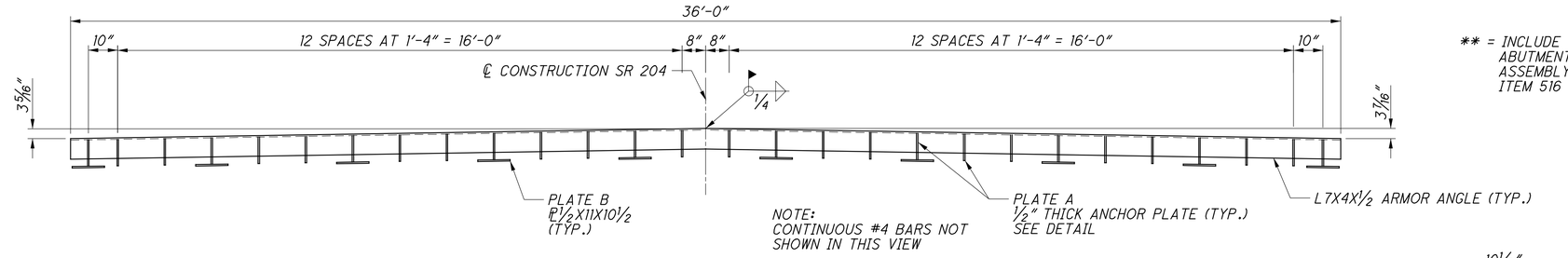


REAR ABUTMENT

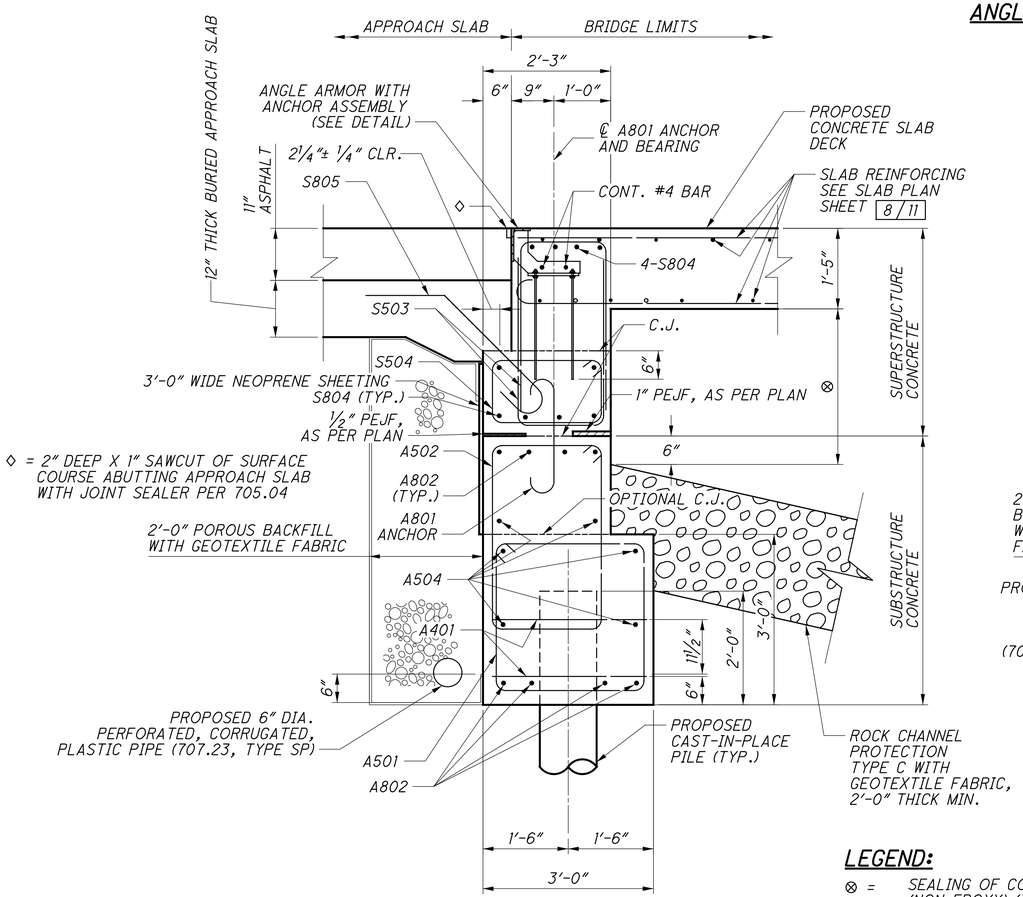
FORWARD ABUTMENT

ABUTMENT ANGLE ARMOR PLAN VIEW



** = INCLUDE THESE BARS WITH ABUTMENT ANGLE ARMOR ASSEMBLY FOR PAYMENT, ITEM 516

ANGLE ARMOR ELEVATION

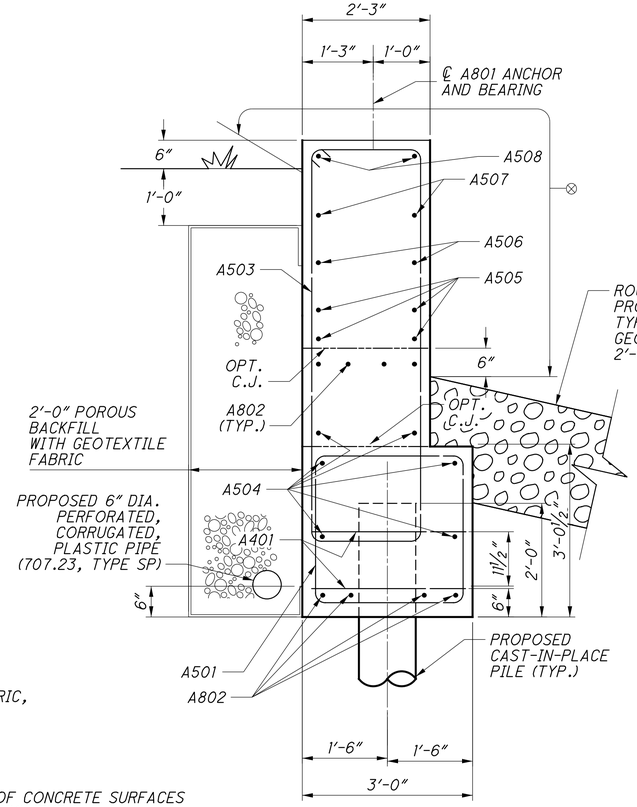


◇ = 2″ DEEP X 1″ SAWCUT OF SURFACE COURSE ABUTTING APPROACH SLAB WITH JOINT SEALER PER 705.04

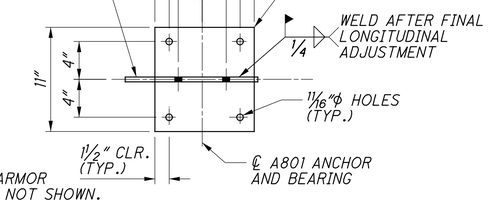
SECTION A-A

LEGEND:

⊗ = SEALING OF CONCRETE SURFACES (NON-EPOXY) (TYP.)

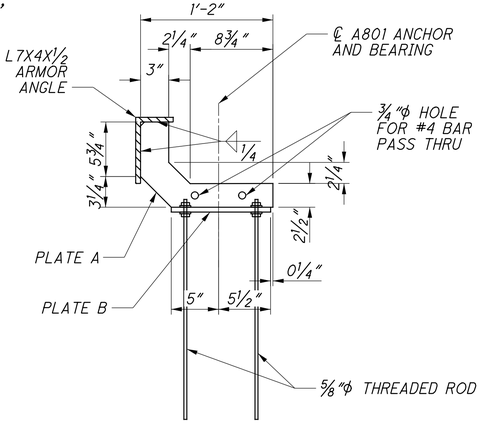


SECTION B-B



NOTE: L7X4 ARMOR ANGLE NOT SHOWN.

PLATE B PLAN VIEW



ANGLE ARMOR ASSEMBLY DETAIL

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ABUTMENT DETAILS
BRIDGE NO. FAI-204-0346
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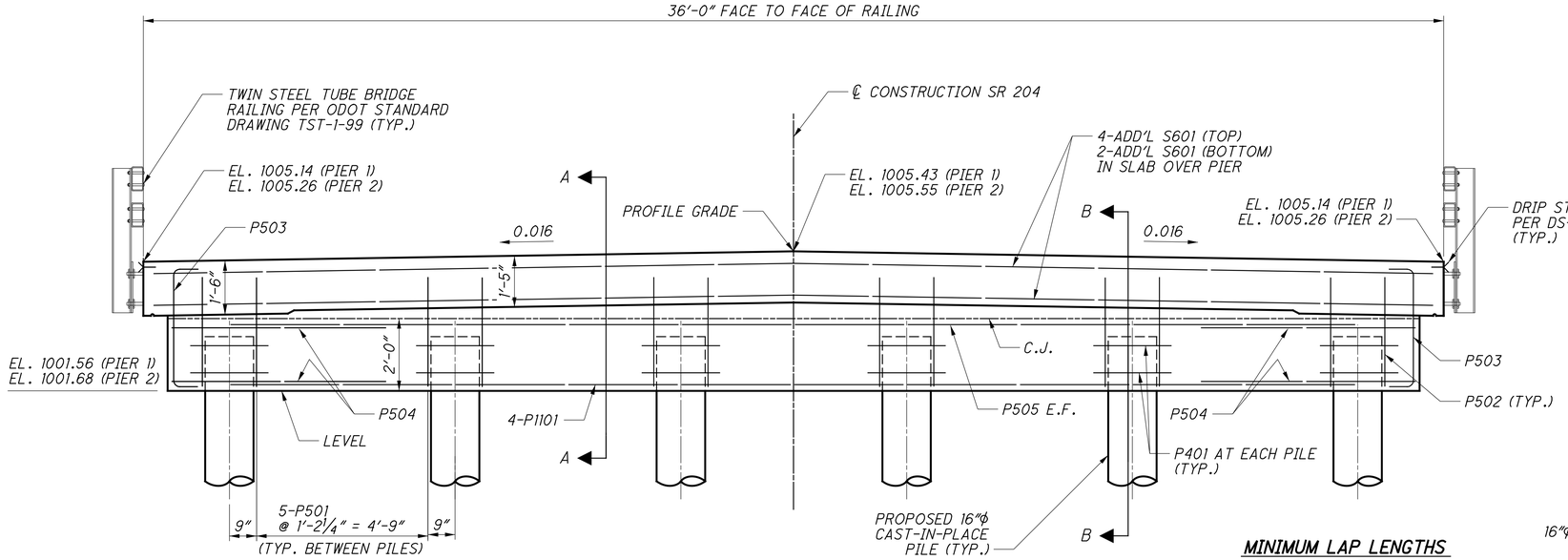
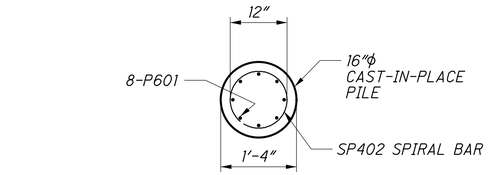


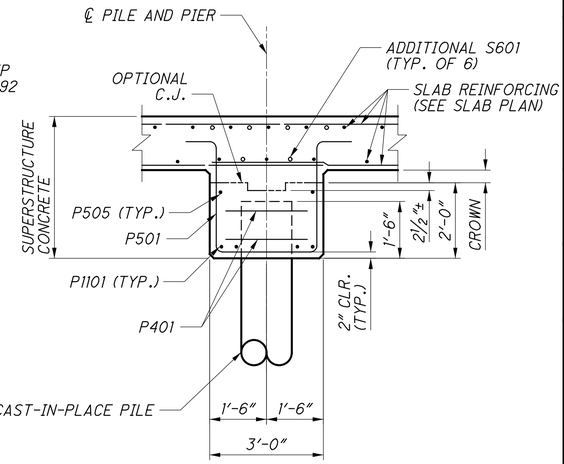
ELEVATION

MINIMUM LAP LENGTHS

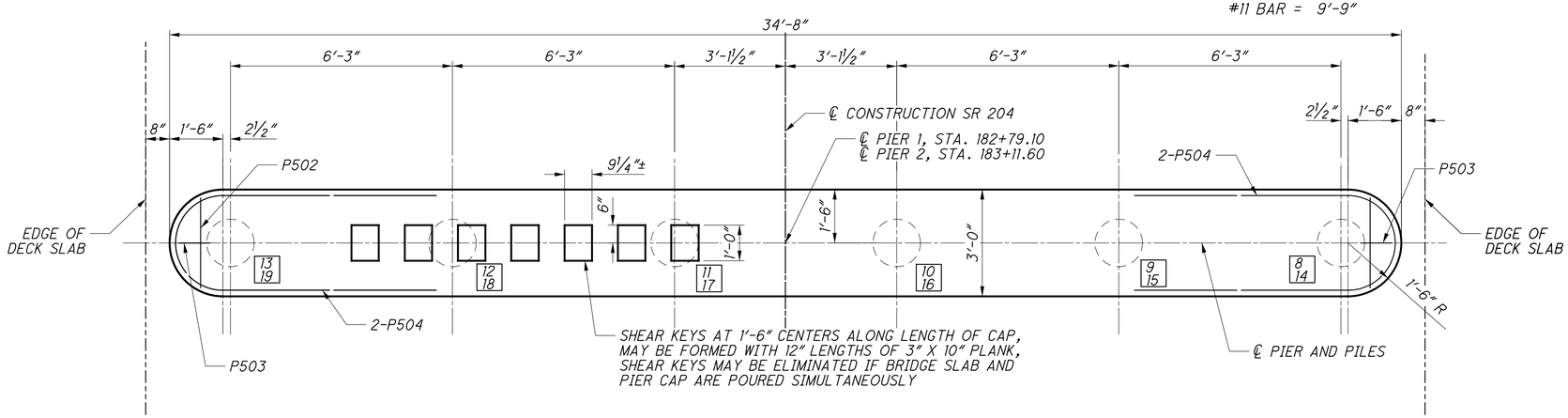
#5 BAR = 3'-7"
#6 BAR = 4'-4"
#8 BAR = 6'-9"
#11 BAR = 9'-9"



SECTION C-C



SECTION A-A



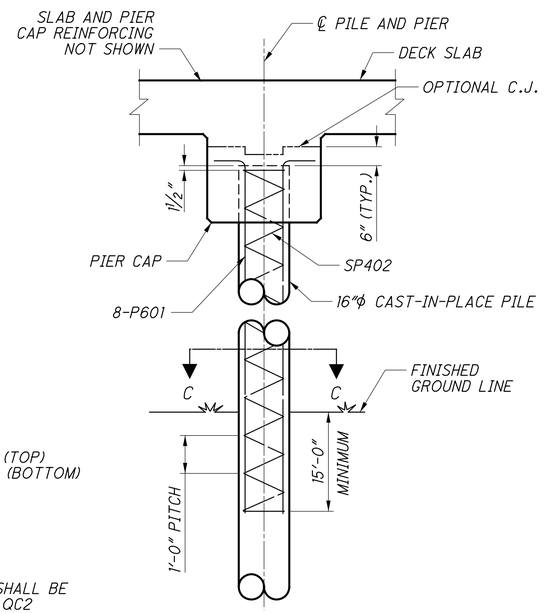
PIER CAP PLAN VIEW

LEGEND

11/17 = INDICATES PIER 1 PILE NUMBER (TOP)
INDICATES PIER 2 PILE NUMBER (BOTTOM)

NOTES

1. CONCRETE FOR THE PIER CAPS SHALL BE INCLUDED WITH ITEM 511, CLASS QC2 CONCRETE, SUPERSTRUCTURE



SECTION B-B

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PIER DETAILS
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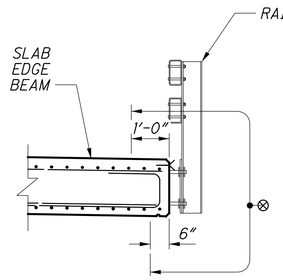
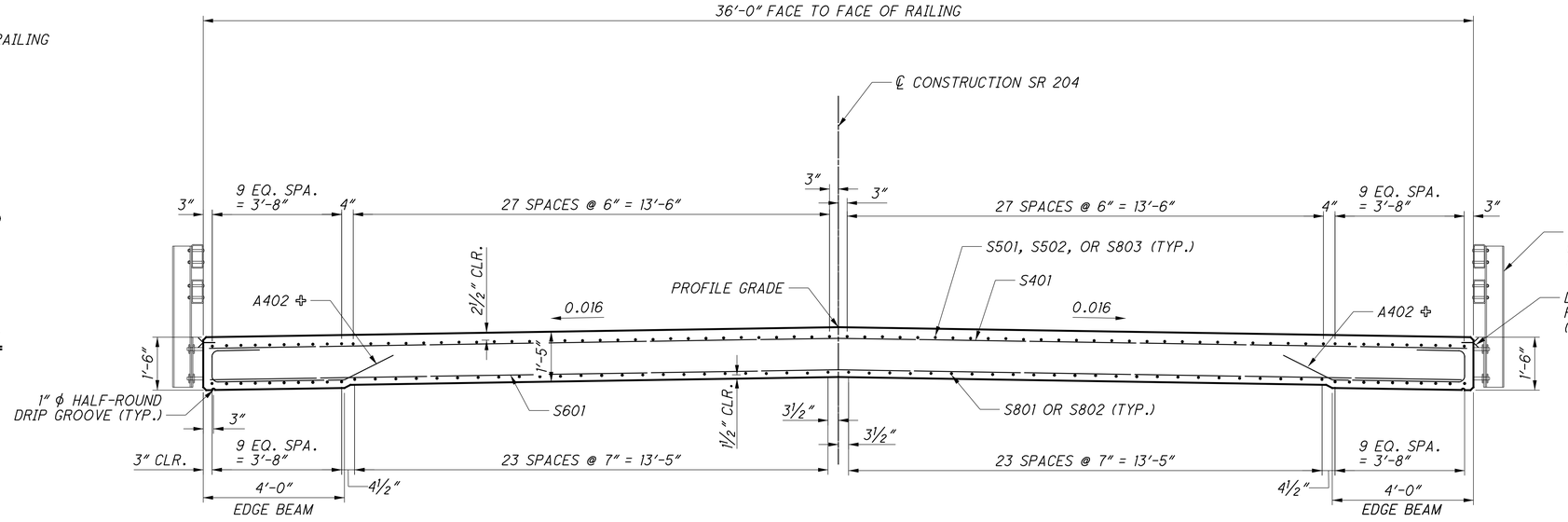
PID No. 96015



SEALING LIMITS DETAIL



TRANSVERSE SECTION A-A

MINIMUM LAP LENGTHS

UNLESS NOTED:

#4 BAR =	3'-0"
#5 BAR =	3'-6"
#6 BAR =	4'-4"
#8 BAR =	6'-9"

LEGEND:

⊗ = SEALING OF CONCRETE SURFACES (NON-EPOXY) (TYP.)

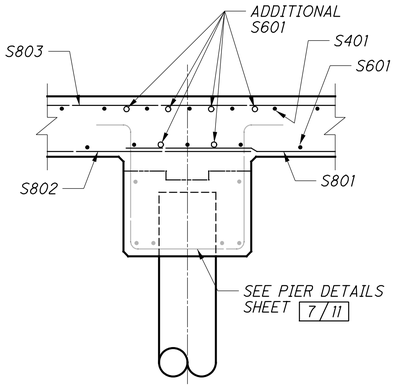
✣ = LAP WITH S601 BARS AT EACH END, DO NOT LAP WITH ADDITIONAL S601 BARS AT THE ABUTMENTS AND PIERS

◪ = THE TOTAL NUMBER OF S601 BARS IN BOTTOM OF SLAB INCLUDES 8 ADDITIONAL BARS PROVIDED AT ABUTMENTS AND PIERS, SEE SECTIONS B-B AND C-C FOR LOCATION.

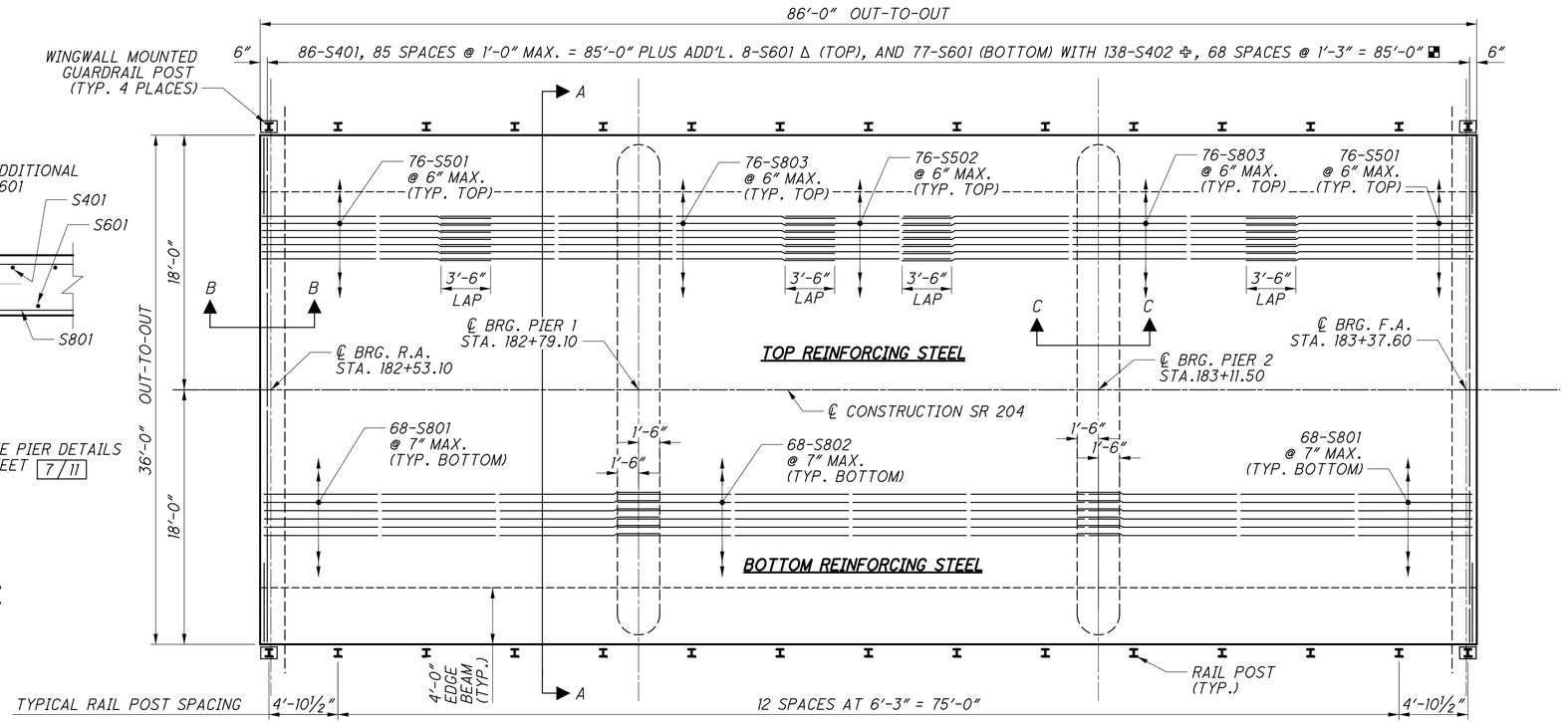
Δ = 4 ADD'L BARS AT EACH PIER (TOP), SEE SECTION C-C

NOTES:

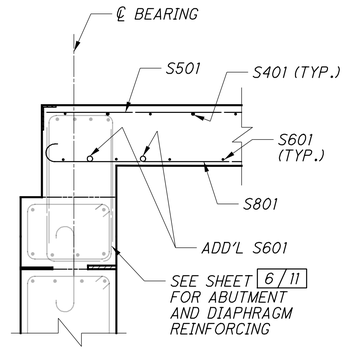
1. SEE TRANSVERSE SECTION A-A FOR SPACING OF LONGITUDINAL REINFORCING STEEL



SECTION C-C



SLAB PLAN



SECTION B-B

N

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TRANSVERSE SECTION AND SLAB PLAN
BRIDGE NO. FAI-204-0346
SR 204 OVER SYCAMORE CREEK

FAI-204-3.46/4.32
PID No. 96015

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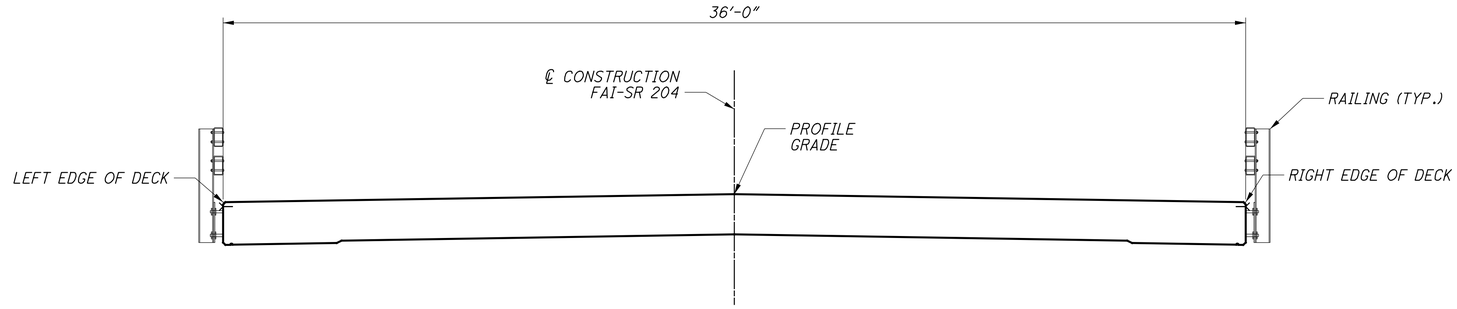
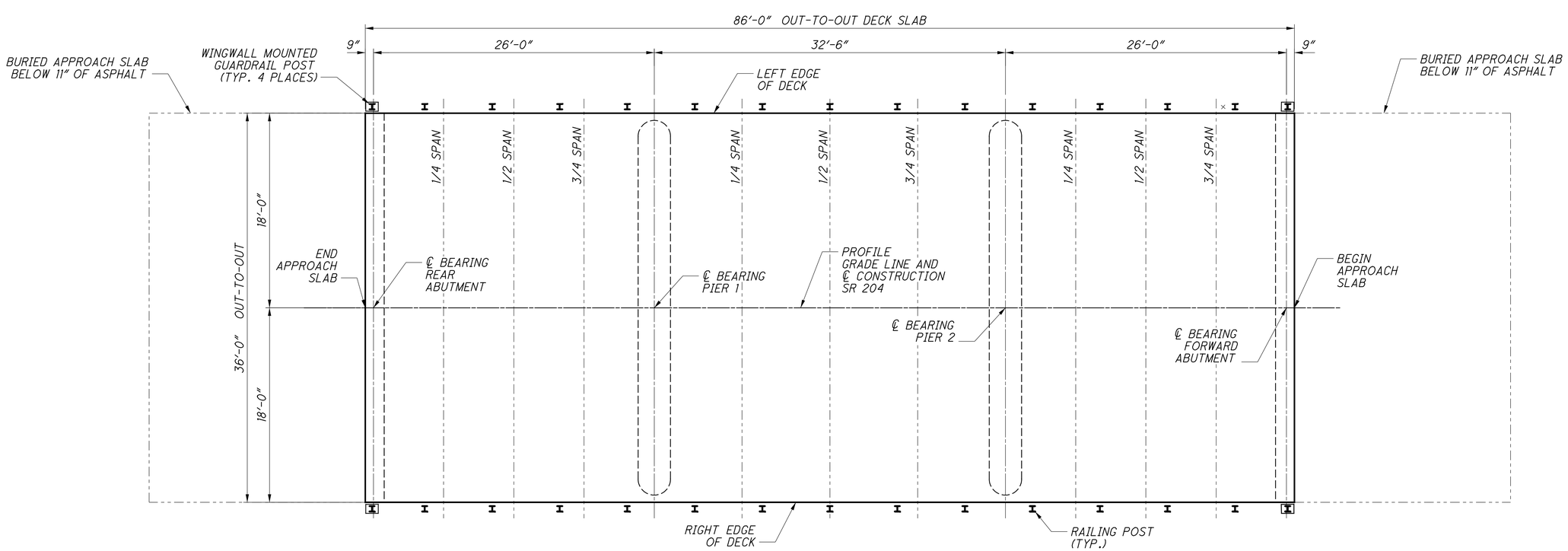


BRIDGE CROSS SECTION

FINAL DECK ELEVATIONS															
LOCATION	END APPROACH SLAB	℄ BRG. REAR ABUTMENT	1/4 SPAN	1/2 SPAN	3/4 SPAN	℄ BEARING PIER 1	1/4 SPAN	1/2 SPAN	3/4 SPAN	℄ BEARING PIER 2	1/4 SPAN	1/2 SPAN	3/4 SPAN	℄ BRG. FORWARD ABUTMENT	BEGIN APPROACH SLAB
STATION	182+52.35	182+53.10	182+59.60	182+66.10	182+72.60	182+79.10	182+87.23	182+95.35	183+03.48	183+11.60	183+18.10	183+24.60	183+31.10	183+37.60	183+38.35
LEFT EDGE OF DECK	1005.14	1005.14	1005.13	1005.13	1005.13	1005.14	1005.16	1005.19	1005.22	1005.26	1005.30	1005.35	1005.40	1005.46	1005.46
PROFILE GRADE	1005.43	1005.43	1005.42	1005.42	1005.42	1005.43	1005.45	1005.48	1005.51	1005.55	1005.59	1005.64	1005.69	1005.74	1005.75
RIGHT EDGE OF DECK	1005.14	1005.14	1005.13	1005.13	1005.13	1005.14	1005.16	1005.19	1005.22	1005.26	1005.30	1005.35	1005.40	1005.46	1005.46

NOTE:
FINAL DECK ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.



FINISHED DECK ELEVATION PLAN

NOTES

1. SEE SHEET 8/11 FOR RAILING POST SPACING.

N

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FINAL DECK ELEVATIONS
BRIDGE NO. FAI-204-0346
SR 204 OVER SYCAMORE CREEK

FAI-204-3.46/4.32
PID No. 96015

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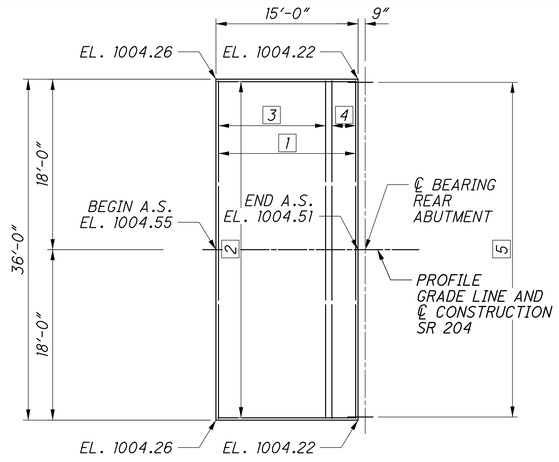
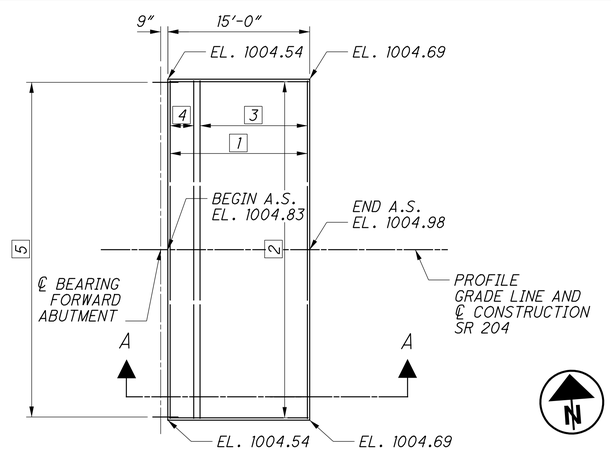


REAR APPROACH SLAB



FORWARD APPROACH SLAB

REINFORCING INFORMATION

1. 10-AS501 @ 1'-6" (-) (TOP)
2. 25-AS502 @ 1'-6" (TOP) AND 58-AS1001 @ 7½" (BOTTOM)
3. 16-AS501 @ 9" (BOTTOM)
4. 6-AS501 @ 6" (BOTTOM)
5. 25-S805 @ 1'-6" ▽

MINIMUM LAP LENGTHS

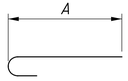
#5 BAR = 3'-6"
#10 BAR = 7'-10"

NOTES

1. SEE STD. DWG. AS-1-15 FOR ADDITIONAL NOTES AND DETAILS.
2. TRIM AND BEND BARS IN FIELD AS NECESSARY TO PROVIDE 3" CLEARANCE.
3. REINFORCING LIST SHOWN HERE IS PROVIDED FOR INFORMATION ONLY.

BURIED APPROACH SLAB PLANS

NOTE:
ELEVATIONS SHOWN ARE AT TOP OF BURIED APPROACH SLAB
(11" BELOW TOP OF ROADWAY SURFACE)

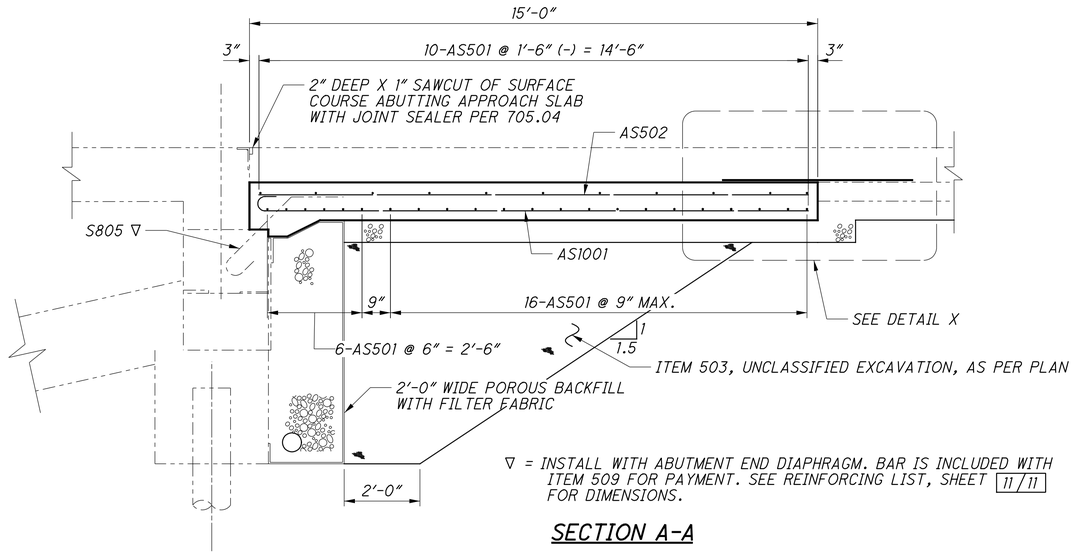


TYPE-16

BURIED APPROACH SLAB REINFORCING STEEL LIST

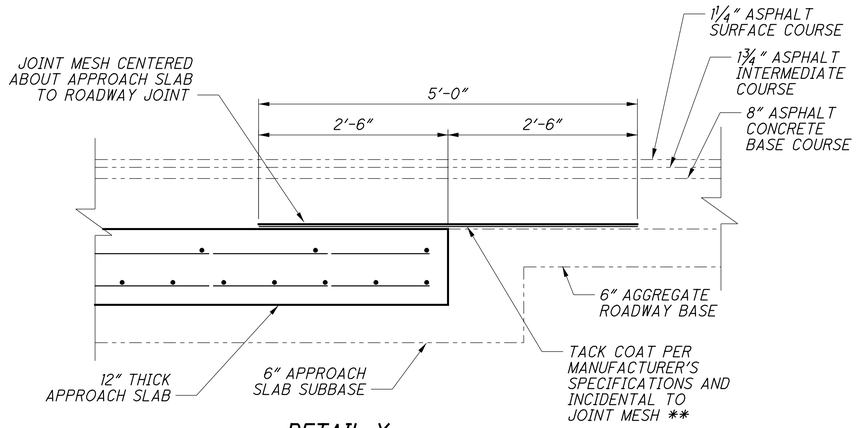
MARK	REAR APR. SLAB	FWD. APR. SLAB	TOTAL	LENGTH	WEIGHT	TYPE	DIMENSION A	DIMENSION B	DIMENSION C	INCR.
APPROACH SLAB										
AS501	32	32	64	35'-6"	*	ST				
AS502	25	25	50	14'-6"	*	ST				
AS1001	44	44	88	15'-11"	*	16	14'-6"			
TOTAL					*	* INCLUDED WITH ITEM 526 FOR PAYMENT				

NOTE: REINFORCING FOR APPROACH SLABS IS INCLUDED WITH ITEM 526 FOR PAYMENT



▽ = INSTALL WITH ABUTMENT END DIAPHRAGM. BAR IS INCLUDED WITH ITEM 509 FOR PAYMENT. SEE REINFORCING LIST, SHEET 11/11 FOR DIMENSIONS.

SECTION A-A



DETAIL X

**** = ITEM SPECIAL - REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS**

THIS ITEM SHALL BE USED TO REINFORCE TANSVERSE JOINTS. PLACE REINFORCING MESH ON PROPOSED SURFACE (AS SHOWN IN DETAIL X), 5'-0" WIDE, ALONG LENGTHS SHOWN IN THE PLANS, CENTERED OVER JOINT CREATED. THE ENTIRE APPROACH SLAB AT THESE LOCATION SHALL BE OVERLAYED WITH 8" ASPHALT CONCRETE BASE, 1¾" ASPHALT INTERMEDIATE COURSE, AND 1¼" ASPHALT SURFACE COURSE AFTER PLACEMENT OF THE REINFORCING MESH. THIS WORK SHALL BE PERFORMED ONLY AT THE LOCATIONS SHOWN IN DETAIL X. REINFORCING MATERIALS, LABOR, EQUIPMENTS, TOOLS, TRAFFIC CONTROL AND INCIDENTALS NEEDED TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICE BID FOR ITEM SPECIAL - REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS.

ITEM 690 SPECIAL - REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS

QUANTITY CARRIED TO GENERAL SUMMARY , SHEET 10/43
36' X 5' WIDE / 9 = 20 SQ. YD. (REAR A.S.)
36' X 5' WIDE / 9 = 20 SQ. YD. (FORWARD A.S.)
TOTAL = 40 SQ. YD.

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APPROACH SLAB DETAILS
BRIDGE NO. FAI-204-0346
SR 204 OVER SYCAMORE CREEK

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PID No. 96015

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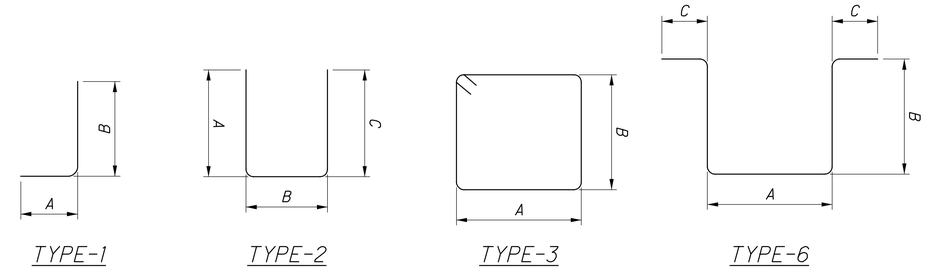
MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSION					
	REAR	FORWARD	TOTAL				A	B	C	D	E	INCR.
ABUTMENTS												
A401	14	14	28	9'-0"	168	3	1'-9"	2'-6"				
A501	40	40	80	11'-2 "	932	3	2'-8"	2'-7 "				
A502	30	30	60	11'-0"	688	3	1'-11"	3'-3"				
	2	2	4	12'-6"				4'-3"				
A503	SER OF	SER OF	SER OF	TO	246	3	1'-11"	TO				
	4	4	4	17'-0"				6'-6"				
A504	12	12	24	27'-7 "	690	STR						
A505	8	8	16	6'-1 "	102	STR						
A506	4	4	8	4'-8"	39	STR						
A507	4	4	8	3'-0"	25	STR						
A508	4	4	8	6'-8"	56	19	5'-4 "	1'-2"	0'-7 "			
A509	2	2	4	17'-4 "	72	3	1'-11"	6'-5"				
A801	39	39	78	3'-10"	798	17	2'-0"					
A802	16	16	32	29'-6"	2520	STR						
ABUTMENTS TOTAL					6336							

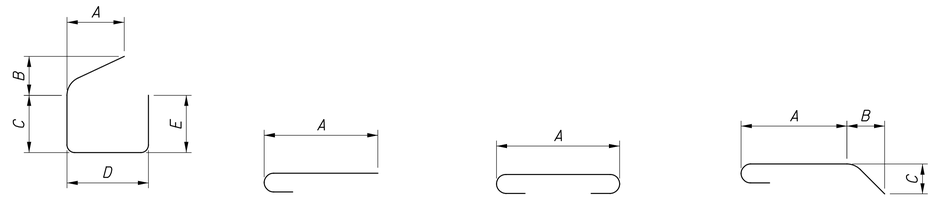
MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSION						
	PIER 1	PIER 2	TOTAL				A	B	C	D	E	R	INCR.
PIERS													
P401	12	12	24	9'-5"	151	3	2'-6"	2'-0"					
SP402*	6	6	12	82'-5"	661	27	1'-0"	1'-0"	25'-0"				
P501	25	25	50	9'-4 "	487	6	2'-8"	2'-9"	0'-10"				
P502	2	2	4	9'-0"	38	6	2'-4 "	2'-9"	0'-10"				
P503	2	2	4	4'-2"	17	2	0'-10"	2'-9"	0'-10"				
P504	4	4	8	10'-9"	90	24	2'-6"	3'-5"				1'-2 3/8"	
P505	2	2	4	31'-8"	132	STR							
P601*	48	48	96	25'-9"	3713	1	25'-0"	0'-9"					
P1101	4	4	8	31'-8"	1346	STR							
PIERS TOTAL					6635								

* INCLUDED WITH ITEM 507, 16" CAST-IN-PLACE PILES FURNISHED FOR PAYMENT

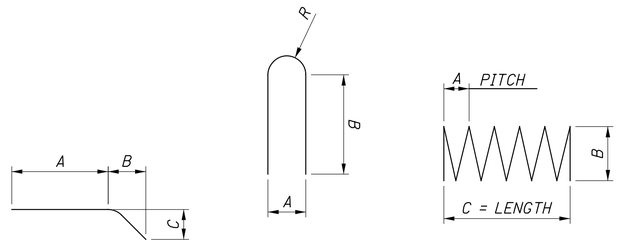
MARK	TOTAL	LENGTH	WEIGHT	TYPE	DIMENSION					INCR.
					A	B	C	D	E	
SUPERSTRUCTURE										
S401	86	35'-8 "	2049	STR						
S402	138	7'-7 "	699	12	0'-10"	1'-8"	3'-8"	1'-0"	1'-3"	
S501	152	16'-1 "	2550	STR						
S502	76	11'-8"	925	STR						
S503	148	6'-10"	1055	2	2'-10"	1'-5"	2'-10"			
S504	74	6'-8"	515	3	1'-11"	1'-1"				
S505	8	10'-7"	88	3	1'-11"	3'-1"				
S601	85	35'-8 "	4554	STR						
S801	136	28'-11"	10500	16	28'-0"					
S802	68	35'-6"	6445	STR						
S803	152	27'-10"	11296	STR						
S804	40	22'-9"	2430	STR						
S805	50	4'-10"	645	18	2'-7"	1'-0"	1'-0"			
SUPERSTRUCTURE TOTAL			43751							



TYPE-1 TYPE-2 TYPE-3 TYPE-6



TYPE-12 TYPE-16 TYPE-17 TYPE-18



TYPE-19 TYPE-24 TYPE-27

NOTES:

1. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
2. BAR SIZE: THE BAR SIZE IS INDICATED IN THE BAR MARK. THE MARK BEGINS WITH ONE OR TWO LETTERS THAT IDENTIFY THE BAR LOCATION. THE NEXT ONE OR TWO DIGITS INDICATE THE BAR SIZE, AND THE REMAINING TWO DIGITS ARE THE SEQUENCE NUMBER.

   EXAMPLE: A501
   A = ABUTMENT BAR
   5 = #5 BAR
   01 = BAR SEQUENCE NUMBER 1
3. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS NOTED OTHERWISE.
4. STR. IN THE BAR TYPE COLUMN INDICATES A STRAIGHT BAR.
5. INCR. INDICATES THE LENGTH INCREMENT FOR SERIES BARS.
6. SPIRAL REINFORCING BARS: THE "LENGTH" SHOWN IN THE STEEL LIST IS THE LENGTH OF THE SPIRAL ALONG THE SPIRAL ALONG THE AXIS OF THE SPIRAL. ONE AND ONE-HALF CLOSED-COIL TURNS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

DESIGN AGENCY
PRIME AE
8415 Pulsar Place, Suite 300
Columbus Ohio 43240

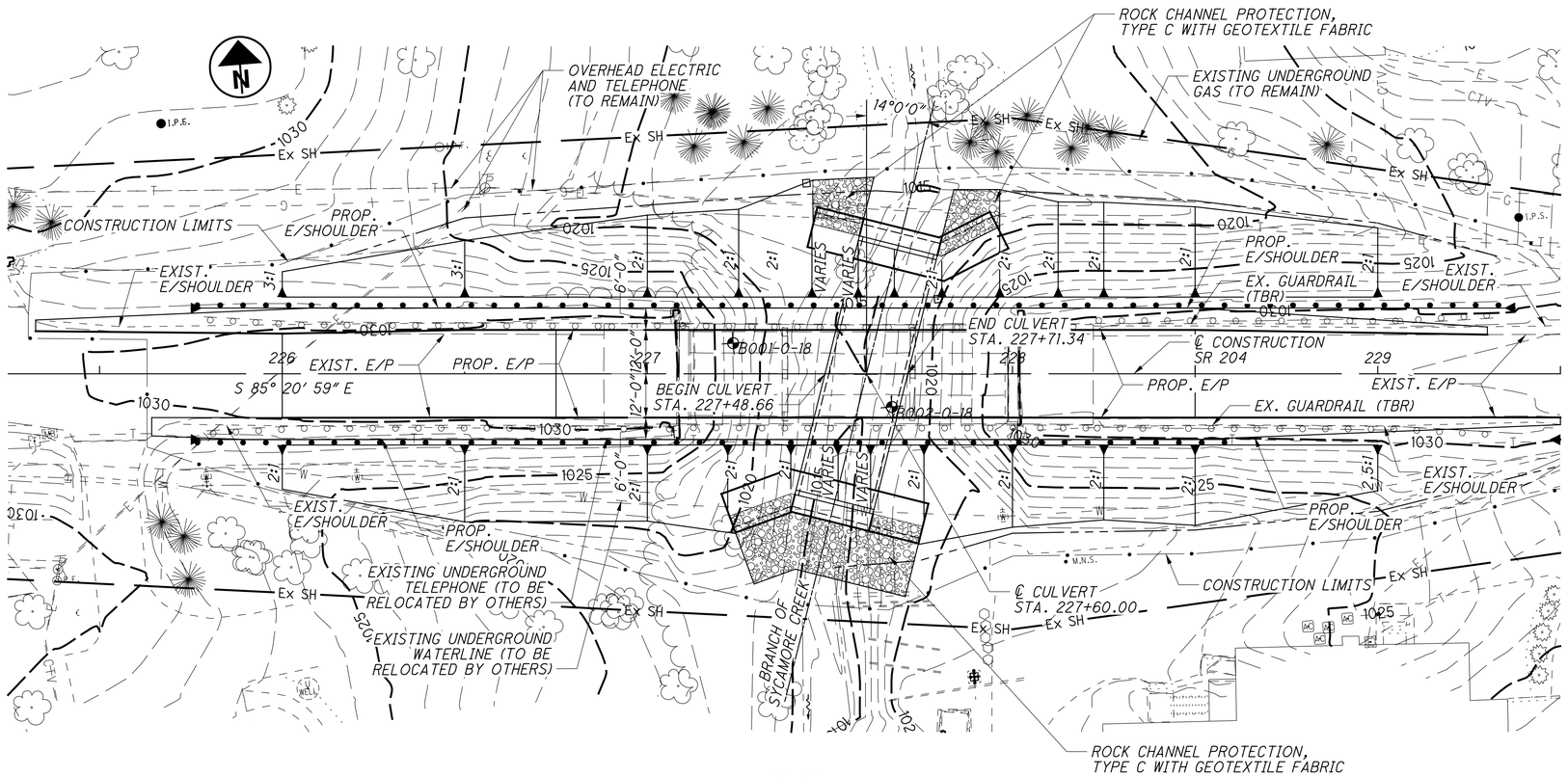
DESIGNED	DRAWN	REVIEWED	DATE
BTJ	BTJ	GTB	12/18/2018
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CCJ		2302617	

REINFORCING STEEL LIST
BRIDGE NO. FAI-204-0346
SR 204 OVER SYCAMORE CREEK

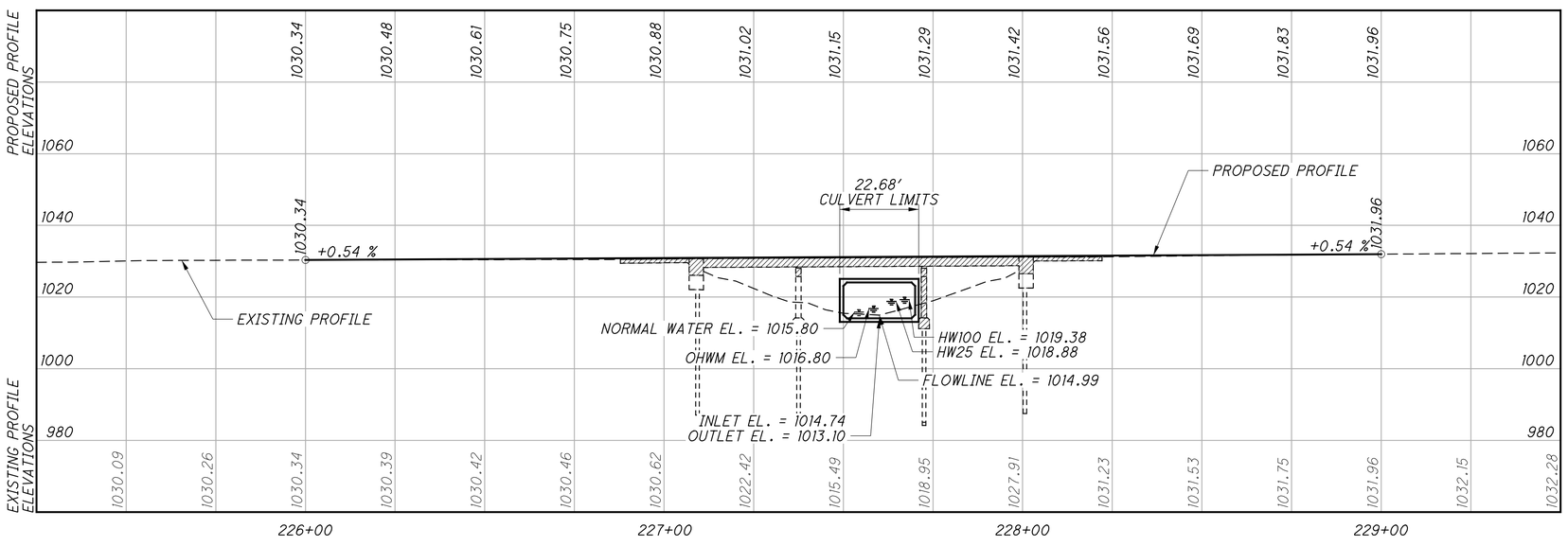
FAI-204-3.46/4.32
PID No. 96015

11 / 11

35
43



PLAN



PROFILE ALONG ℄ CONSTRUCTION SR 204

BENCHMARK DATA

BM #1 STA. 182+39.41', ELEV. 1005.30, OFFSET 14.93' LT
BM #2 STA. 227+07.66, ELEV. 1030.48' OFFSET 17.13' LT

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET (2/43)

NOTES

1. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
2. PROPOSED WORK: COMPLETELY REMOVE EXISTING SUPERSTRUCTURE, PARTIALLY REMOVE EXISTING SUBSTRUCTURE, AND CONSTRUCT NEW PRECAST BOX CULVERT.

DESIGN TRAFFIC:
2021 ADT = 5200 2021 ADTT = 208
2041 ADT = 6800 2041 ADTT = 272
DIRECTIONAL DISTRIBUTION = 0.61

LEGEND

- BORING LOCATION
- PROPOSED ROCK CHANNEL PROTECTION
- LIMITS OF REMOVAL

HYDRAULIC DATA

DRAINAGE AREA = 1.44 SQ. MILES
Q (25) = 336 CFS V (25) = 3.89 FT/S
Q (100) = 449 CFS V (100) = 3.98 FT/S
STRUCTURE CLEARS THE 25 YEAR DESIGN HW BY 4.28 FEET.
pH = 8.6
ABRASIVE SITE
SERVICE LIFE = 75 YEARS

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAMS WITH REINFORCED CONCRETE DECK ON REINFORCED CONCRETE SUBSTRUCTURES WITH TIMBER PILES UNDER THE PIERS AND ABUTMENTS.

SPANS: 28'-0"±, 35'-0", 28'-0"± C/C BEARINGS
ROADWAY: 27'-6"± F/F GUARDRAIL
LOADING: HS-20-44
SKEW: NONE
APPROACH SLABS: 20'-0" (±) LONG
ALIGNMENT: TANGENT
CROWN: 0.0156 (±) FT/FT
STRUCTURAL FILE NUMBER: 2302640
DATE BUILT: 1946
DISPOSITION: FULL REPLACEMENT

PROPOSED STRUCTURE

TYPE: 4-SIDED PRECAST CONCRETE BOX CULVERT WITH REINFORCED CONCRETE WINGWALLS ON CAST-IN-PLACE PILES.

SPANS: 20'-0" CLEAR SPAN RISE: 10'-0"
ROADWAY: 36'-0" F/F GUARDRAIL
LOADING: HL-93 WITH 60 PSF FWS
SKEW: 14° L.F.
APPROACH SLABS: N/A
ALIGNMENT: TANGENT
CROWN: 0.016 FT/FT
STRUCTURE FILE NUMBER: 2302641

COORDINATES: LATITUDE N 39° 55' 42.09"
LONGITUDE W 82° 42' 29.19"

DESIGN AGENCY
PRIME AE
845 Pulsar Place, Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
AMT	AMT	GTB	9/24/2018
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CCJ		2302641	

FAIRFIELD COUNTY
STA. 227+48.66
STA. 227+71.34

SITE PLAN
BRIDGE NO. FAI-204-0432
SR 204 OVER BRANCH OF SYCAMORE CREEK

FAI-204-3.46/4.32
PID No. 96015

1 / 8

36
43

GENERAL NOTES

REFERENCE SHALL BE MADE TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS

800	REVISED 10/19/18
832	REVISED 10/19/18
878	REVISED 01/18/19
902	REVISED 12/31/12
940	REVISED 04/17/15

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 8th EDITION, 2018 SUPPLEMENTAL SPECIFICATIONS 800, 832, 902, AND 940, AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

DESIGN LOADING

DESIGN LOADING: HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ FT

DESIGN DATA

THE FOLLOWING DESIGN DATA IS ASSUMED:

INTERNAL ANGLE OF FRICTION OF BACKFILL SOIL, ϕb, = 30°
TOTAL UNIT WEIGHT OF BACKFILL SOIL = 125 PCF
INTERNAL ANGLE OF FRICTION (DRAINED), FOUNDATION SOIL, ϕf = 19°
UNDRAINED SHEAR STRENGTH (COHESIVE), FOUNDATION SOIL, Su, = 385 PSF
UNIT WEIGHT OF CONCRETE = 150 PCF
SLOPE OF BACKFILL = 2:1 (TYPE B HEADWALLS)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4000 PSI
(FOOTING, WINGWALL, AND FORESLOPE WALL)

REINFORCING STEEL - ASTM A615, A616, A617
GRADE 60 MINIMUM YIELD STRENGTH
60,000 PSI (ALL REINFORCING SHALL BE EPOXY COATED)

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

PORTIONS OF THE EXISTING STRUCTURE SHALL BE REMOVED AS INDICATED IN THESE PLANS. THE SUPERSTRUCTURE SHALL BE REMOVED ENTIRELY. THE EXISTING ABUTMENTS AND PIER ONE SHALL BE REMOVED DOWN TO ONE FOOT BELOW THE BOTTOM GRADE OF ITEM 304 - 6" AGGREGATE BASE. PIER TWO SHALL BE REMOVED DOWN TO THE BOTTOM OF THE EXISTING FOOTING.

UTILITY LINES

THE UTILITIES SHALL BEAR ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITIES ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVIENCE TO EITHER WILL BE HELD TO A MINIMUM.

PRECAST BOX CULVERT WALL THICKNESS:

ALL WALL THICKNESSES SHOWN ON THE PLANS WERE OBTAINED FROM THE MANUFACTURERS AT THE TIME PLANS WERE PREPARED. IF THE WALL THICKNESS OF THE PROPOSED CULVERT IS DIFFERENT FROM WHAT IS SHOWN IN HE PLANS, A MARKED COPY OF THE PROJECT PLANS, INCLUDING ALL PLAN NOTES AND DETAILS SHOWING ALL ITEMS AFFECTED BY THE DIFFERENT CULVERT DIMENSIONS SHALL BE SUBMITTED FOR APPROVAL WITH THE SHOP DRAWINGS. ALL WORK REQUIRED TO ACCOMMODATE ANY REVISED DIMENSIONS SHALL BE AT NO EXTRA COST TO THE STATE.

FORESLOPE WALL ANCHOR DOWELS

ANCHOR PER CMS 510 WITH NONSHRINK, NONMETALLIC GROUT CONFORMING TO CMS 705.20 AND TO A DEPTH SPECIFIED ON SHEET 7/7. PAYMENT FOR DOWEL HOLES, GROUT AND INSTALLATION SHALL BE INCLUDED WITH ITEM 511.

THREADED INSERTS OR NON-PROTRUDING MECHANICAL CONNECTORS CAPABLE OF DEVELOPING AT LEAST 125 PERCENT OF THE SPECIFIED YIELD STRENGTH OF THE REINFORCEMENT SHOWN ARE AN ACCEPTABLE ALTERNATIVE TO RESIN
BONDING. MAINTAIN A MINIMUM COVER OF 3 INCHES AT THE BOTTOM OF THE CULVERT SLAB. MECHANICAL CONNECTORS SHALL HAVE AN "L-SHAPED" BAR INSIDE THE CULVERT WITH A MINIMUM HORIZONTAL LENGTH OF 12 INCHES. THE DEPARTMENT WILL CONSIDER PAYMENT FOR INSERTS OR MECHANICAL
CONNECTORS AS INCIDENTAL TO ITEM 611.

BACKFILL LIMITATIONS

WHEN THE DESIGN HEIGHT IS GREATER THAN 10 FT, THE BACKFILL BEHIND THE WINGWALLS SHALL NOT BE PLACED HIGHER THAN THE ELEVATION OF THE SOIL ABOVE THE TOE. WHEN THE SOIL ABOVE THE TOE IS AT ITS FINISHED ELEVATION, THE REMAINDER OF THE BACKFILL MAY BE PLACED.

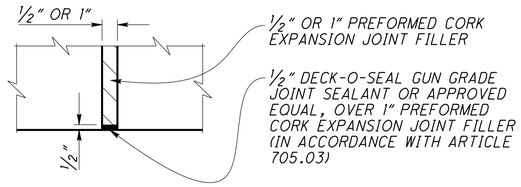
REMOVALS OVER WATER

REASONABLE CARE SHALL BE USED WHEN REMOVING MATERIAL OVER WATER. ANY MATERIAL DROPPED SHALL BE IMMEDIATELY REMOVED FROM THE WATER AND DISPOSED OF AWAY FROM THE SITE EXCEPT FOR MASONARY MATERIAL WHICH MAY BE USED FOR BANK PROTECTION AS APPROVED BY THE ENGINEER.

ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN

ALL 1" P.E.J.F., AS PER PLAN AND ½" P.E.J.F., AS PER PLAN CALLED FOR IN THE PLANS SHALL BE PREFORMED CORK JOINT FILLER (IN ACCORDANCE WITH ARTICLE 705.03). RECESS JOINT FILLER ½" FOR ALL JOINTS (SEE DETAIL). SEAL ALL JOINTS THAT ARE ABOVE GRADE WITH DECK-O-SEAL GUN GRADE-JOINT SEALANT OR AN APPROVED EQUAL. THE COLOR SHALL STONE GRAY. APPROVED MANUFACTURER'S APPLICATION METHODS SHALL BE FOLLOWED DURING SURFACE PREPARATION AND APPLICATION FOR MAXIMUM EFFECTIVENESS.

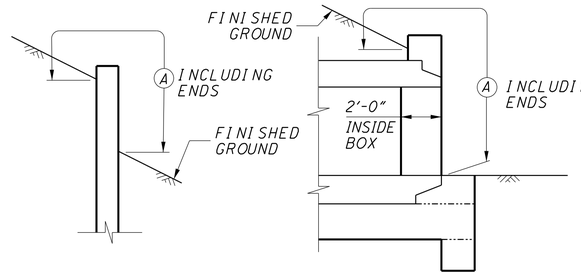
DECK-O-SEAL
P.O. BOX 397
HAMPHIRE, IL 60140
PHONE: 800-542-7665



PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 516 - ½" P.E.J.F., AS PER PLAN, SQ. FT. AND ITEM 516 - 1" P.E.J.F., AS PER PLAN, SQ. FT. AND SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK DESCRIBED.

SEALING OF FORESLOPE WALL AND WINGWALLS:

ALL EXPOSED FORESLOPE WALL AND WINGWALL CONCRETE SHALL BE SEALED WITH EPOXY-URETHANE SEALER. THE LIMITS SHALL BE AS SHOWN IN THE DIAGRAMS BELOW. PAYMENT FOR THE NON-EPOXY SEALER SHALL BE PER ITEM 512 - SEALING OF CONCRETE SURFACES.



WINGWALL

FORESLOPE WALL AND PRECAST BOX
(CULVERT OUTLET BEVEL SHOWN)

LIMITS OF ITEM 512-SEALING CONCRETE SURFACES

Ⓐ - SEAL ENTIRE CONCRETE SURFACE AREA

POROUS BACKFILL WITH GEOTEXTILE FABRIC

1'-6" THICK SHALL BE PLACED BEHIND THE WINGWALLS ONLY AND SHALL EXTEND TO 12" BELOW THE EMBANKMENT SURFACE. GEOTEXTILE FABRIC TYPE A SHALL BE PLACED BETWEEN THE POROUS BACKFILL AND REPLACED EXCAVATION ADJACENT TO THE STRUCTURE. IT SHALL TURN UNDER THE BOTTOM OF THE POROUS BACKFILL AND RETURN 6" ABOVE THE TOP ELEVATION OF THE WEEPHOLE.

WEEPHOLES SHALL BE PLACED 6" TO 12" ABOVE THE NORMAL WATER ELEVATION OR GROUND LINE AND SHALL HAVE A MAXIMUM SPACING OF 10'-0". A MINIMUM OF ONE WEEPHOLE SHALL BE PROVIDED PER WINGWALL.

ITEM 511 - CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING, AS PER PLAN (PRECAST WINGWALL INSTALLATION ONLY)

ITEM 511 - CONCRETE MISC.: CLASS QC1 CONCRETE, PRECAST HEADWALLS (INSTALLATION ONLY)

THE DISTRICT WILL FURNISH THE PRECAST WINGWALLS AND HEADWALLS. THE CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLATION AND ALL ITEMS RELATED TO INSTALLATION.

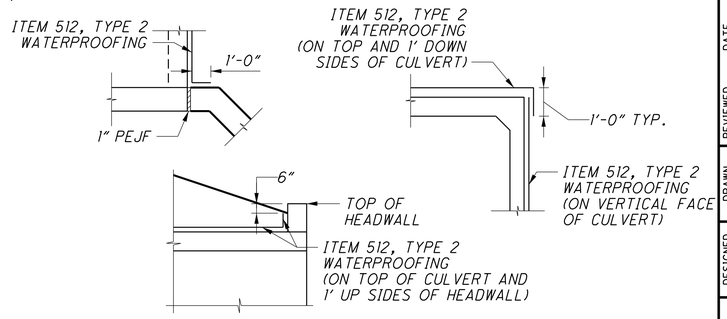
THE PRECAST WINGWALLS AND HEADWALLS SHALL BE FURNISHED/CONSTRUCTED AS PER CMS 602. THE PRECAST OPTION FURNISHED SHALL MEET THE CAST-IN-PLACE STRUCTURAL DESIGN LOADINGS, DESIGN HEIGHT, AND DESIGN LENGTH DIMENSIONS.

INFORMATION FOR ESTIMATION PURPOSES:

ITEM 511 CONCRETE (ESTIMATED VOLUME WINGWALLS) = 35 CU. YDS.
ITEM 511 CONCRETE (ESTIMATED VOLUME HEADWALLS) = 3 CU. YDS.
ITEM 509 RESTEEL (ESTIMATED POUNDS WINGWALLS) = 5,799 LBS.
ITEM 509 RESTEEL (ESTIMATED POUNDS HEADWALLS) = 412 LBS.

ITEM 512 - TYPE 2 WATERPROOFING

MEMBRANE WATERPROOFING (SHEET TYPE 2) SHALL EXTEND VERTICALLY DOWN ALL SIDES OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. MEMBRANE WATERPROOFING (SHEET TYPE 2) SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE PRECAST CULVERT SECTIONS AND EXTEND ONE FOOT VERTICALLY DOWN THE SIDES FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL.THE EXTERIOR JOINT GAP ON THE TOP AND SIDES BETWEEN THE PRECAST CULVERT SECTIONS SHALL BE FILLED WITH PORTLAND CEMENT MORTAR PRIOR TO INSTALLING THE MEMBRANE WATERPROOFING. JOINT WRAP AS SPECIFIED IN 611.08 AND CONCRETE SEALING AS SPECIFIED IN 611.09 ARE NOR REQUIRED UNDER THE LIMITS OF THE MEMBRANE WATERPROOFING. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE AND BID PER SQUARE YARD FOR ITEM 512, TYPE 2 WATERPROOFING.



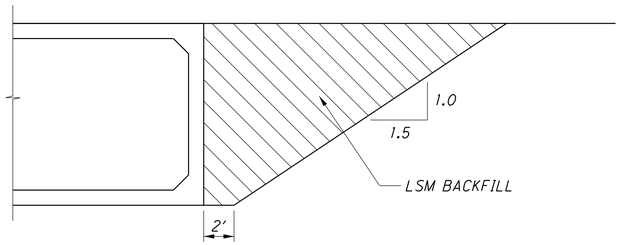
WATERPROOFING DETAILS

ITEM 611 - 20' x 10' CONDUIT, TYPE A, 706.05, AS PER PLAN (INSTALLATION ONLY)

THE BACKFILL MATERIAL BEHIND THE CULVERT SHALL BE LOW STRENGTH MORTAR BACKFILL (LSM). LSM, TYPE 1 SHALL CONFORM TO CM'S SECTION 613 AND BE PLACED WITHIN THE LIMITS OF THE PROPOSED ROADWAY INCLUDING GRADED SHOULDERS. THE AREA UNDER THE CULVERT SHALL BE EXCAVATED 2'-0". BEDDING MATERIAL SHALL BE PLACED IN 8" LIFTS AT 95% COMPACTION IN THIS AREA BEFORE THE PROPOSED CULVERT IS PLACED. PAYMENT TO PERFORM ALL THE WORK OUTLINED ABOVE SHALL BE INCLUDED IN ITEM 611 - 20' x 10' CONDUIT, TYPE A, 706.05, AS PER PLAN, AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK UNLESS SEPARATELY ITEMIZED IN THESE PLANS.

THE CONTRACTOR SHALL INCORPORATE THE USE OF LSM AND BEDDING MATERIAL INTO THE INSTALLATION PLAN.

THE DISTRICT WILL FURNISH THE 20' x 10' CONDUIT, TYPE A, 706.05. THE CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLATION AND ALL ITEMS LISTED ABOVE RELATED TO INSTALLATION.



CULVERT LSM BACKFILL DETAIL

STANDARD ABBREVIATIONS

BRG.	-	BEARING
C/C	-	CENTER TO CENTER
C.J.	-	CONSTRUCTION JOINT
CLR.	-	CLEAR
DIA.	-	DIAMETER
E.F.	-	EACH FACE
EQ.	-	EQUAL
EX.	-	EXISTING
EXP.	-	EXPANSION
F.F.	-	FAR FACE
MIN.	-	MINIMUM
N.F.	-	NEAR FACE
PEJF	-	PREFORMED EXPANSION JOINT FILLER
SPA.	-	SPACING/SPACES
TYP.	-	TYPICAL

DESIGN AGENCY
PRIME AE
8415 Pulsar Place, Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
AMT	AMT	GTB	12/18/2018
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CCJ		2302641	

GENERAL NOTES
BRIDGE NO. FAI-204-0432
SR 204 OVER BRANCH OF SYCAMORE CREEK

FAI-204-3.46/4.32
PID No. 96015

CALC:	CCJ	DATE:	12/12/2018
CHECKED:	EDW	DATE:	12/13/2018

ESTIMATED QUANTITIES (01/S>2/BR)

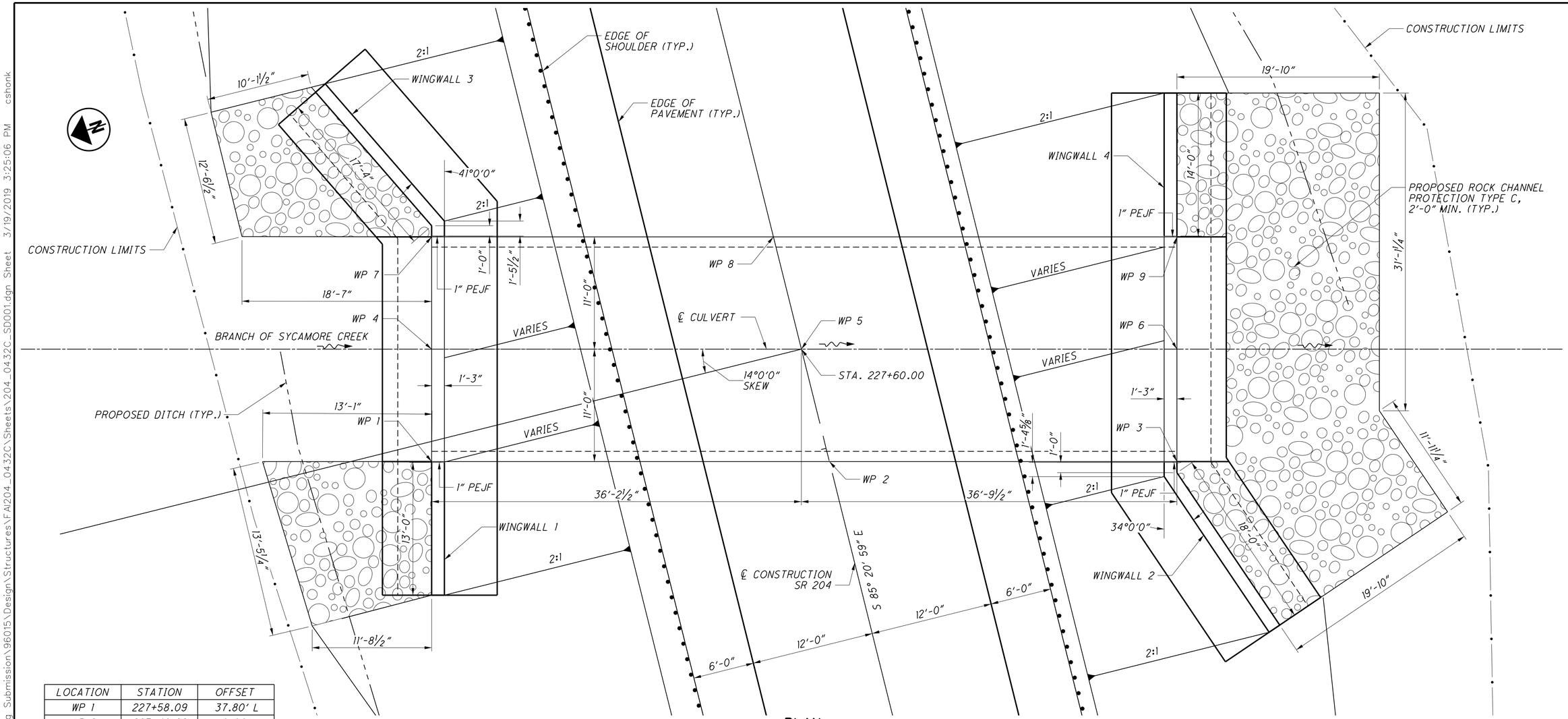
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SEE SHEET
202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LS	2
202	22900	123	SY	APPROACH SLAB REMOVED				123	
503	11100	LS		COFFERDAMS AND EXCAVATION BRACING				LS	
503	21100	354	CY	UNCLASSIFIED EXCAVATION				354	
509	10000	7,465	LB	EPOXY COATED REINFORCING STEEL				7,465	
511	46001	84	SY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING, AS PER PLAN (PRECAST WINGWALL INSTALLATION ONLY)				84	2
511	46510	112	CY	CLASS QC1 CONCRETE, FOOTING				112	
511	71300	8	SY	CONCRETE, MISC.: CLASS QC1 CONCRETE, PRECAST HEADWALLS (INSTALLATION ONLY)				8	2
512	10050	112	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)				112	
512	33000	387	SY	TYPE 2 WATERPROOFING				387	
516	13601	68	SF	1" PREFORMED EXPANSION JOINT FILLER, AS PER PLAN				68	2
518	21200	36	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC				36	
611	96461	72	FT	20' X 10' CONDUIT, TYPE A, 706.05, AS PER PLAN (INSTALLATION ONLY)				72	2

DESIGN AGENCY
PRIME AE
8415 Pulsar Place, Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
AMT	AMT	GTB	12/18/2018
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CCJ		2302641	

ESTIMATED QUANTITIES
BRIDGE NO. FAI-204-0432
SR 204 OVER BRANCH OF SYCAMORE CREEK

FAI-204-3.46/4.32
PID No. 96015



PLAN

LOCATION	STATION	OFFSET
WP 1	227+58.09	37.80' L
WP 2	227+48.66	0.00'
WP 3	227+40.43	33.03' R
WP 4	227+68.76	35.14' L
WP 5	227+60.00	0.00'
WP 6	227+51.10	35.69' R
WP 7	227+79.43	32.48' L
WP 8	227+71.34	0.00'
WP 9	227+61.77	38.36' R

LEGEND:

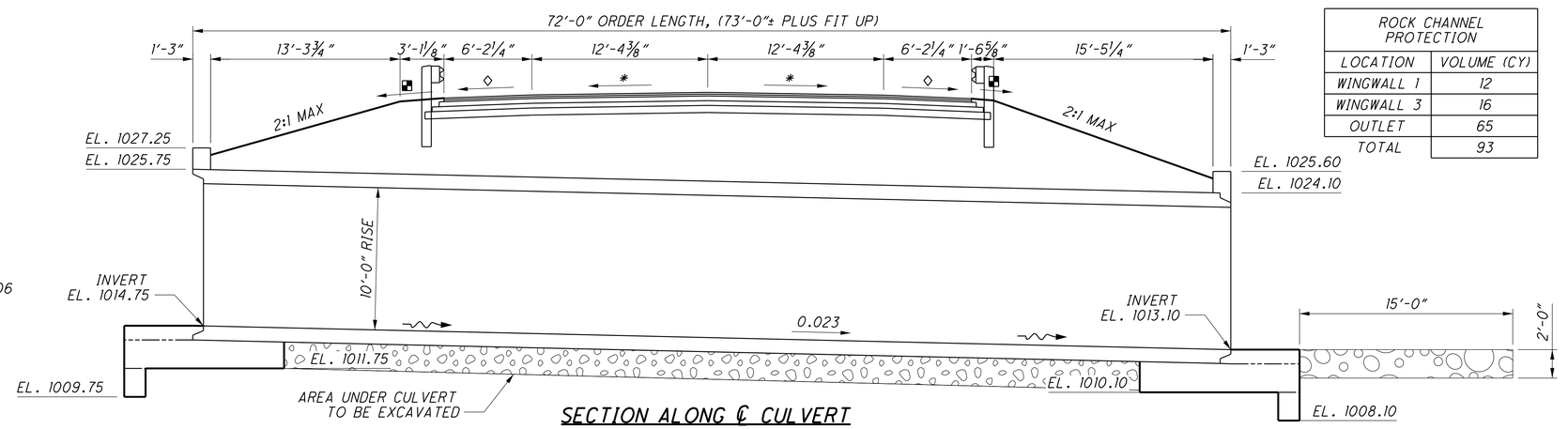
PROPOSED ROCK CHANNEL PROTECTION TYPE C, 2'-0" MIN. (TYP.)

PROPOSED BEDDING MATERIAL, 2'-0" PLACED IN 8" LIFTS AT 95% COMPACTION AS PER CMS 611.06

* 0.016 CROSS SLOPE NORMAL TO ℄ CONSTRUCTION

◇ 0.04 CROSS SLOPE NORMAL TO ℄ CONSTRUCTION

▪ 0.08 CROSS SLOPE NORMAL TO ℄ CONSTRUCTION



SECTION ALONG ℄ CULVERT

ROCK CHANNEL PROTECTION	
LOCATION	VOLUME (CY)
WINGWALL 1	12
WINGWALL 3	16
OUTLET	65
TOTAL	93

DESIGN AGENCY
PRIME AE
8415 Pulsar Place, Suite 300
Columbus Ohio 43240

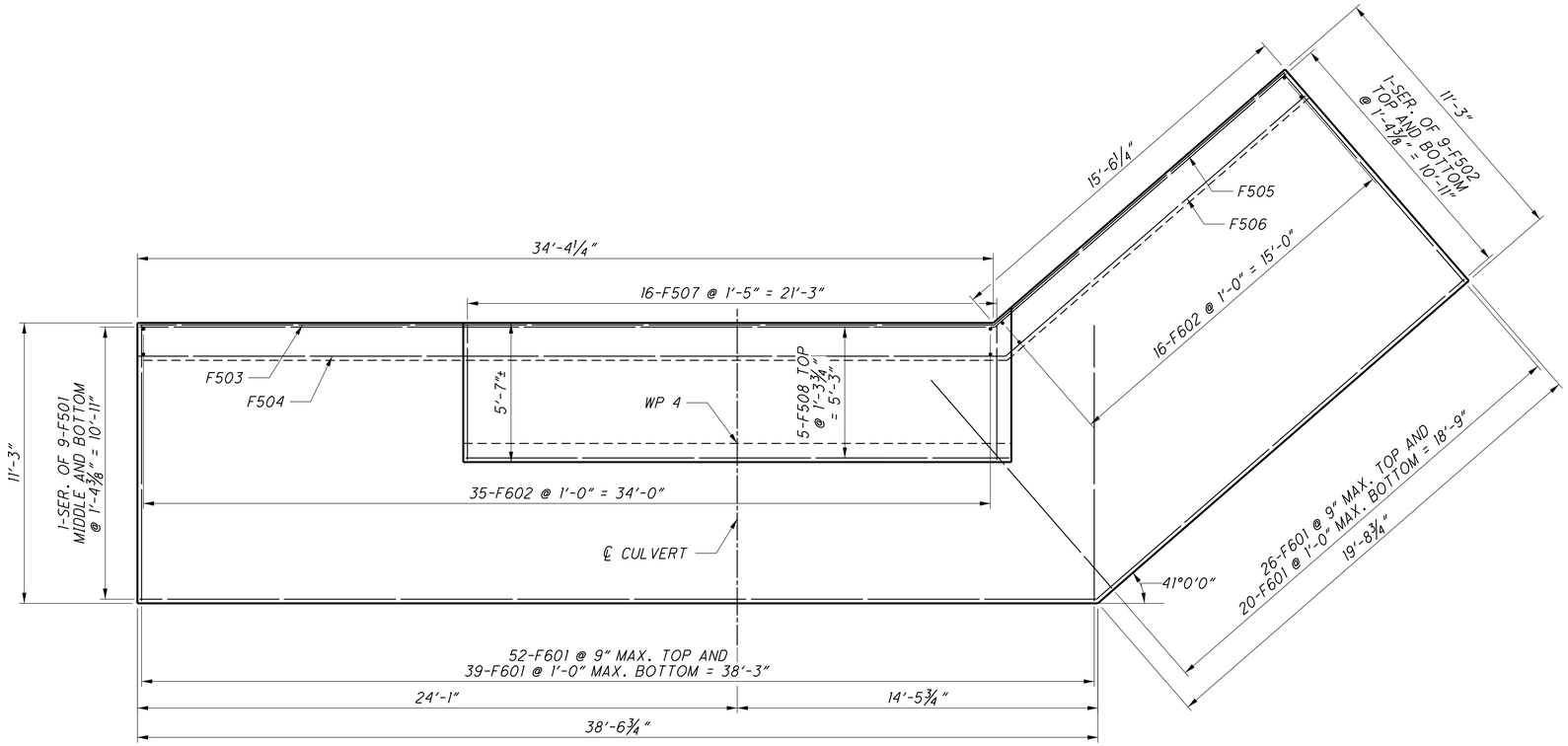
DESIGNED	DRAWN	REVIEWED	DATE
AMT	AMT	GTB	12/18/2018
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CCJ		2302641	

CULVERT DETAILS
BRIDGE NO. FAI-204-0432
SR 204 OVER BRANCH OF SYCAMORE CREEK

FAI-204-3.46/4.32
PID No. 96015

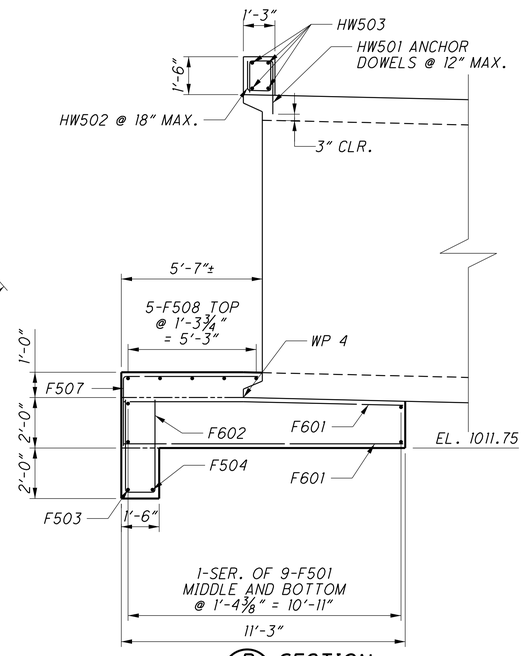
4 / 8

39 / 43

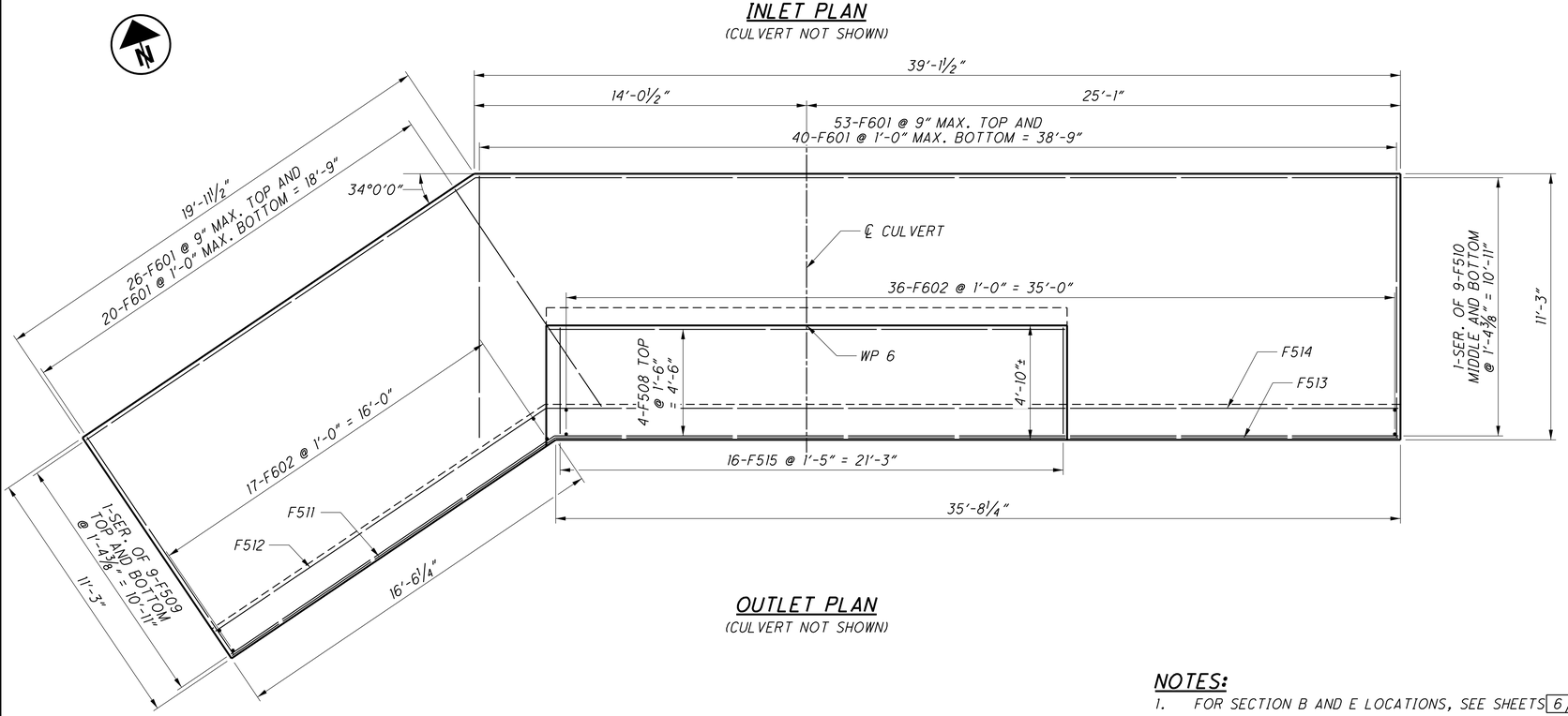


INLET PLAN
(CULVERT NOT SHOWN)

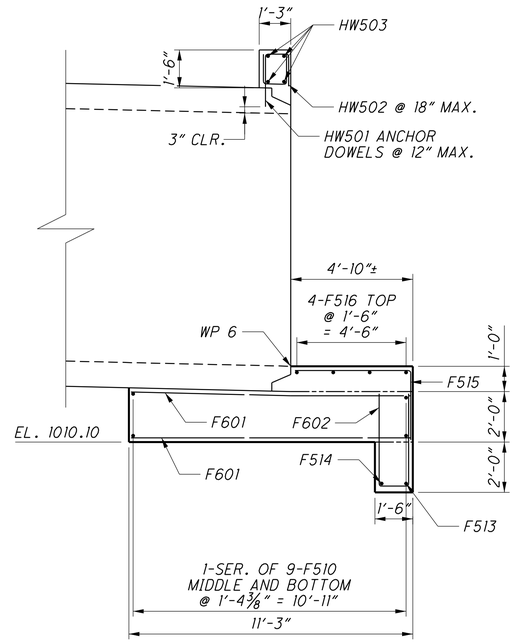
****HEADWALL RESTEEL SHOWN FOR ESTIMATION PURPOSES ONLY****



B/6 SECTION



OUTLET PLAN
(CULVERT NOT SHOWN)



E/7 SECTION

NOTES:

1. FOR SECTION B AND E LOCATIONS, SEE SHEETS 6/8 AND 7/8.
2. FOR WORK POINT (WP) LOCATIONS AND INFORMATION, SEE SHEET 4/8.

DESIGN AGENCY
PRIME AE
8415 Pulsar Place, Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
AMT	AMT	GTB	12/14/2018
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CCJ		23026 41	

FOUNDATION AND HEADWALL DETAILS

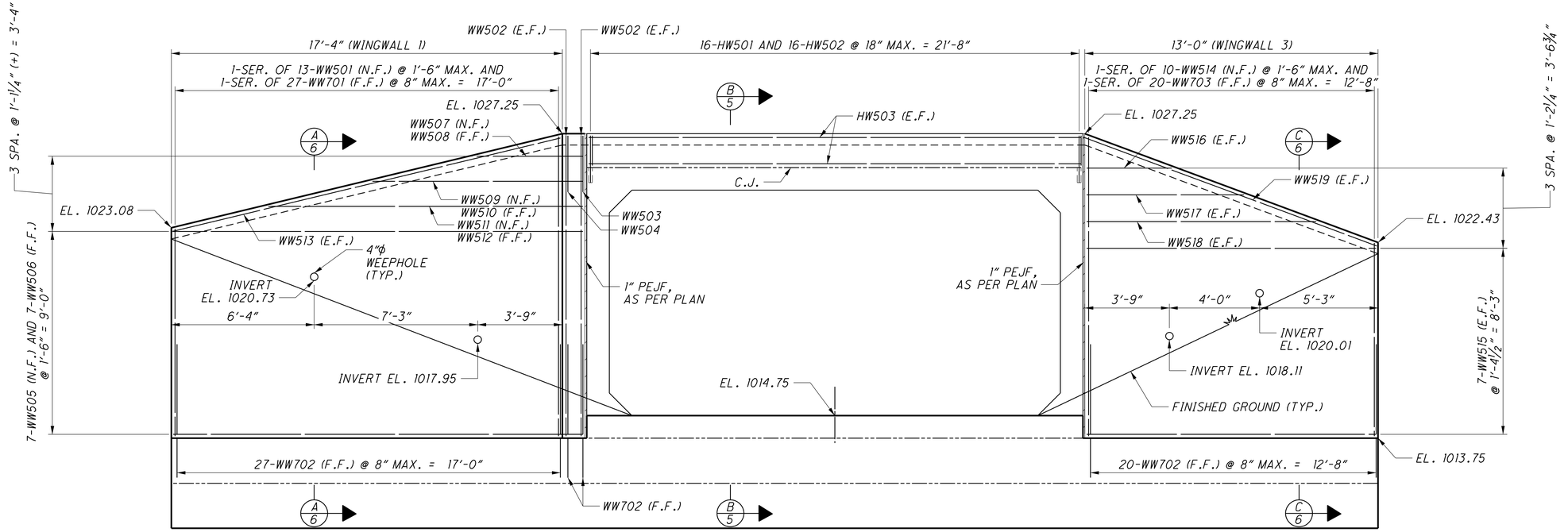
BRIDGE NO. FAI-204-0432
SR 204 OVER BRANCH OF SYCAMORE CREEK

FAI-204-3.46/4.32
PID No. 96015

5/8

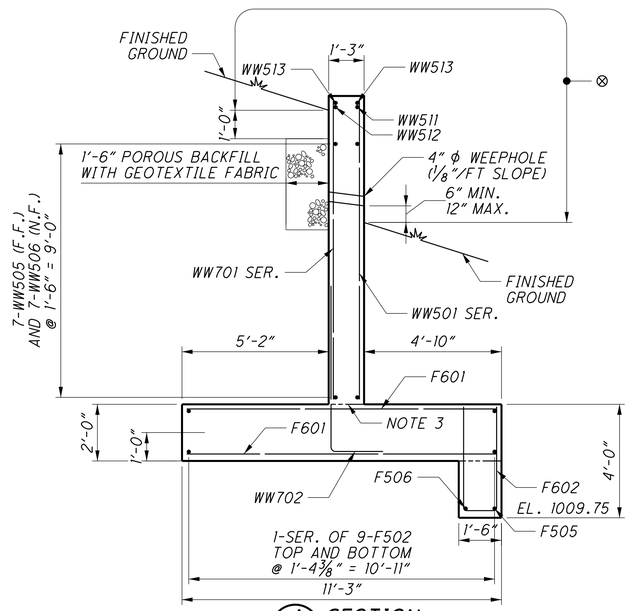
40/43

****WINGWALL AND HEADWALL RESTEEL SHOWN FOR ESTIMATION PURPOSES ONLY****

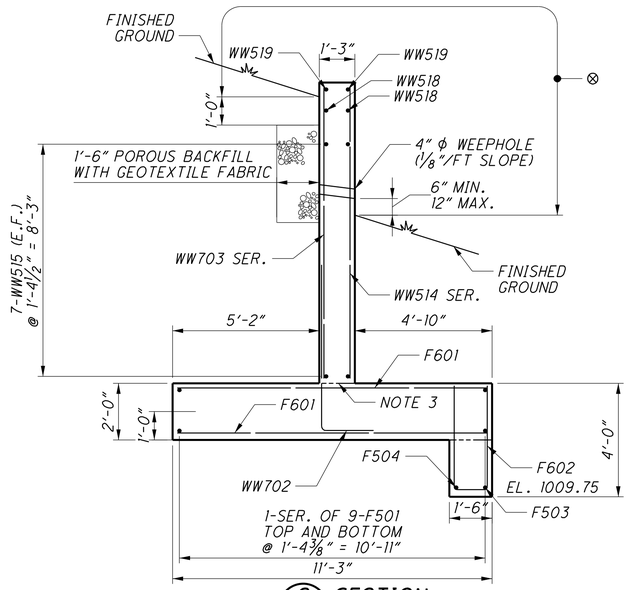


INLET ELEVATION

ALONG FACE OF WALL
(FOUNDATION REINFORCING NOT SHOWN)



A 6 SECTION



C 6 SECTION

LEGEND:

⊗ SEALING OF CONCRETE SURFACES (NON-EPOXY) (TYP.)

NOTES:

1. FOR CULVERT PLAN AND SECTION, SEE SHEET 4 / 8.
2. FOR FOUNDATION REINFORCING, SEE SHEET 5 / 8.
3. THE INTERFACE BETWEEN THE TOP OF FOOTING AND BASE OF WINGWALL STEM IS INTENTIONALLY ROUGHENED TO A FULL AMPLITUDE OF APPROXIMATELY ¼" BY MEANS OF A SERRATED TROWEL.

MINIMUM LAP LENGTHS:

#5 BARS = 2'-6"
#7 BARS = 4'-2"

DESIGN AGENCY
PRIME AE
845 Puiseaux Place, Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
AMT	AMT	GTB	12/3/2018
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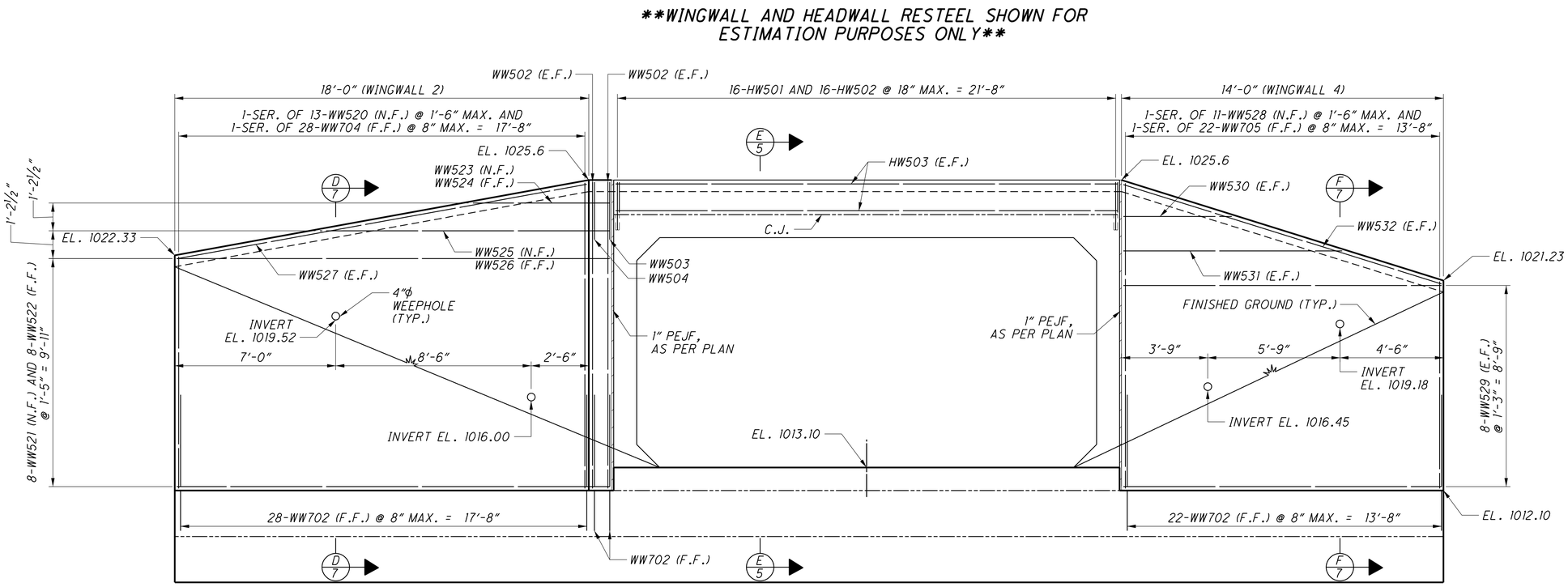
CCJ		2302641	

INLET WINGWALL DETAILS
BRIDGE NO. FAI-204-0432
SR 204 OVER BRANCH OF SYCAMORE CREEK

FAI-204-3.46 / 4.32
PID No. 96015

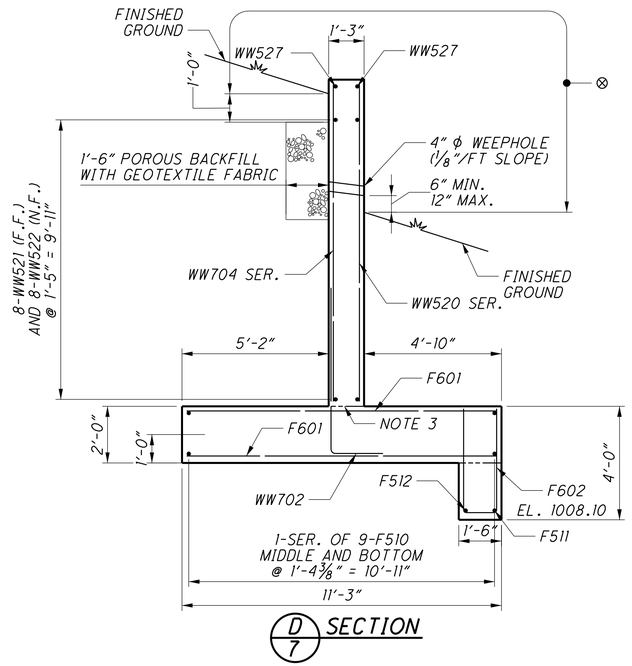
6 / 8

41 / 43

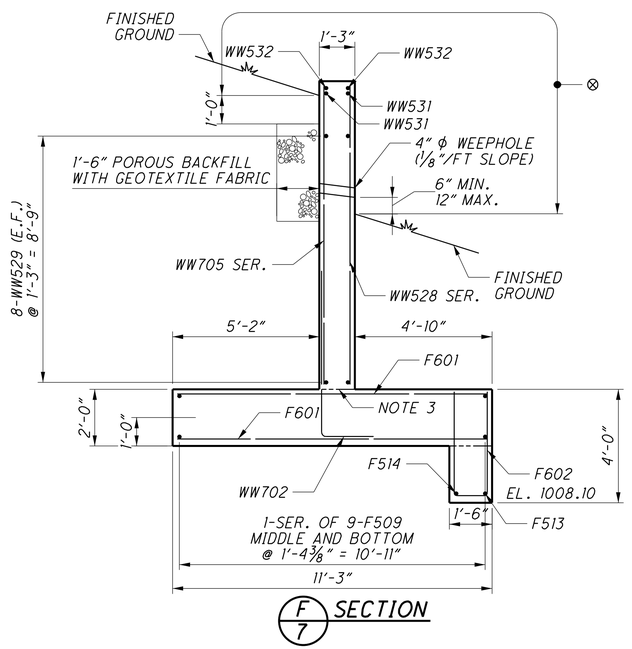


OUTLET ELEVATION

ALONG FACE OF WALL
(FOUNDATION REINFORCING AND PILES NOT SHOWN)



D/7 SECTION



F/7 SECTION

LEGEND:

⊗ SEALING OF CONCRETE SURFACES (NON-EPOXY) (TYP.)

NOTES:

1. FOR CULVERT PLAN AND SECTION, SEE SHEET 4/8.
2. FOR FOUNDATION REINFORCING, SEE SHEET 5/8.
3. THE INTERFACE BETWEEN THE TOP OF FOOTING AND BASE OF WINGWALL STEM IS INTENTIONALLY ROUGHENED TO A FULL AMPLITUDE OF APPROXIMATELY ¼" BY MEANS OF A SERRATED TROWEL.

MINIMUM LAP LENGTHS:

#5 BARS = 2'-6"
#7 BARS = 4'-2"

DESIGN AGENCY
PRIME AE
8415 Pulsar Place, Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
AMT	AMT	GTB	12/3/2018
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CCJ		2302641	

OUTLET WINGWALL DETAILS
BRIDGE NO. FAI-204-0432
SR 204 OVER BRANCH OF SYCAMORE CREEK

FAI-204-3.46/4.32
PID No. 96015

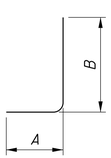
7/8

42/43

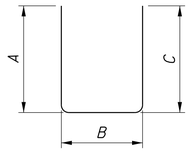
MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSION					
	INLET	OUTLET	TOTAL				A	B	C	D	E	INCR.
WINGWALLS (FOR ESTIMATION PURPORSES ONLY)												
	1		1	9'-0"								
WW501	SER.		SER.	TO	150	STR						0'-4 1/4"
	13		13	13'-2"								
WW502	4	4	8	13'-2"	110	STR						
WW503	1	1	2	5'-6"	11	2	2'-5"	0'-11"	2'-5"			
WW504	1	1	2	5'-7"	12	2	2'-5"	1'-0"	2'-5"			
WW505	7		7	18'-1"	132	19	17'-3"	0'-8"	0'-7"			
WW506	7		7	18'-5"	135	19	17'-7"	0'-8"	0'-7"			
WW507	1		1	4'-4"	5	19	3'-6"	0'-8"	0'-7"			
WW508	1		1	4'-8"	5	19	3'-10"	0'-8"	0'-7"			
WW509	1		1	9'-0"	9	19	8'-2"	0'-8"	0'-7"			
WW510	1		1	9'-4"	10	19	8'-6"	0'-8"	0'-7"			
WW511	1		1	13'-7"	14	19	12'-9"	0'-8"	0'-7"			
WW512	1		1	13'-11"	15	19	13'-1"	0'-8"	0'-7"			
WW513	2		2	17'-6"	37	STR						
	1		1	8'-4"								
WW514	SER.		SER.	TO	112	STR						0'-6 1/2"
	10		10	13'-2"								
WW515	14		14	12'-8"	185	STR						
WW516	2		2	3'-5"	7	STR						
WW517	2		2	6'-7"	14	STR						
WW518	2		2	9'-10"	21	STR						
WW519	2		2	13'-6"	28	STR						
		1	1	9'-11"								
WW520		SER.	SER.	TO	156	STR						0'-3 1/4"
		13	13	13'-2"								
WW521		8	8	18'-8"	156	19	17'-10"	0'-9"	0'-6"			
WW522		8	8	19'-0"	159	19	18'-2"	0'-9"	0'-6"			
WW523		1	1	5'-6"	6	19	4'-8"	0'-9"	0'-6"			
WW524		1	1	5'-9"	6	19	4'-11"	0'-9"	0'-6"			
WW525		1	1	12'-1"	13	19	11'-3"	0'-9"	0'-6"			
WW526		1	1	12'-4"	13	19	11'-6"	0'-9"	0'-6"			
WW527		2	2	17'-11"	37	STR						
		1	1	8'-9"								
WW528		SER.	SER.	TO	126	STR						0'-5 1/4"
		11	11	13'-2"								
WW529		16	16	14'-8"	245	STR						
WW530		2	2	4'-8"	10	STR						
WW531		2	2	9'-10"	21	STR						
WW532		2	2	15'-3"	32	STR						
	1		1	9'-0"								
WW701	SER.		SER.	TO	612	STR						0'-2 "
	27		27	13'-2"								
WW702	47	50	97	7'-7"	1504	1	1'-10"	5'-11"				
	1		1	8'-4"								
WW703	SER.		SER.	TO	439	STR						0'-3"
	20		20	13'-2"								
		1	1	9'-11"								
WW704		SER.	SER.	TO	660	STR						0'-1 1/2"
		28	28	13'-2"								
		1	1	8'-9"								
WW705		SER.	SER.	TO	592	STR						0'-2 1/2"
		22	22	13'-2"								
(FOR ESTIMATION PURPORSES ONLY) WINGWALLS TOTAL				5799								

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSION					
	INLET	OUTLET	TOTAL				A	B	C	D	E	INCR.
FOUNDATIONS												
	1		1	34'-3"								
F501	SER.		SER.	TO	341	STR						0'-6 1/4"
	9		9	38'-4"								
	1		1	15'-5"								
F502	SER.		SER.	TO	164	STR						0'-6"
	9		9	19'-6"								
F503	1		1	34'-3"	36	STR						
F504	1		1	34'-8"	36	STR						
F505	1		1	15'-5"	16	STR						
F506	1		1	15'-10"	17	STR						
F507	16		16	7'-10"	130	1	5'-3"	2'-8"				
F508	5	4	9	21'-8"	203	STR						
		1	1	16'-5"								
F509		SER.	SER.	TO	170	STR						0'-5 "
		9	9	19'-9"								
		1	1	35'-7"								
F510		SER.	SER.	TO	350	STR						0'-5 "
		9	9	38'-11"								
F511		1	1	16'-5"	17	STR						
F512		1	1	16'-9"	17	STR						
F513		1	1	35'-7"	37	STR						
F514		1	1	35'-11"	37	STR						
F515		16	16	7'-1 "	118	1	4'-6"	2'-8"				
F601	137	139	276	10'-11"	4526	STR						
F602	51	53	104	8'-0"	1250	2	3'-7"	1'-2"	3'-7"			
FOUNDATIONS TOTAL					7465							

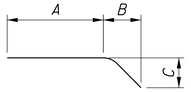
MARK	INLET	OUTLET	TOTAL	LENGTH	WEIGHT	TYPE	DIMENSION					
							A	B	C	D	E	INCR.
HEADWALLS (FOR ESTIMATION PURPORSES ONLY)												
HW501	16	16	32	3'-11"	131	2	1'-2"	0'-11"	2'-1"			
HW502	16	16	32	3'-0"	100	2	1'-2"	0'-11"	1'-2"			
HW503	4	4	8	21'-8"	181	STR						
(FOR ESTIMATION PURPORSES ONLY) HEADWALLS TOTAL					412							



TYPE-1



TYPE-2



TYPE-19

NOTES:

1. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
2. BAR SIZE: THE BAR SIZE IS INDICATED IN THE BAR MARK. THE MARK BEGINS WITH ONE OR TWO LETTERS THAT IDENTIFY THE BAR LOCATION. THE NEXT ONE OR TWO DIGITS INDICATE THE BAR SIZE, AND THE REMAINING TWO DIGITS ARE THE SEQUENCE NUMBER.

   EXAMPLE: F501
   F = FOUNDATION BAR
   5 = #5 BAR
   01 = BAR SEQUENCE NUMBER 1
3. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS NOTED OTHERWISE.
4. STR IN THE BAR TYPE COLUMN INDICATES A STRAIGHT BAR.
5. INCR. INDICATES THE LENGTH INCREMENT FOR SERIES BARS.

DESIGN AGENCY
PRIME AE
8415 Pulsar Place, Suite 300
Columbus Ohio 43240

DESIGNED	DRAWN	REVIEWED	DATE
AMT	AMT	GTB	12/14/2018
CHECKED	REVISED	STRUCTURE FILE NUMBER	
CCJ		2302641	

REINFORCING STEEL LIST

BRIDGE NO. FAI-204-0432
SR 204 OVER BRANCH OF SYCAMORE CREEK

FAI-204-3.46 / 4.32
PID No. 96015

8 / 8

43
43

PROJECT DESCRIPTION

REPLACEMENT OF BRIDGES FAI-204-0346 (SFN 2302616) OVER SYCAMORE CREEK AND FAI-204-0432 (SFN 2302640) OVER A BRANCH OF SYCAMORE CREEK WITH MINOR ROADWAY APPROACH WORK INCLUDING REPLACEMENT OF EXISTING GUARDRAIL AND FULL DEPTH SHOULDER WIDENING TO MATCH THE STRUCTURES.

HISTORIC RECORDS

NO HISTORICAL GEOTECHNICAL RECORDS WERE FOUND FOR THIS PROJECT.

GEOLOGY

THIS AREA IS LOCATED WITHIN THE GALION GLACIATED LOW PLATEAU PHYSIOGRAPHIC REGION WHICH IS CHARACTERIZED BY GENTLY ROLLING TERRAIN ASSOCIATED WITH THE TRANSITION BETWEEN THE GLACIAL TILL PLAINS AND THE GLACIATED ALLEGHENY PLATEAU. TYPICALLY, VERY THICK GLACIALLY DEPOSITED SOILS CONSISTING OF COHESIVE LAYER WITH NON-COHESIVE LAYERS ARE UNDERLAIN BY DEVONIAN AGED OHIO SHALE AT FAI-204-0346 AND MISSISSIPPIAN AGED SANDSTONE AND SHALE AT FAI-204-0432.

RECONNAISSANCE

A SITE RECONNAISSANCE WAS PERFORMED BY PERSONNEL FROM NEAS AND ODOT OFFICE OF GEOTECHNICAL ENGINEERING ON JUNE 14, 2018. THE FAI-204-0346 LOCATION WAS NOTED AS BEING LOCATED WITHIN A RURAL RESIDENTIAL AREA. THE EXISTING STRUCTURE WAS NOTED TO BE IN FAIR CONDITION WITH AREA OF SPALLING CONCRETE AND EXPOSED REINFORCEMENT. EROSION WAS NOTED AT THE FORWARD PIER WITH THE STREAM STRIKING THE PIER. AT THE REAR PIER SEDIMENT BUILDUP WAS NOTED WITHIN THE CHANNEL. PAVEMENT WAS NOTED TO BE IN GOOD CONDITION WITH ONE AREA OF PAVEMENT PATCHING AT THE NORTHEAST CORNER OF THE STRUCTURE. NO SIGNS OF INSTABILITY WAS NOTED IN THE APPROACH EMBANKMENT. THE FAI-204-0432 LOCATION WAS NOTED AS BEING LOCATED WITHIN A RURAL RESIDENTIAL AREA. THE EXISTING STRUCTURE WAS NOTED TO BE IN FAIR CONDITION WITH AREA OF SPALLING CONCRETE AND EXPOSED REINFORCEMENT. MINOR EROSION WAS NOTED ALONG THE WESTERN BRIDGE EMBANKMENT. PAVEMENT WAS NOTED TO BE IN GOOD CONDITION WITH ONE AREA OF PAVEMENT DISTRESS AT THE SOUTHWEST AREA OF THE STRUCTURE. NO SIGNS OF INSTABILITY WAS NOTED IN THE APPROACH EMBANKMENT.

SUBSURFACE EXPLORATION

AS PART OF THE SUBSURFACE EXPLORATIONS FOUR (4) BORINGS, B-001-0-17 THROUGH B-004-0-17 WERE COMPLETED AT FAI-204-0346 BETWEEN JULY 30 AND AUGUST 8, 2018 AND TWO (2) BORINGS, B-001-0-18 AND B-002-0-18 WERE COMPLETED AT FAI-204-0432 ON JULY 25 AND 26, 2018. THE BORINGS WERE DRILLED USING A TRUCK MOUNTED CME 55 DRILL RIG, USING 3¼-INCH I.D. HOLLOW STEM AUGERS TO ADVANCE THE BORINGS THROUGH THE SOIL. DISTURBED SAMPLES WERE COLLECTED IN ACCORDANCE WITH THE STANDARD PENETRATION TEST (AASHTO T206) AT CONTINUOUS INTERVALS FOR SCOUR ANALYSIS AND THEN AT 2.5-FOOT AND 5.0-FOOT INTERVALS. THE HAMMER SYSTEM USED WAS LAST CALIBRATED IN MAY 2, 2018, AND THE AVERAGE DRILL ROD ENERGY RATIO (ER) WAS 87%.

EXPLORATION FINDINGS

FAI-204-0346
ALL BORINGS WERE COMPLETED WITHIN THE ROADWAY. B-001 AND B-004 WERE DRILLED BEHIND THE EXISTING ABUTMENTS AND ENCOUNTERED 12 INCHES OF ASPHALT AND 14 INCHES OF CONCRETE UNDERLAIN BY 40 INCHES OF AGGREGATE BASE. BENEATH THE PAVEMENT, B-001 ENCOUNTERED COHESIVE SANDY SILT (A-4a) AND SILT AND CLAY (A-6a) IN STIFF TO VERY STIFF CONSISTENCY WITH THE SILT AND CLAY (A-6a) BEING MODERATELY ORGANIC. BETWEEN ELEVATION 999.2 AND 989.7 FT. NON-COHESIVE FINE SAND (A-3) AND GRAVEL AND STONE FRAGMENTS WITH SAND (A-1-b) IN MEDIUM DENSE TO VERY DENSE COMPACTNESS WERE ENCOUNTERED. BENEATH THE NON-COHESIVE SOILS THE BORING ENCOUNTERED SANDY SILT (A-4a) MATERIALS WHICH VARIED BETWEEN VERY STIFF AND HARD IN CONSISTENCY TO THE TERMINATION DEPTH OF THE BORING. A COBBLE AND BOULDER ZONE WAS ENCOUNTERED BETWEEN ELEVATION 972.1 AND 952.2 FT. B-004 ENCOUNTERED MEDIUM STIFF SANDY SILT WHICH WAS SLIGHTLY ORGANIC BENEATH THE PAVEMENT TO ELEVATION 994.4 FT. UNDERLAIN BY NON-COHESIVE GRAVEL AND STONE FRAGMENTS WITH COBBLES AND BOULDERS TO ELEVATION 987.2 FT. BENEATH THE NON-COHESIVE SOILS SANDY SILT (A-4a) IN STIFF CONSISTENCY BECOMING HARD WAS ENCOUNTERED IN WHICH THE BORING WAS TERMINATED IN. B-002 AND B-003 WERE DRILLED THROUGH THE BRIDGE DECK. AT THE GROUND SURFACE NON-COHESIVE SOILS CONSISTING OF GRAVEL AND STONE FRAGMENTS (A-1-a), GRAVEL AND STONE FRAGMENTS WITH SAND (A-1-b), AND GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT (A-2-4) WERE ENCOUNTERED RANGING FROM LOOSE TO MEDIUM DENSE IN COMPACTNESS. BENEATH THE NON-COHESIVE SOILS SANDY SILT (A-4a) SOILS IN VERY STIFF TO HARD CONSISTENCY WERE ENCOUNTERED IN WHICH THE BORINGS WERE TERMINATED IN. VERY DENSE COARSE AND FINE SAND (A-3a) WAS ENCOUNTERED IN B-002 BETWEEN ELEVATION 964.9 AND 964.4 FT. BORINGS B-003 AND B-004 HAD TO BE RELOCATED DUE TO LARGE DEBRIS AND BOULDER OBSTRUCTIONS.

FREE WATER WAS NOTED DURING DRILLING IN B-002 AND B-004 BETWEEN ELEVATION 988.1 AND 944.7 FEET WITH WATER RECORD AT COMPLETION OF THE DRILLING ACTIVITIES IN B-001 AND B-004 AT ELEVATION 948.8 AND 994.8 FEET. WATER WAS NOTED AT GROUND SURFACE IN B-002 AND B-003 DUE TO DRILLING WITHIN AND IMMEDIATELY ADJACENT TO THE STREAM.

LEGEND

DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL	
GRAVEL AND/OR STONE FRAGMENTS	A-1-a	4	2
GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b	7	7
FINE SAND	A-3	1	1
COARSE AND FINE SAND	A-3a	1	-
GRAVEL AND/OR STONE FRAGS. WITH SAND & SILT	A-2-4	1	-
GR. AND/OR ST. FRAGS. WITH SAND, SILT & CLAY	A-2-6	1	1
SANDY SILT	A-4a	35	53
SILT AND CLAY	A-6a	4	2
SILTY CLAY	A-6b	1	1
	TOTAL	55	67
BOULDERS	VISUAL		
PAVEMENT OR BASE = X = APPROXIMATE THICKNESS	VISUAL		

BORING LOCATION - PLAN VIEW.

DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.

WC INDICATES WATER CONTENT IN PERCENT.

N_{60} INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.

X/Y/Z NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT):
X= NUMBER OF BLOWS FOR FIRST 6 INCHES.
Y= NUMBER OF BLOWS FOR SECOND 6 INCHES.
Z= NUMBER OF BLOWS FOR THIRD 6 INCHES.

X/Y/D" NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT):
X= NUMBER OF BLOWS FOR 6 INCHES (UNCORRECTED).
Y/D" = NUMBER OF BLOWS (UNCORRECTED) FOR D" OF PENETRATION AT REFUSAL.

INDICATES STATIC WATER ELEVATION.

W INDICATES FREE WATER ELEVATION.

● INDICATES A PLASTIC MATERIAL WITH A MOISTURE CONTENT EQUAL TO OR GREATER THAN THE LIQUID LIMIT MINUS 3.

γ INDICATES UNIT WEIGHT OF SOIL.

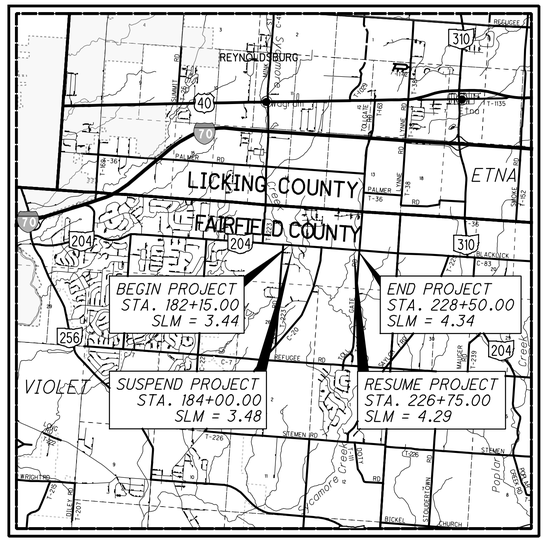
LOI INDICATES ORGANIC CONTENT BY LOSS ON IGNITION, AASHTO T267.

NP INDICATES A NON-PLASTIC SAMPLE.

Qu INDICATES UNCONFINED COMPRESSION TEST, AASHTO T208.

SS INDICATES A SPLIT SPOON SAMPLE.

ST INDICATES A SHELBY TUBE SAMPLE.



LOCATION MAP
SCALE IN MILES
0 1 2 3 4
N

PARTICLE SIZE DEFINITIONS

12"	3"	2.0 mm	0.42 mm	0.074 mm	0.005 mm
BOULDERS | COBBLES		GRAVEL	COARSE SAND	FINE SAND	SILT | CLAY
		No. 10 SIEVE	No. 40 SIEVE	No. 200 SIEVE	

D_{50} VALUES
BRIDGE NO. FAI-204-0346

BORING NO.	SAMPLE NO.	ELEVATION	D_{50} VALUE
B-002-0-18	SS-1	994.4' - 992.9'	3.9523 mm
	SS-2	992.9' - 991.4'	2.3297 mm
	SS-3	991.4' - 989.9'	0.2293 mm
B-003-0-18	SS-1	992.4' - 990.9'	1.1628 mm
	SS-2	990.9' - 989.4'	2.7689 mm
	SS-3	989.4' - 987.9'	3.4100 mm

RECON. - PPP 06/14/18
DRILLING - KAM 07/25/18-08/08/18
DRAWN - AR 01/19
REVIEWED - SAT 01/19

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF GEOTECHNICAL ENGINEERING
1980 W. BROAD ST. COLUMBUS, OH 43223

PID NO. 96015

STRUCTURE FOUNDATION EXPLORATION
BR. NO. FAI-204-0346 & BR. NO. FAI-204-0432

FAI-204-(3.46)(4.32)

EXPLORATION FINDINGS (CONT.)

FAI-204-0432
BOTH BORINGS WERE DRILLED THROUGH THE BRIDGE DECK. AT THE GROUND SURFACE COHESIVE SOILS CONSISTING OF SANDY SILT (A-4a) AND SILT AND CLAY (A-6a) WERE ENCOUNTERED IN MEDIUM STIFF TO VERY STIFF CONSISTENCY. AN UNCONFINED COMPRESSIVE STRENGTH TEST WAS COMPLETED WITHIN THE SILT AND CLAY WITH A RESULT OF 771 PSF. BENEATH THE COHESIVE SOILS, A LAYER OF GRAVEL AND STONE FRAGMENTS WITH SAND (A-1-b), AND GRAVEL AND STONE FRAGMENTS WITH SAND, SILT AND CLAY (A-2-6) IN VERY LOOSE TO DENSE COMPACTNESS WAS ENCOUNTERED UNDERLAIN BY SANDY SILT (A-4a). THE SANDY SILT WAS VERY STIFF TO HARD IN CONSISTENCY AND BOTH BORINGS WERE TERMINATED WITHIN IT. COBBLES AND BOULDERS WERE NOTED IN B-002.

FREE WATER WAS NOTED DURING DRILLING IN B-001 AND B-002 AT ELEVATION 1007.3 AND 1005.0, RESPECTIVELY. WATER WAS NOT NOTED AT COMPLETION OF EITHER BORING.

SPECIFICATIONS

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED JULY 2017.

AVAILABLE INFORMATION

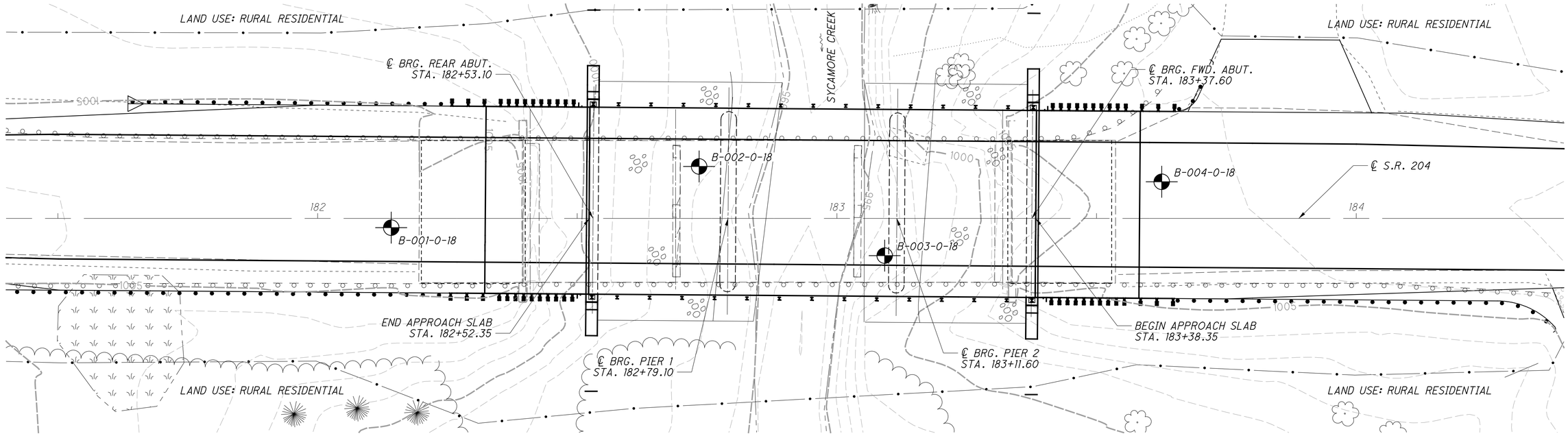
ALL AVAILABLE SOIL AND BEDROCK INFORMATION THAT CAN BE CONVENIENTLY SHOWN ON THE GEOTECHNICAL EXPLORATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL EXPLORATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE OR THE OFFICE OF GEOTECHNICAL ENGINEERING AT 1980 WEST BROAD STREET.

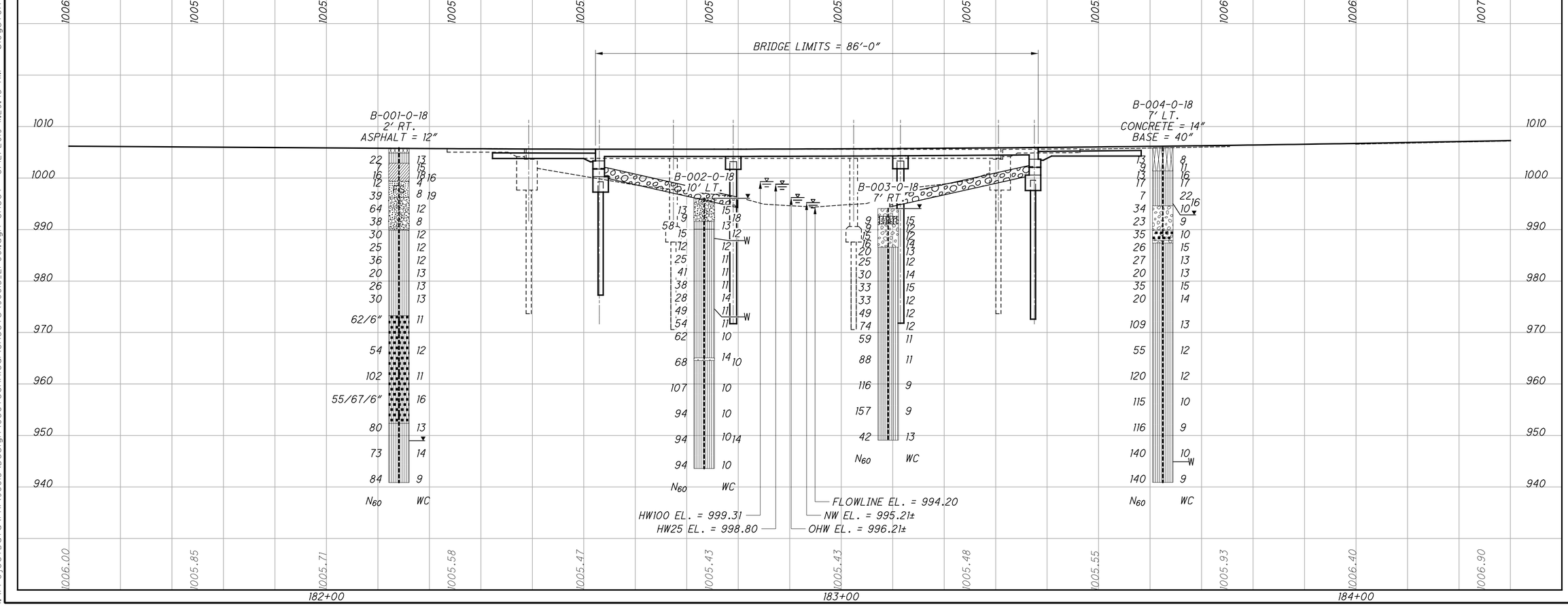
DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF GEOTECHNICAL ENGINEERING
1980 W. BROAD ST. COLUMBUS, OH 43223

PID NO. 96015

STRUCTURE FOUNDATION EXPLORATION
EXPLORATION NOTES (CONT.)

FAI-204-(3.46)(4.32)





HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN AR
CHECKED SAT

STRUCTURE FOUNDATION EXPLORATION
BR. NO. FAI-204-0346 OVER SYCAMORE CREEK
FAI-204-(3.46)(4.32)

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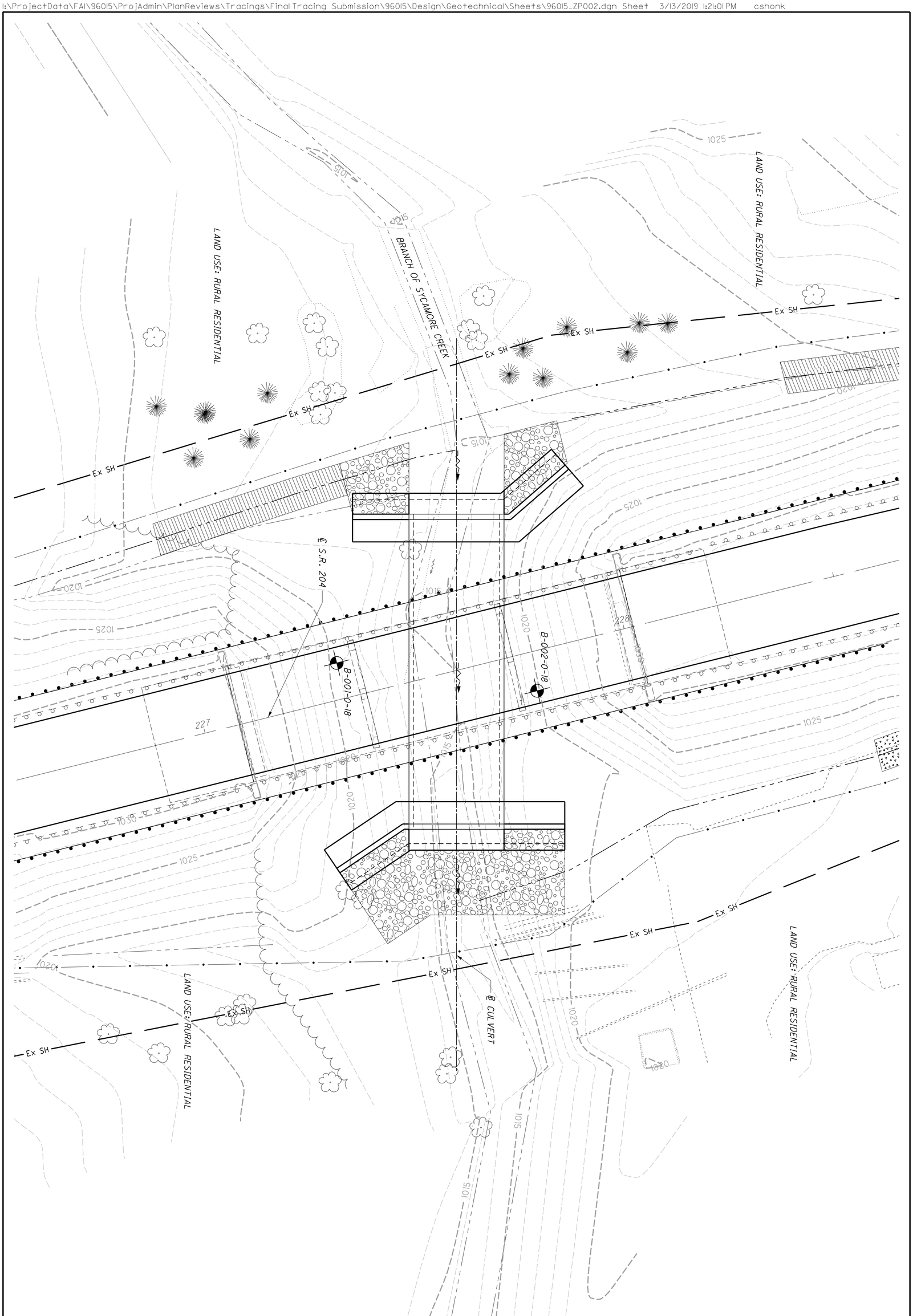
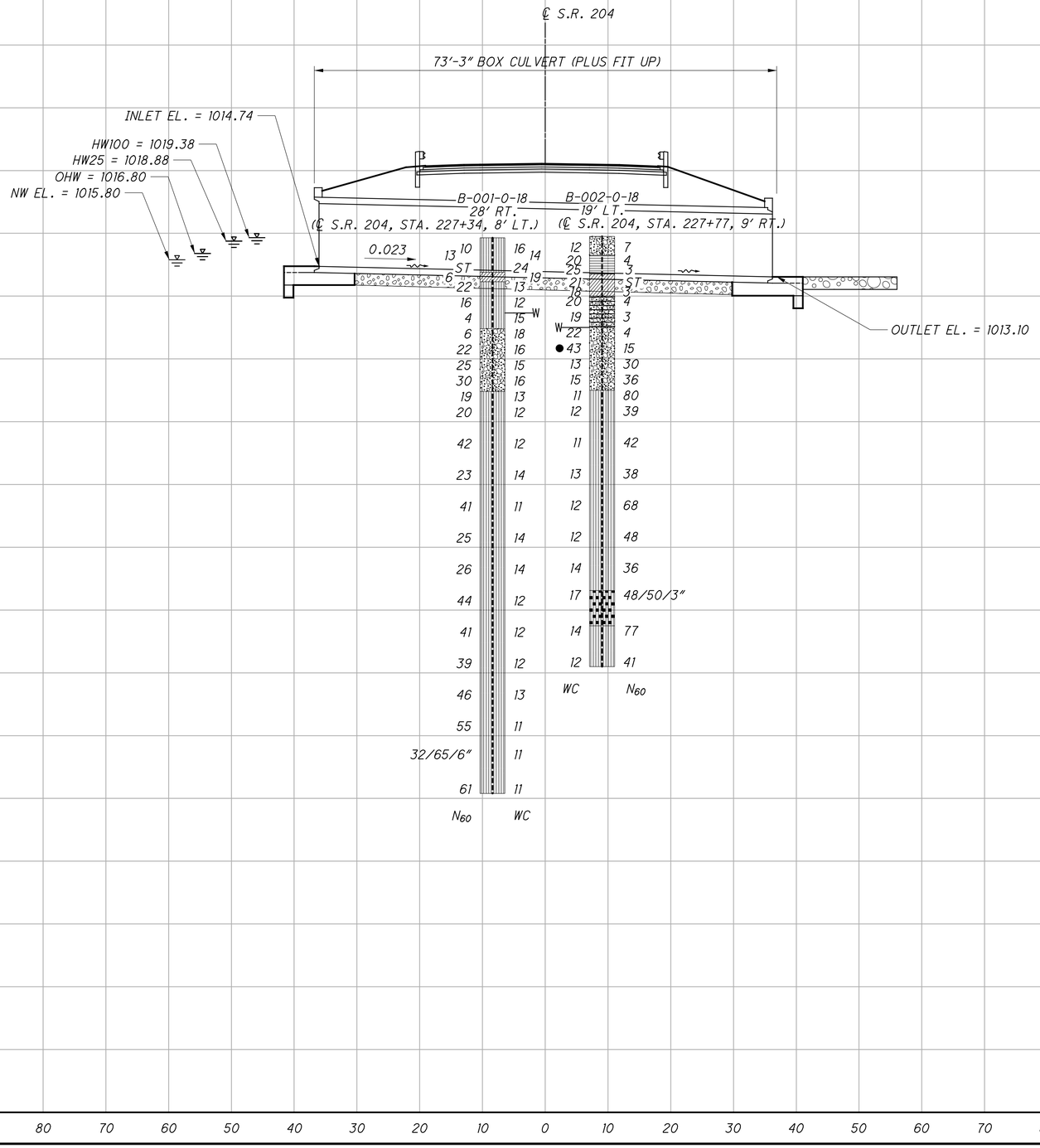


	4 / 17	FAI-204-(3.46)(4.32)	STRUCTURE FOUNDATION EXPLORATION BR. NO. FAI-204-0432 OVER B. SYCAMORE CR.	DRAWN AR CHECKED SAT	0 10 5 20 HORIZONTAL SCALE IN FEET



10	16	14	12	7
13	24	19	20	4
6	22	13	25	3
ST	16	12	21	ST
	4	15	20	4
	6	18	19	3
	22	16	W 22	4
	25	15	● 43	15
	30	16	13	30
	19	13	15	36
	20	12	11	80
	42	12	12	39
	23	14	11	42
	41	11	13	38
	25	14	12	68
	26	14	12	48
	44	12	14	36
	41	12	17	48/50/3″
	39	12	14	77
	46	13	12	41
	55	11	WC	N60
	32/65/6″	11		
	61	11		
	N60	WC		

HORIZONTAL SCALE IN FEET
0 5 10 20

DRAWN AR
CHECKED SAT

STRUCTURE FOUNDATION EXPLORATION
BR. NO. FAI-204-0432 OVER B. OF SYCAMORE CR.

FAI-204-(3.46)(4.32)

5 / 17

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PROJECT: FAI-204-3.46
TYPE: BRIDGE
PID: 96015 SFN: 2302616 (E)
START: 7/30/18 END: 8/1/18

DRILLING FIRM / OPERATOR: ODOT / CAREY
SAMPLING FIRM / LOGGER: ODOT / MCLEISH
DRILLING METHOD: 3.25" HSA
SAMPLING METHOD: SPT

DRILL RIG: CME 55 TRUCK
HAMMER: CME AUTOMATIC
CALIBRATION DATE: 4/2/18
ENERGY RATIO (%): 87

STATION / OFFSET: 182+14, 2' RT.
ALIGNMENT: CL SR 204
ELEVATION: 1005.7 (MSL) EOB: 65.0 ft.
LAT / LONG: 39.929259, -82.724376

EXPLORATION ID B-001-0-18

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT (12")	1005.7																	
	1004.7																	
VERY STIFF, BROWN AND GRAYISH BLACK, **SANDY SILT**, "AND" GRAVEL AND STONE FRAGMENTS, LITTLE CLAY, FILL, DAMP			6 10 5	22	44	SS-1	-	41	10	12	23	14	23	14	9	13	A-4a (0)	
	1002.7																	
STIFF, OLIVE GRAY, **SILT AND CLAY**, SOME SAND, LITTLE GRAVEL, FILL, MODERATELY ORGANIC (LOI = 4.3%), MOIST			3 2 3	7	56	SS-2	1.50	17	9	15	30	29	29	15	14	15	A-6a (6)	
			1 3 8	16	78	SS-3	1.50	-	-	-	-	-	-	-	-	18	A-6a (V)	
	999.2		8 5 3	12	44	SS-4A	1.50	-	-	-	-	-	-	-	-	16	A-6a (V)	
						SS-4B	-	6	4	80	4	6	NP	NP	NP	4	A-3 (0)	
MEDIUM DENSE TO DENSE, OLIVE GRAY, **FINE SAND**, TRACE GRAVEL, TRACE CLAY, TRACE SILT, DAMP																		
	996.1		9 12 15	39	44	SS-5A	-	-	-	-	-	-	-	-	-	8	A-3 (V)	
						SS-5B	-	-	-	-	-	-	-	-	-	19	A-1-b (V)	
DENSE TO VERY DENSE, GRAY WITH BROWN, **GRAVEL AND STONE FRAGMENTS WITH SAND**, LITTLE SILT, TRACE CLAY, DAMP TO MOIST			15 23 21	64	67	SS-6	-	57	10	14	12	7	17	15	2	12	A-1-b (0)	
			12 16 10	38	33	SS-7	-	-	-	-	-	-	-	-	-	8	A-1-b (V)	
	989.7																	
HARD, GRAY, **SANDY SILT**, SOME CLAY, LITTLE GRAVEL, DAMP			8 10 11	30	100	SS-8	4.50	13	9	16	36	26	23	14	9	12	A-4a (5)	
			7 7 10	25	100	SS-9	4.50	-	-	-	-	-	-	-	-	12	A-4a (V)	
			8 11 14	36	100	SS-10	4.50	-	-	-	-	-	-	-	-	12	A-4a (V)	
@23.5'; VERY STIFF			5 6 8	20	100	SS-11	3.50	19	8	15	35	23	23	15	8	13	A-4a (5)	
			6 8 10	26	100	SS-12	4.25	-	-	-	-	-	-	-	-	13	A-4a (V)	
			4 6 15	30	67	SS-13	4.50	-	-	-	-	-	-	-	-	13	A-4a (V)	
@33.6'; ENCOUNTERED COBBLES OR BOULDERS			62	-	50	SS-14	-	-	-	-	-	-	-	-	-	11	A-4a (V)	
@38.5'; HARD, TRACE GRAVEL			9 15 22	54	100	SS-15	4.50	9	8	20	35	28	22	13	9	12	A-4a (6)	
			18 27 43	102	78	SS-16	4.50	-	-	-	-	-	-	-	-	11	A-4a (V)	
@48.5'; MOIST			55 67	-	33	SS-17	-	-	-	-	-	-	-	-	-	16	A-4a (V)	
@53.5'; BROWNISH GRAY AND GRAY			14 27 28	80	89	SS-18	4.50	-	-	-	-	-	-	-	-	13	A-4a (V)	
@58.5'; LITTLE GRAVEL			12 25 25	73	100	SS-19	4.50	11	10	28	29	22	21	12	9	14	A-4a (3)	

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT.GDT - 1/24/19 10:05 - X:\GINTPROJECTS\2018 COMPLETE\600513.GPJ

FAI-204-(3.46)(4.32)

STRUCTURE FOUNDATION EXPLORATION
BRIDGE NO. FAI-204-0346 OVER SYCAMORE CREEK
BORING LOG B-001-0-18

DRAWN AR
CHECKED SAT

PID: 96015	SFN: 2302616 (E)	PROJECT: FAI-204-3.46	STATION / OFFSET: 182+14, 2' RT.	START: 7/30/18	END: 8/1/18	PG 2 OF 2	B-001-0-18

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
HARD, GRAY, **SANDY SILT**, SOME CLAY, LITTLE GRAVEL, DAMP *(continued)*	945.7	61 62 63 64																
	940.7	EOB 65	18 26 32	84	100	SS-20	4.50	-	-	-	-	-	-	-	-	9	A-4a (V)	

NOTES: LAT/LONG/ELEV FROM CONSULTANT SURVEY GRADE INSTRUMENTS.

ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED 100 LB. BENTONITE GROUT; 60 GAL. WATER

PROJECT: FAI-204-3.46	DRILLING FIRM / OPERATOR: ODOT / CAREY	DRILL RIG: CME 55 TRUCK	STATION / OFFSET: 182+73, 10' LT.	EXPLORATION ID B-002-0-18
TYPE: BRIDGE	SAMPLING FIRM / LOGGER: ODOT / MCLEISH	HAMMER: CME AUTOMATIC	ALIGNMENT: CL SR 204	
PID: 96015 SFN: 2302616 (E)	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 4/2/18	ELEVATION: 995.9 (MSL) EOB: 52.5 ft.	PAGE 1 OF 1
START: 8/6/18 END: 8/7/18	SAMPLING METHOD: SPT	ENERGY RATIO (%): 87	LAT / LONG: 39.929280, -82.724162	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
LOOSE TO MEDIUM DENSE, DARK GRAY, **GRAVEL AND STONE FRAGMENTS WITH SAND**, LITTLE SILT, TRACE CLAY, WET	995.9		3 5 4	13	39	SS-1	-	58	13	10	11	8	27	21	6	15	A-1-b (0)	
	991.4		5 4 2	9	22	SS-2	-	52	13	12	13	10	25	20	5	18	A-1-b (0)	
HARD, GRAY AND BROWN, **SANDY SILT**, SOME GRAVEL AND STONE FRAGMENTS, LITTLE CLAY, DAMP @4.5' - 6.0': DROVE ROCK, NO RECOVERY USED 3 INCH SPOON.	989.9		4 17 23	58	33	SS-3	1.50	33	12	14	23	18	24	16	8	13	A-4a (1)	
VERY STIFF, GRAY, **SANDY SILT**, SOME CLAY, LITTLE GRAVEL AND STONE FRAGMENTS, DAMP		W 988.1	12 5 5	15	56	SS-4	2.50	18	11	15	31	25	24	15	9	12	A-4a (4)	
			3 4 4	12	67	SS-5	2.50	-	-	-	-	-	-	-	-	12	A-4a (V)	
@11.0'; HARD			8 8 9	25	100	SS-6	4.50	-	-	-	-	-	-	-	-	11	A-4a (V)	
			8 15 13	41	100	SS-7	4.50	-	-	-	-	-	-	-	-	11	A-4a (V)	
OLIVE GRAY, SOME GRAVEL AND STONE FRAGMENTS @16.0': DROVE ROCK, NO RECOVERY. USED 3 INCH SPOON TO RECOVER SAMPLE.			13 13 13	38	44	SS-8	4.50	25	9	14	29	23	25	15	10	11	A-4a (3)	
@18.5'; VERY STIFF			5 8 11	28	67	SS-9	3.00	-	-	-	-	-	-	-	-	14	A-4a (V)	
@21.0'; OLIVE GRAY, LITTLE CLAY, LITTLE GRAVEL AND STONE FRAGMENTS		W 974.4	10 18 16	49	100	SS-10	3.00	15	10	19	39	17	20	15	5	11	A-4a (4)	
@23.5'; HARD, GRAYISH BROWN, SOME CLAY			9 15 22	54	89	SS-11	4.50	16	9	17	36	22	22	15	7	11	A-4a (5)	
			14 22 21	62	78	SS-12	4.50	-	-	-	-	-	-	-	-	10	A-4a (V)	
	964.9																	
VERY DENSE, GRAY, **COARSE AND FINE SAND**, TRACE CLAY, TRACE GRAVEL, MOIST	964.4		12 20 27	68	94	SS-13A	-	7	9	61	15	8	NP	NP	NP	14	A-3a (0)	
HARD, GRAY, **SANDY SILT**, SOME CLAY, SOME GRAVEL AND STONE FRAGMENTS, DAMP						SS-13B	4.50	-	-	-	-	-	-	-	-	10	A-4a (V)	
			24 33 41	107	89	SS-14	4.50	22	9	16	30	23	21	13	8	10	A-4a (4)	
			21 28 37	94	78	SS-15	4.50	-	-	-	-	-	-	-	-	10	A-4a (V)	
@47.0'-51.0'; VERY STIFF, LITTLE GRAVEL, LITTLE CLAY			18 28 37	94	100	SS-16A	4.50	-	-	-	-	-	-	-	-	10	A-4a (V)	
						SS-16B	3.50	18	7	18	40	17	19	16	3	14	A-4a (4)	
	943.4	EOB	16 31 34	94	-	SS-17	4.50	28	10	23	27	12	20	14	6	10	A-4a (1)	

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT GDT - 1/24/19 10:05 - X:\GINTPROJECTS\2018 COMPLETE\600513.GPJ

NOTES: DECK SURFACE TO GROUND SURFACE 9.5 FEET. DECK 11 INCHES THICK. LAT/LONG/ELEV FROM CONSULTANT SURVEY GRADE INSTRUMENTS.

ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED 150 LB. BENTONITE GROUT; 90 GAL. WATER

PROJECT: FAI-204-3.46	DRILLING FIRM / OPERATOR: ODOT / CAREY	DRILL RIG: CME 55 TRUCK	STATION / OFFSET: 183+09, 7' RT.	EXPLORATION ID B-003-0-18
TYPE: BRIDGE	SAMPLING FIRM / LOGGER: ODOT / MCLEISH	HAMMER: CME AUTOMATIC	ALIGNMENT: CL SR 204	
PID: 96015 SFN: 2302616 (E)	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 4/2/18	ELEVATION: 993.9 (MSL) EOB: 45.0 ft.	PAGE 1 OF 1
START: 8/1/18 END: 8/2/18	SAMPLING METHOD: SPT	ENERGY RATIO (%): 87	LAT / LONG: 39.929227, -82.724039	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
LOOSE, DARK GRAY, **GRAVEL AND STONE FRAGMENTS**, NO SAMPLE. COBBLE SIZED ROCKS IN STREAM BOTTOM, WET	992.4																	
LOOSE, DARK GRAY, **GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT**, LITTLE CLAY, WET	990.9		1 2 4	9	44	SS-1	-	44	16	12	16	12	22	14	8	15	A-2-4 (0)	
LOOSE, GRAY, **GRAVEL AND STONE FRAGMENTS**, SOME SAND, TRACE SILT, TRACE CLAY, WET			6 3 3	9	44	SS-2	-	60	22	7	7	4	NP	NP	NP	12	A-1-a (0)	
@4.5'; MEDIUM DENSE			5 5 5	15	56	SS-3	-	66	14	6	9	5	NP	NP	NP	12	A-1-a (0)	
@6.0'; "AND" SAND	986.4		6 6 5	16	56	SS-4	-	49	27	10	9	5	NP	NP	NP	14	A-1-a (0)	
HARD, GRAY, **SANDY SILT**, SOME CLAY, LITTLE GRAVEL AND STONE FRAGMENTS, DAMP			4 6 8	20	39	SS-5	4.50	-	-	-	-	-	-	-	-	13	A-4a (V)	
			4 7 10	25	78	SS-6	4.00	18	8	13	36	25	23	16	7	12	A-4a (5)	
			9 10 11	30	78	SS-7	4.50	-	-	-	-	-	-	-	-	14	A-4a (V)	
@14.9'; THIN SAND SEAM, WET			12 15 8	33	78	SS-8	4.00	-	-	-	-	-	-	-	-	15	A-4a (V)	
@17.0'; SOME GRAVEL AND STONE FRAGMENTS			8 11 12	33	889	SS-9	4.50	21	9	16	34	20	22	15	7	12	A-4a (4)	
			11 16 18	49	100	SS-10	4.50	-	-	-	-	-	-	-	-	12	A-4a (V)	
			21 26 25	74	67	SS-11	4.50	-	-	-	-	-	-	-	-	12	A-4a (V)	
			15 19 22	59	94	SS-12	4.50	23	8	13	34	22	22	14	8	11	A-4a (4)	
			17 30 31	88	39	SS-13	4.50	-	-	-	-	-	-	-	-	11	A-4a (V)	
			24 41 39	116	100	SS-14	4.50	22	9	15	31	23	23	14	9	9	A-4a (4)	
			29 35 73	157	100	SS-15	4.50	-	-	-	-	-	-	-	-	9	A-4a (V)	
	948.9	EOB	9 12 17	42	100	SS-16	4.00	-	-	-	-	-	-	-	-	13	A-4a (V)	

NOTE: BORING MOVED FROM ORIGINAL LOCATION DUE TO LARGE CONCRETE PIECES BURIED WITHIN SOIL.
NOTE: DECK TO STREAM 11.5 FEET.

NOTES: WATER AT SURFACE UPON COMPLETION. HOLE CAVED IN AFTER REMOVING AUGERS. LAT/LONG/ELEV FROM CONSULTANT SURVEY GRADE INSTRUMENTS.
ABANDONMENT METHODS, MATERIALS, QUANTITIES: NOT RECORDED

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT.GDT - 1/24/19 10:05 - X:\GINTPROJECTS\2018 COMPLETE\600513.GPJ

STRUCTURE FOUNDATION EXPLORATION
BRIDGE NO. FAI-204-0346 OVER SYCAMORE CREEK
BORING LOG B-003-0-18

DRAWN AR
CHECKED SAT

PROJECT: FAI-204-3.46	DRILLING FIRM / OPERATOR: ODOT / CAREY	DRILL RIG: CME 55 TRUCK	STATION / OFFSET: 183+63, 7' LT.	EXPLORATION ID B-004-0-18
TYPE: BRIDGE	SAMPLING FIRM / LOGGER: ODOT / MCLEISH	HAMMER: CME AUTOMATIC	ALIGNMENT: CL SR 204	
PID: 96015 SFN: 2302616 (E)	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 4/2/18	ELEVATION: 1005.7 (MSL) EOB: 65.0 ft.	PAGE 1 OF 2
START: 8/7/18 END: 8/8/18	SAMPLING METHOD: SPT	ENERGY RATIO (%): 87	LAT / LONG: 39.929256, -82.723846	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
CONCRETE (14") & BASE (40")	1005.7																	
	1001.2		3 5 4	13	67	SS-1	-	-	-	-	-	-	-	-	-	8		
			2 2 4	9	44	SS-2	-	-	-	-	-	-	-	-	-	11		
MEDIUM STIFF TO STIFF, BROWN AND GRAY, **SANDY SILT**, LITTLE TO SOME CLAY, LITTLE TO SOME GRAVEL, SLIGHTLY ORGANIC (LOI = 3.2%), DAMP			2 3 6	13	67	SS-3	1.00	15	10	21	37	17	20	18	2	16	A-4a (4)	
@6.0'; SLIGHTLY ORGANIC (LOI = 3.3%)			3 5 7	17	100	SS-4	1.00	12	11	23	33	21	22	16	6	17	A-4a (4)	
@8.5'; SLIGHTLY ORGANIC (LOI = 3.1%), MOIST			1 2 3	7	56	SS-5	1.00	23	9	24	25	19	26	18	8	22	A-4a (2)	
	994.4					SS-6A	1.50	-	-	-	-	-	-	-	-	16	A-4a (V)	
MEDIUM DENSE TO DENSE, GRAY, **GRAVEL AND STONE FRAGMENTS**, LITTLE SAND, TRACE SILT, TRACE CLAY, DAMP TO MOIST			10 13 11	35	67	SS-6B	-	-	-	-	-	-	-	-	-	10	A-1-a (V)	
			7 7 9	23	33	SS-7	-	68	11	6	10	5	20	17	3	9	A-1-a (0)	
@16.0' - 18.0'; ENCOUNTERED BOULDERS/COBBLES			8 12 13	36	44	SS-8	-	-	-	-	-	-	-	-	-	10	A-1-a (V)	
	987.2																	
STIFF, GRAY, **SANDY SILT**, SOME CLAY, LITTLE STONE FRAGMENTS, CONTAINS COBBLES, MOIST			11 10 8	26	44	SS-9	1.50	-	-	-	-	-	-	-	-	15	A-4a (V)	
@21.0'; VERY STIFF			7 10 9	28	67	SS-10	3.00	17	9	15	33	26	22	14	8	13	A-4a (5)	
			3 6 8	20	89	SS-11	2.50	-	-	-	-	-	-	-	-	13	A-4a (V)	
@26.0'; HARD, CONTAINS SILTY SAND SEAMS, MOIST TO WET			8 11 14	36	89	SS-12	4.00	-	-	-	-	-	-	-	-	15	A-4a (V)	
@28.5'; VERY STIFF			4 5 9	20	89	SS-13	4.00	14	10	18	34	24	22	14	8	14	A-4a (5)	
@33.5'; HARD			31 45 32	112	44	SS-14	4.50	-	-	-	-	-	-	-	-	13	A-4a (V)	
			6 15 24	57	67	SS-15	4.50	19	9	18	31	23	22	14	8	12	A-4a (4)	
			17 40 45	123	72	SS-16	4.50	-	-	-	-	-	-	-	-	12	A-4a (V)	
			22 29 52	117	100	SS-17	4.50	-	-	-	-	-	-	-	-	10	A-4a (V)	
			29 39 43	119	100	SS-18	4.50	12	9	22	35	22	22	14	8	9	A-4a (4)	
			30 50 49	144	100	SS-19	4.50	-	-	-	-	-	-	-	-	10	A-4a (V)	

FAI-204-(3.46)(4.32)

STRUCTURE FOUNDATION EXPLORATION
BRIDGE NO. FAI-204-0346 OVER SYCAMORE CREEK
BORING LOG B-004-0-18

DRAWN AR
CHECKED SAT

PID: 96015	SFN: 2302616 (E)	PROJECT: FAI-204-3.46	STATION / OFFSET: 183+63, 7' LT.	START: 8/7/18	END: 8/8/18	PG 2 OF 2	B-004-0-18

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
STIFF, GRAY, **SANDY SILT**, SOME CLAY, LITTLE STONE FRAGMENTS, CONTAINS COBBLES, MOIST *(continued)*	945.7	W 944.7																
		61																
		62																
		63																
		64	25 43 56	144	100	SS-20	4.50	-	-	-	-	-	-	-	-	9	A-4a (V)	
	940.7	EOB 65																

NOTE: BORING HAD TO BE RELOCATED 2 TIMES DUE TO OBSTRUCTIONS WHICH COULD NOT BE AUGERED THROUGH.

NOTES: LAT/LONG/ELEV FROM CONSULTANT SURVEY GRADE INSTRUMENTS.

ABANDONMENT METHODS, MATERIALS, QUANTITIES: TREMIED 150 LB. BENTONITE GROUT; 90 GAL. WATER

PROJECT: FAI-204-04.32
TYPE: BRIDGE
PID: 96015 SFN: 2302640 (E)
START: 7/24/18 END: 7/25/18

DRILLING FIRM / OPERATOR: ODOT / CAREY
SAMPLING FIRM / LOGGER: ODOT / MCLEISH
DRILLING METHOD: 3.25" HSA
SAMPLING METHOD: SPT / ST

DRILL RIG: CME 55 TRUCK
HAMMER: CME AUTOMATIC
CALIBRATION DATE: 4/2/18
ENERGY RATIO (%): 87

STATION / OFFSET: 227+34, 8' LT.
ALIGNMENT: CL SR 204
ELEVATION: 1019.3 (MSL) EOB: 88.5 ft.
LAT / LONG: 39.928381, -82.708300

EXPLORATION ID B-001-0-18

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
MEDIUM STIFF TO STIFF, DARK BROWN WITH BLACK, **SANDY SILT**, "AND" GRAVEL AND STONE FRAGMENTS, LITTLE CLAY, WITH ASPHALT FRAGMENTS, (FILL), DAMP	1019.3		3 3 4	10	28	SS-1	-	-	-	-	-	-	-	-	-	16	A-4a (V)	
			3 2 7	13	33	SS-2	-	39	9	14	22	16	27	21	6	14	A-4a (1)	
@3.5'; BROWN, MOIST				83	ST-3	0.50	36	9	14	21	20	29	19	10	24	A-4a (1)	
MEDIUM STIFF, BROWN AND GRAY, **SILT AND CLAY**, LITTLE GRAVEL, SOME SAND, MOIST	1013.8		4 2 2	6	44	SS-4	1.00	17	8	16	29	30	28	15	13	19	A-6a (6)	
VERY STIFF, BROWN AND GRAY, **SANDY SILT**, SOME GRAVEL, SOME CLAY, DAMP TO MOIST	1012.3		4 6 9	22	100	SS-5	3.50	27	10	15	26	22	24	15	9	13	A-4a (3)	
			5 7 4	16	28	SS-6	3.50	24	11	16	28	21	23	15	8	12	A-4a (3)	
@12.0'; THIN FINE TO COARSE GRAINED SAND SEAM, WET		W 1007.3	1 1 2	4	22	SS-7	2.50	-	-	-	-	-	-	-	-	15	A-4a (V)	
LOOSE, GRAY, **GRAVEL AND STONE FRAGMENTS WITH SAND**, LITTLE SILT, TRACE CLAY, WET	1004.8		3 2 2	6	17	SS-8	-	-	-	-	-	-	-	-	-	18	A-1-b (V)	
			6 7 8	22	67	SS-9	-	55	17	8	13	7	22	20	2	16	A-1-b (0)	
			6 7 10	25	56	SS-10	-	-	-	-	-	-	-	-	-	15	A-1-b (V)	
			6 11 10	30	78	SS-11	-	-	-	-	-	-	-	-	-	16	A-1-b (V)	
VERY STIFF, GRAY, **SANDY SILT**, SOME CLAY, LITTLE GRAVEL, DAMP TO MOIST	994.8		4 6 7	19	67	SS-12	3.00	-	-	-	-	-	-	-	-	13	A-4a (V)	
			2 6 8	20	67	SS-13	2.50	14	9	17	33	27	21	13	8	12	A-4a (5)	
			10 12 17	42	67	SS-14	-	-	-	-	-	-	-	-	-	12	A-4a (V)	
			3 6 10	23	83	SS-15	2.50	-	-	-	-	-	-	-	-	14	A-4a (V)	
@42.5'; HARD			10 14 14	41	67	SS-16	4.50	15	10	20	31	24	21	13	8	11	A-4a (4)	
@47.0'; VERY STIFF			4 7 10	25	100	SS-17	2.00	-	-	-	-	-	-	-	-	14	A-4a (V)	
			6 7 11	26	67	SS-18	2.50	-	-	-	-	-	-	-	-	14	A-4a (V)	
@57.0'; HARD			7 12 18	44	89	SS-19	4.50	12	9	16	36	27	23	14	9	12	A-4a (5)	

FAI-204-(3.46)(4.32)

STRUCTURE FOUNDATION EXPLORATION
BRIDGE NO. FAI-204-0432 OVER BRANCH OF SYCAMORE CREEK
BORING LOG B-001-0-18

DRAWN AR
CHECKED SAT

PID: 96015 | SFN: 2302640 (E) | PROJECT: FAI-204-04.32 | STATION / OFFSET: 227+34, 8' LT. | START: 7/24/18 | END: 7/25/18 | PG 2 OF 2 | B-001-0-18

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
VERY STIFF, GRAY, **SANDY SILT**, SOME CLAY, LITTLE GRAVEL, DAMP TO MOIST *(continued)*	959.3	61																
		62	7															
		63	12 16	41	67	SS-20	4.50	-	-	-	-	-	-	-	-	12	A-4a (V)	
		64																
		65																
		66																
		67																
		68	9 11 16	39	78	SS-21	4.50	-	-	-	-	-	-	-	-	12	A-4a (V)	
		69																
		70																
		71																
		72																
		73	12 14 18	46	78	SS-22	4.50	19	8	16	33	24	23	13	10	13	A-4a (4)	
		74																
		75																
		76																
		77																
		78	11 16 22	55	94	SS-23	4.50	-	-	-	-	-	-	-	-	11	A-4a (V)	
		79																
		80																
		81																
		82																
		83	32 65	-	100	SS-24	4.50	-	-	-	-	-	-	-	-	11	A-4a (V)	
		84																
		85																
		86																
		87																
		88	12 19 23	61	83	SS-25	4.50	-	-	-	-	-	-	-	-	11	A-4a (V)	
	930.8	EOB																

NOTES: DECK 11 INCHES THICK. DECK TO GROUND 11.5 FEET. LAT/LONG/ELEV FROM CONSULTANT SURVEY GRADE INSTRUMENTS.

ABANDONMENT METHODS, MATERIALS, QUANTITIES: POURED 50 LB. BENTONITE CHIPS; TREMIED 100 LB. BENTONITE GROUT; 60 GAL. WATER

STRUCTURE FOUNDATION EXPLORATION
BRIDGE NO. FAI-204-0432 OVER BRANCH OF SYCAMORE CREEK
BORING LOG B-001-0-18 (CONT.)

DRAWN AR | CHECKED SAT

PROJECT: FAI-204-04.32	DRILLING FIRM / OPERATOR: ODOT / CAREY	DRILL RIG: CME 55 TRUCK	STATION / OFFSET: 227+77, 9' RT.	EXPLORATION ID B-002-0-18
TYPE: BRIDGE	SAMPLING FIRM / LOGGER: ODOT / MCLEISH	HAMMER: CME AUTOMATIC	ALIGNMENT: CL SR 204	
PID: 96015 SFN: 2302640 (E)	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 4/2/18	ELEVATION: 1019.5 (MSL) EOB: 68.5 ft.	PAGE 1 OF 2
START: 7/25/18 END: 7/26/18	SAMPLING METHOD: SPT / ST	ENERGY RATIO (%): 87	LAT / LONG: 39.928324, -82.708151	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
LOOSE, BROWN WITH BLACK, **GRAVEL AND STONE FRAGMENTS WITH SAND**, LITTLE SILT, TRACE CLAY, CONTAINS ASPHALT FRAGMENTS, (FILL), DAMP	1019.5		5 3 2	7	22	SS-1	-	57	12	12	12	7	NP	NP	NP	12	A-1-b (0)	
	1016.5																	
MEDIUM STIFF TO STIFF, BROWN, **SILTY CLAY**, SOME SAND, LITTLE GRAVEL, MOIST			1 1 2	4	33	SS-2	1.50	-	-	-	-	-	-	-	-	20	A-6b (V)	
	1013.5		0 0 2	3	61	SS-3	1.00	15	6	16	22	41	31	15	16	25	A-6b (8)	
SOFT TO MEDIUM STIFF, BROWN, **SILT AND CLAY**, SOME GRAVEL, LITTLE SAND, MOIST @6.0'; QU = 771 PSF @ 14.82% STRAIN; γ_d = 102.46 PCF					83	ST-4	0.75	21	6	14	27	32	30	15	15	21	A-6a (7)	
@8.0'; "AND" SAND, LITTLE GRAVEL	1010.0		2 1 1	3	33	SS-5	1.00	15	14	22	18	31	26	15	11	18	A-6a (3)	
VERY LOOSE, BROWN AND GRAY, **GRAVEL WITH SAND, SILT, AND CLAY**, MOIST			0 1 2	4	67	SS-6	-	33	24	15	13	15	32	16	16	20	A-2-6 (1)	
@12.0'; THIN SAND SEAM			1 1 1	3	39	SS-7	-	-	-	-	-	-	-	-	-	19	A-2-6 (V)	
	1005.0	W 1005.0																
VERY LOOSE, BROWN AND GRAY, **GRAVEL WITH SAND**, LITTLE SILT, TRACE CLAY, WET			1 1 2	4	33	SS-8	-	-	-	-	-	-	-	-	-	22	A-1-b (V)	
@17.0'; MEDIUM DENSE			2 4 6	15	56	SS-9	-	45	26	8	13	8	24	20	4	43	A-1-b (0)	
			10 10 11	30	72	SS-10	-	53	16	9	15	7	NP	NP	NP	13	A-1-b (0)	
@22.0'; DENSE			10 15 10	36	44	SS-11	-	-	-	-	-	-	-	-	-	15	A-1-b (V)	
	995.0																	
HARD, GRAY, **SANDY SILT**, SOME CLAY, LITTLE GRAVEL, DAMP TO MOIST			15 27 28	80	56	SS-12	4.50	-	-	-	-	-	-	-	-	11	A-4a (V)	
			31 13 14	39	56	SS-13	4.50	19	9	15	32	25	21	13	8	12	A-4a (4)	
			28 14 15	42	72	SS-14	4.50	-	-	-	-	-	-	-	-	11	A-4a (V)	
@37.0'; ENCOUNTERED BOULDERS/COBBLES			44 13 13	38	78	SS-15	4.50	-	-	-	-	-	-	-	-	13	A-4a (V)	
			35 20 27	68	67	SS-16	4.50	19	9	17	30	25	20	12	8	12	A-4a (4)	
			39 15 18	48	72	SS-17	4.50	-	-	-	-	-	-	-	-	12	A-4a (V)	
@52.0'; VERY STIFF			8 11 14	36	89	SS-18	2.50	19	10	18	32	21	19	14	5	14	A-4a (4)	
@57.0' - 62.0'; ENCOUNTERED BOULDERS/COBBLES			48 50/3"	-	33	SS-19	2.00	-	-	-	-	-	-	-	-	17	A-4a (V)	

STANDARD ODOT SOIL BORING LOG (11 X 17) - OH DOT.GDT - 1/24/19 10:08 - X:\GINTPROJECTS\2018 COMPLETE\600514.GPJ

STRUCTURE FOUNDATION EXPLORATION
BRIDGE NO. FAI-204-0432 OVER BRANCH OF SYCAMORE CREEK
BORING LOG B-002-0-18

DRAWN AR
CHECKED SAT

PID: 96015 | SFN: 2302640 (E) | PROJECT: FAI-204-04.32 | STATION / OFFSET: 227+77, 9' RT. | START: 7/25/18 | END: 7/26/18 | PG 2 OF 2 | B-002-0-18

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
HARD, GRAY, **SANDY SILT**, SOME CLAY, LITTLE GRAVEL, DAMP TO MOIST *(continued)*	959.5	61																
		62	28															
		63	26 27	77	17	SS-20	2.00	-	-	-	-	-	-	-	-	14	A-4a (V)	
		64																
		65																
		66																
@67.0'; HARD		67	9															
	951.0	68 EOB	12 16	41	89	SS-21	4.50	-	-	-	-	-	-	-	-	12	A-4a (V)	

NOTES: DECK 11.5 INCHES THICK. DECK TO GROUND 11.5 FEET. LAT/LONG/ELEV FROM CONSULTANT SURVEY GRADE INSTRUMENTS.

ABANDONMENT METHODS, MATERIALS, QUANTITIES: POURED 50 LB. BENTONITE CHIPS; TREMIED 100 LB. BENTONITE GROUT; 60 GAL. WATER

STRUCTURE FOUNDATION EXPLORATION
BRIDGE NO. FAI-204-0432 OVER BRANCH OF SYCAMORE CREEK
BORING LOG B-002-0-18 (CONT.)

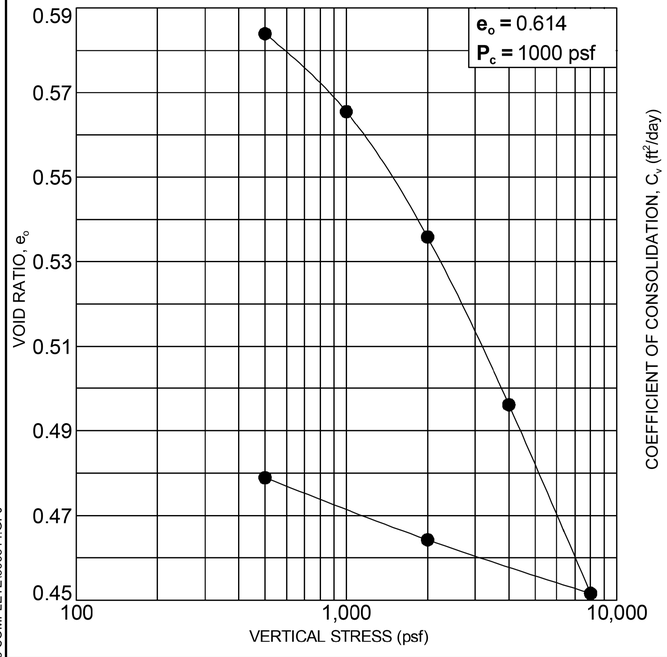
DRAWN AR
CHECKED SAT

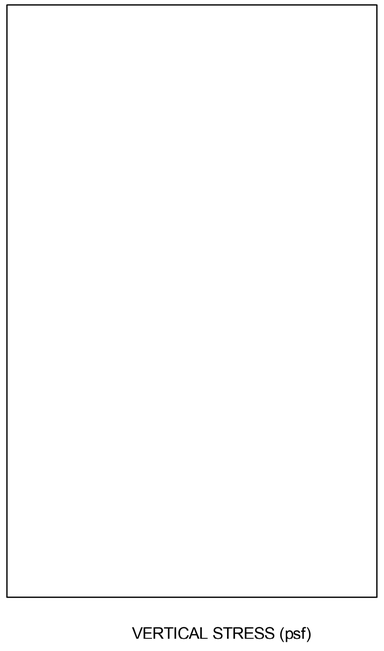
ONE-DIMENSIONAL CONSOLIDATION
AASHTO T - 216
(Page 1 of 2)

OHIO DEPARTMENT OF TRANSPORTION
OFFICE OF GEOTECHNICAL ENGINEERING

PROJECT FAI-204-04.32 **PID** 96015
OGE NUMBER 600514 **PROJECT TYPE** STRUCTURE FOUNDATION

SAMPLE IDENTIFICATION
BORING ID: B-001-0-18 SAMPLE ID: ST-3
STATION: 227+34, 8' LT. DEPTH: 3.5 - 5.5 feet





SPECIMEN DETAILS

Initial Height, H_o =	1.000 in
Ring Diameter, D =	2.500 in
Initial Volume, V_o =	4.907 in^3
Initial (Total) Weight, W_{tot} =	0.356 lb
Dry Weight, W_{dry} =	0.287 lb
Initial Water Content, WC_o =	24.2 %
Wet (Total) Unit Weight, γ_{tot} =	125.36 pcf
Dry Unit Weight, γ_{dry} =	100.97 pcf
Volume of Solids, V_s =	3.041 in^3
Initial Saturation, S_o =	102.7 %
Final Water Content, WC_f =	20.9 %
Final Wet Weight, $W_{wet,f}$ =	0.341 lb
Final Dry Unit Weight, $\gamma_{dry,f}$ =	110.22 pcf
Final Saturation, S_f =	109.3 %
Final Void Ratio, e_f =	0.456
C_c = 0.150	C_r = 0.020
P_o = 285 psf	OCR = 3.509

TEST DETAILS

METHOD OF TESTING: "Method B"
CONDITION OF TEST: "Natural Moisture Content"
SPECIFIC GRAVITY: 2.61 (Actual)
NOTES:

TESTED BY: AW 8/16/2018

CLASSIFICATION RESULTS

GRADATION (%)

GR	CS	FS	SI	CL
36	9	14	21	20

ATTERBERG LIMITS			MOISTURE
LL	PL	PI	WC
29	19	10	24

ODOT CLASS: A-4a HP (tsf): 0.5
DESCRIPTION: Medium Stiff, Brown, **SANDY SILT**, "and" Gravel and Stone Fragments, Little Clay, Moist

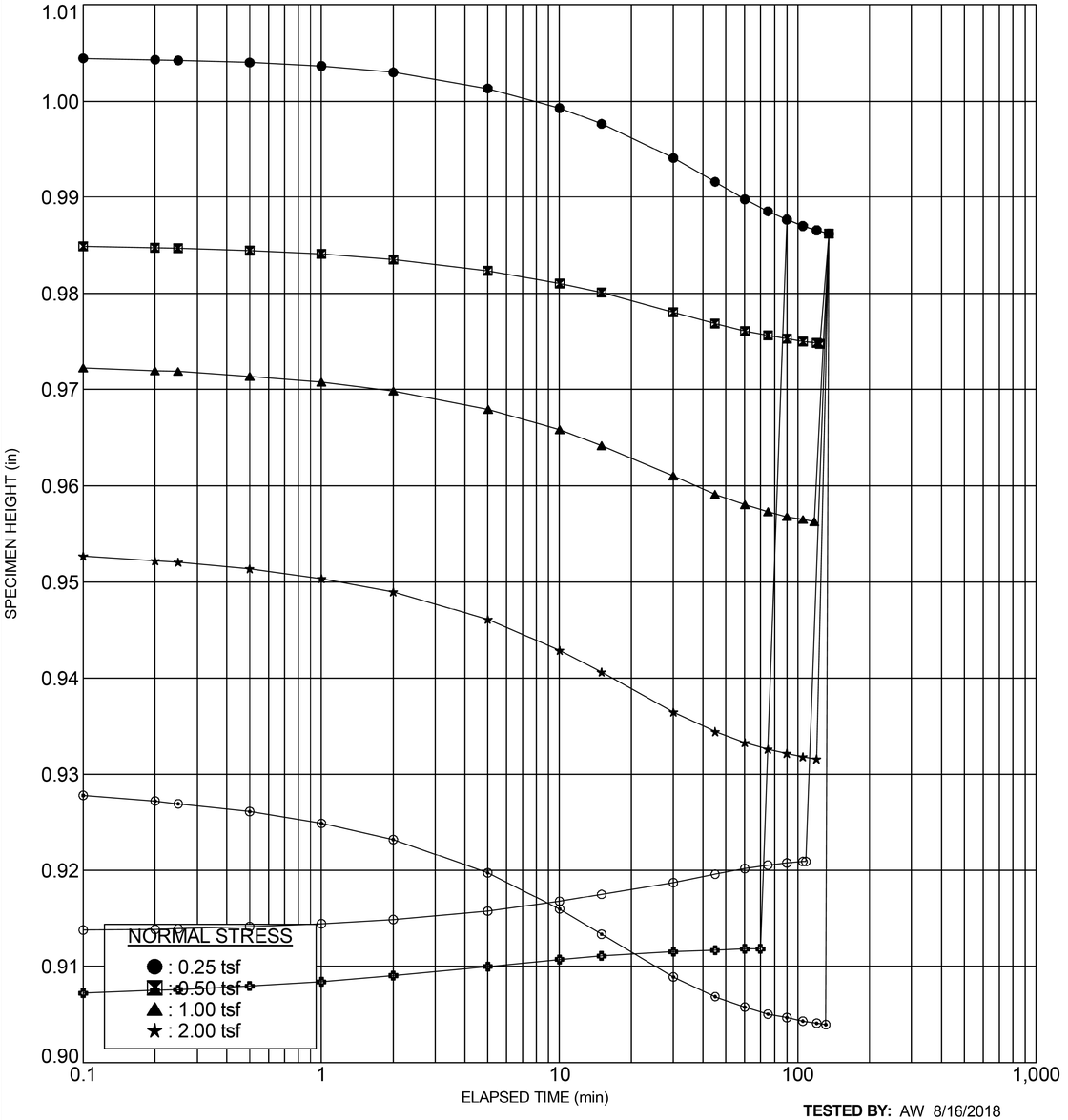
OHDOT CONSOLIDATION - PAGE 1 - OH DOT.GDT - 1/22/19 08:35 - X:\GINT\PROJECTS\2018 COMPLETE\600514.GPJ

ONE-DIMENSIONAL CONSOLIDATION
AASHTO T - 216
(Page 2 of 2)

OHIO DEPARTMENT OF TRANSPORTION
OFFICE OF GEOTECHNICAL ENGINEERING

PROJECT FAI-204-04.32 **PID** 96015
OGE NUMBER 600514 **PROJECT TYPE** STRUCTURE FOUNDATION

SAMPLE IDENTIFICATION
BORING ID: B-001-0-18 SAMPLE ID: ST-3
STATION: 227+34, 8' LT. DEPTH: 3.5 - 5.5 feet



TESTED BY: AW 8/16/2018

OHDOT CONSOLIDATION - PAGE 2 - OH DOT.GDT - 1/22/19 08:36 - X:\GINT\PROJECTS\2018 COMPLETE\600514.GPJ

DRAWN AR CHECKED SAT

STRUCTURE FOUNDATION EXPLORATION
ONE-DIMENSIONAL CONSOLIDATION TEST RESULTS
FAI-204-(3.46)(4.32)
16 / 17

UNCONFINED COMPRESSION TEST
AASHTO T - 208

OHIO DEPARTMENT OF TRANSPORTION
OFFICE OF GEOTECHNICAL ENGINEERING

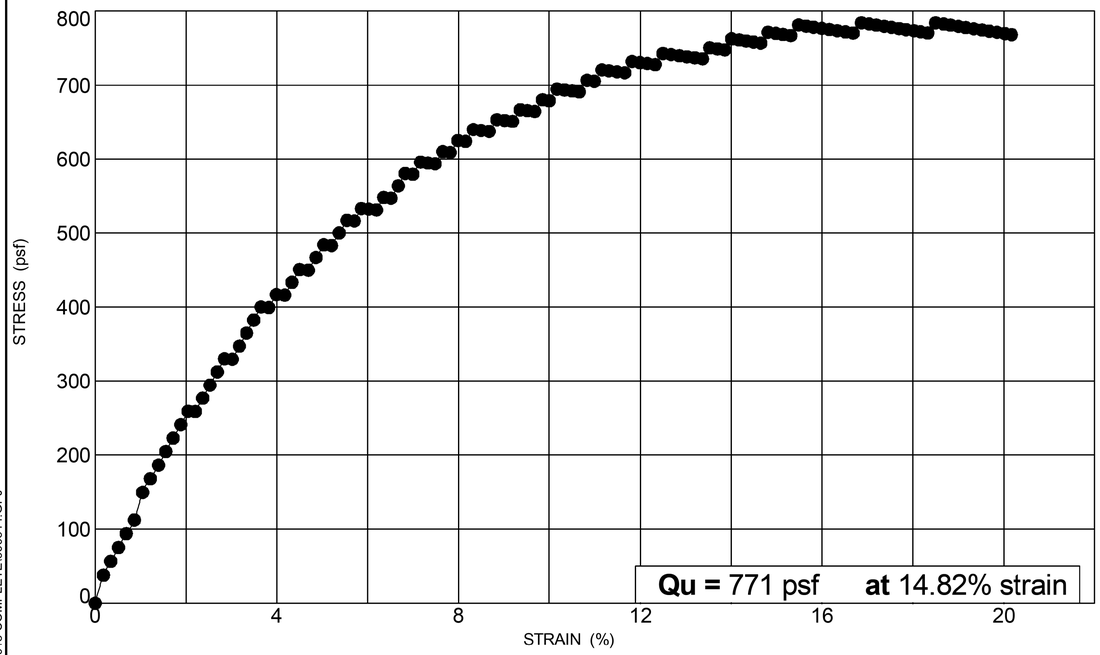
PROJECT FAI-204-04.32 **PID** 96015

OGE NUMBER 600514 **PROJECT TYPE** STRUCTURE FOUNDATION

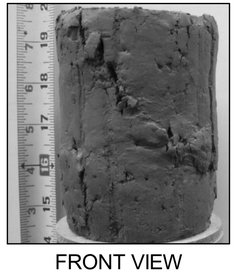
SAMPLE IDENTIFICATION

BORING ID: B-002-0-18 SAMPLE ID: ST-4

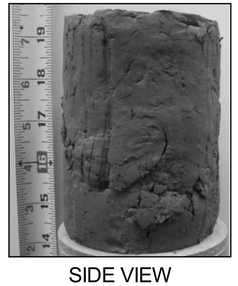
STATION: 227+77, 9' RT. DEPTH: 6.0 - 8.0 feet



SPECIMEN FAILURE SKETCHES OR PHOTOGRAPHS



FRONT VIEW



SIDE VIEW

SPECIMEN DETAILS

HEIGHT: 5.1435 in

DIAMETER: 2.8340 in

WET UNIT WT: 126.68 pcf

DRY UNIT WT: 102.46 pcf

TESTED BY: AW 8/16/2018

CLASSIFICATION RESULTS

GRADATION (%)

GR	CS	FS	SI	CL
21	6	14	27	32

ATTERBERG LIMITS			MOISTURE
LL	PL	PI	WC
30	15	15	21

ODOT CLASS: A-6a HP (tsf): 0.75

DESCRIPTION: Medium Stiff, Brown, **SILT AND CLAY**, Some Gravel, Little Sand, Moist

OHDOT UNCONFINED COMPRESSION - OH DOT.GDT - 1/22/19 09:33 - X:\GINT\PROJECTS\2018 COMPLETE\600514.GPJ

DRAWN AR CHECKED SAT

STRUCTURE FOUNDATION EXPLORATION
UNCONFINED COMPRESSION TEST RESULTS

FAI-204-(3.46)(4.32)

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SPECIAL PROVISIONS

WATERWAY PERMITS CONDITIONS

C-R-S: FAI-204-3.46/4.32

PID: 96015

Date: February 12, 2019

1. Waterway Permits Time Restrictions:

Nationwide Permit #3 is authorized for FAI-204-3.46/4.32. A copy of Nationwide Permit #3 shall be kept at the work site at all times and made available to all contractors and subcontractors. The permit is effective starting: February 12, 2019. The permit expires: March 18, 2022.

For authorized work in aquatic resources (including streams, wetlands, jurisdictional ditches, captured streams, lakes, ponds), the Department will consider the Contractor's submission of a reauthorization to the waterway permit expiration date based on project constraints. If more than one permit is authorized for the project, then all permits become invalid once the first permit expires. In order for the request to be considered, the Contractor must submit a justification to the Engineer at least 90 days prior to the waterway permit expiration date. The Engineer will submit the request for a time extension to the Ohio Department of Transportation, Office of Environmental Services, Waterway Permits Unit (ODOT-OES-WPU) for consideration and coordination with the U.S. Army Corps of Engineers (USACE), Ohio Environmental Protection Agency (OEPA), U.S. Coast Guard (USCG), U.S. Fish and Wildlife Service (USFWS), and Ohio Department of Natural Resources (ODNR) as appropriate.

2. Deviations From Permitted Construction Activities

No deviation from the requirements for work in aquatic resources depicted in the plans, Special Provisions, and/or Working Drawings may be made unless a modification has been submitted to ODOT-OES-WPU and approved by the appropriate agencies (i.e., USACE, OEPA, USCG, ODNR, and USFWS).

For emergency situations resulting in unanticipated impacts to aquatic resources, provide notification (verbal or written) to the Engineer as soon as possible following discovery of the situation. Written notification to the Engineer and notification to the ODOT-OES-WPU (614-466-7100) must be made within 24 hours.

For non-emergency situations, notify the Engineer in writing for submission to the ODOT-OES-WPU (614-466-7100) for consideration and coordination with the appropriate agencies. Notification must be made at least 90 days prior to planned, non-permitted activities. Consideration of the requested deviation is at the discretion of the Director and must be coordinated with the appropriate regulatory agencies.

3. In-Stream Work Restrictions

Work in the following aquatic resources is further restricted as follows:

Stream Name /Description	Location	Work restriction dates (No in-stream work permitted)
Sycamore Creek	FAI-204-3.46	N/A
UNT to Sycamore Creek	FAI-204-4.32	N/A

UNT = unnamed tributary stream

*Restriction dates do not apply if the stream has been dewatered prior to April 15.

In-stream work has been defined as the placement and/or removal of fill materials (temporary or permanent) below ordinary high water of a stream. Examples of "fill" include, but are not limited to: bridge piers, abutments, culverts, rock channel protection, scour protection, and temporary access fills.

Fills placed within a stream identified in the above table (outside of the work restriction dates) can continue to be worked from during the work restriction dates, but cannot be expanded, removed, or otherwise modified (below ordinary high water) until once again outside of the work restriction dates.

4. Materials:

Materials utilized in or adjacent to aquatic resources for temporary or permanent fill or bank protection shall consist of suitable material free from toxic contaminants in other than trace quantities. Broken asphalt is specifically excluded. Chromated Copper Arsenate (CCA), creosote, and other pressure treated lumber shall not be used in structures that are placed in aquatic resources.

5. Cultural Resources

Per CMS 107.10, if archeological sites, historical sites, or human remains are discovered, cease all work in the immediate area and notify the Engineer who will immediately contact the ODOT-District Environmental Coordinator and ODOT-OES-Cultural Resource Section at 614-466-7100. In the event of human remains are identified by OES-Cultural Resources Section, the Engineer shall also contact the Fairfield County Sheriff's Office at (740) 652-7900.

6. Aquatic Resource Demarcation:

All aquatic resources indicated on the plans shall be demarcated in the field as per SS 832 prior to site disturbance. The remainder of the aquatic resources must be demarcated as to ensure avoidance. The fence shall remain in place and be maintained throughout the construction process. Following the completion of the project, the fence and posts shall be removed.

Resource ID	Resource Location	Impact Location	Permanent Impact Amount	Temporary Impact Amount
Sycamore Creek	FAI-204-3.46	STA. 182+90	50 feet (0.007 ac.)	90 feet (0.05 ac.)
UNT to Sycamore Creek	FAI-204-4.32	STA. 227+60	110 feet (0.05 ac.)	125 feet (0.06 ac.)

7. Spill containment:

Provide and Maintain an Oil Spill Kit with a minimum capacity of 65 gallons. The Spill Kit shall contain:
- 6 - 3 in. X 8 ft. Oil only socks
- 4 - 18 in. X18 in. Oil only pillows
- 2 - 5 in. X 10ft. Booms
- 50 - 16in. X 20 in. Oil only pads
- 10- Disposable Bags
- 1- 65 Gallon drum with lid
- 25 pounds of Granular Oil Absorbent

The Oil Spill Kit shall be located within 150 feet of any equipment working in a stream or wetland. The oil Spill Kit shall be maintained for the life of the contract. Any materials utilized during the project will be replaced within 48 hours. All costs associated with furnishing and maintaining the above

referenced spill containment kit is incidental to work.

8. Blasting:

State law requires notification to the Ohio Department of Natural Resources should blasting be required within or near stream channels (See ORC 1533.58 & CMS 107.09). Notify the Engineer, in writing, a minimum of 30 days in advance of blasting, for submission to ODOT-OES-WPU (614-466-7100) for coordination with ODNR.

9. Bridge Inspection:

Prior to the removal of bridge structures, the underside must be carefully examined for the presence of birds and bats. Should any birds or bats be found roosting on the underside of the bridge, the Contractor is required to notify the Engineer for coordination with ODOT-OES-WPU (614-466-7100).

10. Project Inspection:

Inspection of Work may include inspection by representatives of other government agencies or railroad corporations that pay a portion of the cost of the Work or regulate the Work through State and Federal law. Comments from the representatives of these agencies shall be directed to the Engineer. Please forward a copy to ODOT-OES-WPU (614-466-7100).

11. Temporary Access Fills (Stream and River Crossings and Fills)

Special Provisions Notes:

Definitions:

Hydraulic Opening
The cross-sectional area allowing an unimpeded discharge equal to twice the highest monthly flow without producing a rise in the backwater above the Ordinary High Water Mark (OHWM).

Standard Temporary Discharge
Discharge equal to twice the *highest monthly flow* without producing a rise in the backwater above the OHWM. The U.S. Geologic Service publication "Techniques for estimating Selected Streamflow Characteristics of Rural Unregulated Streams in Ohio" provides equations that estimate monthly flow for Ohio Waterways These flows are also available in a web application by USGS StreamStats, (https://water.usgs.gov/osw/streamstats/ohio.html).

Average Monthly Flow
The average monthly flow represents the estimated "normal" flow.

Temporary Access Fills (TAFs)
Include, but are not limited to, causeways, cofferdams, access pads, temporary bridges, etc. below the OHWM.

Requirements

21 calendar days prior to the initiation of any in-stream work, provide the Engineer with Working

Drawings that include:

- Plan view drawing (50 scale or less) showing the location of all jurisdictional temporary fill proposed for use on the project
- Scaled cross section and profile drawing showing the OHWM and the proposed hydraulic opening.
- Calculations analyzing the hydraulic impacts of the TAF on the waterway. Include in the calculations an analysis of the hydraulic opening sized adequately to pass the Standard Temporary Discharge without producing a rise in backwater above the OHWM. Include, in the analysis, calculated channel velocities adjacent to the TAF, culvert exit velocities, calculated headwater and tailwater elevations, and any additional appropriate calculations to assess potential impacts to the waterway during normal and anticipated high flow (twice the highest monthly flow) events.
- A description of the installation and staging of all temporary fill over the life of the contract.
- A description of the removal of all temporary fill and restoration of the channel and all areas impacted by the temporary fill.
- A schedule outlining the timing of the placement and removal of all temporary fill.
- Have competent individuals prepare and check the Working Drawings and hydraulic calculations. Provide a cover sheet containing the preparer(s) and checker(s): First Name, Last Name and Initials. The preparer(s) and checker(s) shall not be the same individual. Have an Ohio Registered Engineer review, approve, sign, seal and date the Working Drawings and hydraulic calculations according to ORC 4733 and OAC 4733-35. Include the following statement on the Working Drawings:
"These Working Drawings were prepared in compliance with the terms of these Special Provisions and all contract documents."

Do not begin in-stream work until the Engineer has accepted the Working Drawings and hydraulic calculations.

The design of the Contractor's TAF must minimize impacts to water bodies, stream banks, stream beds, and riparian zones to the maximum extent practicable.

Fording of streams and rivers is prohibited.

Construct TAFs in such a manner that will maintain flows, minimize upstream flooding, and avoid overtopping the TAF on a regular basis. ***TAFs shall be designed and constructed so that the hydraulic opening provides capacity for a discharge equal to twice the highest monthly flow without producing a rise in the backwater above the (OHWM).***

If the OHWM is not shown on the plans, the Department will establish the OHWM based on the definition of OHWM (as defined in SS 832) or the peak discharge from the 2-year event, using the method described in the most current version of the Department's Location and Design Manual Volume II.

If the Contractor proposes a TAF which does not meet all the requirements of these Special Provisions, the Contractor must submit a request in writing for a modified TAF to the Engineer. The request must include all Working Drawings and hydraulic calculations required by these Special Provisions. The Department makes no guarantee to grant the request. The Contractor's proposed TAF request will be coordinated by OES with the USACE and the OEPA, as appropriate. The time frame allowed for the coordination of the contractor's proposed TAF will be a minimum of 60 days.

Installation of any temporary fill without appropriate authorization is strictly prohibited. All direct coordination with the USACE and/or OEPA will be performed through OES.

TAFs Construction and Payment

Begin planning and installing causeways and access fills as early in construction as possible to avoid conflicts with these Special Provisions or other environmental commitments that have been included in

the construction plans.

TAFs in Streams and Rivers may include, but are not limited to, causeways, cofferdams, access pads, sheet piling, temporary bridges, etc. The Contractor must make every attempt to minimize disturbance to waterbodies, stream banks, stream beds and riparian zones during the construction, maintenance, and removal of the TAF. Construct the TAFs as narrow as practical. Install in-stream conduits parallel to the stream banks. Make the TAFs in shallow areas rather than deep pools where possible. Minimize clearing, grubbing, and excavation of stream banks, and approach sections. Construct the TAFs as to not erode stream banks or allow sediment deposits in the channel.

Prior to the initiation of any in-stream work, establish a monument upstream of the proposed TAF to visually monitor the water elevation in the waterway where the fill is permitted. Maintain the monument throughout the project. Provide a visual mark on the monument that identifies the elevation 1 foot above the OHWM. Ensure that the monument can be read from the bank of the waterway. Have this elevation set and certified by an Ohio Registered Surveyor. All costs associated with furnishing and maintaining the above referenced monument is incidental to the work.

Should the surface water elevation exceed the elevation 1 foot above OHWM, the Department will compensate the Contractor for repair of any resulting damage to the TAF up to the elevation of 1 foot above the OHWM, except as noted. The Department will recognize this event as an excusable, non-compensable delay in accordance with Section 108.06 of the Construction & Materials Specifications.

Follow the requirements in Item 502 for Structures for Maintaining Traffic and in Item 503 for Cofferdams and Excavation Bracing and any modifications to these items as shown in the plans. The Department will not pay for repair and maintenance of TAFs associated with Items 502 and 503 as a result of surface water elevation exceeding 1 foot above the OHWM. Compensation for damages associated with waterway flows will be provided as described in Items 502 and 503.

Construct the TAFs, not including Items 502 and 503, to a water elevation at least 1 foot (0.3 m) above the OHWM. If more than one-third the width of the stream is filled, then use culvert pipes to allow the movement of aquatic life. Ensure that any ponding of water behind the causeway and access fills will not damage property or threaten human health and safety.

The following minimum requirements apply to TAFs where culverts are used.

A. Furnish culverts on the existing stream bottom.
B. Avoid a drop in water elevation at the downstream end of the culvert that would result in an adverse impact to the waterway.
C. Furnish a sufficient number of culverts in addition to stream openings to provide a discharge equal to twice the highest monthly flow without producing a rise in the backwater above the OHWM.
D. Furnish culverts with a minimum diameter of 18 inches (0.5 m).

All TAFs must be constructed of suitable materials. Causeways and access fills must be encapsulated with clean, non-erodible, nontoxic Dumped Rock Fill, Type A, B, C, or D, as specified in C&MS 703.19.B. Extend rock fill up the slope from original stream bank for 50 feet (10 m) to catch and remove erodible material from equipment.

When the work requiring TAF is complete, all portions of the TAF (including all rock and culverts) will be removed in its entirety. Do not dispose of TAF material in other aquatic resources or where erosion into another aquatic resource is possible. The stream bottom affected by the causeway and access fills will be restored to its pre-construction elevations. The TAF will not be paid as a separate item but will be included by the Contractor as part of the total project cost.

Unless specific TAF compensation is included in the plans, all environmental protection and control associated with the authorized activities, are incidental to the work within the boundaries of the aquatic resources.

12. Excavation Activities:

Excavated material will be placed at an upland site and disposed of in such a manner that sediment and runoff to streams and other aquatic resources is controlled and minimized. Additionally, no more than incidental fallback into jurisdictional waters of the U.S. is permitted during the excavation process. If any changes to the proposed work are deemed necessary, you must notify and coordinate with the ODOT-OES-WPU (614-466-7100).

13. Demolition Debris:

The temporary discharge of demolition debris into Sycamore Creek and the UNT to Sycamore Creek (including but not limited to bridges, culverts, abutments, wing walls, piers) is conditionally authorized for this project. Demolition debris may not remain in the waterway for more than 72 hours and must be removed in its entirety. If removal of debris material cannot be achieved within 72 hours, notify the Engineer in writing and contact ODOT-OES-WPU at 614-466-7100.

SPECIAL PROVISIONS

Asbestos Survey Report

CRS: FAI-204-3.46
PID: 96015
Date: February 4, 2019

ASC GROUP, INC. | ARCHAEOLOGY | ARCHITECTURAL HISTORY | ENVIRONMENT

CULTURAL AND ENVIRONMENTAL CONSULTANTS

January 31, 2019

Hull & Associates, Inc.
c/o: ODOT District 5
Attn: Kashmira Asnani
6397 Emerald Parkway, Suite 200
Dublin, Ohio 43016

Re: Bridge Asbestos Inspection
FAI-SR204-3.46
ODOT PID 96015

Dear Ms. Asnani

Under contract with Hull & Associates, Inc., ASC Group, Inc., completed an asbestos inspection for the FAI-SR204-3.46 replacement project for the existing State Route (SR) 204 bridge crossing of Sycamore Creek in Pickerington, Fairfield County, Ohio. The project is located in the Ohio Department of Transportation (ODOT) District 5, whose office is located at 9600 Jacksontown Road, Jacksontown, Ohio 43030 (740.323.4400).

As specified in the scope of work, the inspection included a visual inspection of the bridge and collection of samples of suspected asbestos-containing material (ACM).

On January 7, 2019, Mr. Stuart Jennings visited the bridge and performed a survey for ACM. Mr. Jennings is certified by the State of Ohio Department of Environmental Protection – Division of Air Quality, as an Asbestos Hazard Evaluation Specialist (ES# 36081). Although the materials used in the construction of the bridge consisted of predominantly steel and concrete, two bulk samples were collected and submitted for analysis for asbestos content. The collected suspect ACM samples are included in the following table.

800 Freeway Drive N, Suite 101, Columbus, OH 43229 Phone: 614.268.2514
www.ascgroup.net

Sampled Suspect ACM

Project Name:	FAI-SR204-3.46
Sample Location:	SR 204 Bridge over Sycamore Creek
Sample Number:	S1
Date of Sample:	1/7/2019
Sample Description:	Green Paint Flake

Project Name:	FAI-SR204-3.46
Sample Location:	SR 204 Bridge over Sycamore Creek
Sample Number:	S2
Date of Sample:	1/7/2019
Sample Description:	Green Paint Flake

Bulk asbestos sample analysis was performed in accordance with the US Environmental Protection Agency's recommended test method: Interim Method 600/R-93-116, "Determination of Asbestos in the Bulk Building Materials" by Polarized Light Microscopy (PLM). The asbestos samples were analyzed by trained microscopists at International Asbestos Testing Laboratories (iATL), a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory. The samples did not contain asbestos.

Enclosed are photographs, a schematic of the bridge showing photograph and sample locations, and an Ohio Environmental Protection Agency (OEPA) Notification of Demolition and Renovation form. Applicable sections of the form were completed. Analytical results are also included.

ASC Group, Inc., appreciates the opportunity to assist you with this project. Please call me if you have any questions or require additional information. My telephone number is 614.268.2514, ext. 3447.

Sincerely,
ASC GROUP, INC.

Stuart Jennings
Senior Ecologist & Environmental Specialist

Enclosures

LABORATORY RESULTS

LABORATORY RESULTS

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: ASC Group, Inc.
800 Freeway Drive N.
Columbus OH 43229

Client: ASC096

Report Date: 1/16/2019
Report No.: 581227 - PLM
Project: FAI-204-3.46
Project No.: 2450-1

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6690788
Client No.: S1

Analyst Observation: Green Paint
Client Description: Green Flake

Location: Bridge Paint South
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 6690789
Client No.: S2

Analyst Observation: Green Paint
Client Description: Green Flake

Location: Bridge Paint North
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 1/11/2019
Date Analyzed: 01/16/2019
Signature:
Analyst: Jeffrey Fazzo

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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Appendix to Analytical Report

Customer Contact: Stuart Jennings
Method: US EPA 600, R93-116

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager: cdavis@iatl.com
iATL Account Representative: Shirley Clark
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk Building Materials
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. PC Trace represents a <0.25% amount. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB)

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)

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CERTIFICATE OF ANALYSIS

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Client: ASC096

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Report No.: 581227 - PLM
Project: FAI-204-3.46
Project No.: 2450-1

Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com**.

1) Note: No mastic provided for analysis.
2) Note: Insufficient mastic provided for analysis.
3) Note: Insufficient material provided for analysis.
4) Note: Insufficient sample provided for QC reanalysis.
5) Note: Different material than indicated on Sample Log / Description.
6) Note: Sample not submitted.
7) Note: Attached to asbestos containing material.
8) Note: Received wet.
9) Note: Possible surface contamination.
10) Note: Not building material. 1% threshold may not apply.
11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
12) Note: Asbestos detected but not quantifiable.
13) Note: Multiple identical samples submitted, only one analyzed.
14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.
16) Note: This sample contains >10% vermiculite mineral. See Appendix for Recommendations for Vermiculite Analysis.

Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites).Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

For New York State customers, NYSDOH requires disclaimers and qualifiers for various vermiculite containing samples that direct analysis via ELAP198.6 and ELAP198.8 for samples that contain >10% vermiculite mineral where ELAP198.6 may be used to evaluate the asbestos content of the material. However, any test result using ELAP198.6 will be reported with the following disclaimer: "ELAP198.6 method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing >10% vermiculite."

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional.

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

1)**Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116
Requirements/Comments: Minimum of 0.1 g of sample. ~0.25% LOQ for most samples.

2)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

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3)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Floats" only.

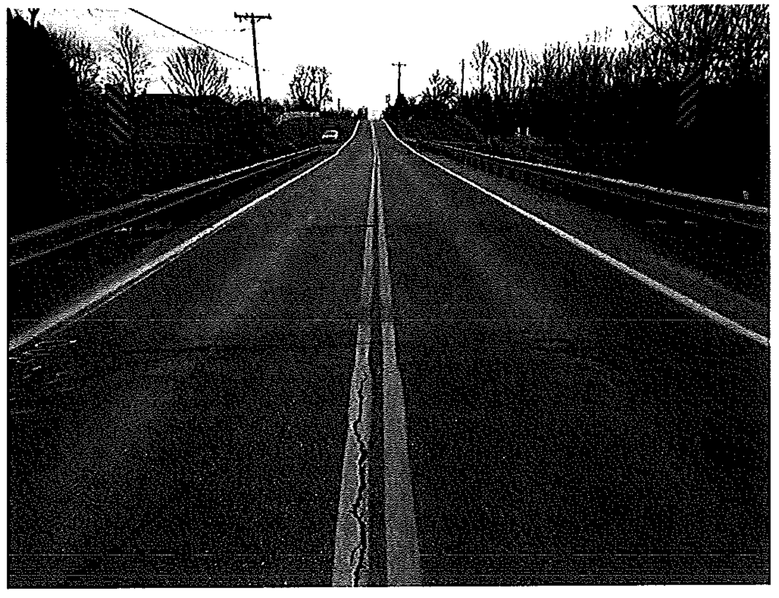
4)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

5)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Suspension" only.

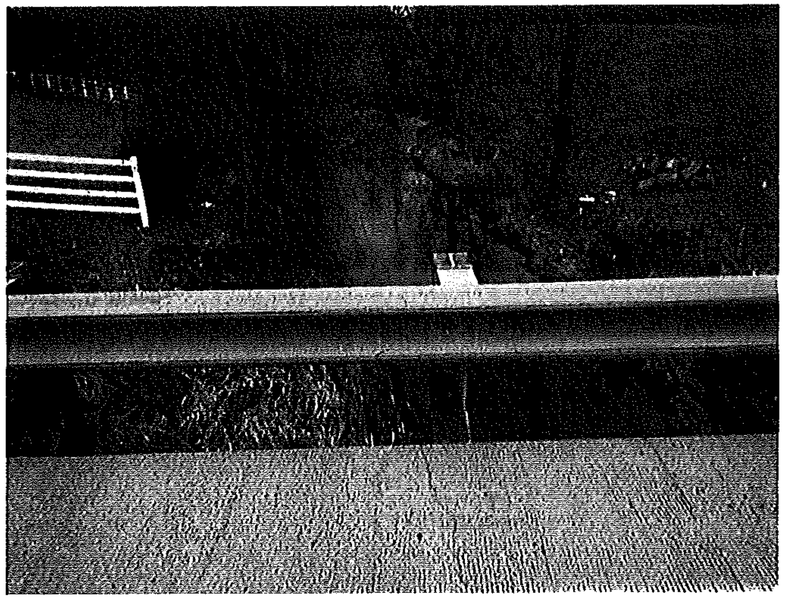
LOQ, Limit of Quantitation estimates for mass and volume analyses.
*With advance notice and confirmation by the laboratory.
**Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

PHOTOGRAPHS

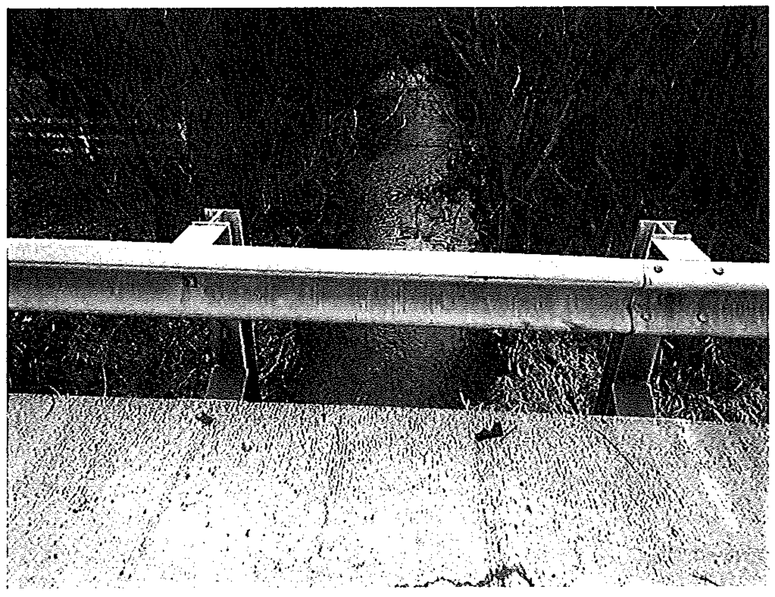
Photograph 1. View of the SR 204 (Blacklick-Eastern Road) Bridge for FAI-SR204-3.46, looking west.



Photograph 2. View of the SR 204 (Blacklick-Eastern Road) Bridge for FAI-SR204-3.46, looking east.



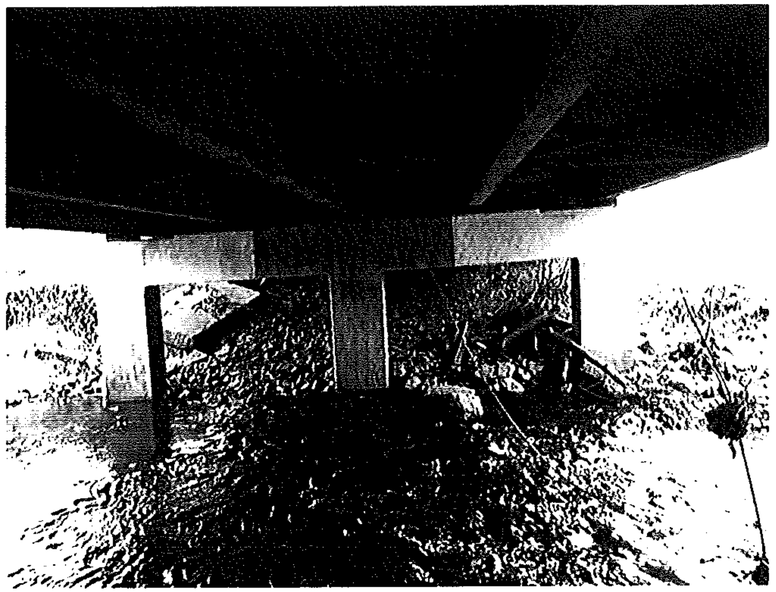
Photograph 3. View of the SR 204 (Blacklick-Eastern Road) Bridge for FAI-SR204-3.46, looking north at Sycamore Creek.



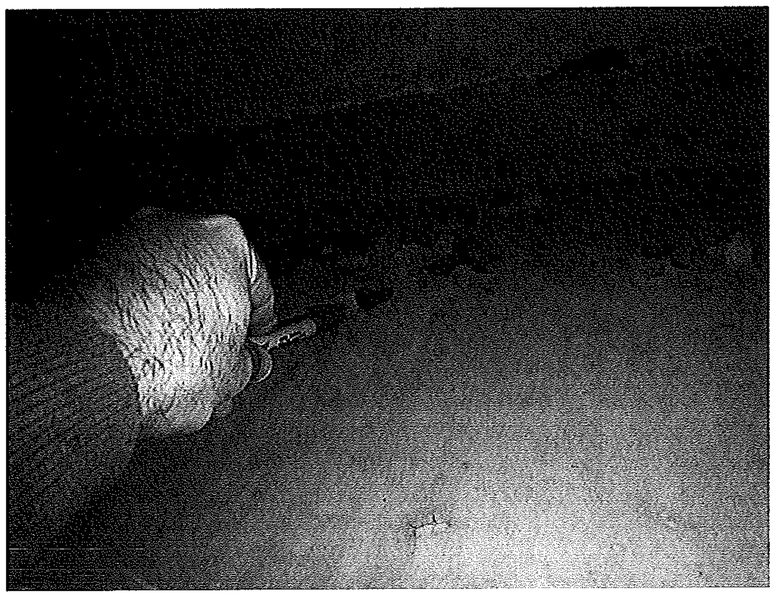
Photograph 4. View of the SR 204 (Blacklick-Eastern Road) Bridge for FAI-SR204-3.46, looking south at Sycamore Creek.

Photograph 5. View of the SR 204 (Blacklick-Eastern Road) Bridge for FAI-SR204-3.46, looking at the southern side of the bridge.

Photograph 6. View of the SR 204 (Blacklick-Eastern Road) Bridge for FAI-SR204-3.46, looking at the northern side of the bridge.



Photograph 7. View of the SR 204 (Blacklick-Eastern Road) Bridge for FAI-SR204-3.46, looking west from the underside of the bridge.



Photograph 8. View of steel girder paint flakes (Sample S1), from the northern side of the bridge.

Photograph 9. View of steel girder paint flakes (Sample S2), from the southern side of the bridge.

EPA 10-DAY NOTIFICATION FORM

Ohio Environmental Protection Agency

Notification of Demolition and Renovation Form
Single & Multi-Structure
Division of Air Pollution Control

Operator Project # :	*For Official Use Only*			
	☐ Hand-Delivered	Postmark : / /	Received by Office : / /	Notification # :
1	**Notification Type (check one)**			
☒ Original	☐ Revision # :	Section #s Revised:	Offsite/Hold : ☐ Yes ☐ No	☐ Cancellation
2	**Facility Description (include building name, number and floor or room number). If more than one structure, use Multi-Structure Attachment form**			
Building Name (if applicable) : Bridge Fai-Sr204-3.46 - Sfn:2302616			Site Location : Sr-204 Bridge Over Sycamore Creek	
Address : N/A			County : Fairfield	
City : Pickerington			State : OH	Zip : 43147
Building Size (ft²) : 2,558			No. of Floors : 1	Age (years) : 72
Present Use : Miscellaneous			Prior Use : Miscellaneous	
3	**Type of Operation (check one)**			
☒ Demolition	☐ Emergency Demolition	☐ Renovation	☐ Emergency Renovation	☐ Fire Training ☐ Annual ☐ Courtesy
4	**Is Asbestos Present? (check one)**			
☐ Yes	☒ No	☐ No, previously abated	Year Abated (if applicable) :	
5	**Owner/Coordinating Entity, Asbestos Abatement Contractor and Onsite Demolition Contractor Information**			
Is this project part of a larger project or urban demolition (installation)? ☒ Yes (list contact information for coordinating entity below) ☐ No (list contact information for property owner below)			Does this notification include more than one structure? ☐ Yes (complete the Multi-Structure Attachment Form) ☒ No	
Owner/Coordinating Entity : Odot District 5				
Address : 9600 Jacksontown Road			Email : Ty.Thompson@Dot.Ohio.Gov	
City : Jacksontown			State : OH	Zip : 43030
Contact : Ty Thompson			Phone : (740) 323 - 5194	Fax : (740) 323 - 3715
Asbestos Abatement Contractor (if applicable)			**On-site Demolition Contractor or Fire Department (if applicable)**	
Name :			Name :	
Address :			Address :	
City :	State :	Zip :	City :	State : Zip :
Contact :	License # : AC		Contact :	
Phone : ( ) -	Fax : ( ) -		Phone : ( ) -	Fax : ( ) -
Email :			Email :	
6	**Ohio Asbestos Hazard Evaluation Specialist and Evaluation Procedure**			
Evaluation Specialist : Stuart Jennings			License # : ES 36081	Expiration Date : 11 / 09 / 2019
Procedure, including analytical methods, employed to detect the presence of and to estimate the quantity of regulated asbestos-containing material (RACM) and Category I and Category II nonfriable asbestos-containing material: ☒ PLM ☐ Point Count ☐ TEM ☐ Other Method (Explain Below) :				

7	**Approximate Amount of Asbestos-Containing Materials (complete table below and Section 11 if asbestos is present)**				
	Material to be Removed			Material NOT to be Removed	
	RACM	Nonfriable Asbestos-Containing Material		Nonfriable Asbestos-Containing Material	
		Category I	Category II	Category I	Category II
Pipes (linear feet)					
Surface Area (ft²)					
Facility Components ☐ ft³ ☐ yd³					

8	**Scheduled Dates of Demolition or Renovation (original notification is required 10 working days prior to the start of work)**	
Start : / /		Complete : / /
9	**Asbestos Removal Dates and Work Hours (if applicable, for asbestos removal only)**	
Start : / /		Complete : / /

Hours Onsite	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	—	—	—	—	—	—	—

10	Planned Demolition or Renovation Work (check all that apply)

Description of planned demolition or renovation work to be performed and method(s) to be employed, including demolition or renovation techniques to be used :

☐ Implosion ☐ Fire Training ☐ Wet Methods ☐ Manual Demolition ☐ Mechanical Demolition ☐ Other (Explain Below) :

Description of affected facility components (include attachment if necessary) :

11	Asbestos Description and Engineering Controls (if asbestos is being abated)

For the amount of each material listed in Section 7, describe the type(s) of ACM to be abated as well as engineering controls and work practices to be used to minimize emissions and ensure proper waste handling :

12	Asbestos Waste Transporters (if applicable)

Asbestos Waste Transporter #1			Asbestos Waste Transporter #2		
Name :			Name :		
Address :			Address :		
City :	State :	Zip :	City :	State :	Zip :
Contact :			Contact :		
Phone : ( ) -	Fax : ( ) -		Phone : ( ) -	Fax : ( ) -	
Email :			Email :		

13	Asbestos Waste Disposal (if applicable)

Asbestos Waste Disposal Site :			Contact :	
Address :			Email :	
City :	State :	Zip :	Phone : ( ) -	Fax : ( ) -

14	Emergency Demolition (complete this section if you checked Emergency Demolition in Section 3)

A copy of the issued order, including the following information, must be attached to this notification

Government Official Issuing Order :	Title :
Agency :	Authority of Order (Citation of Code) :
Date of Order : / /	Demolition Date : / /

15	Emergency Renovation (complete this section if you checked Emergency Renovation in Section 3)

A separate sheet with the following information must be attached to this notification

Date of Emergency : / /	Time of Emergency :
Description of Sudden, Unexpected Event :	
Explanation of how the event caused unsafe conditions or equipment damage :	

16	Procedures to be followed should unexpected RACM be discovered (check all that apply)

☒ Stop work and keep wet	☐ Evacuate area	☒ Contact licensed abatement contractor
☐ Contact district office/local air authority	☒ Demarcate area	☐ Other (Explain Below) :

17	Asbestos Abatement Signature (only sign below if asbestos is being removed)

In accordance with Ohio Administrative Code rule 3745-20-03(A)(4)(p), I certify that at least one person trained as required by paragraph (B) of rule 3745-20-04 of the Administrative Code will supervise the stripping and removal described by this notification.

Signature :		Date : / /

Name, Title and Organization (please print)

18	Demolition and Renovation Signature (required for all original and revised notifications)

I acknowledge the existence of laws prohibiting the submission of false or misleading statements and I certify that facts contained in this notification are true, accurate, and complete.

Signature :		Date : / /

Name, Title and Organization (please print)

Original notification must be mailed or hand-delivered at least 10 working days (Monday – Friday excluding weekends) before demolition or renovation begins, except emergency demolitions and emergency renovations which must be submitted as soon as possible before operations begin, but no later than the following work day.

Ohio Environmental Protection Agency

Notification of Demolition and Renovation
Multi-Structure Attachment Form

Division of Air Pollution Control

Note: This form to be completed and attached to Notification Form when project involves more than one structure

Project Name: **Date Submitted:** **Revision #:**

	Project Details	Structure 1	Structure 2	Structure 3	Structure 4	Structure 5
Structure Details	Site Address (Include street, city, and zip)					
	Building Name					
	Present Use					
	Past Use					
Asbestos Quantities	RACM	Sf	Sf	Sf	Sf	Sf
		Lf	Lf	Lf	Lf	Lf
		Cf	Cf	Cf	Cf	Cf
	Cat. I NF to be Removed	Sf	Sf	Sf	Sf	Sf
	Cat. II NF to be Removed	Sf	Sf	Sf	Sf	Sf
	Cat. I NF to Remain	Sf	Sf	Sf	Sf	Sf
	Cat. II NF to Remain	Sf	Sf	Sf	Sf	Sf
Work Schedule	Asbestos Removal Start Date	/ /	/ /	/ /	/ /	/ /
	Asbestos Removal Complete Date	/ /	/ /	/ /	/ /	/ /
	Demolition/Renovation Start Date	/ /	/ /	/ /	/ /	/ /
	Demolition/Renovation Complete Date	/ /	/ /	/ /	/ /	/ /
Revised	Check box if details were revised	☐	☐	☐	☐	☐

FIGURES

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Figure 1

Portion of the ODOT Fairfield County highway map showing the vicinity of the FAI-SR204-3.46; PID 96015 project area.

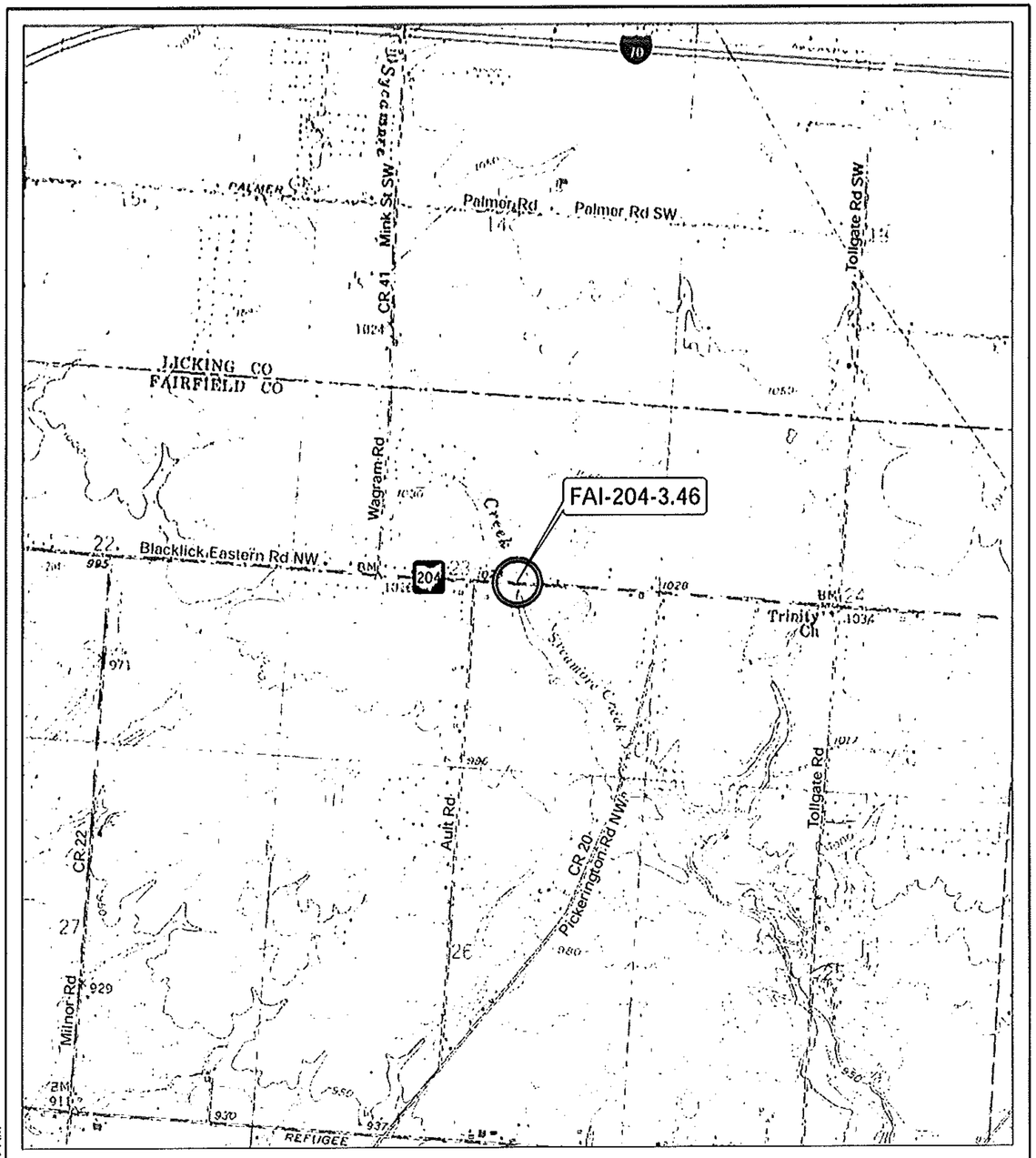

Figure 2

Portion of the 1992 Pataskala, Ohio quadrangle (USGS 7.5' topographic map) showing FAI-SR204-3.46; PID 96015 project area.

Base: USGS Pataskala, Ohio, 7.5' series quadrangle

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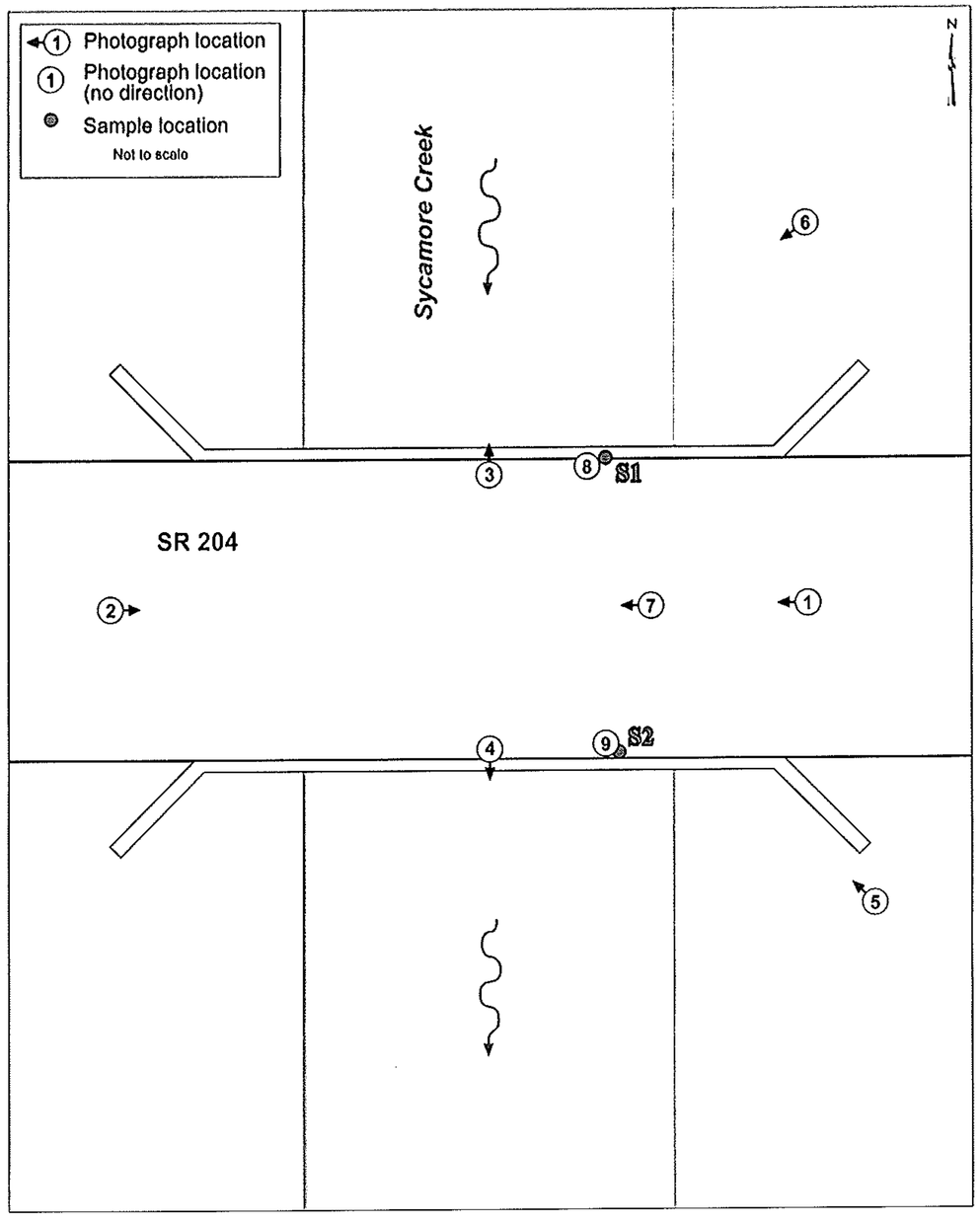

Figure 3. SR 204 Bridge over Sycamore Creek, Fairfield County, Ohio – FAI-SR 204-3.46; PID 96015 showing sample and photograph locations.

ASBESTOS INSPECTION REPORTING FORM

OHIO DEPARTMENT OF TRANSPORTATION

Asbestos Inspection Reporting Form

Date: 1/30/2019

County: Fairfield

Route: SR-204

Section: 3.46

PID: 96015

Requesting ODOT District Office: District 5

Regulating OEPA District Office and Address:
OEPA Central District Office
Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

Date of the Asbestos Inspection: 1/7/2019

Name and Address of the company conducting the asbestos inspection

ASC Group, Inc
800 Freeway Drive N., Columbus, Ohio 4329

Name, signature and asbestos hazard evaluation number of the person writing the report

Stuart Jennings (Asbestos Cert#: ES36081)

Description sampling locations and how each location was determined (use additional pages if needed)

Bulk grab sample SP1: Green Paint Flake from northern side bridge support beam.
Bulk grab sample SP2: Green Paint Flake from southern side bridge support beam.

Name, signature and asbestos hazard evaluation number of each person who selected samples from the structure (use additional pages if needed)

Name	Signature	Asbestos Evaluation #
Stuart Jennings		ES36081

Supporting Information

Laboratory Analytical Report

Blueprint, diagram or written description with the following:

- Type, location and amount of confirmed regulated asbestos containing material
- Location and collection date of each bulk sample
- Location and amounts of suspected asbestos containing material, both friable and non-friable

NOTE: The OEPA Notification of Demolition and Renovation Form with the appropriate Sections I, II, III, IV, VI and VII must be completed by the licensed asbestos hazard evaluation specialist and included with the report submission to ODOT prior to submission to OEPA or the local air authority with jurisdiction.

SPECIAL PROVISIONS

Asbestos Survey Report

CRS: FAI-204-4.32
PID: 96015
Date: February 4, 2019

ASC GROUP, INC. | ARCHAEOLOGY | ARCHITECTURAL HISTORY | ENVIRONMENT

CULTURAL AND ENVIRONMENTAL CONSULTANTS

January 31, 2019

Hull & Associates, Inc.
c/o: ODOT District 5
Attn: Kashmira Asnani
6397 Emerald Parkway, Suite 200
Dublin, Ohio 43016

Re: Bridge Asbestos Inspection
FAI-SR204-4.32
ODOT PID 96015

Dear Ms. Asnani

Under contract with Hull & Associates, Inc., ASC Group, Inc., completed an asbestos inspection for the FAI-SR204-4.32 replacement project for the existing State Route (SR) 204 bridge crossing of an unnamed tributary (UNT) to Sycamore Creek in Pickerington, Fairfield County, Ohio. The project is located in the Ohio Department of Transportation (ODOT) District 5, whose office is located at 9600 Jacksontown Road, Jacksontown, Ohio 43030 (740.323.4400).

As specified in the scope of work, the inspection included a visual inspection of the bridge and collection of samples of suspected asbestos-containing material (ACM).

On January 7, 2019, Mr. Stuart Jennings visited the bridge and performed a survey for ACM. Mr. Jennings is certified by the State of Ohio Department of Environmental Protection – Division of Air Quality, as an Asbestos Hazard Evaluation Specialist (ES# 36081). Although the materials used in the construction of the bridge consisted of predominantly steel and concrete, two bulk samples were collected and submitted for analysis for asbestos content. The collected suspect ACM samples are included in the following table.

800 Freeway Drive N, Suite 101, Columbus, OH 43229 Phone: 614.268.2514
www.ascgroup.net

Sampled Suspect ACM

Project Name:	FAI-SR204-4.32
Sample Location:	SR 204 Bridge over an UNT to Sycamore Creek
Sample Number:	**S1**
Date of Sample:	1/7/2019
Sample Description:	Green Paint Flake

Project Name:	FAI-SR204-4.32
Sample Location:	SR 204 Bridge over an UNT to Sycamore Creek
Sample Number:	**S2**
Date of Sample:	1/7/2019
Sample Description:	Green Paint Flake

Bulk asbestos sample analysis was performed in accordance with the US Environmental Protection Agency's recommended test method: Interim Method 600/R93-116, "Determination of Asbestos in the Bulk Building Materials" by Polarized Light Microscopy (PLM). The asbestos samples were analyzed by trained microscopists at International Asbestos Testing Laboratories (iATL), a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory. The samples did not contain asbestos.

Enclosed are photographs, a schematic of the bridge showing photograph and sample locations, and an Ohio Environmental Protection Agency (OEPA) Notification of Demolition and Renovation form. Applicable sections of the form were completed. Analytical results are also included.

ASC Group, Inc., appreciates the opportunity to assist you with this project. Please call me if you have any questions or require additional information. My telephone number is 614.268.2514, ext. 3447.

Sincerely,
ASC GROUP, INC.

Stuart Jennings
Senior Ecologist & Environmental Specialist

Enclosures

LABORATORY RESULTS

LABORATORY RESULTS

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: ASC Group, Inc.
800 Freeway Drive N.
Columbus OH 43229

Client: ASC096

Report Date: 1/17/2019
Report No.: 581228 - PLM
Project: FA1-204-4.32
Project No.: 2450-1

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6690790
Client No.: S1

Analyst Observation: Green Paint
Client Description: Green Flake

Location: Bridge Paint South
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 6690791
Client No.: S2

Analyst Observation: Green Paint
Client Description: Green Flake

Location: Bridge Paint North
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 1/11/2019
Date Analyzed: 01/17/2019
Signature:
Analyst: Jeffrey Fazzo

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

iATL INTERNATIONAL
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Appendix to Analytical Report

Customer Contact: Stuart Jennings
Method: US EPA 600, R93-116

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager: cdavis@iatl.com
iATL Account Representative: Shirley Clark
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk Building Materials
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. PC Trace represents a <0.25% amount. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB)

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)

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ASBESTOS TESTING LABORATORIES

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CERTIFICATE OF ANALYSIS

Client: ASC Group, Inc.
800 Freeway Drive N.
Columbus OH 43229

Client: ASC096

Report Date: 1/17/2019
Report No.: 581228 - PLM
Project: FAI-204-4.32
Project No.: 2450-1

Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com**.

1) Note: No mastic provided for analysis.
2) Note: Insufficient mastic provided for analysis.
3) Note: Insufficient material provided for analysis.
4) Note: Insufficient sample provided for QC reanalysis.
5) Note: Different material than indicated on Sample Log / Description.
6) Note: Sample not submitted.
7) Note: Attached to asbestos containing material.
8) Note: Received wet.
9) Note: Possible surface contamination.
10) Note: Not building material. 1% threshold may not apply.
11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
12) Note: Asbestos detected but not quantifiable.
13) Note: Multiple identical samples submitted, only one analyzed.
14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.
16) Note: This sample contains >10% vermiculite mineral. See Appendix for Recommendations for Vermiculite Analysis.

Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites).Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

For New York State customers, NYSDOH requires disclaimers and qualifiers for various vermiculite containing samples that direct analysis via ELAP198.6 and ELAP198.8 for samples that contain >10% vermiculite mineral where ELAP198.6 may be used to evaluate the asbestos content of the material. However, any test result using ELAP198.6 will be reported with the following disclaimer: "ELAP198.6 method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing >10% vermiculite."

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional.

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

1) **Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116
Requirements/Comments: Minimum of 0.1 g of sample. ~0.25% LOQ for most samples.

2) **Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

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Report Date: 1/17/2019
Report No.: 581228 - PLM
Project: FAI-204-4.32
Project No.: 2450-1

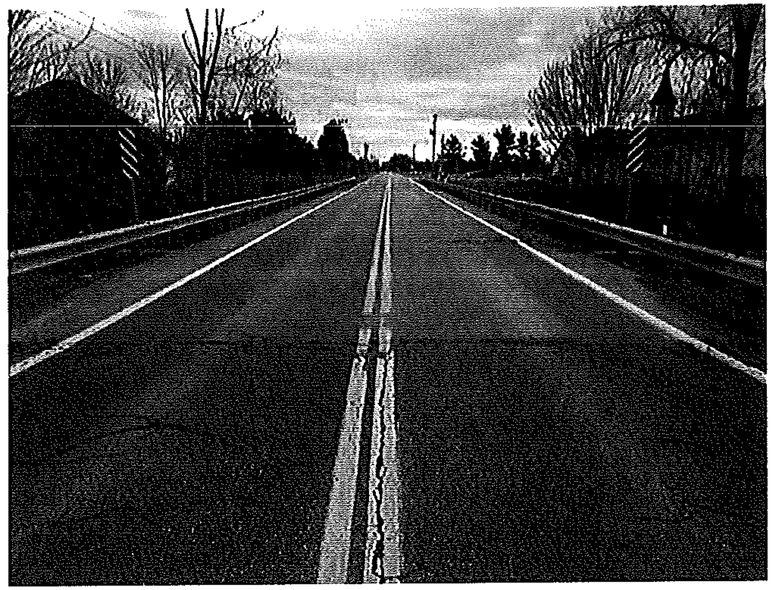
3) **Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Floats" only.

4) **Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

5) **Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Suspension" only.

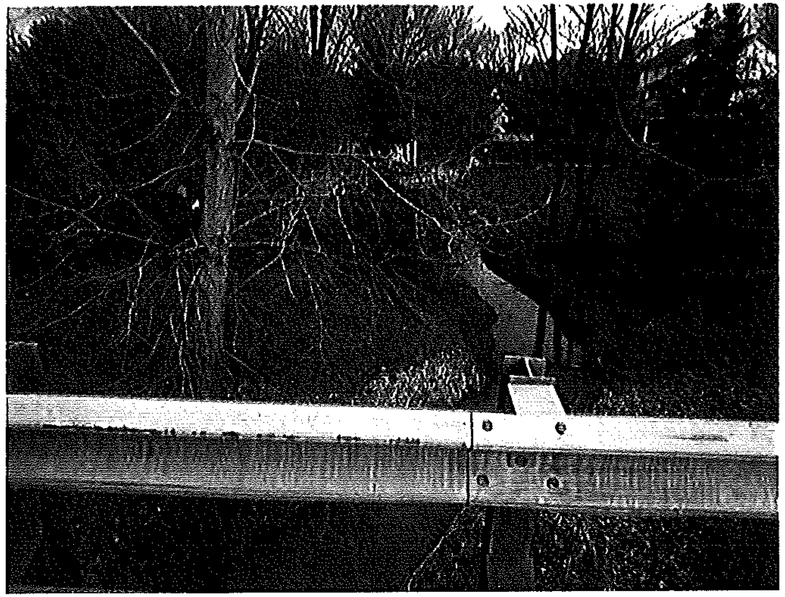
LOQ, Limit of Quantitation estimates for mass and volume analyses.
*With advance notice and confirmation by the laboratory.
**Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

PHOTOGRAPHS



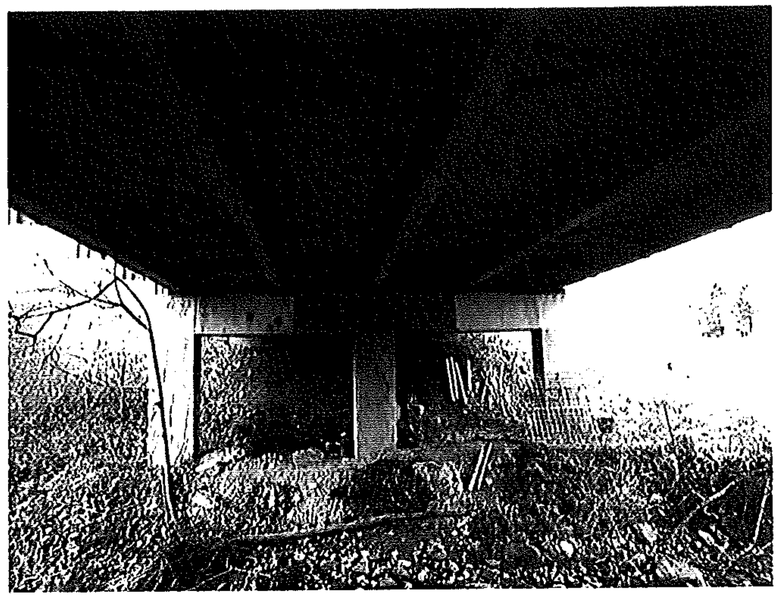
Photograph 1. View of the SR 204 (Blacklick-Eastern Road) Bridge for FAI-SR204-4.32, looking east.

Photograph 2. View of the SR 204 (Blacklick-Eastern Road) Bridge for FAI-SR204-4.32, looking west.



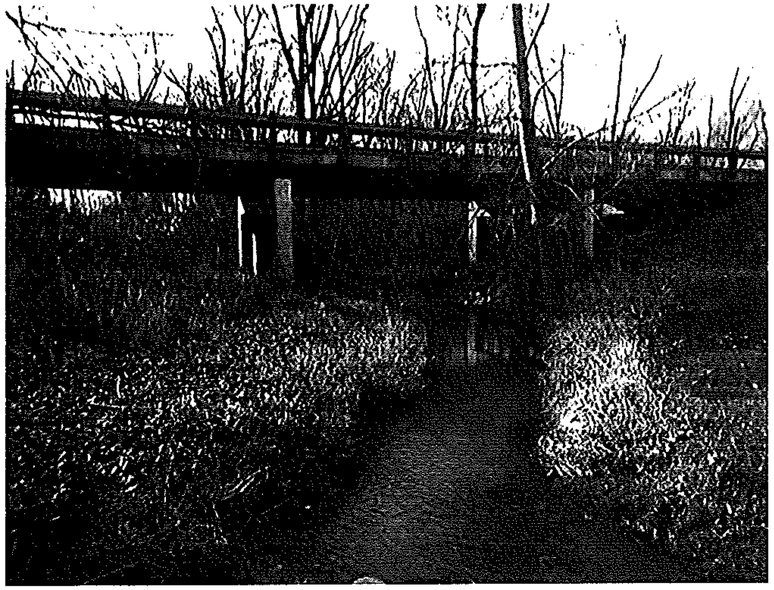
Photograph 3. View of the SR 204 (Blacklick-Eastern Road) Bridge for FAI-SR204-4.32, looking north at the UNT to Sycamore Creek.

Photograph 4. View of the SR 204 (Blacklick-Eastern Road) Bridge for FAI-SR204-4.32, looking south at the UNT to Sycamore Creek.



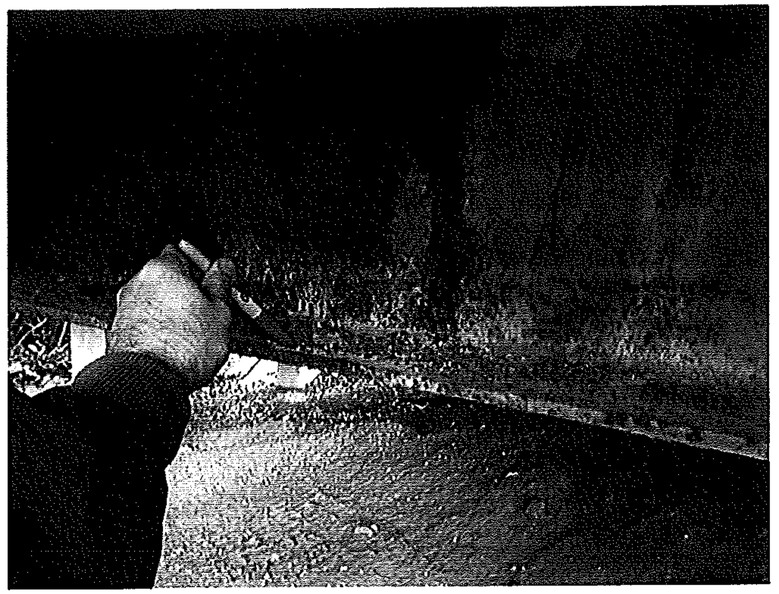
Photograph 5. View of the SR 204 (Blacklick-Eastern Road) Bridge for FAI-SR204-4.32, looking west from the underside of the bridge.

Photograph 6. View of the SR 204 (Blacklick-Eastern Road) Bridge for FAI-SR204-4.32, looking east from the underside of the bridge.

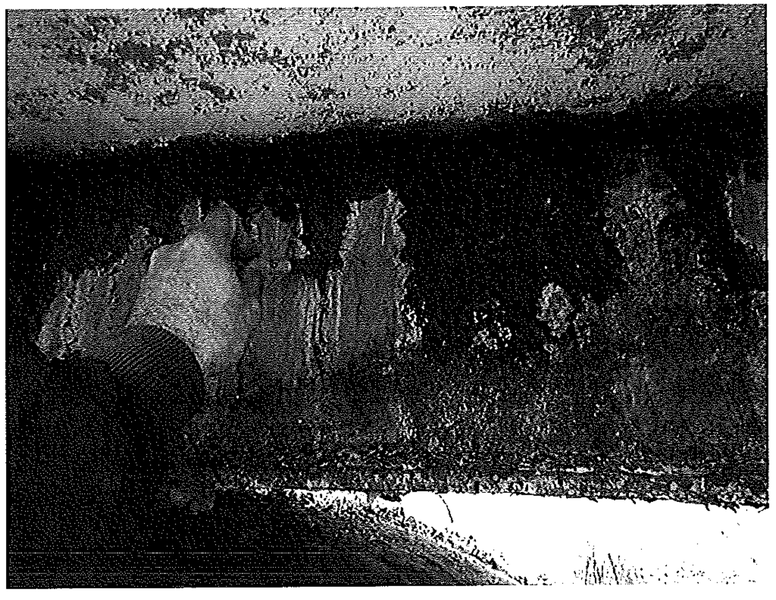


Photograph 7. View of the SR 204 (Blacklick-Eastern Road) Bridge for FAI-SR204-4.32, looking at the northern side of the bridge.

Photograph 8. View of the SR 204 (Blacklick-Eastern Road) Bridge for FAI-SR204-4.32, looking at the southern side of the bridge.



Photograph 9. View of steel girder paint flakes (Sample S1), from the southern side of the bridge.



Photograph 10. View of steel girder paint flakes (Sample S2), from the northern side of the bridge.

EPA 10-DAY NOTIFICATION FORM

Ohio Environmental Protection Agency

Notification of Demolition and Renovation Form
Single & Multi-Structure
Division of Air Pollution Control

Operator Project # :	*For Official Use Only*			
	☐ Hand-Delivered	Postmark : / /	Received by Office : / /	Notification # :
1	**Notification Type (check one)**			
☒ Original	☐ Revision # :	Section #s Revised:	Offsite/Hold : ☐ Yes ☐ No	☐ Cancellation
2	**Facility Description (include building name, number and floor or room number). If more than one structure, use Multi-Structure Attachment form**			
Building Name (if applicable) : Bridge Fai-Sr204-4.32 - Sfn:2302640			Site Location : Sr-204 Bridge Over Trib. Of Sycamore Creek	
Address : N/A			County : Fairfield	
City : Pickerington			State : OH	Zip : 43147
Building Size (ft²) : 2,562			No. of Floors : 1	Age (years) : 72
Present Use : Miscellaneous			Prior Use : Miscellaneous	
3	**Type of Operation (check one)**			
☒ Demolition	☐ Emergency Demolition	☐ Renovation	☐ Emergency Renovation	☐ Fire Training ☐ Annual ☐ Courtesy
4	**Is Asbestos Present? (check one)**			
☐ Yes	☒ No	☐ No, previously abated	Year Abated (if applicable) :	
5	**Owner/Coordinating Entity, Asbestos Abatement Contractor and Onsite Demolition Contractor Information**			
Is this project part of a larger project or urban demolition (installation)? ☒ Yes (list contact information for coordinating entity below) ☐ No (list contact information for property owner below)			Does this notification include more than one structure? ☐ Yes (complete the Multi-Structure Attachment Form) ☒ No	
Owner/Coordinating Entity : Odot District 5				
Address : 9600 Jacksontown Road			Email : Ty.Thompson@Dot.Ohio.Gov	
City : Jacksontown			State : OH	Zip : 43030
Contact : Ty Thompson			Phone : (740) 323 - 5194	Fax : (740) 323 - 3715
Asbestos Abatement Contractor (if applicable)			**On-site Demolition Contractor or Fire Department (if applicable)**	
Name :			Name :	
Address :			Address :	
City :	State :	Zip :	City :	State : Zip :
Contact :	License # : AC		Contact :	
Phone : ( ) -	Fax : ( ) -		Phone : ( ) -	Fax : ( ) -
Email :			Email :	
6	**Ohio Asbestos Hazard Evaluation Specialist and Evaluation Procedure**			
Evaluation Specialist : Stuart Jennings			License # : ES 36081	Expiration Date : 11 / 09 / 2019
Procedure, including analytical methods, employed to detect the presence of and to estimate the quantity of regulated asbestos-containing material (RACM) and Category I and Category II nonfriable asbestos-containing material: ☒ PLM ☐ Point Count ☐ TEM ☐ Other Method (Explain Below) :				

7	**Approximate Amount of Asbestos-Containing Materials (complete table below and Section 11 if asbestos is present)**				
	Material to be Removed			Material NOT to be Removed	
	RACM	Nonfriable Asbestos-Containing Material		Nonfriable Asbestos-Containing Material	
		Category I	Category II	Category I	Category II
Pipes (linear feet)					
Surface Area (ft²)					
Facility Components ☐ ft³ ☐ yd³					

8	**Scheduled Dates of Demolition or Renovation (original notification is required 10 working days prior to the start of work)**						
Start : / /				Complete : / /			
9	**Asbestos Removal Dates and Work Hours (if applicable, for asbestos removal only)**						
Start : / /				Complete : / /			
Hours Onsite	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	—	—	—	—	—	—	—

10 Planned Demolition or Renovation Work (check all that apply)

Description of planned demolition or renovation work to be performed and method(s) to be employed, including demolition or renovation techniques to be used :

☐ Implosion ☐ Fire Training ☐ Wet Methods ☐ Manual Demolition ☐ Mechanical Demolition ☐ Other (Explain Below) :

Description of affected facility components (include attachment if necessary) :

11 Asbestos Description and Engineering Controls (if asbestos is being abated)

For the amount of each material listed in Section 7, describe the type(s) of ACM to be abated as well as engineering controls and work practices to be used to minimize emissions and ensure proper waste handling :

12 Asbestos Waste Transporters (if applicable)

Asbestos Waste Transporter #1			Asbestos Waste Transporter #2		
Name :			Name :		
Address :			Address :		
City :	State :	Zip :	City :	State :	Zip :
Contact :			Contact :		
Phone : ( ) -	Fax : ( ) -		Phone : ( ) -	Fax : ( ) -	
Email :			Email :		

13 Asbestos Waste Disposal (if applicable)

Asbestos Waste Disposal Site :			Contact :	
Address :			Email :	
City :	State :	Zip :	Phone : ( ) -	Fax : ( ) -

14 Emergency Demolition (complete this section if you checked Emergency Demolition in Section 3)

A copy of the issued order, including the following information, must be attached to this notification

Government Official Issuing Order :	Title :
Agency :	Authority of Order (Citation of Code) :
Date of Order : / /	Demolition Date : / /

15 Emergency Renovation (complete this section if you checked Emergency Renovation in Section 3)

A separate sheet with the following information must be attached to this notification

Date of Emergency : / /	Time of Emergency :

Description of Sudden, Unexpected Event :

Explanation of how the event caused unsafe conditions or equipment damage :

16 Procedures to be followed should unexpected RACM be discovered (check all that apply)

☒ Stop work and keep wet	☐ Evacuate area	☒ Contact licensed abatement contractor
☐ Contact district office/local air authority	☒ Demarcate area	☐ Other (Explain Below) :

17 Asbestos Abatement Signature (only sign below if asbestos is being removed)

In accordance with Ohio Administrative Code rule 3745-20-03(A)(4)(p), I certify that at least one person trained as required by paragraph (B) of rule 3745-20-04 of the Administrative Code will supervise the stripping and removal described by this notification.

Signature :		Date : / /

Name, Title and Organization (please print)

18 Demolition and Renovation Signature (required for all original and revised notifications)

I acknowledge the existence of laws prohibiting the submission of false or misleading statements and I certify that facts contained in this notification are true, accurate, and complete.

Signature :		Date : / /

Name, Title and Organization (please print)

Original notification must be mailed or hand-delivered at least 10 working days (Monday – Friday excluding weekends) before demolition or renovation begins, except emergency demolitions and emergency renovations which must be submitted as soon as possible before operations begin, but no later than the following work day.

Ohio Environmental Protection Agency

Notification of Demolition and Renovation Multi-Structure Attachment Form

Division of Air Pollution Control

Note: This form to be completed and attached to Notification Form when project involves more than one structure

Project Name: **Date Submitted:** **Revision #:**

	Project Details	Structure 1	Structure 2	Structure 3	Structure 4	Structure 5
Structure Details	Site Address (include street, city, and zip)					
	Building Name					
	Present Use					
	Past Use					
Asbestos Quantities	RACM	Sf	Sf	Sf	Sf	Sf
		Lf	Lf	Lf	Lf	Lf
		Cf	Cf	Cf	Cf	Cf
	Cat. I NF to be Removed	Sf	Sf	Sf	Sf	Sf
	Cat. II NF to be Removed	Sf	Sf	Sf	Sf	Sf
	Cat. I NF to Remain	Sf	Sf	Sf	Sf	Sf
	Cat. II NF to Remain	Sf	Sf	Sf	Sf	Sf
Work Schedule	Asbestos Removal Start Date	/ /	/ /	/ /	/ /	/ /
	Asbestos Removal Complete Date	/ /	/ /	/ /	/ /	/ /
	Demolition/Renovation Start Date	/ /	/ /	/ /	/ /	/ /
	Demolition/Renovation Complete Date	/ /	/ /	/ /	/ /	/ /
Revised	Check box if details were revised	☐	☐	☐	☐	☐

FIGURES

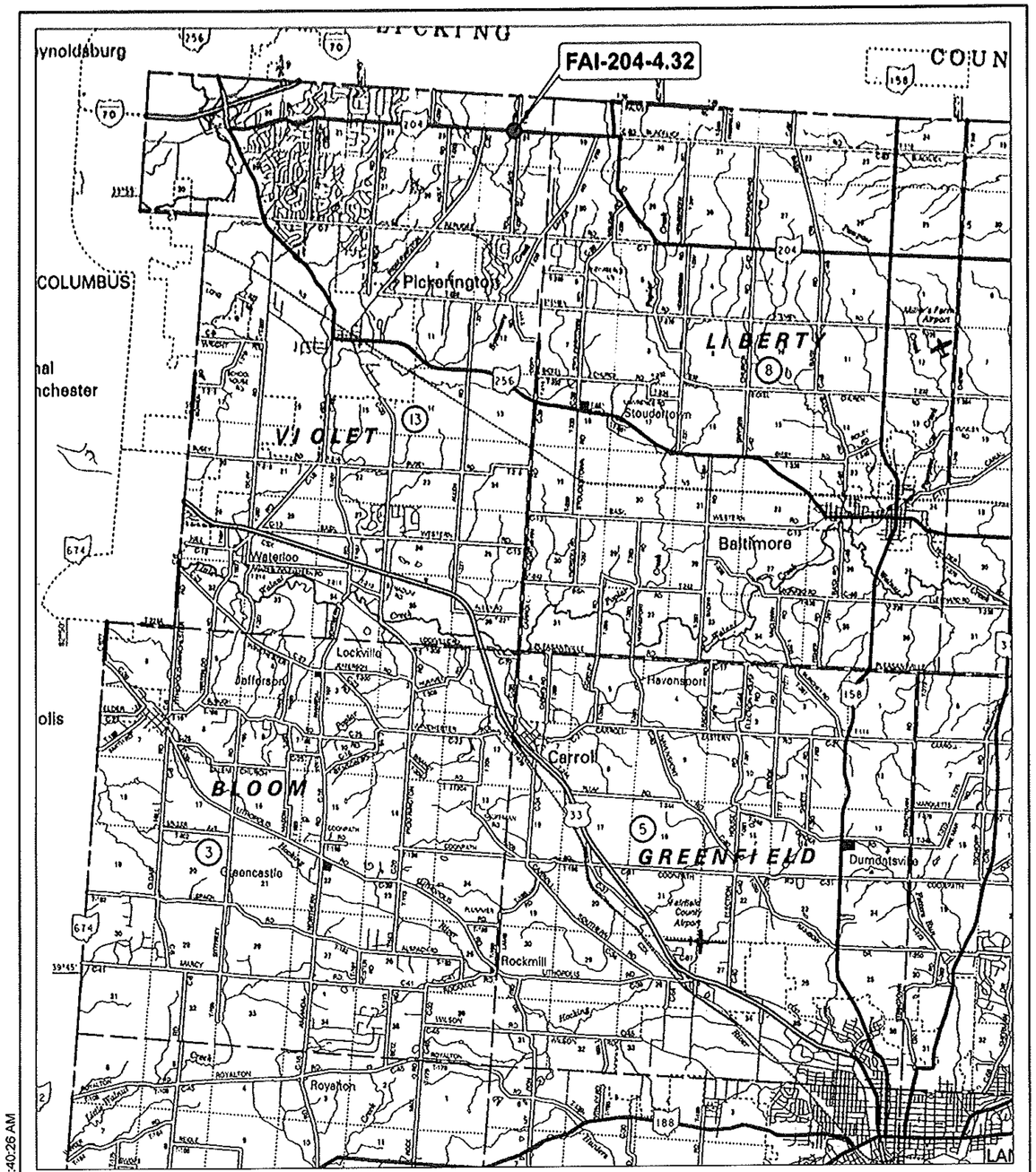


Figure 1

Portion of the ODOT Fairfield County highway map showing the vicinity of the FAI-SR204-4.32; PID 96015 project area.

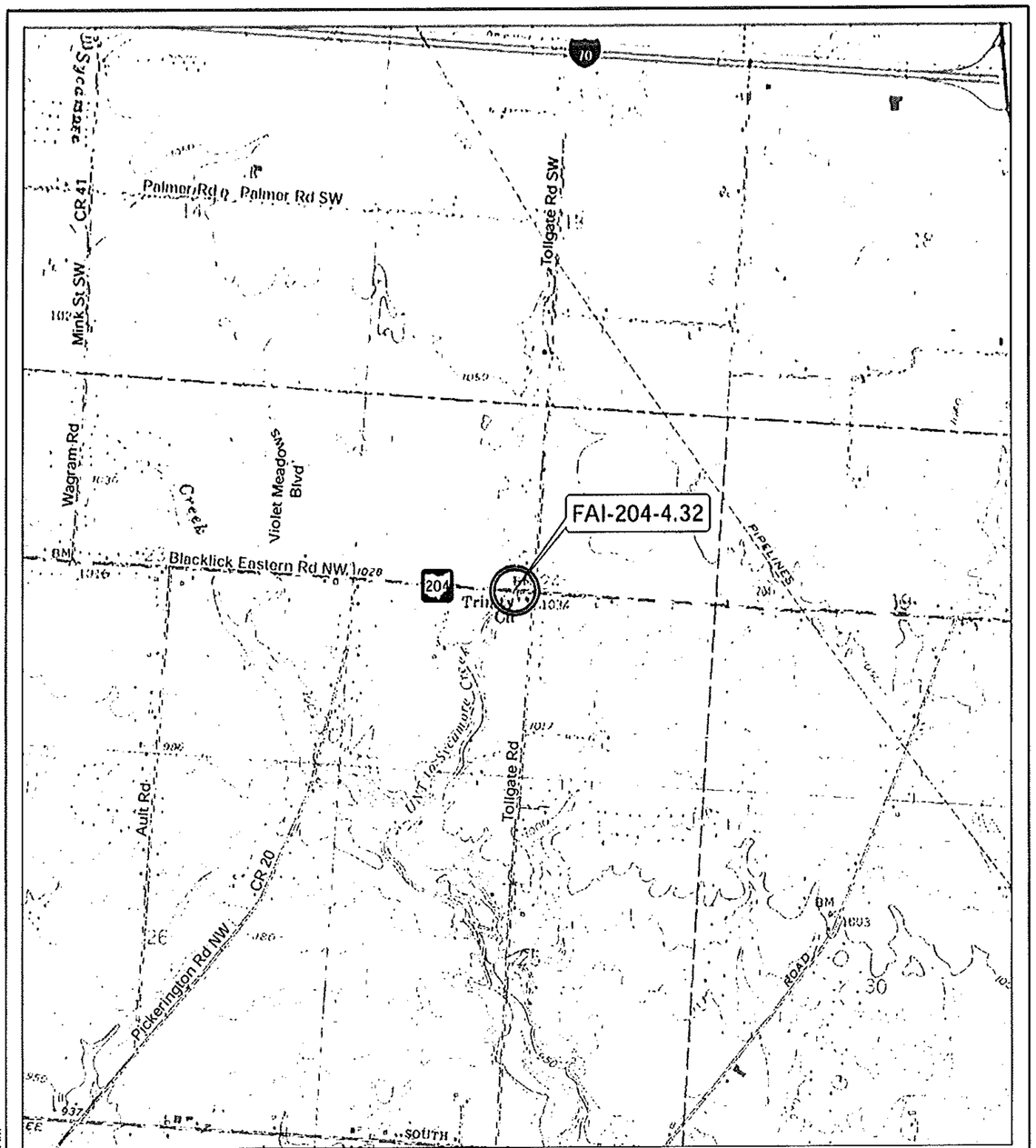


Figure 2

Portion of the 1992 Pataskala, Ohio quadrangle (USGS 7.5' topographic map) showing FAI-SR204-4.32; PID 96015 project area.

Base: USGS Pataskala, Ohio, 7.5' series quadrangle

Created by JVT; last saved: 1/9/2019 11:44:26 AM

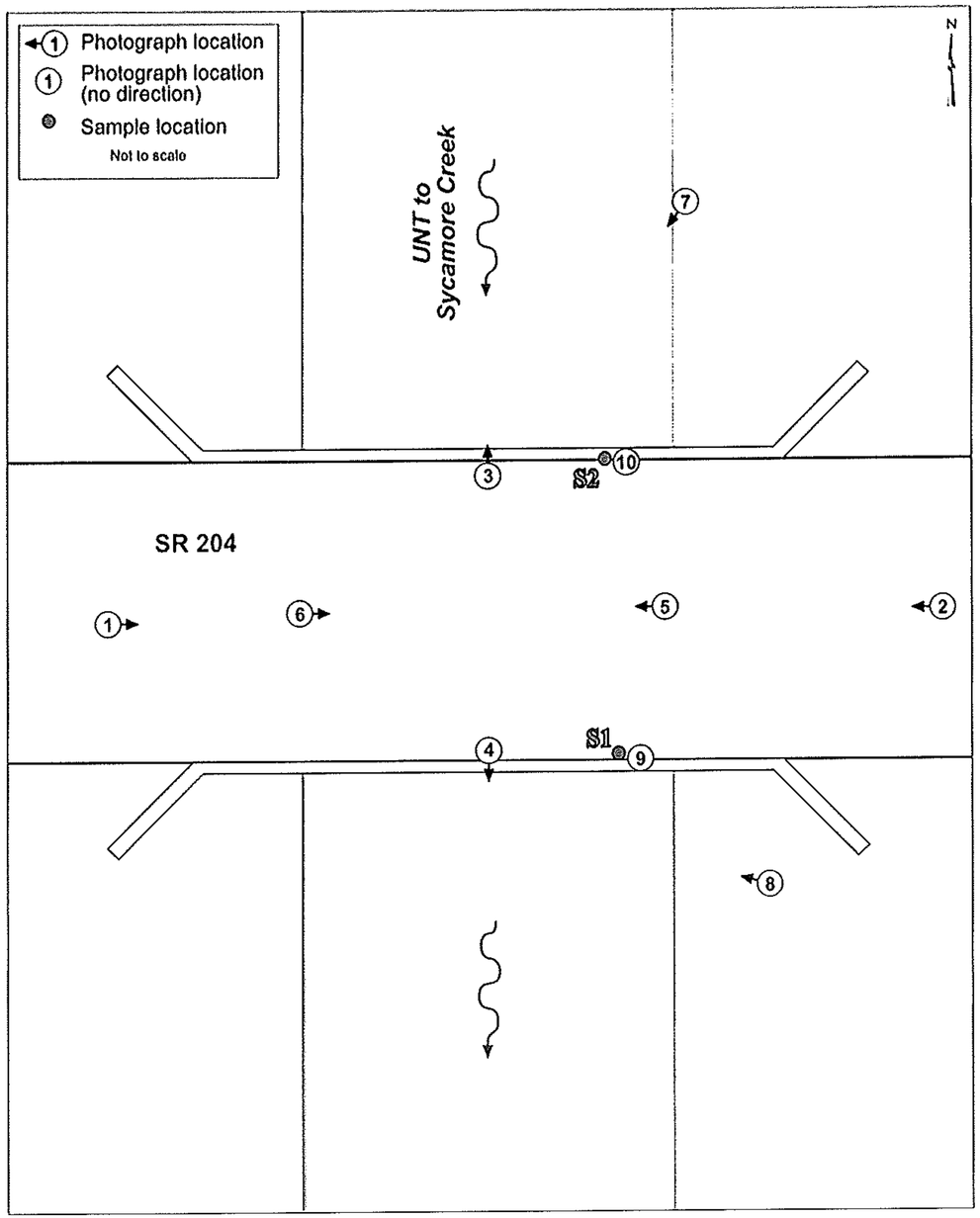


Figure 3. SR 204 Bridge over the UNT to Sycamore Creek, Fairfield County, Ohio – FAI-SR 204-4.32; PID 96015 showing sample and photograph locations.

ASBESTOS INSPECTION REPORTING FORM

OHIO DEPARTMENT OF TRANSPORTATION

Asbestos Inspection Reporting Form

Date: 1/30/2019

County: Fairfield

Route: SR-204

Section: 4.32

PID: 96015

Requesting ODOT District Office: District 5

Regulating OEPA District Office and Address:
OEPA Central District Office
Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

Date of the Asbestos Inspection: 1/7/2019

Name and Address of the company conducting the asbestos inspection

ASC Group, Inc
800 Freeway Drive N., Columbus, Ohio 4329

Name, signature and asbestos hazard evaluation number of the person writing the report

Stuart Jennings (Asbestos Cert#: ES36081)

Description sampling locations and how each location was determined (use additional pages if needed)

Bulk grab sample SP1: Green Paint Flake from southern side bridge support beam.
Bulk grab sample SP2: Green Paint Flake from nothern side bridge support beam.

Name, signature and asbestos hazard evaluation number of each person who selected samples from the structure (use additional pages if needed)

Name	Signature	Asbestos Evaluation #
Stuart Jennings		ES36081

Supporting Information

Laboratory Analytical Report

Blueprint, diagram or written description with the following:

- Type, location and amount of confirmed regulated asbestos containing material
- Location and collection date of each bulk sample
- Location and amounts of suspected asbestos containing material, both friable and non-friable

NOTE: The OEPA Notification of Demolition and Renovation Form with the appropriate Sections I, II, III, IV, VI and VII must be completed by the licensed asbestos hazard evaluation specialist and included with the report submission to ODOT prior to submission to OEPA or the local air authority with jurisdiction.