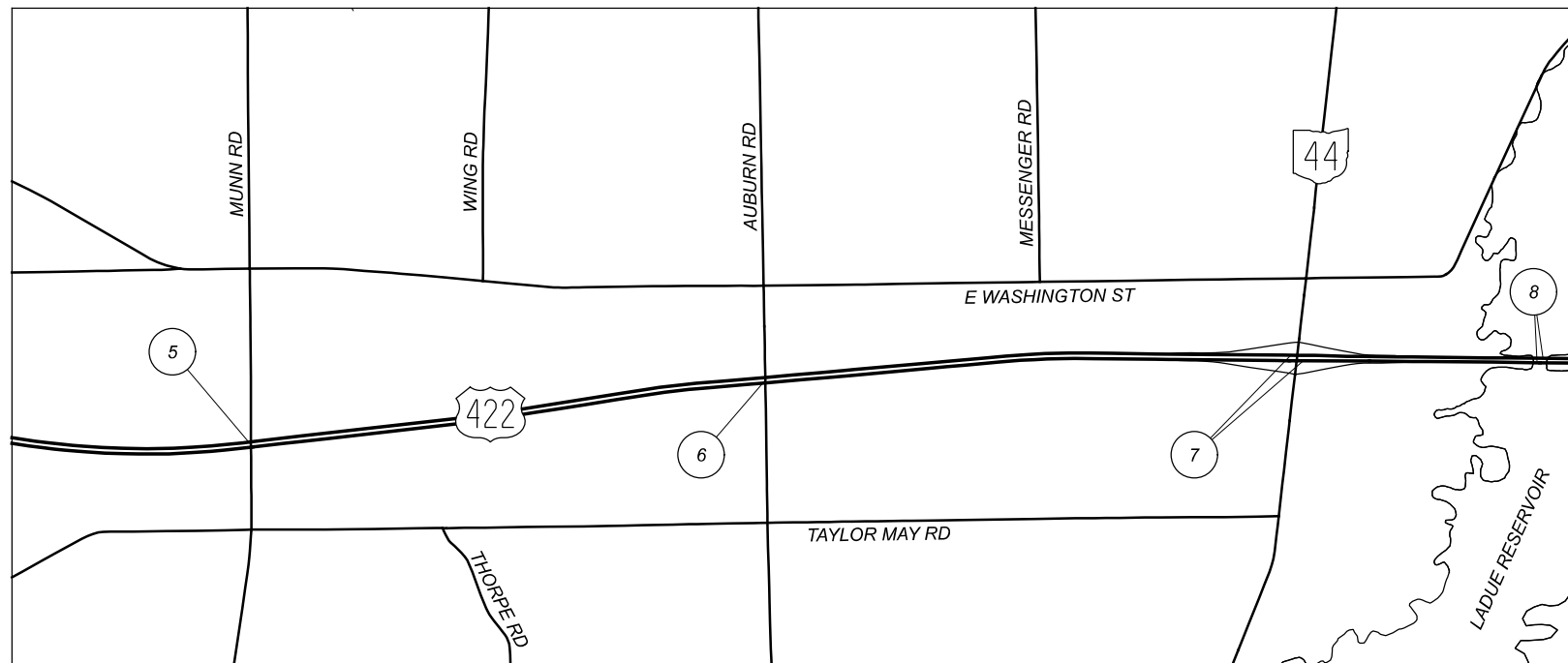


LOCATION 1 - GEA-00422-00.170 L/R
 SFN: 2801515, 2801523
 4 SPAN CONTINUOUS STEEL (LT)
 3 SPAN CONTINUOUS STEEL (RT)
 LATITUDE: 41°23'18" N
 LONGITUDE: 81°23'18" W

LOCATION 3 - GEA-00422-02.750 L/R
 SFN: 2801612, 2801639
 1 SPAN STEEL (LT)
 1 SPAN STEEL (RT)
 LATITUDE: 41°23'16" N
 LONGITUDE: 81°20'22" W

LOCATION 2 - GEA-C0188-00.170
 SFN: 2801558
 4 SPAN CONTINUOUS STEEL
 LATITUDE: 41°23'17" N
 LONGITUDE: 81°23'13" W

LOCATION 4 - GEA-C0191-02.650
 SFN: 2803364
 2 SPAN CONTINUOUS STEEL
 LATITUDE: 41°23'08" N
 LONGITUDE: 81°19'23" W



LOCATION 5 - GEA-C0032-02.350
 SFN: 2803445
 2 SPAN CONTINUOUS STEEL
 LATITUDE: 41°22'51" N
 LONGITUDE: 81°16'29" W

LOCATION 7 - GEA-00422-09.150 L/R
 SFN: 2803542, 2803569
 4 SPAN CONTINUOUS STEEL (LT)
 4 SPAN CONTINUOUS STEEL (RT)
 LATITUDE: 41°23'02" N
 LONGITUDE: 81°13'01" W

LOCATION 6 - GEA-C0004-02.370
 SFN: 2803526
 2 SPAN CONTINUOUS STEEL
 LATITUDE: 41°23'00" N
 LONGITUDE: 81°14'47" W

LOCATION 8 - GEA-00422-09.860 L/R
 SFN: 2801655, 2801744
 4 SPAN CONTINUOUS STEEL (LT)
 4 SPAN CONTINUOUS STEEL (RT)
 LATITUDE: 41°23'01" N
 LONGITUDE: 81°12'12" W

LOCATION MAPS

DESIGN AGENCY



DESIGNER

KDW

REVIEWER

TWG 08-30-21

PROJECT ID

105251

SHEET TOTAL

2 27

UTILITIES

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

ELECTRIC

CEI FIRST ENERGY
PUBLIC WORKS TERRITORIES -
THE ILLUMINATING CO.
7755 AUBURN RD.
CONCORD, OH 44077
ATTN: FREDRICK E. RANDOLPH
PHONE: (440) 358-4991

COMMUNICATIONS

AT&T OHIO
13630 LORAIN AVE., 2ND FLOOR
CLEVELAND, OH 44111
ATTN: JAMES JANIS
PHONE: (216) 476-6142

CHARTER COMMUNICATIONS
7820 DIVISION DR.
MENTOR, OH 44066
ATTN: MATT HANNAH
PHONE: (216) 575-8016

SUDDENLINK

23 W. BROAD ST.
NEWTON FALLS, OH 44444
ATTN: JERRY WALSH
PHONE: (330) 207-0894

VERIZON

12300 RIDGE RD.
NORTH ROYALTON, OH 44133
ATTN: DAN ARZ
PHONE: (440) 457-4832

WINDSTREAM

100 OWEN BROWN ST.
HUDSON, OH 44236
ATTN: JON HOBBY
PHONE: (440) 285-5474

GAS

DOMINION ENERGY OHIO
320 SPRINGSIDE DR., SUITE 320
AKRON, OH 44333
ATTN: MICAH J. RISACHER
PHONE: (330) 664-2409

NORTHEAST OHIO
NATURAL GAS CORP.
8470 STATION ST.
MENTOR, OH 44066
ATTN: TIM REILLY
PHONE: (440) 701-5100

WATER

AKRON WATER DISTRIBUTION
1460 TRIPLETT BLVD.
AKRON, OH 44308
ATTN: TONY PUGLIA
PHONE: (330) 375-2369

CITY OF CLEVELAND
DIVISION OF WATER
1201 LAKESIDE AVE.
CLEVELAND, OH 44114
ATTN: FRED ROBERTS
PHONE: (216) 664-2444 x75590

GEAUGA COUNTY DEPARTMENT
OF WATER RESOURCES
470 CENTER ST., BLDG. #3
CHARDON, OH 44024
ATTN: GERALD R. MORGAN
PHONE: (440) 279-1981

TANGLEWOOD WATER DIVISION
17400 HASKINS RD.
CHAGRIN FALLS, OH 44023
PHONE: (440) 543-7424

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.

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, AS PER PLAN

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING. THIS ITEM SHALL INCLUDE TRIMMING BACK ALL TREE BRANCHES AND BRUSH WHICH ARE WITHIN 10'-0" OF ANY LOCATION TO HAVE A PAINTED OR SEALED SURFACE. NO COMPLETE TREE REMOVALS ARE PERMITTED AND ARE NOT REQUIRED FOR CONSTRUCTION ACCESS.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK BUT SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO SECTIONS 102.05, 105.02, AND 513.04 OF THE 2019 CONSTRUCTION AND MATERIAL SPECIFICATIONS.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PRE-BID EXAMINATION OF THE EXISTING STRUCTURES BY THE CONTRACTOR.

THE EXISTING STRUCTURE PLANS MAY BE REVIEWED AT THE:
OHIO DEPARTMENT OF TRANSPORTATION
DISTRICT 12 OFFICE
5500 TRANSPORTATION BOULEVARD
GARFIELD HEIGHTS, OH 44125
OR

HTTP://WWW.DOT.STATE.OH.US/DIVISIONS/CONTRACTADMIN/CONTRACTS/PAGES/DESIGNFILES.ASPX

STAGING AREAS

THERE ARE NO SPECIFIC AREAS GIVEN IN THE PLANS FOR THE CONTRACTOR TO USE AS A STAGING AREA(S). IF THE CONTRACTOR WANTS TO USE AN AREA(S) FOR STAGING, REGARDLESS IF IT FALLS WITHIN THE PROJECT LIMITS OR NOT, THE CONTRACTOR IS TO USE THE RIGHT OF WAY E-PERMITTING SYSTEM AT [HTTPS://ODHCP.BEMCORP.NET/ACCOUNTS/ACCOUNT/ACCOUNT](https://odhcp.bemcorp.net/accounts/account/account) IN ORDER TO APPLY FOR A PERMIT PER SECTION 107.02 OF THE CMS. FOR SPECIFIC PERMITTING QUESTIONS, THE CONTRACTOR CAN CONTACT THE DISTRICT PERMITTING OFFICE, (MELVIN SAFFORD) AT 216-584-2137 OR AT DISTRICT12PERMITS@DOT.OHIO.GOV.

IF A PERMIT IS GRANTED, ALL CONDITIONS OF THE PERMIT SHALL BE MET IN ADDITION TO THE REQUIREMENTS OF 104.04 OF THE CMS, AT NO ADDITIONAL COST TO THE STATE. IF THE PROJECT ENGINEER DEEMS THAT ALL THE CONDITIONS OF THE PERMIT WERE NOT MET, THEN 10% OF THE CONTRACT BID AMOUNT FOR MOBILIZATION SHALL BE WITHHELD UNTIL ALL THE CONDITIONS OF THE PERMIT ARE SATISFIED.

ITEM 630-SIGNING, MISC.: STREET NAME SIGN SHEETING

EXISTING STREET SIGN SHEETING (SELF ADHERING SHEETING DIRECTLY APPLIED TO THE BRIDGE BEAM) SHALL BE REMOVED AND REPLACED FOR THE US-422 EASTBOUND AND WESTBOUND APPROACHES. THE SIGNS ARE FABRICATED AND CAN BE OBTAINED FROM THE DISTRICT 12 TRAFFIC ENGINEER. THE CONTRACTOR SHALL CONTACT KEITH HAMILTON, (216) 584-2200 TO ACQUIRE THE SIGNS. THE COST FOR THE PICK-UP OF THESE SIGNS FROM THE DISTRICT HEADQUARTERS SHALL BE INCIDENTAL TO THIS ITEM OF WORK.

THERE SHALL BE 2 SIGNS FOR EACH APPROACH OF THE BRIDGES LISTED BELOW:

GEA-C0188-00.170	CHAGRIN RIVER RD
GEA-C0191-02.650	HASKINS RD
GEA-C0032-02.350	MUNN RD
GEA-C0004-02.370	AUBURN RD

THE COST TO ERECT THESE 8 SIGNS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 630-SIGNING, MISC.: STREET NAME SIGN SHEETING.

THE FOLLOWING ESTIMATED QUANTITY IS INCLUDED IN THE GENERAL SUMMARY:

ITEM 630-SIGNING, MISC. SIGN REFLECTIVE SHEETING. 8 EACH

R/W FENCE

R/W FENCES EXIST AT LOCATIONS 1 AND 8. ANY EXISTING FENCE DISTURBED BY THE CONTRACTOR FOR THEIR OPERATIONS SHALL BE CAREFULLY REMOVED AND REINSTALLED. ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PERFORM THE WORK ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC. ANY FENCE DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT NO ADDITIONAL COST.

ITEM 623 - CONSTRUCTION LAYOUT STAKES, AS PER PLAN

AN OHIO PROFESSIONAL SURVEYOR SHALL DETERMINE THE MINIMUM VERTICAL CLEARANCES OF ALL EXISTING AND NEW BRIDGES WITHIN THE PROJECT LIMITS. AT A MINIMUM, MEASUREMENTS SHALL BE TAKEN ALONG EACH FASCIA BEAM AT THE EDGE OF SHOULDERS, EDGE LINES, LANE LINES, AND CROWN OF THE ROADWAY BELOW. THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM SHALL BE USED, WHERE APPLICABLE, TO DOCUMENT THE MEASUREMENTS. WHERE THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM IS NOT APPLICABLE, THE MEASUREMENTS SHALL BE DOCUMENTED ON A CONTRACTOR-DEVELOPED FORM THAT CLOSELY RESEMBLES THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM AND ACCURATELY DEPICTS THE BRIDGE AND BELOW LANE AND SHOULDER CONFIGURATION. THE COMPLETED FORM SHALL BEAR THE STAMP OR SEAL OF THE OHIO PROFESSIONAL SURVEYOR WHO HAS TAKEN THE MEASUREMENTS AND SHALL BE SUBMITTED TO THE PROJECT ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.

THE ODOT DISTRICT 12 VERTICAL CLEARANCE SURVEY FORM CAN BE DOWNLOADED FROM THE FOLLOWING WEBSITE:

<http://www.dot.state.oh.us/districts/D12/HighwayManagement/Pages/Permits.aspx>

ENVIRONMENTAL COMMITMENTS

1. ODNR SCENIC RIVER SHALL BE INVITED TO THE PRE-CONSTRUCTION MEETING.
2. NO WORK CAN TAKE PLACE BELOW THE ORDINARY HIGHWATER MARK (OHWM).
3. RECREATIONAL BOATING ACCESS FROM THE NORTH AND SOUTHSIDE OF LADUE RESERVOIR SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION ACTIVITIES.
4. THE CONTRACTOR SHALL POST SIGNAGE AT THE TWO ODNR BOAT LAUNCHES TO NOTIFY PADDLERS/BOATERS OF CONSTRUCTION ACTIVITIES.
5. THE CONTRACTOR SHALL PLACE SIGNS ON BUOYS ON EITHER SIDE OF THE BRIDGE.
6. THE PROJECT ENGINEER SHALL NOTIFY THE ODNR TRAILS ADMINISTRATOR 14 CALENDAR DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES TO ALLOW ODNR TO POST NOTICE OF THE IMPENDING PROJECT CONSTRUCTION ON THE APPROPRIATE ODNR WEBPAGES AND ASSOCIATED ONLINE BOATING MAPS. AS PART OF NOTIFICATION EFFORTS, THE PROJECT ENGINEER SHALL ALSO PROVIDE PLANS THAT INDICATE SIGNAGE LOCATION ALONG THE WATERWAY AND ANY ADDITIONAL PLANNED NOTIFICATION EFFORTS WITH ODNR THAT WILL TAKE PLACE DURING OR AFTER CONSTRUCTION.
7. THE CONTRACTOR SHALL BE REQUIRED TO CLOSELY COORDINATE THE CONSTRUCTION SCHEDULE WITH ODOT AND ODNR PRIOR TO THE START OF CONSTRUCTION ACTIVITIES

DESIGN AGENCY



DESIGNER

KDW

REVIEWER

TWG 08-30-21

PROJECT ID

105251

SHEET TOTAL

3 27

ITEM 614 - MAINTAINING TRAFFIC

GENERALLY, THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS AS TO MAKE THE PROPOSED REPAIR WITH A MINIMUM OF HAZARD, DELAY, AND INCONVENIENCE TO THE MOTORISTS USING THE HIGHWAY AFFECTED BY THE WORK ZONE UNDER THIS CONTRACT. IN ADDITION TO THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE FOLLOWING SPECIFIC PROVISIONS ARE MANDATORY.

I. NOTIFICATION

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE FOLLOWING:

DISTRICT PUBLIC INFORMATION OFFICER BY EMAIL AT (D12.PUBLIC.INFROMATION@DOT.OHIO.GOV)

DISTRICT PERMIT SECTION BY EMAIL AT (DISTRICT12.PERMITS@DOT.OHIO.GOV)

CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY EMAIL AT (HAULING.PERMITS@DOT.OHIO.GOV)

THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

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.

NOTIFICATION TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

II. LANE CLOSURE RESTRICTIONS

- LANE CLOSURE(S) SHALL CONFORM TO THE PLCS. PUBLISHED PLCS INFORMATION CAN BE FOUND ON THE ODOT WEBSITE AT: [HTTPS://WWW.TRANSPORTATION.OHIO.GOV/WPS/PORTAL/GOV/ODOT/WORKING/DATA-TOOLS/RESOURCES/PERMITTED-LANE-CLOSURE](https://www.transportation.ohio.gov/wps/portal/gov/odot/working/data-tools/resources/permited-lane-closure)
- UNLESS OTHERWISE NOTED, EXIT AND ENTRANCE RAMP LANES SHALL REMAIN OPEN AT ALL TIMES AND EXHIBIT A MINIMUM WIDTH OF ELEVEN (11) FEET.
- MAINTENANCE OF TRAFFIC SHALL FOLLOW THE INSTRUCTION OF THE STANDARD CONSTRUCTION DRAWINGS LISTED ON THE TITLE SHEET AND THE LATEST REVISION OF THE ODOTCD.
- PEDESTRIAN TRAFFIC SHALL BE PERMITTED AND ACCOMMODATED ON AT LEAST ONE SIDE AT A TIME AT LOCATIONS WHERE PEDESTRIAN TRAFFIC IS CURRENTLY MAINTAINED.
- ALL DRIVES SHALL BE MAINTAINED AT ALL TIMES.

LOCATION 1 (GEA-00422-00.170L/R):
THE CONTRACTOR SHALL STORE PAINTING EQUIPMENT IN THE MEDIAN. ALL LANES OF TRAFFIC ON USR 422 SHALL BE MAINTAINED AT ALL TIMES.

LOCATION 2 (GEA-C0188-00.170):
THE CONTRACTOR SHALL STORE PAINTING EQUIPMENT IN THE USR 422 MEDIAN. ALL LANES OF TRAFFIC ON USR 422 SHALL BE MAINTAINED DURING PEAK HOURS. ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED DURING PAINTING OPERATIONS. BRIDGE SHALL BE TARPED OVERNIGHT AND ON WEEKENDS.

LOCATION 3 (GEA-00422-02.750L/R):
THE CONTRACTOR SHALL STORE PAINTING EQUIPMENT ALONG SR 306 (CHILLICOTHE ROAD). PAINTING IS TO BE PERFORMED DURING THE WEEKEND (FRIDAY 8PM TO MONDAY 8AM). ALL LANES OF TRAFFIC ON SR 306 SHALL BE MAINTAINED AT ALL TIMES EXCEPT DURING PAINTING OPERATION WHEN ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED. PAINTING OPERATIONS ARE ANTICIPATED TO BE PERFORMED IN 3 PHASES. RAMPS SHALL BE MAINTAINED AT ALL TIMES, WITH THE EXCEPTION THAT ONE OF THE TWO DUAL LEFT TURN LANES ON THE EASTBOUND USR 422 EXIT RAMP IS PERMITTED TO BE CLOSED DURING PAINTING OPERATION.

LOCATION 4 (GEA-C0191-02.650):
LOCATION 5 (GEA-C0032-02.350):
LOCATION 6 (GEA-C0004-02.370):
THE CONTRACTOR SHALL STORE PAINTING EQUIPMENT IN THE USR 422 MEDIAN. ALL LANES OF TRAFFIC ON USR 422 SHALL BE MAINTAINED DURING PEAK HOURS. ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED DURING PAINTING OPERATIONS. BRIDGE SHALL BE TARPED OVERNIGHT AND ON WEEKENDS.

LOCATION 7 (GEA-00422-09.150L/R):
THE CONTRACTOR SHALL STORE PAINTING EQUIPMENT ALONG SR 44 (RAVENNA ROAD). PAINTING IS TO BE PERFORMED DURING THE WEEKEND (FRIDAY 8PM TO MONDAY 8AM). ALL LANES OF TRAFFIC ON SR 44 SHALL BE MAINTAINED AT ALL TIMES EXCEPT DURING PAINTING OPERATION WHEN ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED. PAINTING OPERATIONS ARE ANTICIPATED TO BE PERFORMED IN 3 PHASES. RAMPS SHALL BE MAINTAINED AT ALL TIMES.

LOCATION 8 (GEA-00422-09.860L/R):
THE CONTRACTOR SHALL STORE PAINTING EQUIPMENT IN THE MEDIAN. ALL LANES OF TRAFFIC ON USR 422 SHALL BE MAINTAINED AT ALL TIMES.

III. MAINTENANCE OF TRAFFIC SYSTEMS

- WHEN REQUIRED
WHENEVER ANY PART OF THE TRAVELED SURFACE IS BEING WORKED UPON OR IS OTHERWISE NOT SUITABLE FOR SAFE AND CONVENIENT USE BY VEHICLES, TRAFFIC CONTROL DEVICES SUFFICIENT TO PROTECT SUCH AREAS TO ASSURE THE SAFE AND CONVENIENT PASSAGE OF VEHICULAR TRAFFIC SHALL BE INSTALLED AND MAINTAINED. SUCH TRAFFIC CONTROL DEVICES AND THE MANNER IN WHICH THEY ARE USED SHALL BE CONSISTENT WITH THESE PLANS AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, HEREINAFTER REFERRED TO AS THE "MANUAL". THE TRAFFIC CONTROL DEVICE SYSTEM SHALL CONSTITUTE THE MINIMUM PROVISIONS FOR TRAFFIC CONTROL FOR EACH PARTICULAR SITUATION. WHENEVER THE ENGINEER DEEMS IT NECESSARY ESPECIALLY WHERE A GRADE, CURVE, OR MERGE CONDITIONS EXISTS, HE MAY DIRECT THAT ADDITIONAL OR ALTERNATIVE DEVICES BE USED.
- CONDITIONS
DURING ALL PARTS OF THIS PROJECT FLAGGERS, SIGNING, BARRICADES, FLASHING ARROWS, ETC. SHALL BE LOCATED AS INDICATED IN THE "MANUAL" OR AS SHOWN IN THE STANDARD DRAWINGS.
- ADVANCE WARNING SIGNS
ALL ADVANCE WARNING SIGNS FOR ANY CONDITIONS WHICH RESTRICTS TRAFFIC SHALL BE ERECTED BEFORE ANY SUCH RESTRICTION IS PUT INTO EFFECT. ALL SUCH SIGNS SHALL BE COVERED OR REMOVED FROM THE VIEW OF TRAFFIC WHENEVER THEY ARE NOT APPLICABLE.
- FLAGGERS
AT LEAST ONE FLAGGER IS REQUIRED FOR CLOSURE. THE CONTRACTOR SHALL FURNISH ADDITIONAL FLAGGERS AS DIRECTED BY THE ENGINEER.
- PROTECTION OF PUBLIC
PERSONAL CARS SHALL NOT BE PARKED WITHIN THE RIGHT OF WAY.
- FAILURE TO COMPLY
IF THERE IS ANY FAILURE TO COMPLY WITH PROVISIONS OF THE "MANUAL", THE HIGHWAY IN THE VICINITY OF THE WORK AREA SHALL NOT BE CONSIDERED IN A CONDITION FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC. ANY FAILURE TO KEEP THE HIGHWAY, IN THE VICINITY OF THE WORK AREA, IN A CONDITION FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC SHALL BE CONSIDERED A BREACH OF THIS CONTRACT. WORK SHALL BE SUSPENDED UNTIL THE CONTRACTOR COMPLIES WITH THE PROVISIONS OF THE AFOREMENTIONED ITEMS.

IV. MAINTENANCE OF TRAFFIC MATERIALS

- SIGNS
SIGN DIMENSIONS AND SPECIFICATIONS, INCLUDING LETTER SIZES ARE TO BE AS PROVIDED IN THE "MANUAL", OR IN DESIGN DRAWINGS PROVIDED BY THE DEPARTMENT OF TRANSPORTATION. THE SIGNS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER PRIOR TO THE START OF THE PROJECT.
- SIGN SUPPORT
SIGN SUPPORTS SHALL BE OF SUFFICIENT SIZE AND MASS AS TO SUPPORT THE SIGNS AT THE APPROPRIATE HEIGHT. SUPPORTS SHALL BE AS SHOWN ON THE STANDARD DRAWINGS.
- FLASHING ARROW REQUIREMENT
WHENEVER ANY PART OF THE TRAVELED SURFACE IS CLOSED, THE MOTORISTS SHALL BE WARNED AND DIRECTED BY THE CONTRACTOR THROUGH THE USE OF ONE FLASHING ARROW PANEL FOR EACH LANE CLOSED. THE CONTRACTOR SHALL REFER TO SUPPLEMENTAL SPECIFICATION 821, 921 AND THE PROVISIONS SET FORTH IN THE "MANUAL" FOR ALL INFORMATION REGARDING FURNISHING, MAINTAINING, AND USE OF FLASHING ARROW PANELS.
- DRUMS
DRUMS SHALL BE IN ACCORDANCE WITH PERTINENT SECTIONS OF THE "MANUAL". ALL COSTS FOR INSTALLING, MAINTAINING, AND SUBSEQUENT REMOVAL OF SAID DRUMS IS TO BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.
- CONES
CONES, IF UTILIZED, ARE TO BE LOCATED AS SHOWN IN THE "MANUAL" AND THE STANDARD DRAWINGS.
- BARRIER
PORTABLE BARRIER IF NECESSARY IS TO BE LOCATED AS SHOWN IN THE "MANUAL" AND THE STANDARD DRAWINGS.
- FLASHERS
FLASHERS SHALL BE 12 VOLT BATTERY-OPERATED MODELS WITH 7 INCH DIAMETER YELLOW LENSES ILLUMINATED BY RAPID INTERMITTENT FLASHERS OF SHORT DURATION AND ARE TO BE PLACED ON ALL SIGNS AT ALL TIMES AS REQUIRED BY THE "MANUAL" AND THE STANDARD CONSTRUCTION DRAWINGS.
- FLOODLIGHTING
FLOODLIGHTING OF THE WORKSITE FOR OPERATIONS CONDUCTED DURING THE NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND ENGINEER SHALL DRIVE THROUGH THE WORKSITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

9. WORK VEHICLES

ALL WORK VEHICLES LICENSED TO OPERATE ON THE HIGHWAY, SHALL BE EQUIPPED WITH A FLASHING, ROTATING, OR OSCILLATING AMBER LIGHT VISIBLE TO ALL DIRECTIONS OF TRAFFIC FOR A MINIMUM OF ONE-QUARTER MILE IN BRIGHT SUNLIGHT AND SHALL BE OPERATED WITH LIGHTED HEAD AND TAIL LAMPS. THE AMBER LIGHT SHALL BE IN OPERATION AT ALL TIMES WITHIN THE WORK ZONE AND WHILE TRAVELING TO AND FROM THE WORK ZONE WHENEVER THE VEHICLE SPEED IS BELOW THE POSTED LEGAL LIMIT. VEHICLE HAZARD LIGHTS DO NOT SATISFY THIS REQUIREMENT. ALL OTHER EQUIPMENT SHALL BE EQUIPPED WITH A FLASHING, ROTATING, OR OSCILLATING AMBER LIGHT VISIBLE TO ALL DIRECTIONS OF TRAFFIC FOR A MINIMUM OF ONE-QUARTER MILE IN BRIGHT SUNLIGHT. THE AMBER LIGHT SHALL BE IN OPERATION WHILE THE EQUIPMENT IS WITHIN THE WORK ZONE.

V. PAYMENT

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 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, INCLUDING R/W FENCE WORK DESCRIBED ON SHEET 3, SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

MAINTENANCE OF TRAFFIC SCHEME

THE CONTRACTOR SHALL DEVISE A SIMPLE MAINTENANCE OF TRAFFIC SCHEME, WHICH SHALL BE DEVISED BY THE WORKSITE TRAFFIC SUPERVISOR (SCHEME MAY BE A HAND SKETCH) AND PRESENT IT TO THE DISTRICT WORK ZONE TRAFFIC CONTROL ENGINEER AND PROJECT ENGINEER FOR ACCEPTANCE AT LEAST TWO WEEKS PRIOR TO IMPLEMENTATION. IN GENERAL, THE METHODS FOR MAINTAINING TRAFFIC THAT THE CONTRACTOR PROPOSES TO USE FOR CONDUCTING THE REQUIRED WORK IN A SAFE AND EFFICIENT MANNER CAN BE SHOWN BY HAND SKETCHES AS NECESSARY. THE MAINTENANCE OF TRAFFIC SCHEME SHALL BE IN CONFORMANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST REVISION) THE REFERENCED STANDARD CONSTRUCTION DRAWINGS, THE ATTACHED MAINTENANCE OF TRAFFIC SHEETS, AND THE SPECIFICATIONS. THE CONTRACTOR SHALL NOT COMMENCE WORK UNTIL THE MAINTENANCE OF TRAFFIC SCHEME HAS BEEN ACCEPTED.

IF DURING THE PROJECT THE ENGINEER DETERMINES THAT THE APPROVED MAINTENANCE OF TRAFFIC PLAN IS NOT PERFORMING AS DESIRED, THE WORK SHALL BE SUSPENDED UNTIL THE PROBLEM IS RESOLVED TO THE SATISFACTION OF THE ENGINEER AND THE MAINTENANCE OF TRAFFIC PLAN IS REVISED ACCORDINGLY. ANY COSTS OR DELAYS INCURRED AS A RESULT OF THE FAILURE OF THE SATISFACTION OF THE ENGINEER SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR.

PAYMENT FOR ALL THE ITEMS REQUIRED TO MAINTAIN TRAFFIC IN ACCORDANCE WITH THESE REQUIREMENTS IS INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 614- MAINTAINING TRAFFIC.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS SHALL BE DETERMINED BY THE ENGINEER. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 20 SIGN MONTH ASSUMING 2 PCMS SIGNS FOR 10 MONTHS

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING CRITERIA:

- ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND
- AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND,
- AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

"WITHOUT POSITIVE PROTECTION" MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC, WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION IS REQUIRED. MOBILE OPERATIONS ARE REGARDED AS "WITHOUT POSITIVE PROTECTION". FOR WORK ZONES USING A COMBINATION OF BARRIER AND

TEMPORARY TRAFFIC CONTROL DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED.

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF:

- THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR
- THE ACTIVE WORK AREA Laterally CLOSEST TO THE OPEN TRAVELED LANE; OR
- OTHER LOCATION AS APPROVED BY THE ENGINEER.

THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED QUALIFYING WORK AREAS.

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 100 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

DESIGN AGENCY	
DESIGNER	KDW
REVIEWER	TWG 08-30-21
PROJECT ID	105251
SHEET	TOTAL
5	27

EQUIPMENT AND MATERIAL STORAGE

IN ORDER TO PROVIDE FOR THE SAFETY OF THE TRAVELING PUBLIC THE CONTRACTOR'S ATTENTION IS DIRECTED TO C&MS 614.035. IN ADDITION, THE FOLLOWING PROVISIONS SHALL APPLY:

- ANY REMOVED ITEMS SHALL NOT BE STORED ON THE RIGHT OF WAY FOR MORE THAN THIRTY DAYS.
- ALL DISTURBED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE STATE.

LOCATION 1 - GEA-00422-00.170 L/R

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED TO PROTECT EQUIPMENT AND MATERIALS STORED IN THE MEDIAN.

ITEM 614, WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	1 EACH
ITEM 614, BARRIER REFLECTOR, TYPE 1 (ONE WAY)	10 EACH
ITEM 614, OBJECT MARKER, ONE WAY	10 EACH
ITEM 622, PORTABLE BARRIER, UNANCHORED	400 FT.

LOCATION 4 - GEA-C0191-02.650

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED TO PROTECT EQUIPMENT AND MATERIALS STORED IN THE MEDIAN.

ITEM 614, WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	2 EACH
ITEM 614, BARRIER REFLECTOR, TYPE 1 (ONE WAY)	22 EACH
ITEM 614, OBJECT MARKER, ONE WAY	22 EACH
ITEM 622, PORTABLE BARRIER, UNANCHORED	1000 FT.

LOCATION 5 - GEA-C0032-02.350

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED TO PROTECT EQUIPMENT AND MATERIALS STORED IN THE MEDIAN.

ITEM 614, WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	2 EACH
ITEM 614, BARRIER REFLECTOR, TYPE 1 (ONE WAY)	22 EACH
ITEM 614, OBJECT MARKER, ONE WAY	22 EACH
ITEM 622, PORTABLE BARRIER, UNANCHORED	1000 FT.

LOCATION 6 - GEA-C0004-02.370

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED TO PROTECT EQUIPMENT AND MATERIALS STORED IN THE MEDIAN.

ITEM 614, WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	2 EACH
ITEM 614, BARRIER REFLECTOR, TYPE 1 (ONE WAY)	22 EACH
ITEM 614, OBJECT MARKER, ONE WAY	22 EACH
ITEM 622, PORTABLE BARRIER, UNANCHORED	1000 FT.

LOCATION 8 - GEA-00422-09.860 L/R

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED TO PROTECT EQUIPMENT AND MATERIALS STORED IN THE MEDIAN.

ITEM 614, BARRIER REFLECTOR, TYPE 1 (ONE WAY)	5 EACH
ITEM 614, OBJECT MARKER, ONE WAY	5 EACH
ITEM 622, PORTABLE BARRIER, UNANCHORED	200 FT.

ITEM 614, MAINTAINING TRAFFIC (ESTIMATED QUANTITIES)

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	10 CU. YD.
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ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

DESIGN AGENCY



DESIGNER

KDW

REVIEWER

TWG 08-30-21

PROJECT ID

105251

SHEET TOTAL

6 | 27

SHEET NUM.											PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
1	2	3	4	5	6	7	8	9	10	11	GEN	01/NHS/ BR						
STRUCTURE OVER 20 FOOT SPAN (GEA-00422-02.750R)																		
											6,500	6,500	514	00050	6,500	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
											6,500	6,500	514	00056	6,500	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	10
											6,500	6,500	514	00060	6,500	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	10
											1,070	1,070	514	00066	1,070	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (EXTERIOR COLOR)	10
											5,430	5,430	514	00066	5,430	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (INTERIOR COLOR)	10
											9	9	514	00504	9	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
											6	6	514	10000	6	EACH	FINAL INSPECTION REPAIR	
STRUCTURE OVER 20 FOOT SPAN (GEA-C0191-02.650)																		
											12,900	12,900	514	00050	12,900	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
											12,900	12,900	514	00056	12,900	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	10
											12,900	12,900	514	00060	12,900	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	10
											3,070	3,070	514	00066	3,070	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (EXTERIOR COLOR)	10
											9,830	9,830	514	00066	9,830	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (INTERIOR COLOR)	10
											16	16	514	00504	16	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
											10	10	514	10000	10	EACH	FINAL INSPECTION REPAIR	
STRUCTURE OVER 20 FOOT SPAN (GEA-C0032-02.350)																		
											12,700	12,700	514	00050	12,700	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
											12,700	12,700	514	00056	12,700	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	10
											12,700	12,700	514	00060	12,700	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	10
											3,030	3,030	514	00066	3,030	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (EXTERIOR COLOR)	10
											9,670	9,670	514	00066	9,670	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (INTERIOR COLOR)	10
											16	16	514	00504	16	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
											10	10	514	10000	10	EACH	FINAL INSPECTION REPAIR	
STRUCTURE OVER 20 FOOT SPAN (GEA-C0004-02.370)																		
											12,700	12,700	514	00050	12,700	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
											12,700	12,700	514	00056	12,700	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	10
											12,700	12,700	514	00060	12,700	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	10
											3,030	3,030	514	00066	3,030	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (EXTERIOR COLOR)	10
											9,670	9,670	514	00066	9,670	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (INTERIOR COLOR)	10
											16	16	514	00504	16	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
											10	10	514	10000	10	EACH	FINAL INSPECTION REPAIR	
STRUCTURE OVER 20 FOOT SPAN (GEA-00422-09.150L)																		
											7,000	7,000	514	00050	7,000	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
											7,000	7,000	514	00056	7,000	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	10
											7,000	7,000	514	00060	7,000	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	10
											1,350	1,350	514	00066	1,350	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (EXTERIOR COLOR)	10
											5,650	5,650	514	00066	5,650	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT (INTERIOR COLOR)	10
											14	14	514	00504	14	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
											9	9	514	10000	9	EACH	FINAL INSPECTION REPAIR	



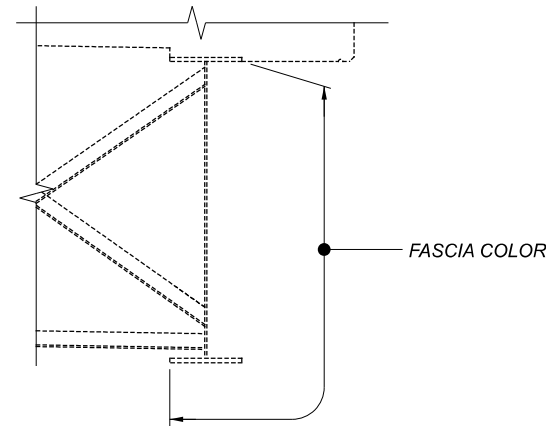
- BRIDGE NO. GEA-00422-00.170 L/R
- BRIDGE NO. GEA-C0188-00.170
- BRIDGE NO. GEA-00422-02.750 L/R
- BRIDGE NO. GEA-00422-09.860 L/R
- BRIDGE NO. GEA-C0191-02.650
- BRIDGE NO. GEA-C0032-02.350
- BRIDGE NO. GEA-C0004-02.370
- BRIDGE NO. GEA-00422-09.150 L/R

ITEM 514 - FIELD PAINTING

THE CONTRACTOR SHALL NOT OVERSPRAY ONTO THE CONCRETE DECK OR CONCRETE SUBSTRUCTURE COMPONENTS (BACK WALLS, ABUTMENTS, AND PIERS). PAINTING SHALL BE CONFINED TO THE STRUCTURAL STEEL COMPONENTS, UTILITY SUPPORTS, AND THE DRAINAGE SCUPPERS INCLUDING DOWNSPOUTS.

UTILITY CONDUITS SHALL NOT BE PAINTED. STEEL UTILITY SUPPORTS AND DRAINAGE SCUPPERS SHALL BE PAINTED.

THE STRUCTURES INCLUDED IN THE PAINTING SHALL HAVE A TWO-COLOR SCHEME FOR THE STRUCTURAL STEEL. THE FINISH COAT COLOR SHALL BE FEDERAL COLOR NUMBER FC#14533 (LIGHT GREEN, GLOSS) WITH AN EXCEPTION TO THE FASCIA. THE FASCIA COLOR SHALL BE FEDERAL COLOR NUMBER FC#24108 (GREEN, GLOSS) AND SHALL BE PAINTED IN ACCORDANCE WITH THE "FASCIA PAINT DETAIL". THE CONTRACTOR SHALL PROVIDE SAMPLE COLOR CHIPS TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK.



FASCIA PAINT DETAIL

GENERAL NOTES
 BRIDGE NO. VARIES

SFN
 VARIES



DESIGNER CHECKER
 MTJ ERK

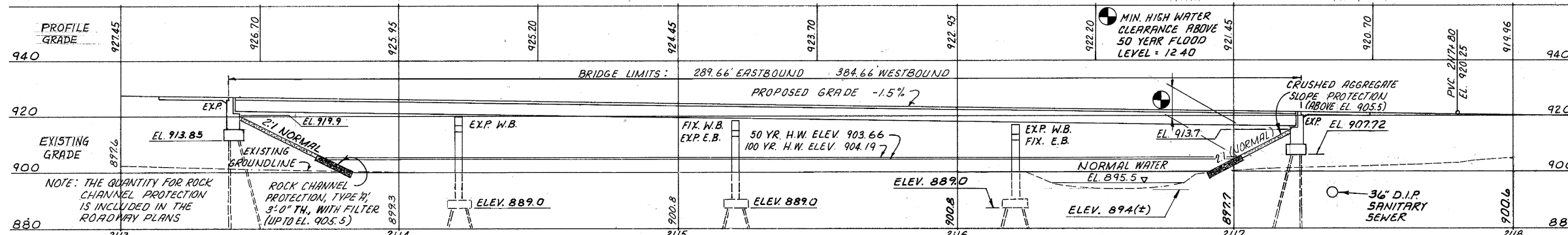
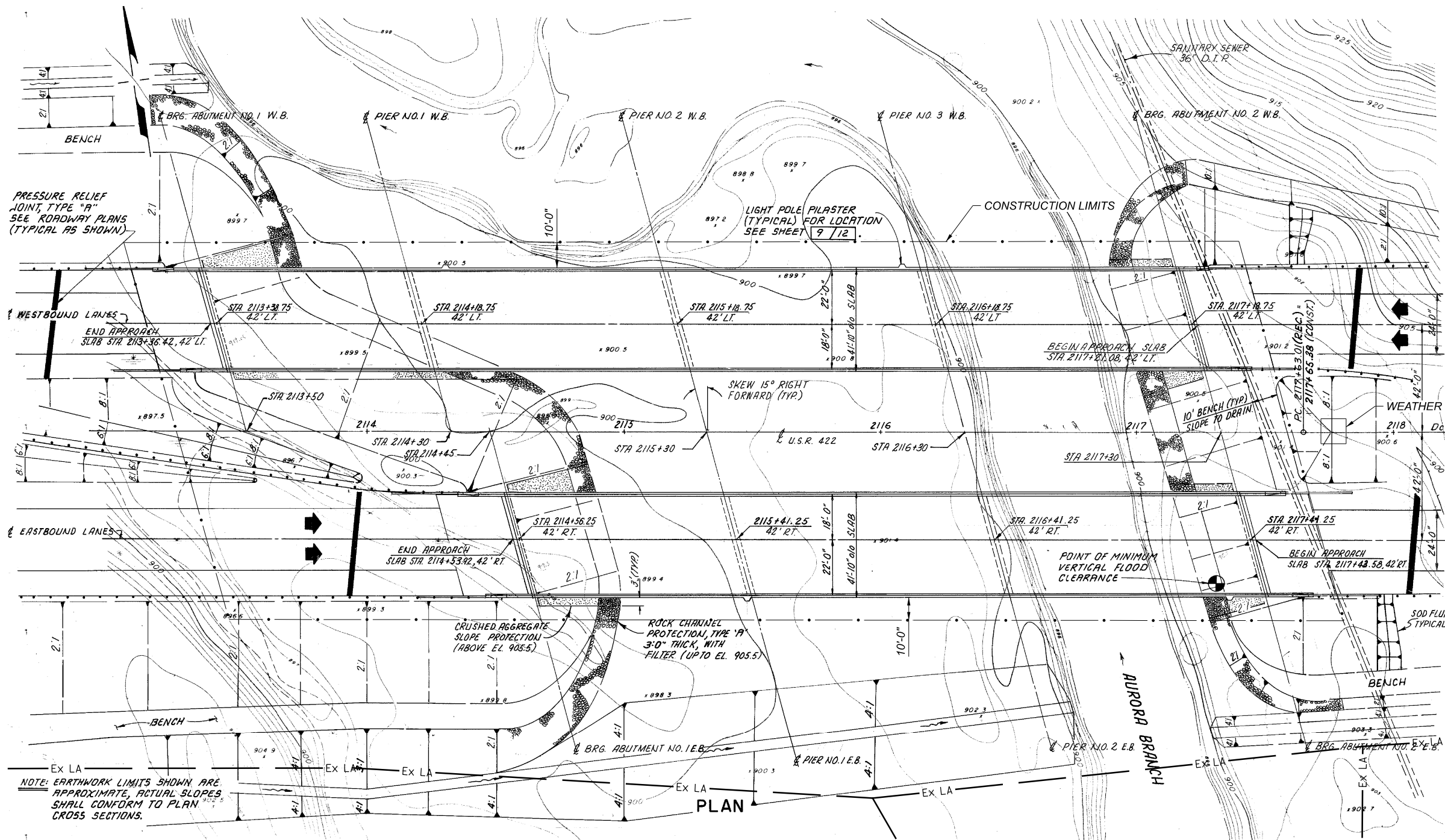
REVIEWER
 GDJ 6-20-21

PROJECT ID
 105251

SUBSET	TOTAL
1	1

SHEET	TOTAL
10	27

MODEL: Sheet PAPER: 17x11 (in.) DATE: 10/7/2021 TIME: 3:40:42 PM USER: CMT008
 P:\ODT1120014_GEA-422-1.70_VAR Paint\105251\400-Engineering\Structures\SFN_2801515\Sheets\105251_SFN_2801515_SF001.dgn



PROFILE ALONG W.B. LANES

HYDRAULIC DATA:

DRAINAGE AREA: 48.9 SQ. MI.
 Q₅₀ = 4465 cfs
 V₅₀ = 8.98 FT/SEC.
 50 YR. H.W. ELEV. 903.66
 Q₁₀₀ = 5128 cfs
 V₁₀₀ = 8.47 FT/SEC.
 100 YR. H.W. ELEV. 904.19

NOTE: FOOTING PILES SHALL BE 12"Ø CAST-IN-PLACE REINFORCED CONCRETE. ESTIMATE AVERAGE PILE LENGTH IS AS FOLLOWS: ABUTMENTS 60 FT., PIERS 45 FT.

DESIGN TRAFFIC	
ADT (2007)	32,750
ADTT (2007)	1,310

NOTE: DESIGNATION (226N) DENOTES REFERENCE TO DRAWING (226N/321)

PROPOSED STRUCTURE

TYPE:	CONTINUOUS WELDED PLAT GIRDER, A572 STEEL WITH COMPOSITE CONCRETE SLAB REINFORCED CONCRETE SUBSTRUCTURE.
SKIEW:	15° RIGHT FORWARD
SPANS:	LEFT: 80' 100' 100' 100' RIGHT: 85' 100' 100'
ROADWAY:	TWO (2) @ 40'-0" F/F PARAPE
LOADING:	HS 20-44 (CASE II) AND T ALTERNATE MILITARY LOADING
WEARING SURFACE:	MONOLITHIC
APPROACH SLABS:	A5-1-81 (25' LONG)
ALIGNMENT:	TANGENT
SUPERELEVATION:	NONE (NORMAL CROWN)
SLOPE PROTECTION:	ROCK CHANNEL PROTECTION TYPE A, 3'-0" THICK, WITH FILTER & CRUSHED AGGREGATE SLOPE PROTECTION.

adache-ciuni-lynn associates
 CONSULTING ENGINEERS CLEVELAND, OHIO 44131

SITE PLAN

GEA-422-0015 L & R
 OVER AURORA BRANCH OF CHAGRIN RIVER
 GAUGA COUNTY U.S. ROUTE 422
 SEC. GEA-422-000 STA. 2113+36.42 LT. 2117+21.08 LT.

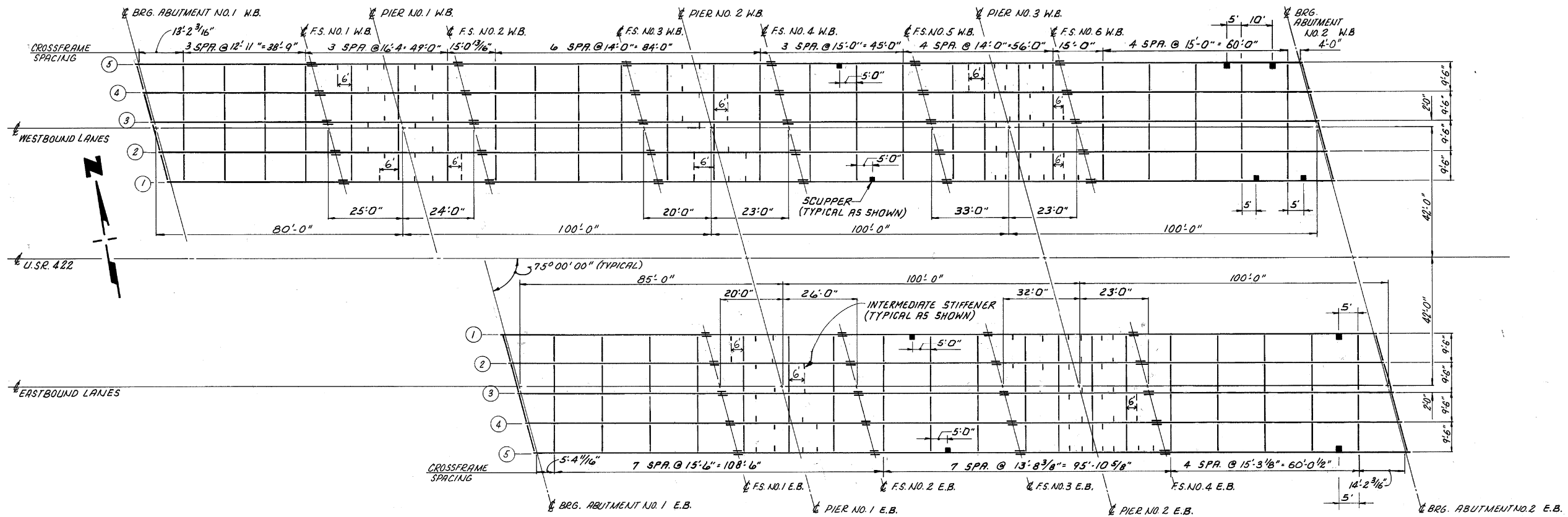
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISION
E.A.F.	D.R.J.	L.P.C.	L.E.D.	1-29-86	

NOTES

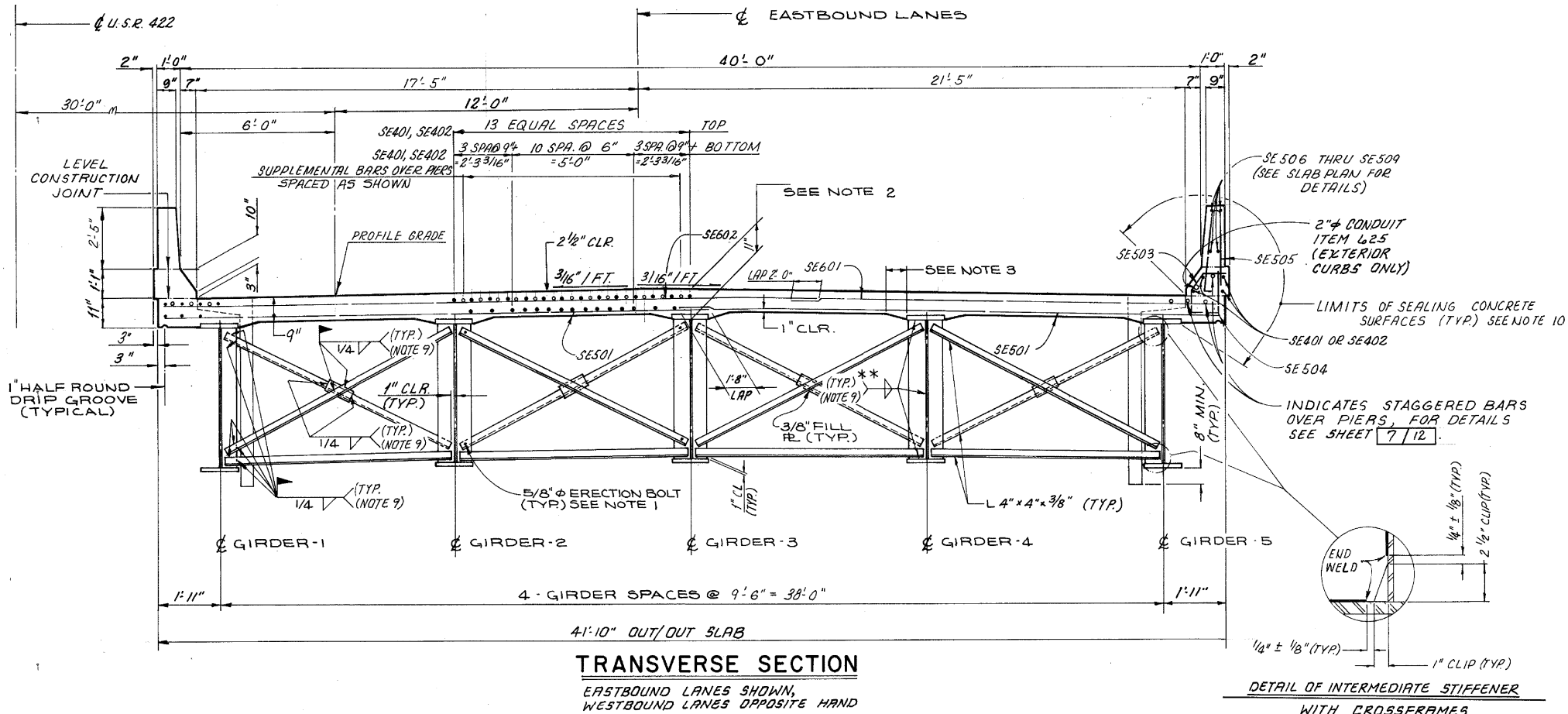
1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS, AND SHALL BE USED FOR INFORMATION PURPOSES ONLY.
2. NO WORK OR ACCESS WILL BE ALLOWED PAST THE ORDINARY HIGH WATER ELEVATION OF THE AURORA BRANCH OF THE CHAGRIN RIVER.
3. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.

SITE PLAN
 BRIDGE NO. GEA-00422-00.170L/R
 OVER AURORA BRANCH OF CHAGRIN RIVER

SFN	2801515
SFN	2801523
DESIGN AGENCY	CARPENTER MARTY
DESIGNER/CHECKER	MTJ/ERK
REVIEWER	GDJ
PROJECT ID	105251
SUBSET	TOTAL
1	2
SHEET	TOTAL
11	27

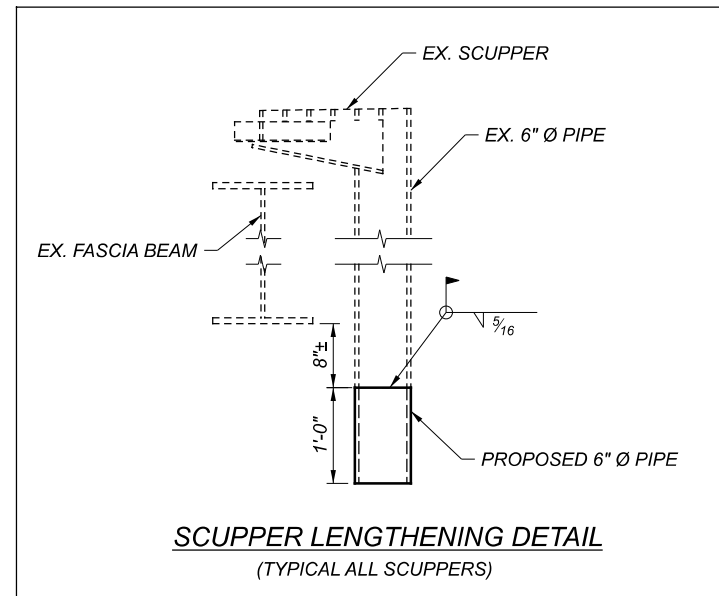


FRAMING PLAN



TRANSVERSE SECTION

EASTBOUND LANES SHOWN,
WESTBOUND LANES OPPOSITE HAND



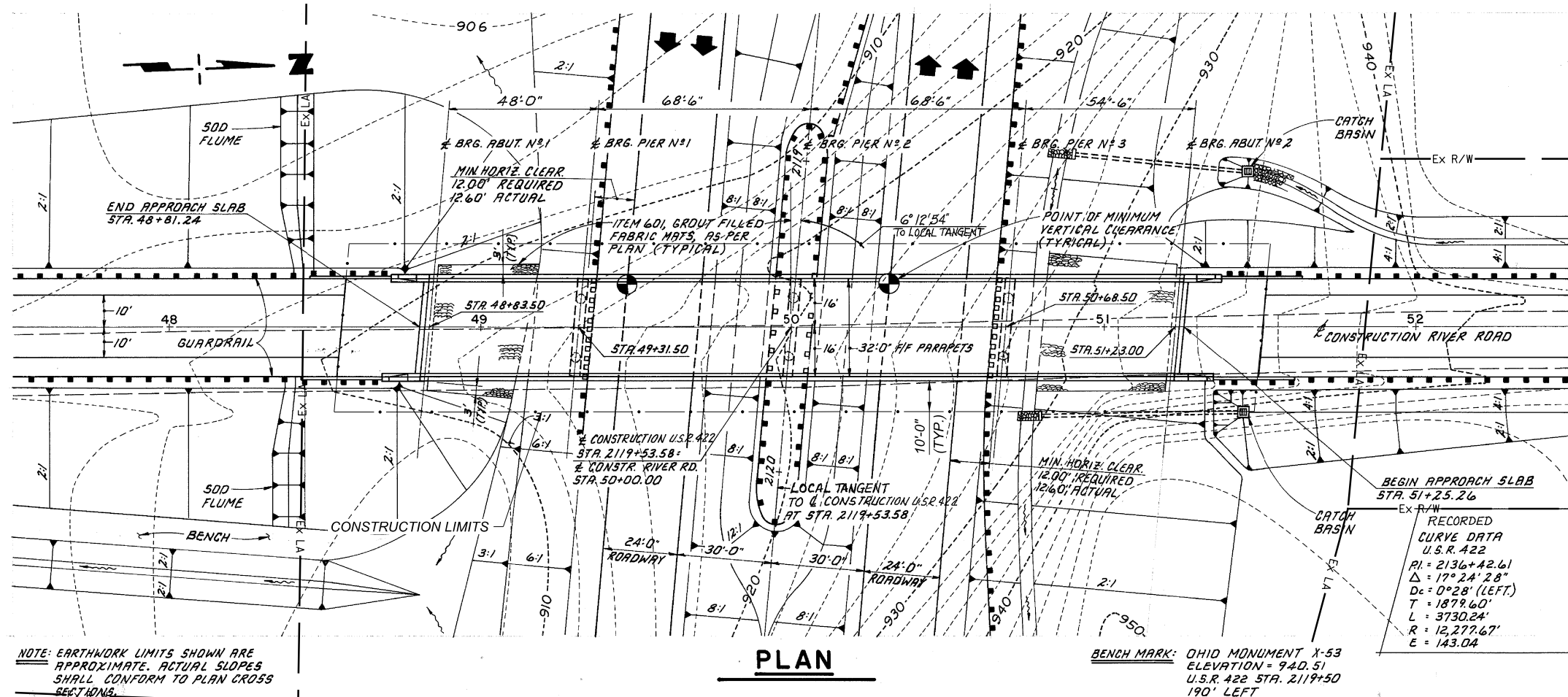
SCUPPER LENGTHENING DETAIL

(TYPICAL ALL SCUPPERS)

NOTES

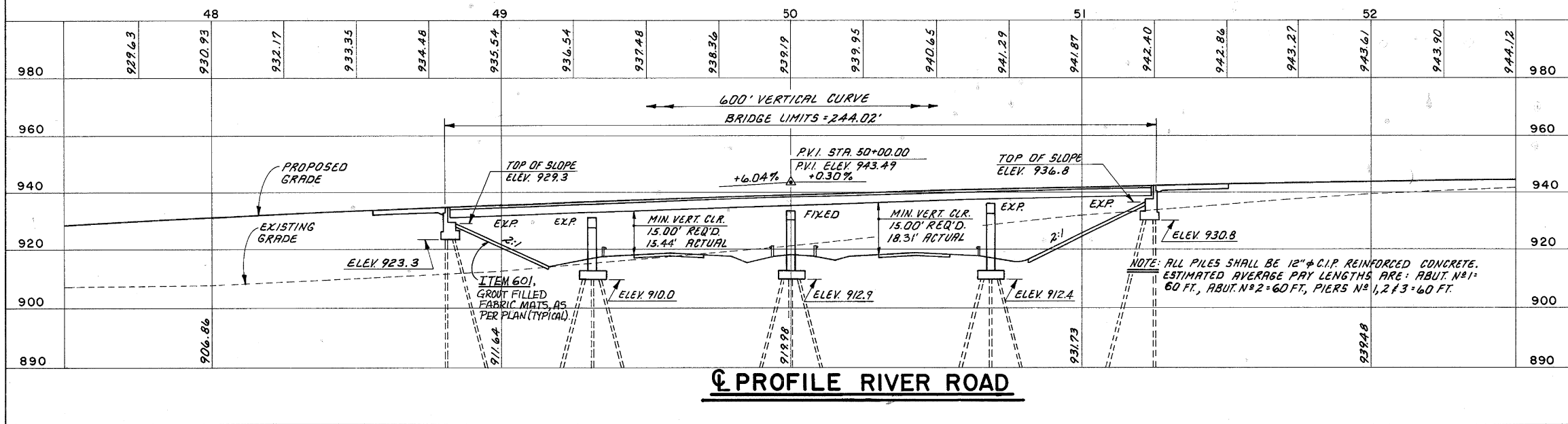
1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS, AND SHALL BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.
3. SCUPPER LENGTHENING SHALL BE PERFORMED PRIOR TO BRIDGE PAINTING.

DESIGNER	MTJ
CHECKER	ERK
REVIEWER	GDJ
DATE	6-20-21
PROJECT ID	105251
SUBSET	2
TOTAL	2
SHEET	12
TOTAL	27



RECORDED CURVE DATA U.S.R. 422		CONSTRUCTION CURVE DATA U.S.R. 422	
P.I. = 2136+42.61	P.I. = 2136+40.57	P.I. = 2136+40.57	P.I. = 2136+40.57
Δ = 17° 24' 28"	Δ = 17° 22' 03"	Δ = 17° 22' 03"	Δ = 17° 22' 03"
Dc = 0° 28' (LEFT)	Dc = 0° 28' (LT)	Dc = 0° 28' (LT)	Dc = 0° 28' (LT)
T = 1879.60'	T = 1875.19'	T = 1875.19'	T = 1875.19'
L = 3730.24'	L = 3721.62'	L = 3721.62'	L = 3721.62'
R = 12,277.67'	R = 12,277.67'	R = 12,277.67'	R = 12,277.67'
E = 143.04	E = 142.38'	E = 142.38'	E = 142.38'

DESIGN TRAFFIC	
A.D.T. (2007)	600
A.D.T. (2007)	30



PROPOSED STRUCTURE

TYPE	: CONTINUOUS STEEL BEAM, A572 STEEL WITH COMPOSITE CONCRETE SLAB. REINF. CONC. SUBSTRUCTURE
SPANS	: 48'-0", 68'-6", 68'-6", 54'-6"
ROADWAY	: 32'-0" FACE/FACE PARAPETS
LOADING	: H&S20-44 (CASE II) AND THE ALTERNATE MILITARY LOADING
SKEW	: 6° 12' 54" LEFT FORWARD
WEARING SURFACE	: MONOLITHIC
APPROACH SLABS	: AS-1-B1 (25' LONG)
ALIGNMENT	: TANGENT
SUPERELEVATION	: NONE (NORMAL CROWN)
SLOPE PROTECTION	: ITEM 601, GROUT FILLED FABRIC MATS, AS PER PLAN

adache - ciuni - lynn associates
 CONSULTING ENGINEERS CLEVELAND, OHIO 44131

SITE PLAN

BRIDGE N° GEA-422-0026
 UNDER RIVER ROAD
 GEauga COUNTY U.S. ROUTE 422

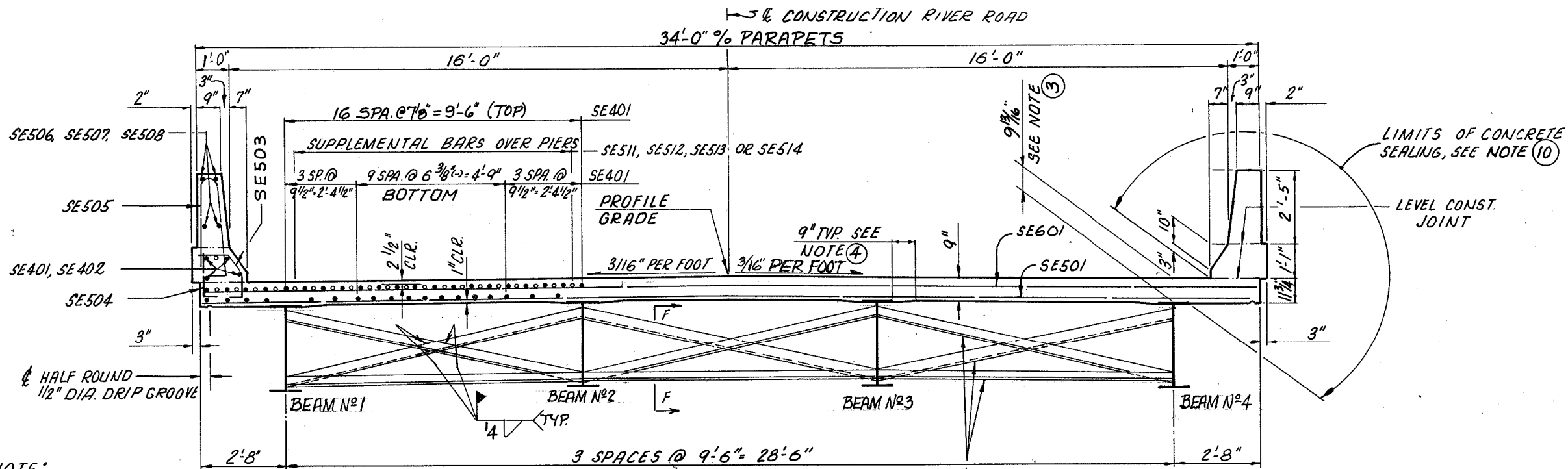
SEC. GEA-422-0.00		STA. 2119+53.58	
DESIGNED	DRAWN	CHECKED	REVIEWED
T.M.J.	T.M.J.	L.P.C.	L.E.D. 1-31-86

NOTES

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS, AND SHALL BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.

SITE PLAN
 BRIDGE NO. GEA-C0188-00.170
 OVER USR 422 ALT (0026)

SFN	2801558
DESIGN AGENCY	adache - ciuni - lynn associates
DESIGNER/CHECKER	MTJ ERK
REVIEWER	GDJ 6-20-21
PROJECT ID	105251
SUBSET	TOTAL
1	2
SHEET	TOTAL
13	27

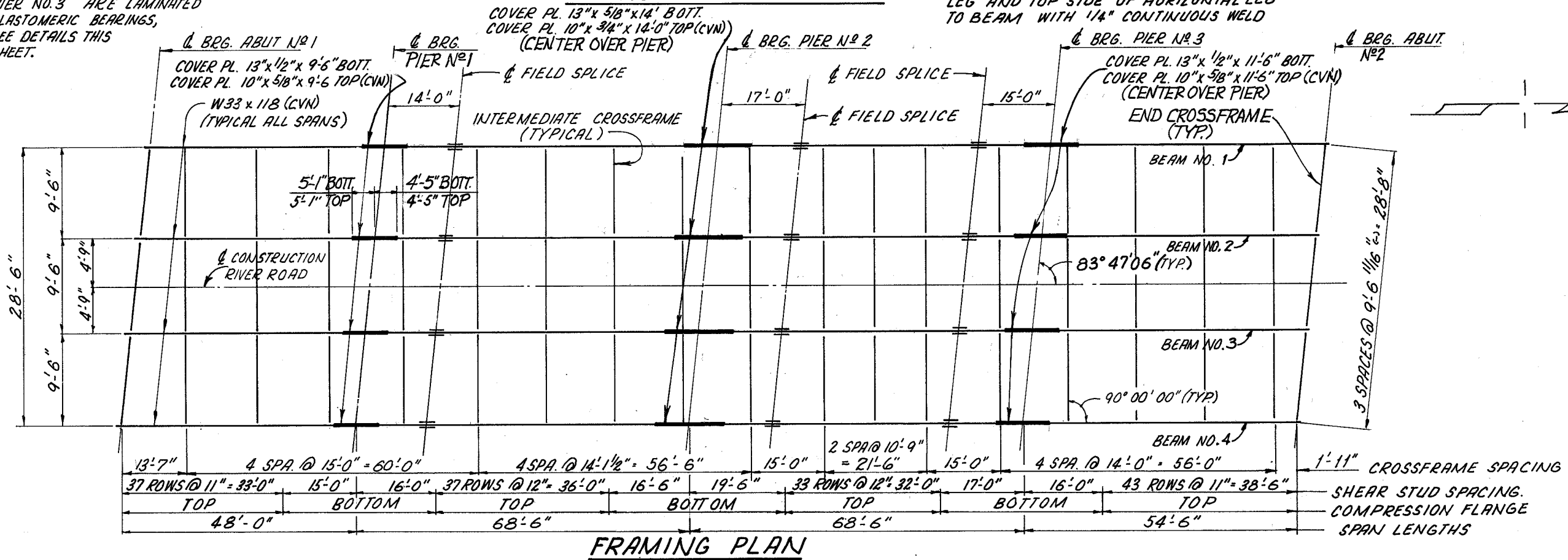


NOTE:

BEARINGS FOR ABUT. NO. 1, ABUT. NO. 2, PIER NO. 1 & PIER NO. 3 ARE LAMINATED ELASTOMERIC BEARINGS, SEE DETAILS THIS SHEET.

TRANSVERSE SECTION

3 1/2 x 3 1/2 x 5/16 INTERMEDIATE CROSSFRAME ANGLES. WELD BOTH SIDES OF VERTICAL LEG AND TOP SIDE OF HORIZONTAL LEG TO BEAM WITH 1/4" CONTINUOUS WELD



FRAMING PLAN

NOTES

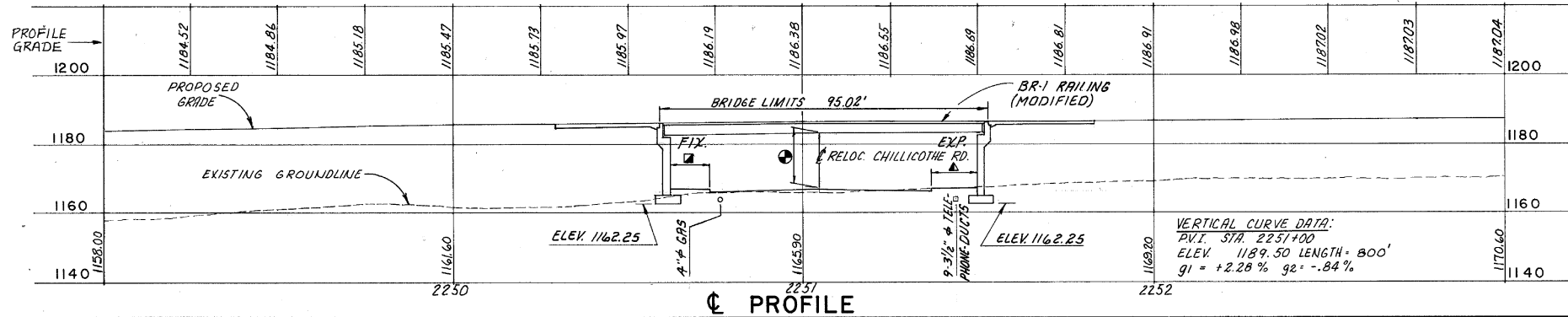
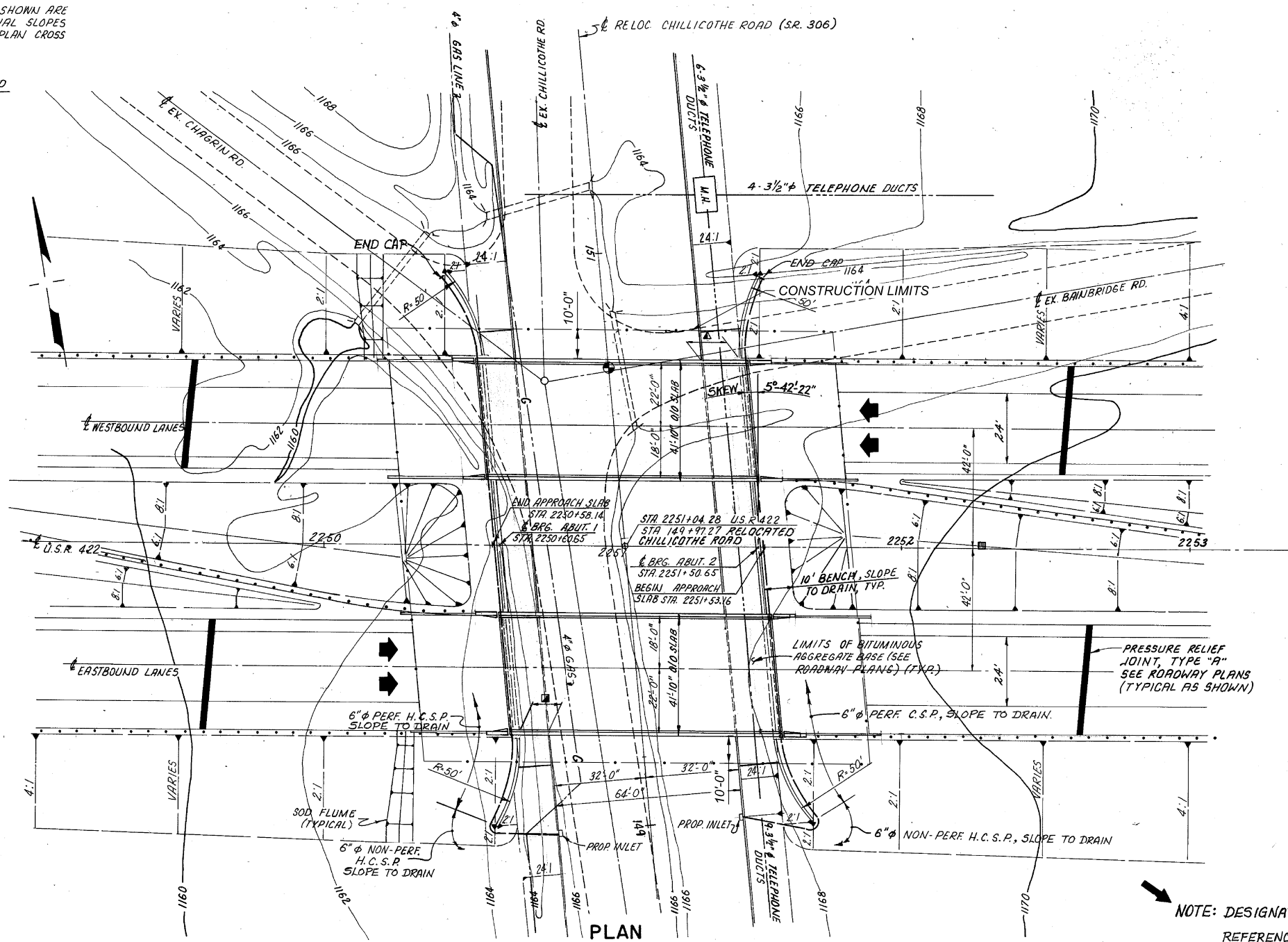
1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS, AND SHALL BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.

SFN	2801558
DESIGN AGENCY	CARPENTER MARTY
DESIGNER	MTJ
CHECKER	ERK
REVIEWER	GDJ
PROJECT ID	105251
SUBSET	2
TOTAL	2
SHEET	14
TOTAL	27

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

CURVE DATA - CHILLICOTHE ROAD

$\Delta = 05^\circ - 32' - 03''$
 $Dc = 0^\circ - 28' - 00''$ RT.
 $R = 12,277.67'$
 $T = 593.41'$
 $L = 1185.87'$
 $P.C.C. = 146+25$
 $P.T. = 158+10.89$
 $P.I. = 152+18.41$



DESIGN TRAFFIC	
ADT (2007)	12,755
ADTT (2007)	510

PROPOSED STRUCTURE	
TYPE:	SIMPLE SPAN STEEL BEAM, ASBESTOS STEEL WITH COMPOSITE CONCRETE SLAB, REINFORCED CONCRETE SUB-STRUCTURE.
SKIEW:	5°-42'-22" RT. FWD.
SPAN:	90'-0"
ROADWAY:	TWO (2) @ 40'-0" F/F PARAPETS
LOADING:	HS 20-44 (CASE II) AND THE ALTERNATE MILITARY LOADING.
WEARING SURFACE:	MONOLITHIC
APPROACH SLABS:	AS-1-81 (30' LONG)
ALIGNMENT:	TANGENT
SUPERELEVATION:	NONE (NORMAL CROWN)
SLOPE PROTECTION:	NONE
118	
adache - ciuni - lynn associates CONSULTING ENGINEERS CLEVELAND, OHIO 44131	
SITE PLAN GEA-422-0274 L&R OVER CHILLICOTHE ROAD (SR 306) GEAGA CO. U.S. ROUTE 422	
SEC. GEA-422-0.00 STA 2250+58.14 2251+53.16	
DESIGNED	L.P.C.
DRAWN	D.R.J.
CHECKED	J.R.C.
REVIEWED	LED
DATE	1-17-86
REVISED	

NOTE: DESIGNATION (226N) DENOTES REFERENCE TO DRAWING (226N) 321

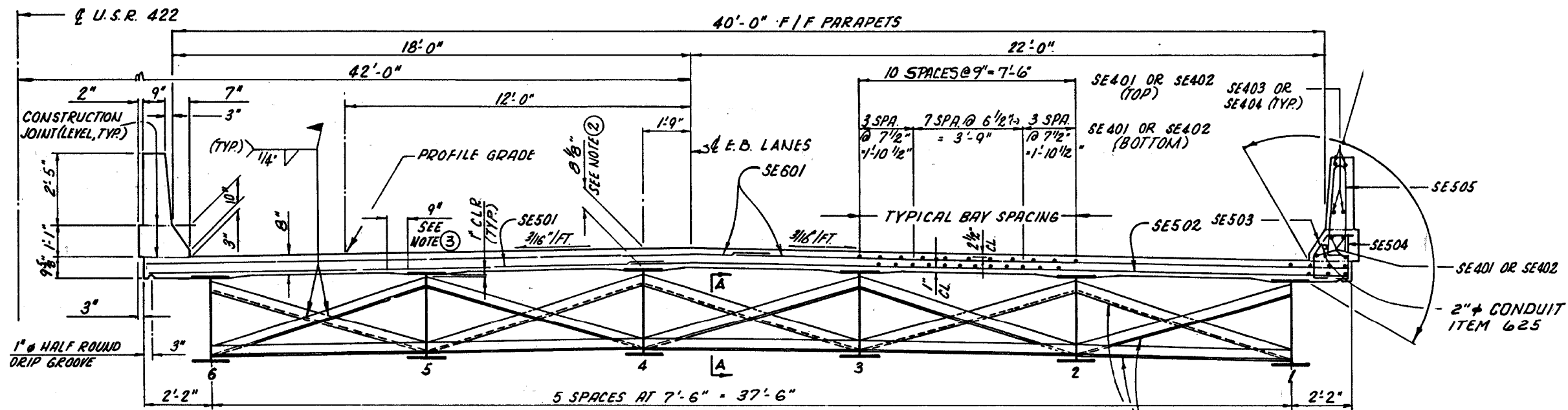
- MIN. VERTICAL CLEARANCE: 15.00' REQUIRED, 15.58' ACTUAL
- MIN. HORIZONTAL CLEARANCE: 10' REQUIRED, 10.80' ACTUAL
- 12.74' REQUIRED FOR SIGHT DIST.
- 13.22' ACTUAL

NOTES

- DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS, AND SHALL BE USED FOR INFORMATION PURPOSES ONLY.
- PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.

SITE PLAN
 BRIDGE NO. GEA-00422-02.750L/R
 OVER S.R. 306 (CHILLICOTHE ROAD)

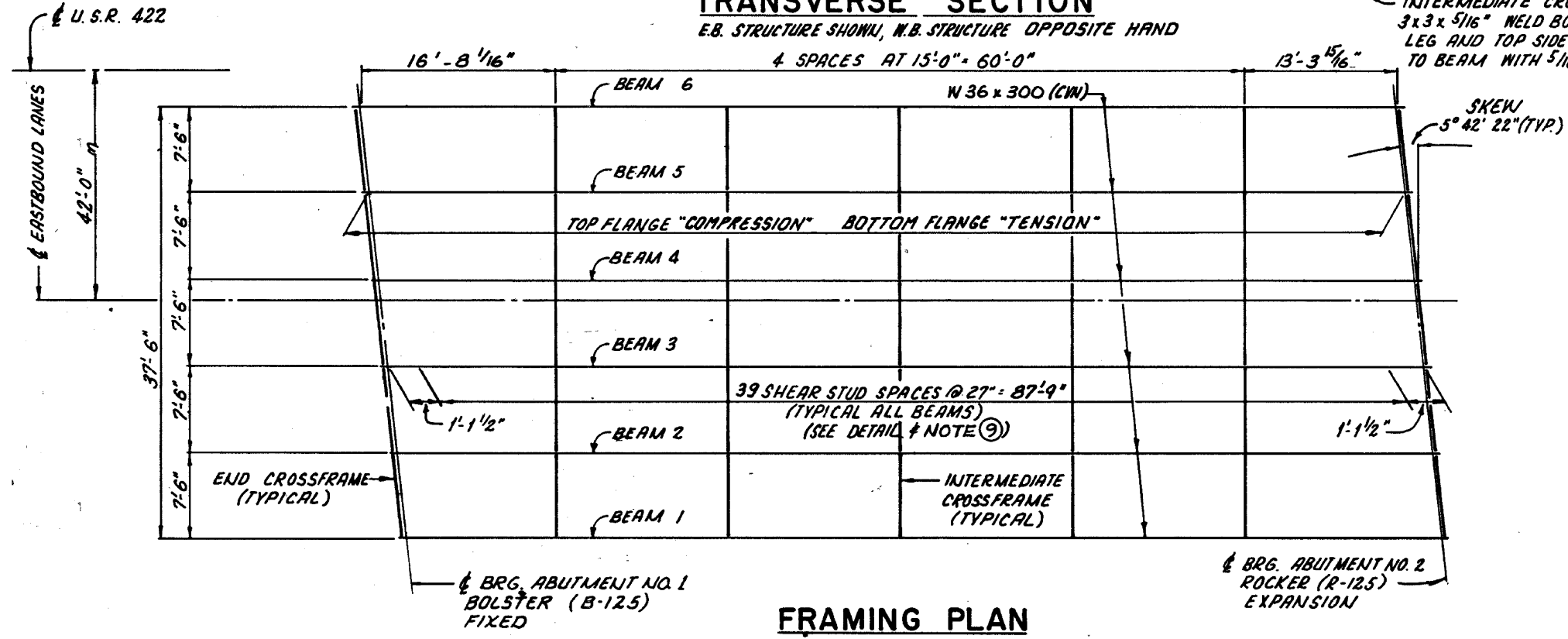
SFN	2801612
SFN	2801639
DESIGN AGENCY	CARPENTER MARTY
DESIGNER/CHECKER	MTJ ERK
REVIEWER	GDJ
PROJECT ID	105251
SUBSET	1 2
SHEET	15 27



TRANSVERSE SECTION

E.B. STRUCTURE SHOWN, N.B. STRUCTURE OPPOSITE HAND

INTERMEDIATE CROSSFRAME ANGLES
 3x3x5/16" WELD BOTH SIDES OF VERTICAL
 LEG AND TOP SIDE OF HORIZONTAL LEG
 TO BEAM WITH 5/16" CONTINUOUS WELD



FRAMING PLAN

E.B. STRUCTURE SHOWN, N.B. STRUCTURE SIMILAR

NOTES

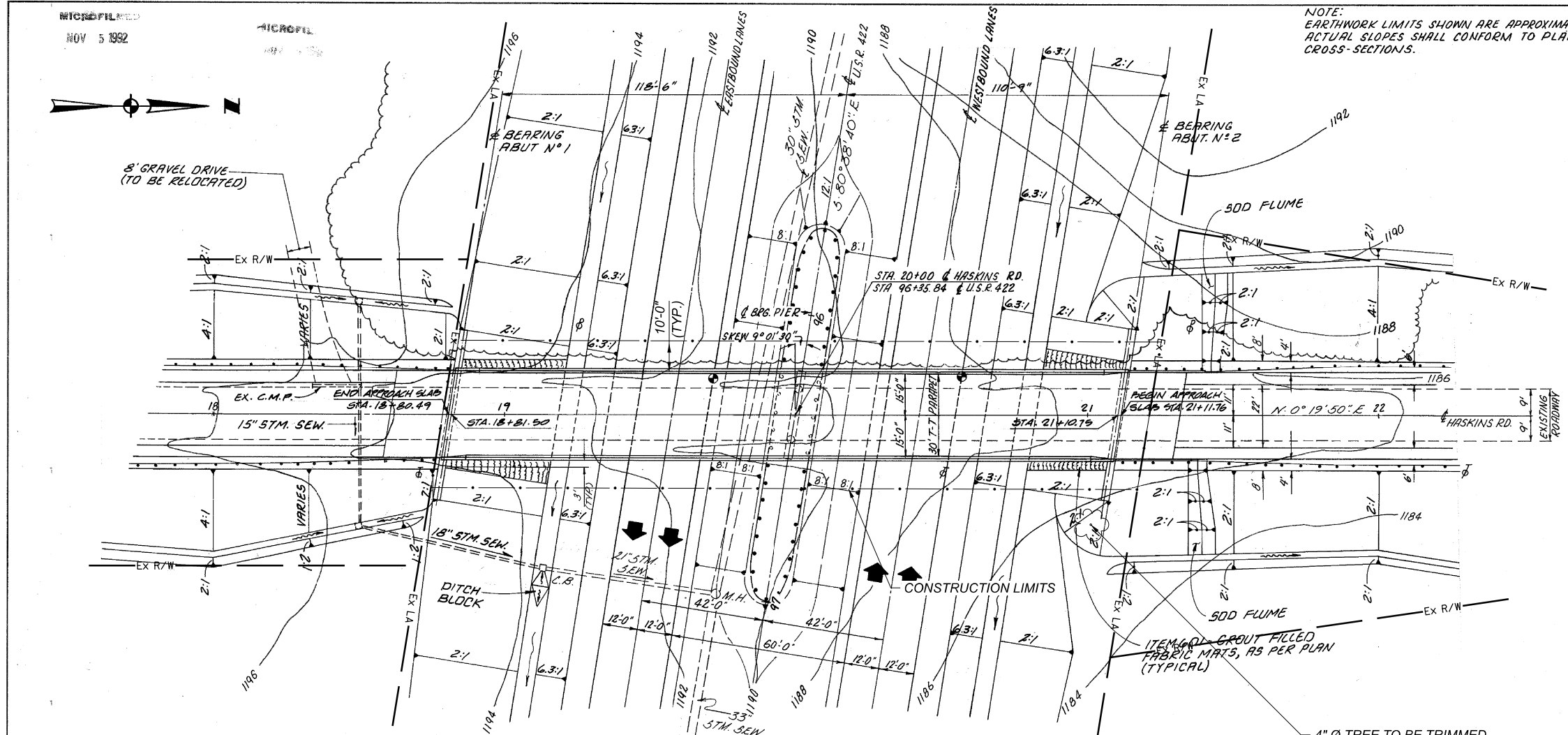
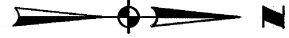
1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS, AND SHALL BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.

SUPERSTRUCTURE DETAILS
 BRIDGE NO. GEA-00422-02.750L/R
 OVER S.R. 306 (CHILLICOTHE ROAD)

SFN	2801612
SFN	2801639
DESIGNER	MTJ
CHECKER	ERK
REVIEWER	GDJ
PROJECT ID	105251
SUBSET	2
TOTAL	2
SHEET	16
TOTAL	27



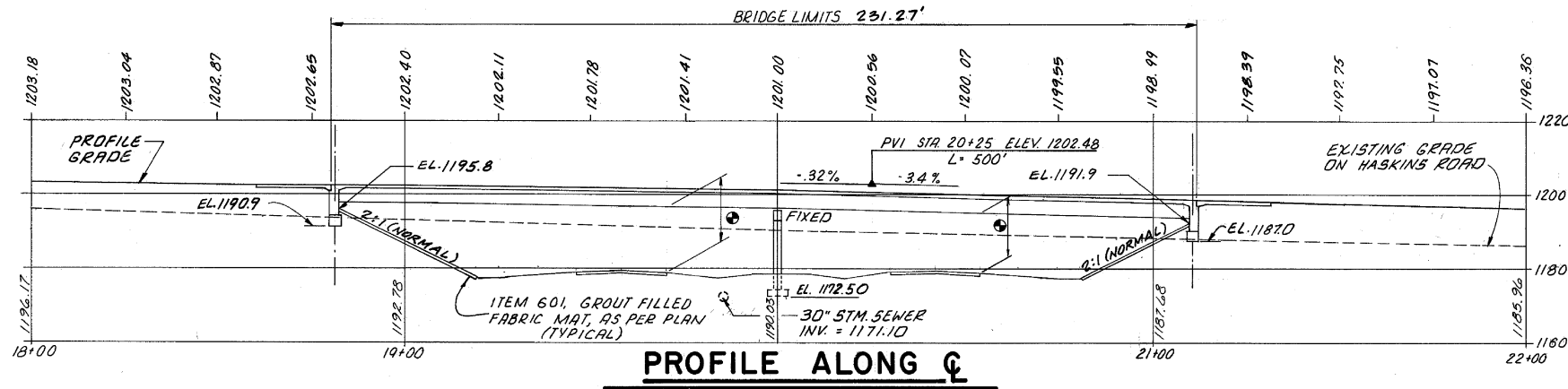
MICROFILMED
 NOV 5 1992



NOTE:
 EARTHWORK LIMITS SHOWN ARE APPROXIMATE.
 ACTUAL SLOPES SHALL CONFORM TO PLAN
 CROSS-SECTIONS.

NOTE: ABUTMENT PILES ARE HP10x42
 STEEL H PILES. ESTIMATED
 AVERAGE PILE LENGTHS ARE:
 ABUTMENT N#1 = 30 FEET
 ABUTMENT N#2 = 25 FEET
 PIER IS SUPPORTED ON A
 CONTINUOUS SPREAD FOOTING.

PLAN



PROFILE ALONG C

DESIGN TRAFFIC	
2007 ADT	580
2007 ADTT	2.5

MINIMUM VERTICAL CLEARANCE
 15.0' REQUIRED
 15.20 ACTUAL W.B. LANES
 16.87 ACTUAL E.B. LANES

PROPOSED STRUCTURE	
TYPE: CONTINUOUS COMPOSITE WELDED PLATE GIRDER WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.	
SKEW: 9° 01' 30" LEFT FORWARD	
SPANS: 118'-6" & 110'-9" @ BEARINGS	
ROADWAY: 30'-0" TOE/TOE PARAPETS	
LOADING: HS20-44 (CASE II) AND THE ALTERNATE MILITARY LOADING	
WEARING SURFACE: 1 1/4" LATEX MODIFIED CONCRETE.	
APPROACH SLABS: AS-1-81 (20' LONG)	
ALIGNMENT: TANGENT	
SUPERELEVATION: NONE (NORMAL CROWN)	
SLOPE PROTECTION: GROUT FILLED FABRIC MATS, AS PER PLAN	

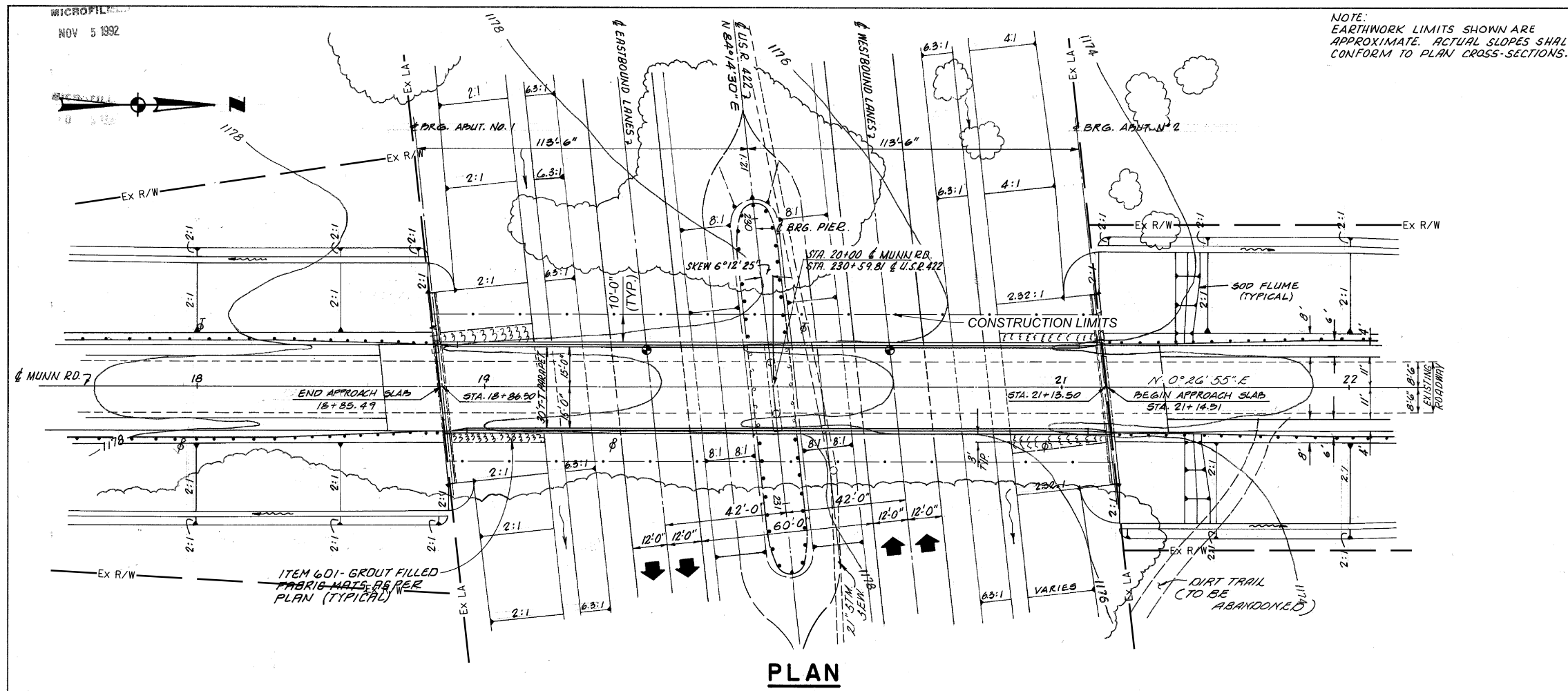
adache - ciuni - lynn associates CONSULTING ENGINEERS CLEVELAND, OHIO 44131	
SITE PLAN	
BRIDGE N# GEA-422-0361 HASKINS ROAD OVER U.S.R. 422	
GEAUGA COUNTY SEC. GEA-422-3.19	STA. 18+80.49 TO STA. 21+11.76
DESIGNED D.R.J.	DRAWN D.R.J.
CHECKED J.R.C.	REVIEWED L.E.D.
DATE 2-12-87	DATE 2-12-87

NOTES

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS, AND SHALL BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.

SITE PLAN
 BRIDGE NO. GEA-C0191-02.650
 OVER U.S.R. 422 ALT (0361)

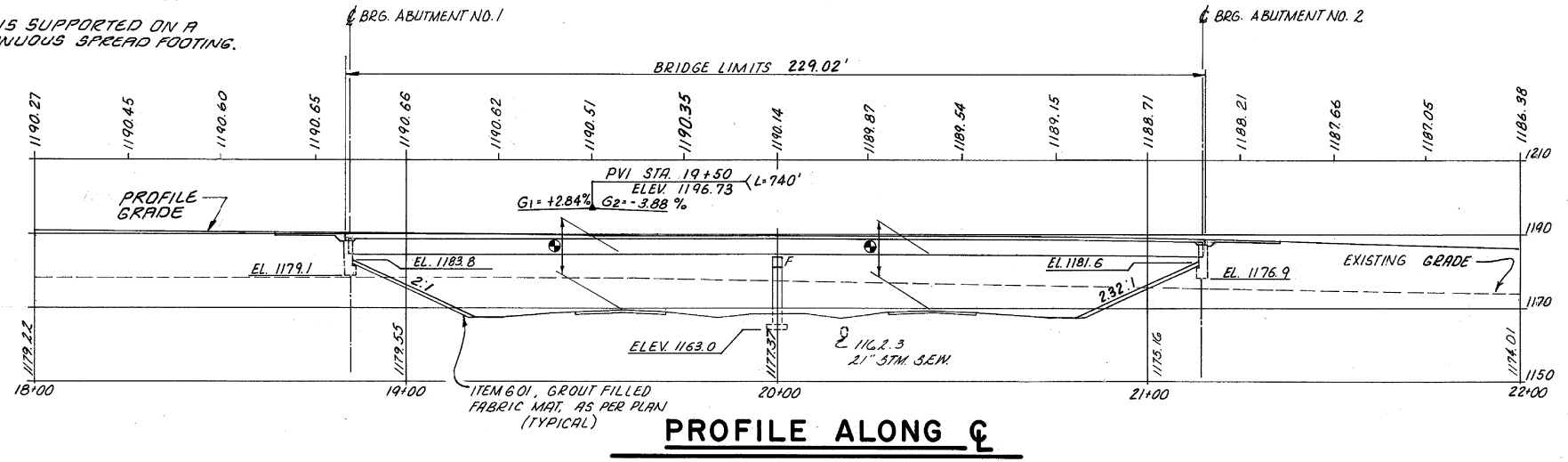
SFN	2803364
DESIGN AGENCY	CARPENTER MARTY
DESIGNER	MTJ
CHECKER	ERK
REVIEWER	GDJ
DATE	6-20-21
PROJECT ID	105251
SUBSET	TOTAL
1	2
SHEET	TOTAL
17	27



PLAN

PROPOSED STRUCTURE	
TYPE: CONTINUOUS COMPOSITE WELDED PLATE GIRDER WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.	
SKEW: 6°12'25" RIGHT FORWARD	
SPANS: 113'-6" & 113'-6" 1/4 BEARINGS	
ROADWAY: 30'-0" TOE/TOE PARAPETS	
LOADING: HS20-44 (CASE II) AND THE ALTERNATE MILITARY LOADING	
WEARING SURFACE: 1/4" LATEX MODIFIED CONCRETE	
APPROACH SLABS: AS-1-81 (20' LONG)	
ALIGNMENT: TANGENT	
SUPERELEVATION: NONE (NORMAL CROWN)	
SLOPE PROTECTION: GROUT FILLED FABRIC MATS, AS PER PLAN	

NOTE: ABUTMENT PILES ARE HP10x42 STEEL H PILES. ESTIMATED AVERAGE PILE LENGTHS ARE ABUTMENT NO.1 = 35 FEET ABUTMENT NO.2 = 35 FEET
 PIER IS SUPPORTED ON A CONTINUOUS SPREAD FOOTING.



PROFILE ALONG C

DESIGN TRAFFIC	
2007 ADT	1240
2007 ADTT	50

MINIMUM VERTICAL CLEARANCE
 15.0' REQUIRED
 15.10' ACTUAL WESTBOUND LANES
 15.87' ACTUAL EASTBOUND LANES

adache - ciuni - lynn associates
 CONSULTING ENGINEERS CLEVELAND, OHIO 44131

SITE PLAN
 BRIDGE NO. GEA-422-0616
 MUNN ROAD OVER U.S.R. 422

GEAUGA COUNTY STA. 18+85.49 TO
 SEC. GEA-422-3.19 STA. 21+14.51

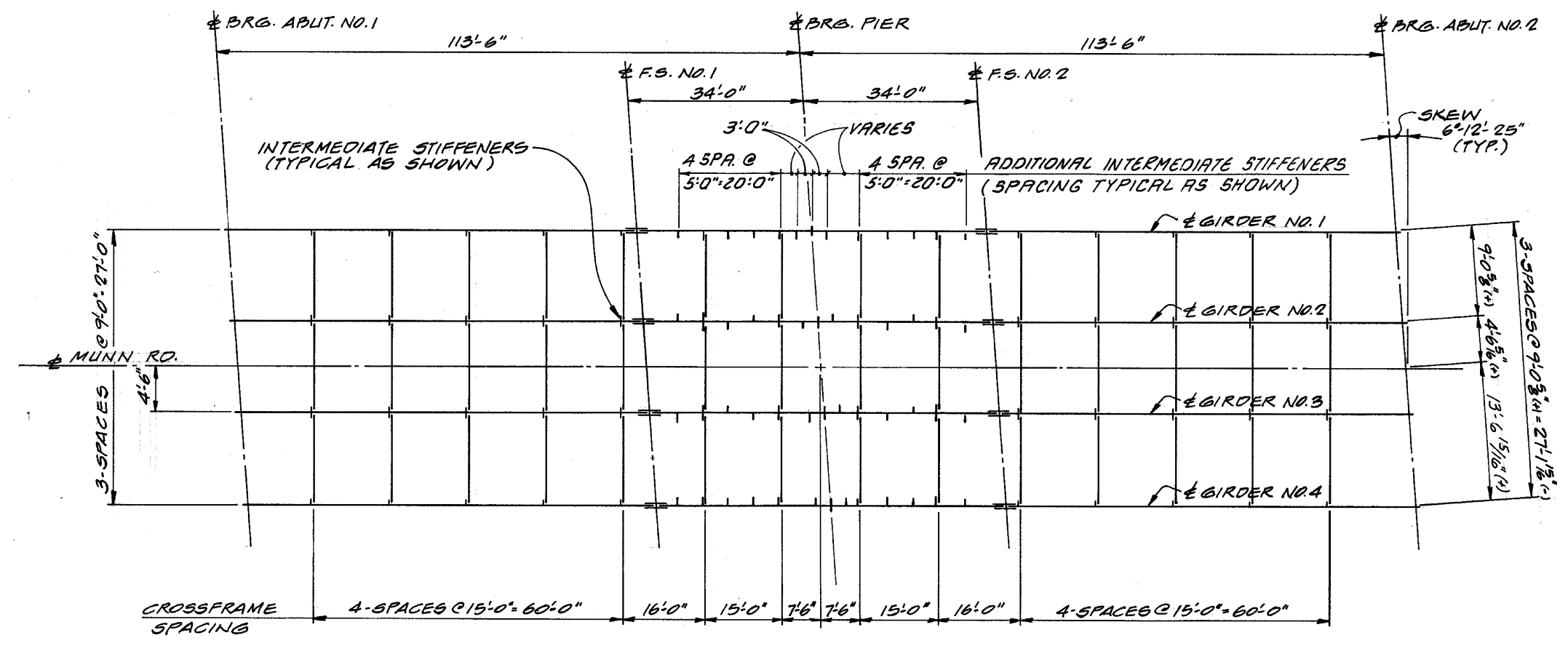
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
D.R.J.	D.R.J.	J.R.C.	L.E.D.	2-12-87	

NOTES

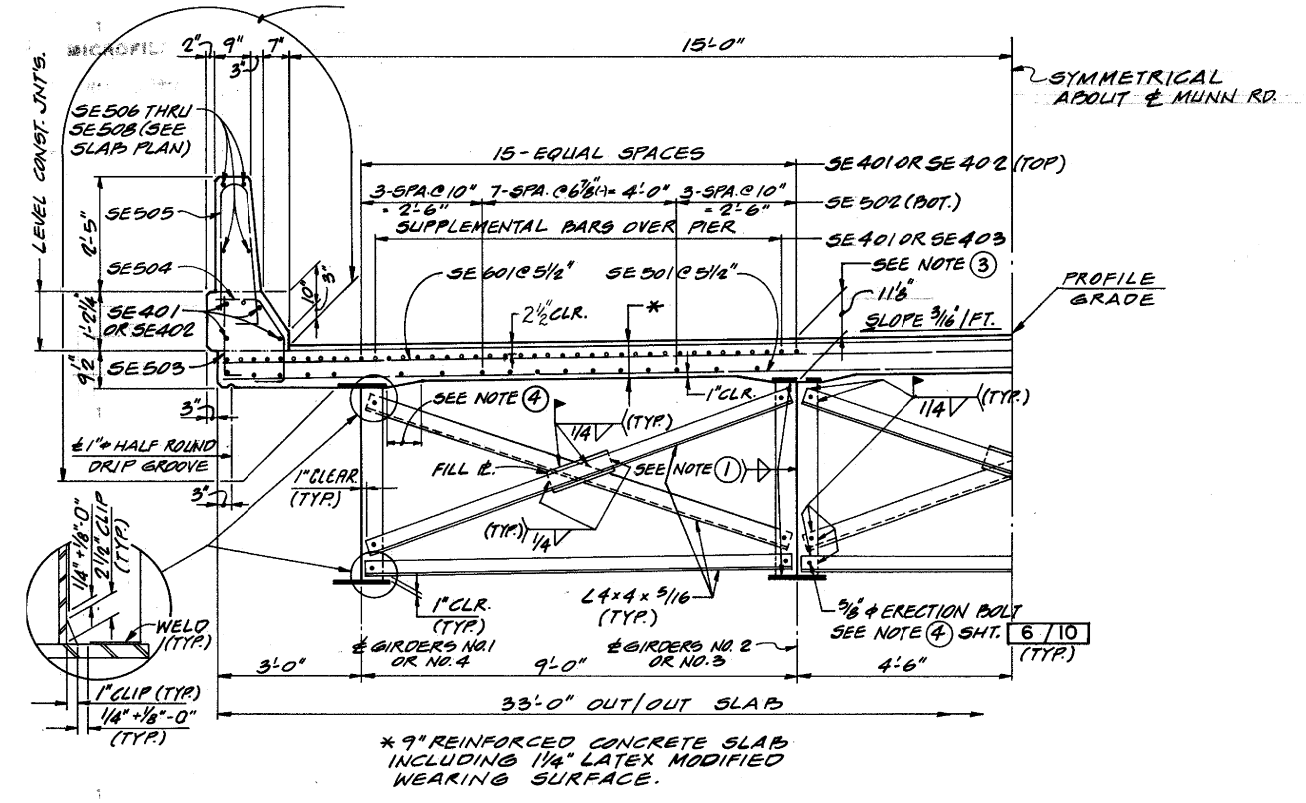
1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS, AND SHALL BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.

SITE PLAN
 BRIDGE NO. GEA-C0032-02.350
 OVER U.S.R. 422 ALT (0616)

SFN	2803445
DESIGN AGENCY	adache - ciuni - lynn associates
DESIGNER/CHECKER	MTJ / ERK
REVIEWER	GDJ
PROJECT ID	105251
SUBSET	1 / 2
SHEET	19 / 27



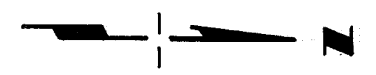
FRAMING PLAN



TRANSVERSE SECTION

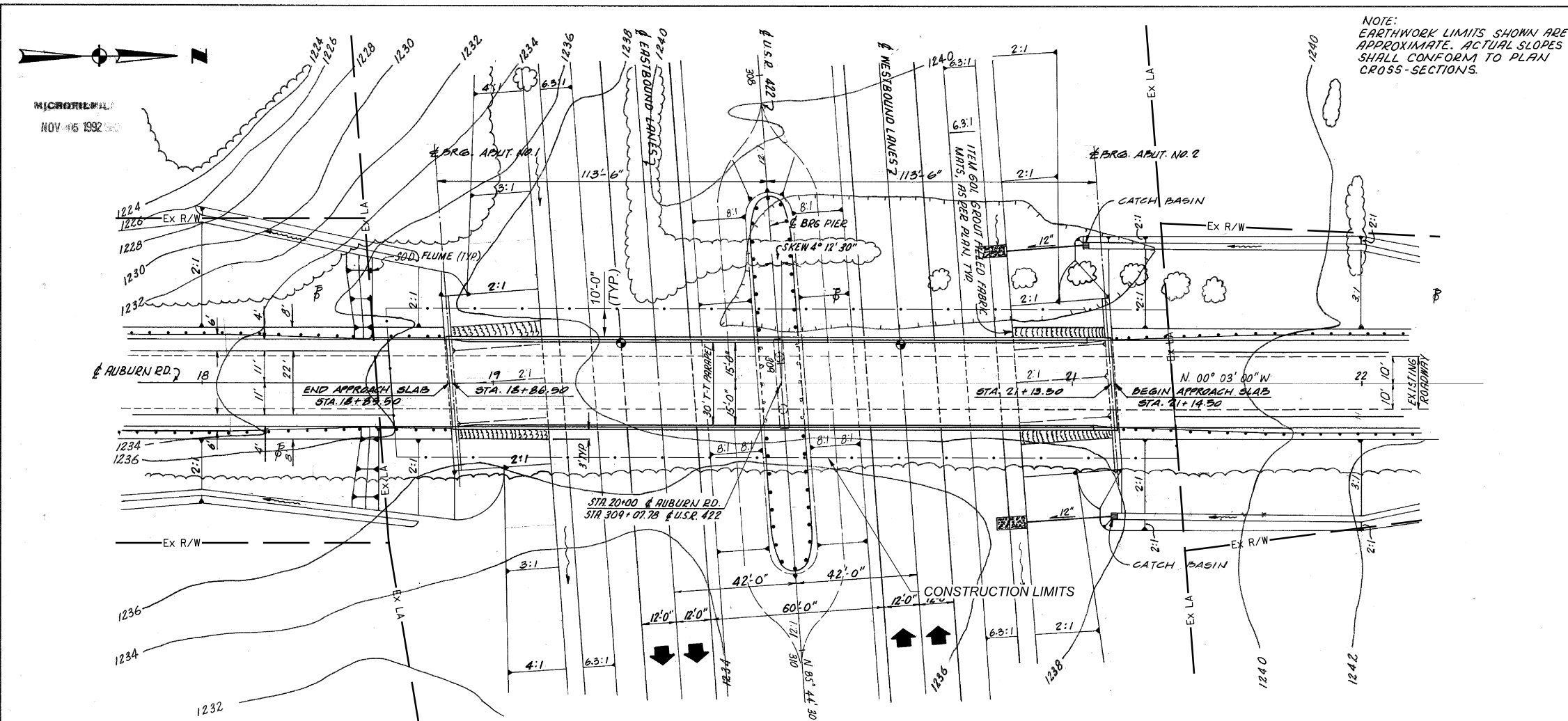
NOTES

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2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.



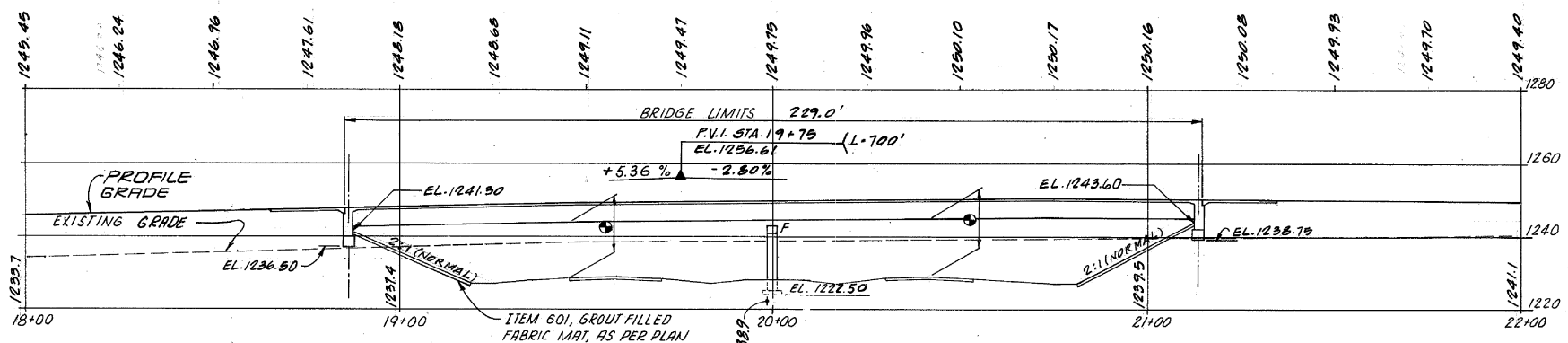
SUPERSTRUCTURE DETAILS
 BRIDGE NO. GEA-C0032-02.350
 OVER U.S.R. 422 ALT (0616)

SFN	2803445
DESIGN AGENCY	CARPENTER MARTY
DESIGNER/CHECKER	MTJ ERK
REVIEWER	GDJ
PROJECT ID	105251
SUBSET	TOTAL
2	2
SHEET	TOTAL
20	27



NOTE: ABUTMENT PILES 12" x C.I.P. REINF. CONC. PILES. ESTIMATED AVERAGE PILE LENGTHS ARE ABUTMENT N#1 = 30 FEET ABUTMENT N#2 = 30 FEET

PIER IS SUPPORTED ON A CONTINUOUS SPREAD FOOTING.



DESIGN TRAFFIC	
2007 ADT:	546
2007 ADIT:	22

MINIMUM VERTICAL CLEARANCE
 15.0' REQUIRED
 15.21' ACTUAL EASTBOUND LANES
 16.16' ACTUAL WESTBOUND LANES

PROPOSED STRUCTURE	
TYPE: CONTINUOUS COMPOSITE WELDED PLATE GIRDER WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE.	
SKEW: 4°12'30" RIGHT FORWARD	
SPANS: 113'6" & 113'6" @ BEARINGS	
ROADWAY: 30'-0" TOE/TOE PARAPETS	
LOADING: HS20-44 (CASE II) AND THE ALTERNATE MILITARY LOADING	
WEARING SURFACE: 1/4" LATEX MODIFIED CONCRETE	
APPROACH SLABS: AS-1-B1 (20' LONG)	
ALIGNMENT: TANGENT	
SUPERELEVATION: NONE (NORMAL CROWN)	
SLOPE PROTECTION: GROUT FILLED FABRIC MATS, AS PER PLAN	

adache - ciuni - lynn associates
 CONSULTING ENGINEERS CLEVELAND, OHIO 44131

SITE PLAN

BRIDGE N# GEA-422-0764
 AUBURN ROAD OVER U.S.R.422

GEAUGA COUNTY STA 18+85.50 TO
 SEC. GEA-422-3.19 STA. 21+14.50

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISION
D.R.J.	DR.J.	J.R.C.	L.E.D.	2-12-87	

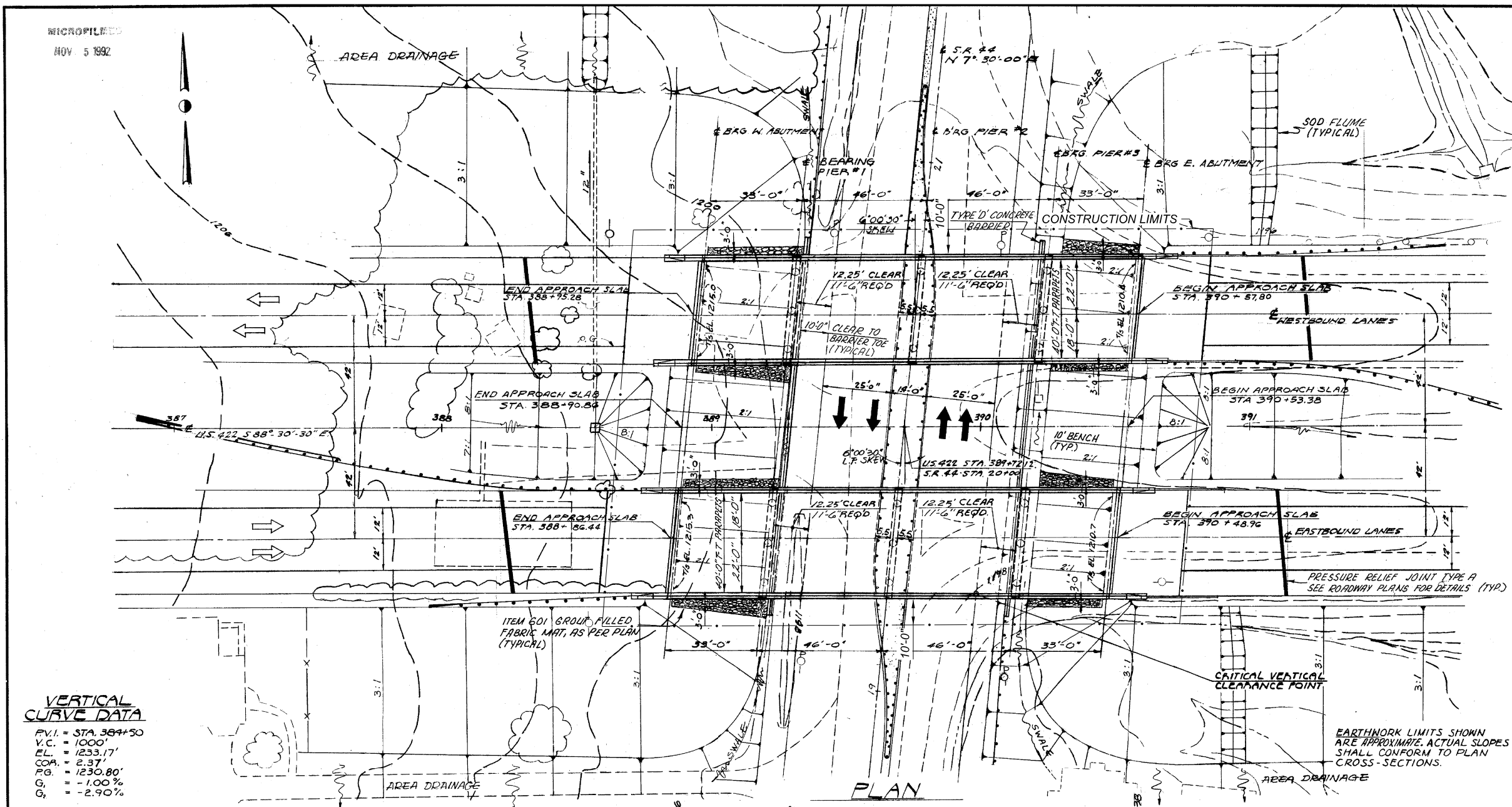
NOTES

- DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS, AND SHALL BE USED FOR INFORMATION PURPOSES ONLY.
- PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.

SITE PLAN
 BRIDGE NO. GEA-C0004-02.370
 OVER U.S.R.422 ALT (0764)

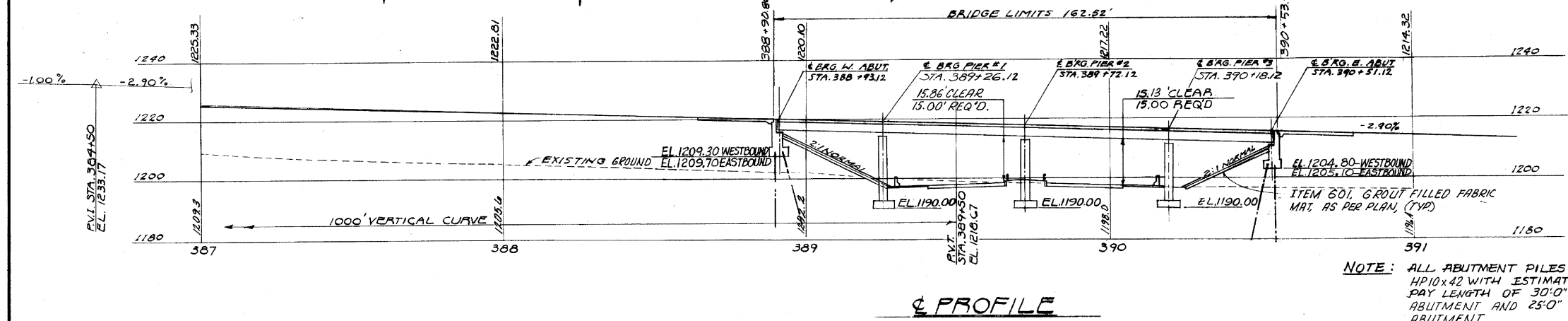
SFN	2803526
DESIGN AGENCY	CARPENTER MARTY
DESIGNER	MTJ
CHECKER	ERK
REVIEWER	GDJ
DATE	6-20-21
PROJECT ID	105251
SUBSET	TOTAL
1	2
SHEET	TOTAL
21	27

MICROFILMED
 NOV 5 1992



DESIGN TRAFFIC
 2007 ADT 18,921
 2007 ADTT 157

VERTICAL CURVE DATA
 PVI = STA 389+50
 V.C. = 1000'
 EL = 1233.17'
 COA = 2.37'
 PG. = 1230.80'
 G₁ = -1.00%
 G₂ = -2.90%



NOTE: ALL ABUTMENT PILES SHALL BE HP10x42 WITH ESTIMATED AVERAGE PAY LENGTH OF 30'-0" FOR WEST ABUTMENT AND 25'-0" FOR EAST ABUTMENT.

PROPOSED STRUCTURE
 TYPE: CONTINUOUS STEEL BEAM W/ REINFORCED CONCRETE DECK & SUBSTRUCTURE
 SPANS: 33', 46', 46', 33' @ BEARINGS
 ROADWAY: 40'-0" T-T PARAPETS
 LOADING: HS20-44 (CASE II) AND THE ALTERNATE MILITARY LOADING
 SKEW: 6°-00'-30" L.F.
 BEARING SURFACE: 1 1/4" LATEX MODIFIED CONCRETE
 ALIGNMENT: TANGENT
 APPROACH SLABS: AS-1-B1 (25' LONG)

ADACHE ASSOCIATES INC., ENGINEERS
 CLEVELAND 42, OHIO

SITE PLAN

BRIDGE NO. GEA.422-0917 L/R
U.S. 422 OVER S.R.44

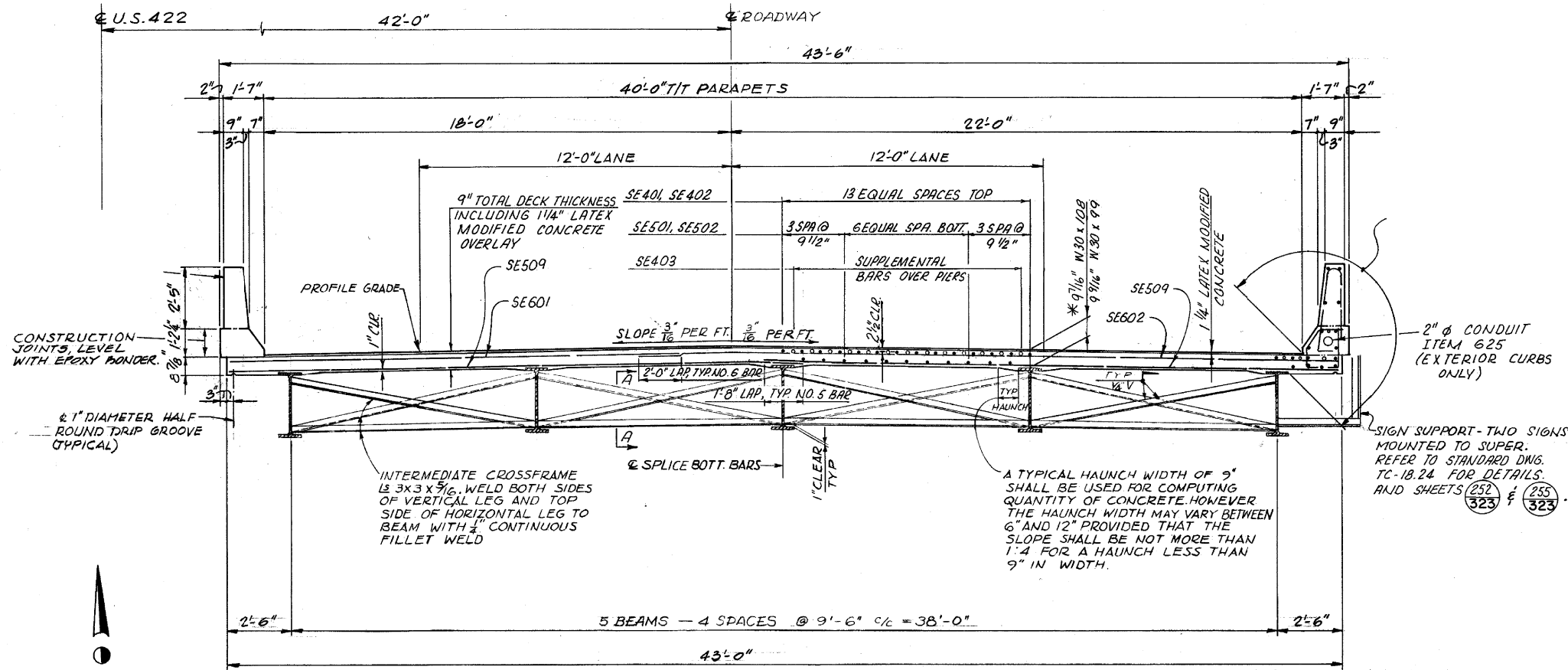
GEAUGA COUNTY STA 388+90.86 TO GEA-422-3.19 STA 390+53.38

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE
W.B.	D.A.	L.R.A.	A.C.	

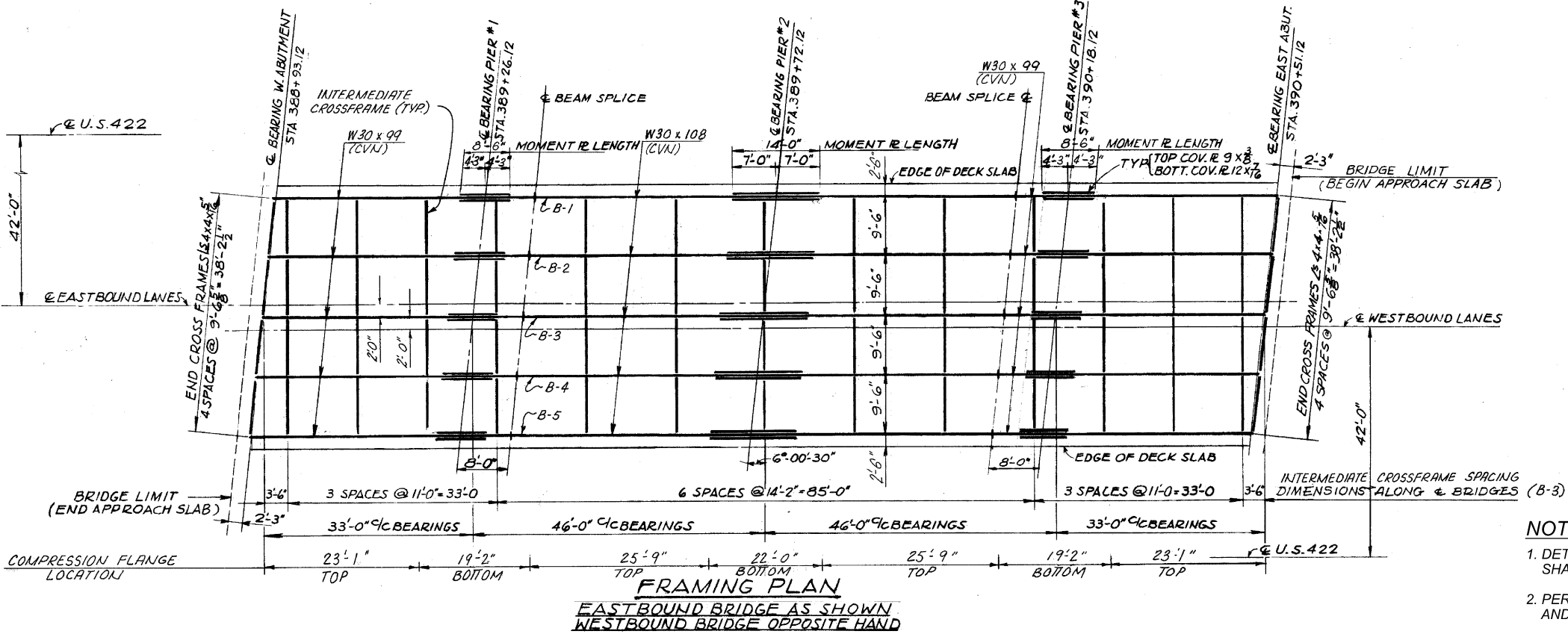
- NOTES**
- DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS, AND SHALL BE USED FOR INFORMATION PURPOSES ONLY.
 - PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.

SITE PLAN
 BRIDGE NO. GEA-00422-09.150L/R
 OVER S.R. 44 (RAVENNA ROAD)

SFN	2803542
SFN	2803569
DESIGNER	MTJ
CHECKER	ERK
REVIEWER	GDJ
DATE	6-20-21
PROJECT ID	105251
SUBSET	TOTAL
1	2
SHEET	TOTAL
23	27



TRANSVERSE SECTION
 EASTBOUND BRIDGE AS SHOWN
 WESTBOUND BRIDGE OPPOSITE HAND



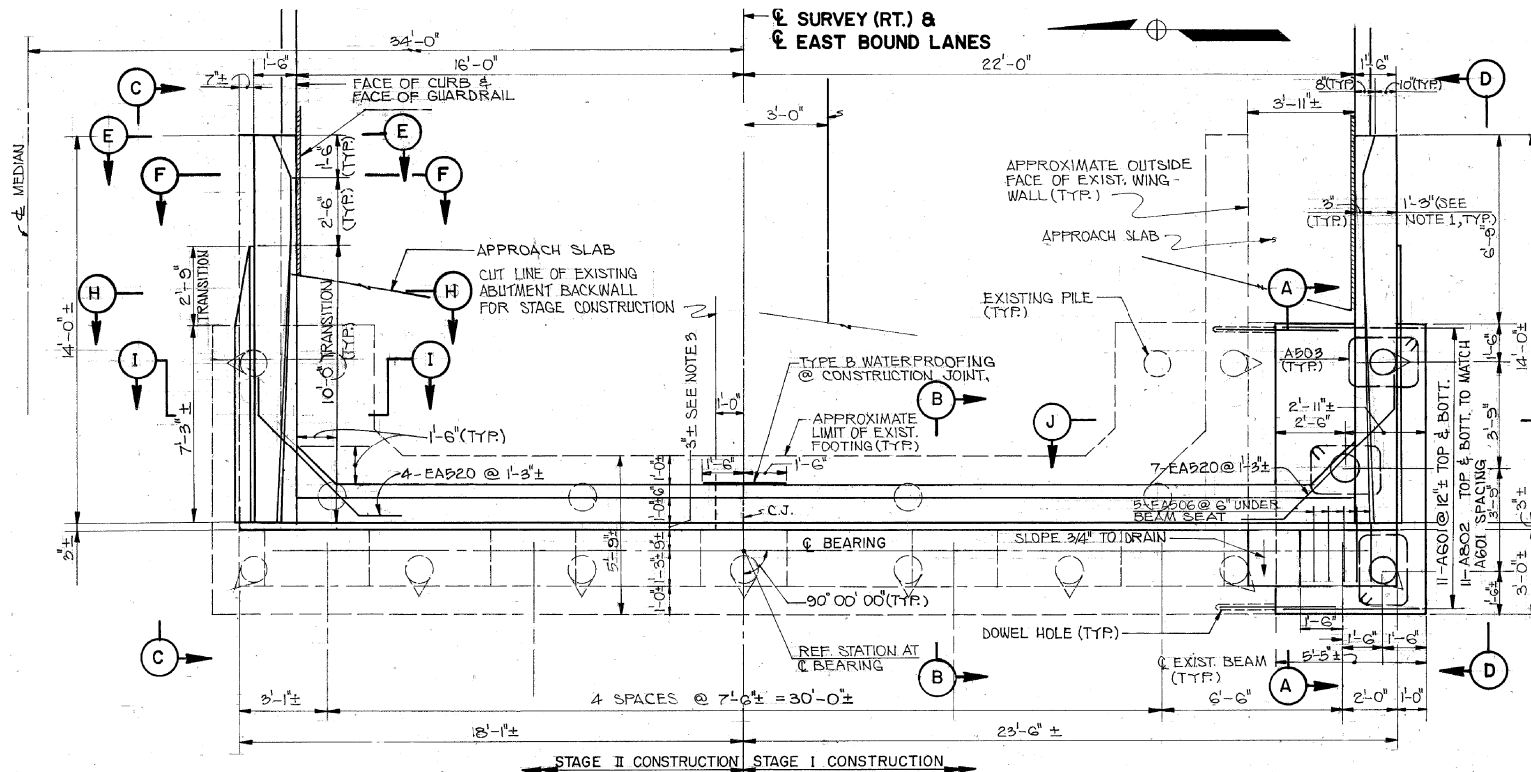
FRAMING PLAN
 EASTBOUND BRIDGE AS SHOWN
 WESTBOUND BRIDGE OPPOSITE HAND

NOTES

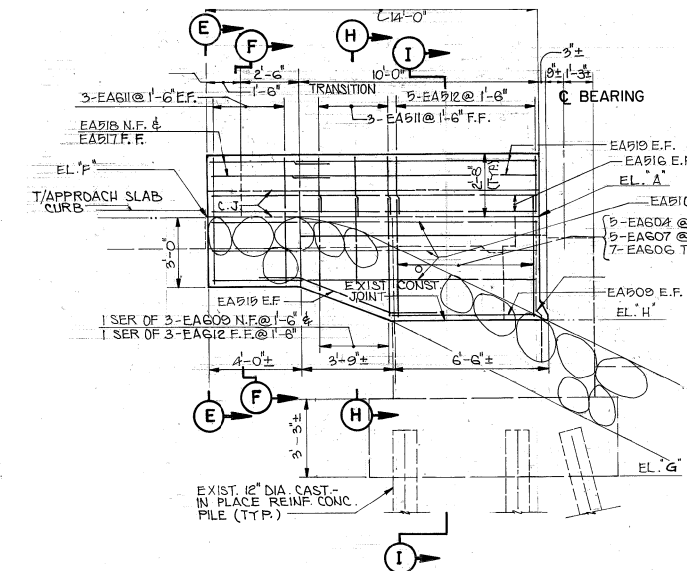
1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS, AND SHALL BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.

SUPERSTRUCTURE DETAILS
 BRIDGE NO. GEA-00422-09.150L/R
 OVER S.R. 44 (RAVENNA ROAD)

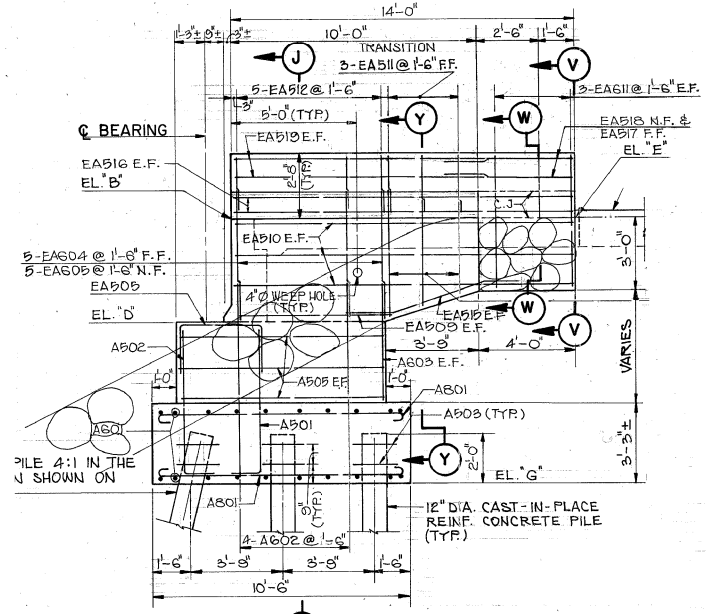
SFN	2803542
SFN	2803569
DESIGN AGENCY	CARPENTER MARTY
DESIGNER/CHECKER	MTJ/ERK
REVIEWER	GDJ
PROJECT ID	105251
SUBSET	TOTAL
2	2
SHEET	TOTAL
24	27



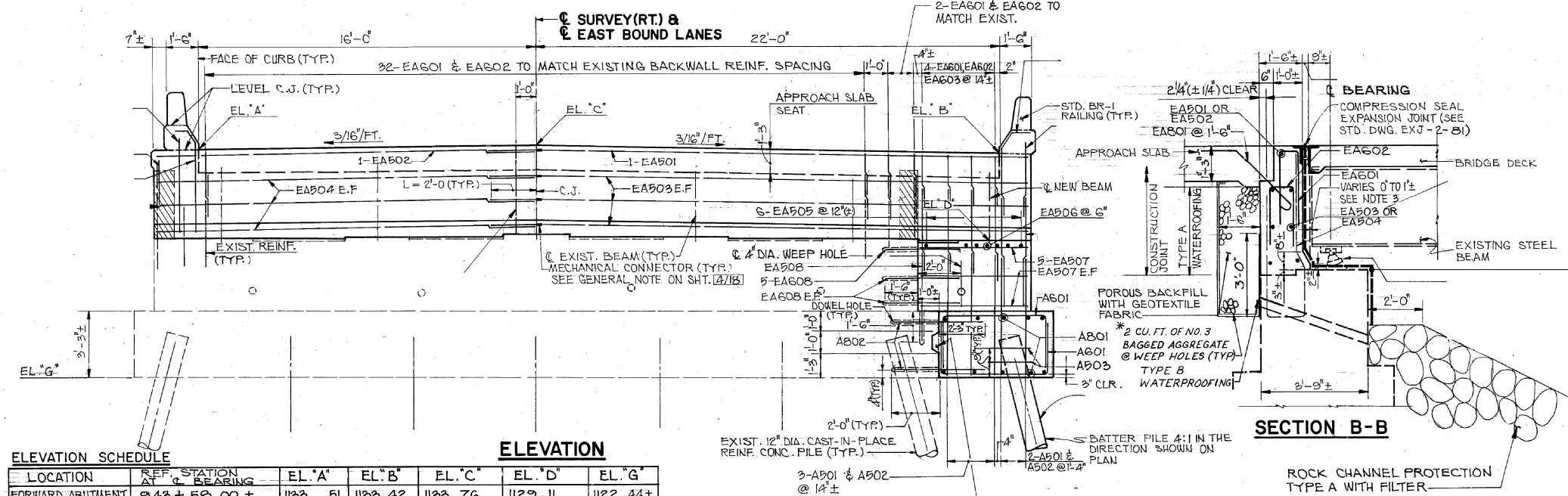
PLAN
 FORWARD ABUTMENT SHOWN,
 REAR ABUTMENT SIMILAR



VIEW C-C



VIEW D-D



SECTION B-B

ELEVATION SCHEDULE

LOCATION	REF. STATION AT C BEARING	EL. A'	EL. B'	EL. C'	EL. D'	EL. G'
FORWARD ABUTMENT	943 + 50.00 ±	1133.51	1133.42	1133.76	1129.11	1122.44 ±
REAR ABUTMENT	941 + 42.00 ±	1134.13	1134.04	1134.38	1129.73	1123.08 ±

ELEVATIONS A', B' AND C' ARE GIVEN AT FACE OF ABUTMENT BACKWALL.
 ELEVATIONS ARE FOR BOTH EASTBOUND AND WESTBOUND STRUCTURES.

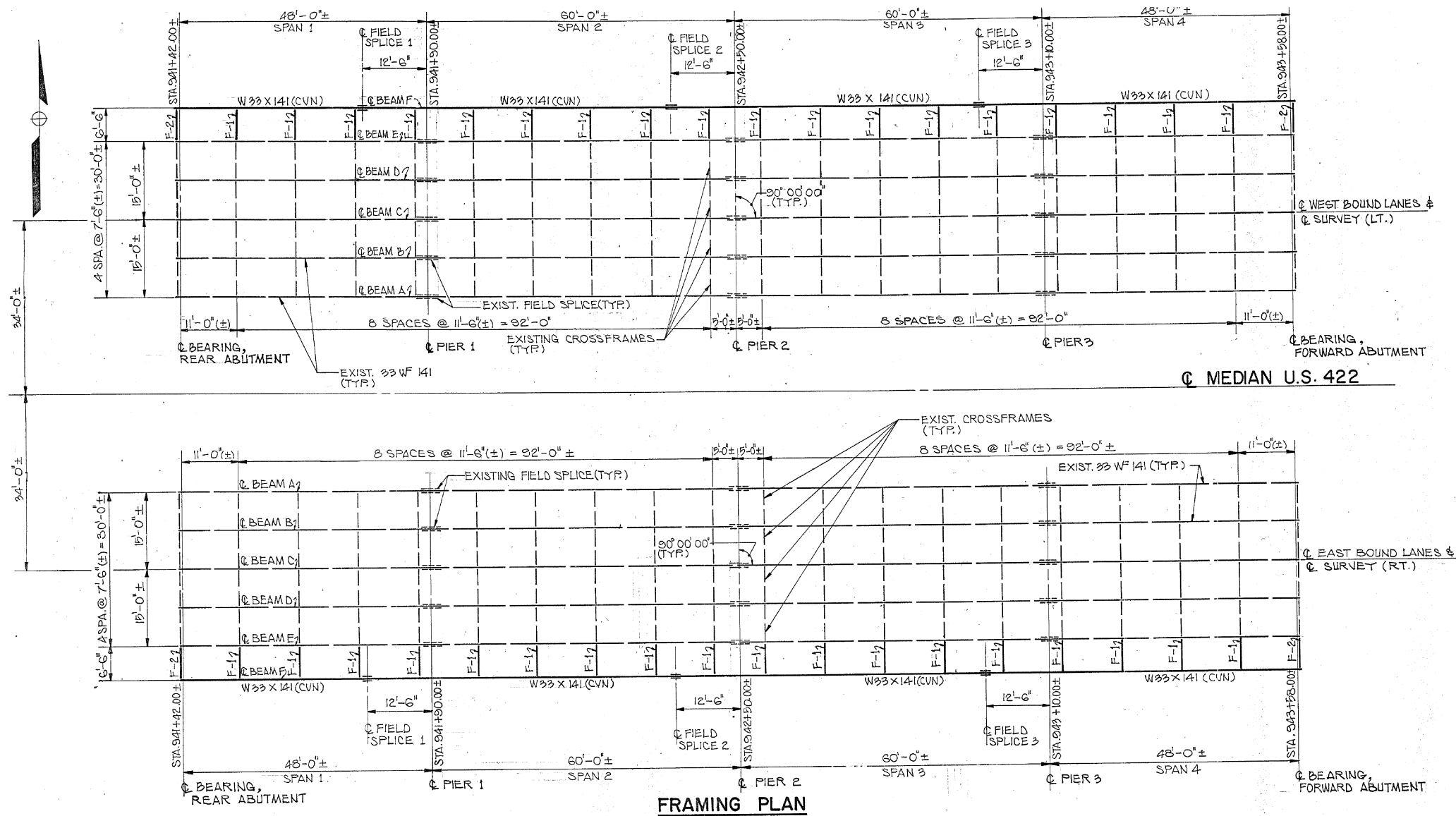
SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) (TYP.) SEE NOTE 3

NOTES

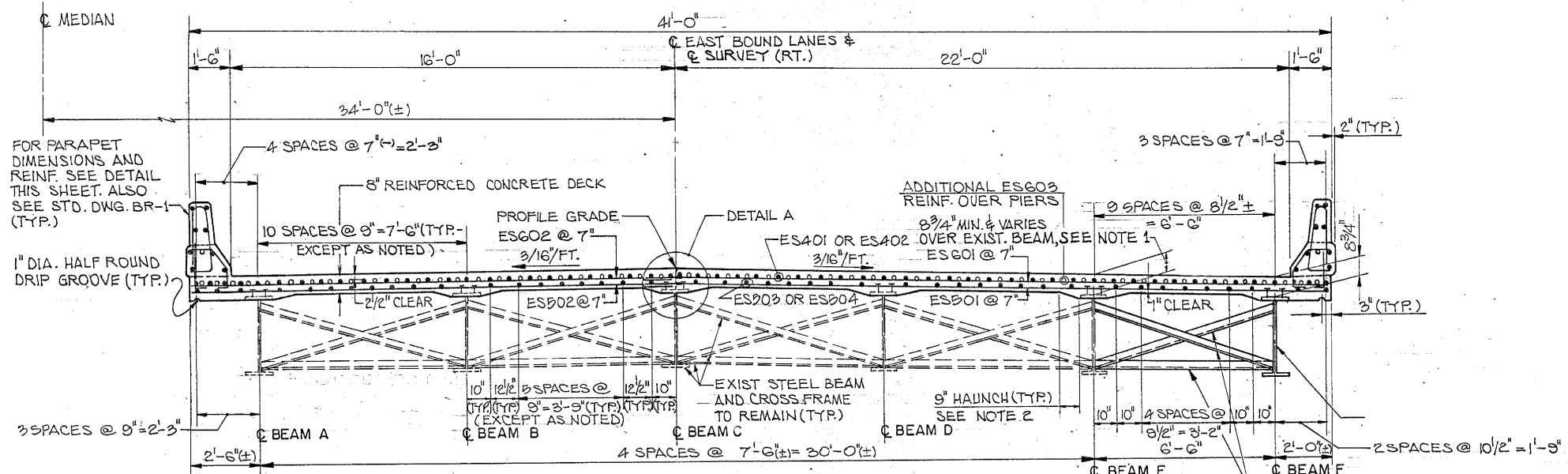
1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS, AND SHALL BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.
3. SEAL ALL EXPOSED AREAS OF ABUTMENT AND WINGWALL CONCRETE WITH EPOXY-URETHANE. DO NOT SEAL THE PARAPETS.

ABUTMENT DETAILS
 BRIDGE NO. GEA-00422-09.860L/R
 OVER LA DUE RESERVOIR

SFN	2801655
SFN	2801744
DESIGN AGENCY	CARPENTER MARY
DESIGNER/CHECKER	MTJ ERK
REVIEWER	GDJ 6-20-21
PROJECT ID	105251
SUBSET	TOTAL
2	3
SHEET	TOTAL
26	27



FRAMING PLAN



TYPICAL CROSS SECTION

NOTES

1. DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS, AND SHALL BE USED FOR INFORMATION PURPOSES ONLY.
2. PERFORM ONLY THE WORK DESCRIBED IN THE GENERAL NOTES AND GENERAL SUMMARY.

SFN	2801655
SFN	2801744
DESIGN AGENCY	CARPENTER MARTY
DESIGNER/CHECKER	MTJ/ERK
REVIEWER	GDJ
PROJECT ID	105251
SUBSET	3
TOTAL	3
SHEET	27
TOTAL	27