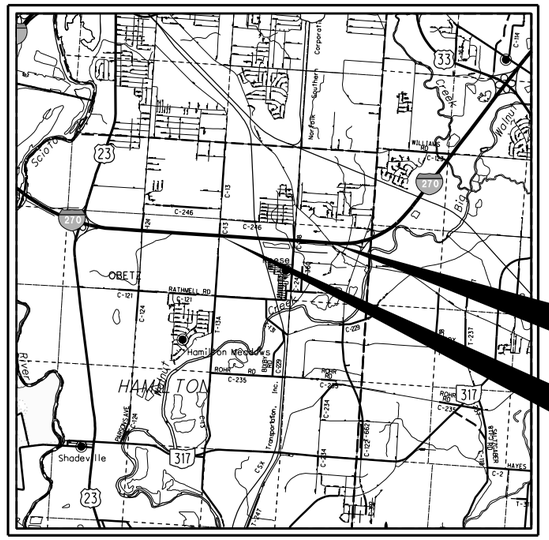
STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

FRA-270-(49.43)(50.90)

CITY OF COLUMBUS
VILLAGE OF OBETZ
HAMILTON TOWNSHIP



LOCATION MAP

FRA-270-49.53 LATITUDE: 39°52'16" LONGITUDE: 82°56'28"
FRA-270-50.90 LATITUDE: 39°52'21" LONGITUDE: 82°58'10"

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

	FRA-270-49.43 (GROVEPORT ROAD)	FRA-270-50.90 (LOCKBOURNE RD.)
CURRENT ADT (2017)	6,400	UNKNOWN
DESIGN YEAR ADT (2037)	UNKNOWN	UNKNOWN
DESIGN HOURLY VOLUME (2017)	UNKNOWN	UNKNOWN
DIRECTIONAL DISTRIBUTION	56%	UNKNOWN
TRUCKS (24 HOUR B&C)	8%	UNKNOWN
DESIGN SPEED	35 MPH	35 MPH
LEGAL SPEED	35 MPH	35 MPH

DESIGN FUNCTIONAL CLASSIFICATION:
URBAN MINOR ARTERIAL (49.53) , URBAN MINOR ARTERIAL (50.90)
NHS PROJECT N/A

DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES TWO WORKING DAYS **BEFORE YOU DIG.**
OHIO Utilities Protection SERVICE — *Call Before You Dig* **1-800-362-2764**
(Non-members must be called directly)
OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE **1-800-925-0988**

PLAN PREPARED BY:

ENGINEERS SEAL:

STATE OF OHIO — JEFFREY P. HIPP JR. E-79642 REGISTERED PROFESSIONAL ENGINEER

SIGNED:
DATE: OCTOBER 12, 2016

INDEX OF SHEETS:

PROJECT DESCRIPTION

STRUCTURE FRA-270-4953 - REPLACE DETERIORATED DECK EDGES, REPAIR BACKWALLS, REPLACE EXPANSION JOINT, REPLACE EXISTING RIGID OVERLAY, AND MINOR ROADWAY WORK.

STRUCTURE FRA-270-5090 - INSTALL NETTING ON EXISTING DETERIORATED DECK EDGE OVER TRAFFIC.

PROJECT EARTH DISTURBED AREA:	N/A ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	N/A ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A ACRES

2016 SPECIFICATIONS

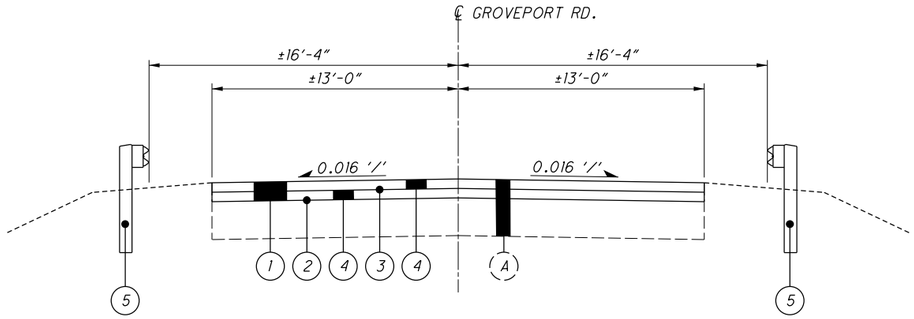
THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED
DATE DIRECTOR, DEPARTMENT OF TRANSPORTATION

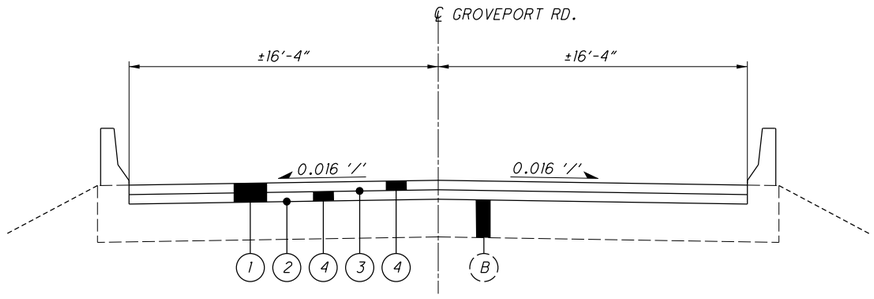
STANDARD CONSTRUCTION DRAWINGS							SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
BP-3.1	7/18/14	MT-95.30	7/15/16				800	10/21/16	
		MT-96.11	7/15/16				821	4/20/12	
DM-4.4	1/15/16	MT-96.20	7/15/16				832	1/17/14	
		MT-97.10	7/18/14				848	7/17/15	
MGS-1.1	7/19/13	MT-98.11	7/18/14				921	4/20/12	
MGS-2.1	7/19/13	MT-98.30	7/18/14						
MGS-3.1	7/18/14	MT-101.70	1/17/14						
MGS-5.3	7/15/16	MT-101.75	7/15/16						
		MT-105.10	7/19/13						
RM-4.2	4/18/14								
BR-1-13	1/17/14								
EXJ-4-87	7/19/02								
GSD-1-96	7/19/02								
VPF-1-90	7/17/15								

FEDERAL PROJECT NO. E161(023)
PID NO. 101972
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
FRA-270-(49.53)(50.90)
1 / 28



TYPICAL SECTION

SECTION APPLIES:
STA. 4+11.47 TO 4+86.47 = 75 FT
STA. 9+12.84 TO 9+87.84 = 75 FT
TOTAL = 150 FT



TYPICAL SECTION

SECTION APPLIES:
STA. 4+86.47 TO 5+11.47 = 25 FT
STA. 8+87.84 TO 9+12.84 = 25 FT
TOTAL = 50 FT

LEGEND

A	EXISTING ASPHALT CONCRETE (THICKNESS UNKNOWN)
B	EXISTING CONCRETE APPROACH SLAB
1	ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (3" MAX.)
2	ITEM 407 - TACK COAT (0.085 GAL/SY FOR MILLED ASPHALT)
3	ITEM 407 - TACK COAT (0.055 GAL/SY FOR NEW ASPHALT)
4	ITEM 441 - 1.50" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
5	ITEM 606 - GUARDRAIL, TYPE MGS

CALCULATED JPH
CHECKED DP

TYPICAL SECTION (FRA-270-49.53)

FRA-270-(49.53)(50.90)

NOTIFICATION OF CONSTRUCTION INITIATION:
AT LEAST FOURTEEN DAYS PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL ADVISE THE DISTRICT OFFICE OF COMMUNICATIONS VIA EMAIL AT D06.PIO@DOT.STATE.OH.US AND THE DISTRICT WORK ZONE TRAFFIC MANAGER VIA EMAIL AT D06.MOT@DOT.STATE.OH.US OF THE ANTICIPATED START DATE OF ANY CONSTRUCTION ACTIVITIES, INCLUDING BUT NOT LIMITED TO THE PLACING OF WORK ZONE SIGNS. THE NOTIFICATION SHALL ALSO INCLUDE THE PROJECT NUMBER, PID, NAME AND PHONE NUMBER OF THE CONTRACTOR, A POINT OF CONTACT AND THE ANTICIPATED IMPACT ON TRAFFIC. THE CONTRACTOR WILL IMMEDIATELY INFORM THE DISTRICT OFFICE OF COMMUNICATIONS AND THE DISTRICT WORK ZONE TRAFFIC MANAGER OF ANY AND ALL DELAYS AND/OR CHANGES REGARDING THE CONSTRUCTION INITIATION DATE.

NOTIFICATION OF ADJACENT PROPERTIES
AT LEAST FOURTEEN DAYS PRIOR TO ANY CONSTRUCTION THE DISTRICT 6 PIO WILL NOTIFY ADJACENT RESIDENTS AND BUSINESSES PRIOR TO CONTSTRUCTION.

GENERAL:
THE CONTRACTOR SHALL SUBMIT IN WRITING A SCHEDULE OF OPERATIONS TO THE ENGINEER AND RECEIVE APPROVAL IN WRITING BEFORE WORK IS STARTED ON THIS PROJECT. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

CONSTRUCTION NOISE:
DURING THE CONSTRUCTION PERIOD, RESIDENTS COULD EXPERIENCE NOISE GENERATED BY VEHICLES AND EQUIPMENT INCLUDING TRUCKS, BULLDOZERS, FRONT-LOADERS, GRADERS, SCRAPERS, ROLLERS, AIR COMPRESSORS, PILE DRIVERS AND OTHER MACHINERY. THIS EQUIPMENT WILL BE OPERATED INTERMITTENTLY AND WILL PRODUCE NOISE LEVELS IN THE RANGE OF 70 TO 98 DBA AT A DISTANCE OF APPROXIMATELY FIFTY FEET. CONSTRUCTION NOISE IS CONSIDERED TO BE A SHORT-TERM IMPACT. HOURS OF OPERATION WILL CONFORM TO ANY PERTINENT LOCAL ORDINANCES THAT MAY EXIST.

WORK LIMITS:
THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CONTRACTORS EQUIPMENT - OPERATION AND STORAGE:
THE CONTRACTOR'S EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAFFIC WHERE PRACTICAL. EQUIPMENT SHALL HAVE AT LEAST ONE AMBER FLASHING LIGHT. WHEN PARKED ALONG THE HIGHWAY, THE EQUIPMENT SHALL BE LOCATED EITHER A MINIMUM OF THIRTY FEET FROM THE EDGE OF PAVEMENT OR SIX FEET BEHIND GUARDRAIL WITH A MINIMUM OF 125 FEET OF GUARDRAIL PRECEDING THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT AN APPROVED CONTRACTOR'S STORAGE AREA.

REMOVAL ITEMS:
CONCRETE AND STEEL DESIGNATED FOR REMOVAL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE PRICE BID FOR THE REMOVED ITEM.

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

COLUMBIA GAS OF OHIO
3550 JOHNNY APPLESEED COURT
COLUMBUS, OH 43231
614.818.2107

AEP
1 RIVERSIDE PLAZA
COLUMBUS, OH 43215
614.716.2531

AT&T - OHIO
111 NORTH 4TH STREET
ROOM 802
COLUMBUS, OH 43215
614.223.7162

OBETZ - VILLAGE OF
4175 ALUM CREEK DR
OBETZ, OH 43207
614.491.1080

ODOT TRAFFIC (DIST 6)
400 EAST WILLIAM ST
DELAWARE, OH 43015
740.833.8332

COLUMBUS DEPT OF UTILITIES
910 DUBLIN ROAD
COLUMBUS, OH 43215
614.645.8276

CHARTER COMMUNICATIONS
3760 INTERCHANGE DR
COLUMBUS, OH 43204
614.255.2127

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

ITEM 659 – SEEDING AND MULCHING, CLASS 3B
1000 SY

ITEM 659 – COMMERCIAL FERTILIZER 0.13 TON
1 TON PER 7,410 SY OF PERMANENT SEEDED AREA
1000 SY / 7,410 = 0.13

ITEM 659 – LIME 0.21 ACRE
1000 SY / 4,840 = 0.21

ITEM 659 – WATER 6 M GAL
0.0054M GAL PER SY OF PERMENANT SEEDED AREA
1000 x 0.0054 = 5.4

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL DUE TO CONSTRUCTION ACTIVITIES AS DIRECTED BY THE ENGINEER.

CALCULATED JPH
CHECKED DP

GENERAL NOTES

FRA-270-(49.53)(50.90)

GENERAL:
ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), CURRENT EDITION. COPIES ARE AVAILABLE FROM:

THE OHIO DEPARTMENT OF TRANSPORTATION
BUREAU OF TRAFFIC
1980 WEST BROAD STREET
COLUMBUS, OHIO 43223.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH SECTION 614 AND OTHER APPLICABLE PORTIONS OF THE ODOT MANUAL OF CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS), AS WELL AS THE OMUTCD, CURRENT EDITION. 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.

NOTIFICATION OF TRAFFIC RESTRICTIONS:
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. 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 SHOULD LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, DETOUR ROUTES IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

Notification Time Frame Table

Item	Duration of Closure	Notification due to District 6 Communications Office
Ramp & Road Closures	>= 2 weeks	14 calendar days prior to closure
	> 12 hours & < 2 weeks	7 calendar days prior to closure
	< 12 hours	2 business days prior to closure
Lane Closures & Restrictions	>= 2 weeks	7 calendar days prior to closure
	< 2 weeks	2 business days prior to closure

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

USE OF STANDARD DRAWINGS:
IT MAY BE NECESSARY TO EXTEND THE ADVANCE WARNING AND BUFFER ZONES BEYOND THE MINIMUM DISTANCES SHOWN ON THE STANDARD DRAWINGS. THIS MAY BE DUE TO HORIZONTAL ALIGNMENT, VERTICAL ALIGNMENT, RAMP LOCATIONS, OR OTHER SIGHT OBSTRUCTIONS. LOCATIONS OF THE TAPER ZONES MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER. TAPERS SHOULD BE PLACED IN TANGENT SECTIONS WHERE EVER POSSIBLE.

WORK SITE LIGHTING:
FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR, AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE 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. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 614, MAINTAINING TRAFFIC:

FRA-270-49.53
A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON GROVEPORT ROAD SHALL BE MAINTAINED AS PER DETAILS ON SHEETS 6, 7, & 8. TRAFFIC ON IR-270 UNDER GROVEPORT ROAD SHALL BE MAINTAINED AS PER PERMITTED LANE CLOSURE NOTE. IF TEMPORARY LANE REDUCTIONS ARE REQUIRED THE CONTRACTOR SHALL FOLLOW STANDARD DRAWING MT-95.30.

EXIT RAMP OF ALUM CREEK SOUTH TO IR 270 WEST SHALL BE CLOSED IF LANE RESTRICTIONS ON 270 INTERFERE WITH THE ENTRANCE RAMP. CLOSE THE RAMP ACCORDING TO STANDARD DRAWING MT-98.29 AND DETOUR TRAFFIC ACCORDING TO SHORT RAMP CLOSURES NOTE AND ITEM 614 DETOUR SIGNING. THE DETOUR ROUTE SHALL FOLLOW THE LISTED PRIMARY ROUTE INDICATED IN THE DETOUR ROUTE NOTE. THE RAMP SHALL FOLLOW THE PERMITTED LANE CLOSURE

FOR PURPOSES OF SETTING UP MAINTENANCE OF TRAFFIC ITEMS ON GROVEPORT ROADONE LANE OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ACCORDING TO STANDARD CONSTRUCTION DRAWING MT-97.10.

FRA-270-50.90
BRIDGE NETTING AND SEALING OF THE BRIDGE DECK SHALL BE DONE PART WIDTH MAINTAINING ONE LANE OF TRAFFIC USING FLAGGERS ACCORDING TO STANDARD CONSTRUCTION DRAWING MT-97.10.

FOR BOTH LOCATIONS, 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.

USE OF WEIGHTED CHANNELIZERS:
THE WEIGHTED CHANNELIZERS MAY BE USED IN ACCORDANCE WITH THIS SECTION. THE WEIGHTED CHANNELIZERS SHALL BE PREDOMINANTLY ORANGE IN COLOR AND SHALL BE MADE OF LIGHTWEIGHT, FLEXIBLE, AND DEFORMABLE MATERIAL. THEY SHALL BE AT LEAST 42 INCHES IN HEIGHT WITH A WEIGHTED BASE. THEY MAY HAVE A HANDLE OR LIFTING DEVICE, WHICH EXTENDS ABOVE THE 42" MINIMUM HEIGHT.

THE MARKINGS ON THE WEIGHTED CHANNELIZERS SHALL BE HORIZONTAL, CIRCUMFERENTIAL, ALTERNATING ORANGE AND WHITE RETRO REFLECTIVE STRIPES 6 INCHES WIDE. EACH WEIGHTED CHANNELIZERS SHALL HAVE A MINIMUM OF TWO ORANGE AND TWO WHITE STRIPES. ANY NON-RETRO REFLECTIVE SPACES BETWEEN THE HORIZONTAL ORANGE AND WHITE STRIPES SHALL NOT EXCEED 2 INCHES WIDE. THE WEIGHTED CHANNELIZERS SHALL HAVE A 4-INCH MINIMUM WIDTH, REGARDLESS OF ORIENTATION.

USE OF WEIGHTED CHANNELIZERS ON FREEWAYS AND MULTILANE HIGHWAYS SHALL BE LIMITED TO SHORT-TERM OPERATION FOR EITHER DAY OR NIGHT. UPON COMPLETION OF WORK, THE WEIGHTED CHANNELIZERS SHALL BE REMOVED. THE WEIGHTED CHANNELIZERS MAY AGAIN BE PLACED ON THE HIGHWAY WHEN THE WORK IS TO RESUME ON THE FOLLOWING DAY OR NIGHT. ANY LANE CLOSURE USING CHANNELIZATION DEVICES, EXPECTED TO REMAIN FOR MORE THAN TWELVE HOURS, SHALL REQUIRE THE USE OF DRUMS OR BARRIERS. WORK IS TO RESUME ON THE FOLLOWING DAY OR NIGHT.

WHEN USED AT NIGHT, WEIGHTED CHANNELIZERS SHALL ONLY BE PLACED IN THE TANGENT AREA. THE TANGENT AREA IS DEFINED AS THE AREA AFTER THE TRANSITION TAPER WHERE THE WORK TAKES PLACE. DRUMS SHALL BE USED IN THE TRANSITION TAPERS FOR NIGHT OPERATIONS. MAXIMUM SPACING OF THE WEIGHTED CHANNELIZERS SHALL BE 40 FEET.

STEPS SHOULD BE TAKEN TO ENSURE THAT THE WEIGHTED CHANNELIZERS WILL NOT BE BLOWN OVER OR DISPLACED BY WIND OR MOVING TRAFFIC. BALLASTS SHOULD NOT PRESENT A HAZARD IF THE WEIGHTED CHANNELIZERS ARE INADVERTENTLY STRUCK, NOR SHOULD THEY AFFECT THE VISIBILITY OF THE WEIGHTED CHANNELIZERS. ALL BALLASTS USED SHOULD BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS:
USE OF LEOS BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE PROJECT ENGINEER. LAW ENFORCEMENT OFFICERS (LEOS) SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), A UNIFORMED LAW ENFORCEMENT OFFICER 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:

1. FOR RAMP CLOSURE: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW RAMP CLOSURE ARRANGEMENTS ARE INITIATED. IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR RAMP CLOSURE. LEO'S ARE NOT INTENDED TO BE USED FOR EACH LANE CLOSURE REQUIRED TO COMPLETE PLANING/RESURFACING ACTIVITIES.

2. THE USE OF A LAW ENFORCEMENT OFFICER WITH PATROL CAR IS REQUIRED WHERE A COMPLETE BLOCKAGE OF APPROACH TRAFFIC IS REQUIRED

LAW ENFORCEMENT OFFICERS SHOULD NOT FORSAKE THEIR TRAFFIC CONTROL RESPONSIBILITIES TO CHASE MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF THE MOTORISTS ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST MAY BE ACCEPTABLE.
THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEO'S AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEO. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THEIR RESPECTIVE DUTIES, PLACEMENT AND WILL RESOLVE ANY ISSUES BETWEEN THE TWO PARTIES THAT MAY ARISE. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE SERVICES WITH:

THE OHIO HIGHWAY PATROL 1-614-466-2660

THE LEO SHOULD REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING THE SHIFT. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF THE SHIFT.

LAW ENFORCEMENT OFFICERS (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. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A L.E.O. ARE INCLUDED WITHIN THE BID UNIT PRICE FOR ITEM-

614 LAW ENFORCEMENT OFFICER WITH PATROL CAR. THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN PROVIDED:

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE = 50 HOUR

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 ARE SHOWN ON SHEET **5/42** OF THE PLAN. 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.

(THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 2 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.)

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 SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.)

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

CALCULATED JPH CHECKED DP

MAINTENANCE OF TRAFFIC

FRA-270-(49.53)(50.90)

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, SOFT-WARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 4 SIGN MONTH

ASSUMING 2 PCMS SIGNS FOR 2 MONTH

ITEM 614 WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL)

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 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.

PERMITTED LANE CLOSURES:

THE EXISTING NUMBER OF LANES IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES EXCEPT DURING PERIODS OF WORK AT WHICH TIME LANES MAY BE CLOSED IN ACCORDANCE WITH THE UNAUTHORIZED LANE USE TABLE FOR EACH LOCATION UNLESS OTHERWISE SHOWN IN THE PLANS.

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.

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 ITME 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

SHORT DURATION RAMP CLOSURES

FOR THE PURPOSE OF PERFORMING THE REQUIRED WORK OR WHEN REQUIRED BY THE INTERSTATE ENTRANCE RAMP CLOSURE NOTE, RAMPS MAY BE CLOSED FOR SHORT DURATIONS AND DETOURED IN ACCORDANCE WITH THE RAMP CLOSURE TABLE IF APPROVED BY THE ENGINEER. RAMP CLOSURES ARE SUBJECT TO DISINCENTIVES.

FOR ALL RAMP CLOSURES LASTING MORE THAN 12 HOURS BUT LESS THAN 60 HOURS, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING:

- A MINIMUM OF TWO PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) PLACED, AS DIRECTED BY THE ENGINEER, TO WARN DRIVERS OF THE CLOSURE AND TO PROVIDE THE DESIGNATED DETOUR ROUTE.
- POSITIVE GUIDANCE ALONG THE DETOUR ROUTE WITH DETOUR SIGNS (M4-9 SERIES) IN ACCORDANCE WITH THE DETOUR SIGNS NOTE.

FOR ALL RAMP CLOSURES LASTING LESS THAN 12 HOURS, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING:

- A MINIMUM OF TWO PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) PLACED, AS DIRECTED BY THE ENGINEER, TO WARN DRIVERS OF THE CLOSURE AND TO PROVIDE THE DESIGNATED DETOUR ROUTE.

WHEN CLOSING ENTRANCE RAMPS, CORRESPONDING LEAD-IN LANES AND TURN LANES SHALL ALSO BE CLOSED.

IF A DESIGNATED DETOUR ROUTE IS NOT PROVIDED IN THE PLANS, TRAFFIC SHALL BE DIRECTED TO THE NEXT INTERCHANGE, IF AVAILABLE, TO TURN AROUND. IF THE USE OF THE NEXT INTERCHANGE IS NOT POSSIBLE, AN ALTERNATIVE DETOUR ROUTE SHALL BE PROVIDED BY THE ENGINEER.

ITEM 614 - DETOUR SIGNING

SIZE AND PLACEMENT OF DETOUR SIGNS (M4-9) SHOULD FOLLOW THE REQUIREMENTS OF THE OMUTCD SECTION 6F.03, SECTION 2A.11 AND TABLE 6F.01.
DETOUR SIGNING SHALL PROVIDE DRIVERS ADEQUATE TIME TO CLEARLY READ THE SIGNS AND MAKE THE PROPER DECISIONS AT EACH REQUIRED TURNING MOVEMENT. THE DESIGNATED DETOUR ROUTE SHALL BE SIGNED IN ACCORDANCE WITH THE REQUIREMENTS BELOW:

- APPROXIMATELY 1500 FEET PRIOR TO TIP OF THE PAINTED GORE AT AN INTERCHANGE WHEN EXITING A HIGH SPEED (45 MPH OR HIGHER) FACILITY.
- AT OR NEAR THE EXISTING SIGN IN THE GORE OF AN INTERCHANGE RAMP.
- AT OR NEAR THE FIRST EXISTING LANE ASSIGNMENT SIGN ON AN INTERCHANGE EXIT RAMP.
- AT OR NEAR THE EXISTING LANE ASSIGNMENT SIGN OR EXISTING ROUTE MARKER AT THE END OF AN EXIT RAMP.
- APPROXIMATELY 500 FEET PRIOR TO A REQUIRED TURN AT AN INTERSECTION NOT CONTROLLED BY A STOP SIGN (FOR 45 MPH OR HIGHER ONLY).
- AT OR NEAR THE EXISTING LANE ASSIGNMENT SIGN OR EXISTING ROUTE MARKER AT AN INTERSECTION.
- EVERY TWO MILES ALONG A TANGENT SECTION BETWEEN TURNING MOVEMENTS OUTSIDE A CITY.
- EVERY TWO BLOCKS ALONG A TANGENT SECTION BETWEEN TURNING MOVEMENTS WITHIN A CITY.
- AT ANY OTHER INTERSECTION OR DECISION POINT WHERE THE DETOUR ROUTE IS CONTRARY TO THE NORMAL, EXPECTED TURNING MANEUVER OR OTHERWISE UNCLEAR.

DETOUR SIGNS SHALL BE PLACED, WHEN POSSIBLE, NEXT TO BUT NOT BLOCKING EXISTING ROUTE MARKERS OR LANE ASSIGNMENT SIGNS. DETOUR SIGNS SHALL NOT OBSCURE OR BE OBSCURED BY OTHER EXISTING OR TEMPORARY SIGNS.

DETOUR SIGNS SHALL BE ERECTED AND/OR UNCOVERED PRIOR TO THE ROAD OR RAMP BEING CLOSED TO TRAFFIC BUT NO EARLIER THAN FOUR HOURS PRIOR TO THE CLOSURE. DETOUR SIGNS SHALL BE COVERED AND/OR REMOVED NO LATER THAN FOUR HOURS FOLLOWING THE ROAD OR RAMP RE-OPENING TO TRAFFIC.

PAYMENT FOR ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, PROPER SIGN PLACEMENT AND SIZING, TIMELY ERECTING AND/OR UNCOVERING OF SIGNS, MAINTAINING SIGNS, AND TIMELY COVERING AND/OR REMOVING SIGNS AND SUPPORTS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.
ITEM 614 - DETOUR SIGNING = LUMP SUM

UNAUTHORIZED LANE USE TABLE

UNAUTHORIZED LANE USE TABLE						
Section (SLM)	Existing Number of Lanes per Direction	Lane closures are NOT permitted:				Disincentive Amounts per minute per lane
		Lane Reduction	Mon to Fri	Sat	Sun	
FRA-270						
Williams Road (47.42) to US 23 (52.72)	3	3 to 2	5AM-9AM & 3PM-7PM	No Restriction	No Restriction	$75
		3 to 1	5AM-8PM	6AM-7PM	6AM-7PM	$75
ALUM CREEK SOUTH RAMP TO IR 270 WEST						
FULL CLOSURE OF RAMP	1	CLOSURE	5AM-9AM & 3PM-7PM	No Restriction	No Restriction	$75

DETOUR ROUTES

Secondary Route: Alum Creek Dr SLM along 270: (South Side)					
Ramp	Movement	No Closures Allowed		Detour Routes	
		Mon to Fri	Sat to Sun	Primary Route	Secondary Route
T	Alum Creek Dr. SB to I-270 WB	5AM-8PM	8AM-7PM	Alum Creek Dr. to 270 N (Ramp V) to US-33 W to 270 S	None
V	Alum Creek Dr. to I-270 EB	5AM-8PM	8AM-7PM	Alum Creek Dr. to 270 W to US-23 to 270 E	None
W	I-270 EB to Alum Creek Dr.	5AM-8PM	8AM-7PM	270 E/N to US-33 W to 270 S to Alum Creek Dr. (Ramp X)	None
X	I-270 WB to Alum Creek Dr.	5AM-7PM	8AM-7PM	270 W to US-23 to 270 E to Alum Creek Dr. (Ramp W)	None
Y	Alum Creek Dr. NB to I-270 WB	5AM-8PM	8AM-7PM	Alum Creek Dr. to 270 N (Ramp V) to US-33 W to 270 S	None

CALCULATED JPH CHECKED DP

MAINTENANCE OF TRAFFIC

FRA-270-(49.53)(50.90)

5
28

I:\ProjectData\102023_FRA-270-45.84\101972_FRA-270-49.53\Design\Structures\FRA270_4953C\Sheets\101972MN002.dgn Design 1/12/2017 1:49:36 PM dpuozzo

LANES OPEN DURING HOLIDAYS AND SPECIAL EVENTS

NO WORK SHALL BE PERFORMED AND THE SAME NUMBER OF LANES ON ***IR 270 & ALUM CREEK DRIVE*** *AS WERE AVAILABLE AT THE START OF THE PROJECT SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:*

HOLIDAYS
CHRISTMAS FOURTH OF JULY
NEW YEAR'S EVE LABOR DAY
MEMORIAL DAY THANKSGIVING

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY	***TIME ALL LANES MUST BE OPEN TO TRAFFIC***
SUNDAY	*12:00 NOON FRIDAY THROUGH 6:00 AM MONDAY*
MONDAY	*12:00 NOON FRIDAY THROUGH 6:00 AM TUESDAY*
TUESDAY	*12:00 NOON MONDAY THROUGH 6:00 AM WEDNESDAY*
WEDNESDAY	*12:00 NOON TUESDAY THROUGH 6:00 AM THURSDAY*
THURSDAY	*12:00 NOON WEDNESDAY THROUGH 6:00 AM FRIDAY*
THANKSGIVING	*5:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY*
FRIDAY	*12:00 NOON THURSDAY THROUGH 6:00 AM MONDAY*
SATURDAY	*12:00 NOON FRIDAY THROUGH 6:00 AM MONDAY*

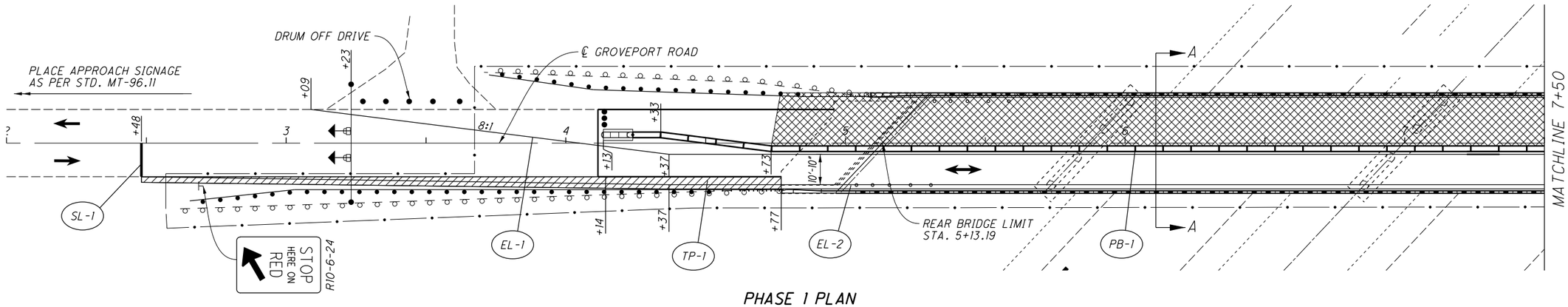
NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN ACCORDANCE WITH THE UNAUTHORIZED LANE USE TABLE.

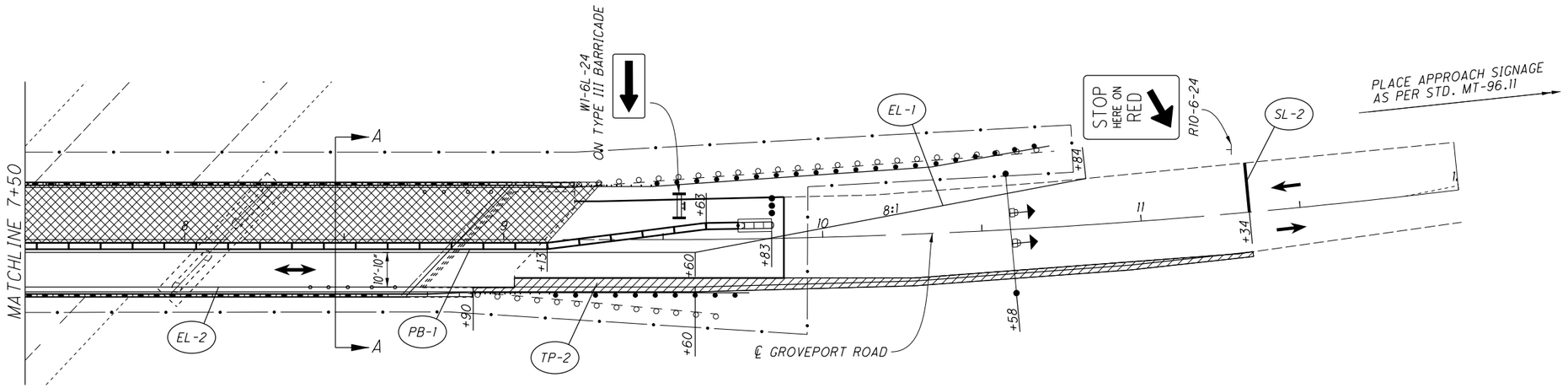
CALCULATED JPH | CHECKED DP

MAINTENANCE OF TRAFFIC

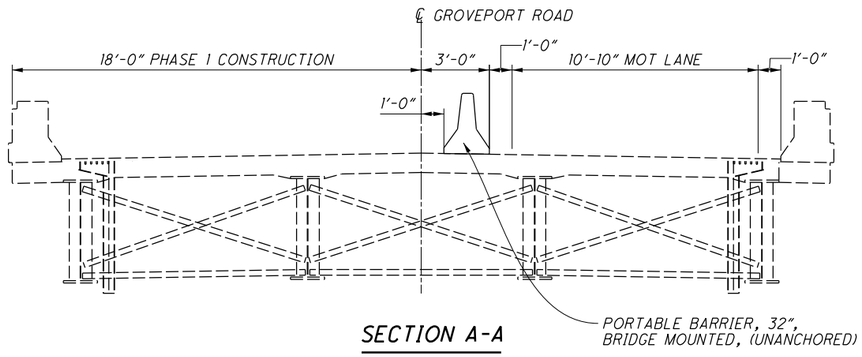
FRA-270-(49.53)(50.90)



PHASE 1 PLAN



PHASE 1 PLAN



SECTION A-A

LEGEND

- PORTABLE BARRIER
- IMPACT ATTENUATOR
- WORK AREA
- DRUMS
- TEMPORARY PAVEMENT
- OM2-2V

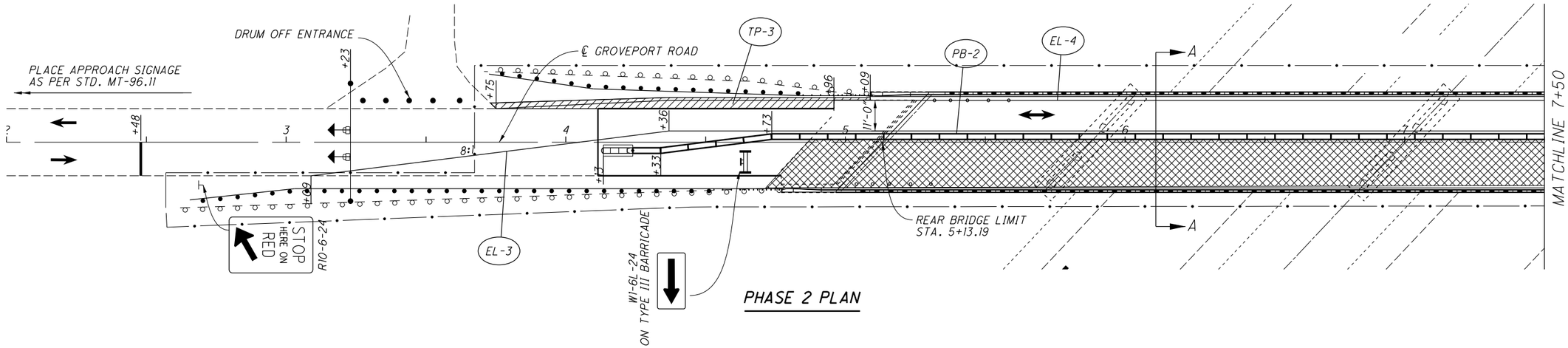
- CL-X WORK ZONE CENTER LINE, CLASS III
- EL-X WORK ZONE EDGE LINE, CLASS III
- PB-X PORTABLE BARRIER, 32"
- R-X REMOVAL OF PAVEMENT MARKING
- SL-X WORK ZONE STOP LINE, CLASS III
- TP-X ITEM 615 PAVMENT FOR MAINTAINING TRAFFIC, CLASS B

HORIZONTAL SCALE IN FEET
0 10 20 40

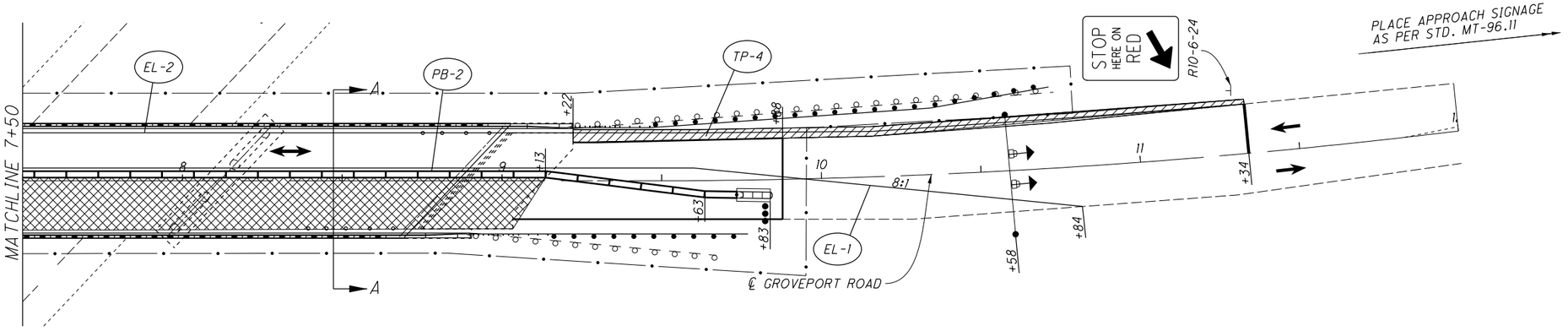
CALCULATED JPH
CHECKED DP

MAINTENANCE OF TRAFFIC
PHASE 1 STRUCTURE FRA-270-4953

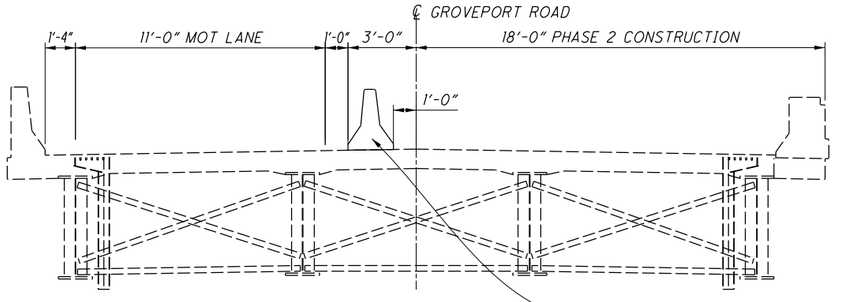
FRA-270-(49.53)(50.90)



PHASE 2 PLAN



PHASE 2 PLAN



SECTION A-A

LEGEND

- PORTABLE BARRIER
- IMPACT ATTENUATOR
- WORK AREA
- DRUMS
- TEMPORARY PAVEMENT
- OM2-V

- CL-X — WORK ZONE CENTER LINE, CLASS III
- EL-X — WORK ZONE EDGE LINE, CLASS III
- PB-X — PORTABLE BARRIER, 32"
- R-X — REMOVAL OF PAVEMENT MARKING
- SL-X — WORK ZONE STOP LINE, CLASS III
- TP-X — ITEM 615 PAVMENT FOR MAINTAINING TRAFFIC, CLASS B

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPH
CHECKED DP

MAINTENANCE OF TRAFFIC
PHASE 2 STRUCTURE FRA-270-4953

FRA-270-(49.53)(50.90)

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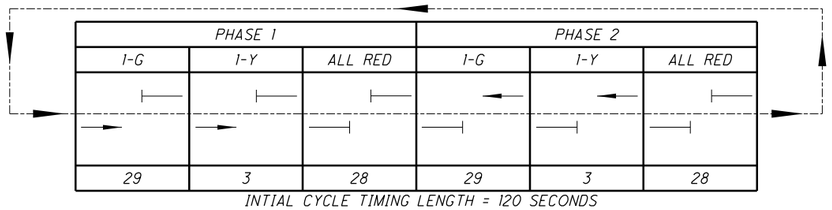
REF NO.	PHASE	STATION FROM	STATION TO	614 WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	614 BARRIER REFLECTOR, TYPE B2	614 OBJECT MARKER, 2 WAY	614 WORK ZONE EDGE LINE, CLASS 1, 642 PAINT	614 WORK ZONE STOP LINE, CLASS 1, 642 PAINT		615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B		622 PORTABLE BARRIER, 32"	622 PORTABLE BARRIER, 32", BRIDGE MOUNTED	
		FROM	TO	EACH	EACH	EACH	MILE	FT		SQ YD		FT	FT	
EL-1	PHASE 1	3+09	10+84				0.15							
EL-2		2+48	11+34				0.17							
PB-1		4+13	9+83	2	12	12						130	420	
SL-1		2+67						12						
SL-2		10+84						12						
TP-1		4+07	4+77							87				
TP-2		8+90	9+81							83				
EL-3	PHASE 2	3+09	10+84				0.15							
EL-4		3+75	11+34				0.14							
PB-2		4+13	9+83	2	12	12						130	420	
TP-3		4+04	4+96							49				
TP-4		9+22	9+88							71				
TOTALS CARRIED TO GENERAL SUMMARY				4	24	24	0.61	24		290		260	840	

SIGNAL PHASING AND INITIAL SETTINGS



INTIAL CYCLE TIMING LENGTH = 120 SECONDS

CALCULATED JPH
CHECKED DP

MAINTENANCE OF TRAFFIC FRA-270-4953

FRA-270-(49.53)(50.90)

SHEET NUM.														PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
										3	12	15	26	01/BRO/BR						
																			ROADWAY	
											139			139	202	38000	139	FT	GUARDRAIL REMOVED	
											4			4	202	42000	4	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A	
											325			325	606	15050	325	FT	GUARDRAIL, TYPE MGS	
											3			3	606	26050	3	EACH	ANCHOR ASSEMBLY, MGS TYPE B	
											1			1	606	26100	1	EACH	ANCHOR ASSEMBLY, TYPE E	
											4			4	606	35002	4	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
																			EROSION CONTROL	
										1,000				1,000	659	00530	1,000	SY	SEEDING AND MULCHING, CLASS 3B	
										0.13				0.13	659	20000	0.13	TON	COMMERCIAL FERTILIZER	
										0.21				0.21	659	31000	0.21	ACRE	LIME	
										6				6	659	35000	6	MGAL	WATER	
														500	832	30000	500	EACH	EROSION CONTROL	
																			PAVEMENT	
											534			534	254	01000	534	SY	PAVEMENT PLANING, ASPHALT CONCRETE 3" DEPTH	
											75			75	407	10000	75	GAL	TACK COAT	
											45			45	441	50000	45	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
																			TRAFFIC CONTROL	
											31			31	626	00100	31	EACH	BARRIER REFLECTOR	
																			STRUCTURE REPAIR (FRA-270-4953)	
														LS	202	11201	LS		PORTIONS OF STRUCTURE REMOVED, AS PER PLAN	
												42,943		42,943	509	10000	42,943	LB	EPOXY COATED REINFORCING STEEL	
												100		100	509	20001	100	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	
												202		202	510	10000	202	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
												74		74	511	34410	74	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE	
												92		92	511	34448	92	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)	
												8		8	511	45710	8	CY	CLASS QC1 CONCRETE, ABUTMENT	
												779		779	512	10050	779	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
												2,445		2,445	513	10201	2,445	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN	
												718		718	514	27700	718	SF	FIELD PAINTING, MISC.: STEEL MEMBERS	
												99		99	516	11210	99	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	
												90		90	516	31001	90	FT	JOINT SEALER, AS PER PLAN	
												19		19	519	11100	19	SF	PATCHING CONCRETE STRUCTURE	
												710		710	607	39900	710	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC	
												1,354		1,354	848	10200	1,354	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION (2" THICKNESS)	
												1,354		1,354	848	20000	1,354	SY	SURFACE PREPARATION USING HYDRODEMOLITION	
												7		7	848	30200	7	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	
												80		80	848	50000	80	SY	HAND CHIPPING	
														LS	848	50100	LS		TEST SLAB	
												1,354		1,354	848	50320	1,354	SY	EXISTING CONCRETE OVERLAY REMOVED (1 3/4" THICKNESS)	
												20		20	848	50340	20	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY	
																			STRUCTURE REPAIR (FRA-270-5090)	
													990	990	512	10400	990	SY	TREATING OF CONCRETE BRIDGE DECK WITH SRS	
													234	234	SPECIAL	53000800	234	SY	STRUCTURES DEBRIS CONTAINMENT NETTING	
													563	563	607	98000	563	FT	FENCE, MISC.:REMOVE AND RE-INSTALL VANDAL PROTETION FENCE MESH	

CALCULATED JPH
CHECKED DP

GENERAL SUMMARY

FRA-270-(49.53)(50.90)

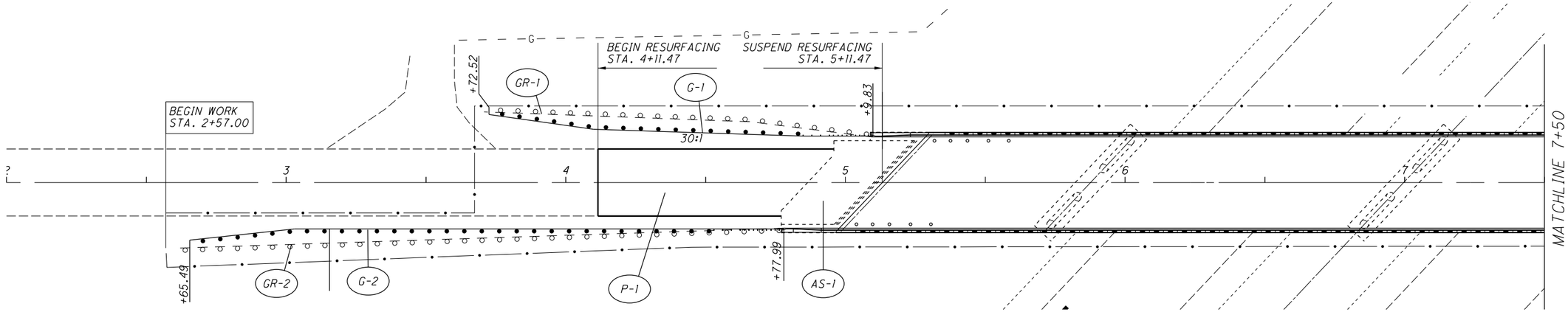
SHEET NUM.	PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
9	01/BRO/BR						
						MAINTENANCE OF TRAFFIC	
4	4	614	12338	4	EACH	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	
	LS	614	12420	LS		DETOUR SIGNING	
24	24	614	13302	24	EACH	BARRIER REFLECTOR, TYPE B2	
24	24	614	13360	24	EACH	OBJECT MARKER, TWO WAY	
	4	614	18601	4	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	4
0.61	0.61	614	22100	0.61	MILE	WORK ZONE EDGE LINE, CLASS I, 642 PAINT	
24	24	614	26200	24	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT	
	4						
	LS	615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
290	290	615	25000	290	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	
260	260	622	41000	260	FT	PORTABLE BARRIER, 32"	
840	840	622	41020	840	FT	PORTABLE BARRIER, 32", BRIDGE MOUNTED	
						INCIDENTALS	
	LS	614	11000	LS		MAINTAINING TRAFFIC	
	LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
	LS	624	10000	LS		MOBILIZATION	

CALCULATED JPH
CHECKED DP

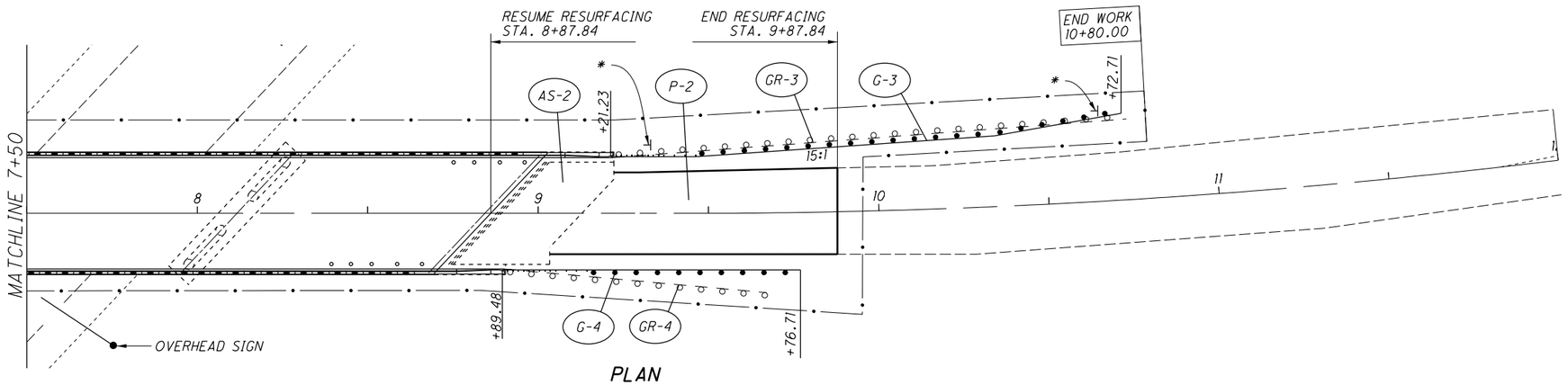
GENERAL SUMMARY

FRA-270-(49.53)(50.90)

11
28



PLAN



PLAN

* - MAINTAIN AND RE-ERECT EXISTING SIGNS AS PER 107.10

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE

- P-1 — STA. 4+11.47 TO STA. 4+86.47 = 75 FT
  24' x 75' / 9 = 200 SQ YD
- AS-1 — STA. 4+86.47 TO STA. 5+11.47 = 25 FT
  24' x 25' / 9 = 66.67 SQ YD
- AS-2 — STA. 8+87.84 TO STA. 9+12.84 = 25 FT
  24' x 25' / 9 = 66.67 SQ YD
- AS-1 — STA. 9+12.87 TO STA. 9+87.84 = 75 FT
  24' x 75' / 9 = 200 SQ YD

TOTAL = 534 SQ YD CARRIED TO GENERAL SUMMARY

ITEM 407 TACK COAT*

- P-1 — STA. 4+11.47 TO STA. 4+86.47 = 75 FT
  24' x 75' / 9 x 0.07 = 14 x 2 = 28 GAL.
- AS-1 — STA. 4+86.47 TO STA. 5+11.47 = 25 FT
  24' x 25' / 9 x 0.07 = 4.67 x 2 = 9.33 GAL.
- AS-2 — STA. 8+87.84 TO STA. 9+12.84 = 25 FT
  24' x 25' / 9 x 0.07 = 4.67 x 2 = 9.33 GAL.
- AS-1 — STA. 9+12.87 TO STA. 9+87.84 = 75 FT
  24' x 75' / 9 x 0.07 = 14 x 2 = 28 GAL.

TOTAL = 75 GAL. CARRIED TO GENERAL SUMMARY

* - AVERAGE APPLICATION RATE FOR BOTH COATS = 0.07 GAL/SQ YD

ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22

- P-1 — STA. 4+11.47 TO STA. 4+86.47 = 75 FT
  24' x 75' x 0.25' / 27 = 16.67 CU YD
- AS-1 — STA. 4+86.47 TO STA. 5+11.47 = 25 FT
  24' x 25' x 0.25' / 27 = 5.56 CU YD
- AS-2 — STA. 8+87.84 TO STA. 9+12.84 = 25 FT
  24' x 25' x 0.25' / 27 = 5.56 CU YD
- AS-1 — STA. 9+12.87 TO STA. 9+87.84 = 75 FT
  24' x 75' x 0.25' / 27 = 16.67 CU YD

TOTAL = 45 CU YD CARRIED TO GENERAL SUMMARY

REF NO.	STATION FROM	STATION TO	SIDE	202 GUARDRAIL REMOVED	202 ANCHOR ASSEMBLY REMOVED, TYPE A	606 GUARDRAIL, TYPE MGS	606 ANCHOR ASSEMBLY, TYPE E	606 ANCHOR ASSEMBLY, TYPE B	606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	626 BARRIER REFLECTOR (INCLUDES PARAPET)
				FT	EACH					
GR-1	3+70.72	5+09.22	LT.	139	1					
GR-2	2+62.17	4+77.38	RT.	215	1					
GR-3	9+21.93	10+73.90	LT.	147	1					
GR-4	8+90.09	9+67.49	RT.	75	1					
G-1	3+72.52	5+9.83				75		1	1	
G-2	2+65.49	4+77.99				150		1	1	
G-3	8+21.23	10+72.71				87.5		1	1	
G-4	8+89.48	9+76.71				12.5	1		1	
	3+72.33	10+72.71								15
	2+65.49	9+76.71								16
TOTALS CARRIED TO GENERAL SUMMARY				576	4	325	1	3	4	31

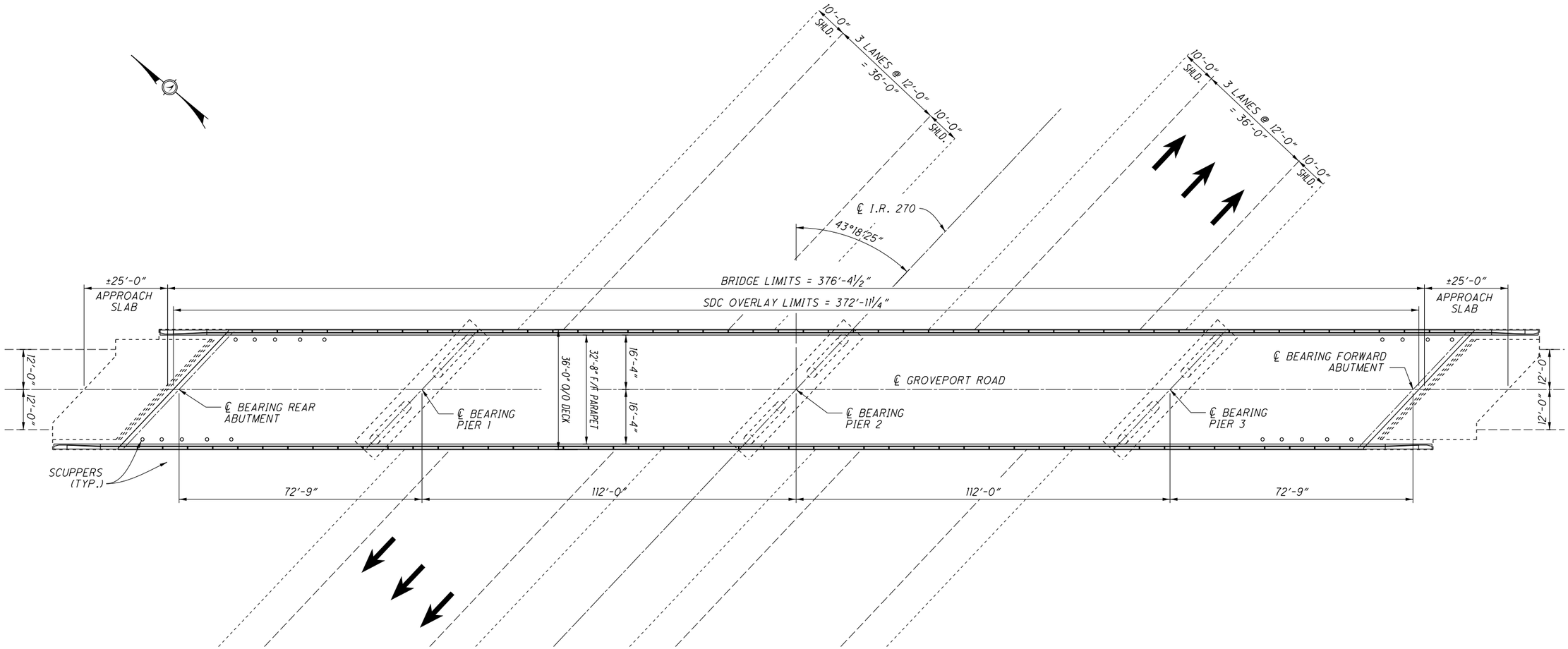
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPH
CHECKED DP

PLAN
STRUCTURE FRA-270-4953

FRA-270-(49.53)(50.90)

12
28



PLAN

EXISTING STRUCTURE

TYPE: 4 SPAN CONTINUOUS STEEL GIRDERS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPANS: 72'-9"±, 112'-0"±, 112'-0"±, 72'-9"± C/C BRGS

ROADWAY: 31'-8"± F/F OF REFACED PARAPET

LOADING: CF-400(57)

SKEW: 43°18' 25" LT. FWD.

APPROACH SLABS: 25'-0"

ALIGNMENT: TANGENT

CROWN: 0.016±

STRUCTURAL FILE NUMBER: 2513773

DATE BUILT: 1970

PROPOSED STRUCTURE

PROPOSED WORK:
REPLACE DECK EDGES AND PARAPET, REPLACE EXISTING EXPANSION JOINT WITH STRIP SEAL, PATCH BACKWALLS, AND A NEW SDC OVERLAY.

SPANS: 72'-9"±, 112'-0"±, 112'-0"±, 72'-9"± C/C BRGS

ROADWAY: 32'-10" F/F PARAPET

LOADING: CF-400(57)

SKEW: 43°18' 25" LT. FWD.

ALIGNMENT: TANGENT

CROWN: 0.016±

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 6

DESIGNED	DRAWN	REVIEWED	DATE
JPH	JPH	KRF	10/12/2016
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DP		2513773	

GENERAL PLAN
STRUCTURE NO. FRA-270-4943
I.R. 270 UNDER GROVEPORT ROAD

FRA-270-(49.43)(50.90)
PID No. 101972

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

BR-1-13	DATED/REVISED	1/17/2014
EXJ-4-87	DATED/REVISED	7/19/2002
GSD-1-96	DATED/REVISED	7/19/2002
VPF-1-90	DATED/REVISED	7/17/2015

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THESE STRUCTURES CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION 2002, AND THE ODOT BRIDGE DESIGN MANUAL, 2004.

DESIGN DATA

CONCRETE CLASS, QSC2 - COMPRESSIVE STRENGTH 4.5 KSI (BRIDGE DECK)
CONCRETE CLASS, QC1 – COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI
STRUCTURAL STEEL – ASTM A709 GRADE 50 – YIELD STRENGTH 50 KSI

DECK PROTECTION METHOD

SDC OVERLAY 2" THICKNESS

SEQUENCE OF OPERATIONS / PHASE 1&2

1: REMOVE PORTIONS OF STRUCTURE AS DETAILED IN PLANS.

2: PERFORM BACKWALL REPAIRS/PATCHING.

3: INSTALL NEW EXPANSION JOINT STRIP SEAL JOINT AND END CROSS FRAMES.

4: POUR NEW DECK EDGE, DECK ENDS

5: POUR NEW BACKWALL, AND PARAPETS

6: REMOVE AND REPLACE OVERLAY.

7: PLACE NEW ASPHALT OVERLAY ON APPROACH PAVEMENT AND JOINT SEALER AS DETAILED IN THE PLANS.

EXISTING STRUCTURE VERIFICATION

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

REMOVED MATERIALS

ALL REMOVED MATERIALS EXCEPT AS NOTED ELSEWHERE IN THE PLANS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED BY HIM FROM THE JOB SITE.

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

DESCRIPTION: THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE FROM SUPERSTRUCTURE AND SUBSTRUCTURE, EXPANSION JOINT, EXPANSION JOINT ARMOR, AND END CROSS FRAMES AS DETAILED IN THESE PLANS. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

PROTECTION OF TRAFFIC: PRIOR TO DEMOLITION OF ANY PORTIONS OF THE EXISTING SUPERSTRUCTURE, THE CONTRACTOR SHALL SUBMIT PLANS FOR THE PROTECTION OF TRAFFIC (VEHICULAR, PEDESTRIAN, BOAT, ETC.) AS PER CMS 2010 501.05.B.2.

SUPERSTRUCTURE CONCRETE REMOVAL: THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. THE WEIGHT OF THE HAMMERS SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVALS WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UNLESS APPROVED BY THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE DIRECTOR. OBTAIN THE DIRECTOR'S APPROVAL BEFORE PERFORMING REPAIR.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS [16 KILOGRAMS] FOR REMOVAL WITHIN 18 INCHES [450 MM] OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH [450 MM] LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS [41 KILOGRAMS] UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

ITEM 516 –JOINT SEALER, AS PER PLAN

UPON COMPLETION OF THE ASPHALT OVERLAY ON THE APPROACH SLABS, THE CONTRACTOR SHALL SAW CUT THE END OF THE APPROACH PAVEMENT AN AREA 1" WIDE BY THE DEPTH OF THE OVERLAY AND FILL THIS AREA WITH HOT APPLIED JOINT SEALER 705.04

ITEM 509 –REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN

DESCRIPTION: ANY EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION SHALL BE REPLACED WITH NEW EPOXY COATED REINFORCING STEEL. ANY EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE MADE UNSUABLE BY CONCRETE REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT THE CONTRACTORS COST. IF THE REINFORCING STEEL IS REQUIRED TO BE DOWELED, DOWEL HOLES AS PER CMS 510 DOWEL HOLES WITH NONSHRINK, NONMETTALLIC GROUT.

MEASUREMENT AND PAYMENT: THE NUMBER OF POUNDS OF REINFORCING STEEL PAID FOR AT THE CONTRACT PRICES SHALL BE THE ACTUAL POUNDS OF REPLACEMENT REINFORCING STEEL SPECIFIED BY THE ENGINEER DUE TO CORROSION AND SHALL INCLUDE ALL THE WORK DESCRIBED ABOVE, LABOR, AND ALL INCIDENTALS.

ITEM 513 – STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN

ITEM 513 - STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN: ALL REQUIREMENTS OF 513 APPLY TO SHOP FABRICATED MEMBERS. PERFORM WORK FOR FIELD FABRICATED MEMBERS ACCORDING TO ITEM 513, EXCEPT AS MODIFIED HEREIN. THE DEPARTMENT WILL NOT REQUIRE THE CONTRACTOR PERFORMING FIELD FABRICATION TO BE PREQUALIFIED AS SPECIFIED IN SUPPLEMENT 1078. SUBMIT A WRITTEN LETTER OF MATERIAL ACCEPTANCE, 501.06, TO THE ENGINEER. PROVIDE SHOP DRAWINGS ACCORDING TO 513.06 OR SUPPLY THE ENGINEER WITH "AS-BUILT" DRAWINGS MEETING 513.06 AFTER COMPLETION OF FIELD FABRICATION. THE ENGINEER WILL REVIEW THE SUBMITTED DRAWINGS FOR CONCURRENCE WITH THE FINAL AS-BUILT CONDITION. IF NECESSARY, THE ENGINEER MAY CONTACT THE OFFICE OF STRUCTURAL ENGINEERING FOR TECHNICAL ASSISTANCE. IF THE ENGINEER IS SATISFIED WITH THE "AS-BUILT" DRAWINGS AND THE DELIVERED MATERIALS, SUPPLY A COPY OF THE DRAWINGS, STAMPED AND DATED, ALONG WITH MICROFILM, TO THE OFFICE OF STRUCTURAL ENGINEERING FOR RECORD PURPOSES. THE FOLLOWING MEMBERS ARE INCLUDED IN THIS ITEM: END CROSSFRAMES.

ITEM 514 – FIELD PAINTING, MISC.: STEEL MEMBERS

THIS ITEM SHALL INCLUDE PAINTING AS WELL AS THE SURFACE PREPARATION OF THE END CROSS FRAME MEMBERS IN THE FILED WITH PRIME, INTERMEDIATE AND SURFACE COATS. THE PAINT MAY BE APPLIED BY BRUSH ACCORDING TO 514.17E. SOLVENT CLEAN THE MEMBERS AS PER SSPC-SP 1 AND SSPC-SP 2, RESPECTIVELY, PRIOR TO PAINTING ACCORDING TO ITEM 514.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING THE FINISH COAT TO MATCH THE EXITING AS CLOSE AS POSSIBLE AND SHALL RECEIVE APPROVAL FROM THE ENGINEER.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND CONTAINMENT FOR CURING SHALL BE INCLUDED IN THE CONTRACT BID FOR ITEM 514 FIELD PAINTING, MISC.: MAIN AND SECONDARY MEMBERS. SQUARE FOOT.

ITEM 530 – STRUCTURE, MISC.: STRUCTURE CLEANING

DESCRIPTION: AFTER REPAIR WORK IS COMPLETE ON THE STRUCTURE THE CONTRACTOR SHALL CLEAN SCUPPERS, DOWNSPOUTS, BACKWALLS, AND BEAM SEATS WITH THE USE OF HAND OPERATED EQUIPMENT AND HIGH PRESSURE WASHERS TO REMOVE SALT, DIRT, AND DEBRIS AS DIRECTED BY THE ENGINEER.

MEASUREMENT AND PAYMENT: THE DEPARTMENT WILL MEASURE THE ABOVE WORK ON A LUMP SUM BASIS PER BRIDGE.

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 6

DESIGNED	DRAWN	REVIEWED	DATE
JPH	JPH	KRF	10/12/2016
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DP		2513773	

BRIDGE NOTES
STRUCTURE NO. FRA-270-4943
I.R. 270 UNDER GROVEPORT ROAD

FRA-270-(49.43)(50.90)
PID No. 101972

ESTIMATED QUANTITIES

ITEM	EXTENSION	TOTAL 01/BRO/BR	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET #
202	11201		LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN					2
509	10000	42,943	LB	EPOXY COATED REINFORCING STEEL	444		42,499		
509	20001	100	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN				100	2
510	10000	202	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT			202		
511	34410	71	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE			71		
511	34448	92	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)			92		
511	45710	8	CY	CLASS QC1 CONCRETE, ABUTMENT	8				
512	10050	779	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)			779		
513	10201	4,891	LB	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN			2,445		2
514	27700	718	SF	FIELD PAINTING, MISC.: STEEL MEMBERS			718		2
516	11210	99	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL				99	
516	31001	90	FT	JOINT SEALER, AS PER PLAN				90	2
519	11100	19	SF	PATCHING CONCRETE STRUCTURE				19	
607	39900	710	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC				710	
848	10200	1,354	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION (2" THICKNESS)			1,354		
848	20000	1,354	SY	SURFACE PREPARATION USING HYDRODEMOLITION			1,354		
848	30200	7	CY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY			7		
848	50000	80	SY	HAND CHIPPING			80		
848	50100		LS	TEST SLAB					
848	50320	1,354	SY	EXISTING CONCRETE OVERLAY REMOVED (1 3/4" THICKNESS)			1,354		
848	50340	20	SY	REMOVAL OF DEBONDED OR DETERIORATED EXISTING VARIABLE THICKNESS CONCRETE OVERLAY			20		

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 6

DESIGNED	DRAWN	REVIEWED	DATE
JPH	JPH	KRF	10/12/2016
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DP		2513773	

ESTIMATED QUANTITIES
STRUCTURE NO. FRA-270-4943
I.R. 270 UNDER GROVEPORT ROAD

FRA-270-(49.43)(50.90)
PID No. 101972

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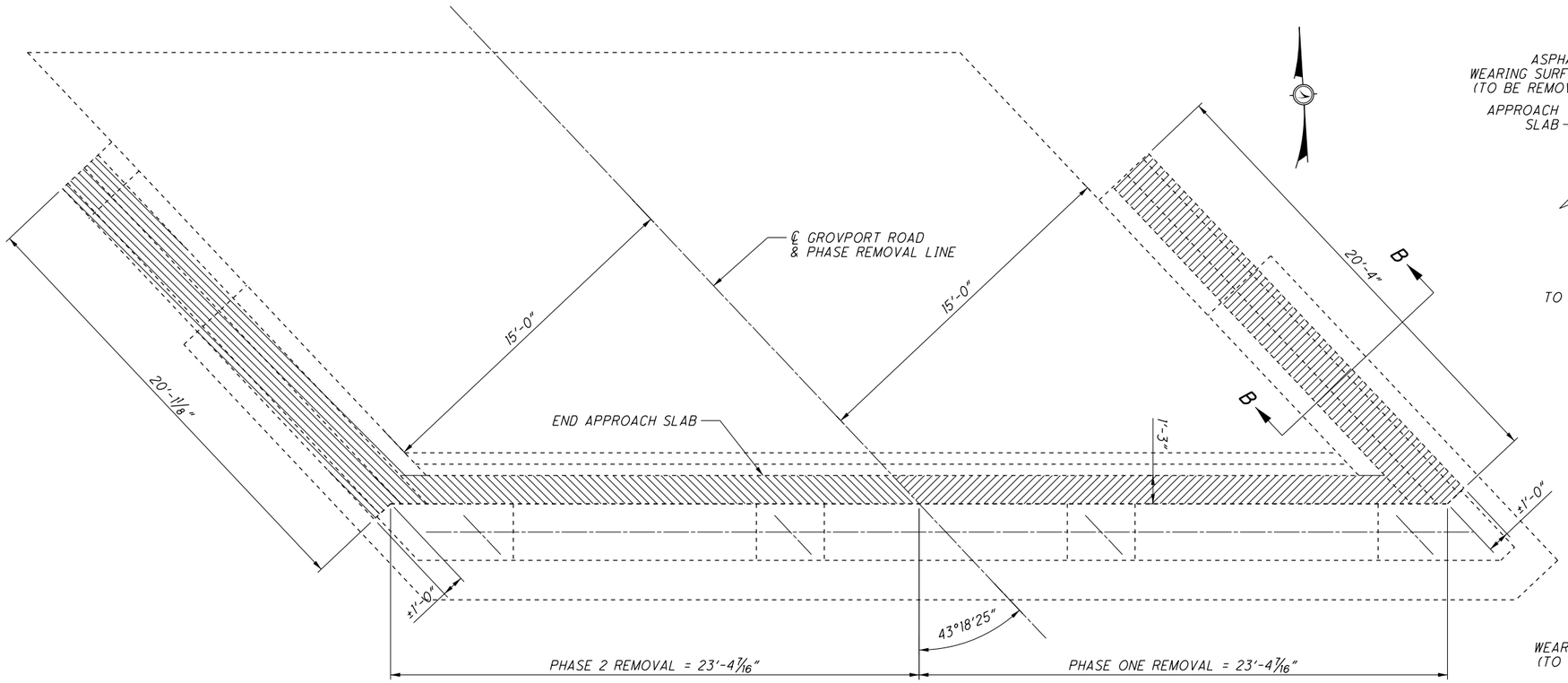
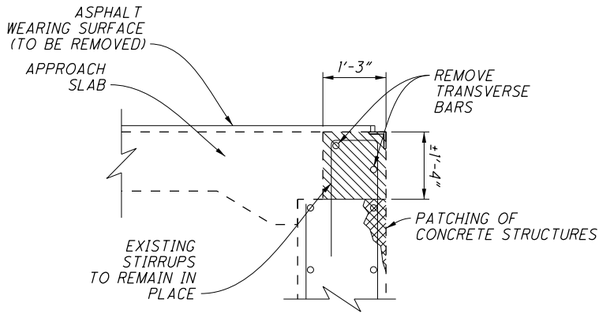
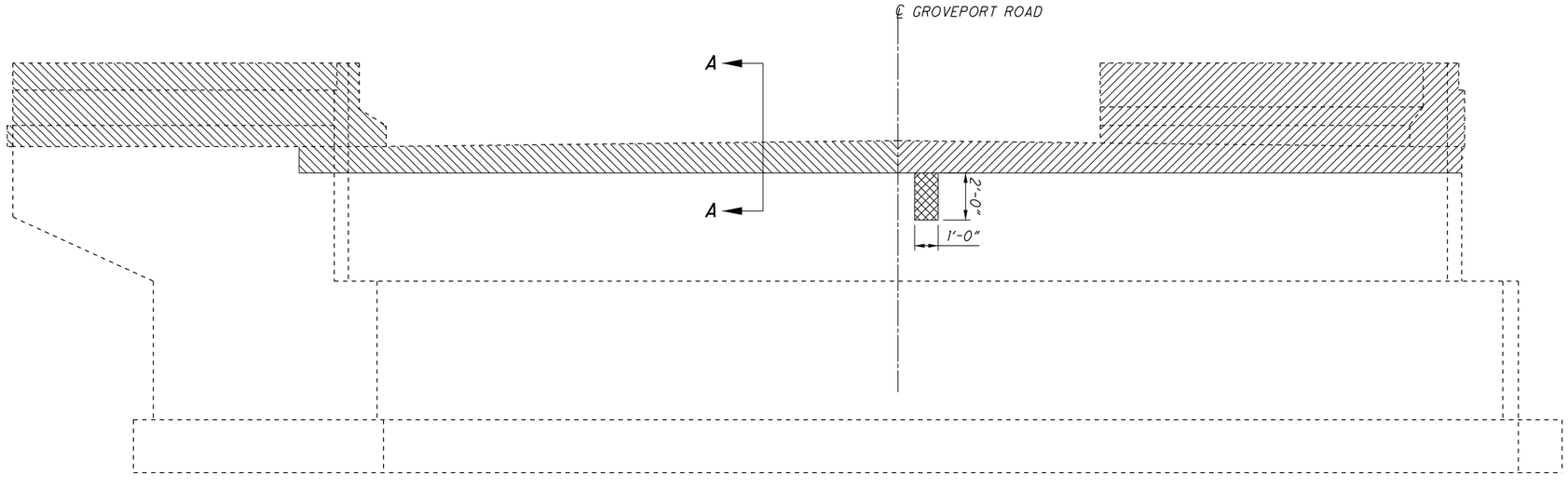


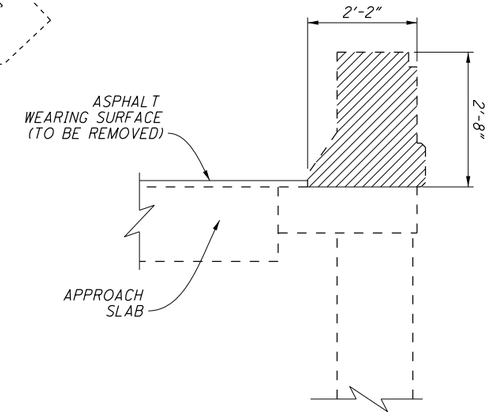
PLAN



SECTION A-A



ELEVATION



SECTION B-B

- PHASE 1 REMOVALS
- PHASE 2 REMOVALS
- ITEM 519 PATCHING OF CONCRETE STRUCTURES

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 6

DESIGNED	DRAWN	REVIEWED	DATE
JPH	JPH	KRF	10/12/2016
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DP		2513773	

EXISTING REAR ABUTMENT REMOVAL DETAILS
STRUCTURE NO. FRA-270-4943
I.R. 270 UNDER GROVEPORT ROAD

FRA-270-(49.43)(50.90)
PID No. 101972

4 / 13

16
28

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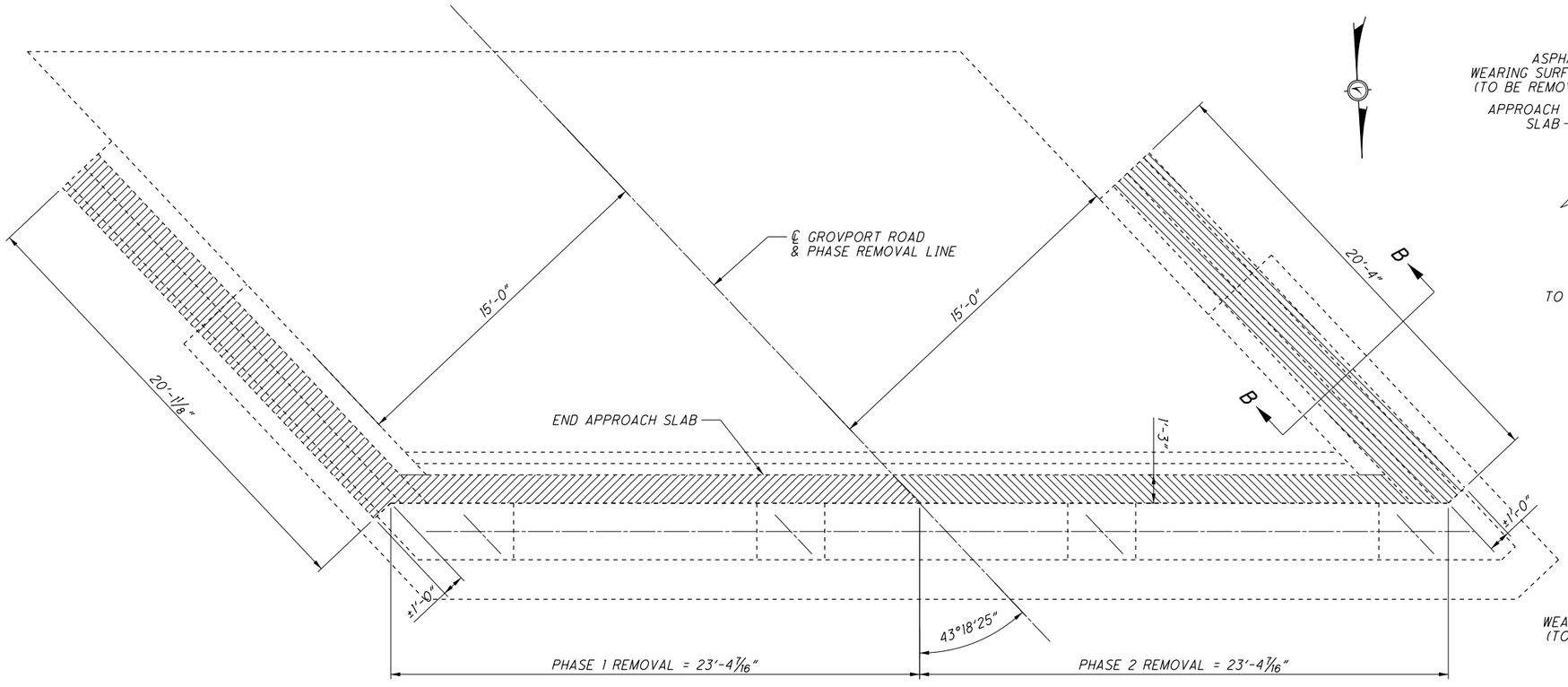
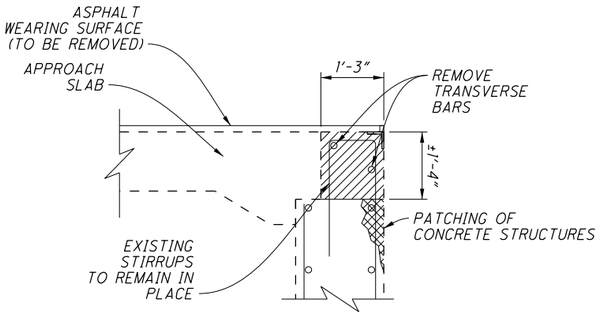
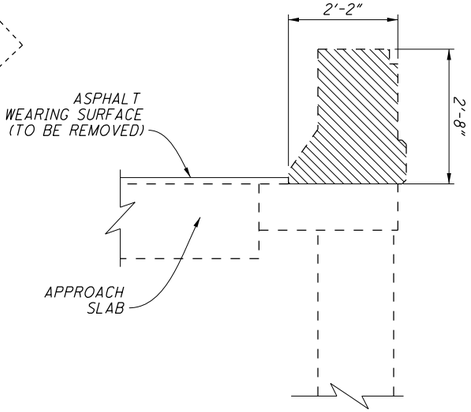


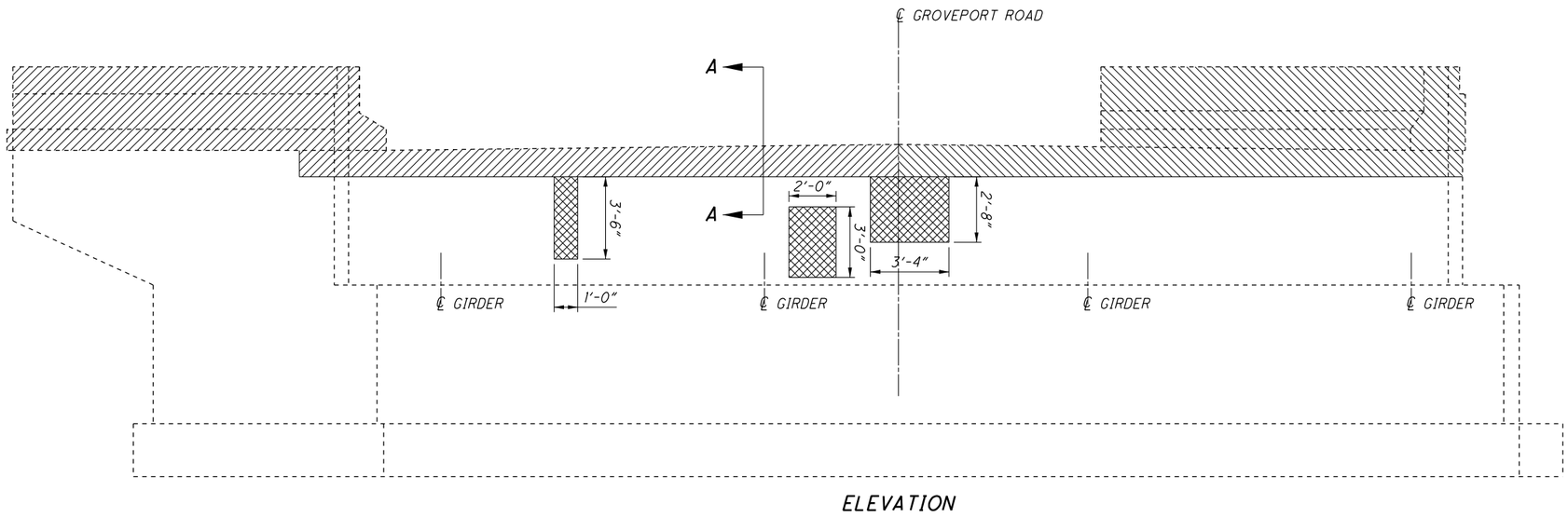
PLAN



SECTION A-A



SECTION B-B



ELEVATION

- PHASE 1 REMOVALS
- PHASE 2 REMOVALS
- ITEM 519 PATCHING OF CONCRETE STRUCTURES

EXISTING FORWARD XXXXXXXX REMOVAL DETAILS

STRUCTURE NO. FRA-270-4943

I.R. 270 UNDER GROVEPORT ROAD

DESIGN AGENCY
OHIO DEPARTMENT OF
TRANSPORTATION DISTRICT 6

DESIGNED	DRAWN	REVIEWED	DATE
JPH	JPH	KRF	10/12/2016
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DP		2513773	

FRA-270-(49.43)(50.90)
PID No. 101972

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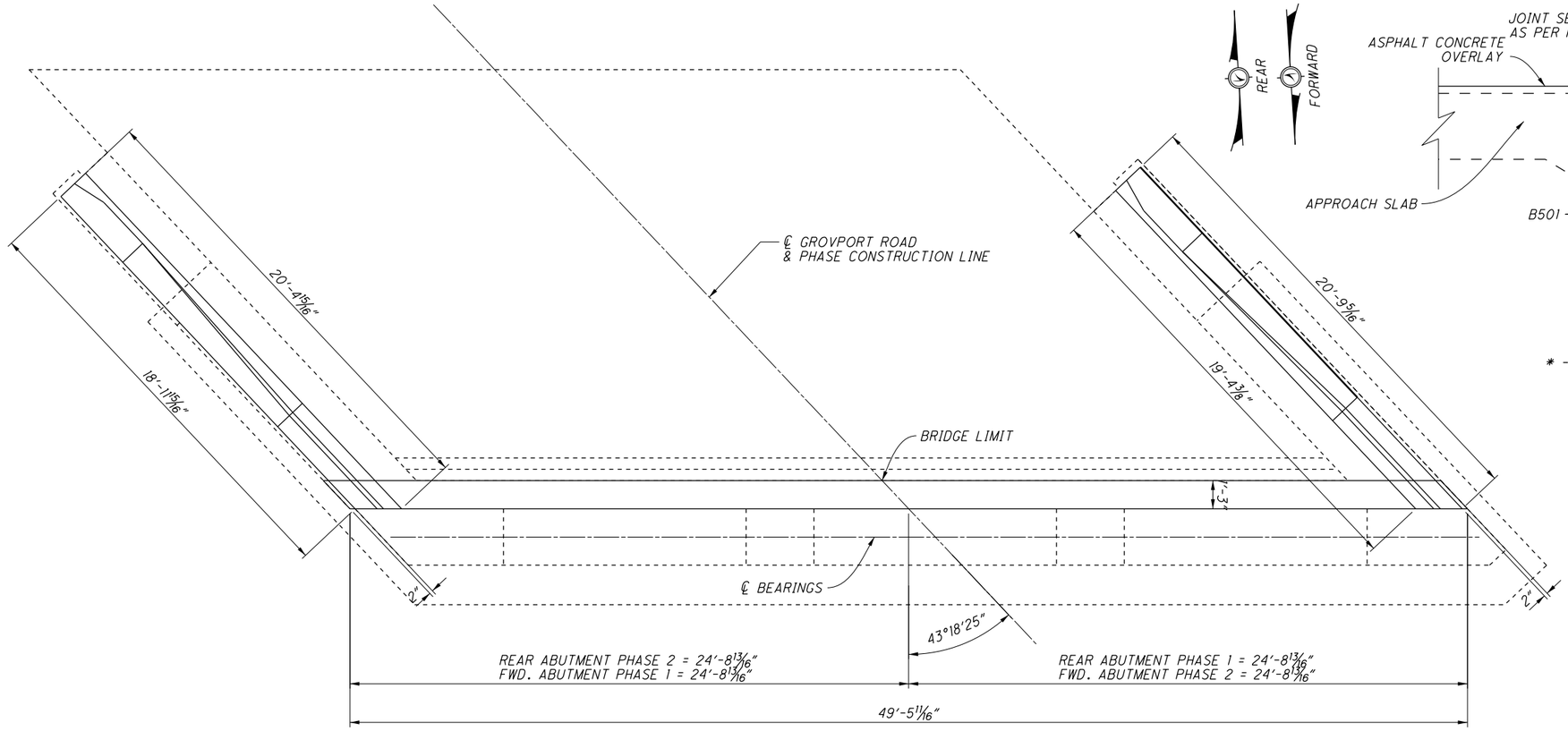
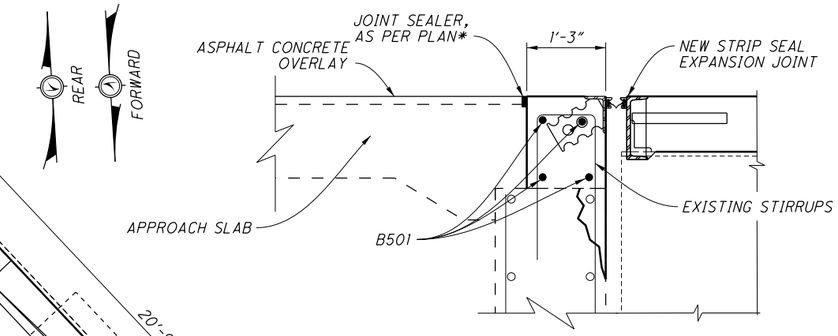


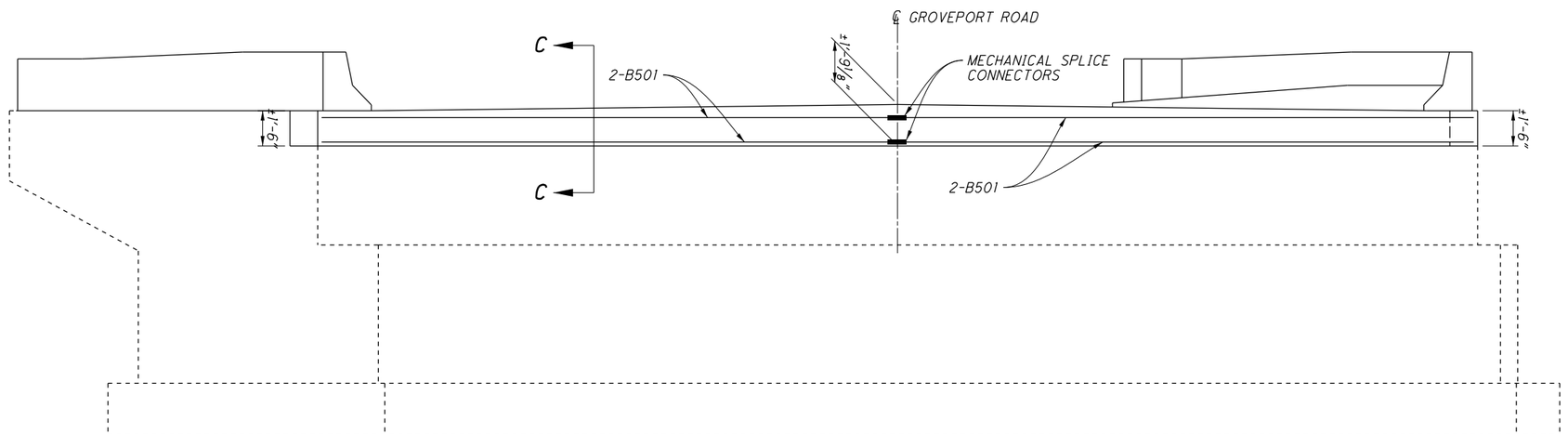
PLAN

(REAR AND FORWARD ABUTMENTS)



SECTION C-C

* - SEE NOTE ON SHEET 2/13 FOR DETAILS



ELEVATION

(REAR AND FORWARD ABUTMENTS)

NOTES

1: FOR PARAPET DETAILS SEE SHEET 12/13

PROPOSED ABUTMENT DETAILS
STRUCTURE NO. FRA-270-4943
I.R. 270 UNDER GROVEPORT ROAD

FRA-270-(49.43)(50.90)
PID No. 101972

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DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 6

DESIGNED	DRAWN	REVIEWED	DATE
JPH	JPH	KRF	10/12/2016
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DP		2513773	

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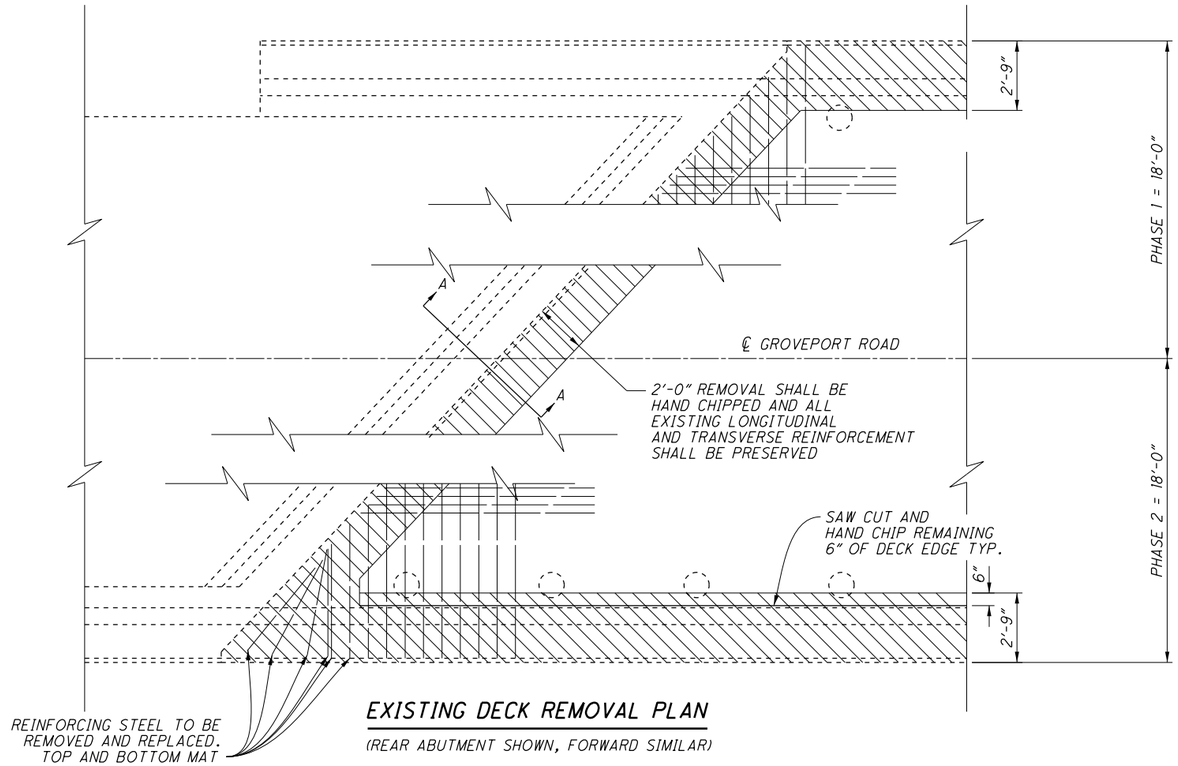
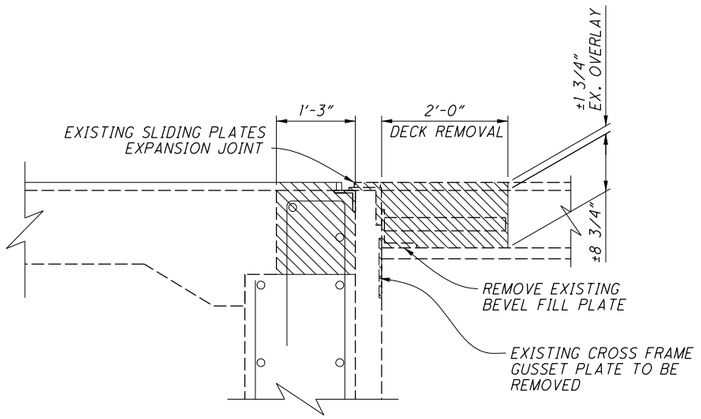
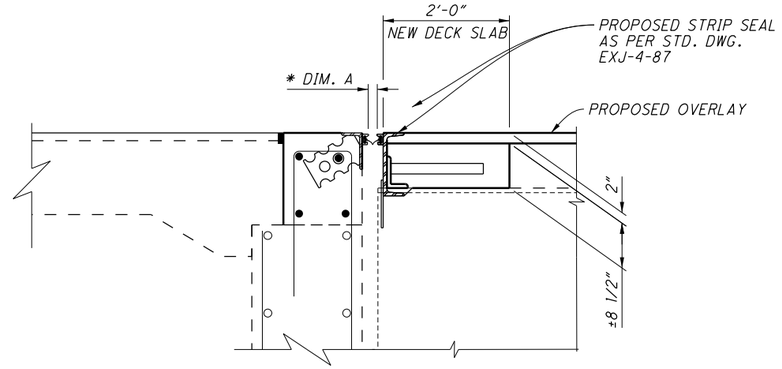


EXISTING DECK REMOVAL PLAN

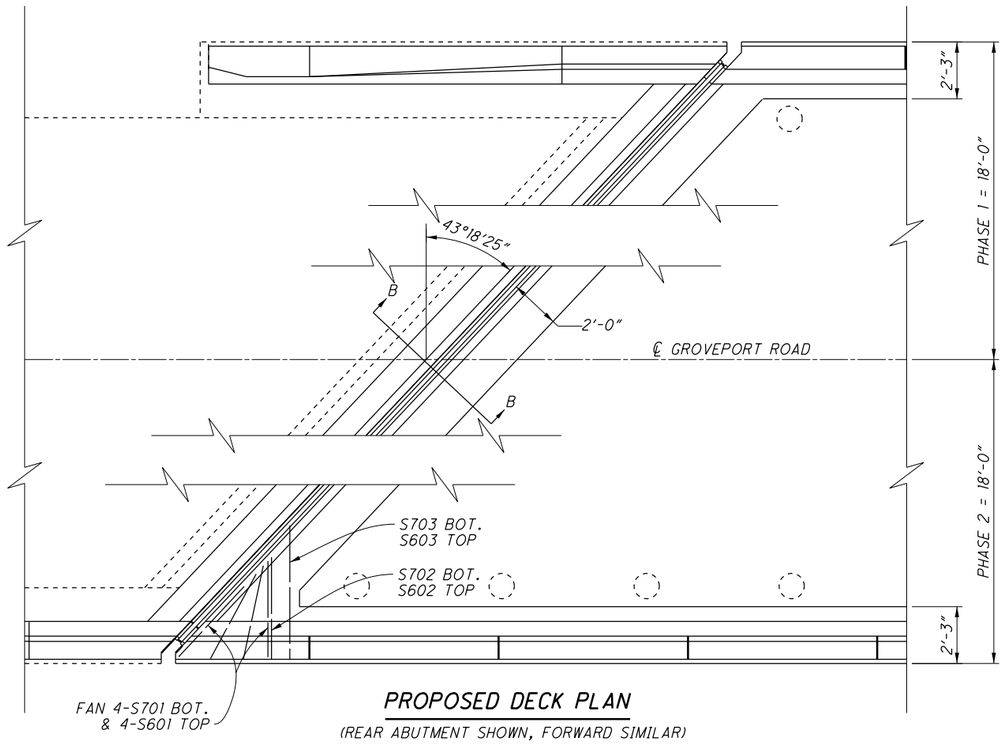
(REAR ABUTMENT SHOWN, FORWARD SIMILAR)



SECTION A-A



SECTION B-B



PROPOSED DECK PLAN

(REAR ABUTMENT SHOWN, FORWARD SIMILAR)

REQUIRED JOINT OPENING (DIMENSION "A")	
TEMP °F	REAR & FORWARD ABUT.
90	1.63"
70	1.75"
60	1.88"
50	2.07"
40	2.38"
30	2.48"
STRIP SEAL GLAND SIZE = 4"	

* - DIM. A IS MEASURED PERPENDICULAR TO ℄ BEARINGS

NOTES:

1: SEE STD. DWG. EXJ-4-87 FOR ADDITIONAL EXPANSION JOINT DETAILS AND NOTES.

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 6

DESIGNED	DRAWN	REVIEWED	DATE
JPH	JPH	KRF	10/12/2016
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DP		2513773	

DECK AND EXPANSION JOINT DETAILS
STRUCTURE NO. FRA-270-4943
I.R. 270 UNDER GROVEPORT ROAD

FRA-270-(49.43)(50.90)
PID No. 101972

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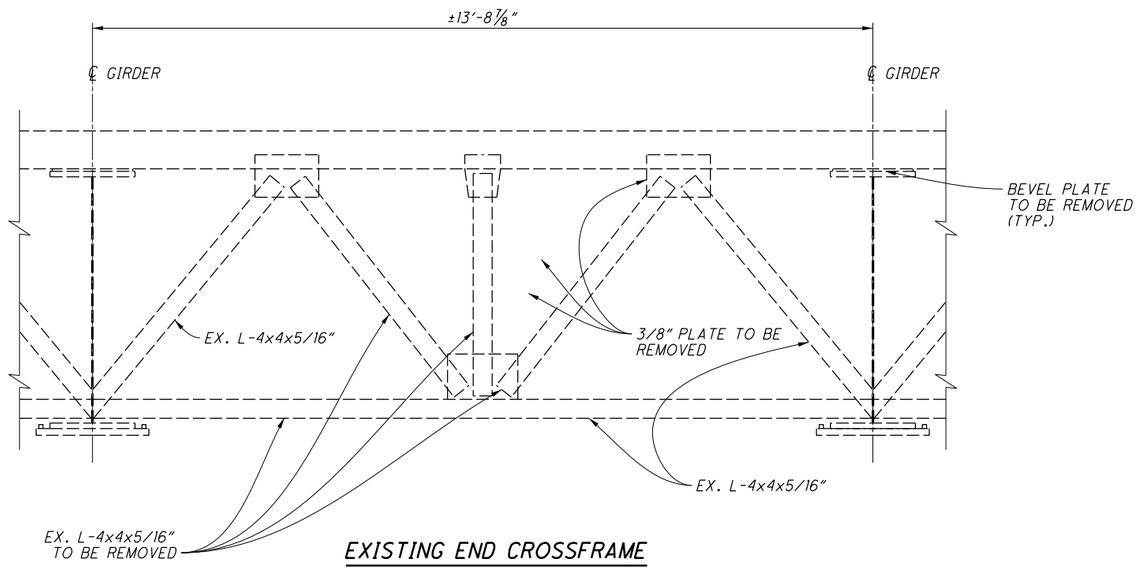
I:\ProjectData\102023_FRA-270-45.84\101972_FRA-270-49.53\Design\Structures\FRA270_4953C\Sheets\101972SD002.dgn Design 1/12/2017 1:50:05 PM dpuozzo



EXISTING END CROSSFRAME

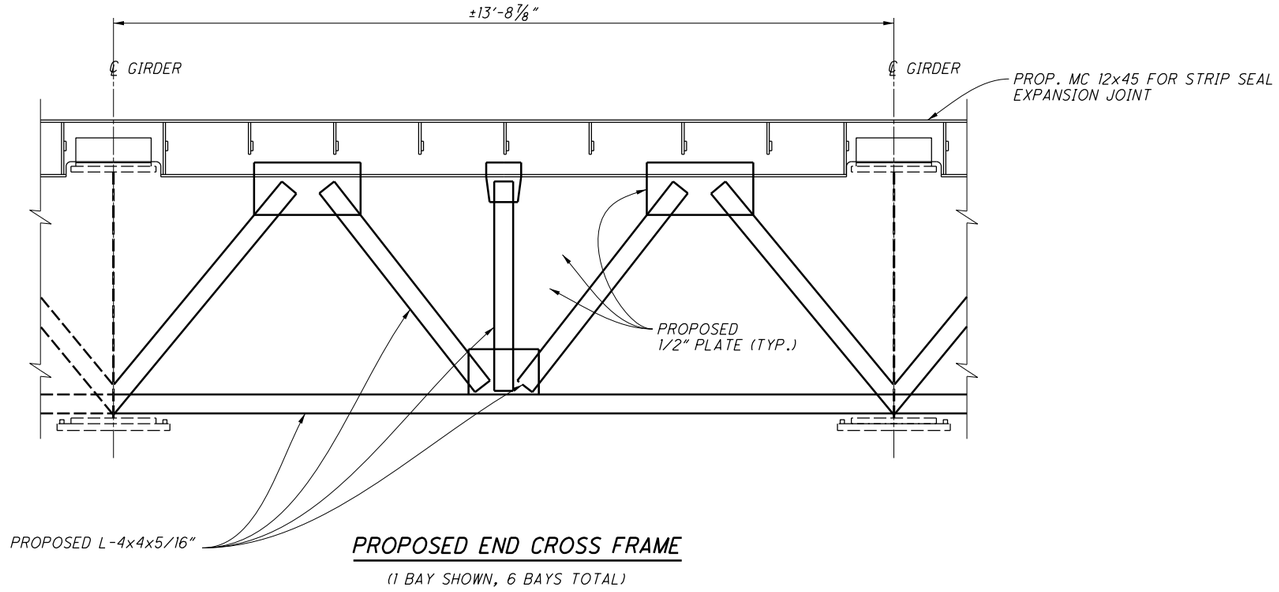
(1 BAY SHOWN, 6 BAYS TOTAL)

- REMOVAL OF CROSS FRAME ENDS

NOTES:

1: SEE STD. DWG. EXJ-4-87 AND GSD-1-96 FOR ADDITIONAL DETAILS AND NOTES.

2: REMOVAL AND REPLACEMENT SHALL BE DONE IN PHASES ALONG WITH REPLACMENT OF EXPANSION JOINT STRIP SEAL.



PROPOSED END CROSS FRAME

(1 BAY SHOWN, 6 BAYS TOTAL)

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 6

DESIGNED	DRAWN	REVIEWED	DATE
JPH	JPH	KRF	10/12/2016
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DP		2513773	

ENDCROSS FRAME DETAILS
STRUCTURE NO. FRA-270-4943
I.R. 270 UNDER GROVEPORT ROAD

FRA-270-(49.43)(50.90)
PID No. 101972

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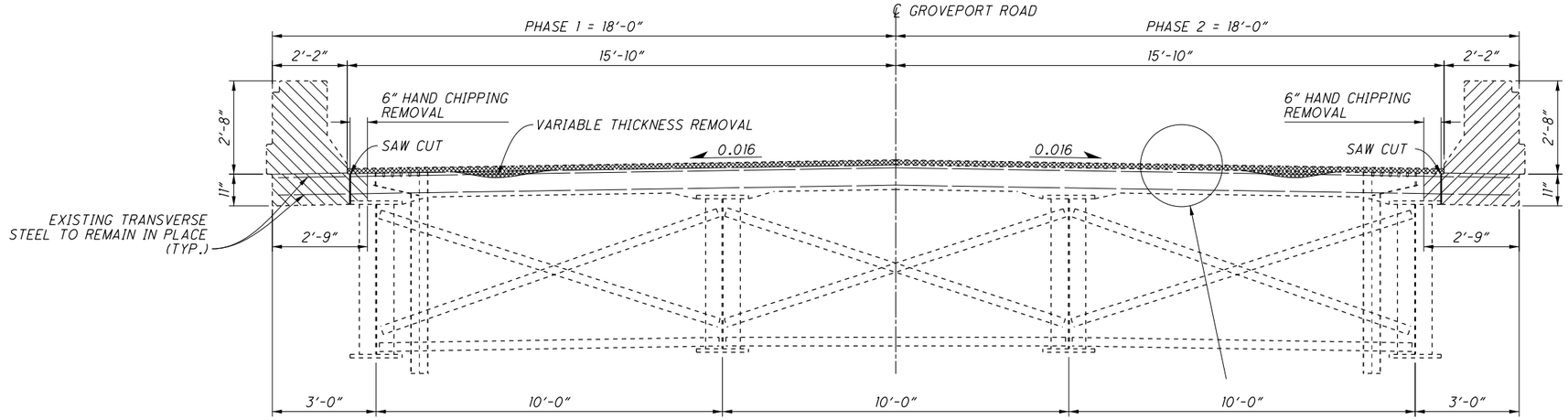
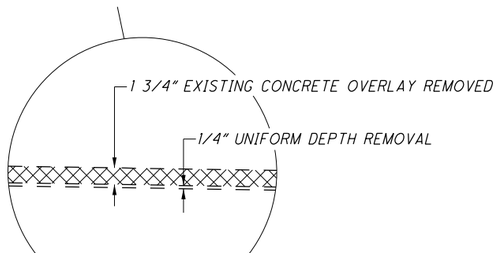
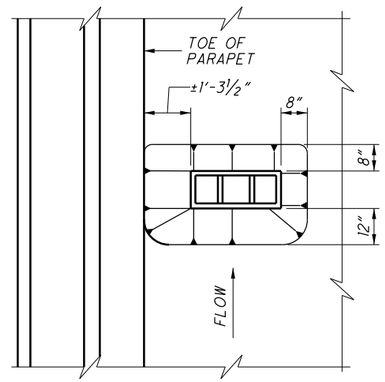


EXISTING TRANSVERSE SECTION

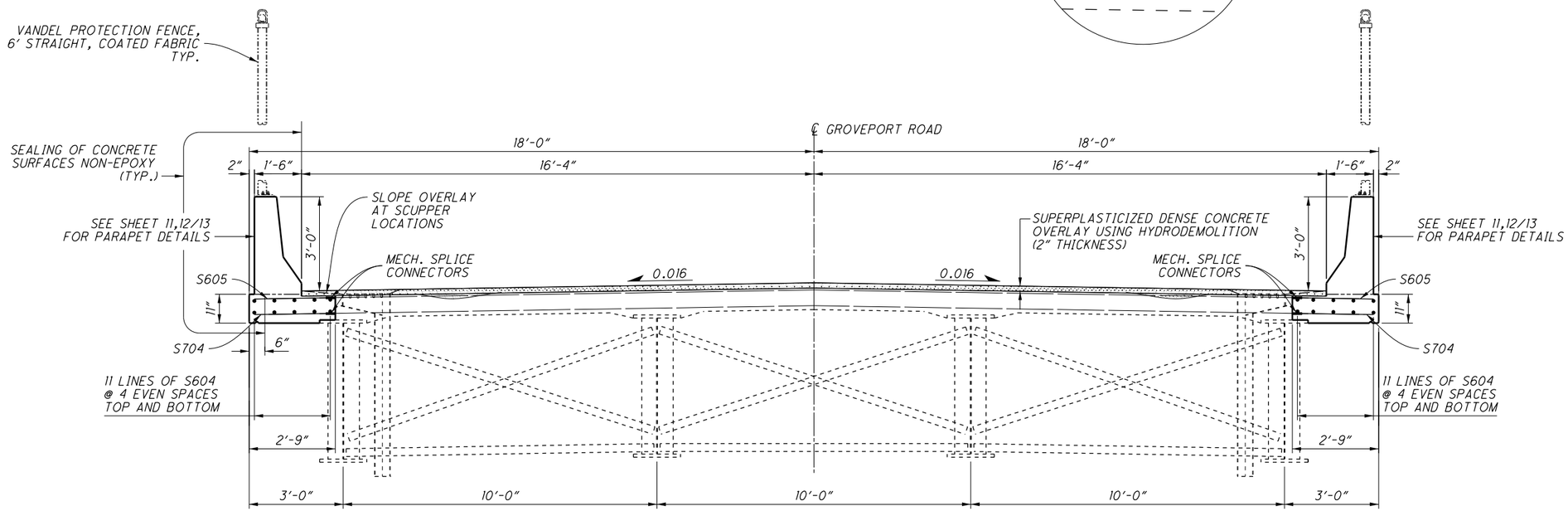


NOTES

1: FOR REMOVAL DETAILS REFER TO NOTE ON SHEET 2/13



GRADING AT SCUPPERS



PROPOSED TRANSVERSE SECTION

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 6

DESIGNED	DRAWN	REVIEWED	DATE
JPH	JPH	KRF	10/12/2016
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DP		2513773	

TRANSVERSE SECTIONS
STRUCTURE NO. FRA-270-4943
I.R. 270 UNDER GROVEPORT ROAD

FRA-270-(49.43)(50.90)
PID No. 101972

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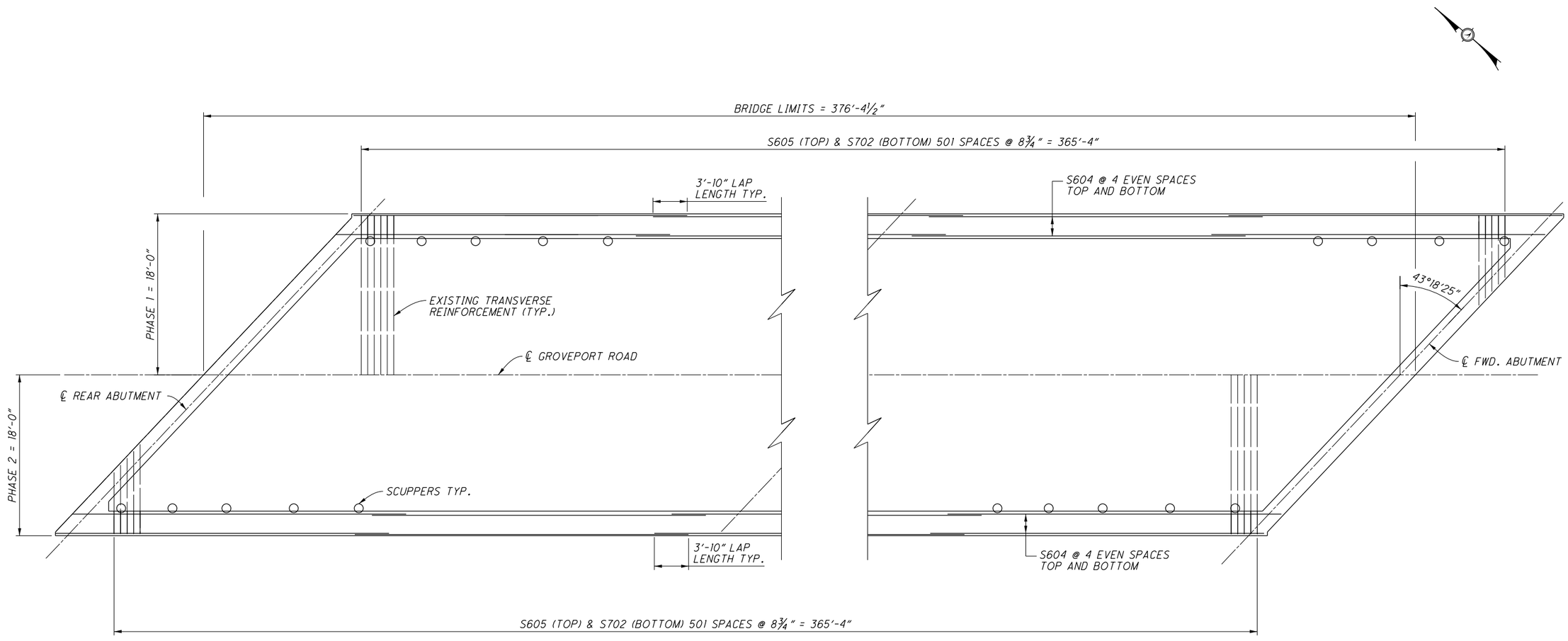

DECK REINFORCING PLAN

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DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 6

DESIGNED	DRAWN	REVIEWED	DATE
JPH	JPH	KRF	10/12/2016
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DP		2513773	

DECK REINFORCING PLAN
STRUCTURE NO. FRA-270-4943
I.R. 270 UNDER GROVEPORT ROAD

FRA-270-(49.43)(50.90)
PID No. 101972

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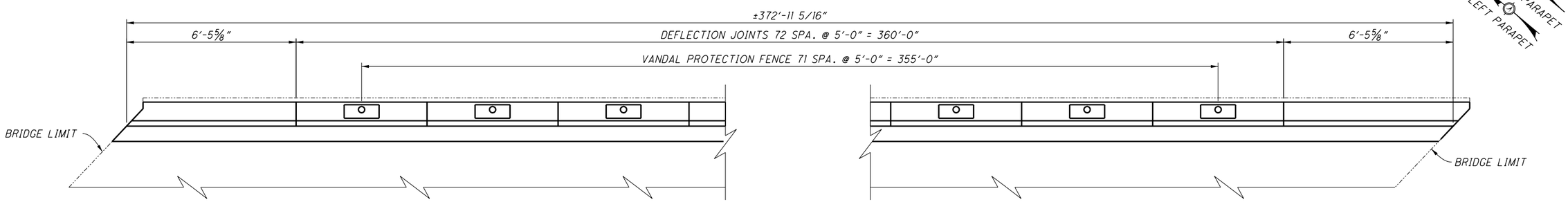
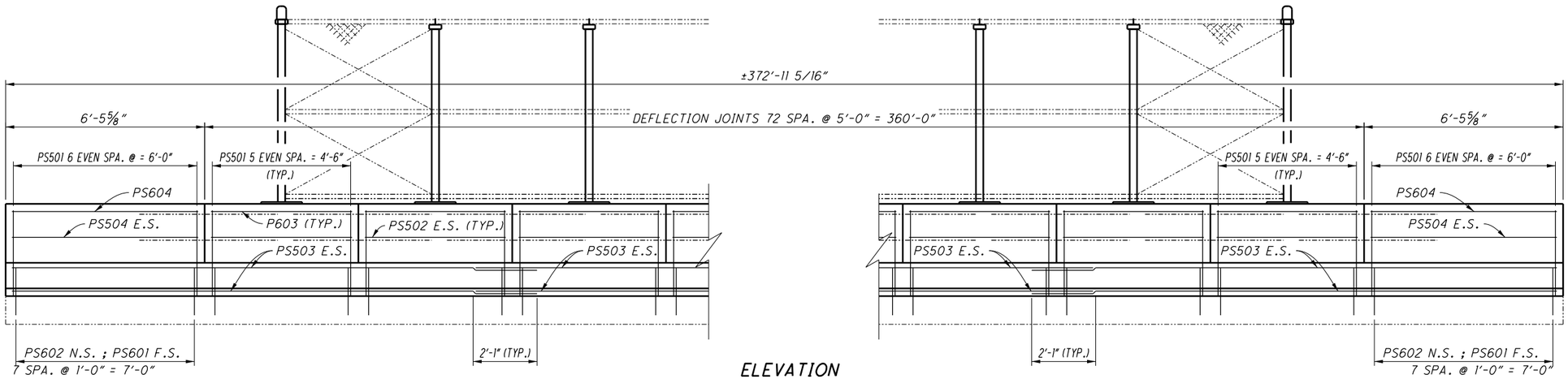
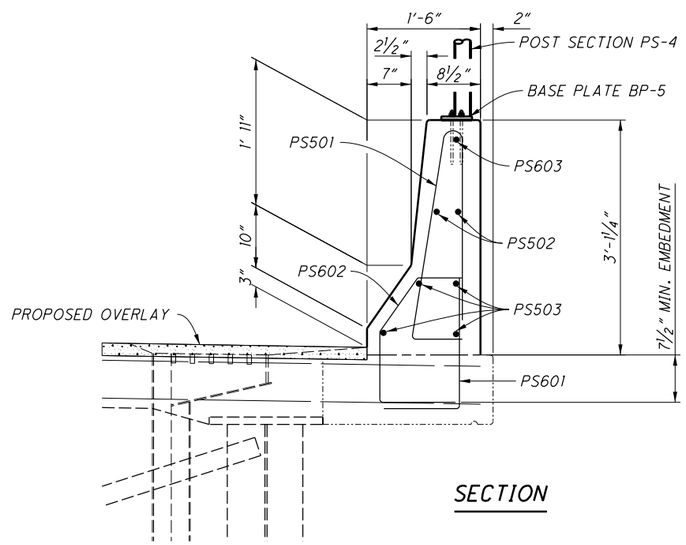


PLAN



ELEVATION



SECTION

NOTES:

1: FOR ADDITIONAL DETAILS SEE STANDARD DRAWINGS BR-1-13 AND VPF-1-90

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 6

DESIGNED	DRAWN	REVIEWED	DATE
JPH	JPH	KRF	10/12/2016
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DP		2513773	

PARAPET AND VANDAL PROTECTION FENCE DETAILS
STRUCTURE NO. FRA-270-4943
I.R. 270 UNDER GROVEPORT ROAD

FRA-270-(49.43)(50.90)
PID No. 101972

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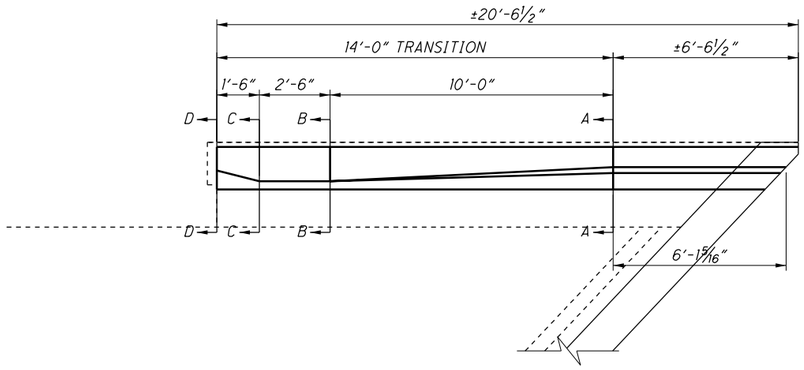
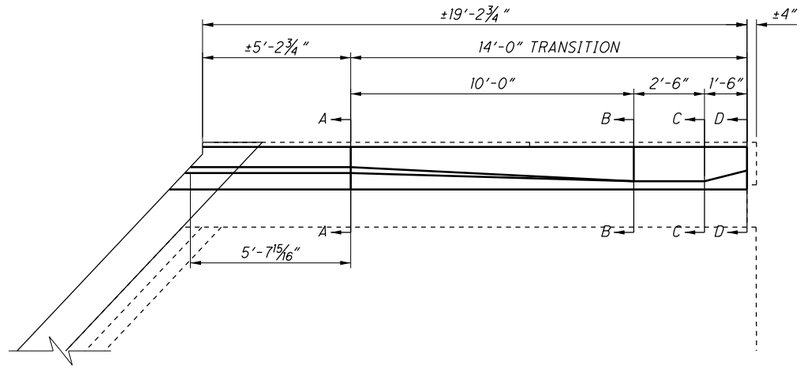
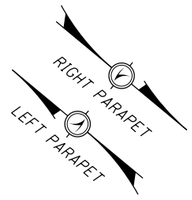


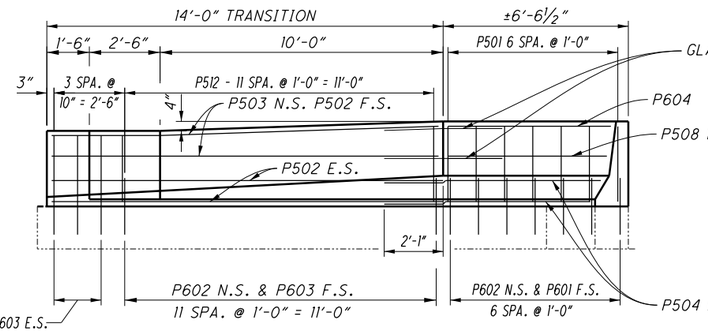


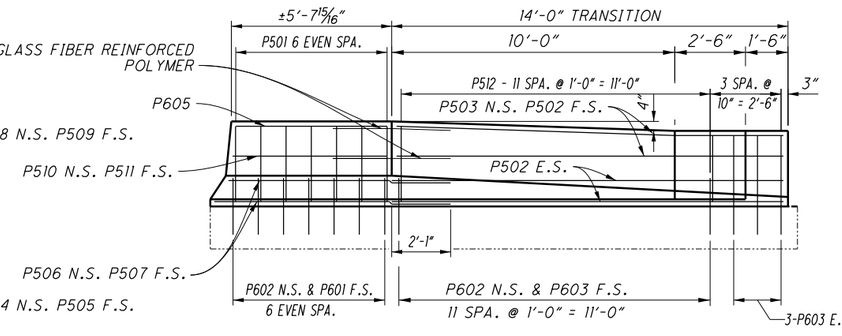


PLAN

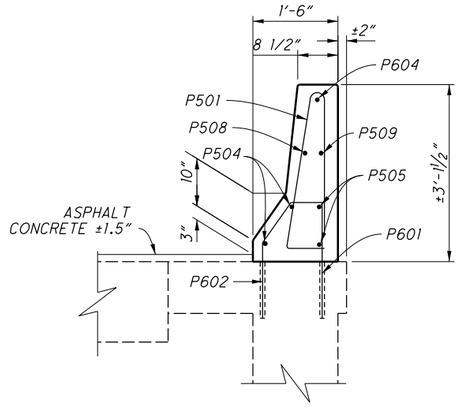
ELEVATION

1: DOWEL HOLES SHALL BE 1'-0" DEEP. D603 DOWELS MAY BE SHORTENED IN TRANSITIONS SECTION.
2: FOR ADDTIONAL DETAILS NOT SHOWN REFER TO STD. DWG. BR-1-13
3: SECTION DETAILS PROVIDED REFER TO PARAPET ON LEFT. RIGHT IS SIMILAR.

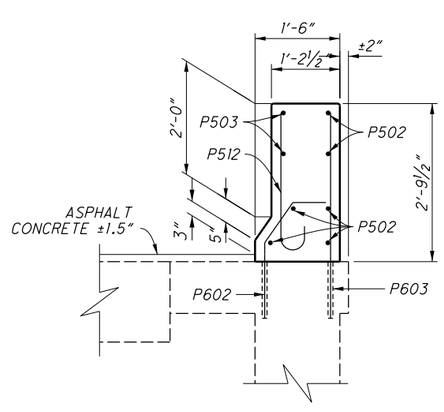




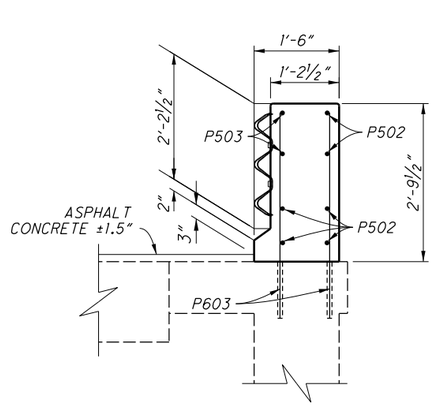
ELEVATION



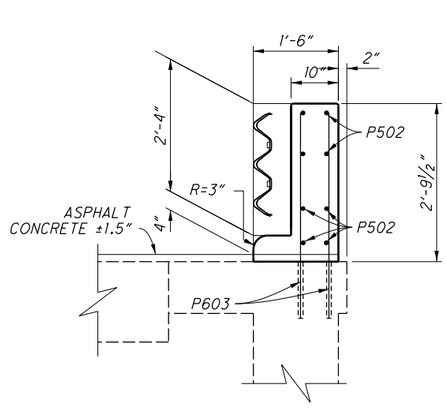
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 6

DESIGNED	DRAWN	REVIEWED	DATE
JPH	JPH	KRF	10/12/2016
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DP		2513773	

PARAPET DETAILS
STRUCTURE NO. FRA-270-4943
I.R. 270 UNDER GROVEPORT ROAD

FRA-270-(49.43)(50.90)
PID No. 101972

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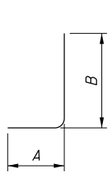
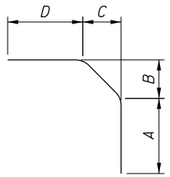
MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
BACKWALLS											
B501	16	26'-7"	444	STR							
SUBTOTAL			444								
DECK											
S601	8	4'-3"	51	STR							
S602	2	4'-4"	13	STR							
S603	2	5'-1"	15	STR							
S604	220	37'-5"	12,364	STR							
S605	1004	2'-7"	3,896	STR							
				STR							
S701	8	4'-3"	69	STR							
S702	2	4'-4"	18	STR							
S703	2	5'-1"	21	STR							
S704	1004	2'-7"	5,301	STR							
SUBTOTAL			21,748								
PARAPET END SECTIONS											
P501	28	5'-11"	173	23	0'-8"	2'-9"	2'-6"	0'-9.2"		0'-1.5"	
P502	24	13'-10"	346	STR							
P503	8	13'-10"	115	25	10'-0"	2'-5"	1'-5"	0'-1.5"	0'-5"		
P504	4	8'-2"	34	STR							
P505	4	8'-7"	36	STR							
P506	4	7'-10"	33	STR							
P507	4	7'-5"	31	STR							
P508	2	5'-9"	12	STR							
P509	2	6'-2"	13	STR							
P510	2	5'-4"	11	STR							
P511	2	4'-11"	10	STR							
P512	48	3'-0"	150	16	2'-5"						
P601*	28	2'-0"	84	STR							
P602*	74	2'-9"	306	13	1'-4"	0'-8.5"	0'-6"	0'-7"			
P603*	72	3'-6"	379	STR							
P604	2	6'-2"	19	STR							
P605	2	4'-11"	15	STR							
SUBTOTAL			1,767								
PARAPET (DECK)											
PS501	892	5'-11"	5,505	23	0'-8"	2'-9"	2'-6"	0'-9.2"		0'-1.5"	
PS502	288	4'-8"	1,402	STR							
PS503	184	17'-1"	3,278	STR							
PS504	8	6'-0"	50	STR							
PS601	892	2'-7"	3,461	1	1'-0"	1'-8"					
PS602	892	3'-2"	4,243	14	1'-0"	0'-11"	0'-8.5"	0'-6"	0'-7"		
PS603	144	4'-8"	1,009	STR							
PS604	4	6'-0"	36	STR							
SUBTOTAL			18,984								

TOTAL BACKWALLS	444
TOTAL DECK	21,748
TOTAL PARAPET END SECTIONS	1,767
TOTAL PARAPET (DECK)	18,984
GRAND TOTAL	42,943

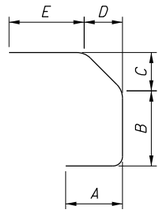
* - DENOTES DOWELED BAR



TYPE-1



TYPE-13



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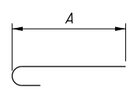
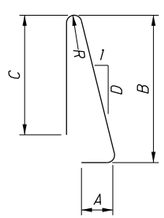
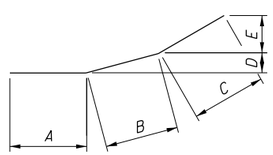


TYPE-16



TYPE-23



TYPE-25

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 6

DESIGNED	DRAWN	REVIEWED	DATE
JPH	JPH	KRF	10/12/2016
CHECKED	REVISED	STRUCTURE FILE NUMBER	
DP		2513773	

REINFORCING STEEL SCHEDULE
STRUCTURE NO. FRA-270-4943
I.R. 270 UNDER GROVEPORT ROAD

FRA-270-(49.43)(50.90)
PID No. 101972

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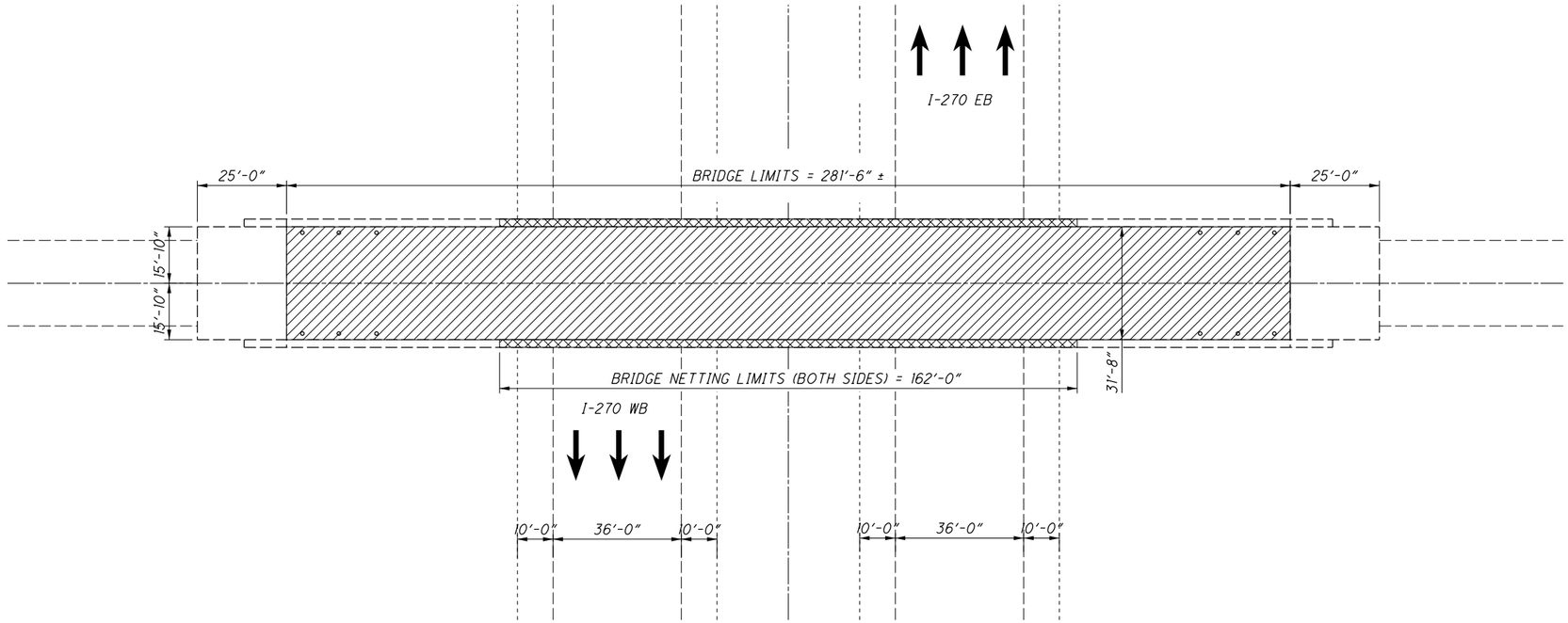

= PARAPET NETTING LIMITS

= DECK SEALING LIMITS

ESTIMATED QUANTITIES

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.
512	10400	990	SY	TREATING OF CONCRETE BRIDGE DECK WITH SRS			990	
530	00800	234	SY	STRUCTURE, MISC.: DEBRIS CONTAINMENT NETTING			234	
607	98000	563	FT	FENCE, MISC.: REMOVE AND RE-INSTALL VANDAL PROTECTION FENCE MESH			563	

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 6

DESIGNED	DRAWN	REVIEWED	DATE
DP	DP	JPH	10/12/2016
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KRF		2513595	

GENERAL PLAN
BRIDGE FRA-270-5090
I-270 UNDER LOCKBOURNE RD

FRA-270-(49.53)(50.90)
PID No. 101972

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STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

PCB-91	DATED/REVISED	1/18/2013
VPF-1-90	DATED/REVISED	7/17/2015

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS: THESE STRUCTURES CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION 2002, AND THE ODOT BRIDGE DESIGN MANUAL, 2004.

DECK PROTECTION METHOD

SEAL WITH HMWM RESIN

EXISTING STRUCTURE VERIFICATION

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05, 105.02 AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

REMOVED MATERIALS

ALL REMOVED MATERIALS EXCEPT AS NOTED ELSEWHERE IN THE PLANS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED BY HIM FROM THE JOB SITE.

ITEM 530, SPECIAL - STRUCTURES MISC.: NETTING:

DESCRIPTION:
THIS WORK SHALL CONSIST OF INSTALLATION OF A STRUCTURAL NETTING DEBRIS CONTAINMENT SYSTEM AROUND PARAPETS OF STRUCTURES, TO PROTECT TRAFFIC BELOW FROM SPALLING CONCRETE.

THE NETTING SHALL BE ATTACHED DIRECTLY TO THE EXISTING VANDAL PROTECTION FENCE POSTS. ALL EXISTING VANDAL PROTECTION FENCE COMPONENTS SHALL EITHER REMAIN IN PLACE OR BE REPLACED AFTER NETTING IS IN PLACE.

DESIGN:
THE FOLLOWING BRIDGE DEBRIS CONTAINMENT, OR EQUIVALENT SHALL BE USED:

INCORD ROC-BLOC BRIDGE SAFETY N-820H STRUCTURAL NETTING WITH WS70 LINER.

NETTING SPECIFICATIONS FOR N-820H ARE AS FOLLOWS:

STYLE	RASCHEL KNOTLESS NETTING
CORD DIAMETER	3/16 INCH
MESH SIZE	2 ½ INCH SQUARE OPENING
LOAD TEST, MAX	6000 LB
WEIGHT	0.0528 LT/SQ FT
MELTING POINT	320° F
UV	EXTRA UV STABILIZERS ADDED
COLOR	SAND OR LIGHT GREY

InCord
226 Upton Road
Colchester, CT 06415
860-537-1414

INSTALLATION REQUIREMENTS:
THE NETTING SHALL BE INSTALLED PER THE MANUFACTURERE'S REQUIREMENTS WITH THE FOLLOWING EXCEPTION:

- NETTING SHALL BE ANCHORED WITH A REDUNDANT ANCHORING SYSTEM. THIS ANCHORING SYSTEM SHALL CONSIST OF THE COMBINATION OF AN ANCHOR CABLE AS WELL AS INDIVIDUAL ANCHOR CONNECTIONS WITH CLIPS ALONG THE LENGTH OF THE NETTING. EACH ANCHOR POINT OF THE NETTING SHALL BE CONNECTED TO EACH INDEPENDENT ANHORING SYSTEM. THE INTENT OF THE REDUNDANT ANCHORING SYSTEM IS TO MINIMIZE RISK OF VANALISM DAMAGE TO NETTIN AND, IN THE EVENT OF VANDALISM DAMAGE, KEEP THE NETTING FROM DROPPING DOWN ONTO TRAFFIC BELOW.

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING END ANCHORAGE EMBEDMENT AND REDUNDANCY OF NETTING/CABLE SYSTEM TO PROJECT ENGINEER FOR APPROVAL.

MEASUREMENT AND PAYMENT:
THIS ITEM WILL BE PAID FOR BY SQUARE YARD INSTALLED AND ACCEPTED. BID PRICE SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO PROVIDE AND INSTALL STRUCTURAL NETTING DEBRIS CONTAINMENT SYSTEM.

ITEM, SPECIAL – STRUCTURE MISC.: NETTING

ITEM 607: FENCE, MISC.: REMOVE AND RE-INSTALL VANDAL FENCE MESH

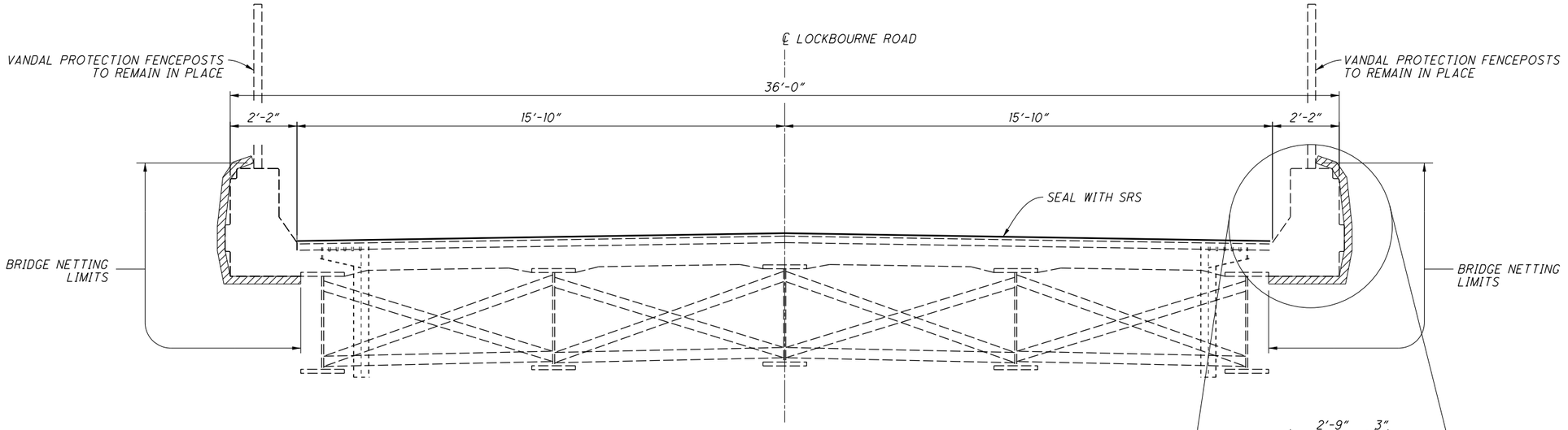
THIS ITEM INCLUDES THE REMOVAL AND RE-INSTALLMENT OF THE VANDAL PROTECTION FENCE MESH TO ALLOW FOR INSTALLMENT OF THE DEBRIS CONTAINMENT NETTING. AFTER THE MESH IS REMOVED AND UNTIL IT IS PUT BACK IN PLACE, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THE MESH IS NOT DAMAGED OR LOST. ANY DAMAGED OR LOST SECTION OF MESH SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. THE ITEM SHALL BE PAID FOR ON A LINEAR FOOT BASIS.

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 6

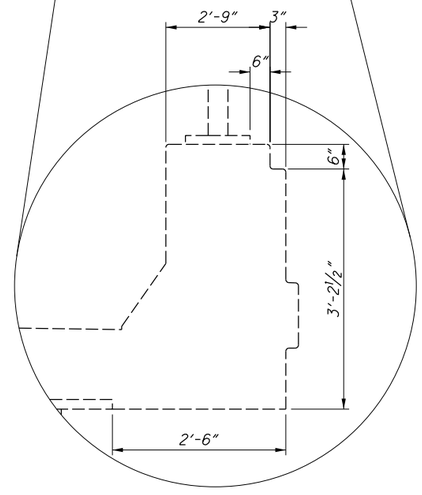
DESIGNED	DRAWN	REVIEWED	DATE
DP	DP	JPH	10/12/2016
CHECKED	REVISED	STRUCTURE FILE NUMBER	
KRF		2513595	

STRUCTURE NOTES
BRIDGE FRA-270-5090
I-270 UNDER LOCKBOURNE RD

FRA-270-(49.53)(50.90)
PID No. 101972



TRANSVERSE SECTION



PARAPET DETAILS

Scale: 16.0000

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DESIGN AGENCY
OHIO DEPARTEMENT OF TRANSPORTATION DISTRICT 6

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TRANSVERSE SECTION
BRIDGE NO. FRA-270-5090
I-270 UNDER LOCKBOURNE RD

FRA-270-(49.53)(50.90)
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