

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

MAH-11-13.41
AUSTINTOWN TOWNSHIP
MAHONING COUNTY

PROJECT DESCRIPTION

THIS PROJECT WILL REPLACE THE BRIDGE DECK AND ASSOCIATED ROADWAY WORK ON THE OAKCREST AVE. BRIDGE OVER SR-11, IN AUSTINTOWN TOWNSHIP, MAHONING COUNTY, OHIO

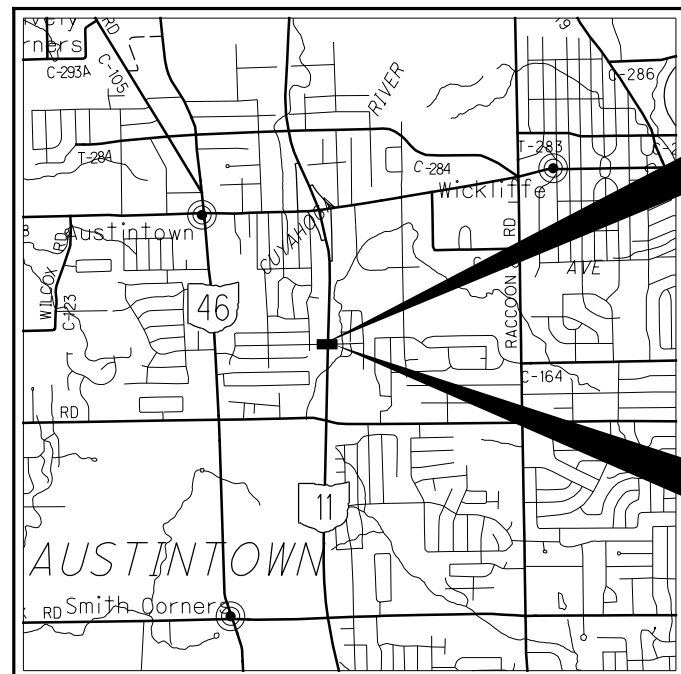
EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 0.38 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.25 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: NOT REQUIRED

2016 SPECIFICATIONS

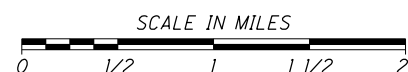
THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET .



LOCATION MAP

LATITUDE: N41°05'22" LONGITUDE: W80°45'06"



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

DESIGN DESIGNATION

CURRENT YEAR ADT (2018)..... <400
DESIGN YEAR ADT (2038) <400
DESIGN HOURLY VOLUME (2038)..... N/A
DIRECTIONAL DISTRIBUTION..... 50%
TRUCKS (24 HOUR B & C)..... N/A
DESIGN SPEED..... 25 MPH
LEGAL SPEED..... 25 MPH
DESIGN FUNCTIONAL CLASSIFICATION:..... 07 LOCAL ROAD
NHS PROJECT..... NO

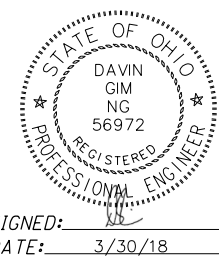
DESIGN EXCEPTIONS

NONE REQUIRED

PLAN PREPARED BY:



ENGINEERS SEAL:



STANDARD CONSTRUCTION DRAWINGS

STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS			
BP-3.1	7/18/14	MT-95.30	7/21/17	TC-41.20	10/18/13	800	7/21/17	
BP-5.1	7/19/13	MT-95.45	7/21/17	TC-41.30	10/18/13	821	4/20/12	
		MT-97.10	7/18/14	TC-42.20	10/18/13	832	1/17/14	
DM-4.3	1/15/16	MT-97.11	1/20/17	TC-52.10	10/18/13	921	4/20/12	
DM-4.4	1/15/16	MT-98.10	1/20/17	TC-52.20	7/21/17			
		MT-98.11	1/20/17					
F-1.1	7/19/13	MT-99.20	7/21/17					
F-2.1	7/19/13	MT-99.60	7/15/16					
F-3.1	7/19/13	MT-101.60	1/20/17					
		MT-101.70	1/17/14					
AS-1-15	7/17/15	MT-101.75	7/15/16					
AS-2-15	7/17/15	MT-102.20	7/18/14					
BR-2-15	7/17/15	MT-105.10	7/19/13					
GSD-1-96	7/19/02							
SICD-1-96	7/18/14							
SICD-2-14	7/18/14							
VPF-1-90	7/17/15							

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG.

Call Before You Dig
1-800-362-2764
(Non-members must be called directly)

OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE
1-800-925-0988

AS-BUILT DRAWINGS
12/7/18

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FEDERAL PROJECT NO. **E161 (368)**
PID NO. **103014**
CONSTRUCTION PROJECT NO. **17-3018**
RAILROAD INVOLVEMENT **NONE**
MAH-11-13.41
1/34

BALLOON LEGEND

- (AB-#) ABANDON
- (B-#) CONCRETE BARRIER
- (BR-#) CONCRETE BARRIER REMOVED
- (D-#) CATCH BASINS, MANHOLES AND INLETS
- (DJ-#) CATCH BASINS, MANHOLES AND INLETS ADJUSTED/RECONSTRUCTED TO GRADE
- (DR-#) CATCH BASINS, MANHOLES AND INLETS REMOVED
- (DV-#) DRIVEWAYS
- (E-#) EROSION CONTROL
- (EX-#) EXISTING CATCH BASINS, MANHOLES AND INLETS
- (F-#) FENCE
- (FP-#) FILL & PLUG
- (FR-#) FENCE REMOVED
- (G-#) GUARDRAIL
- (GR-#) GUARDRAIL REMOVED
- (L-#) LIGHTING
- (LR-#) LIGHTING REMOVALS
- (LS-#) LANDSCAPING
- (P-#) DRAINAGE PIPES
- (PR-#) PIPES REMOVED
- (R-#) MISCELLANEOUS REMOVALS
- (SA-#) SANITARY MANHOLE
- (SJ-#) SANITARY STRUCTURE ADJUSTED/RECONSTRUCTED TO GRADE
- (SL-#) SANITARY LATERAL
- (SM-#) SEEDING AND MULCHING
- (SP-#) SANITARY PIPE
- (SR-#) SANITARY REMOVAL
- (U-#) UNDERDRAINS
- (W-#) WATER WORK
- (WJ-#) WATER WORK ADJUSTED TO GRADE
- (WR-#) WATER WORK REMOVALS

EXISTING UTILITY SYMBOL LEGEND

- | | |
|--------------------------|----------------------------------|
| ⋈ = Guy Pole | ⊕ = Water Valve |
| ⚑ = Flag Pole | (W) = Water Manhole |
| ⊕ = Utility Pole | ⊕ = Water Well |
| ⊕ = Power Pole | ⊕ = Water Meter |
| ⚡ = Yard Light | ⊕ = Water Spigot / Tap |
| ∞ = Parking Meters | ⊕ = Cistern |
| • = Parking Meter | • = Sprinkler |
| ⊕ = Air Condition Unit | ⊕ = Sprinkler Control Box |
| ↓ = Guy Wire w/Anchor | ⊕ = Monitoring Well |
| ⊕ = Light Pole | ⊕ = Cable TV Pole |
| ⊕ = Light Pedestal | ⊕ = Cable TV Marker Post |
| ⊕ = Electric Marker Post | ⊕ = Cable TV Pedestal |
| ⊕ = Electric Meter | ⊕ = Telephone Pole |
| ⊕ = Electric Transformer | ⊕ = Telephone Marker Post |
| ⊕ = Electric Pedestal | ⊕ = Telephone Pedestal |
| ⊕ = Electric Tower | ⊕ = Telephone Booth/or Drive-Up |
| ⊕ = Electric Outlet | ⊕ = Traffic Lighting Control Box |
| ⊕ = Electric Pull Box | ⊕ = Traffic Lighting Pull Box |
| ⊕ = Electric Manhole | ⊕ = Sign |
| ⊕ = Gas Valve | ⊕ = Curb Inlet |
| ⊕ = Gas Service | ⊕ = Catch Basin |
| ⊕ = Gas Marker Post | ⊕ = Cleanout |
| ⊕ = Gas Meter/ Regulator | ⊕ = Sanitary Manhole |
| ⊕ = Tank (Gas, Propane) | ⊕ = Storm Manhole |
| ⊕ = Fire Hydrant | ⊕ = Telephone Manhole |

PROPOSED UTILITY SYMBOL LEGEND

- ▣ = Proposed Catch Basins
- ⊕ = Proposed Manhole
- ⊕ = Manhole Adjusted To Grade
- = Proposed Exfiltration Trench
- ⊕ = Proposed Water Valve
- ⊕ = Proposed Fire Hydrant
- ⊕ = Sanitary Manhole Adjusted To Grade
- ⊕ = Proposed Traffic Pullbox
- = Proposed Conventional Luminaire
- = Proposed Lighting Pullbox
- ⊕ = Proposed Decorative Luminaire
- ⊕ = Proposed Signal Pole Pedestal
- ⊕ = Proposed Signal Pole
- ⊕ = Test Hole location

UTILITY LINE LEGEND

- | | |
|------------------------------|-------------------------------|
| — W — = Water Line | — P — = Propane Line |
| — G — = Gas Line | — T — = Underground Telephone |
| — SAN — = Sanitary Line | — D — = Diesel |
| — E — = Underground Electric | — CATV — = Cable TV. |
| | — TR — = Signal Wiring |

**AS-BUILT
DRAWINGS
12 / 7 / 18**

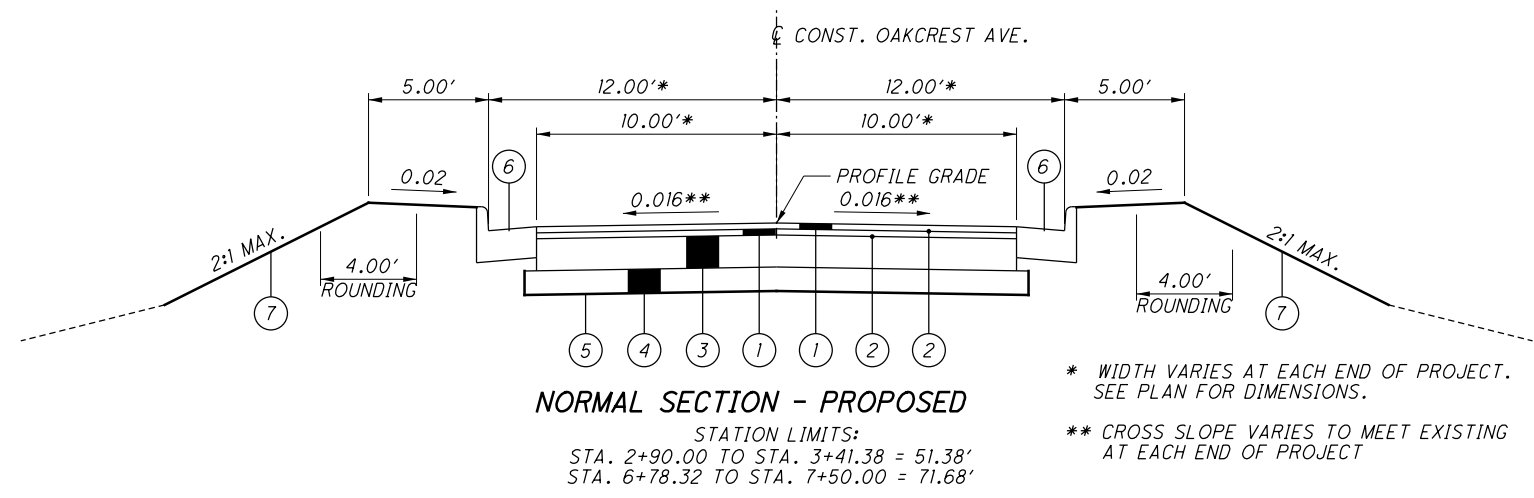
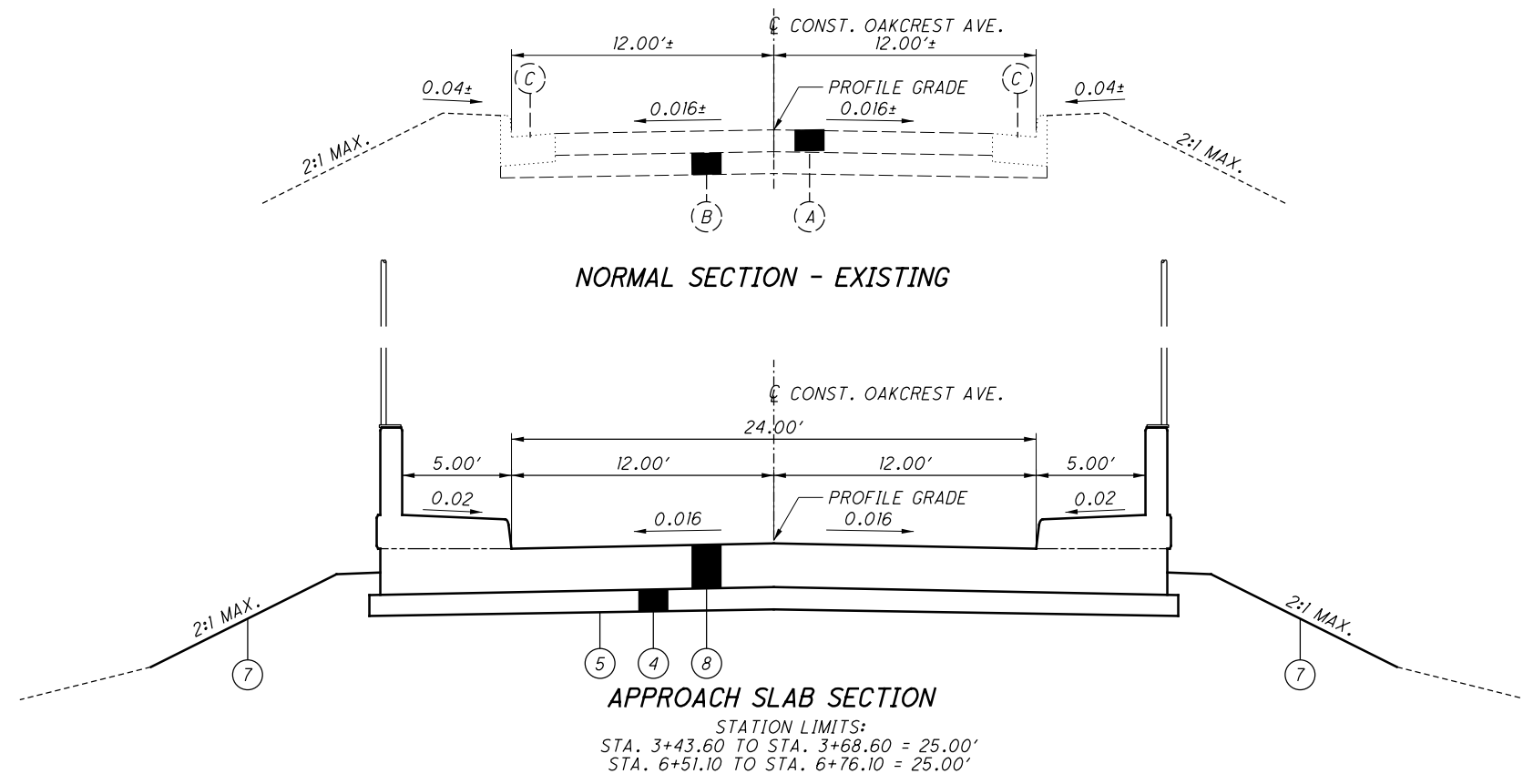
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PLAN LEGEND

MAH-11-13.41

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LEGEND

- | | |
|--|---|
| (1) ITEM 441 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG64-22 | (A) EXISTING ASPHALT PAVEMENT (T=6"± ESTIMATED) |
| (2) ITEM 407 - NON-TRACKING TACK COAT (0.04 GAL/S.Y.) | (B) EXISTING AGGREGATE BASE (T=6"± ESTIMATED) |
| (3) ITEM 301 - 8" ASPHALT CONCRETE BASE, PG64-22 | (C) EXISTING TYPE 2 CURB & GUTTER |
| (4) ITEM 304 - 6" AGGREGATE BASE, AS PER PLAN | |
| (5) ITEM 204 - SUBGRADE COMPACTION | |
| (6) ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 2 | |
| (7) ITEM 659 - SEEDING AND MULCHING | |
| (8) ITEM 526 - REINFORCED CONCRETE APPROACH SLAB (T=15") | |

AS-BUILT DRAWINGS
 12 / 7 / 18

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GENERAL

UTILITIES

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

ARMSTRONG CABLE
ATTN: GENO SHONCE
9328 WOODWORTH ROAD
NORTH LIMA, OH 44452
330-726-0115 EXT. 224

DOMINION EAST OHIO
ATTN: BRYAN D. DAYTON
320 SPRINGSIDE DRIVE, SUITE 320
AKRON, OH 44333
OFFICE: 330-664-2409

OHIO EDISON
ATTN: MIKE BECK
730 SOUTH AVENUE
YOUNGSTOWN, OH 44502
330-740-7704 EXT. 7704

AT&T
THE OHIO BELL TELEPHONE COMPANY
ATTN: HAROLD MAYNARD
50 W. BOWERY ST.
6TH FLOOR
AKRON, OH 44308
330-384-8974

MAHONING COUNTY SANITARY ENGINEER
ATTN: PAT GINNETTI, P.E., P.S.
761 INDUSTRIAL ROAD
YOUNGSTOWN, OH 44509
330-793-5514 EXT: 8209

YOUNGSTOWN WATER DEPARTMENT
ATTN: GENE LESON
160 N. WEST AVE
YOUNGSTOWN, OH 44503
330-743-5338

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.

THE UNDERGROUND UTILITIES ON THIS PLAN HAVE BEEN LOCATED BY USING A SUBSURFACE UTILITY ENGINEERING COMPANY [SUE]. IF THERE ARE ANY DISCREPANCIES BETWEEN FIELD MARKINGS AND WHAT THE PLAN INDICATES, PLEASE CONTACT SO-DEEP AT 330-794-4455 PRIOR TO ANY SUBSURFACE WORK BEING INITIATED.

SURVEY PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 9 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

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

PROJECT CONTROL

CONTROL POINTS WERE ESTABLISHED BY ODOT FOR THIS PROJECT.

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: GEOID 2012a

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD 83 (2011) (EPOCH: 2010.0000)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE NORTH ZONE (3401)
COMBINED SCALE FACTOR: 0.99988988790
ORIGIN OF SCALE (X,Y) - EASTING (X): 0, NORTHING (Y): 0

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

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

PLANS ARE IN GROUND COORDINATES

ASBESTOS NOTIFICATION

AN ASBESTOS SURVEY OF BRIDGE NO. MAH-11-1341 (SFN #5000696) ALONG OAKCREST DRIVE FOR DECK REPLACEMENT WAS CONDUCTED BY A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST. THE SURVEY DETERMINED THAT NO ASBESTOS IS PRESENT ON THE BRIDGE STRUCTURE.

A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORMS, PARTIALLY COMPLETED AND SIGNED BY THE BRIDGE OWNER, WILL BE PROVIDED TO THE SUCCESSFUL BIDDER. THE CONTRACTOR SHALL COMPLETE THE FORM AND SUBMIT IT TO:

TARA CIOFFI
MAHONING-TRUMBULL APCA (YOUNGSTOWN) OAKHILL RENAISSANCE PLACE
345 OAK HILL AVE., SUITE 200
YOUNGSTOWN, OH 44502
(330) 743-3333 EXT. 283 (330) 744-1928 FAX

AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION AND/OR REHABILITATION. THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED FORM TO THE ENGINEER. INFORMATION REQUIRED ON THE FORM WILL INCLUDE:

- 1) THE CONTRACTORS NAME AND ADDRESS,
- 2) THE SCHEDULED DATES FOR THE START AND COMPLETION OF THE BRIDGE REMOVAL AND
- 3) A DESCRIPTION OF THE PLANNED DEMOLITION WORK AND THE METHOD(S) TO BE USED.

A COPY OF THE OEPA FORM IS AVAILABLE FOR INSPECTION AT THE ODOT DISTRICT 4 OFFICE, 2088 SOUTH ARLINGTON, AKRON, OHIO 44306

ENDANGERED SPECIES HABITAT-INDIANA BAT/NORTHERN LONG-EARED BAT

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR CUT/REMOVE ANY TREES PRIOR TO OR DURING PROJECT CONSTRUCTION. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE (3) INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

PRIOR TO ANY BRIDGE REMOVAL ACTIVITIES, THE UNDERSIDE OF THE EXISTING MAH-11-13.41; SFN: 5000696 BRIDGE SHALL BE CAREFULLY EXAMINED FOR THE PRESENCE OF BATS, ESPECIALLY FROM APRIL 1 TO SEPTEMBER 30. IF ANY BATS ARE FOUND ROOSTING ON THE UNDERSIDE OF THE BRIDGE, THE UNITED STATES FISH AND WILDLIFE SERVICE, ECOLOGICAL SERVICE DIVISION (614- 416-8993), THE ODOT OFFICE OF ENVIRONMENTAL SERVICES (614-466-7880) AND ODOT DISTRICT 4 ENVIRONMENTAL SECTION (330-786-4930) SHALL BE CONTACTED TO PROVIDE THIS INFORMATION.

BEST MANAGEMENT PRACTICES/SOIL EROSION AND SEDIMENTATION CONTROL

WATER COLUMN AND SEDIMENTATION IMPACTS SHALL BE KEPT TO A MINIMUM THROUGH THE USE OF BEST MANAGEMENT PRACTICES FOR SOIL EROSION AND SEDIMENTATION CONTROL. ALL SOIL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY EXCAVATION, GRADING OR FILLING OPERATIONS AND INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES. THEY SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND THE AREA IS STABILIZED AS ACCEPTED BY THE ENGINEER. THESE SHALL COMPLY WITH ODOT'S HANDBOOK FOR SEDIMENT AND EROSION CONTROL, WHICH MAY BE FOUND AT: [HTTP://WWW.DOT.STATE.OH.US/DRRC/](http://www.dot.state.oh.us/drrc/)

AREAS DISTURBED BY EQUIPMENT ACTIVITIES

AREAS DISTURBED BY CONSTRUCTION ACTIVITIES MUST BE SEEDED WITH AN APPROPRIATE PRAIRIE SEED MIX AND MULCHED DURING CONSTRUCTION TO ENCOURAGE ESTABLISHMENT OF BENEFICIAL VEGETATIVE COVER FOR POLLINATORS AND DECREASE OR PREVENT THE EROSION OF SEDIMENTS INTO WATERS OF THE UNITED STATES.

CONSTRUCTION AND DEMOLITION DEBRIS:

THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO AVOID AND/OR LIMIT CONSTRUCTION AND DEMOLITION DEBRIS FROM ENTERING WETLANDS, STREAMS AND OTHER WATERS OF THE UNITED STATES (REGULATED DITCHES, ETC.). ANY DEBRIS THAT DOES FALL INTO THESE WATERS OF THE UNITED STATES SHALL BE REMOVED AS SOON AS POSSIBLE WITHIN 72 HOURS.

STRUCTURE PAINTING/CONCRETE SEALING OPERATIONS:

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT EPOXY-URETHANE SEALER, PAINT OR OTHER MATERIALS USED TO REPAIR, CLEAN, PAINT, SEAL OR TREAT ANY STRUCTURE FROM ENTERING ANY STREAMS, WETLANDS OR OTHER WATERS OF THE UNITED STATES AND TAKE THE APPROPRIATE ACTIONS IN THE EVENT OF A RELEASE.

STREAM/DITCH AVOIDANCE:

NO EXCAVATION, GRADING OR FILLING OPERATIONS SHALL BE PERFORMED IN THE STREAMS AND REGULATED DITCH DEPICTED IN THE ECOLOGICAL RESOURCES MAP LOCATED IN ATTACHMENT F OF THE DESIGN-BUILD SCOPE. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE CONSTRUCTION EQUIPMENT AND/OR MATERIALS IN THESE RESOURCES. TO PROTECT AND DELINEATE THE BOUNDARY OF THE EXISTING STREAMS AND REGULATED DITCH ADJACENT TO AND UNDERNEATH THE OAKCREST DRIVE BRIDGE, A FILTER FABRIC FENCE AND TEMPORARY CONSTRUCTION FENCE, PER SUPPLEMENTAL SPECIFICATION 832, SHALL BE INSTALLED AT THE PROPOSED CONSTRUCTION LIMITS BY THE CONTRACTOR PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES, INCLUDING ANY NECESSARY CLEARING AND GRUBBING ACTIVITIES, AND MAINTAINED BY THE CONTRACTOR THROUGHOUT PROJECT CONSTRUCTION. ADDITIONALLY, THE STREAMS AND REGULATED DITCH SHALL BE IDENTIFIED ON THE PROJECT PLANS ACCORDING TO THE ECOLOGICAL RESOURCES MAP AND SHALL BE LABELED "DO NOT DISTURB" TO ENSURE COMPLIANCE WITH ALL APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS.

ROUNDING

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

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.

ITEM 304 - AGGREGATE BASE, AS PER PLAN

GRANULATED SLAG (GS) SHALL NOT BE PERMITTED FOR THIS ITEM. ALL OTHER REQUIREMENTS OF SECTIONS 304 AND 703.17 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL STILL BE APPLICABLE.

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

703.05 DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL BE ADVISED THAT PROJECT MAH-11-8.46, PID: 84658, MAY BE ONGOING IN AN AREA IMMEDIATELY ADJACENT TO AND WITHIN THE PROJECT LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL SCHEDULE THEIR WORK SO AS TO CAUSE A MINIMUM OF DELAY OR CONFLICT WITH THE OTHER PROJECT. IN ACCORDANCE WITH 105.08, THE CONTRACTOR SHALL ARRANGE WITH THE OTHER CONTRACTORS APPROVAL OF THE ENGINEER PRIOR TO COMMENCING ANY OPERATIONS. ANY CONFLICT BETWEEN CONTRACTORS SHALL BE RESOLVED BY THE ENGINEER. COMPENSATION FOR THE ABOVE COOPERATION SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS INCLUDED WITHIN THIS PROJECT.

**AS-BUILT
DRAWINGS
12 / 7 / 18**

CALCULATED
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GENERAL NOTES

MAH-11-13.41

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ITEM 614 - MAINTAINING TRAFFIC

THIS ITEM SHALL CONSIST OF THE MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (OMUTCD), CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED ON SR-II AT ALL TIMES BY USE OF THE EXISTING PAVEMENT.
2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330-786-2208), EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.
3. TRUCK MOUNTED ATTENUATORS [TMA'S] SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.
4. ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.
5. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.
6. ALL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS SHALL BE COMPLETED THE SAME DAY THE EXCAVATION IS MADE. IF THE CONTRACTOR CANNOT COMPLETE THE WORK, THE EXCAVATION SHALL BE BACKFILLED OR PROTECTED AS PER STANDARD CONSTRUCTION DRAWING MT-101.90.
7. ONLY DURING OFF-PEAK HOURS (ie ANY PERIOD OTHER THAN 6:00-8:00 AM AND 3:00-6:00 PM) SHALL THE CONTRACTOR INSTALL OR SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR EACH WORK ZONE.
8. ALL WORK ZONE PAVEMENT MARKINGS ARE TO BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL ITEMS REQUIRED BY THE OMUTCD, THE STANDARD CONSTRUCTION DRAWINGS, THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE PROPOSAL AND THE SCOPE OF SERVICES WILL BE INCLUDED IN THE LUMP SUM PAYMENT FOR ITEM 614, MAINTAINING TRAFFIC AND WILL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE REQUIRED WORK.

ITEM 614 - MAINTAINING TRAFFIC (TIME LIMITATION ON THE OAKCREST AVENUE DETOUR)

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON OAKCREST AVENUE, EXCEPT FOR A PERIOD NOT TO EXCEED 60 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 7.

MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE.

NOTICE OF CLOSURE SIGN TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO OFFICE OF COMMUNICATIONS
ROAD CLOSURE	>= 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

ROAD WILL BE CLOSED MAY 14* FOR 365* DAYS
INFO: 330-786-2208

W20-H13-60

*CONTRACTOR SHALL USE ACTUAL CLOSURE DATE AND DURATION.

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

COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR SHALL BE ADVISED THAT PROJECT MAH-11-8.46, PID: 84658, MAY BE ONGOING IN AN AREA IMMEDIATELY ADJACENT TO AND WITHIN THE PROJECT LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL SCHEDULE THEIR WORK SO AS TO CAUSE A MINIMUM OF DELAY OR CONFLICT WITH THE OTHER PROJECT. IN ACCORDANCE WITH 105.08, THE CONTRACTOR SHALL ARRANGE WITH THE OTHER CONTRACTORS APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL RECEIVE DAILY APPROVALS FROM THE ENGINEER PRIOR TO COMMENCING ANY OPERATIONS. ANY CONFLICT BETWEEN CONTRACTORS INVOLVING WORK SCHEDULES, WORK AREA, OR COOPERATION SHALL BE RESOLVED BY THE ENGINEER. COMPENSATION FOR THE ABOVE COOPERATION SHALL BE INCIDENTAL TO THE VARIOUS PAY ITEMS INCLUDED WITHIN THIS PROJECT.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THIS ITEM OF WORK IS INCLUDED IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

SR-II LANE CLOSURES

DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AS PER THE PERMITTED LANE CLOSURE CHART. THE PERMITTED LANE CLOSURE CHART USED FOR THIS PROJECT SHALL BE THE MOST CURRENT CHART AVAILABLE ON THE DATE THIS PROJECT SELLS.

THE CHART CAN BE FOUND AT: <http://plcm.dot.state.oh.us>

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THE REQUIREMENTS IN THE CHART, THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES IN THE AMOUNT OF \$5000 PER HOUR OR PORTION THEREOF THAT THE LANE REDUCTION REMAINS BEYOND THE SPECIFIED LIMIT.

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 TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). 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 OFFICE OF COMMUNICATIONS
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.

BRIDGE PAINTING EQUIPMENT ON SHOULDERS

IF BRIDGE PAINTING EQUIPMENT IS TO REMAIN ON THE SHOULDERS WHEN THE CONTRACTOR IS NOT WORKING, IT SHALL BE PLACED BEHIND PORTABLE CONCRETE BARRIER (PCB) AND A WORK ZONE IMPACT ATTENUATOR (WZIA) SHALL PROTECT THE LEADING BLUNT END OF THE PCB (SEE OMUTCD, FIGURE 6H-5 "SHOULDER CLOSURE ON FREEWAY" (TYPICAL APPLICATION 5)). IF THE CONTRACTOR CHOOSES TO PROTECT PAINTING EQUIPMENT WITH PCB AND A WZIA, THE COST SHALL BE CONSIDERED INCIDENTAL TO THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

AS-BUILT DRAWINGS
12 / 7 / 18

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 OMTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMTCD, 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:

1. DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
2. 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). IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH 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 ENGINEER. 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.

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. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. 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 WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A PORTABLE 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 DISTANCE OF 650 FEET AND 475 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. PCMS TRAILERS SHOULD BE DELINEATED ON A PERMANENT BASIS BY AFFIXING RETROREFLECTIVE MATERIAL, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

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 PCMS SHOULD NOT BE LOCATED IN THE MEDIAN OF THE HIGHWAY UNLESS IT IS PROTECTED FROM BOTH DIRECTIONS OF TRAFFIC. 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 THE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS WILL BE OFF. ADDITIONALLY WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED, FACING AWAY FROM ALL TRAFFIC AND SHALL DISPLAY ONE OR MORE TYPE G YELLOW REFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE 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 CONTRACTOR. A LIST OF ALL PROPOSED PREPROGRAMMED MESSAGES WILL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION. 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 OF 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, DE-ACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

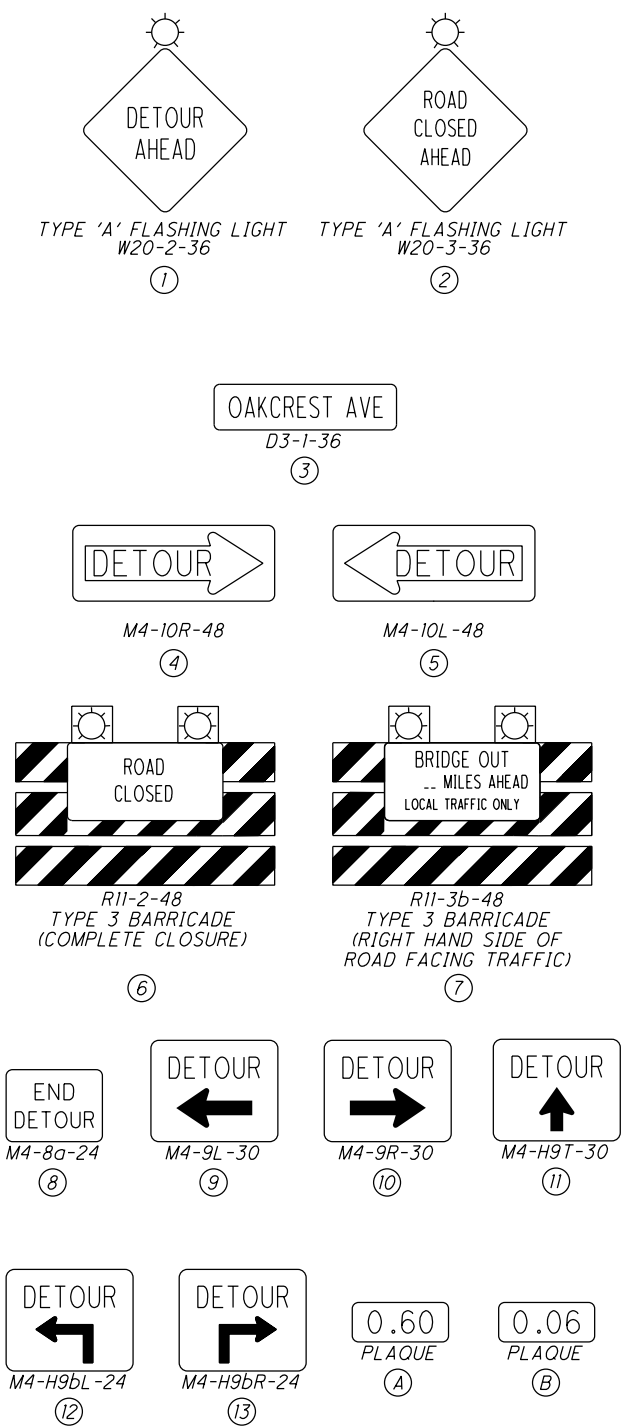
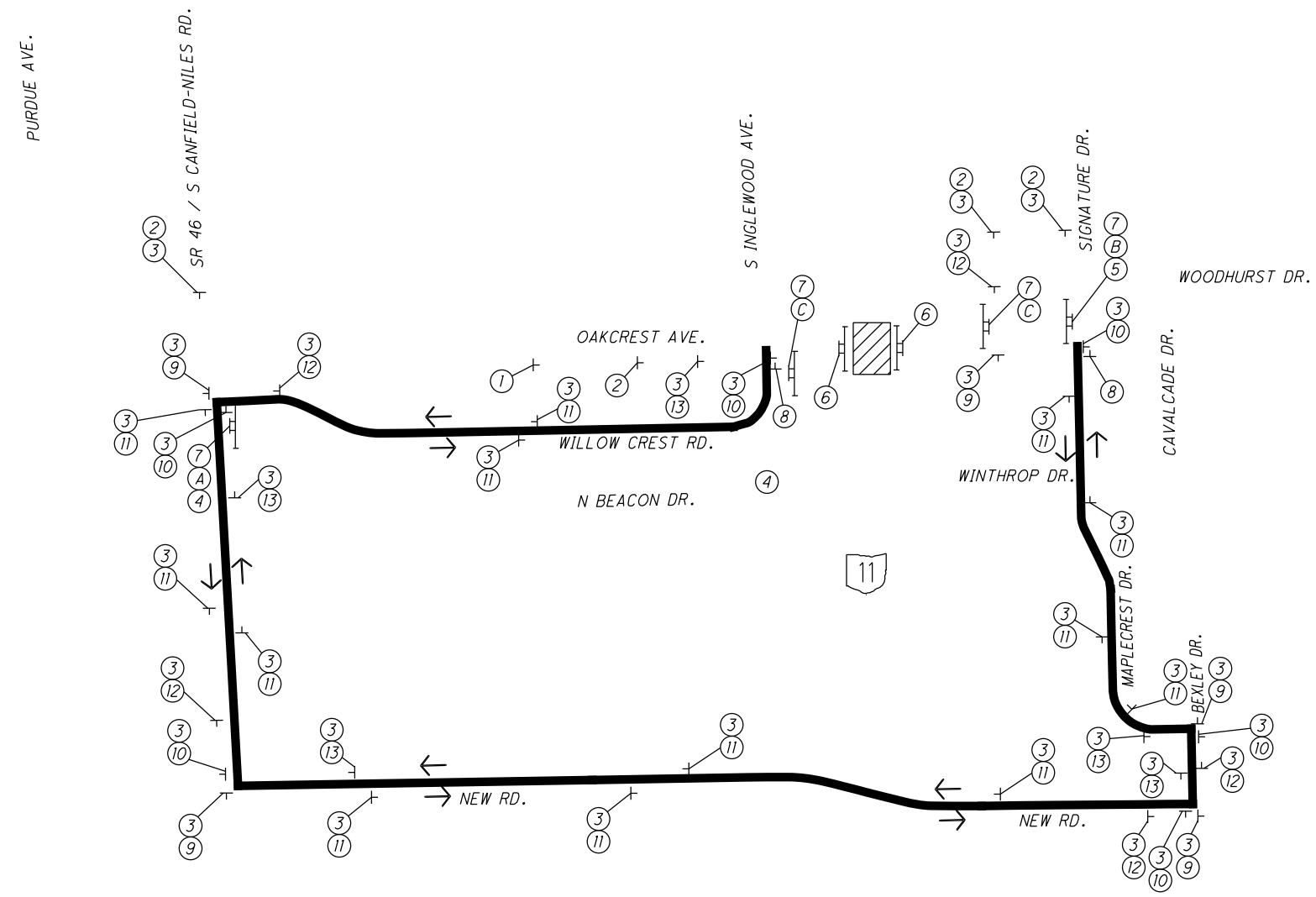
THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL [IN ACTIVE CELLULAR AREAS] ALLOW REMOTE SIGN ACTIVATION, DEACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES.

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN (CONTINUED)

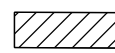
THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF 614. THE CONTRACTOR SHALL PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT 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 WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.


THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24 HOURS PER DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THEIR USE. THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN AND REMOVE A PCMS UNIT ON THIS PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES AS OUTLINED IN 614.02.

**AS-BUILT
DRAWINGS
12/7/18**







DETOUR ROUTE FOR STRUCTURE MAH-11-13.41 REPLACEMENT

 CLOSE STRUCTURE MAH-11-13.41 PER STANDARD CONSTRUCTION DRAWING MT-101.60.

 OFFICIAL DETOUR ROUTE:
S. INGLEWOOD AVENUE / WILLOWCREST DRIVE / SR 46 / NEW ROAD / BEXLEY DRIVE / MAPLECREST DRIVE / SIGNATURE DRIVE



AS-BUILT DRAWINGS
12 / 7 / 18

LEGEND	
	SIGN
	TYPE 3 BARRICADE
	CLOSED ROADWAY
	DETOUR ROUTE

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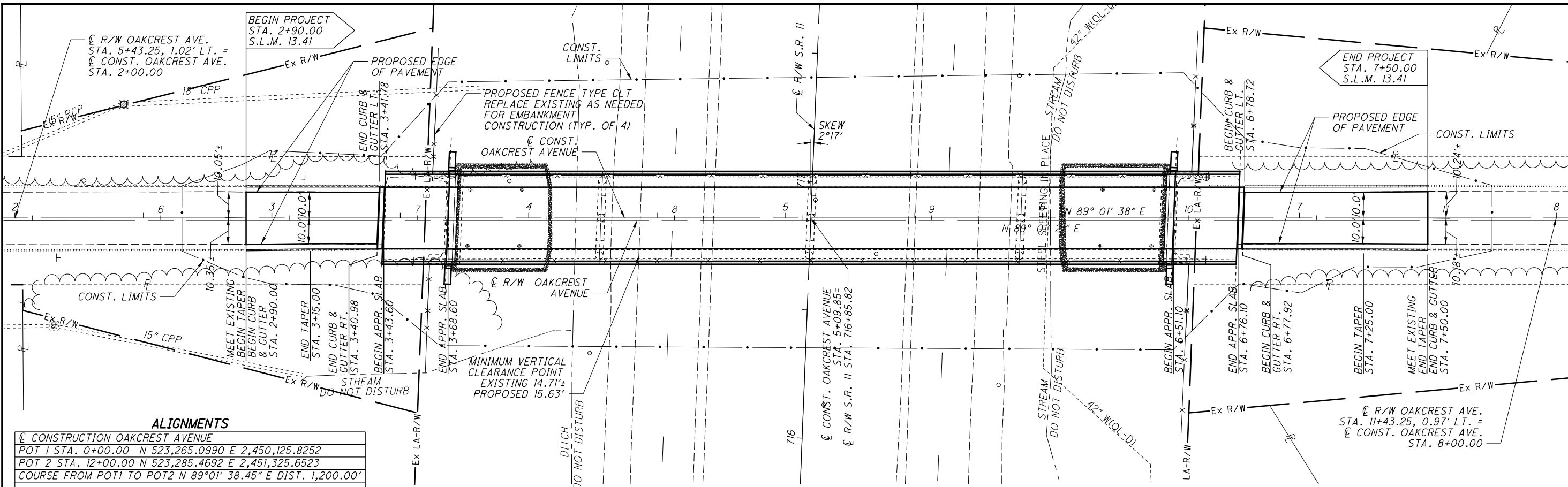
SHEET NUM.										PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	CALCULATED	CLH	CHECKED	PJF
																	ROADWAY					
													202	23000	478	SY	PAVEMENT REMOVED, INCLUDING APPROACH SLABS					
													202	32500	246	FT	CURB AND GUTTER REMOVED					
													203	10000	141	CY	EXCAVATION					
													203	20000	257	CY	EMBANKMENT					
													204	10000	563	SY	SUBGRADE COMPACTION					
													204	45000	0.3	HOUR	PROOF ROLLING					
													204	13000		CY	EXCAVATION OF SUBGRADE					
													204	30010		CY	GRANULAR MATERIAL, TYPE B					
													204	50000		SY	GEOTEXTILE FABRIC, 712.09, TYPE D					
													607	23000	100	FT	FENCE, TYPE CLT					
													861	10000		SY	GEOGRID FOR SUBGRADE STABILIZATION					
																	EROSION CONTROL					
													659	10000	673	SY	SEEDING AND MULCHING					
													832	30000	20,000	EACH	EROSION CONTROL					
																	TRAFFIC CONTROL					
													630	02100	59	FT	GROUND MOUNTED SUPPORT, NO. 2 POST					
													630	03100	28.9	FT	GROUND MOUNTED SUPPORT, NO. 3 POST					
													630	08600	1	EACH	SIGN POST REFLECTOR					
													630	80100	29.3	SF	SIGN, FLAT SHEET					
													630	84900	8	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL					
													630	86002	8	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL					
																	PAVEMENT					
													252	01500	41	FT	FULL DEPTH PAVEMENT SAWING					
													301	46000	61	CY	ASPHALT CONCRETE BASE, PG64-22					
													304	20001	93	CY	AGGREGATE BASE, AS PER PLAN				4	
													407	20000	11	GAL	NON-TRACKING TACK COAT					
													441	50101	23	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG64-22				4	
													609	12000	246	FT	COMBINATION CURB AND GUTTER, TYPE 2					
																	STRUCTURE OVER 20 FOOT SPAN (MAH-11-1341)					
																	INCIDENTALS					
													614	11000	LS		MAINTAINING TRAFFIC					
													619	16010	6	MNTH	FIELD OFFICE, TYPE B					
													623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING					
													624	10000	LS		MOBILIZATION					

GENERAL SUMMARY

MAH-11-13.41

**AS-BUILT
DRAWINGS
12 / 7 / 18**

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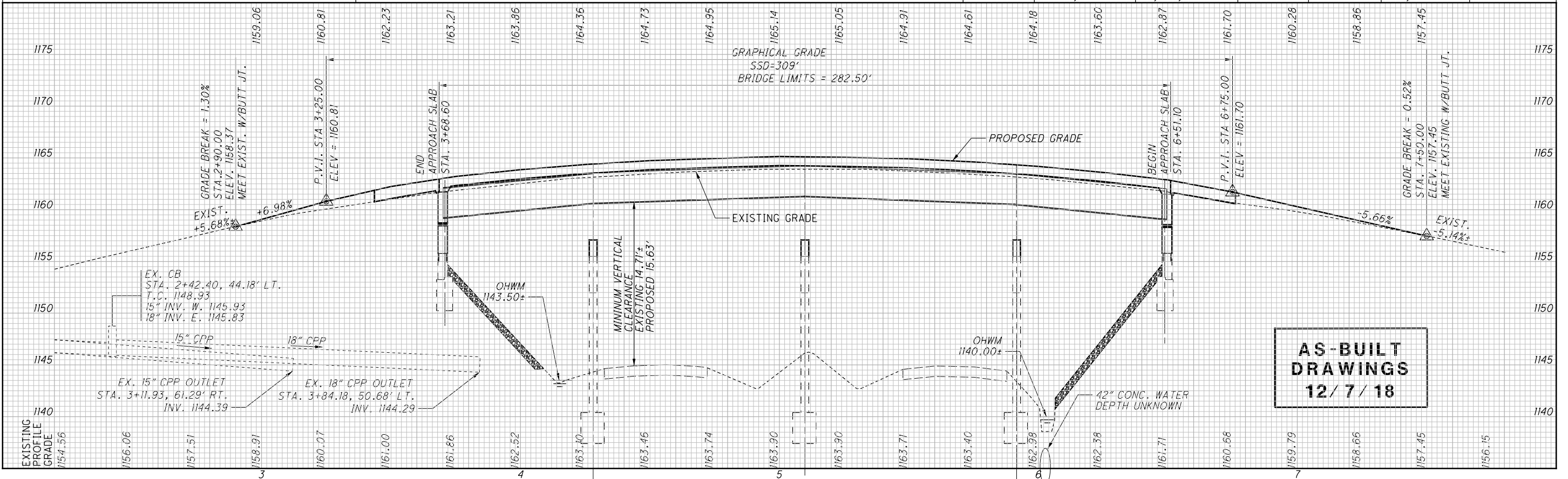


ALIGNMENTS

CONSTRUCTION OAKCREST AVENUE	
POT 1 STA. 0+00.00	N 523,265.0990 E 2,450,125.8252
POT 2 STA. 12+00.00	N 523,285.4692 E 2,451,325.6523
COURSE FROM POT 1 TO POT 2 N 89°01' 38.45" E DIST. 1,200.00'	
R/W OAKCREST AVENUE	
POT 1 STA. 0+00.00	N 523,258.2052 E 2,449,782.6451
PC STA. 15+89.22	N 523,285.3133 E 2,451,371.6356
COURSE FROM POT 1 TO PC N 89°01' 21.47" E DIST. 1,589.22'	
R/W S.R. II	
POT 3 STA. 661+66.51	N 517,755.8881 E 2,450,509.3544
POT 4 STA. 734+19.59	N 525,007.0711 E 2,450,675.2596
COURSE FROM POT 3 TO POT 4 N 18° 38.46" E DIST. 7253.08'	

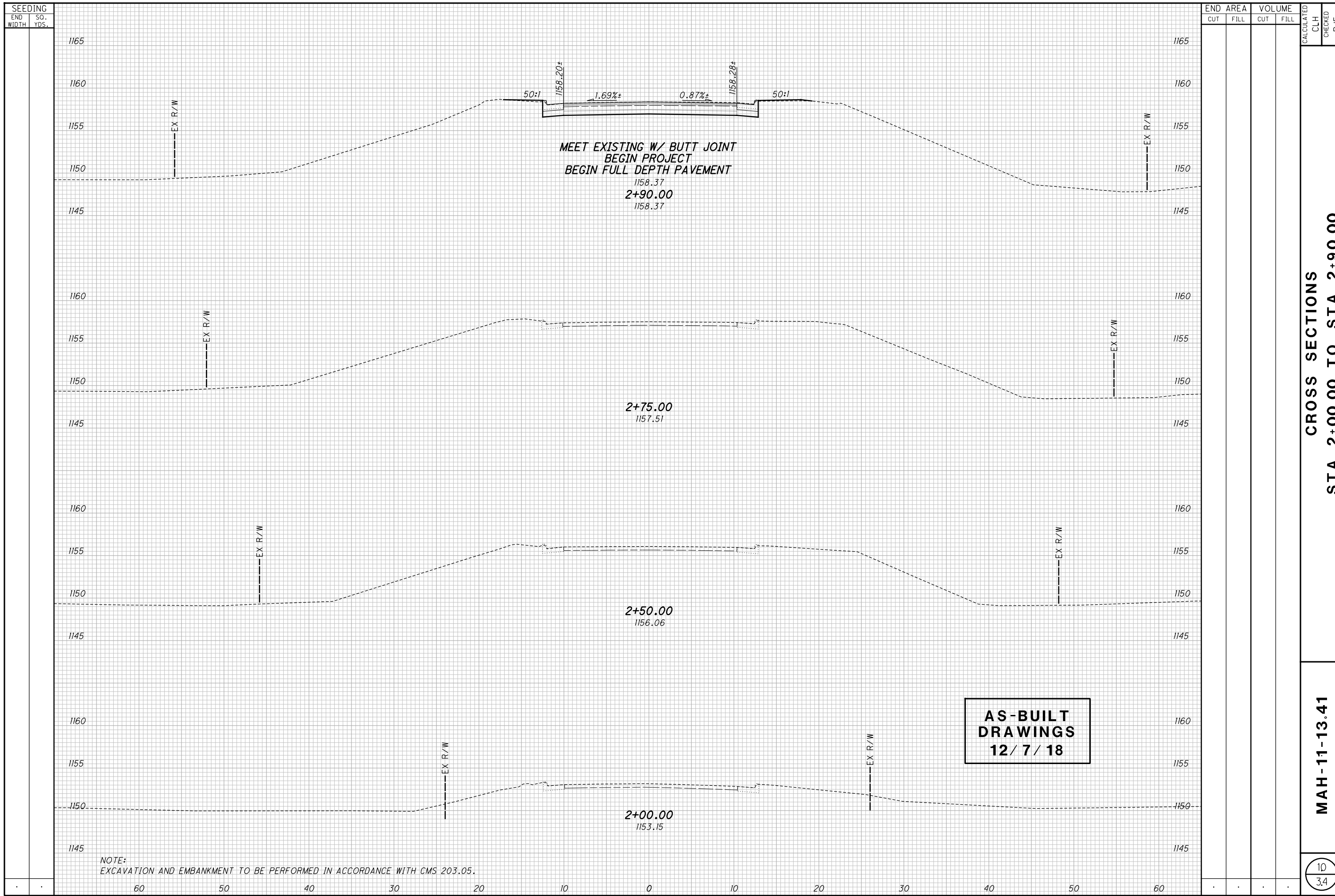
PROJECT CONTROL DATA

Point	North	East	Station	Offset	Elevation	Description
ODOTM710	522,588.4231	2,450,619.9474	4+82.56	684.97' RT.	1,147.93	CMON
ODOTM722	523,837.7843	2,450,648.5866	5+32.41	563.73' LT.	1,144.59	CMON
ODOTSV200	523,292.2611	2,450,789.2423	6+63.78	15.90' LT.	1,163.45	BM
ODOTSV201	523,294.8607	2,450,715.3212	5+89.92	19.75' LT.	1,147.09	BM
ODOTT10	523,290.9007	2,450,813.5665	6+88.08	14.12' LT.	1,160.41	IPINS
ODOTT20	523,479.7925	2,450,634.8126	5+12.56	206.02' LT.	1,145.00	IPINS
ODOTT30	523,254.4267	2,450,459.2137	3+33.16	16.33' RT.	1,160.59	IPINS



AS-BUILT DRAWINGS
 12/7/18

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CROSS SECTIONS
 STA. 2+00.00 TO STA. 2+90.00

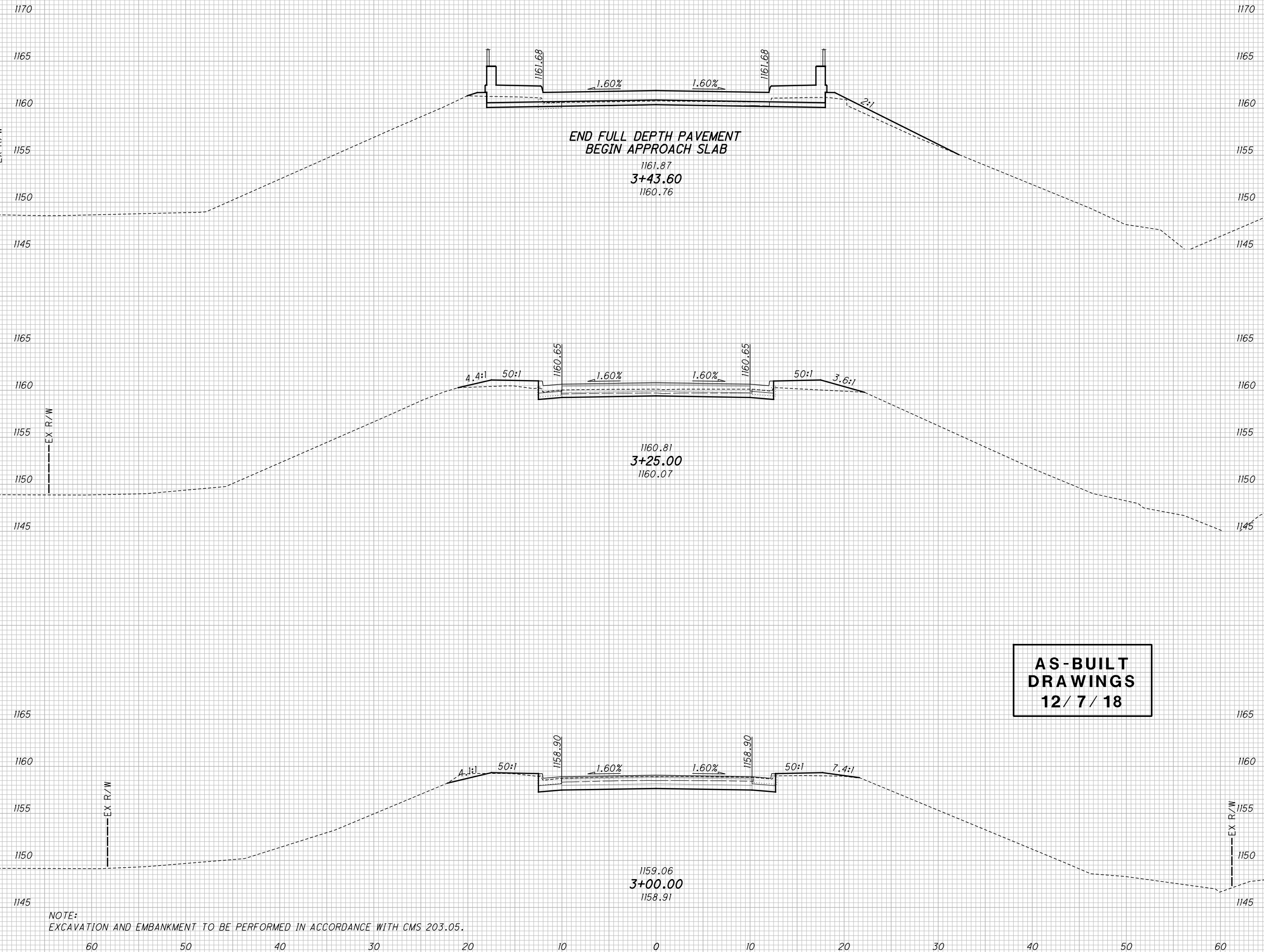
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SEEDING
 END SO.
 WIDTH YDS.

END AREA VOLUME
 CUT FILL CUT FILL
 CALCULATED
 CLH
 CHECKED
 PJF



NOTE:
 EXCAVATION AND EMBANKMENT TO BE PERFORMED IN ACCORDANCE WITH CMS 203.05.

CROSS SECTIONS
 STA. 3+00.00 TO STA. 3+43.60

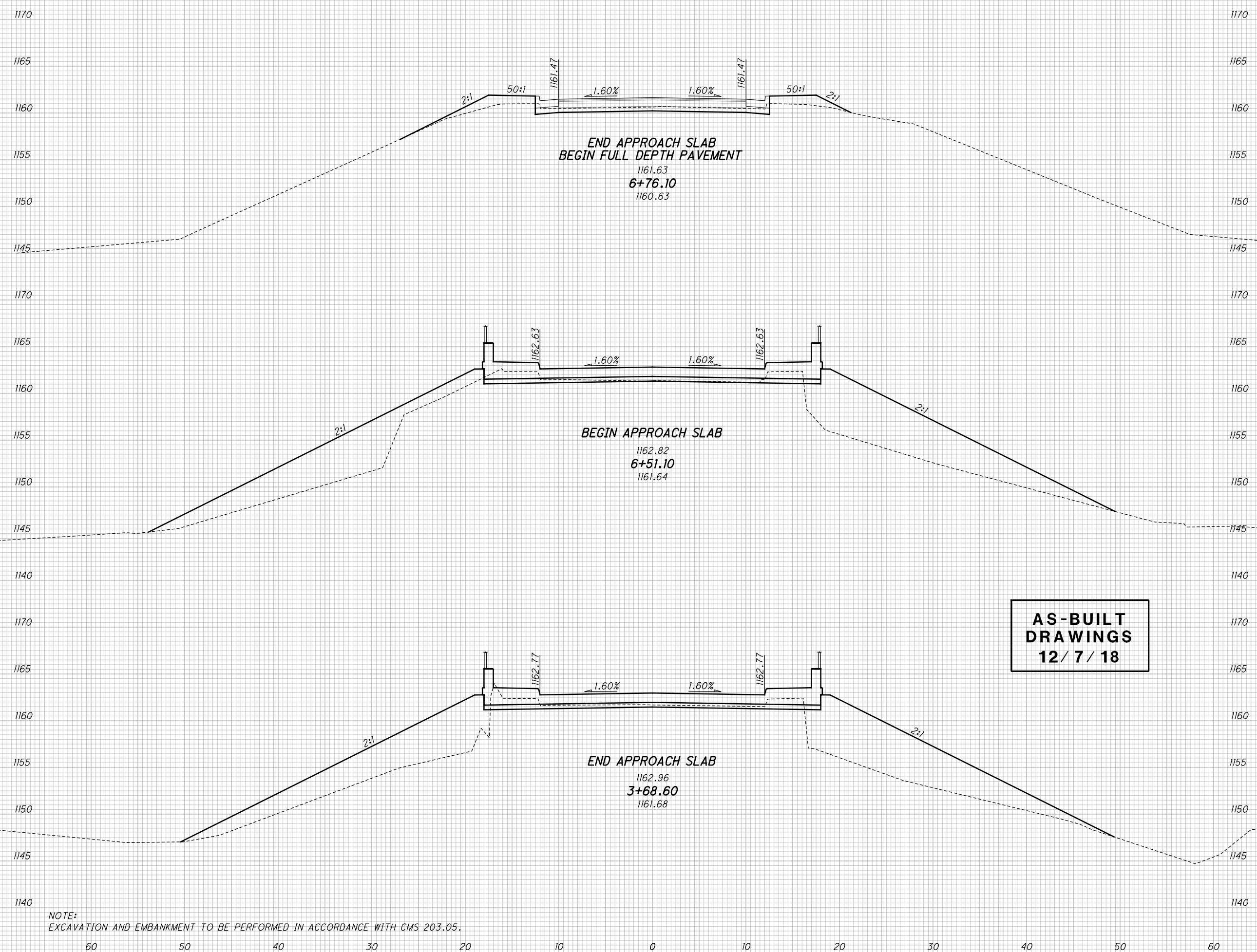
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SEEDING
 END SO.
 WIDTH YDS.

END AREA
 CUT FILL
 VOLUME
 CUT FILL
 CALCULATED
 CLH
 CHECKED
 PJF



NOTE:
 EXCAVATION AND EMBANKMENT TO BE PERFORMED IN ACCORDANCE WITH CMS 203.05.

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

**CROSS SECTIONS
 STA. 3+68.60 TO STA. 6+76.10**

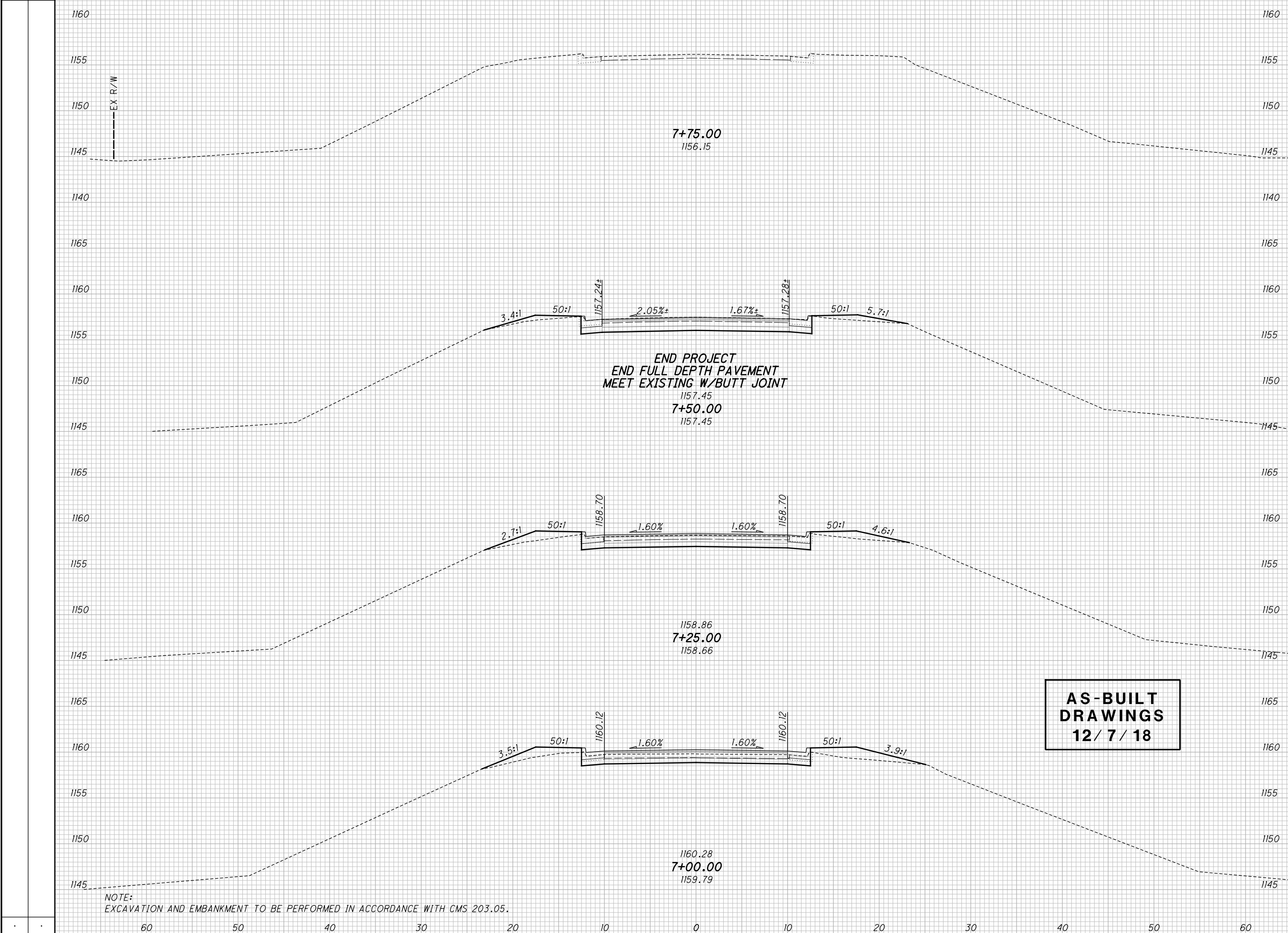
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SEEDING
 END SO.
 WIDTH YDS.

END AREA VOLUME
 CUT FILL CUT FILL
 CALCULATED
 CLH
 CHECKED
 PJF



NOTE:
 EXCAVATION AND EMBANKMENT TO BE PERFORMED IN ACCORDANCE WITH CMS 203.05.

CROSS SECTIONS
 STA. 7+00.00 TO STA. 7+75.00

MAH-11-13.41

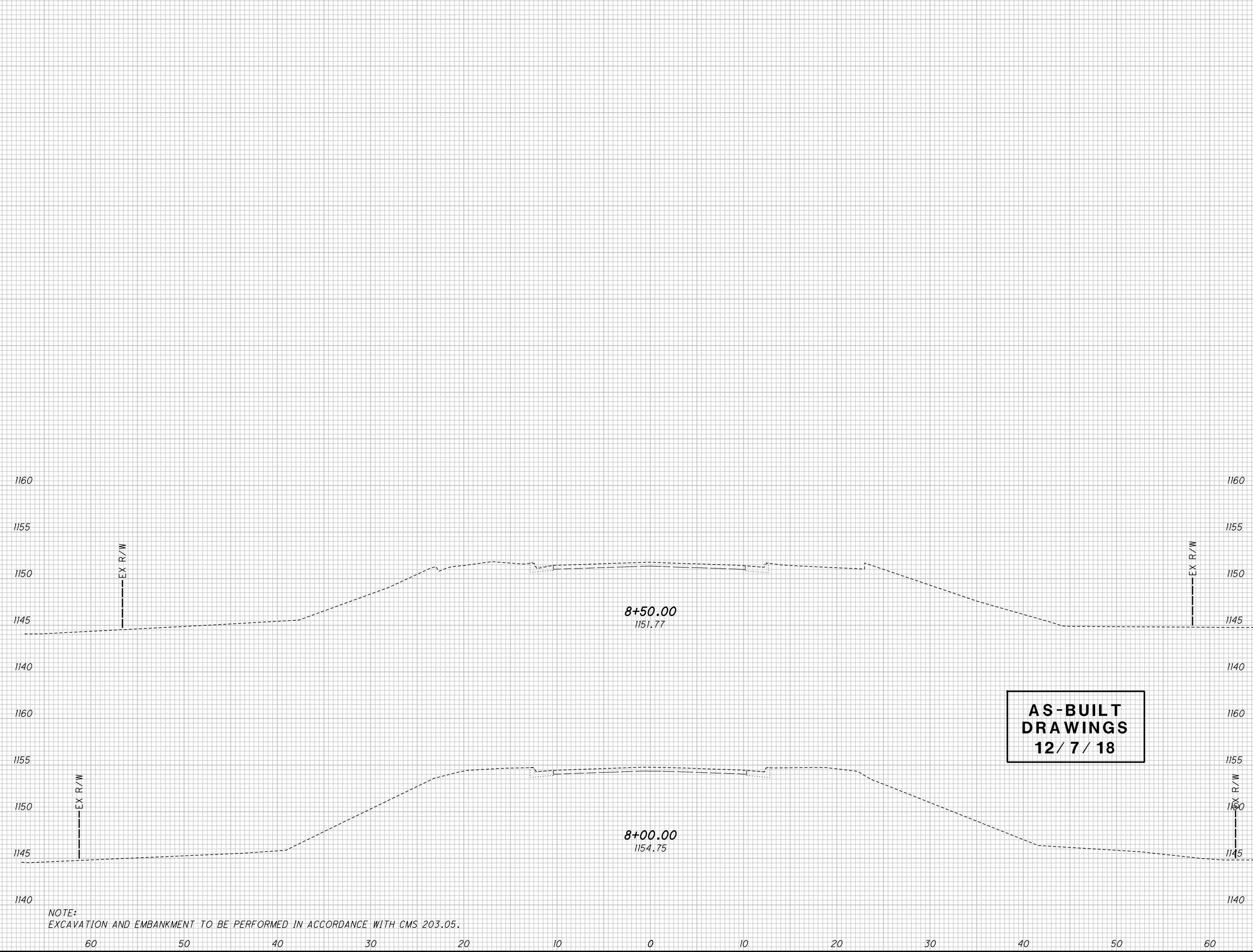
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SEEDING

END WIDTH	SO. YDS.

END AREA		VOLUME		CALCULATED	CHECKED
CUT	FILL	CUT	FILL	CLH	PJF



NOTE:
 EXCAVATION AND EMBANKMENT TO BE PERFORMED IN ACCORDANCE WITH CMS 203.05.

CROSS SECTIONS
 STA. 8+00.00 TO STA. 8+50.00

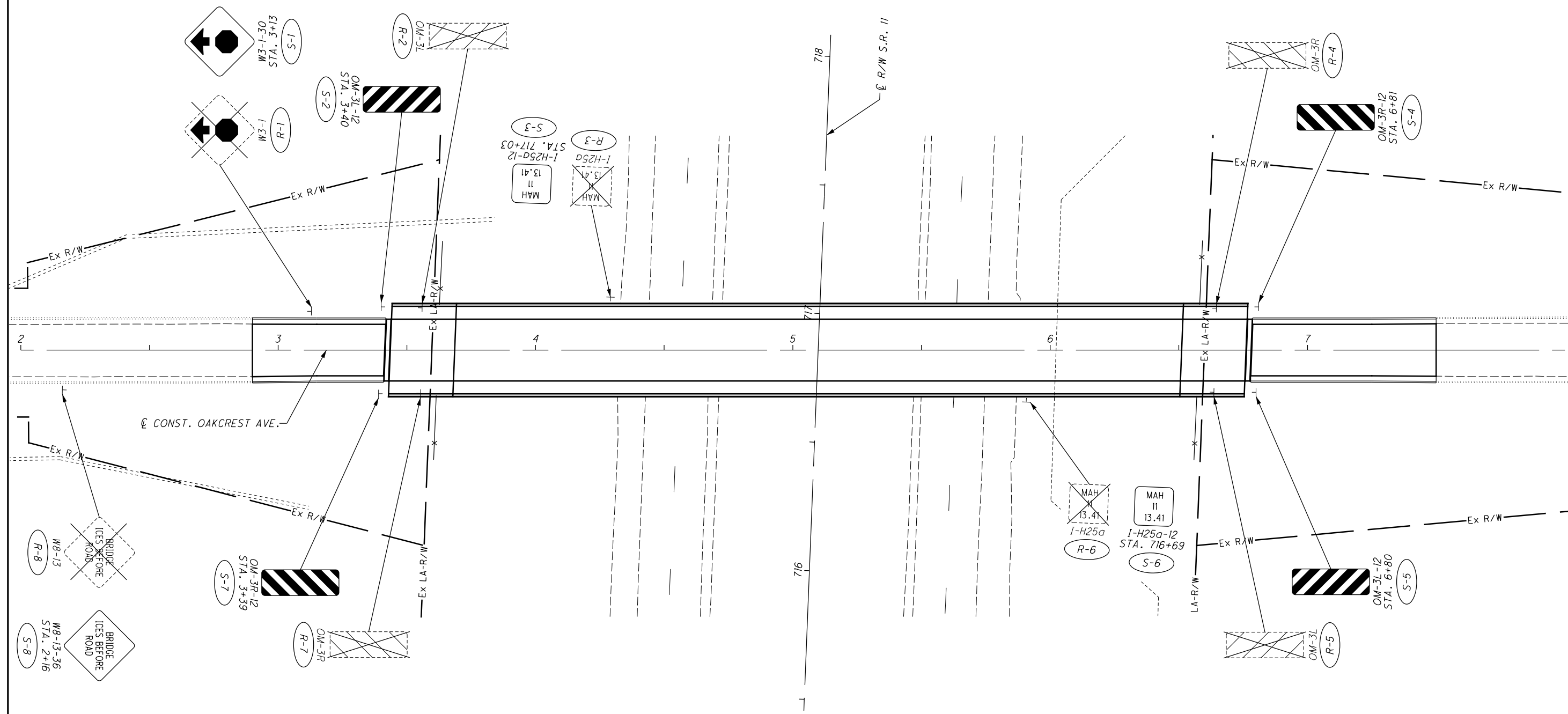
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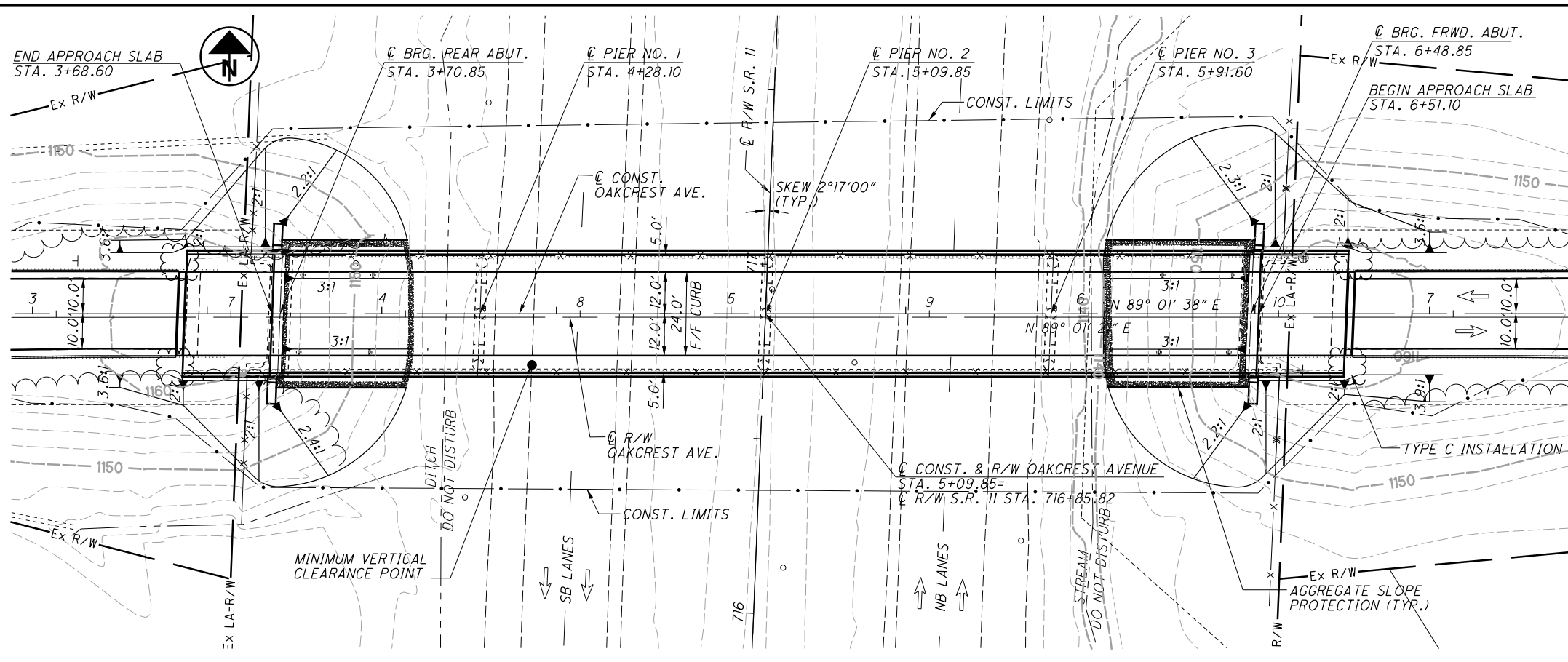
TRAFFIC CONTROL LEGEND

	PROPOSED SIGN		EXISTING SIGN AND SUPPORT TO BE REMOVED
	EXISTING SIGN TO REMAIN		PROPOSED SIGN AND SUPPORT
	EXISTING SIGN TO BE REMOVED		
	SIGN SUPPORT		

**AS-BUILT
 DRAWINGS
 12/ 7/ 18**

**TRAFFIC CONTROL PLAN
 BEGIN TO END**

MAH-11-13.41



PLAN

AS-BUILT DRAWINGS
12 / 7 / 18

BENCHMARK DATA			
STATION	OFFSET	ELEVATION	DESCRIPTION
6+63.78	15.90' LT.	1,163.45	BM
5+89.92	19.75' LT.	1,147.09	BM
6+88.08	14.12' LT.	1,160.41	IPINS
5+12.56	206.02' LT.	1,145.00	IPINS
3+33.16	16.33' RT.	1,160.59	IPINS

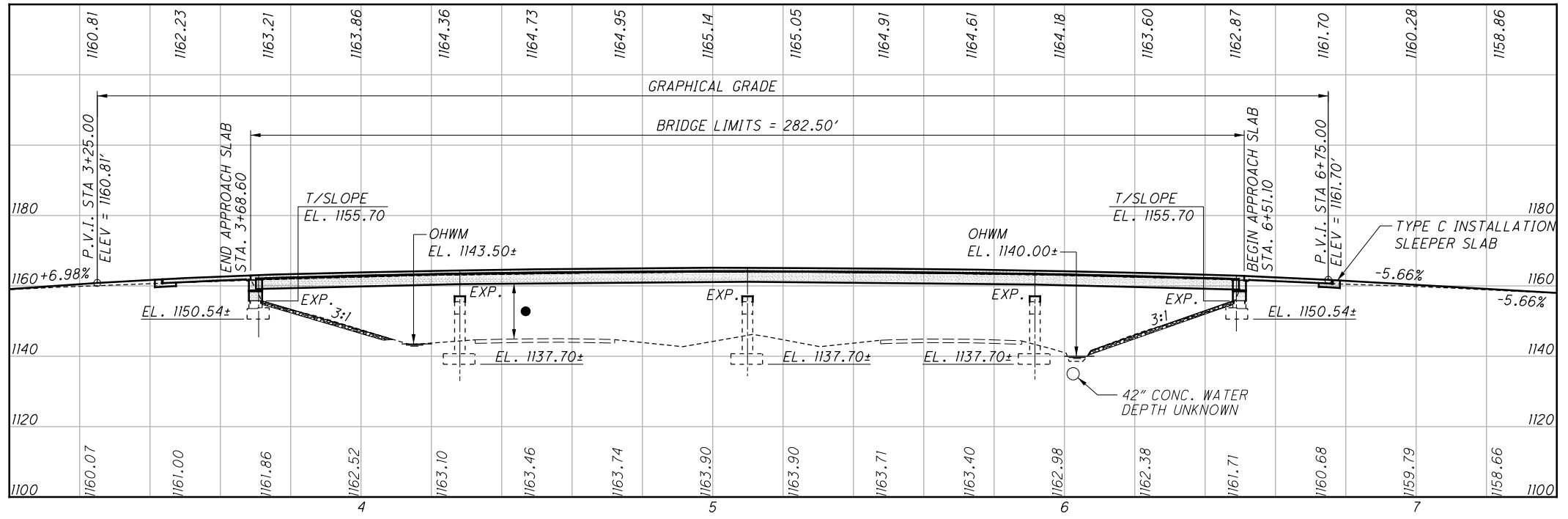
NOTES
EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

DESIGN TRAFFIC:
2018 ADT = <400 2038 ADTT = N/A
2038 ADT = <400 2038 ADTT = N/A
DIRECTIONAL DISTRIBUTION = 50%

VERTICAL CLEARANCE
● 14.71' EXIST.
15.63' PROP. 15.50' REQ'D.

EXISTING STRUCTURE
TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE SLAB & SUBSTRUCTURE
SPANS: 57.25'±-81.75'±-81.75'±-57.25'± C/C BEARINGS
ROADWAY: 24' FACE TO FACE CURB, 4' SIDEWALKS EACH SIDE
LOADING: CF 130 (57)
SKEW: 2°17'00" L.F.
APPROACH SLABS: AS-1-54 (25' LONG)
ALIGNMENT: TANGENT
CROWN: NORMAL
STRUCTURAL FILE NUMBER: 5000696
DATE BUILT: 1967
DISPOSITION: TO BE REHABED

PROPOSED STRUCTURE
TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE SLAB & SUBSTRUCTURE
SPANS: 57.25'±-81.75'±-81.75'±-57.25'± C/C BEARINGS
ROADWAY: 24' FACE TO FACE CURB, 5' SIDEWALKS EACH SIDE
LOADING: HS25 (NEW DECK SLAB), HS20 CASE II AND ALTERNATE MILITARY LOADING (EXISTING BEAMS)
F.W.S = 60 PSF
SKEW: 2°17' L.F.
APPROACH SLABS: 25' LONG (AS-2-15)
WEARING SURFACE: 1" MONOLITHIC CONCRETE
ALIGNMENT: TANGENT
CROWN: 0.016 FT/FT
COORDINATES: LATITUDE N 41° 05' 22"
LONGITUDE W 80° 45' 06"



PROFILE ALONG C CONST. OAKCREST AVE.

01-2017-2017342 MAH-10301A DESIGN STRUCTURES SHEETS 011-1341C-SP001.DGN
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MAHONING COUNTY
 STA. 3+68.60
 STA. 6+51.10

DATE: 4-9-18
 REVIEWED: DJC
 DRAWN: RPR
 DESIGNED: DGN
 CHECKED: RSN

STRUCTURE FILE NUMBER: 5000696

SITE PLAN
 BRIDGE NO. MAH-11-1341
 OAKCREST AVE. OVER S.R. 11

MAH-11-13.41
 PID No. 103014

1 / 19
 16 / 34

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

- AS-1-15 REVISED 7-17-15
- AS-2-15 REVISED 7-17-15
- BR-2-15 REVISED 7-17-15
- GSD-1-96 REVISED 7-19-02
- SICD-1-96 REVISED 7-18-14
- SICD-2-14 REVISED 7-18-14
- VPF-1-90 REVISED 7-17-15

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002, AND THE 2004 ODOT BRIDGE DESIGN MANUAL

DESIGN LOADING

DESIGN LOADING: HS-25 (NEW DECK SLAB)
HS20 CASE II AND THE ALTERNATE MILITARY LOADING (EXIST. BEAMS)
FUTURE WEARING SURFACE (FWS) OF 60 LBS. PER SQ. FT.

DESIGN STRESSES

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)

CONCRETE CLASS OC1 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

REINFORCING STEEL - ASTM A615 OR A996, GRADE 60, MINIMUM YIELD STRENGTH 60,000 PSI

DECK PROTECTION METHOD

EPOXY COATED REINFORCING STEEL
2½" CONCRETE COVER

MONOLITHIC WEARING SURFACE

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

PROPOSED WORK

- REMOVE PORTIONS OF EXISTING SUPERSTRUCTURE, INCLUDING WEARING SURFACE, DECK SLAB, EXPANSION JOINTS, SCUPPERS, BEARINGS AND CROSS-FRAMES (10 MAX.).
- REMOVE EXISTING APPROACH SLABS.
- REMOVE EXISTING ABUTMENT BACKWALL AND PORTIONS OF WINGWALLS AND SEAT CONCRETE AS INDICATED ON THE PLANS.
- BUILD UP THE EXISTING PIER CAPS AND ABUTMENT SEATS.
- INSTALL NEW LAMINATED ELASTOMERIC BEARINGS AT THE ABUTMENTS AND PIERS AND INSTALL SHEAR CONNECTORS ON EXISTING BEAMS.
- CONSTRUCT NEW CONCRETE END DIAPHRAGMS AND DECK SLAB.
- RECONSTRUCT ABUTMENT WINGWALLS AS INDICATED ON THE PLANS, INSTALL POROUS BACKFILL AND NEW ABUTMENT DRAINAGE.
- CONSTRUCT APPROACH SLABS
- REGRADE ABUTMENT SLOPES AND INSTALL SLOPE PROTECTION.
- SOUND AND PATCH EXISTING CONCRETE SUBSTRUCTURES.
- SEAL CONCRETE SURFACES AS INDICATED ON THE PLANS.
- PAINT STRUCTURAL STEEL.
- INSTALL NEW VANDAL PROTECTION FENCE.

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 AND 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 THAT HAVE BEEN VERIFIED IN THE FIELD.

ITEM SPECIAL - MISC.: VERTICAL CLEARANCE

AFTER ALL CONSTRUCTION HAS BEEN COMPLETED, A REGISTERED SURVEYOR WILL TAKE VERTICAL CLEARANCE MEASUREMENTS AT LOCATIONS INDICATED ON THE APPROVED ODOT FORM (AVAILABLE IN THE DISTRICT 4 STRUCTURES AND PAVEMENT OFFICE). THE FINAL MEASUREMENT SHALL BE RECORDED ON THE FORM AND SUBMITTED TO THE PROJECT ENGINEER AND THE DISTRICT 4 STRUCTURES AND PAVEMENT ENGINEER. THE RECORD SHALL BEAR THE SEAL OF THE LICENSED SURVEYOR WHO HAS TAKEN THE MEASUREMENTS.

DECK PLACEMENT DESIGN ASSUMPTIONS

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.2 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103 IN.

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 IN.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA BEAM TO THE FACE OF THE SAFETY HANDRAIL OF 65 IN.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED

DESCRIPTION: THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE DECK INCLUDING SIDEWALKS, PARAPETS, RAILINGS, FENCE, DECK JOINTS, SCUPPERS AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS (BEAMS, CROSS FRAMES, ETC.). THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVAL 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.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED (CONT.)

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 OFF 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.

REMOVAL METHODS: THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS (STEEL BEAMS, ETC.), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GAUGING THE PRIMARY STRUCTURAL MEMBERS.

DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G., FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE REMOVAL 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.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH, BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

ITEM 202 - PORTIONS OF STRUCTURE REMOVED (CONT.)

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 FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18 INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS 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 & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, PORTIONS OF STRUCTURE REMOVED.

ITEM 514 - FIELD PAINTING STRUCTURAL FINISH COAT

THE COLOR OF THE FINISH COAT SHALL BE FEDERAL STANDARD COLOR NUMBER FS-595C-15526 (BLUE).

ITEM 519 - PATCHING CONCRETE STRUCTURES, AS PER PLAN

PRIOR TO THE SURFACE CLEANING SPECIFIED IN 519.04 AND WITHIN 24 HOURS OF PLACING PATCHING MATERIAL, BLAST CLEAN ALL SURFACES TO BE PATCHED INCLUDING THE EXPOSED REINFORCING STEEL. ACCEPTABLE METHODS INCLUDE HIGH-PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVES IN THE WATER, ABRASIVE BLASTING WITH CONTAINMENT, OR VACUUM ABRASIVE BLASTING.

ALL CONCRETE PATCHING AND REPAIR SHALL CONFORM TO ITEM 519 IN THE CMS. THE PROJECT ENGINEER SHALL INSPECT AND SOUND THE CONCRETE SUBSTRUCTURES THEN MARK THE AREAS TO BE PATCHED, SUBJECT TO THE APPROVAL OF THE ENGINEER. THE DESIGN BUILD TEAM WILL PREPARE THE CONCRETE PATCHING PLAN AND SUBMIT IT AS PART OF THE FINAL AS-BUILT PLAN.

THE DEPARTMENT HAS ESTABLISHED A CONTINGENCY QUANTITY FOR THIS ITEM OF 400 SQ. FT FOR THIS PROJECT.

ITEM 601 - SLOPE PROTECTION MISC.: CRUSHED AGGREGATE SLOPE PROTECTION, AS PER PLAN

THIS ITEM SHALL INCLUDE REGRADE EXISTING SPILL-THRU SLOPES AND FURNISHING AND PLACING OF CRUSHED AGGREGATE SLOPE PROTECTION. PLACEMENT SHALL BE MADE IN ACCORDANCE WITH CMS 601.06.

ESTIMATED QUANTITIES				
ITEM	DESCRIPTION	UNIT	QTY	SHT. REF.
202E11200	PORTIONS OF STRUCTURE REMOVED	LUMP	1	
512E99000	SPECIAL - SEALING OF CONCRETE	LUMP	1	
514E99000	SPECIAL - BRIDGE PAINTING	LUMP	1	
519E11100	PATCHING CONCRETE STRUCTURE	SF	400	
530E99010	SPECIAL - SUBSTRUCTURE	LUMP	1	
530E99020	SPECIAL - SUPERSTRUCTURE	LUMP	1	

AS-BUILT DRAWINGS 12 / 7 / 18

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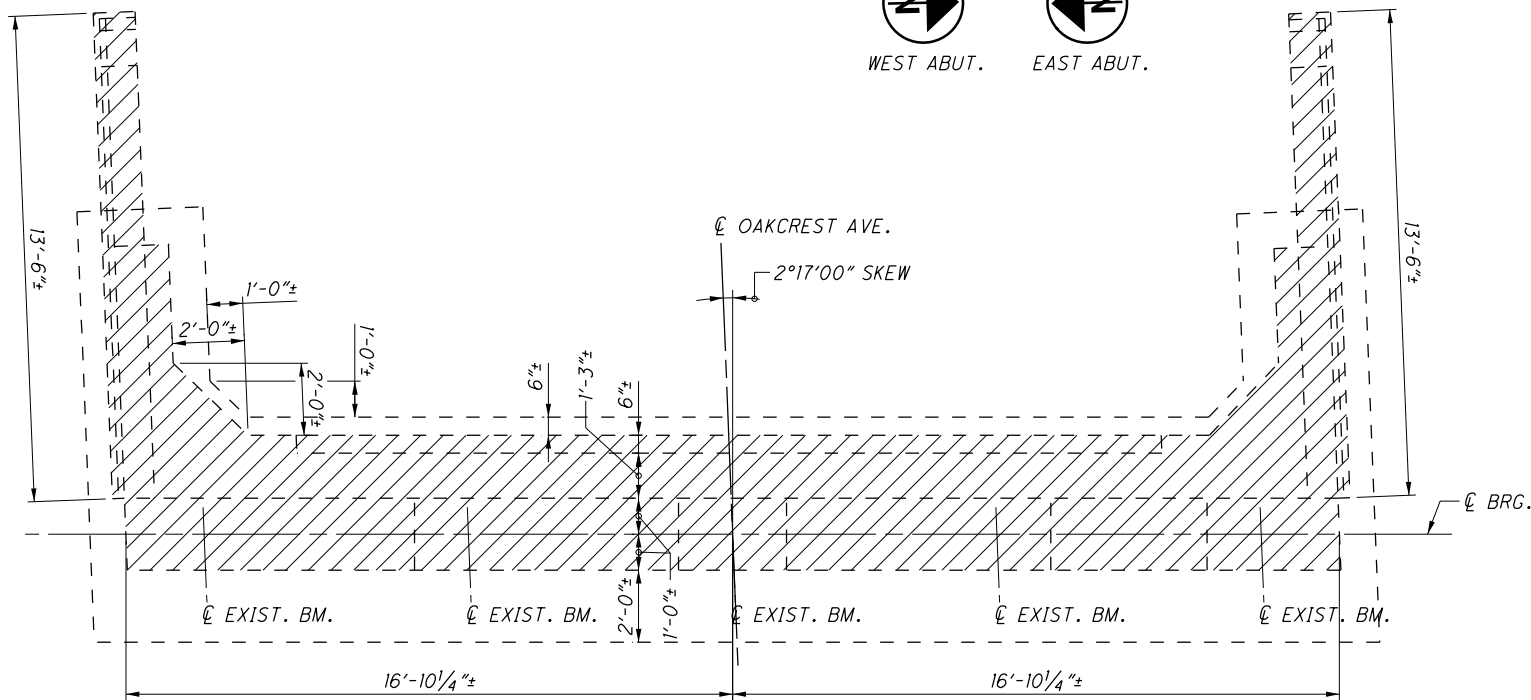
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DATE: 4-9-18
 REVIEWED: DGN
 DRAWN: RSN
 DESIGNED: RSN
 CHECKED: DJC
 STRUCTURE FILE NUMBER: 5000696

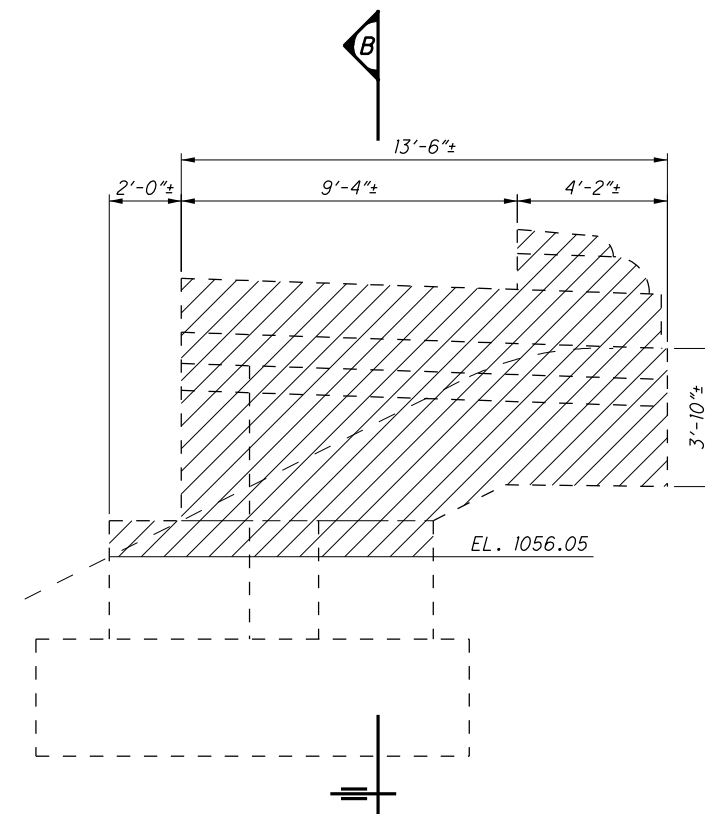
GENERAL NOTES AND ESTIMATED QUANTITIES
 BRIDGE NO. MAH-11-1341
 OAKCREST AVE. OVER S.R. 11

MAH-11-13-41
 PID No. 103014

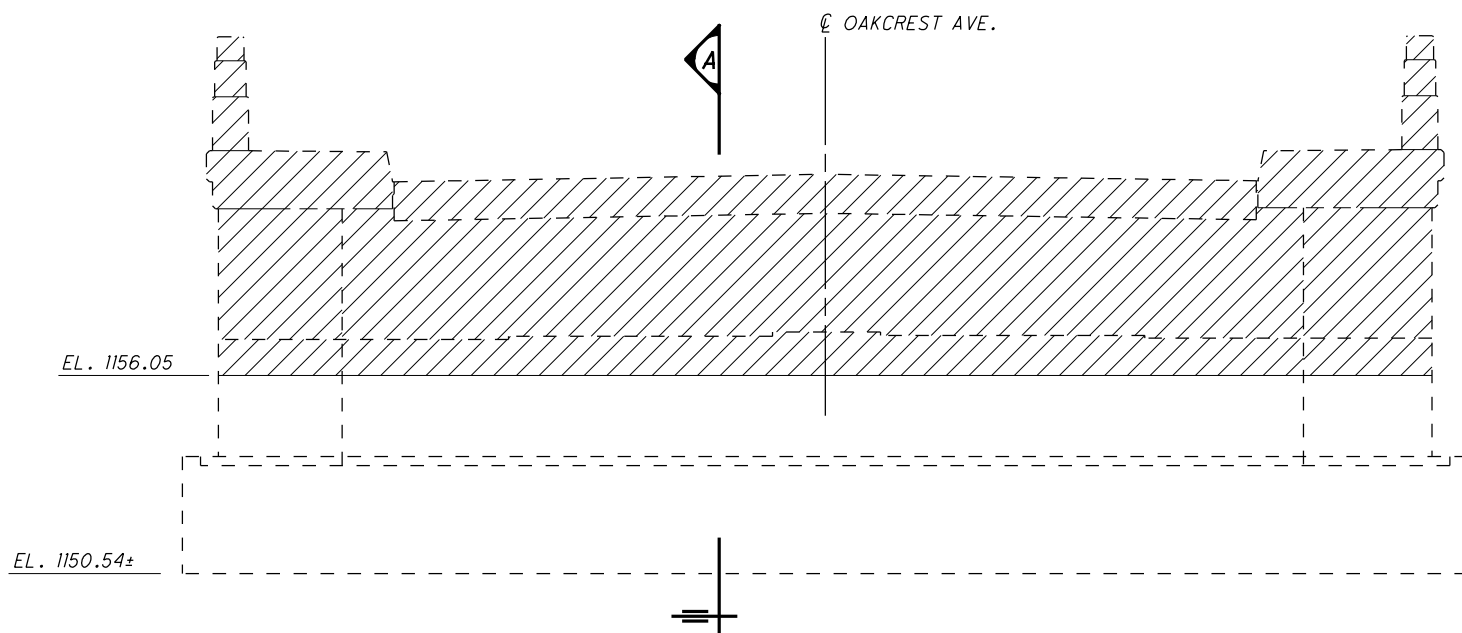
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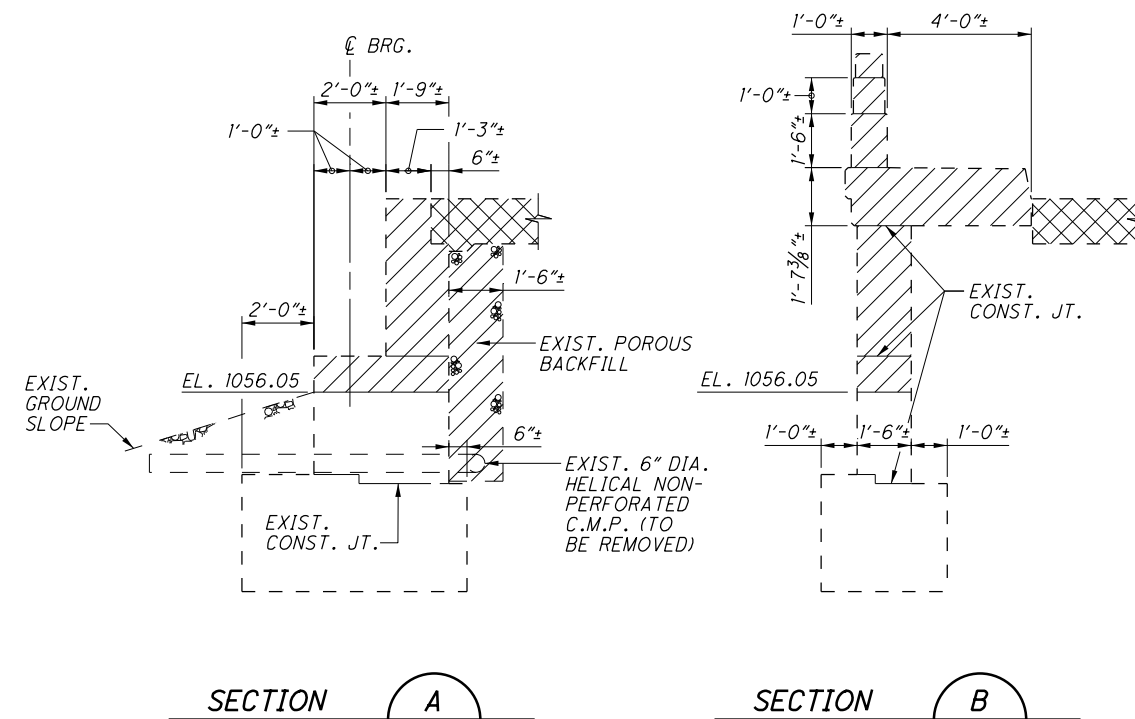
EXISTING ABUTMENT REMOVAL PLAN
EXIST. PILES NOT SHOWN



EXISTING WINGWALL REMOVAL PLAN
EXIST. PILES NOT SHOWN



EXISTING ABUTMENT REMOVAL ELEVATION
EXIST. PILES NOT SHOWN



SECTION **A**

SECTION **B**

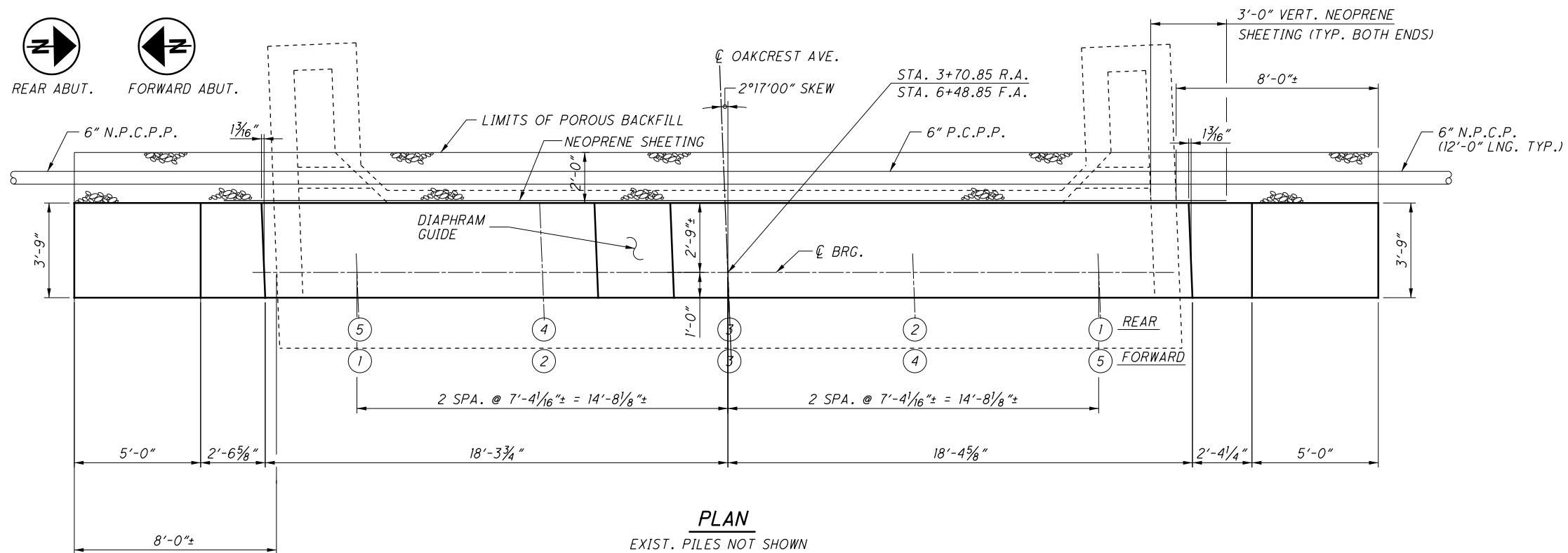
LEGEND:

- INDICATES LIMITS OF ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FT SPAN
- INDICATES LIMITS OF ITEM 202 - APPROACH SLAB REMOVED

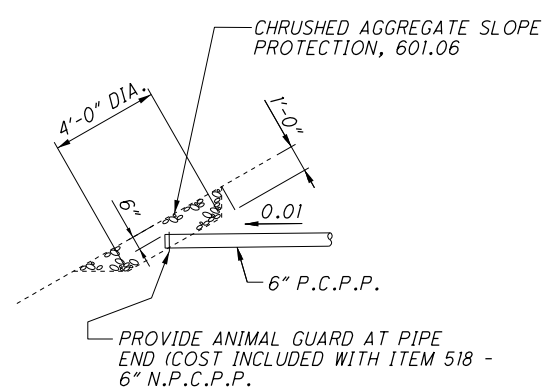
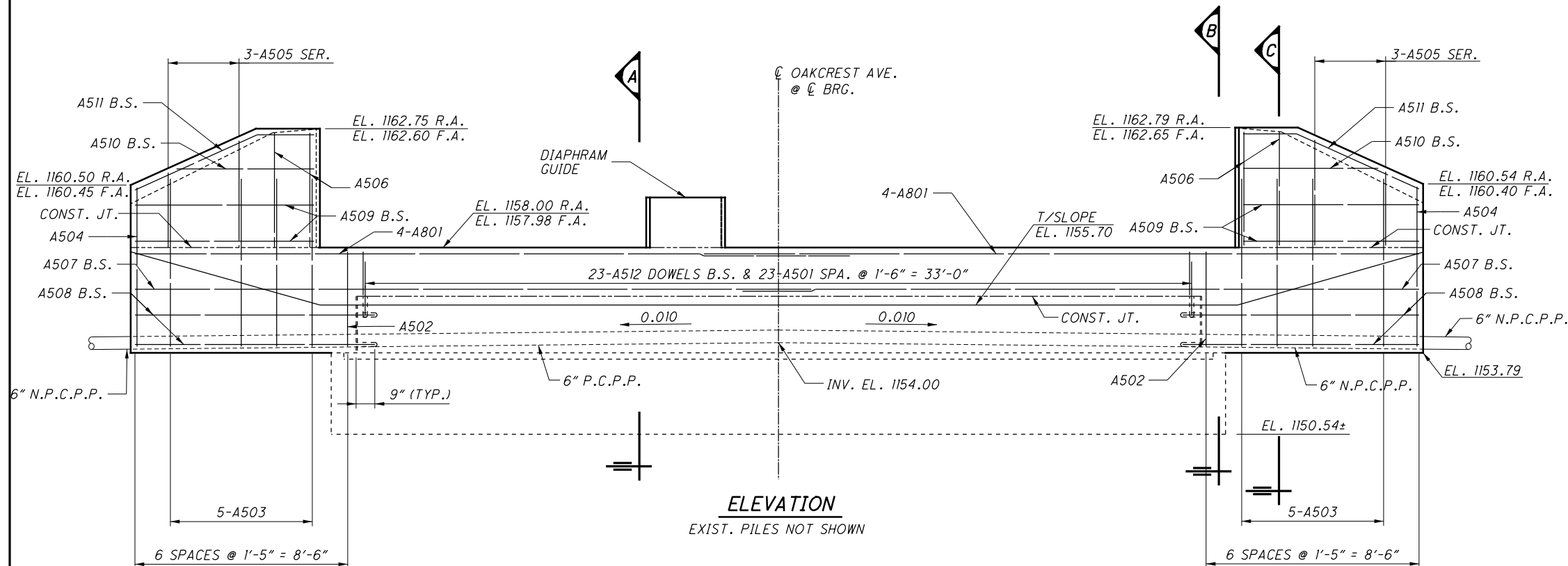
**AS-BUILT
DRAWINGS
12 / 7 / 18**



REAR ABUT. FORWARD ABUT.



AS-BUILT DRAWINGS
12 / 7 / 18



NOTES:

FOR SECTION A, B & C, SEE SHT. NO. 5/19.

FOR DIAPHRAM GUIDE DETAILS, SEE SHT. NO. 6/19.

MINIMUM REBAR LAP SPLICE LENGTHS ARE AS FOLLOWS:
#5 BAR - 2'-9"
#8 BAR - 5'-10"

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 Civil, Pub, School, Bus & Highway, Inc.
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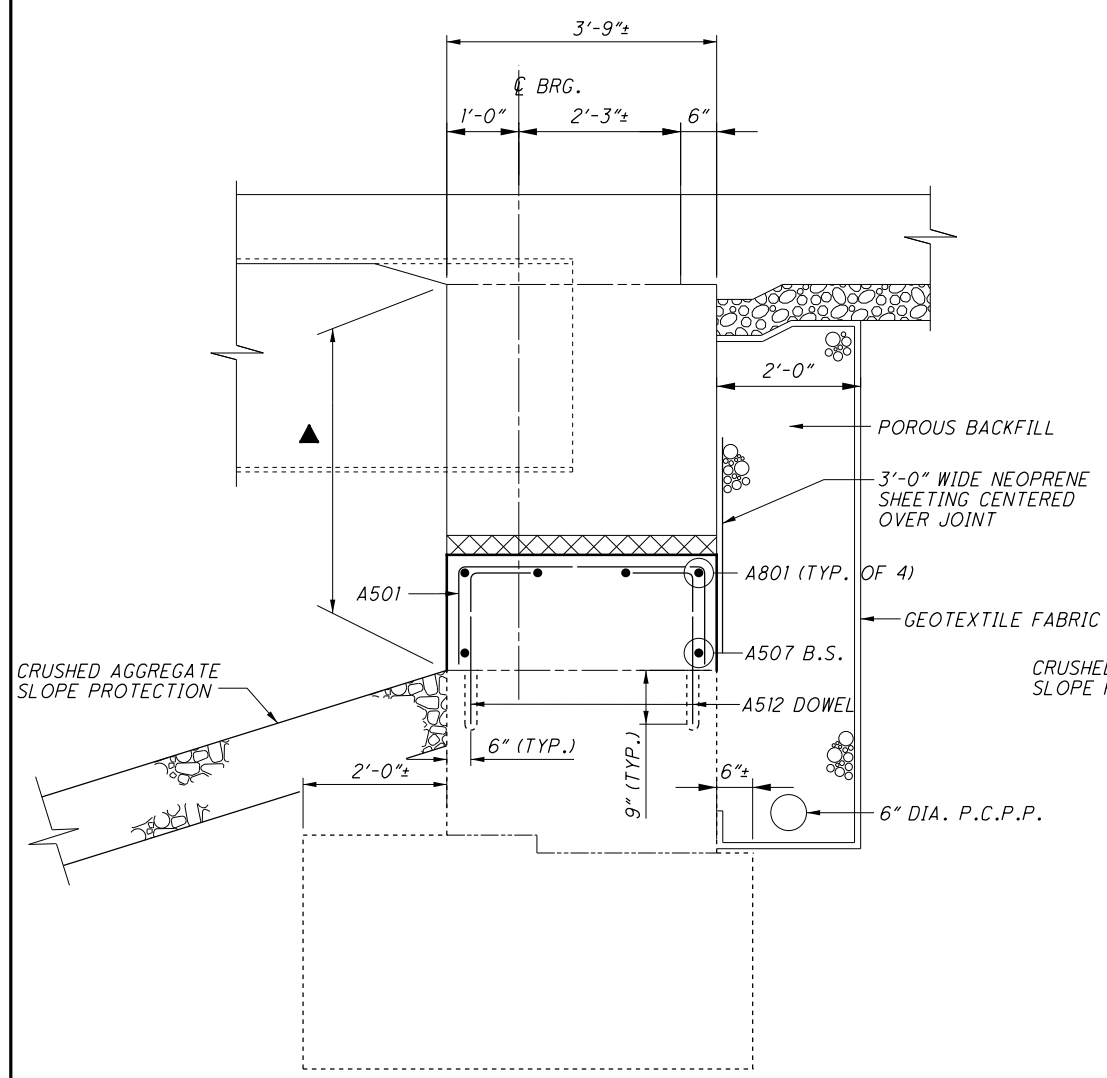
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RSN	RSN	DGN	4-9-18
CHECKED	REVISED	STRUCTURE FILE NUMBER	
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ABUTMENT REHABILITATION DETAILS
 BRIDGE NO. MAH-11-1341
 OAKCREST AVE. OVER S.R. 11

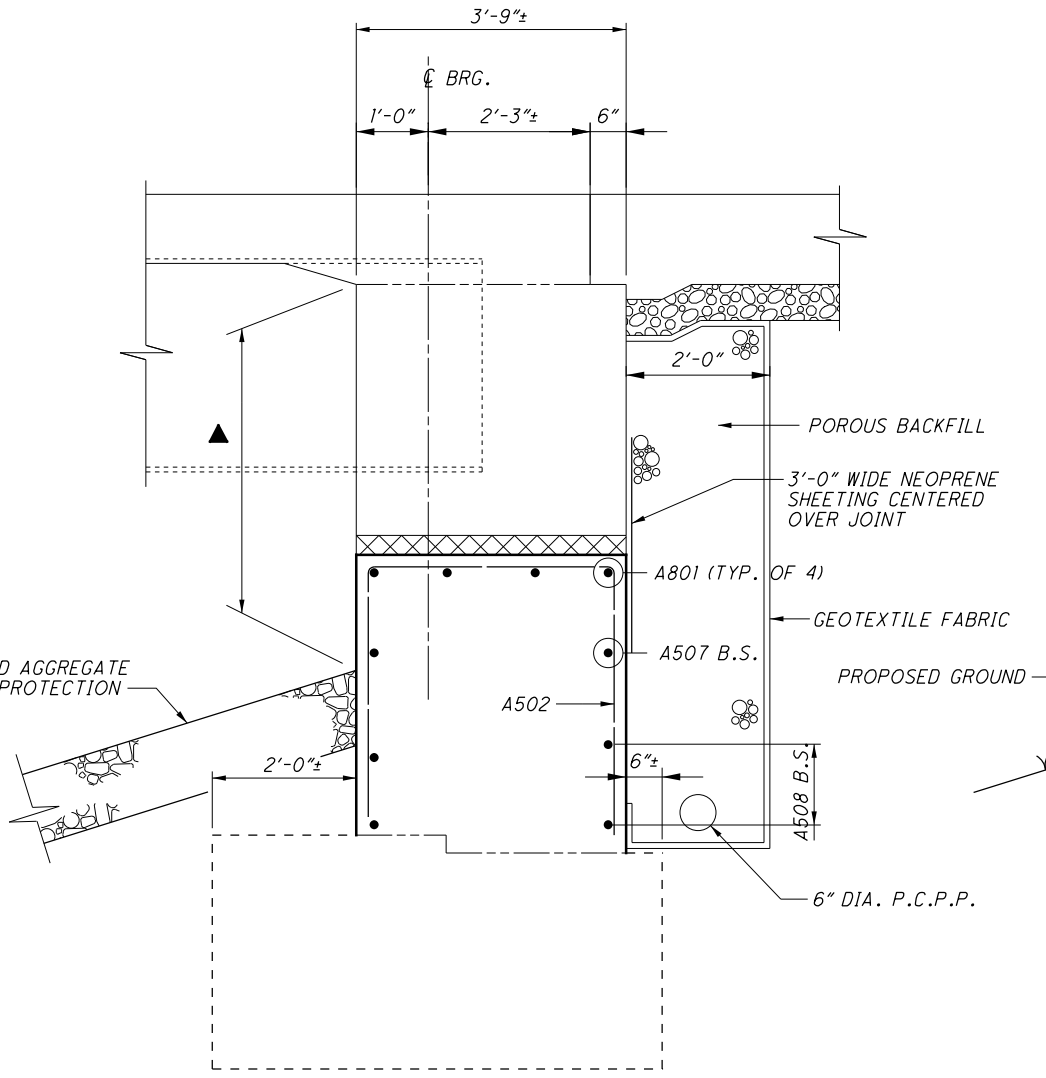
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 PID No. 103014

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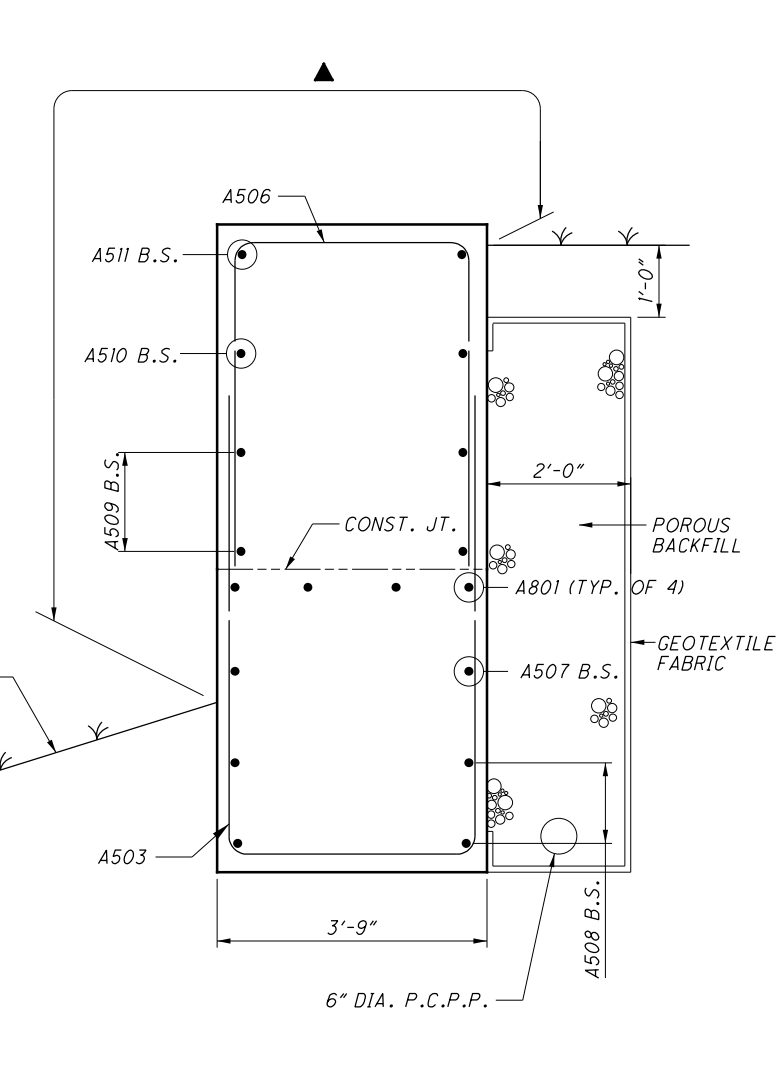
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SECTION **A**



SECTION **B**



SECTION **C**

**AS-BUILT
 DRAWINGS
 12 / 7 / 18**

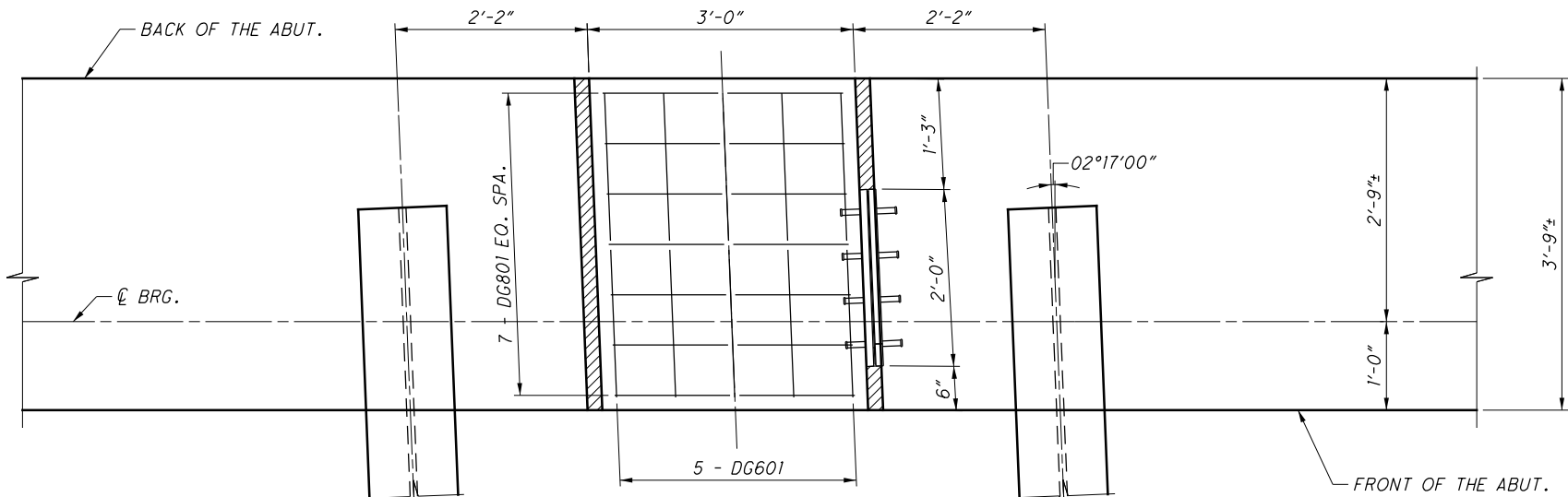
LEGEND:
 ▲ LIMITS OF ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

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	REVIEWED	DGN	4-9-18
	DRAWN	RSN	STRUCTURE FILE NUMBER
	DESIGNED	CHECKED	5000696
ABUTMENT SECTION DETAILS			DUC
BRIDGE NO. MAH-11-1341			
OAKCREST AVE. OVER S.R. 11			
MAH-11-13.41			
PID No. 103014			
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REAR ABUT.

FORWARD ABUT.

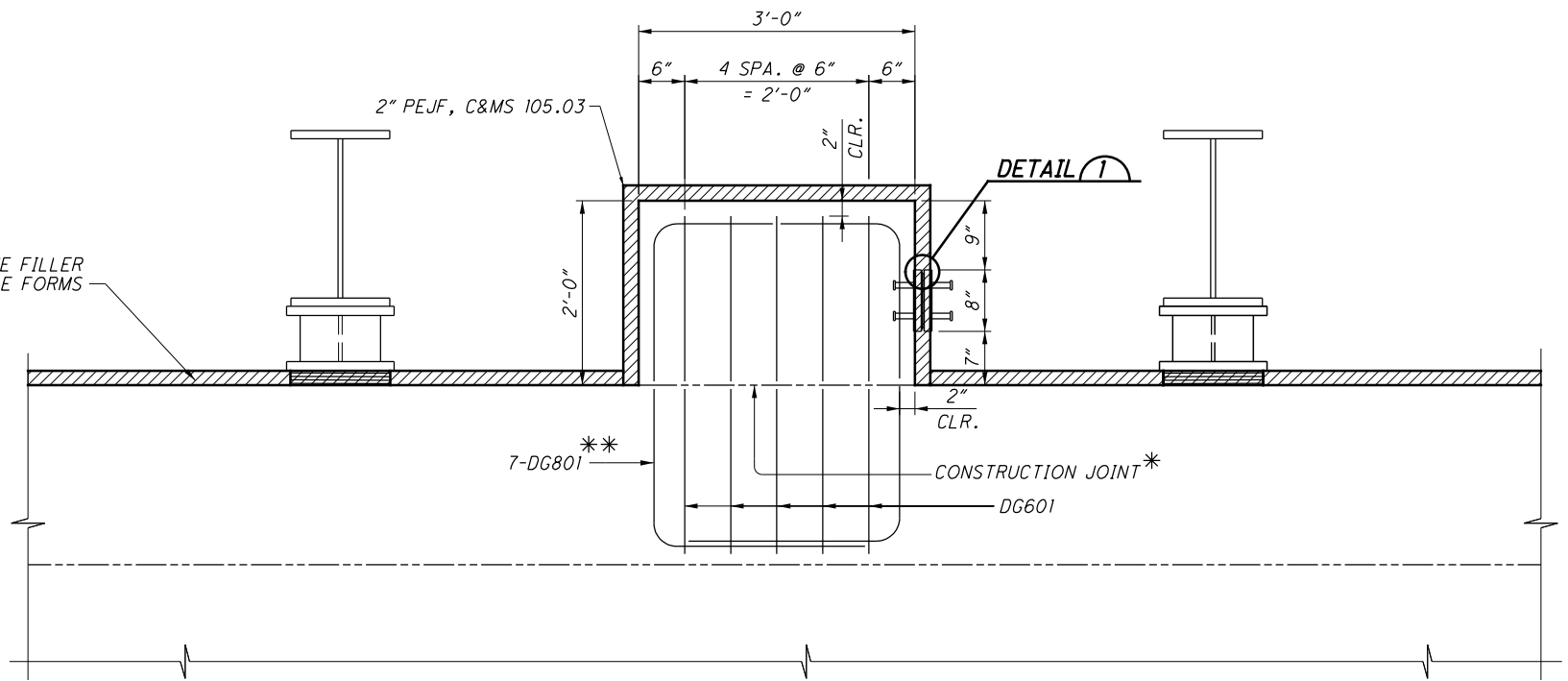
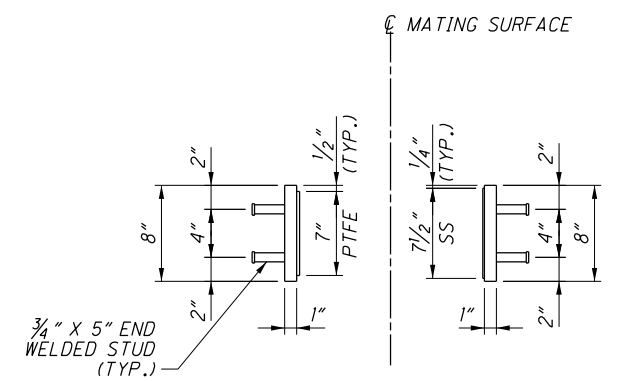
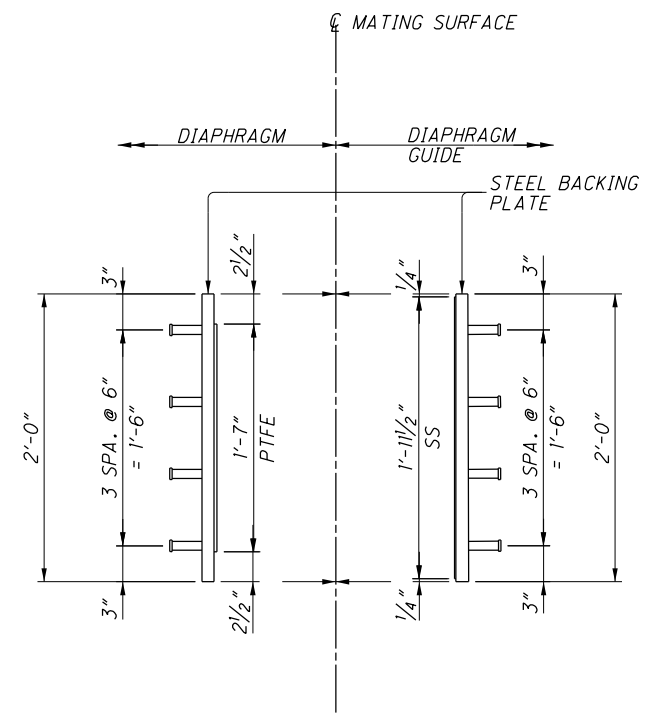


④ — AT REAR ABUTMENT

② — AT FORWARD ABUTMENT

③ — AT REAR ABUTMENT

③ — AT FORWARD ABUTMENT



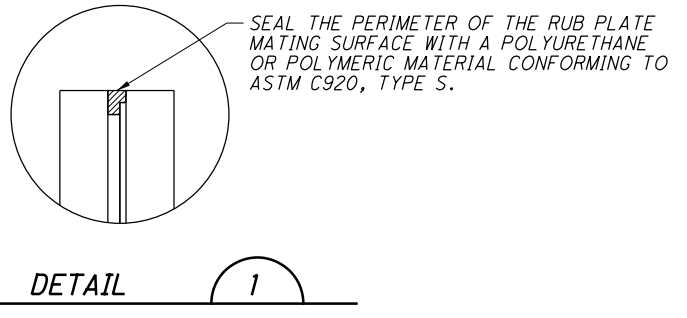
AS-BUILT DRAWINGS
12 / 7 / 18

LEGEND:

- * FINISH THE SURFACE OF THE CONSTRUCTION JOINT WITH A SERRATED TROWEL. THE SERRATIONS SHALL BE 1/4" DEEP MINIMUM.
- ** PLACE TO AVOID INFERENCE WITH LONGITUDINAL REINFORCEMENT IN THE BEAM SEAT

NOTES:

- 1. FOR RUB PLATE DETAILS, GENERAL NOTES, AND ADDITIONAL DETAILS NOT SHOWN, SEE STD. DWG. SICD-2-14.



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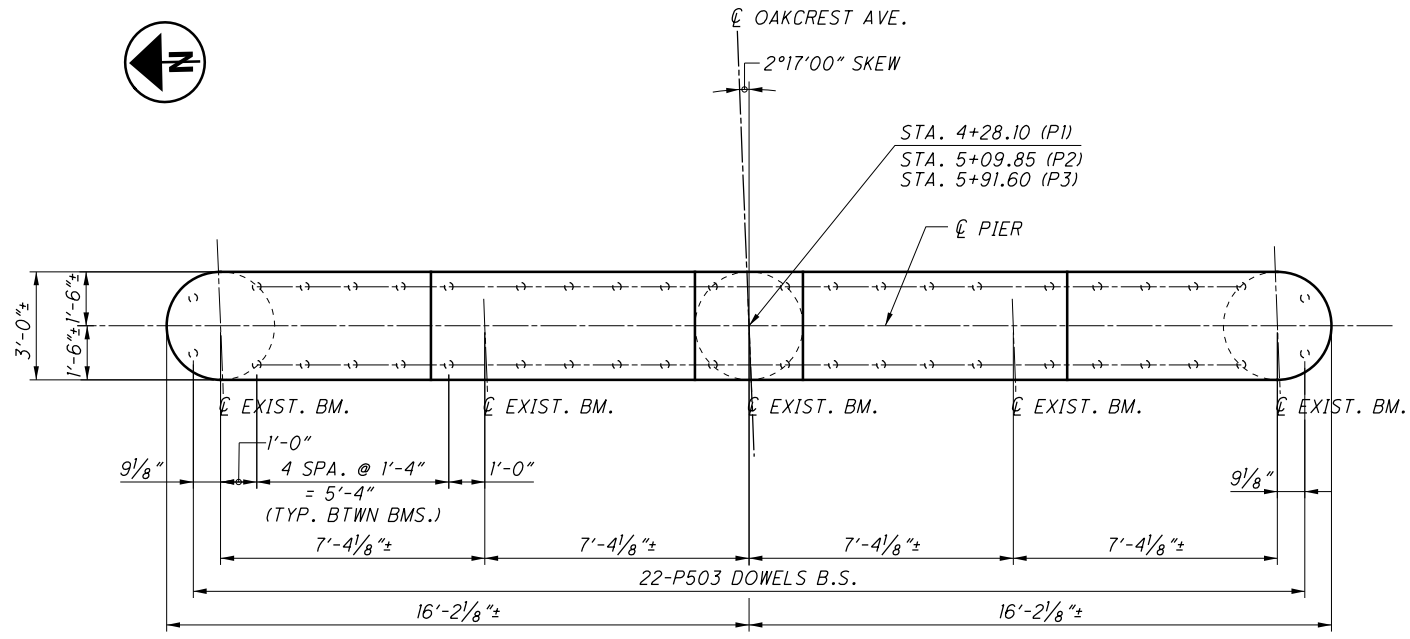
DESIGNED	CHECKED	DRAWN	REVIEWED	DATE
RSN	DGN	RSN	DGN	4-9-18
				STRUCTURE FILE NUMBER
				5000696

DIAPHRAGM GUIDE DETAILS
 BRIDGE NO. MAH-11-1341
 OAKCREST AVE. OVER S.R. 11

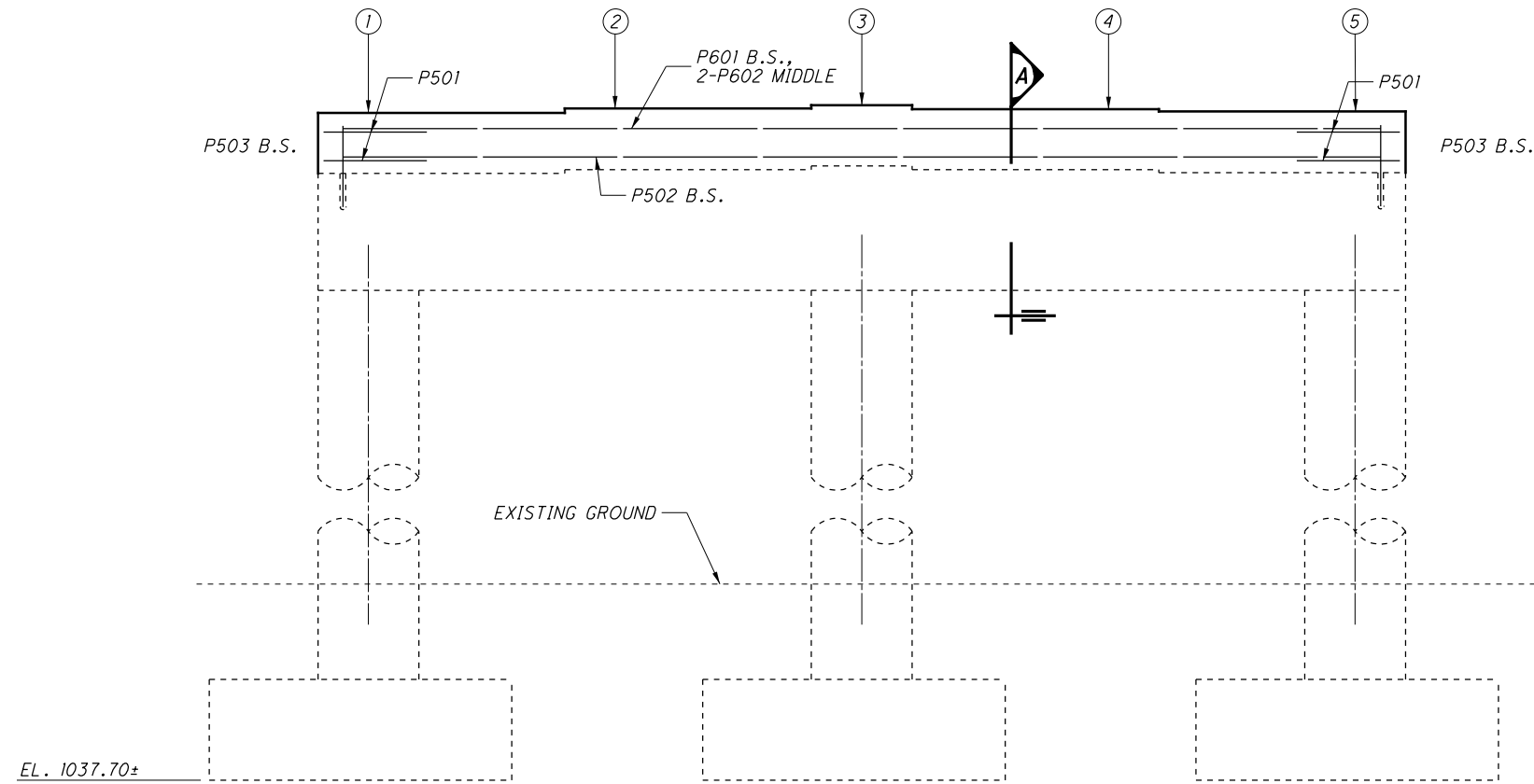
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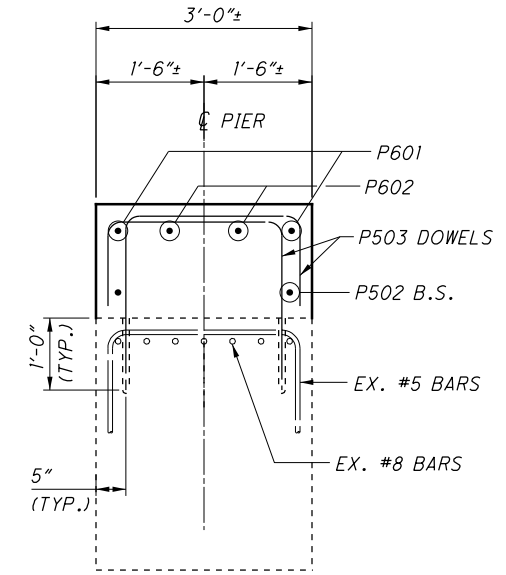


TYPICAL PLAN

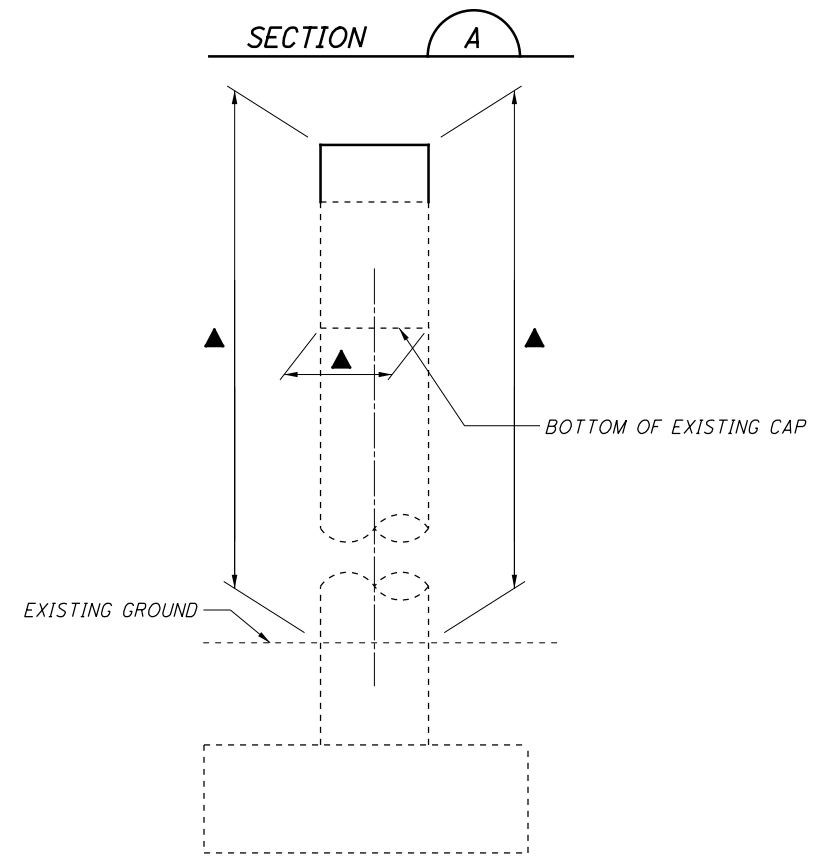


TYPICAL ELEVATION

	ELEVATIONS				
	①	②	③	④	⑤
PIER NO. 1	1159.86	1159.91	1160.03	1159.90	1159.82
PIER NO. 2	1160.59	1160.68	1160.79	1160.69	1160.61
PIER NO. 3	1159.84	1159.93	1160.06	1159.94	1159.86



SECTION A



END VIEW

LEGEND:

▲ INDICATES LIMITS OF ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE SEALER)

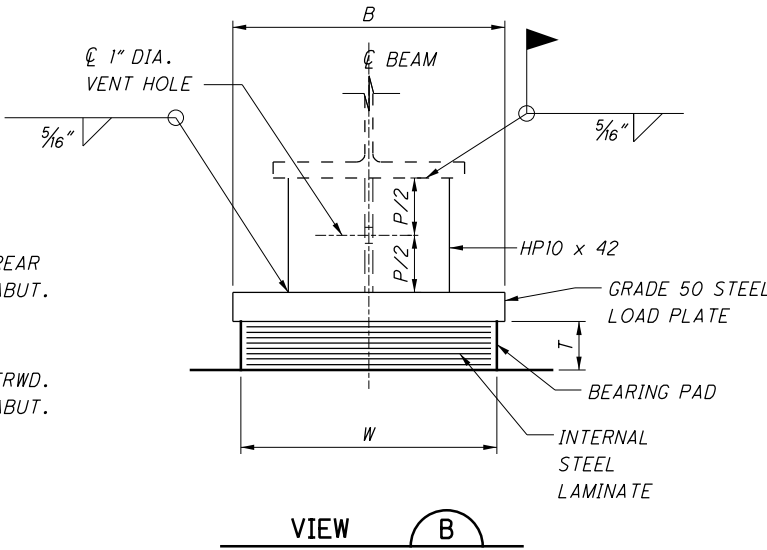
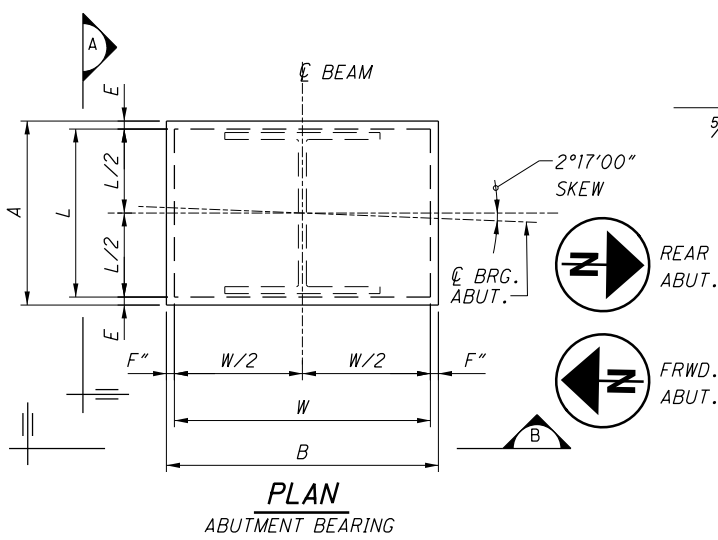
**AS-BUILT
DRAWINGS
12 / 7 / 18**

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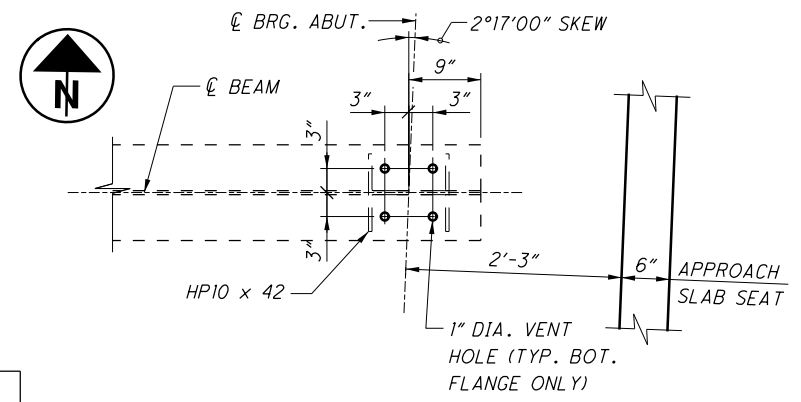
SUB-STRUCTURE	LOAD PLATE						ELASTOMERIC PAD						STEEL LAMINATES		TYPE	MIN. DEAD LOAD (K)	MAX. DEAD LOAD (K)	LIVE * LOAD (K)	TOTAL LOAD (K)
	A	B	E	F	G	H	L	W	T	NO. OF INTER. LAYERS	ti	te	NO.	THICK.					
REAR ABUT.	11"	1'-3"	1/2"	1/2"	1 1/2"	1 1/2"	10"	1'-2"	3.36"	8	0.32"	0.20"	8	0.0747"	EXP.	50.3	56.1	43.3	99.4
PIER NO. 1	1'-0 1/2"	1'-7"	1/2"	1/2"	2"	2 3/16"	11 1/2"	1'-6"	2.89"	7	0.31"	0.20"	7	0.0747"	EXP.	109.7	131.8	53.3	185.1
PIER NO. 2	1'-0 1/2"	1'-7"	1/2"	1/2"	2 1/16"	2"	11 1/2"	1'-6"	2.89"	7	0.31"	0.20"	7	0.0747"	EXP.	123.2	147.7	57.1	204.8
PIER NO. 3	1'-0 1/2"	1'-7"	1/2"	1/2"	2"	2"	11 1/2"	1'-6"	2.89"	7	0.31"	0.20"	7	0.0747"	EXP.	109.7	131.8	53.3	185.1
FRWD. ABUT.	11"	1'-3"	1/2"	1/2"	1 1/2"	1 1/2"	10"	1'-2"	3.36"	8	0.32"	0.20"	8	0.0747"	EXP.	50.3	56.1	43.3	99.4

⊙ = 2 3/16" (BEAM 1 THRU BEAM 4)
 = 2 1/8" (BEAM 5)

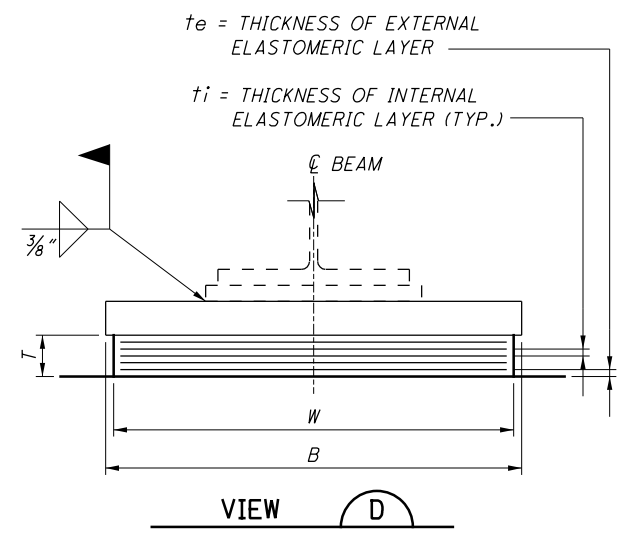
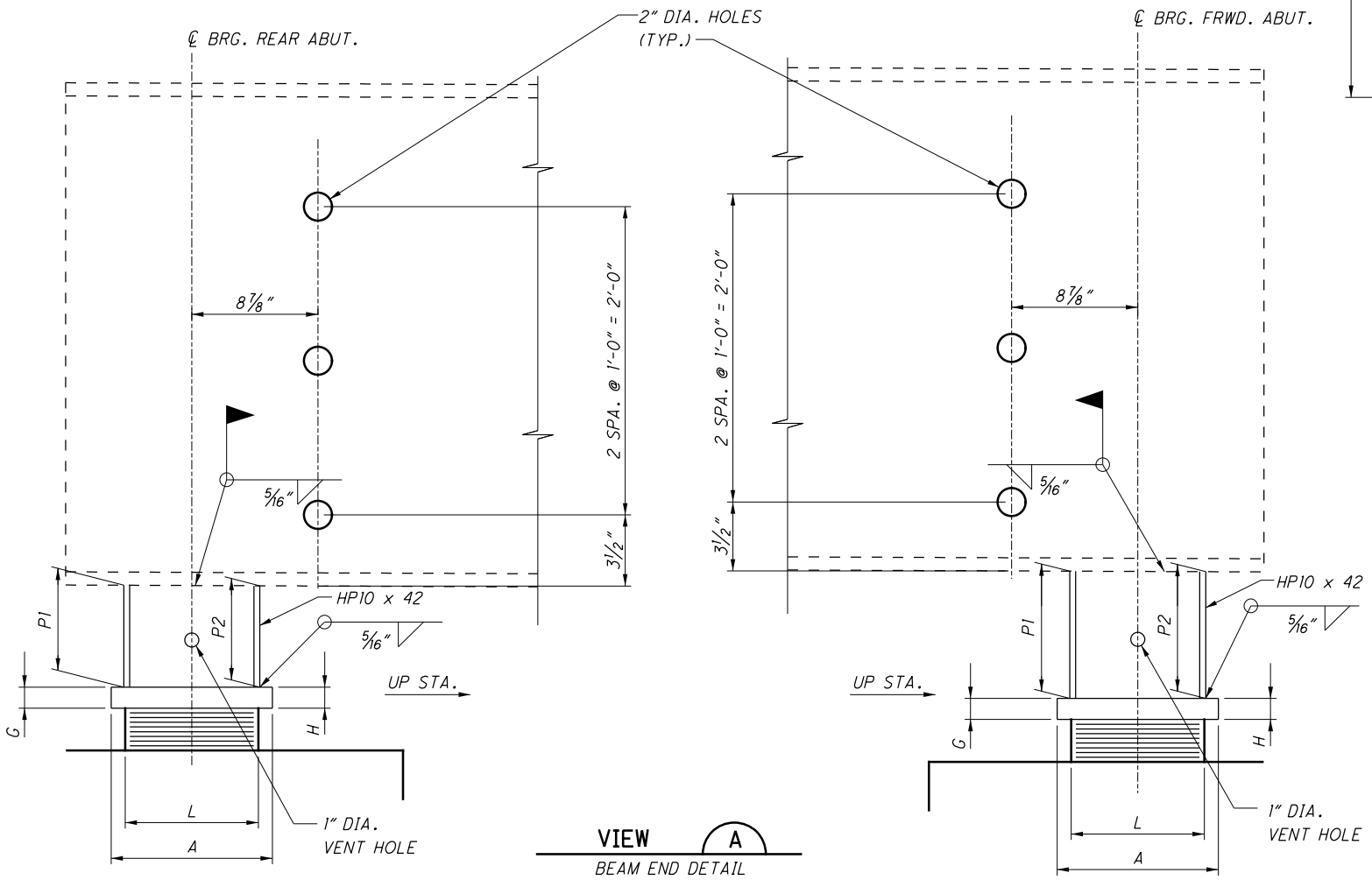
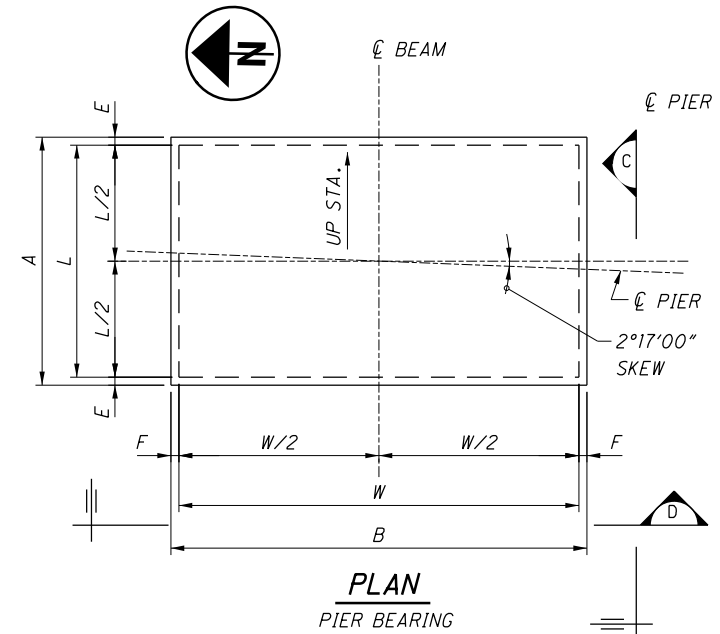
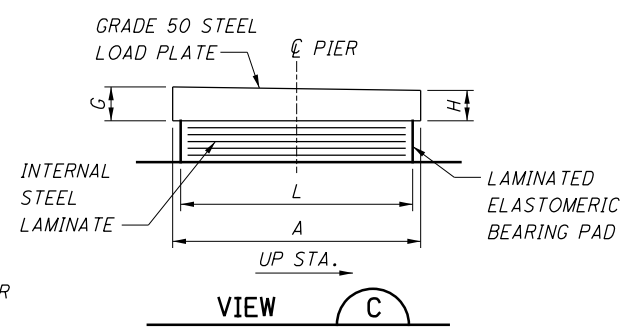
* WITHOUT IMPACT



LOCATION	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	
REAR ABUT.	P1	6 3/8"	7 1/16"	8 1/4"	6 15/16"	5 3/4"
	P2	6 3/4"	7 1/16"	8 5/8"	7 5/16"	6 1/8"
FRWD. ABUT.	P1	5 13/16"	7 1/16"	8 3/8"	7 1/4"	5 13/16"
	P2	5 9/16"	6 3/4"	8 1/16"	7"	5 9/16"



BEAM END DETAIL
 FRWD. ABUT. SHOWN, REAR ABUT. SIMILAR



AS-BUILT DRAWINGS
 12 / 7 / 18

NOTES:

1. THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION 1, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.
2. THE STEEL LOAD PLATE SHALL BE ASTM A709, GRADE 50 STEEL. THE LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE LAMINATED ELASTOMERIC BEARINGS DURING THE MOLDING PROCESS.
3. THE HP10 x 42 STEEL SHAPE AT THE ABUTMENTS SHALL BE ASTM A709, GRADE 50 STEEL.
4. BASIS OF PAYMENT: THE UNIT PRICE BID SHALL INCLUDE ALL MATERIALS, LABOR, TESTING AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL THE LAMINATED ELASTOMERIC BEARINGS, STEEL LOAD PLATES AND HP SHAPES. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516 - ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN.

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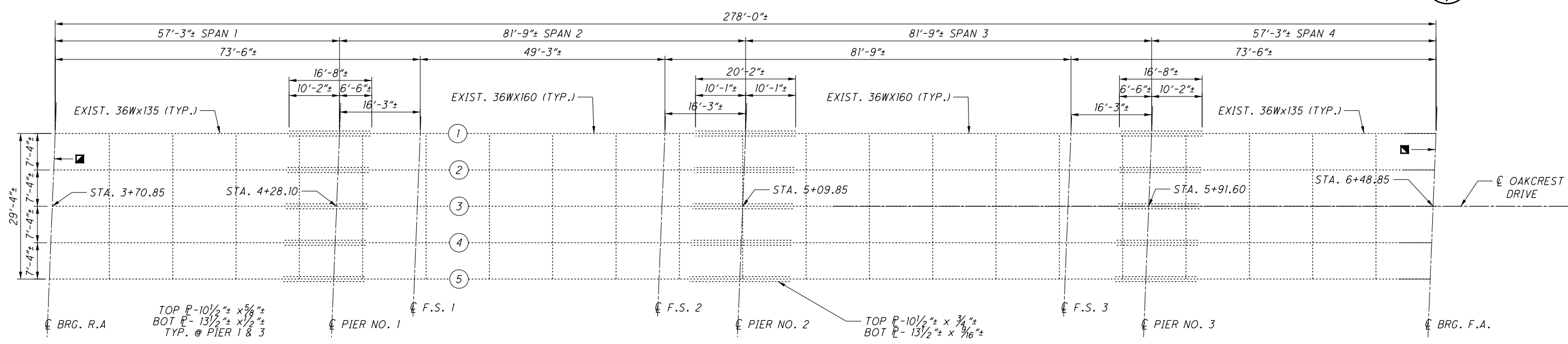
DESIGN AGENCY
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BEARING DETAILS
 BRIDGE NO. MAH-11-1341
 OAKCREST AVE. OVER S.R. 11

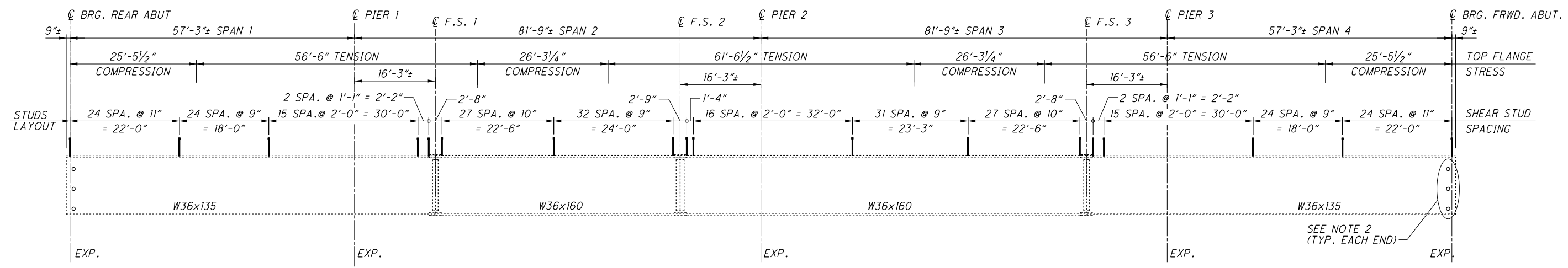
MAH-11-13.41
 PID No. 103014

DESIGNER: RSN
 CHECKED: DJC
 DRAWN: RSN
 REVISED:
 REVIEWED: DGN
 DATE: 2-7-18
 STRUCTURE FILE NUMBER: 5000696

8 / 19
 23 / 34



FRAMING PLAN



BEAM ELEVATION

**AS-BUILT
 DRAWINGS
 12 / 7 / 18**

LEGEND

- EXIST. END CROSSFRAME TO BE REMOVED, GRIND BEAM WEB SMOOTH AFTER REMOVAL. COST IS TO BE INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AND IS TYPICAL BETWEEN EACH BEAM.

NOTES:

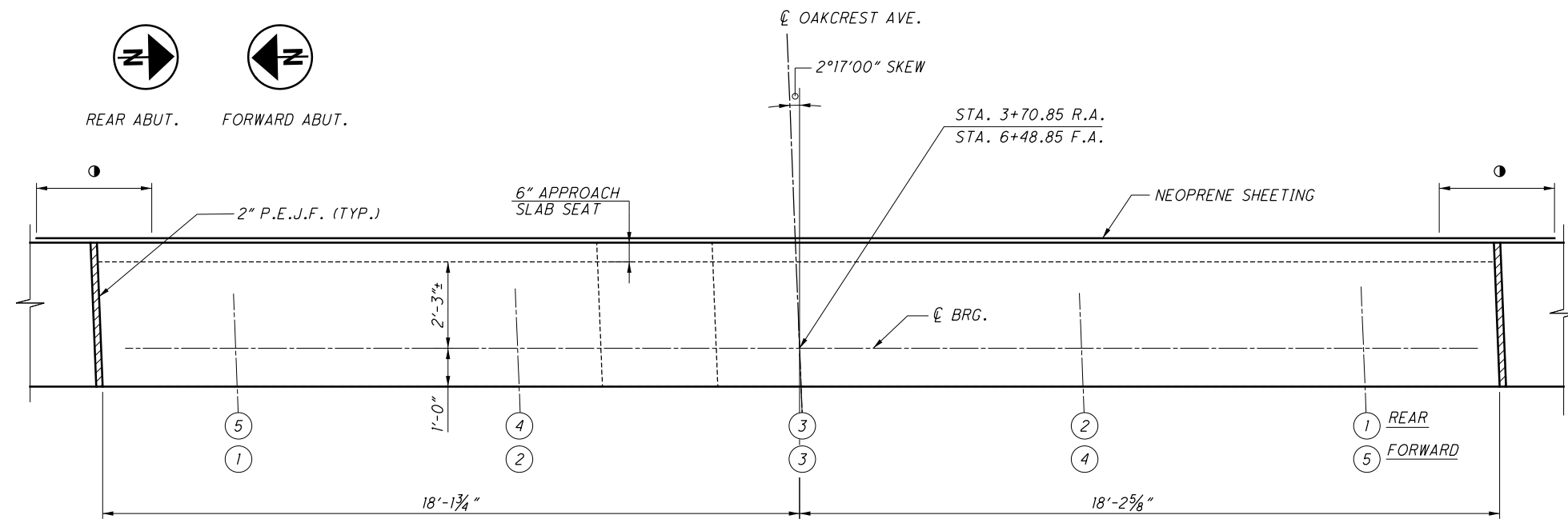
- WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA BEAM FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4" THICK.
- REMOVE SUPPORTS OF SCUPPERS ATTACHED TO THE FLANGES OR WEBS OF THE EXISTING BEAMS BY GRINDING SMOOTH THE AREAS OF ATTACHMENT.
- THE SHEAR STUDS MAY BE SHIFTED UP TO 1" IF NECESSARY TO AVOID INTERFERENCE WITH THE ENDS OF THE EXISTING MOMENT PLATES.
- FOR DIMENSIONS OF THE FIELD DRILLED VENT HOLES IN THE BOTTOM FLANGE, AND LAYOUT OF FIELD DRILLED HOLES IN THE WEB, SEE SHT. NO. 8/19.

01-2017-2017342 MAH-103014 DESIGN STRUCTURES SHEETS 011-1341C-50001.DGN
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REAR ABUT.

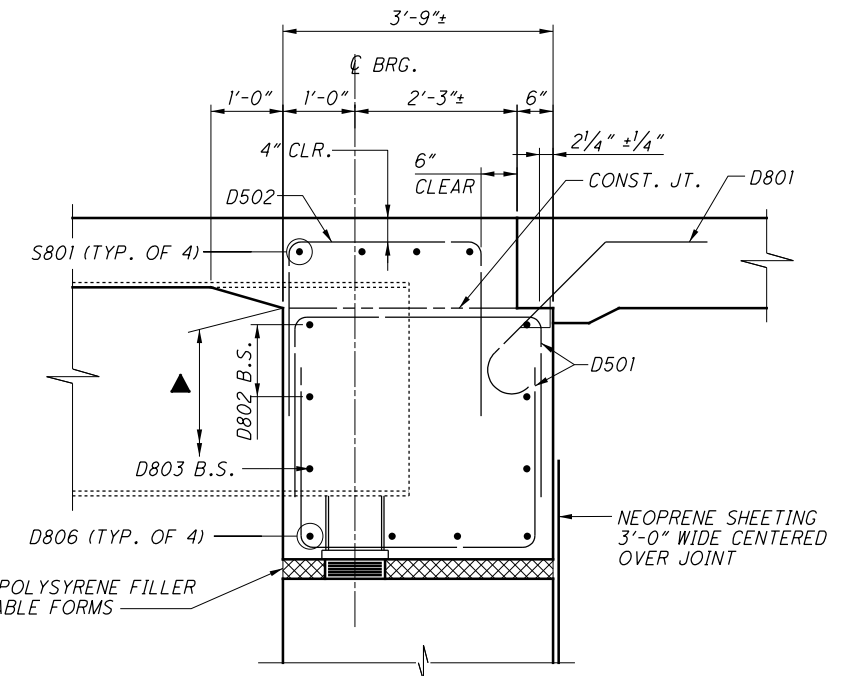
FORWARD ABUT.



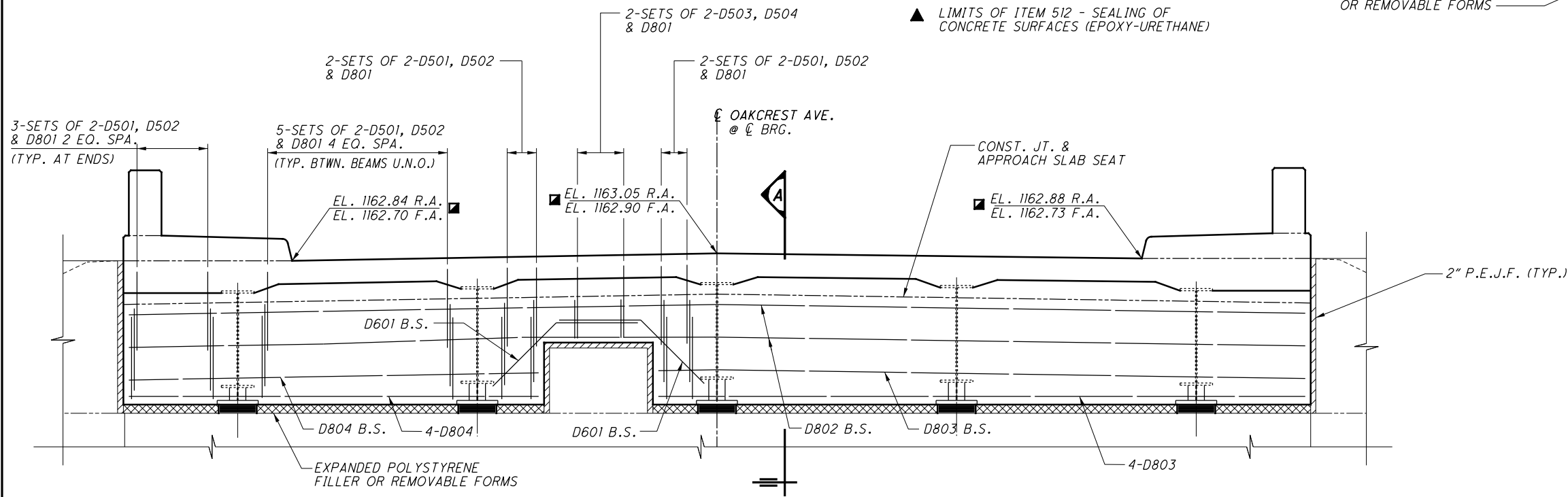
PLAN

LEGEND:

- NEOPRENE SHEETING 3'-0" WIDE CENTERED OVER JOINT
- ELEVATIONS GIVEN AT \bar{C} BRG.
- ▲ LIMITS OF ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)



SECTION A



ELEVATION

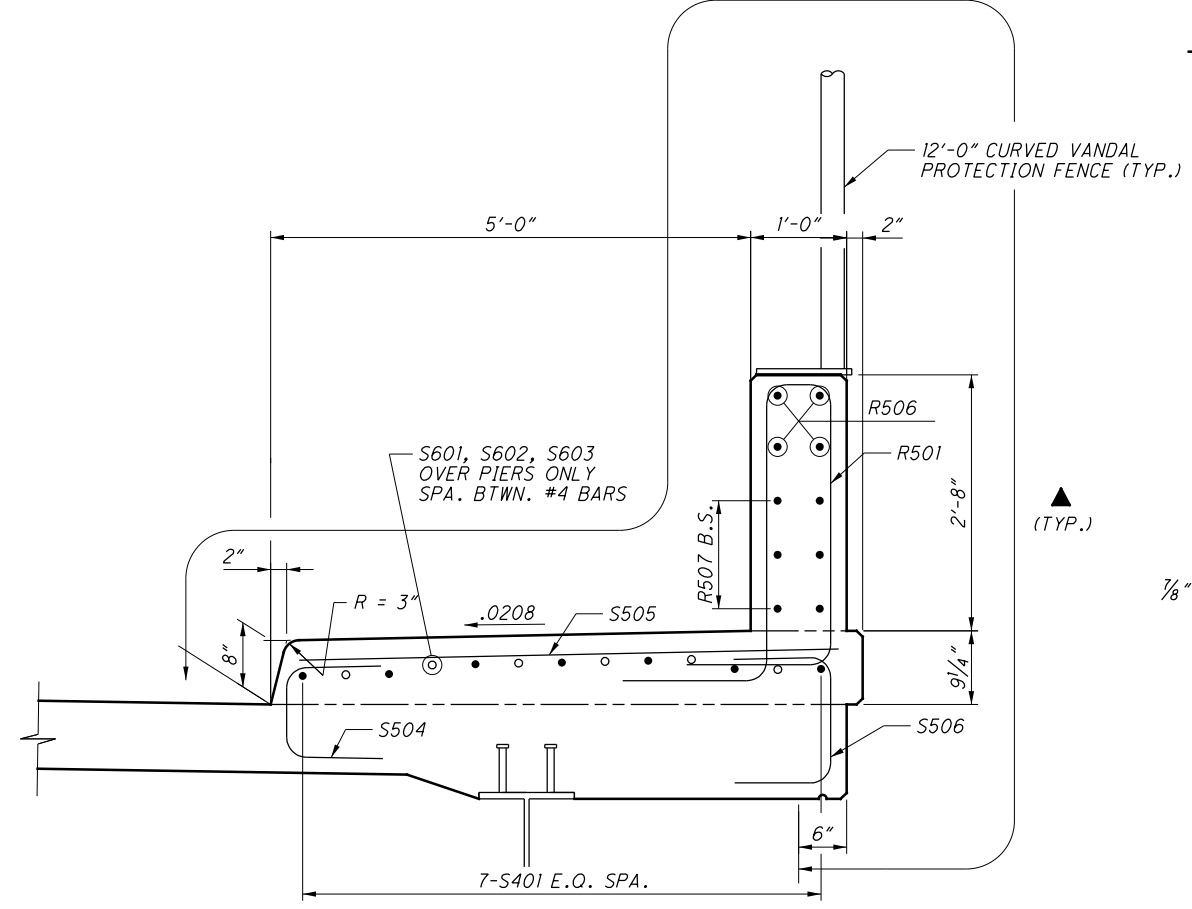
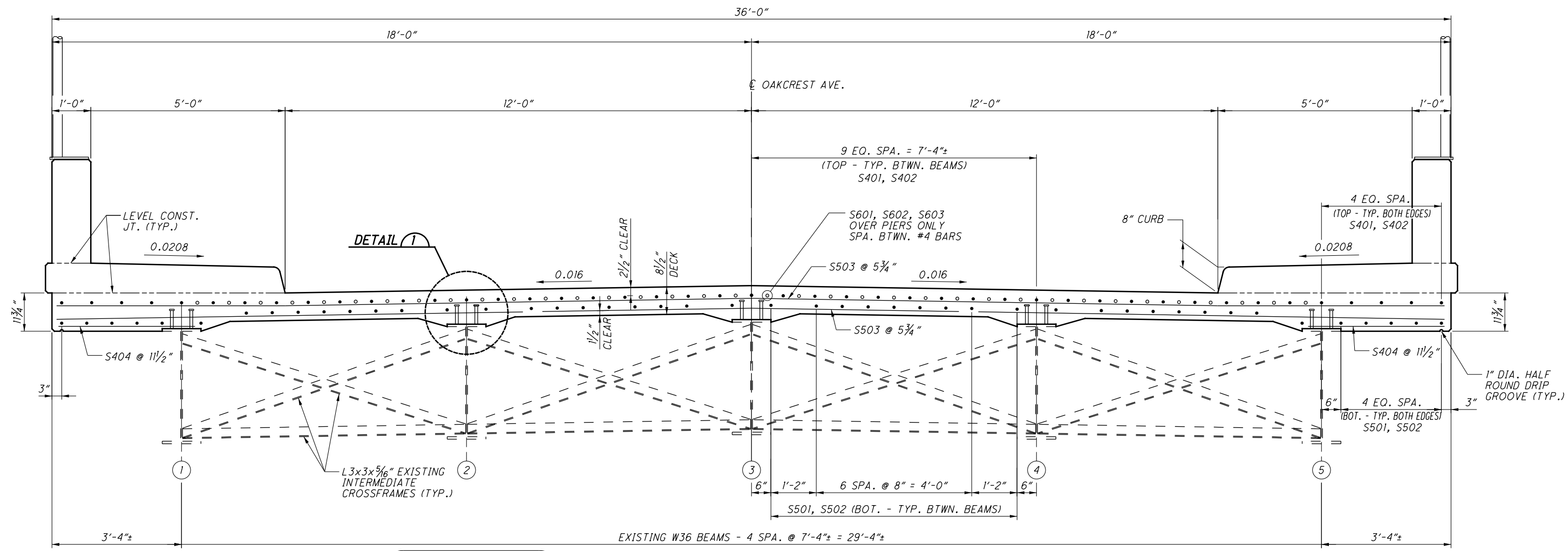
**AS-BUILT
DRAWINGS
12 / 7 / 18**

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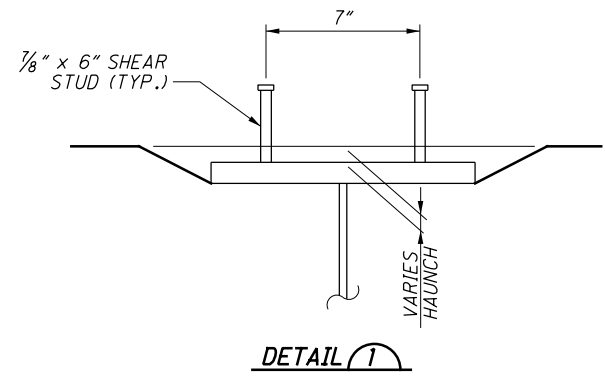
DESIGNED	RSN	CHECKED	DJC
DRAWN	RPR	REVISED	
REVIEWED	DGN	STRUCTURE FILE NUMBER	5000696
DATE	4-9-18		

DIAPHRAGM DETAILS
 BRIDGE NO. MAH-11-1341
 OAKCREST AVE. OVER S.R. 11

01-2017-2017342 MAH-11-13-41 DESIGN STRUCTURES SHEETS 011-1341C-ST001.DGN
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**AS-BUILT
DRAWINGS
12/ 7 / 18**



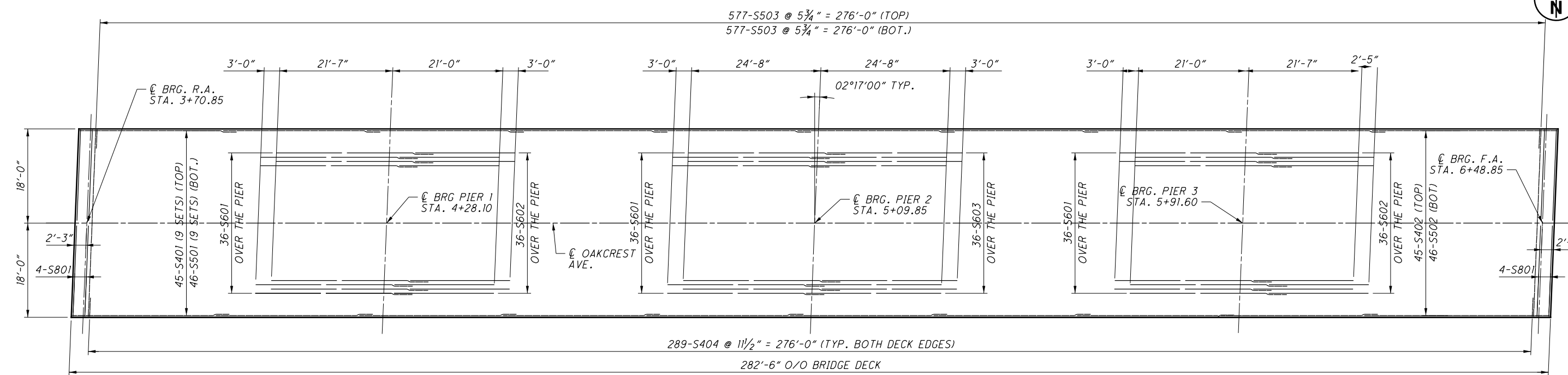
NOTES

1. DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 2 INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM IS ±3 INCHES.
2. THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.24.
3. FOR DECK SLAB PLAN, SEE SHT. NO. [12/19].
4. FOR SCREED, TOP OF HAUNCH, AND FINISHED ELEVATIONS, SEE SHT. NOS. [14/19] THRU [15/19].
5. FOR SIDEWALK CONCRETE BARRIER REINFORCING AND VANDEL PROTECTION FENCE SEE SHT. [16/19].

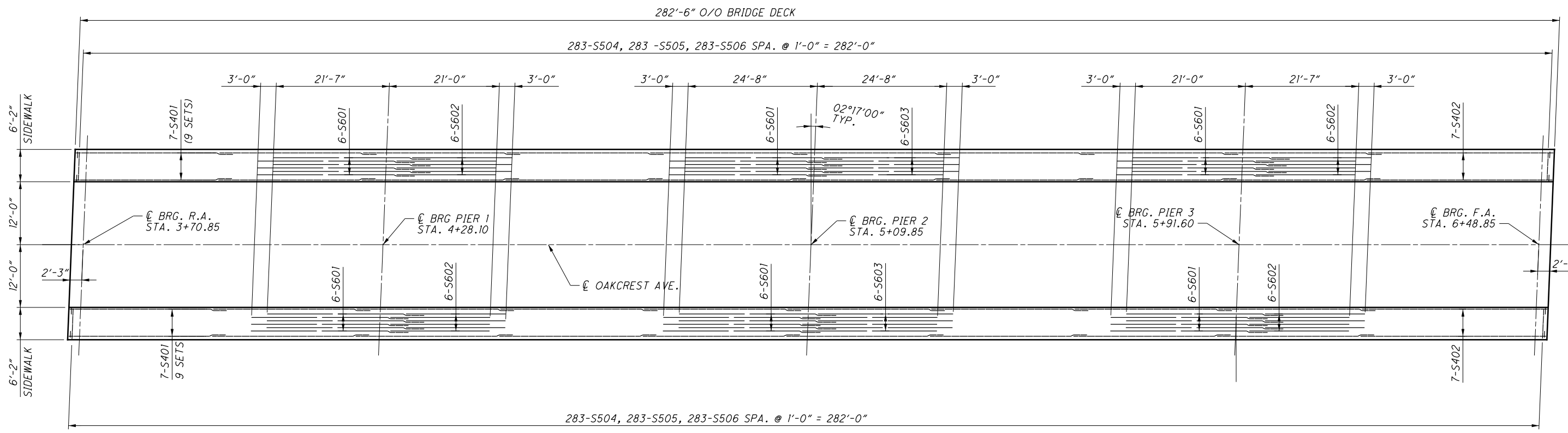
LEGEND:

▲ INDICATES LIMITS OF ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

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DRAWN RSN	REVISIONS RSN REVISED	DESIGNED RSN CHECKED DJC		
TRANSVERSE SECTION BRIDGE NO. MAH-11-1341 OAKCREST AVE. OVER S.R. 11				
MAH-11-13-41 PID No. 103014				
11 / 19				
26 34				



SLAB REINFORCEMENT PLAN



SIDEWALK REINFORCEMENT PLAN

**AS-BUILT
DRAWINGS
12 / 7 / 18**

NOTE

1. FOR TRANSVERSE AND SIDEWALK SECTIONS, SEE SHT. NO. 11/19.
2. FOR PARAPET REINFORCING AND VANDEL FENCE POST SPACINGS SEE SHT. NO. 16/19.
3. FOR END DIAPHRAGM DETAILS SEE SHT. NO. 10/19.
4. MINIMUM REBAR LAP SPLICE LENGTHS ARE AS FOLLOWS

LONGITUDINAL BARS:
 #4 BARS = 2'-0"
 #5 BARS = 2'-6"
 #6 BARS = 4'-0"

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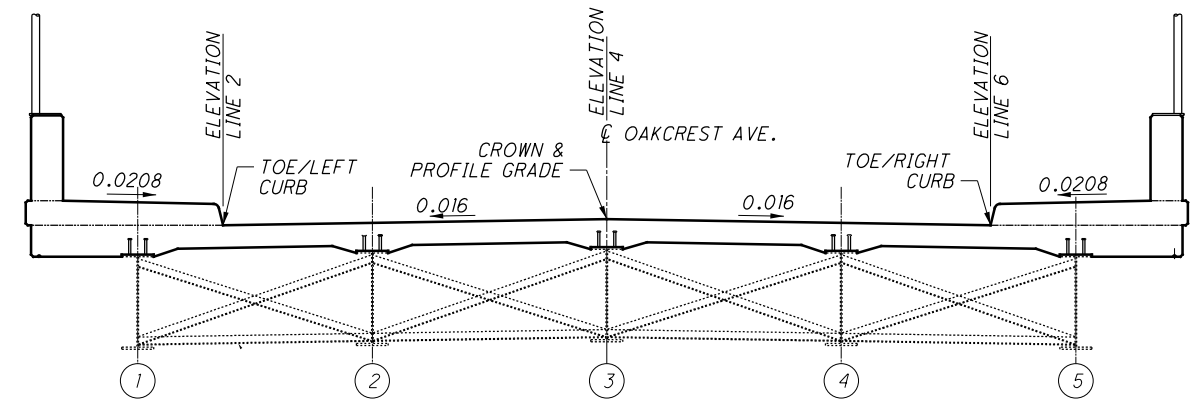
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RSN	RSN	DGN	4-9-18
CHECKED	REVISED	STRUCTURE FILE NUMBER	5000696
DUC			

BRIDGE DECK PLAN
 BRIDGE NO. MAH-11-1341
 OAKCREST AVE. OVER S.R. 11

MAH-11-13.41
 PID No. 103014

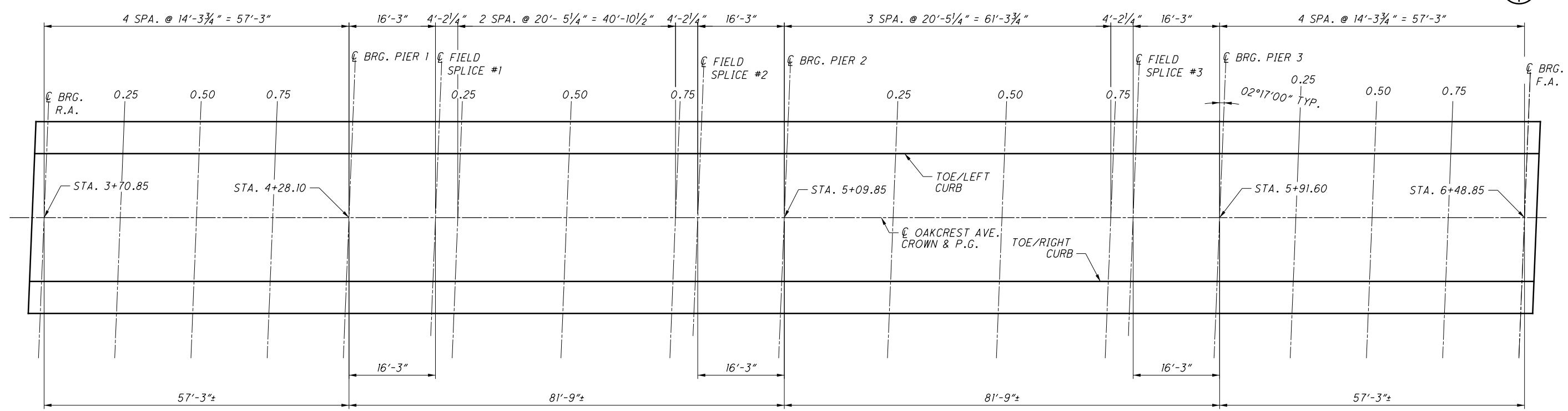
LOCATION	SCREED ELEVATIONS					
	ELAVATION LINE 2		ELAVATION LINE 4		ELAVATION LINE 6	
	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.
BRG. R.A.	3+71.33	1162.88	3+70.85	1163.05	3+70.37	1162.84
0.25 SPAN	3+85.64	1163.32	3+85.16	1163.50	3+84.68	1163.30
0.50 SPAN	3+99.96	1163.70	3+99.48	1163.87	3+99.00	1163.67
0.75 SPAN	4+14.27	1163.97	4+13.79	1164.14	4+13.31	1163.95
PIER 1	4+28.58	1164.23	4+28.10	1164.40	4+27.62	1164.21
F.S. 1	4+44.83	1164.49	4+44.35	1164.67	4+43.87	1164.48
0.25 SPAN	4+49.02	1164.57	4+48.54	1164.75	4+48.06	1164.55
0.50 SPAN	4+69.46	1164.77	4+68.98	1164.96	4+68.50	1164.77
0.75 SPAN	4+89.89	1164.91	4+89.41	1165.09	4+88.93	1164.90
F.S. 2	4+94.08	1164.93	4+93.60	1165.11	4+93.12	1164.92
PIER 2	5+10.33	1164.92	5+09.85	1165.11	5+09.37	1164.92
0.25 SPAN	5+30.77	1164.86	5+30.29	1165.05	5+29.81	1164.87
0.50 SPAN	5+51.21	1164.77	5+50.73	1164.96	5+50.25	1164.78
0.75 SPAN	5+71.64	1164.50	5+71.16	1164.69	5+70.68	1164.51
F.S. 3	5+75.83	1164.43	5+75.35	1164.63	5+74.87	1164.45
PIER 3	5+92.08	1164.13	5+91.60	1164.32	5+91.12	1164.14
0.25 SPAN	6+06.39	1163.85	6+05.91	1164.05	6+05.43	1163.87
0.50 SPAN	6+20.71	1163.53	6+20.23	1163.73	6+19.75	1163.56
0.75 SPAN	6+35.02	1163.14	6+34.54	1163.34	6+34.06	1163.17
BRG. F.A..	6+49.33	1162.70	6+48.85	1162.90	6+48.37	1162.73



TRANSVERSE SECTION

NOTE

SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS



ELEVATION LINE LOCATION PLAN

AS-BUILT DRAWINGS
12 / 7 / 18

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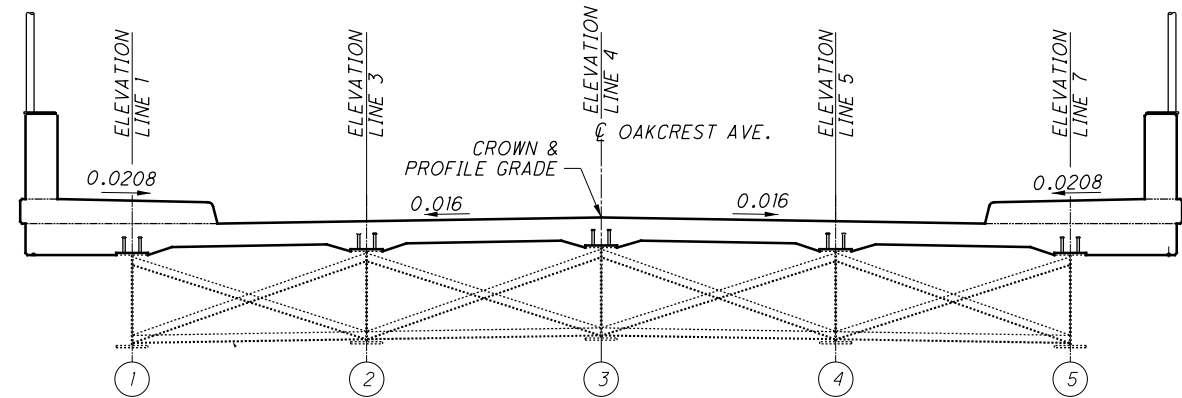
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 REVIEWED: DGN
 DRAWN: RSN
 CHECKED: RSN
 DESIGNED: RSN
 FILE NUMBER: STRUCTURE FILE NUMBER
 PROJECT NUMBER: 5000696

SCREED ELEVATIONS
 BRIDGE NO. MAH-11-1341
 OAKCREST AVE. OVER S.R. 11

MAH-11-13.41
 PID No. 103014

13 / 19
 28 / 34

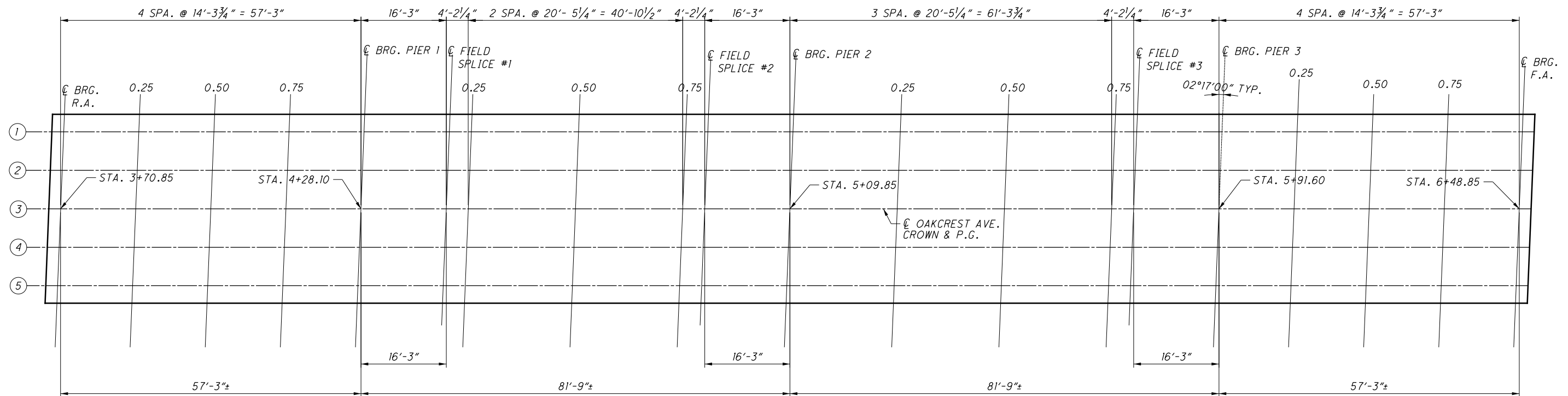
TOP OF HAUNCH ELEVATIONS										
LOCATION	EVALATION LINE 1		EVALATION LINE 3		EVALATION LINE 4		EVALATION LINE 5		EVALATION LINE 7	
	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.
BRG. R.A.	3+71.43	1162.17	3+71.14	1162.23	3+70.85	1162.34	3+70.56	1162.21	3+70.27	1162.13
0.25 SPAN	3+85.74	1162.62	3+85.45	1162.68	3+85.16	1162.79	3+84.87	1162.67	3+84.58	1162.59
0.50 SPAN	4+00.06	1162.99	3+99.77	1163.06	3+99.48	1163.16	3+99.19	1163.04	3+98.90	1162.96
0.75 SPAN	4+14.37	1163.26	4+14.08	1163.33	4+13.79	1163.43	4+13.50	1163.31	4+13.21	1163.24
PIER 1	4+28.68	1163.52	4+28.39	1163.59	4+28.10	1163.70	4+27.81	1163.58	4+27.52	1163.50
F.S. 1	4+44.93	1163.79	4+44.64	1163.86	4+44.35	1163.97	4+44.06	1163.85	4+43.77	1163.77
0.25 SPAN	4+49.12	1163.86	4+48.83	1163.93	4+48.54	1164.04	4+48.25	1163.92	4+47.96	1163.84
0.50 SPAN	4+69.56	1164.07	4+69.27	1164.14	4+68.98	1164.25	4+68.69	1164.13	4+68.40	1164.06
0.75 SPAN	4+89.99	1164.20	4+89.70	1164.27	4+89.41	1164.38	4+89.12	1164.27	4+88.83	1164.19
F.S. 2	4+94.18	1164.22	4+93.89	1164.29	4+93.60	1164.40	4+93.31	1164.29	4+93.02	1164.21
PIER 2	5+10.43	1164.21	5+10.14	1164.28	5+09.85	1164.40	5+09.56	1164.28	5+09.27	1164.21
0.25 SPAN	5+30.87	1164.15	5+30.58	1164.23	5+30.29	1164.34	5+30.00	1164.23	5+29.71	1164.16
0.50 SPAN	5+51.31	1164.06	5+51.02	1164.13	5+50.73	1164.25	5+50.44	1164.14	5+50.15	1164.07
0.75 SPAN	5+71.74	1163.79	5+71.45	1163.87	5+71.16	1163.98	5+70.87	1163.87	5+70.58	1163.80
F.S. 3	5+75.93	1163.72	5+75.64	1163.80	5+75.35	1163.92	5+75.06	1163.81	5+74.77	1163.74
PIER 3	5+92.18	1163.42	5+91.89	1163.49	5+91.60	1163.61	5+91.31	1163.50	5+91.02	1163.44
0.25 SPAN	6+06.49	1163.14	6+06.20	1163.22	6+05.91	1163.34	6+05.62	1163.23	6+05.33	1163.17
0.50 SPAN	6+20.81	1162.82	6+20.52	1162.90	6+20.23	1163.02	6+19.94	1162.92	6+19.65	1162.85
0.75 SPAN	6+35.12	1162.43	6+34.83	1162.51	6+34.54	1162.64	6+34.25	1162.53	6+33.96	1162.46
BRG. F.A..	6+49.43	1161.99	6+49.14	1162.07	6+48.85	1162.20	6+48.56	1162.09	6+48.27	1162.02



TRANSVERSE SECTION

NOTE

TOP OF HAUNCH ELEVATION SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.

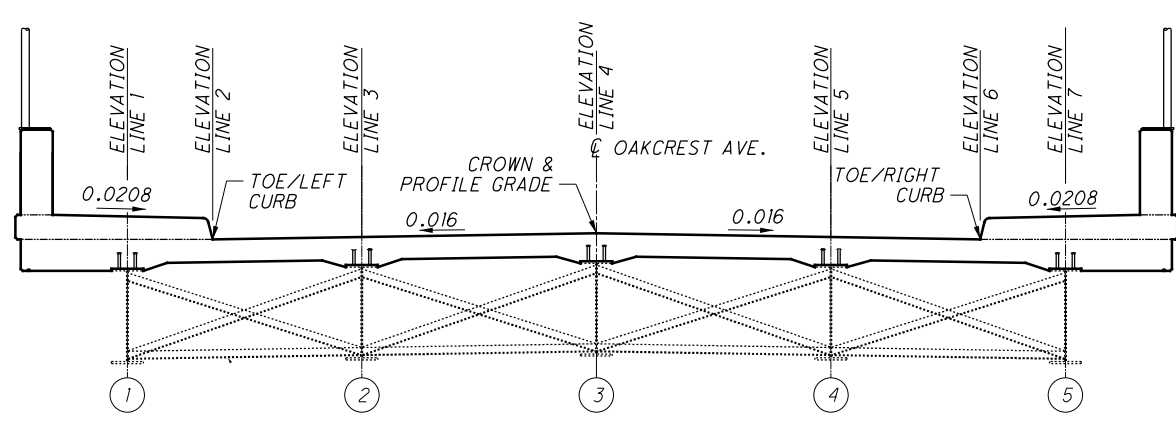


ELEVATION LINE LOCATION PLAN

AS-BUILT DRAWINGS
12 / 7 / 18

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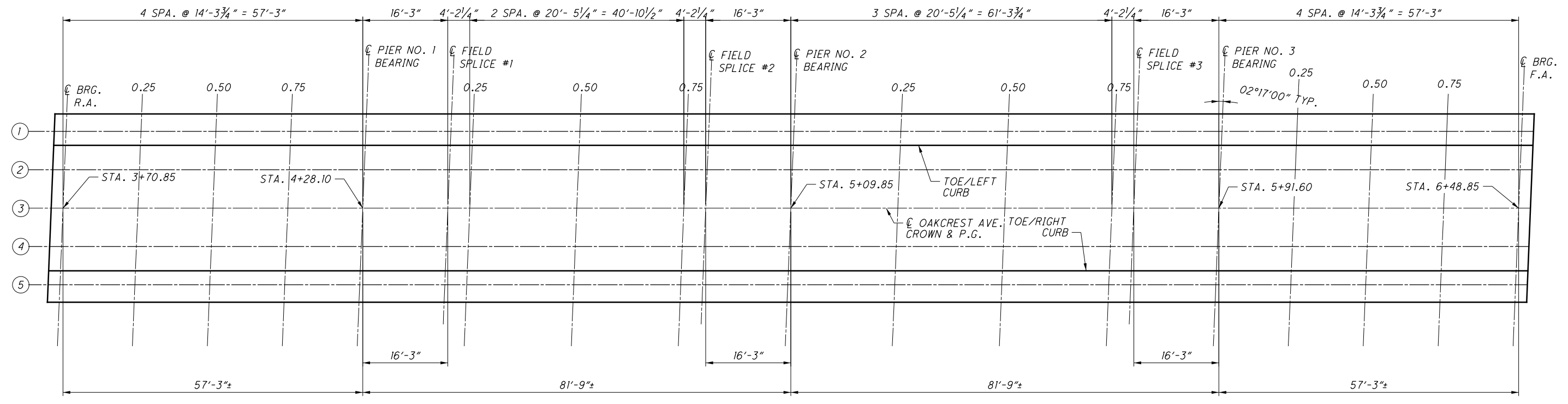
LOCATION	FINISHED DECK ELEVATIONS													
	ELEVATION LINE 1		ELEVATION LINE 2		ELEVATION LINE 3		ELEVATION LINE 4		ELEVATION LINE 5		ELEVATION LINE 6		ELEVATION LINE 7	
	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.
BRG. R.A.	3+71.43	1162.88	3+71.33	1162.88	3+71.14	1162.94	3+70.85	1163.05	3+70.56	1162.92	3+70.37	1162.84	3+70.27	1162.84
0.25 SPAN	3+85.74	1163.30	3+85.64	1163.30	3+85.45	1163.37	3+85.16	1163.47	3+84.87	1163.35	3+84.68	1163.27	3+84.58	1163.27
0.50 SPAN	4+00.06	1163.67	3+99.96	1163.67	3+99.77	1163.74	3+99.48	1163.84	3+99.19	1163.72	3+99.00	1163.64	3+98.90	1163.64
0.75 SPAN	4+14.37	1163.96	4+14.27	1163.96	4+14.08	1164.03	4+13.79	1164.13	4+13.50	1164.01	4+13.31	1163.94	4+13.21	1163.93
PIER 1	4+28.68	1164.23	4+28.58	1164.23	4+28.39	1164.29	4+28.10	1164.40	4+27.81	1164.29	4+27.62	1164.21	4+27.52	1164.21
F.S. 1	4+44.93	1164.47	4+44.83	1164.47	4+44.64	1164.54	4+44.35	1164.65	4+44.06	1164.53	4+43.87	1164.45	4+43.77	1164.45
0.25 SPAN	4+49.12	1164.53	4+49.02	1164.53	4+48.83	1164.60	4+48.54	1164.71	4+48.25	1164.59	4+48.06	1164.52	4+47.96	1164.51
0.50 SPAN	4+69.56	1164.72	4+69.46	1164.71	4+69.27	1164.79	4+68.98	1164.90	4+68.69	1164.78	4+68.50	1164.71	4+68.40	1164.71
0.75 SPAN	4+89.99	1164.88	4+89.89	1164.88	4+89.70	1164.95	4+89.41	1165.06	4+89.12	1164.94	4+88.93	1164.87	4+88.83	1164.87
F.S. 2	4+94.18	1164.91	4+94.08	1164.91	4+93.89	1164.98	4+93.60	1165.09	4+93.31	1164.98	4+93.12	1164.90	4+93.02	1164.90
PIER 2	5+10.43	1164.92	5+10.33	1164.92	5+10.14	1164.99	5+09.85	1165.11	5+09.56	1164.99	5+09.37	1164.92	5+09.27	1164.92
0.25 SPAN	5+30.87	1164.83	5+30.77	1164.83	5+30.58	1164.90	5+30.29	1165.02	5+30.00	1164.91	5+29.81	1164.84	5+29.71	1164.84
0.50 SPAN	5+51.31	1164.70	5+51.21	1164.71	5+51.02	1164.78	5+50.73	1164.90	5+50.44	1164.79	5+50.25	1164.72	5+50.15	1164.72
0.75 SPAN	5+71.74	1164.46	5+71.64	1164.46	5+71.45	1164.54	5+71.16	1164.66	5+70.87	1164.55	5+70.68	1164.47	5+70.58	1164.48
F.S. 3	5+75.93	1164.41	5+75.83	1164.41	5+75.64	1164.48	5+75.35	1164.60	5+75.06	1164.49	5+74.87	1164.42	5+74.77	1164.43
PIER 3	5+92.18	1164.12	5+92.08	1164.13	5+91.89	1164.20	5+91.60	1164.32	5+91.31	1164.21	5+91.12	1164.14	5+91.02	1164.14
0.25 SPAN	6+06.49	1163.84	6+06.39	1163.84	6+06.20	1163.92	6+05.91	1164.04	6+05.62	1163.93	6+05.43	1163.86	6+05.33	1163.86
0.50 SPAN	6+20.81	1163.51	6+20.71	1163.51	6+20.52	1163.58	6+20.23	1163.71	6+19.94	1163.60	6+19.75	1163.53	6+19.65	1163.53
0.75 SPAN	6+35.12	1163.11	6+35.02	1163.12	6+34.83	1163.20	6+34.54	1163.32	6+34.25	1163.21	6+34.06	1163.15	6+33.96	1163.15
BRG. F.A.	6+49.43	1162.70	6+49.33	1162.70	6+49.14	1162.78	6+48.85	1162.90	6+48.56	1162.80	6+48.37	1162.73	6+48.27	1162.73



TRANSVERSE SECTION

NOTE

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

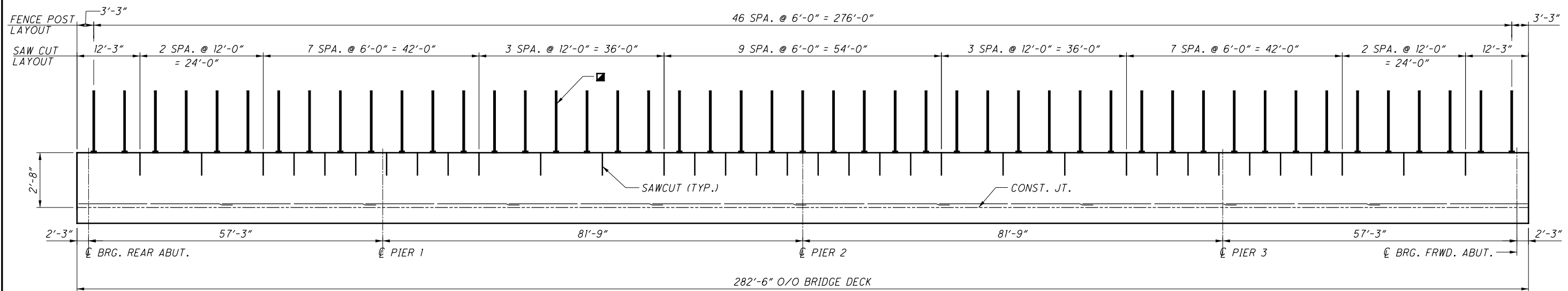


ELEVATION LINE LOCATION PLAN

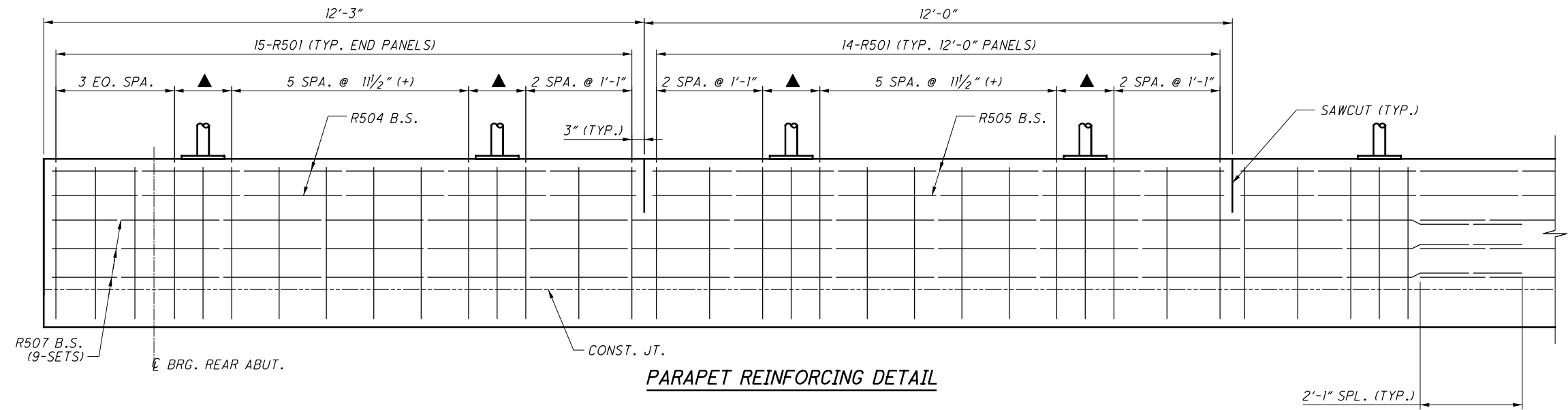
AS-BUILT DRAWINGS
 12 / 7 / 18

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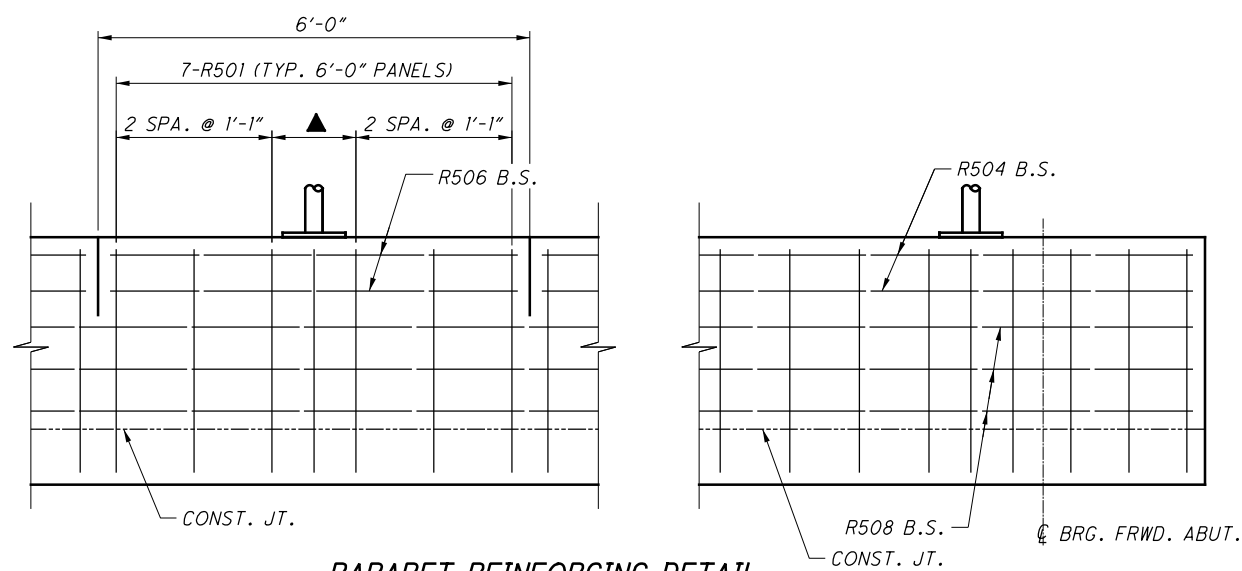
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PARAPET ELEVATION
LEFT PARAPET SHOWN, RIGHT PARAPET SIMILAR



PARAPET REINFORCING DETAIL



PARAPET REINFORCING DETAIL

AS-BUILT DRAWINGS
12 / 7 / 18

LEGEND

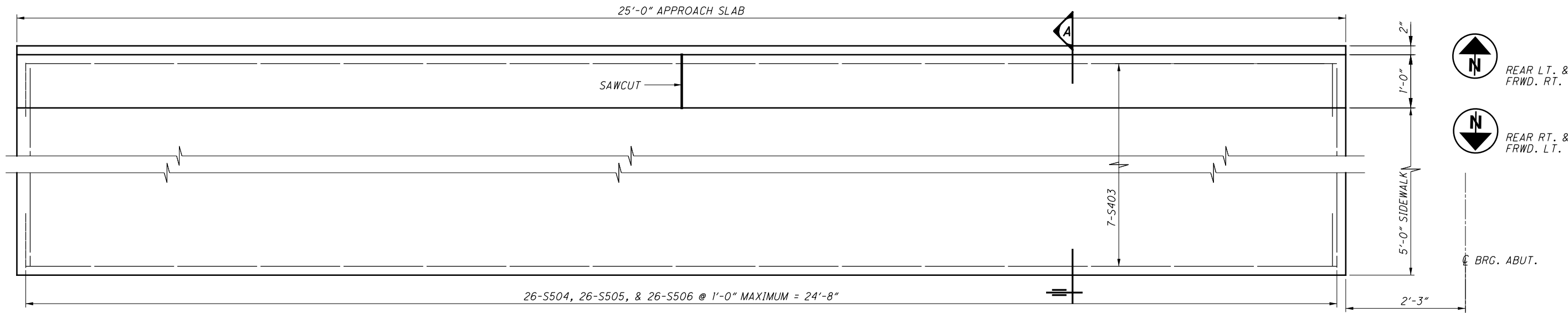
- ▲ 2- SPA. @ 7" = 1'-2" TYP. AT POST
- 12'-0" CURVE VANDEL PROTECTION FENCE, SEET STD. DWG. VPF-1-90 FOR ADDITIONAL DETAILS.

NOTES

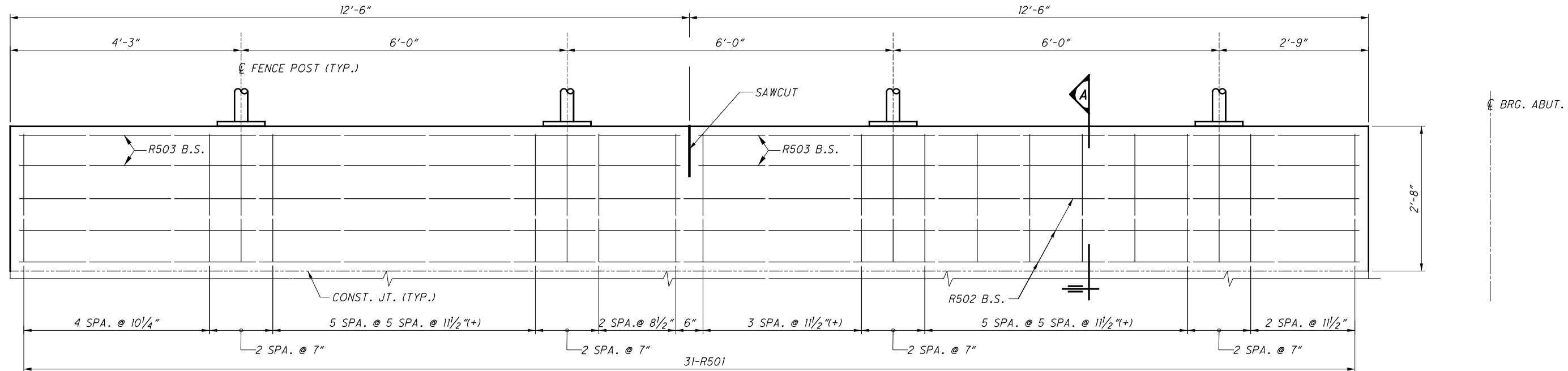
1. FOR ADDITIONAL INFORMATION SEE STD. DWG. BR-2-15

 GPD GROUP <small>Clara Pyle Schorner, Burns & Delaney, Inc. 330 S. 25th Street, Suite 2511, Akron, Ohio 44311 330.572.2100 Copyright Clara Pyle Schorner, Burns & Delaney, Inc. 2015</small>	DESIGN AGENCY GPD GROUP	DATE 4-9-18	REVIEWED DGN	STRUCTURE FILE NUMBER 5000696
DRAWN RSN	REVISIONS REVISED	DESIGNED RSN	CHECKED DJC	
CONCRETE BARRIER REINFORCING DETAILS BRIDGE NO. MAH-11-1341 OAKCREST AVE. OVER S.R. 11				
MAH-11-13.41 PID No. 103014				
16 / 19				
31 34				

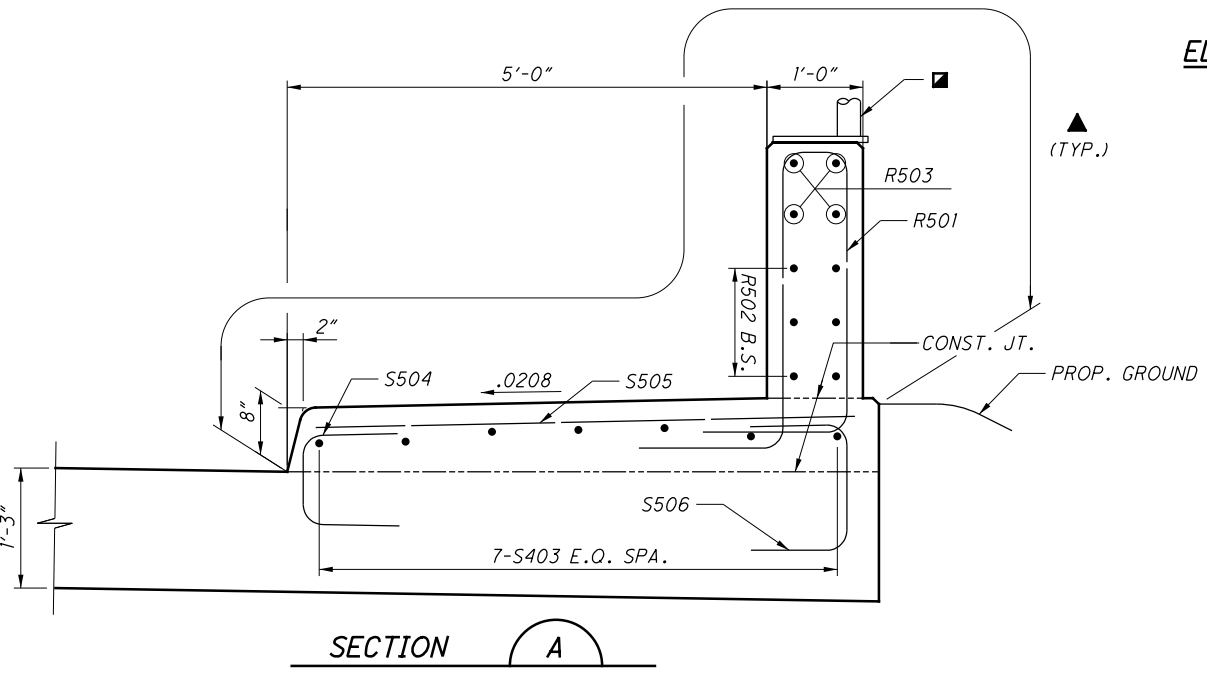
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PLAN
 FENCE POSTS NOT SHOWN



ELEVATION



**AS-BUILT
 DRAWINGS
 12 / 7 / 18**

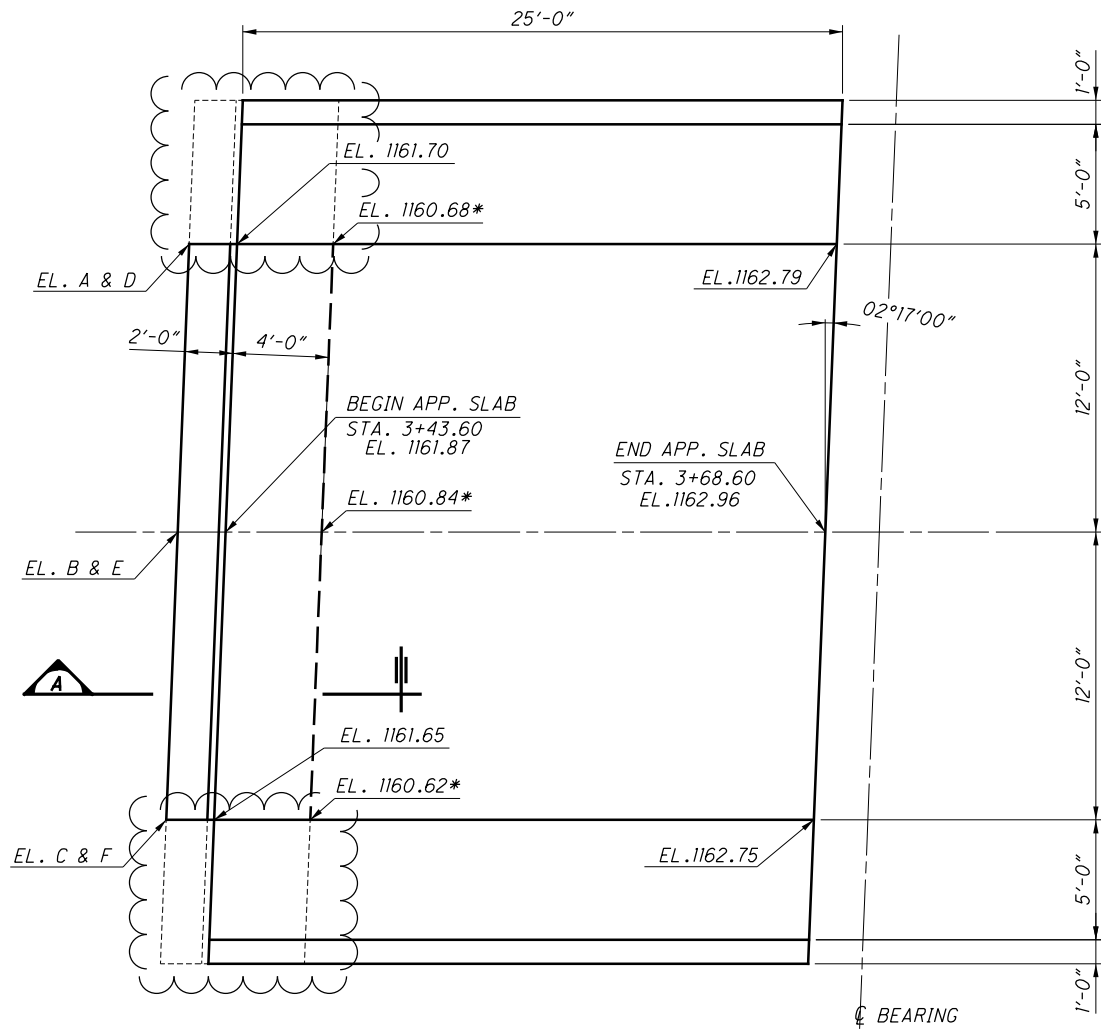
LEGEND:

- 12'-0" CURVE VANDEL PROTECTION FENCE, SEE STD. DWG. VPF-1-90 FOR ADDITIONAL DETAILS.
- ▲ INDICATES LIMITS OF ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE SEALER)

NOTES:

1. FOR ADDITIONAL INFORMATION SEE STD. DWG. BR-2-15

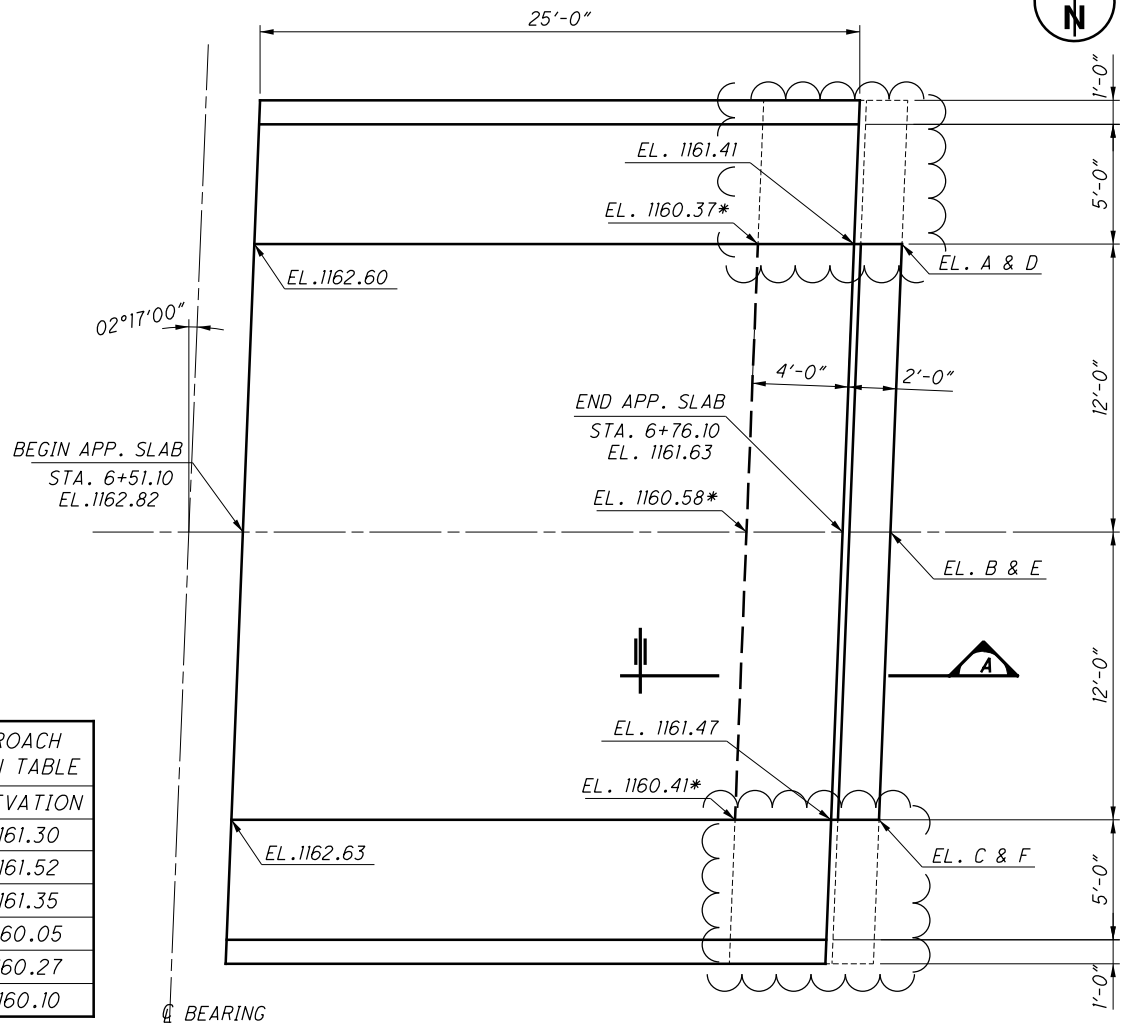
DESIGN AGENCY GPD GROUP Glenn Pyle, Schoner, Burns & Dehaven, Inc. 320 South Main Street, Suite 2511, Akron, Ohio 44311 330.572.2100 Copyright © 2018, Glenn Pyle, Schoner, Burns & Dehaven, Inc.	
DESIGNED RSN DUC	REVIEWED DGN 5000696
DATE 4-9-18	
STRUCTURE FILE NUMBER	
DRAWN RSN	
REVISIED	
APPROACH SLAB CONCRETE BARRIER REINFORCING DETAILS	
BRIDGE NO. MAH-11-1341	
OAKCREST AVE. OVER S.R. 11	
MAH-11-13.41	
PID No. 103014	
17 / 19	
32	
34	



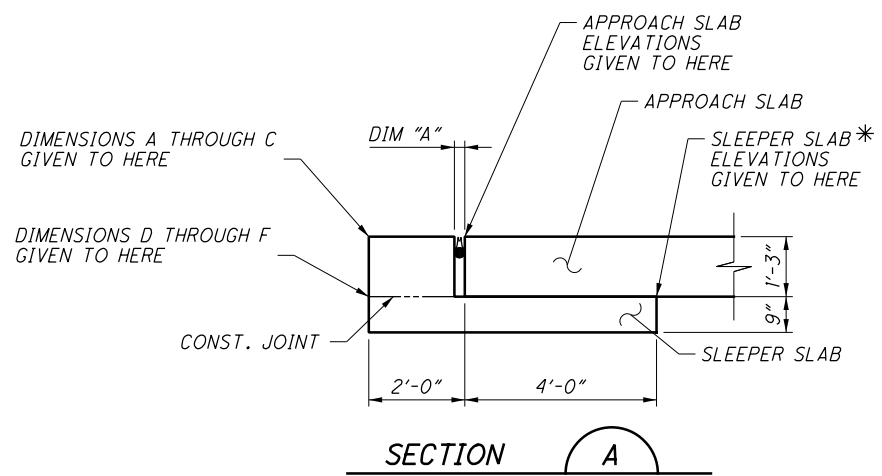
REAR APPROACH SLAB

NOT CONSTRUCTED BEYOND ROADWAY AS SHOWN IN ORIGINAL PLANS

REAR APPROACH SLAB ELEVATION TABLE		FORWARD APPROACH SLAB ELEVATION TABLE	
CALL OUT	ELEVATION	CALL OUT	ELEVATION
A	1161.59	A	1161.30
B	1161.75	B	1161.52
C	1161.53	C	1161.35
D	1160.34	D	1160.05
E	1160.50	E	1160.27
F	1160.28	F	1160.10

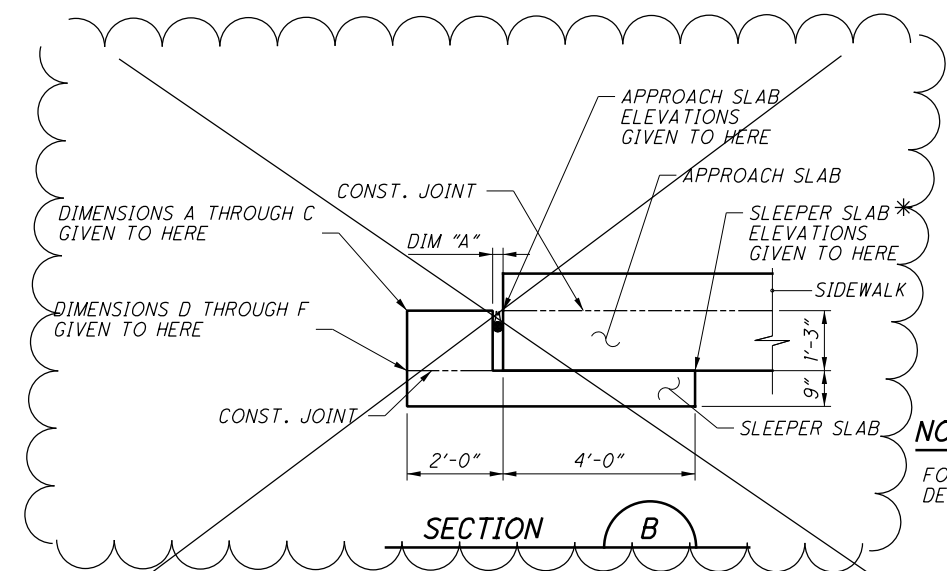


FORWARD APPROACH SLAB



SECTION A

EXPANSION JOINT OPENING	
TEMPERATURE	DIM "A"
30°	3 3/8"
40°	3 1/8"
50°	2 7/8"
60°	2 5/8"
70°	2 5/16"
80°	2 1/16"
90°	1 3/16"



SECTION B

AS-BUILT DRAWINGS
12 / 7 / 18

NOTE:
FOR TYPE C INSTALLATION REINFORCING AND ADDITIONAL DETAILS, SEE STD. DWG. AS-2-15

01-2817-2817342 MAH\103014\DESIGN\STRUCTURES\SHEETS\011-1341C-SD0007.DGN
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DESIGN AGENCY
GPD GROUP
 Glenn P. Schorer, Barry & DeLavena, Inc.
 330 South Main Street, Suite 2511, Akron, Ohio 44311 330.572.2100
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DESIGNED RSN
CHECKED DJC
DRAWN RSN
REVISIONS .
REVIEWED DGN
DATE 4-9-18
STRUCTURE FILE NUMBER 5000696

APPROACH SLAB DETAILS
 BRIDGE NO. MAH-11-1341
 OAKCREST AVE. OVER S.R. 11

MAH-11-13.41
 PID No. 103014

18 / 19

3.3
 3.4

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						INC.	
	REAR	FORWARD	TOTAL				A	B	C	D	E	R		
ABUTMENTS														
A501	23	23	46	6'-2"	296	2	1'-6"	3'-5"	1'-6"					
A502	2	2	20	11'-1"	231	2	3'-10"	3'-5"	4'-1"					
A503	10	10	20	16'-8"	348	2	6'-9"	3'-5"	6'-9"					
A504	2	2	4	20'-2"	84	3	3'-7"	6'-2"						
A505	2 SR OF	2 SR OF	4 SR OF	8'-10" TO	126	2	2'-10" TO	3'-5"	2'-10" TO					0'-7 1/2"
	3	3	3	11'-4"			4'-1"		4'-1"					
A506	4	4	8	12'-4"	103	2	4'-7"	3'-5"	4'-7"					
A507	4	4	8	27'-0"	225	STR								
A508	8	8	16	9'-6"	159	STR								
A509	8	8	16	7'-0"	117	STR								
A510	4	4	8	5'-6"	46	STR								
A511	4	4	8	7'-4"	61	19	5'-3"	1'-11"	0'-10"					
A512	46	46	92	3'-1"	296	1	0'-10"	2'-5"						
A801	8	8	16	28'-7"	1220	STR								
ABUTMENT TOTAL					3312	LBS								

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						INC.	
	REAR	FORWARD	TOTAL				A	B	C	D	E	R		
DIAPHRAGMS														
DG601	5	5	10	15'-1"	227	3	3'-5"	3'-8 1/2"						
DG801	7	7	14	13'-8"	511	5	2'-8"	3'-7"	2'-4"					
DIAPHRAGM TOTAL					738	LBS								

NOTE: DIAPHRAGM GUIDE REBAR ARE INCLUDED WITH "ITEM 511 - SEMI-INTEGRAL DIAPHRAM GUIDE" FOR PAYMENT

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						INC.	
	REAR	FORWARD	TOTAL				A	B	C	D	E	R		
DIAPHRAGMS														
D501	50	50	100	8'-2"	852	2	2'-6"	3'-5"	2'-6"					
D502	25	25	50	7'-4"	382	2	2'-6"	2'-7"	2'-6"					
D503	4	4	8	5'-6"	46	2	1'-2"	3'-5"	1'-2"					
D504	2	2	4	6'-8"	28	2	2'-2"	2'-7"	2'-2"					
D601	4	4	8	5'-2"	62	19	2'-9"	1'-9"	1'-9"					
D801	27	27	54	4'-9"	685	18	2'-7"	1'-0"	1'-0"					
D802	4	4	8	36'-0"	770	STR								
D803	6	6	12	20'-0"	641	STR								
D804	6	6	12	12'-9"	406	STR								
DIAPHRAGM TOTAL					3872	LBS								

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						INC.
					A	B	C	D	E	R	
PIERS											
P501	12	9'-10"	123	24	2'-8"	2'-10"				1'-4"	
P502	6	30'-11"	193	STR							
P503	132	5'-10"	803	2	1'-3"	2'-5"	2'-5"				
P601	6	29'-4"	264	STR							
P602	6	31'-8"	286	STR							
PIER TOTAL			1669	LBS							

**AS-BUILT
DRAWINGS
12 / 7 / 18**

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						INC.
					A	B	C	D	E	R	
SLAB											
S401	531	30'-0"	10641	STR							
S402	59	31'-0"	1222	STR							
S403	28	24'-8"	461	STR							
S404	578	3'-7"	1384	STR							
S501	414	30'-0"	12954	STR							
S502	46	36'-1"	1732	STR							
S503	1154	35'-8"	42929	STR							
S504	670	2'-8"	1786	2	1'-0"	0'-11 1/2"	1'-0"				
S505	670	5'-6"	3843	STR							
S506	670	3'-1"	2155	2	1'-0"	1'-4"	1'-0"				
S601	144	30'-0"	6489	STR							
S602	96	19'-7"	2824	STR							
S603	48	25'-10"	1862	STR							
S801	8	35'-8"	762	STR							
SLAB TOTAL			91044	LBS							

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						INC.
					A	B	C	D	E	R	
RAILING											
R501	786	9'-1"	7446	30	1'-6"	0'-8"	3'-1"	2'-11"			
R502	24	24'-8"	617	STR							
R503	32	12'-2"	406	STR							
R504	16	11'-11"	198	STR							
R505	80	11'-8"	973	STR							
R506	184	5'-8"	1087	STR							
R507	108	30'-0"	3379	STR							
R508	12	31'-6"	394	STR							
RAILING TOTAL			14500	LBS							

