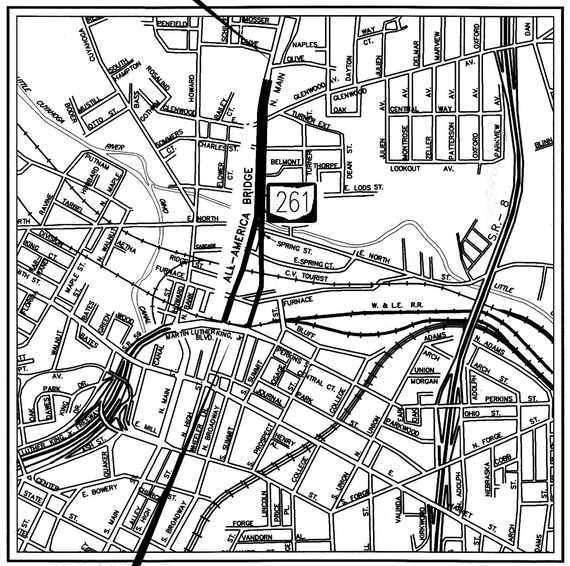
ALL–AMERICA BRIDGE REHABILITATION

SUM 261–10.3, PID 86383

END PROJECT STA. 97+30



BEGIN PROJECT STA. 58+90

VICINITY MAP

0' 1000' 2000' 3000'

N W E S

LEGEND

- EX. TREE TO REMAIN
- EX. TREE TO BE REMOVED
- EX. BUSH TO REMAIN
- EX. STREET LIGHT
- EX. STREET LIGHT / TRAFFIC SIGNAL
- PRO. LANE ARROW
- ONLY — PRO. WORD ON PAVEMENT
- PRO. PRE–CAST PIER
- EX. RAILROAD TRACKS
- EX. GUARDRAIL
- EX. FENCE
- EX. CONCRETE WALL
- EX. CONCRETE PARAPET
- EX. CURB
- EX. METAL CURB PLATE
- EX. EXPANSION JOINT
- EX. ABUTMENT / PIER
- PRO. FENCE

PAVEMENT MARKINGS

- PRO. STOP LINES
- PRO. CROSSWALK LINES
- PRO. CHANNELIZING LINES
- PRO. EDGE LINES (WHITE)
- PRO. LANE LINES
- PRO. DOTTED LINES
- PRO. BROAD TRANSVERSE LINES
- PRO. EDGE LINES (YELLOW)
- PRO. CENTER LINES
- PRO. FULL DEPTH REPAIR AREA
- PRO. EXPANSION JOINT REPLACEMENT

SHEET INDEX

EXISTING DRAWINGS REFERENCE FILES

SCANNED CITY OF AKRON, BUREAU OF ENGINEERING RECORD DRAWINGS ARE PROVIDED ON COMPACT DISK AS A PROJECT PLAN REFERENCE FOR THE FOLLOWING PREVIOUSLY CONSTRUCTED PROJECTS:

1979–072–00 SUM–NORTH MAIN STREET VIADUCT
1985–100–00 SUM–PERKINS STREET

FOR ADDITIONAL INFORMATION SEE THE GENERAL NOTES IN THE PLAN SET

ORIGINAL DESIGN DESIGNATIONS

(1979)

ORIGINAL DESIGN ADT (1998)	28,200
D.H.V.	9%
D (DIRECTIONAL DIST.)	65–35%
T (TRUCKS)	4%
V (DESIGN SPEED)	45 M.P.H
POSTED SPEED	35 M.P.H

CURRENT INFORMATION

CURRENT ADT (AMATS–2007)	8,990
TRUCKS (24 HOUR B&C)	3%

DESIGN FUNCTIONAL CLASSIFICATION

PRINCIPAL ARTERIAL

F.B.# NO SURVEY PERFORMED

PROJECT DATE: April 3, 2009

STANDARD DRAWINGS AND SPECIFICATIONS

THE STANDARD CONSTRUCTION DRAWINGS, LATEST REVISIONS AND THE "CONSTRUCTION AND MATERIAL SPECIFICATIONS" OF THE CITY OF AKRON, OHIO, DEPARTMENT OF PUBLIC SERVICE, AKRON ENGINEERING BUREAU, 2008 EDITION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT, UNLESS NOTED OTHERWISE.

2 WORKING DAYS
BEFORE YOU DIG
CALL TOLL FREE 800–362–2764
OHIO UTILITIES PROTECTION SERVICE

1981 ALL AMERICA CITY 1995 — AKRON — CITY OF INVENTION

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
AKRON ENGINEERING BUREAU
166 SOUTH HIGH STREET
AKRON, OHIO 44308

SERVICE DIRECTOR RICHARD A. MEROLLA
MAYOR DONALD L. PLUSQUELLIC
CITY ENGINEER RALPH COLETTA, P.E.

SUBMITTED David C. Wilson /MD
ACTING DESIGN DIVISION MANAGER

SUBMITTED Frank Lyon for JPW
CONSTRUCTION DIVISION MANAGER

SUBMITTED RJC
CITY ENGINEER

APPROVED
DIRECTOR OF PUBLIC SERVICE

PROJECT ENGINEER

STATE OF OHIO — MICHAEL A. TEODECKI — E-39968 — REGISTERED PROFESSIONAL ENGINEER

Michael A Teodecki June 4, 2009
MICHAEL J. TEODECKI, P.E. DATE

ELECTRICAL ENGINEER

STATE OF OHIO — MICHAEL J. SVASTA — E-70660 — REGISTERED PROFESSIONAL ENGINEER

Michael Svasta 6/4/2009
MICHAEL J. SVASTA, P.E. DATE

PROJECT DESCRIPTION

PROJECT OBJECTIVE: THE CITY OF AKRON IS PROPOSING TO HYDRO–DEMO AND RESURFACE APPROXIMATELY 23,500 SQUARE YARDS OF THE BRIDGE DECK ALONG WITH OTHER MINOR ASSOCIATED BRIDGE DECK REPAIRS INCLUDING REPLACEMENT OF THE MODULAR EXPANSION JOINTS. IN ADDITION, THE PROJECT WILL CONSTRUCT APPROXIMATELY 10,400 LINEAL FEET OF DECORATIVE SAFETY FENCING/RAILING AND NEW LED LIGHTING.

ALL–AMERICA BRIDGE REHABILITATION
SUM 261–10.3, PID 86383
PERKINS ST. – OLIVE ST.

01/24

2009–026–00

R:\Active_Projects\Civ_Env\2009\026–00 All–America Bridge Rehabilitation\Sheets\TITLE SHEET.dwg; 6/4/2009 7:40 AM; hall, jim

JLH

SCOPE OF WORK

THE PURPOSE OF THIS PROJECT IS TO REMOVE THE WEARING COURSE AND REPLACE WITH A MSC OVERLAY USING MECHANICAL AND HYDRODEMOLITION. INCLUDED IN THE SCOPE OF THE PROJECT ARE EXPANSION JOINT REPLACEMENT, SEALING CONCRETE SURFACES, INSTALLING DECORATIVE SAFETY FENCING, LIGHTING AND PAVEMENT MARKING ON THE ALL AMERICA BRIDGE LOCATED ROUGHLY BETWEEN PERKINS AVENUE TO OLIVE STREET. MISCELLANEOUS PATCHING OF THE EXISTING STRUCTURE AND STRUCTURAL REPAIRS WILL BE AS DIRECTED BY THE ENGINEER.

DETAILS AND DIMENSIONS SHOWN ON THIS PLAN PERTAINING TO THE EXISTING INFORMATION HAVE BEEN OBTAINED FROM AERIAL PHOTOGRAPHS AND PLANS OF THE EXISTING FACILITIES, INCLUDING BUT NOT LIMITED TO: 1972-072-00 SUM-NORTH MAIN VIADUCT AND 1985-100-00 SUM-PERKINS STREET AND DO NOT NECESSARILY REPRESENT AS BUILT CONDITIONS. THE CONTRACTOR SHALL BE REFERRED TO THE "CONSTRUCTION AND MATERIAL SPECIFICATIONS" SECTIONS 102.04, 105.02, AND 105.07. CONTRACT BID PRICES SHALL BE BASED ON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON AN EXAMINATION OF THE WORK SITE BY THE CONTRACTOR. ALL PROJECT WORK SHALL BE BASED UPON THE ACTUAL DIMENSIONS MEASURED AND RECORDED IN THE FIELD BY THE CONTRACTOR AND CONFIRMED BY THE ENGINEER, IN ACCORDANCE WITH THIS PLAN AND SPECIFICATIONS.

GENERAL NOTES

CONTACT THE OHIO UTILITIES PROTECTION SERVICE, 1-800-362-2764 BEFORE BEGINNING WORK. THE REFERENCE NUMBER FOR THIS PROJECT IS:
ALL AMERICA BRIDGE #A910000527

ALL EXISTING SCUPPER CASTINGS, WHICH WILL BE REPLACED, SHALL BE STOCKPILED ON SITE. THE CONTRACTOR IS RESPONSIBLE TO NOTIFY SEWER MAINTENANCE AFTER STOCKPILED. SEWER MAINTENANCE WILL REMOVE FROM SITE THE SALVAGEABLE CASTINGS. THE CONTRACTOR IS THEN RESPONSIBLE FOR DISPOSAL OF THE REMAINING CASTINGS. COST TO BE INCLUDED IN THE ITEM NECESSITATING THE WORK.

ENVIRONMENTAL COMMITMENTS

LITTLE CUYAHOGA RIVER AVOIDANCE
UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR DISTURB THE LITTLE CUYAHOGA RIVER.

CUYAHOGA VALLEY SCENIC RAILROAD
ACCESS WILL BE MAINTAINED FOR THE CUYAHOGA VALLEY SCENIC RAILROAD AT ALL TIMES DURING PROJECT CONSTRUCTION ACTIVITIES AND ANY CONSTRUCTION MATERIAL AND/OR EQUIPMENT REQUIRED TO COMPLETE THE PROJECT WILL NOT BE STORED WITHIN THE DESIGNATED AKRON METRO RTA/CUYAHOGA VALLEY SCENIC RAILROAD RIGHT-OF-WAY.

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

CONSTRUCTION AND DEMOLITION DEBRIS
THE CONTRACTOR SHALL TAKE PRECAUTION TO AVOID AND/OR LIMIT CONSTRUCTION AND DEMOLITION DEBRIS FROM ENTERING THE STREAM. ANY DEBRIS THAT DOES FALL INTO THE STREAM SHALL BE REMOVED AS SOON AS POSSIBLE.

ENDANGERED SPECIES HABITAT (3/27/10 – REMOVED TREES)
THIS PROJECT IS WITHIN THE RANGE OF THE FEDERALLY ENDANGERED INDIANA BAT (MYOTIS SODALIS) AND MAY IMPACT SUMMER ROOSTING HABITAT FOR THIS SPECIES. THE SUMMER ROOSTING HABITAT FOR THE INDIANA BAT CONSISTS OF LIVING OR DEAD TREES OR SNAGS WITH EXFOLIATING, PEELING OR LOOSE BARK, SPLIT TRUNKS AND/OR BRANCHES OR CAVITIES. THEREFORE, ANY UNAVOIDABLE CUTTING OF SUCH TREES WILL BE PERFORMED ONLY AFTER SEPTEMBER 15 AND BEFORE APRIL 15. PRIOR TO ANY REMOVAL OF STRUCTURAL MEMBERS, THE AREA OF BRIDGE TO BE IMPACTED SHOULD BE CAREFULLY EXAMINED FOR THE PRESENCE OF BATS, ESPECIALLY FROM APRIL 15 TO SEPTEMBER 15. IF ANY BATS ARE FOUND ROOSTING ON THE BRIDGE, THE USFWS, ECOLOGICAL SERVICES DIVISION SHOULD BE CONTACTED OR PROVIDED WITH INFORMATION.

UTILITY CONTACT INFORMATION

AKRON SEWER MAINTENANCE
1055 HOME AVENUE
AKRON, OH 44310
(330) 375-2666
ATTN: DISPATCHER

AKRON WATER DISTRIBUTION
565 JOHNSTON ST.
AKRON, OH 44311
(330) 375-2420
ATTN: DOUG ZWAHLEN

AKRON TRAFFIC ENGINEERING
1420 TRIPLETT BLVD. BLDG. #2
AKRON, OH 44306
(330) 375-2851
ATTN: TOM BENNETT

AKRON COMMUNICATIONS
1240 TRIPLET BLVD.
AKRON, OH
(330) 375-2670
ATTN: MALCOLM VALENTINE

TIME WARNER CABLE
1200 BROWNSTONE
AKRON, OH 44310
(330) 633-9203 ext. 7322
ATTN: CHARLES TONEY

DOMINION EAST OHIO GAS
ENGINEERING REVIEW AND RESPONSE TEAM
320 SPRINGSIDE DRIVE, SUITE 320
(330) 664-2477
ATTN: RICHARD HOUSEHOLDER

OHIO EDISON
730 SOUTH AVENUE
YOUNGSTOWN, OH 44502
(330) 740-7725
ATTN: DAN DOUTHETT

AT&T (COPPER AND FIBER OPTIC)
50 W. BOWERY ST.
4TH FLOOR
AKRON, OH 44308
(330) 384-4336
ATTN: JOE RODRIGUEZ/BEN MILLER

FIRST COMMUNICATION (FIBER OPTIC)
ERIK LICIS
(330) 315-7472
COLLEEN GALLAGHER
(330) 315-6954

VERIZON (FIBER OPTIC)
120 RAVINE ST.
AKRON, OH 44303
(330) 253-8267
ATTN: AL GUEST

AS PER PLAN NOTES

ITEM 201 – CLEARING AND GRUBBING, AS PER PLAN

3/27/10
DID NOT RELOCATE TWO TREES (PER CITY OF AKRON TRAVIS CAPPER) 3/25/10

THIS ITEM SHALL INCLUDE THE FOLLOWING, AS DIRECTED BY THE ENGINEER: REMOVAL OF THE EXISTING TREES AS SHOWN ON SHEET 17; RELOCATION OF THE TWO TREES TO WATERS PARK (AT THE NORTH END OF THE BRIDGE) TO THE LOCATION SPECIFIED BY THE ENGINEER; AND THE PREPARATION OF THE REMOVAL AREA TO RECEIVE THE PROPOSED SHRUBS.

ITEM 202 – PORTIONS OF STRUCTURES REMOVED (RAILING), AS PER PLAN

AS PART OF THE BRIDGE RAILING REMOVAL FOR THE PROPOSED DECORATIVE FENCING, THE CONTRACTOR SHALL REPAIR AND OR REPLACE DAMAGED RAILING TO REMAIN, AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL ALSO UTILIZE SALVAGED RAILING PARTS TO MODIFY THE EXISTING RAILING (TO REMAIN) AT THE INTERSECTION WITH THE PROPOSED FENCE, INCLUDING BUT NOT LIMITED TO POSTS, ANCHORS, RAILING, SPLICES, EXPANSION JOINTS, AND END CAPS. IN AREAS OF PERMANENT REMOVAL, THE EXISTING ANCHOR BOLTS FOR THE RAILING SHALL BE CUT OR GROUND FLUSH WITH THE EXISTING CONCRETE PARAPETS AND PAINTED WITH A RUST PREVENTATIVE ZINC PAINT PRIOR TO THE INSTALLATION OF THE PROPOSED FENCE, PIERS AND/OR SEALING THE EXISTING PARAPETS. SINCE THE RAILING IS A SAFETY FEATURE OF THE BRIDGE, THE CONTRACTOR SHALL ONLY REMOVE AS MUCH OS THE RAILING AS NECESSARY TO ACCOMMODATE THE NEW WORK AND SHALL MINIMIZE THE DURATION THAT THE RAILING IS NOT IN PLACE. THE PRICE BID FOR THIS ITEM SHALL INCLUDE ALL ASSOCIATED COSTS WITH THIS WORK AS SPECIFIED HEREIN.

ITEM 512 –SEALING OF EXISTING CONCRETE SURFACE (EPOXY-URETHANE), AS PER PLAN

PRECAST PIERS NO. 23522

EPOXY-URETHANE SHALL BE THE TAN COLOR MEETING THE FEDERAL COLOR STANDARD (NO. 23690.) THE PARAPET, BOTH SIDES, FROM THE CURB PLATE TO THE EDGE OF THE FIRST STEEL GIRDER UNDER THE BRIDGE SHALL BE PAINTED. PRIOR TO PAINTING, THE REMOVAL OF THE REMAINING EXTERIOR JOINT COVER PLATES SHALL BE COMPLETED AND CONCRETE PATCHED IN ACCORDANCE WITH ACI/ICRI 1999 CONCRETE REPAIR MANUAL. COST INCLUDED IN THE PRICE BID FOR 512 SEALING OF EXISTING CONCRETE SURFACE.

ITEM 512 –SEALING OF EXISTING CONCRETE SURFACE (CLASS SILANE (90-100%)), AS PER PLAN

A. ACCEPTABLE CONCRETE SEALERS ARE LISTED BELOW. MINIMUM APPLICATION RATE IN SQ FT PER GAL (SF/G) IS LISTED FOR EACH PRODUCT NAME.
B. CLASS SILANE (90-100%):
   1. DYNASYLAN BH-N, 200 SF/G, DEGUSSA.
   2. HYDROZO 100, 200 SF/G, BASF BUILDING SYSTEMS.
   3. ISO-FLEX 618-100 CRS, 200SF/G, LYMTAL.
C. OR APPROVED EQUAL, WHICH WILL ONLY BE CONSIDERED AFTER THE AWARD OF THE CONTRACT.

ITEM 518 – STRUCTURE DRAINAGE, MISC.: SCUPPER GRATE REPLACEMENT, AS PER PLAN

THE EXISTING SCUPPER GRATES ON THE STRUCTURE SHALL BE REPLACED WITH NEW STEEL SCUPPER VANE GRATES.

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE CITY OF AKRON FOR REVIEW AND APPROVAL DETAILING THE REPLACEMENT OF THE SCUPPER GRATES. THE SHOP DRAWINGS SHALL INCLUDE ALL DETAILS AND DIMENSIONS BASED ON EXISTING PLAN INFORMATION AND, VERIFIED BY FIELD MEASUREMENTS. THE GRATE SHALL BE HEAVY DUTY, VANE GRATE, BICYCLE FRIENDLY, AND SIZED APPROPRIATELY AS TO NOT RESTRICT HYDRAULIC FLOW INTO THE DRAINAGE SYSTEM.

REPLACEMENT SEQUENCE:

1. REMOVE OLD SCUPPER GRATE. CLEAR SCUPPER TRAY OF ALL DIRT, DEBRIS, AND OTHER MATERIAL.
2. LOCATE AND FIELD DRILL HOLES THROUGH SCUPPER WALL FOR ATTACHING TAB REPLACEMENT ANGLES (DEPTH AS REQUIRED BY ADHESIVE ANCHOR MANUFACTURER).
3. INSTALL ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATION.
4. ATTACH TAB REPLACEMENT ANGLES TO SCUPPER USING THE ADHESIVE ANCHORS.
5. ATTACH NEW GRATE TO SCUPPER BY BOLTING TO THE TAB REPLACEMENT ANGLES.

ALTERNATELY, THE NEW GRATES MAY BE MODIFIED TO UTILIZE THE EXISTING CONNECTION TABS WITHIN THE SCUPPER TRAY (NOTE THAT SOME TABS MAY BE BROKEN.), OR A COMBINATION OF THESE METHODS MAY BE EMPLOYED.

AT LEAST THREE BOLTS SHALL BE USED TO SECURE THE GRATE TO THE SCUPPER, WITH TWO BOLTS LOCATED IN THE HALF OF THE GRATE UNDER TRAFFIC (AWAY FROM THE PARAPET).

THIS ITEM INCLUDES REMOVAL AND DISPOSAL OF EXISTING SCUPPER GRATES AND ANY MATERIAL FOUND IN THE SCUPPER TRAY, PURCHASING NEW GRATES, MODIFYING THOSE GRATES AS NEEDED FOR PROPER INSTALLATION, AND ANY NECESSARY TAB REPLACEMENT ANGLES, AND INSTALLING THE NEW SCUPPER GRATES. THE UNIT PRICE BID SHALL INCLUDE ALL EQUIPMENT, LABOR, AND INCIDENTALS NECESSARY TO REPLACE THE SCUPPER GRATES.

ITEM	UNIT	DESCRIPTION
518	EACH	STRUCTURAL DRAINAGE, MISC.: SCUPPER GRATE REPLACEMENT

AS PER PLAN NOTES

ITEM 518 – STRUCTURE DRAINAGE, MISC.: CLEAN STRUCTURE DRAINAGE SYSTEM, AS PER PLAN

THIS ITEM SHALL BE PERFORMED AFTER THE NEW BRIDGE DECK JOINT SEALS HAVE BEEN INSTALLED. REMOVE ALL DIRT AND DEBRIS FROM CURB AREAS, SCUPPERS, HOPPERS, DRAINAGE TROUGHS, PIPE COLLECTORS AND DOWNSPOUTS ABOVE GROUND. AFTER THE DIRT AND DEBRIS HAVE BEEN REMOVED, FLUSH THE ENTIRE DRAINAGE SYSTEM WITH CLEAN WATER, MAKING CERTAIN THE WATER FLOWS SMOOTHLY TO THE ADJACENT CATCH BASIN. CATCH BASINS, PAVED GUTTERS AND UNDERGROUND STORM SEWERS ARE NOT INCLUDED WITH THIS ITEM.

THE CONTRACTOR SHALL PROPERLY REMOVE AND DISPOSE OF ALL DIRT AND DEBRIS FROM THE BRIDGE SITE, DIRT AND DEBRIS SHALL NOT BE FLUSHED INTO THE UNDERGROUND DRAINAGE SYSTEM. REMOVE ANY DIRT OR DEBRIS THAT ENDS UP IN THE UNDERGROUND DRAINAGE SYSTEM BY THE CONTRACTOR'S CLEANING OPERATIONS TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE CITY OF AKRON.

COMPLY WITH POLLUTION CONTROL LAWS, RULES, AND REGULATIONS OF FEDERAL, STATE, AND LOCAL AGENCIES. THE DEPARTMENT WILL NOT PAY FOR ADDITIONAL TESTING REQUIRED BY ANY HAULER, TREATMENT FACILITY, DISPOSAL FACILITY OR LANDFILL.

THE CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT NEAR THE COMPLETION OF THE WORK FOR THE PURPOSE OF EXAMINING THE EXISTING STRUCTURE DRAINAGE SYSTEM. THE CONTRACTOR'S SUPERINTENDENT SHALL ACCOMPANY THE ENGINEER DURING THIS DETAILED EXAMINATION OF THE STRUCTURE DRAINAGE SYSTEM. NO SEPARATE PAYMENT WILL BE MADE TO THE CONTRACTOR TO COVER ANY COSTS OF THIS EXAMINATION.

ALL ITEMS REMOVED FOR THE PURPOSE OF CLEANING, SUCH AS DOWNSPOUT CLEANOUT CAPS, SHALL BE REINSTALLED ONCE THE CLEANING IS COMPLETE.

ALL COSTS FOR LABOR, TOOLS, MATERIALS AND EQUIPMENT NECESSARY TO COMPLETE THE CLEANING AND EXAMINATION OF THE STRUCTURE DRAINAGE SYSTEM AND THE DISPOSAL OF THE DIRT AND DEBRIS SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 518 – STRUCTURE DRAINAGE, MISC.: CLEAN STRUCTURE DRAINAGE SYSTEM.

ITEM 519 – PATCHING CONCRETE STRUCTURES, AS PER PLAN

THIS ITEM SHALL FOLLOW THE SPECIFICATIONS OF ITEM 519 – PATCHING CONCRETE STRUCTURES OF THE CITY OF AKRON CONSTRUCTION & MATERIAL SPECIFICATIONS, 2008 EDITION, AS DESCRIBED IN ITEM SPECIAL 519- PATCHING CONCRETE STRUCTURES, AND AS FOLLOWS.

THIS ITEM SHALL INCLUDE DETERMINATION OF REPAIR AS AUTHORIZED AND DIRECTED BY THE ENGINEER, REMOVAL OF DISINTEGRATED CONCRETE, PREPARATION OF SURFACE, APPLICATION OF SEALER/ZINC PRIMER, PLACING APPROVED CONCRETE GROUT MATERIAL, ALONG WITH SEALING THE AREA.

GENERALLY THE REPAIR AREAS ON THE BOTTOM OF THE DECK WILL BE REQUIRED NEAR THE SOUTH END OF BOTH BRIDGES, FROM THE SOUTHERLY ABUTMENTS TO APPROXIMATELY STA. 64+50 ON THE NORTHBOUND BRIDGE, AND STA. 66+25 ON THE SOUTHBOUND BRIDGE. IN ADDITION SEVERAL OTHER AREAS WILL BE IDENTIFIED DURING CONSTRUCTION, BASED ON CONDITION, WITHIN THE REMAINDER OF THE DECK. THESE SECTIONS WILL GENERALLY BE AREAS OF DECK OVER EXISTING ROADWAYS AND OVER EXISTING BUILDINGS.
SOME ADDITIONAL REPAIRS WILL BE REQUIRED ON PARAPETS AS IDENTIFIED ON THE PLANS AND DURING CONSTRUCTION.

THE CONTRACTOR SHALL SUBMIT A WORK PLAN FOR REVIEW OUTLINING THE METHODS AND MATERIALS THAT WILL BE USED TO SHOW COMPATIBILITY AND CONFORMANCE WITH THE SPECIFICATIONS, AND IN ACCORDANCE WITH THE MANUFACTURER PRODUCT USE GUIDELINES FOR APPLICATION RATES AND USAGE FOR EACH PRODUCT. IN ADDITION, ROADWAY AND RAILROAD MAINTENANCE OF TRAFFIC SHALL BE DETAILED. THIS IS REQUIRED TO BE ACCEPTED BY THE ENGINEER PRIOR TO STARTING THIS WORK.

PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS AND TOOLS TO REPAIR THE CONCRETE INCLUDING BUT NOT LIMITED TO, CHIPPING, CLEANING, PROVIDING STEEL, APPLICATION OF ANTI-CORROSION AGENT/BONDING AGENT TO ANY EXISTING OR REPLACED STEEL REINFORCEMENT, GROUT, SEALER AND ALL OTHER INCIDENTALS TO REPAIR CONCRETE SHALL BE INCLUDED IN THE UNIT PRICE BID PER THE ITEMS LISTED BELOW.

PAYMENT FOR ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT PRICE FOR:

ITEM	UNIT	DESCRIPTION
519	S.F.	PATCHING CONCRETE STRUCTURES – SURFACE DELAMINATION REPAIRS, AS PER PLAN
519	S.F.	PATCHING CONCRETE STRUCTURES – PARAPET REPAIRS, AS PER PLAN

ITEM 630 TRAFFIC SIGNS AND SIGN SUPPORTS, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL COSTS ASSOCIATED WITH THE WORK LISTED IN THE NOTES AND AS SHOW ON SHEETS 23-24 TRAFFIC SIGNS AND PAVEMENT MARKINGS. PAYMENT WILL BE MADE AT THE LUMP SUM PRICE BID FOR THIS WORK.

ODOT ITEM 848 BRIDGE DECK REPAIR AND OVERLAY WITH CONCRETE USING HYDRO-DEMOLITION

ITEM 848 WEARING COURSE REMOVAL (MECHANICAL DEMOLITION) 1.25 ", AS PER PLAN SHALL INCLUDE THE COMPLETE, FULL DEPTH REMOVAL OF THE EXISTING LATEX MODIFIED CONCRETE WITHIN THE LIMITS INDICATED. ANY ADJUSTMENTS TO THE THICKNESS (DEPTH) OF THE REMOVAL SHALL BE INCLUDED IN THIS COST. THE MINIMUM DEPTH OF THIS REMOVAL SHALL BE 1.25". HYDRODEMOLITION SHALL BE 3/4" TO ACHIEVE THE 2" DEPTH. AT A MINIMUM, 1/2" THICKNESS (DEPTH) SHALL BE REMOVED BY HYDRODEMOLITION IF ADDITIONAL DEPTH IS REMOVED BY MECHANICAL DEMOLITION AS NOTED HEREIN.

ITEM 848 FULL DEPTH REPAIR, AS PER PLAN SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED IN THE IDENTIFIED AREAS AND AS APPROVED BY THE ENGINEER, INCLUDING BUT NOT LIMITED TO CUTTING OR CHIPPING OUT AREA, REPLACING REINFORCING STEEL AS ORIGINALLY DETAILED IN THE EXISTING BRIDGE PLANS, FORMING AND PLACING CONCRETE AND OTHER ASSOCIATED WORK REQUIRED IN ACCORDANCE WITH ODOT'S STANDARD AND SPECIFICATION TO COMPLETE THIS WORK.

ITEM 662: PLANTING SHRUBS

11/18/10 -11/9/10

THE SHRUBS LISTED BELOW SHALL BE FURNISHED AND PLANTED BY THE CONTRACTOR. THE PROPOSED SHRUB LOCATIONS SHOWN ON SHEET 17 ARE APPROXIMATE. THE FINAL LOCATION WILL BE MARKED IN THE FIELD BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

STREET OR LOCATION	APPROX. QUANTITY	DESCRIPTION	BOTANICAL NAME	COMMON NAME
MARTIN LUTHER KING, JR BLVD (PERKINS ST) ALONG WALL	456 EACH (2 ROWS STAGGERED 3' O/C)	18" #3 CONT.	CHAENOMELES SPECIOSA 'TEXAS SCARLET'	TEXAS SCARLET QUINCE

SHEET INDEX

DATE	CHECKED	DRAWN	SCALE:
6/12/12	TEO	JLH	NO SCALE

REVISIONS	DATE
FINAL TRACINGS	6/12/12
RECORD DRAWINGS ADG	6/1/09

GENERAL NOTES

ALL-AMERICA BRIDGE REHABILITATION

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
AKRON ENGINEERING BUREAU

2009-026-00

02
24

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TRAFFIC MAINTENANCE NOTES

ITEM 614 – MAINTAINING TRAFFIC

A. GENERAL

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS AS TO MAKE THE PROPOSED REPAIR WITH A MINIMUM OF HAZARD, DELAY AND INCONVENIENCE TO THE MOTORISTS USING THE ROADWAY. FURTHERMORE, IN ADDITION TO THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE FOLLOWING SPECIFIC PROVISIONS ARE MANDATORY.

THE CONTRACTOR SHALL SECURE HIS WORK AREA AT ALL TIMES AND PROHIBIT UNAUTHORIZED ACCESS INTO THE WORK AREA BY THE GENERAL PUBLIC.

THE NAMES AND PHONE NUMBERS OF ALL PERSONNEL WHO ARE AUTHORIZED BY THE CONTRACTOR TO MANAGE PROJECT RELATED EMERGENCIES, SHALL BE PROVIDED BY THE CONTRACTOR, TO THE AKRON ENGINEERING BUREAU AT THE PRECONSTRUCTION MEETING. (IF APPLICABLE), IN THE EVENT OF AN AFTER HOURS ACCIDENT, ANY LAMP OUTAGES, TRAFFIC–CONTROLLER MALFUNCTION OR SIGNAL RELATED PROBLEMS WITHIN THE PROJECT LIMITS AND RELATED TO CONSTRUCTION. THE PERSONNEL SHALL BE RESPONSIBLE 24 HOURS OF THE DAY.

UPON THE CONTRACTOR'S FAILURE TO REPAIR A TRAFFIC–CONTROLLER MALFUNCTION OR SIGNAL–RELATED PROBLEM WITHIN THE CONSTRUCTION LIMITS WITHIN TWO HOURS OF NOTIFICATION, THE CITY OF AKRON TRAFFIC ENGINEERING DIVISION WILL PERFORM THE REPAIRS AT THE CONTRACTOR'S EXPENSE.

ALL APPROVED "ROAD CLOSED" SIGNS SHALL BE POSTED ON A TYPE III BARRICADE WITH THE FOLLOWING WARNING: "WARNING: THE PENALTY FOR DISTURBING THIS TYPE III BARRICADE IS A FINE UP TO $500 DOLLARS AND/OR IMPRISONMENT FOR UP TO SIXTY DAYS."

THE DECK EXPANSION JOINT REPLACEMENT AND OVERLAY WORK SHALL BE CONSTRUCTED FULL– WIDTH ON EACH BRIDGE STRUCTURE WHILE MAINTAINING ONE WAY, TWO LANE TRAFFIC ON THE OPPOSING BRIDGE. DURING OTHER PHASES OF WORK TRAFFIC SHALL BE MAINTAINED A MINIMUM OF ONE LANE BOTH DIRECTIONS ON EACH BRIDGE EXCEPT AS LISTED BELOW. NORTH STREET SHALL BE THE PREFERRED DETOUR ROUTE FOR COMPLETE CLOSURE OF THE NORTHBOUND OR SOUTHBOUND BRIDGE.

B. MAINTENANCE OF TRAFFIC PLAN

THE CONTRACTOR SHALL SUPPLY A DETAILED MAINTENANCE OF TRAFFIC PLAN SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OHIO TO THE CITY OF AKRON, AND ONLY UPON APPROVAL BY THE ENGINEER AND CITY OF AKRON TRAFFIC ENGINEER, MAY THE CONTRACTOR BEGIN WORK. THE PLAN SHALL DETAIL ALL PHASES OF WORK, COMPLETE DETAILED LAYOUT OF LANE CLOSURES, DETOUR ROUTES, AND SIGNS IN COMPLIANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD). FOR MORE INFORMATION ON DEVELOPING THIS PLAN SEE ODOT'S MAINTENANCE OF TRAFFIC STANDARD DRAWINGS HTTP://WWW.DOT.STATE.OH.US/DIVISIONS/HIGHWAYOPS/TRAFFIC/MISCELLANEOUS/PAGES/MAINTENANCEOFTRAFFIC.ASPX

THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL TRAFFIC CONTROL DEVICES AS REQUIRED HEREIN AND IN COMPLIANCE WITH THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (O.M.U.T.C.D.) INCLUDING THE LATEST REVISIONS, ACCORDING TO PLACEMENT, SIZE, SHAPE, COLOR, AND REFLECTORIZATION.

THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES FOR PROVIDING AND MAINTAINING LIGHTS, SIGNS, AND BARRICADES IN A CLEAN, WORKING, AND HIGHLY VISIBLE CONDITION FOR THE MAINTENANCE OF TRAFFIC, PUBLIC SAFETY, AND THE SAFETY OF HIS WORK AND WORKERS AS REQUIRED HEREIN AND IN COMPLIANCE WITH O.M.U.T.C.D. AND AS DIRECTED BY THE ENGINEER

THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL STREET NAME SIGNS, STOP SIGNS, YIELD SIGNS AND ALL OTHER EXISTING SIGNS AT ALL TIMES DURING THE CONSTRUCTION DURATION, WHICH MAY CONSIST OF TEMPORARY SIGNS, AND IN ACCORDANCE WITH THE O.M.U.T.C.D.; AND THE "CONSTRUCTION AND MATERIAL SPECIFICATIONS", LATEST EDITION, OF THE CITY OF AKRON, DEPARTMENT OF PUBLIC SERVICE, AKRON ENGINEERING BUREAU; AND THESE PLANS. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 614 – MAINTAINING TRAFFIC.

THE CONTRACTOR SHALL PURSUE THE PROJECT IN SUCH A MANNER AS TO MINIMIZE BOTH THE EXTENT AND THE DURATION OF THE DISRUPTION OF TRAFFIC. ANY STREET CLOSURES WHICH ARE REQUIRED DURING CONSTRUCTION OF THIS PROJECT, WILL BE APPROVED ONLY BY THE CITY OF AKRON TRAFFIC ENGINEER. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED.

THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES FOR MAINTAINING, REMOVING, AND INSTALLING ANY TEMPORARY TRAFFIC SIGNAL/FLASHER AS PER PLAN AND SPECIFICATION, UNLESS NOTED OTHERWISE. THE EXISTING TRAFFIC SIGNAL DEVICES WILL BE MAINTAINED BY THE CITY OF AKRON TRAFFIC ENGINEERING.

SUBMITTED WITH THE PLAN, THE CONTRACTOR SHALL INCLUDE A SCHEDULE FOR THE PROPOSED LANE CLOSURES FOR APPROVAL ALONG WITH A SEQUENCE OF CONSTRUCTION CORRESPONDING TO THE MAINTENANCE OF TRAFFIC PLAN. ANY REVISIONS TO THIS DURING CONSTRUCTION SHALL BE MADE AT LEAST 48 HOURS IN ADVANCE OF THE PROPOSED WORK. PRODUCTION RATES, SEQUENCE OF OPERATIONS, EQUIPMENT AND CREW SIZES SHOULD BE DISCUSSED IN THIS SUBMITTAL.

FOR LANE CLOSURES ON ARTERIAL AND COLLECTOR STREETS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND MAINTAINING ARROW BOARDS (O.M.U.T.C.D. 6F.56) AND DRUMS (O.M.U.T.C.D. 6F.62) TO CHANNELIZE TRAFFIC. CONES, TUBULAR MARKERS AND VERTICAL PANELS SHALL NOT BE USED.

THE PRICE BID FOR ITEM 614 – MAINTAINING TRAFFIC SHALL INCLUDE ALL COSTS ASSOCIATED WITH THIS WORK INCLUDING ANY TEMPORARY PAVING AND/OR TEMPORARY PAVEMENT MARKINGS.

TRAFFIC MAINTENANCE NOTES (CONT.)

C. NOTIFICATION

SINCE FUNCTIONAL TRAFFIC CONTROL IS A MAJOR CONCERN ON THIS PROJECT, IT IS ESSENTIAL THAT THE MOTORING PUBLIC BE ADEQUATELY FOREWARNED OF UPCOMING LANE CLOSURES AND TRAFFIC CONSTRICTIONS. THE CONTRACTOR SHALL ADVISE THE CITY OF AKRON ENGINEER (330–375–2355) EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE LANE CLOSURES SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR.

THE CONTRACTOR SHALL GIVE THE CITY OF AKRON, TRAFFIC ENGINEERING DIVISION, A MINIMUM OF SEVEN (7) DAYS NOTICE PRIOR TO STARTING WORK. CONTACT TOM BENNETT IN THE TRAFFIC ENGINEERING OFFICE, AT 330–375–2851.

1. NO LANES SHALL BE CLOSED ON BOTH NORTHBOUND AND SOUTHBOUND BRIDGES DURING THE FOLLOWING DESIGNATED HOLIDAY OR SPECIAL EVENT WEEKENDS:

   FOURTH OF JULY (7/4–7/5)
   ITALIAN – AMERICAN COUNCIL FESTIVAL (7/10 – 7/12)
   AKRON ROAD RUNNER MARATHON (9/25, 2010)

   IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE DATES AND COMPLY WITH PROVIDING THE REQUIRED ACCESS DURING THESE TIMES.

   IN ORDER TO PROVIDE ACCESS ACROSS THE BRIDGE FOR THE ABOVE SCHEDULED DATES, IT IS ANTICIPATED THAT IN 2009/2010 THE FULL CLOSURE OF A BRIDGE, WHILE MAINTAINING ONE WAY TRAFFIC ON THE OPPOSING BRIDGE, WILL BE REQUIRED FOR JOINT REPLACEMENT WORK, ALONG WITH ANY FULL DEPTH REPAIRS. IT IS ALSO ANTICIPATED THAT IN 2010 A FULL CLOSURE OF A BRIDGE WILL OCCUR SEPARATELY FOR THE GRINDING, HYDRO–DEMOLITION AND OVERLAY WHILE MAINTAINING TRAFFIC ON THE OPPOSING BRIDGE. SINGLE LANE CLOSURES ARE ANTICIPATED FOR ADDITIONAL CONSTRUCTION RELATED TO FENCE, LIGHTING AND OTHER ASSOCIATED CONSTRUCTION.

2. THE NEW BRIDGE EXPANSION JOINTS SHALL BE INSTALLED AS ONE INSTALLATION PROCESS AT EACH LOCATION ON THE BRIDGE. FULL CLOSURE OF THE ASSOCIATED BRIDGE WILL BE REQUIRED.

   PRIOR TO REOPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION.

3. CONTRACTOR'S EQUIPMENT – OPERATION AND STORAGE:
   A QUALIFIED FLAGGER SHALL BE EMPLOYED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE AMBER FLASHING LIGHT. EQUIPMENT MAY BE PARKED IN AREAS ALONG THE HIGHWAY WHEN WORK OPERATIONS ARE SCHEDULED TO CONTINUE WITHIN THE NEXT WORKDAY. OTHERWISE THE EQUIPMENT SHALL BE STORED AT A STORAGE AREA OUTSIDE THE R/W, THE LOCATION OF WHICH SHALL HAVE PRIOR APPROVAL OF THE ENGINEER. WHEN PARKING ALONG THE HIGHWAY THE EQUIPMENT SHALL BE PLACED AND DELINEATED AS PER 614.03. NO EQUIPMENT SHALL BE PARKED IN THE MEDIAN OF THE HIGHWAY. ADEQUATE BARRICADES AND LIGHTS SHALL BE PLACED ON THE PAVEMENT SIDE OF THE EQUIPMENT TO IDENTIFY THE LIMITS OF THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT THE APPROVED CONTRACTOR'S STORAGE AREA. NO EQUIPMENT SHALL BE PARKED ON PRIVATE PROPERTY UNLESS PRIOR APPROVAL OF THE OWNER AND THE PROJECT ENGINEER/SUPERVISOR HAS BEEN GRANTED.

D. MAINTENANCE OF TRAFFIC SYSTEMS

1. WHEN REQUIRED:
   WHENEVER ANY PART OF THE TRAVELED SURFACE IS BEING WORKED UPON OR IS OTHERWISE NOT SUITABLE FOR SAFE AND CONVENIENT USE BY VEHICLES, TRAFFIC CONTROL DEVICES SUFFICIENT TO PROTECT SUCH AREAS TO ASSURE THE SAFE AND CONVENIENT PASSAGE OF VEHICULAR TRAFFIC SHALL BE INSTALLED AND MAINTAINED. SUCH TRAFFIC CONTROL DEVICES AND THE MANNER IN WHICH THEY ARE USED SHALL BE CONSISTENT WITH THESE PLANS AND THE (OMUTCD).

   THE TRAFFIC CONTROL DEVICE SYSTEM SHALL CONSTITUTE THE MINIMUM PROVISIONS FOR TRAFFIC CONTROL FOR EACH PARTICULAR SITUATION. WHENEVER THE ENGINEER DEEMS IT NECESSARY, ESPECIALLY WHERE A GRADE, CURVE, OR MERGE CONDITION EXISTS, HE MAY DIRECT THAT ADDITIONAL OR ALTERNATIVE DEVICES BE USED.

2. CONDITIONS:
   DURING ALL PARTS OF THIS PROJECT, SIGNING, BARRICADES, FLASHING ARROWS, ETC. SHALL BE LOCATED AS INDICATED IN THE (OMUTCD) AND AS DETAILED WITHIN THE APPROVED MAINTENANCE OF TRAFFIC PLANS.

3. ADVANCE WARNING SIGNS:
   ALL ADVANCE WARNING SIGNS FOR ANY CONDITION WHICH RESTRICTS TRAFFIC SHALL BE ERECTED BEFORE ANY SUCH RESTRICTION IS PUT INTO EFFECT. ALL SUCH SIGNS SHALL BE COVERED OR REMOVED FROM THE VIEW OF TRAFFIC WHENEVER THEY ARE NOT APPLICABLE.

4. FLASHING ARROW REQUIREMENT:
   FLASHING ARROWS SHALL BE FURNISHED AS REQUIRED FOR THE MAINTENANCE OF TRAFFIC PLANS OR ON STANDARD DRAWINGS MT–95.30 AND MT–35.10.

5. COVERING OF SIGNS:
   WHERE THE PLANS CALL FOR OR THE ENGINEER REQUESTS A PERMANENT SIGN TO BE COVERED, THE CONTRACTOR SHALL DO SO IN A MANNER AS TO AVOID DAMAGING THE PERMANENT SIGN WHEN THE COVER IS REMOVED. THE COVER SHALL BE TOTALLY OPAQUE. THE USE OF ADHESIVE TAPE APPLIED DIRECTLY TO A SIGN FACE IS STRICTLY PROHIBITED.

TRAFFIC MAINTENANCE NOTES (CONT.)

6. PROTECTION OF PUBLIC:
   THE CONTRACTOR SHALL SECURE HIS WORK AREA AT ALL TIMES AND PROHIBIT UNAUTHORIZED ACCESS INTO THE WORK AREA BY THE GENERAL PUBLIC.

   WHENEVER ANY WORK IS BEING DONE OVER A TRAVELED LANE OR SHOULDER, THE CONTRACTOR SHALL SUPPLY SUFFICIENT SAFETY EQUIPMENT AS APPROVED BY THE CITY OF AKRON TO PROTECT THE TRAVELING PUBLIC FROM ANY CONSTRUCTION DEBRIS. IF TRAVELED LANES UNDER STRUCTURES ARE TO BE CLOSED FOR REASONS OF SAFETY, METHOD AND TIME OF CLOSURE MUST BE APPROVED PRIOR TO IMPLEMENTATION. PERSONAL CARS SHALL NOT BE PARKED WITHIN THE RIGHT–OF–WAY.

   WHILE WORK IS BEING PERFORMED OVER THE PARKING LOTS NEAR THE SOUTH END OF THE BRIDGE, PARKING SHALL NOT BE PERMITTED DURING THIS WORK. SUFFICIENT SIGNAGE SHALL BE POSTED IN THE PARKING AREA IN ADVANCE OF THE CLOSURE.

   WHILE FULL DEPTH WORK IS BEING PERFORMED ON THE DECK OR ANY OTHER ACTIVITY ON THE BRIDGE WHERE THE PUBLIC BELOW MAY BE AFFECTED, ALL AREAS UNDER THE BRIDGE SHALL BE BLOCKED OFF TO VEHICLES AND PEDESTRIANS. APPROPRIATE SIGNS AND DETOURS ARE TO BE DETAILED OUT WITHIN THE MAINTENANCE OF TRAFFIC PLAN.

   PEDESTRIAN TRAFFIC SHALL BE MAINTAINED ON THE SOUTHBOUND BRIDGE WHILE WORK IS PERFORMED ON THE NORTHBOUND BRIDGE. IT IS ACCEPTABLE TO PROHIBIT PEDESTRIAN TRAFFIC WITH PROPER SIGNAGE DURING THE CLOSURE OF THE SOUTHBOUND LANES WHILE WORK IS BEING PERFORMED.

5. FAILURE TO COMPLY:
   IF THERE IS ANY FAILURE TO COMPLY WITH PROVISION FOR TRAFFIC CONTROL SET OUT IN THESE NOTES, APPROVED MAINTENANCE OF TRAFFIC PLANS, OR WITH THE PROVISIONS OF THE (OMUTCD), THE ROADWAY IN THE VICINITY OF THE WORK AREA SHALL NOT BE CONSIDERED IN A CONDITION FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC. ANY FAILURE TO KEEP THE ROADWAY IN THE VICINITY OF THE WORK AREA IN A CONDITION FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC SHALL BE CONSIDERED A BREACH OF THIS CONTRACT. WORK SHALL BE SUSPENDED UNTIL THE CONTRACTOR COMPLIES WITH THE PROVISIONS OF THE AFOREMENTIONED ITEMS.

6. TRAFFIC CONTROL INSPECTOR
   THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORKDAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE–CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS THE IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE 614 MAINTAINING TRAFFIC, AS PER PLAN. LUMP

E. TRAFFIC CONTROL MATERIAL

1. SIGNS:
   SIGN DIMENSIONS AND SPECIFICATIONS, INCLUDING LETTER SIZES SHALL BE AS PROVIDED IN THE (OMUTCD), AND AS APPROVED WITHIN THE DETAILED MAINTENANCE OF TRAFFIC PLAN OR AS AUTHORIZED BY THE CITY OF AKRON TRAFFIC ENGINEER. THE SIGNS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER PRIOR TO THE START OF THIS PROJECT.

2. SIGN SUPPORTS:
   SIGN SUPPORTS SHALL BE AS SHOWN ON THE STANDARD DRAWINGS MT–105.10.

3. DRUMS:
   DRUMS SHALL BE LOCATED AS APPROPRIATE AND ARE REQUIRED FOR CLOSURES AND LANE DIVIDERS WITHIN THE TWO–WAY TRAFFIC CONFIGURATION. CONES SHALL NOT BE ACCEPTABLE TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS OR LANE REDUCTIONS.

4. FLOODLIGHTING:
   FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHT TIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND ENGINEER SHALL DRIVE THROUGH THE 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.

F. PAYMENT

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 (OMUTCD). 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.

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DATE	CHECKED	DRAWN	SCALE:
6/12/12	TEO	JLH	NO SCALE

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MAINTENANCE OF TRAFFIC

ALL–AMERICA BRIDGE REHABILITATION

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
AKRON ENGINEERING BUREAU

2009–026–00

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TRAFFIC MAINTENANCE NOTES (CONT.)

ITEM 614 – LAW ENFORCEMENT OFFICER WITH PATROL CAR

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), A UNIFORMED LAW ENFORCEMENT OFFICER AND OFFICIAL PATROL CAR WITH WORKING TOP–MOUNTED EMERGENCY FLASHING LIGHTS SHALL BE PROVIDED FOR CONTROLLING TRAFFIC FOR THE FOLLOWING TASKS AS PER 614 MAINTAINING TRAFFIC NOTE AND AS DIRECTED BY THE ENGINEER:

1. FOR LANE CLOSURES: DURING INITIAL SET–UP PERIODS OR TEAR DOWN PERIODS.
2. FOR OTHER PERIODS AS DIRECTED BY THE ENGINEER.

LAW ENFORCEMENT OFFICERS (LEOS) SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. THE LEOS ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THESE SERVICES WITH THE CITY OF AKRON:

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 QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR 500 HOURS

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

IF CONTRACTORS WISH TO UTILIZE LEOS FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, THEY MAY DO SO AT THEIR OWN EXPENSE. PAYMENT FOR THE EXCESS ABOVE THE CONTRACT REQUIREMENTS WILL BE INCLUDED UNDER ITEM 614, MAINTAINING TRAFFIC.

ITEM 614 – PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

TWO (2) PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN ARE REQUIRED.

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN, ON SITE, FOR THE DURATION OF THE PROJECT. EACH SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR (OFFICE OF MATERIALS MANAGEMENT). THIS LIST IS AVAILABLE ON THE ODOT WEBSITE AT HTTP://WWW.DOT.STATE.OH.US/TESTLAB/APPLISTS/MISC/PCMS.HTM, THE CLASS UNITS SHALL HAVE A MINIMUM LEGIBILITY DISTANCE OF 850 FEET.

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.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PREPROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE TWO DIFFERENT MEMORIES (PROM AND RAM) AND 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 WILL BE PERMITTED. NORMALLY ONLY A MAXIMUM OF THREE MESSAGE PHASES SHOULD BE EMPLOYED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST ONCE.

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.

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

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

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE. THE REQUIREMENT TO FURNISH, INSTALL, MAINTAIN AND REMOVE PCMS UNITS ON THE PROJECT SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY OUTLINED IN 614.07.

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

TRAFFIC MAINTENANCE NOTES (CONT.)

ITEM 614 MODIFIED AMERICAN RECOVERY AND REINVESTMENT ACT (ARRA) SIGN, CONVENTIONAL ROAD

THIS ITEM SHALL CONSIST OF THE FURNISHING AND INSTALLING, AND SUBSEQUENT REMOVAL, OF MODIFIED AMERICAN RECOVERY AND REINVESTMENT ACT (ARRA) SIGNS ON YIELDING POST SUPPORTS.

INSTALL ONE ARRA SIGN NEAR THE BEGINNING OF THE PROJECT IN EACH ROUTE DIRECTION IN A LOCATION AS APPROVED BY THE ENGINEER. THE ARRA SIGN CONSISTS OF ONE 84" X 60" WHITE ON GREEN EXTRUSHEET SIGN WITH PICTOGRAPHS, ONE 84" X 18" BLACK ON ORANGE EXTRUSHEET SIGN, AND ONE18" X 18" DIAMOND FLAT SHEET SIGN. THE SIGN FABRICATION DETAILS ARE FOUND AT:

HTTP://WWW.DOT.STATE.OH.US/DIVISIONS/HIGHWAYOPS/TRAFFIC/PAGES/OTEHOMEPAGE.ASPX

INSTALL THE SIGN ON TWO NO. 3 YIELDING POSTS AS PER STANDARD DRAWING TC–41.20, WITH ONE POST 12" FROM EACH END. SIGNS IN PROTECTED LOCATIONS MAY BE INSTALLED ON OTHER SUPPORTS AS APPROVED BY THE ENGINEER. USED SIGNS ARE ALLOWED PROVIDED THEY ARE IN A CONDITION ACCEPTABLE TO THE ENGINEER. REMOVE THE ARRA SIGNS AND SUPPORTS AT THE END OF THE PROJECT. REMOVED ARRA SIGNS AND SUPPORTS ARE THE PROPERTY OF THE CONTRACTOR.

PAYMENT SHALL BE INCLUDED IN THE CONTRACT LUMP SUM BID PRICE FOR ITEM 614 MAINTAINING TRAFFIC AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS (INCLUDING SUPPORTS), TOOLS AND OTHER INCIDENTALS TO PROVIDE FOR A COMPLETE AND ACCEPTED ITEM OF WORK.

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DRAWN JLH | CHECKED TEO | DATE 6/12/12 | SCALE: NO SCALE

MAINTENANCE OF TRAFFIC

ALL–AMERICA BRIDGE REHABILITATION

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
AKRON ENGINEERING BUREAU

2009–026–00

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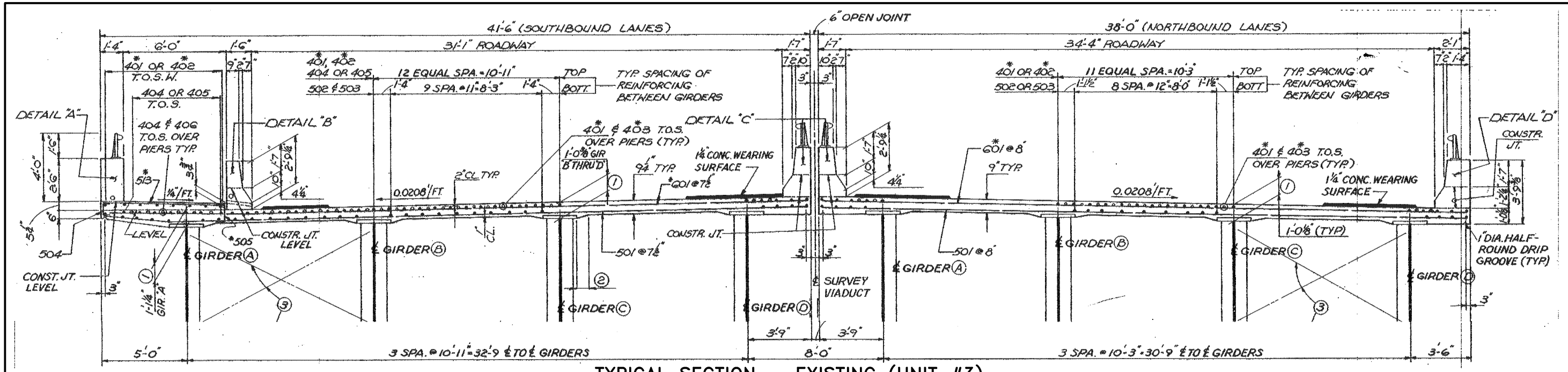
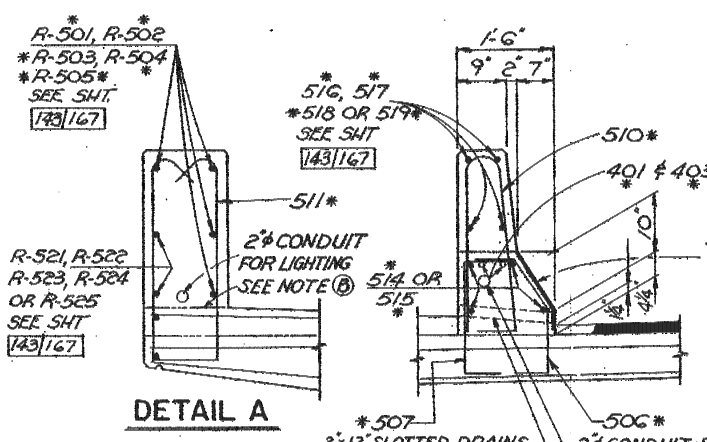
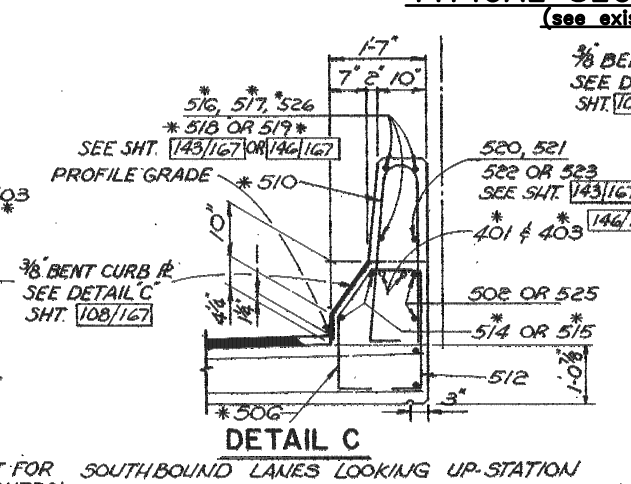
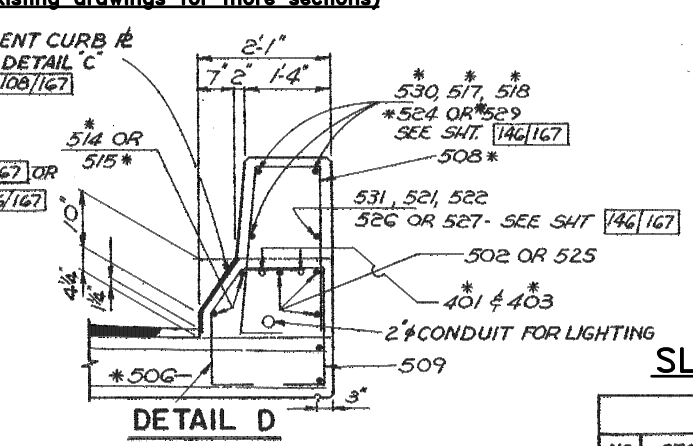


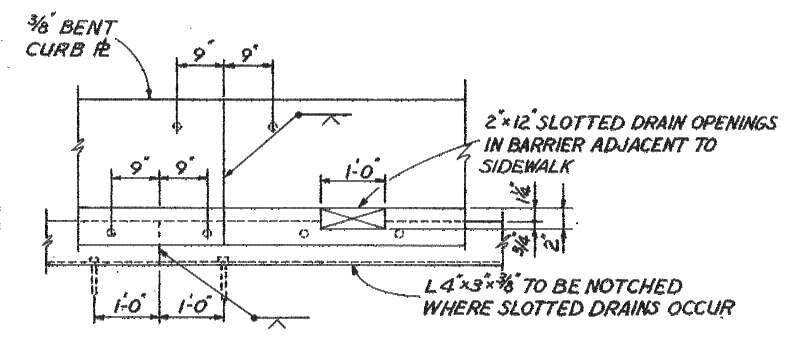
TYPICAL SECTION – EXISTING (UNIT #3)

(see existing drawings for more sections)







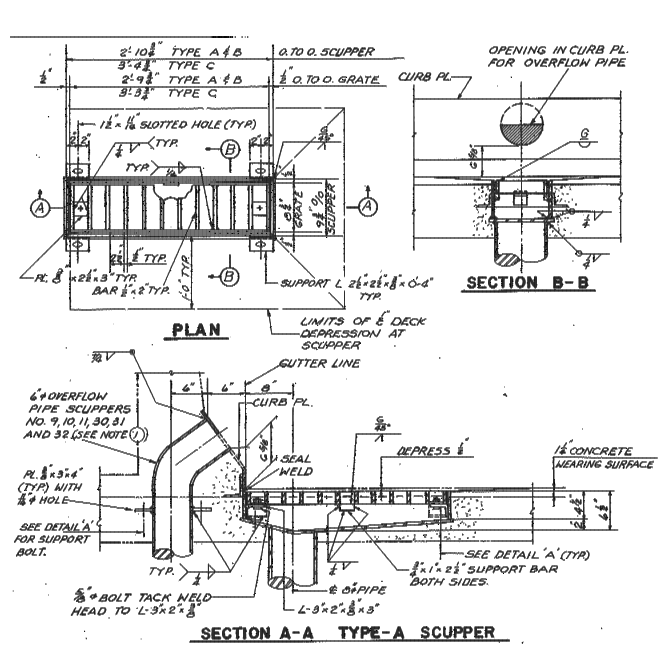


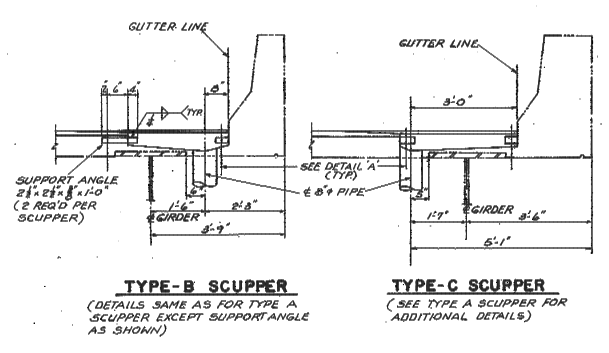
SLOTTED DRAIN OPENING DETAIL – EXISTING

TYPICAL SECTION DETAILS – EXISTING

SCUPPER NO.	STA.	LOC.	TYPE	EL. A.	DIM. A.
1	62+18	LT.	A	964.11	3.25'
2	62+23	↑	↑	964.03	3.62'
3	64+38			960.75	3.25'
4	66+89			956.68	3.25'
5	66+94			956.60	5.87'
6	68+82			953.56	3.25'
7	70+89			950.60	3.25'
8	72+30			949.46	5.75'
9	73+27			949.24	3.51'
10	73+32.68			949.24	3.25'
11	73+38			949.24	3.00'
12	74+60			949.58	7.25'
13	75+15			950.00	3.25'
14	77+04			951.78	3.25'
15	77+09			951.82	6.18'
16	79+36			953.91	3.25'
17	81+46			955.84	6.09'
18	81+51			955.89	3.25'
19	83+58			957.79	3.25'
20	85+43			959.50	3.25'
21	87+42		↓	961.49	3.25'
22	87+47	LT.	A	961.56	6.21'
23	89+61	RT.	B	963.99	3.25'
24	91+35	RT.	↑	965.59	3.25'

SCUPPER NO.	STA.	LOC.	TYPE	EL. A.	DIM. A.
25	60+69	LT.		968.34	3.25'
26	64+51	↑		957.24	3.25'
27	66+81	↓		950.82	10.93'
28	67+30	LT.	B	949.78	3.25'
29	69+55	RT.	C	946.74	3.25'
30	70+51	↑	↑	946.33	3.25'
31	70+55			946.32	3.76'
32	70+60			946.33	4.41'
33	71+48			946.47	3.25'
34	73+06			948.09	6.09'
35	73+11			948.14	3.25'
36	75+11			949.98	3.25'
37	77+04			951.76	3.25'
38	77+09			951.80	6.18'
39	79+36			953.89	3.25'
40	81+46			955.82	6.09'
41	81+51			955.87	3.25'
42	83+58			957.78	3.25'
43	85+39			959.44	3.25'
44	85+45			959.50	6.73'
45	87+47			961.35	3.25'
46	89+61	↓	↓	963.19	3.25'
47	91+35	RT.	C	964.69	3.25'





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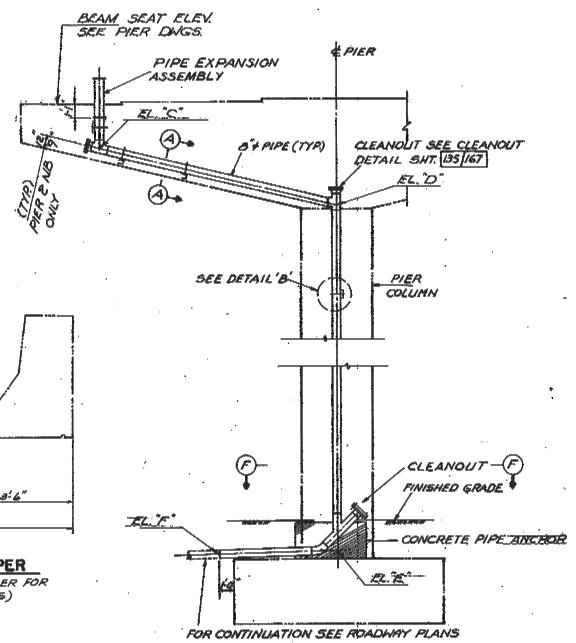

DRAIN PIPE DETAIL – EXISTING

SHEET INDEX

DATE 6/12/12
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DATE	REVISIONS
6/1/09	FINAL TRACINGS
6/12/12	RECORD DRAWINGS ADG

TYPICAL SECTIONS & DETAILS – EXISTING

ALL–AMERICA BRIDGE REHABILITATION

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
AKRON ENGINEERING BUREAU

2009–026–00

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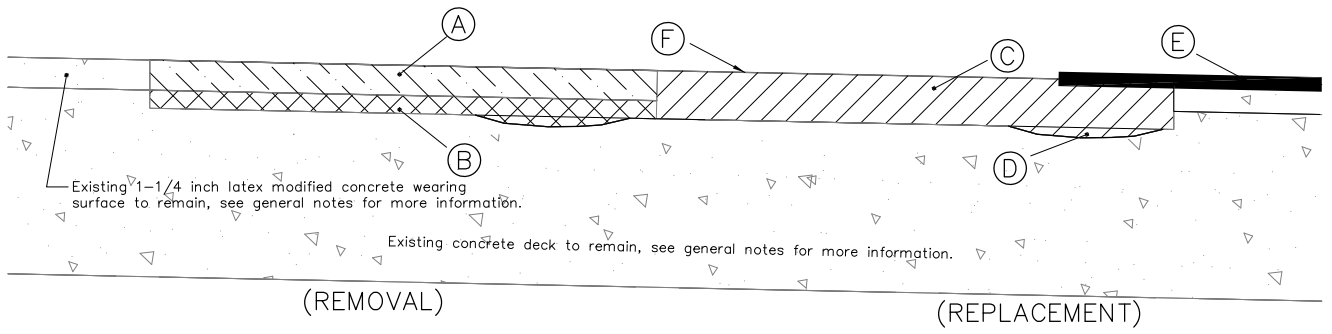
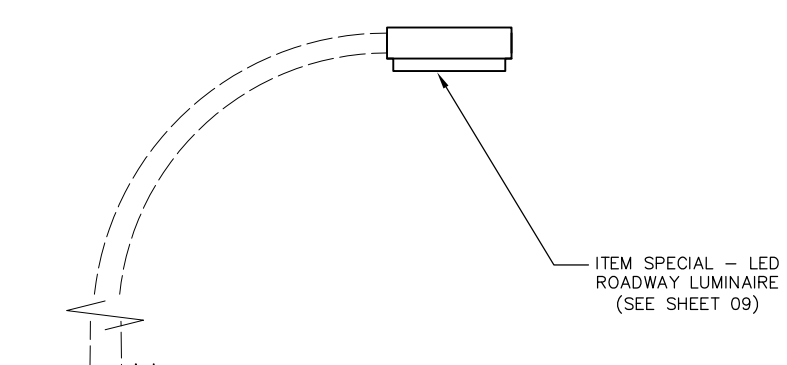
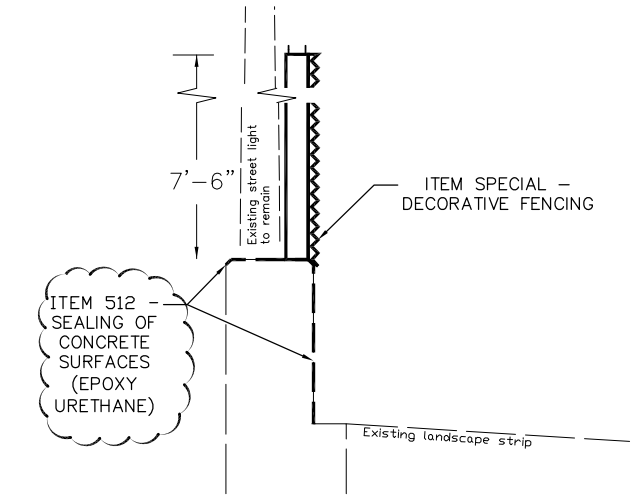


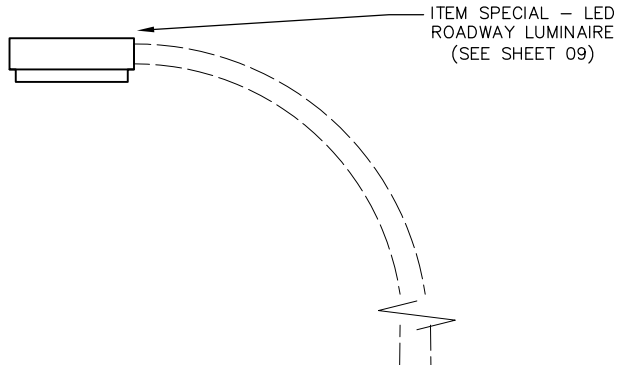
PAVEMENT OVERLAY SECTION

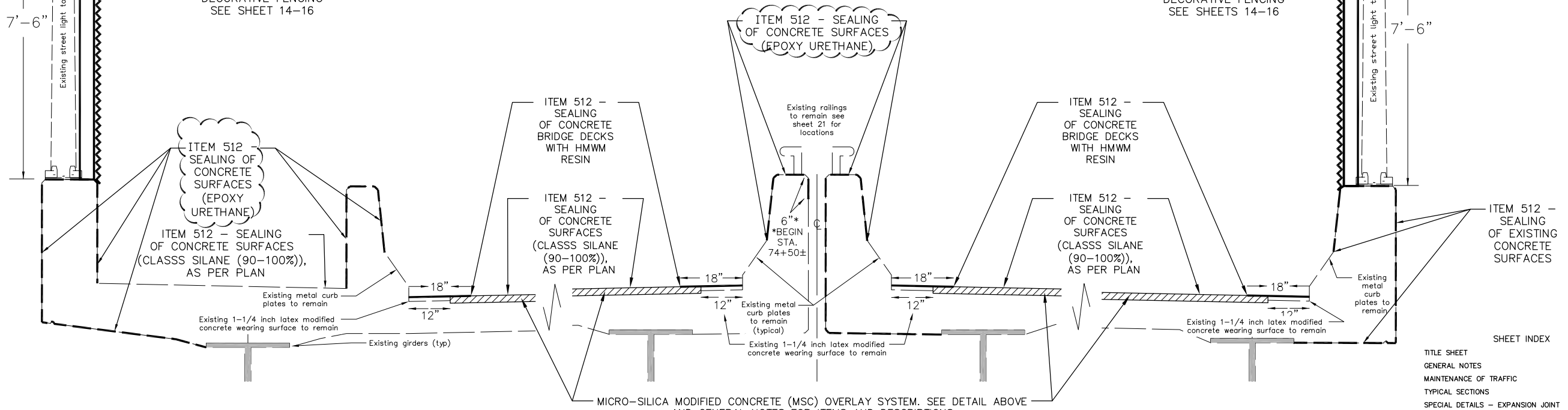
CODE	BOOK	ITEM	DESCRIPTION	UNITS
Ⓐ	ODOT	848	WEARING COURSE REMOVAL (MECHANICAL DEMOLITION), 1.25" THICKNESS, AS PER PLAN	SY
Ⓑ	ODOT	848	CONCRETE REMOVAL BY HYDRODEMOLITION, 0.75" THICKNESS, AS PER PLAN	SY
Ⓒ	ODOT	848	MSC OVERLAY, 2.0" THICKNESS	SY
Ⓓ	ODOT	848	MSC OVERLAY (VARIABLE DEPTH REPAIR – MATERIAL ONLY)	CY
Ⓔ	ODOT	512	SEALING OF CONCRETE BRIDGE DECKS WITH HMWM RESIN	SY
Ⓕ	ODOT	512	SEALING OF CONCRETE SURFACES (CLASS SILANE (90–100%)), AS PER PLAN	SY





TYPICAL SECTION RETAINING WALL





TYPICAL SECTION PROPOSED
(UNIT#3)

SHEET INDEX

DATE 6/12/12
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DATE	REVISIONS
6/1/09	FINAL TRACINGS
6/12/12	RECORD DRAWINGS ADG

TYPICAL SECTIONS – PROPOSED

ALL–AMERICA BRIDGE REHABILITATION

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
AKRON ENGINEERING BUREAU

2009–026–00

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GENERAL NOTES:

ITEM 202 – PORTIONS OF STRUCTURE REMOVED, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES THAT ARE NOT LISTED SEPARATELY FOR PAYMENT. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION. THESE ITEMS WILL INCLUDE ALL MATERIALS AND LABOR NECESSARY TO REMOVE THE EXISTING EXPANSION JOINTS AT LOCATIONS SPECIFIED IN THE PLANS AND TO PREPARE THESE JOINT LOCATIONS TO ALLOW FOR THE INSTALLATION OF THE NEW EXPANSION JOINTS AND JOINT ARMOR. THE WORK WILL INCLUDE, BUT NOT BE LIMITED TO, ALL MATERIALS AND LABOR REQUIRED TO PERFORM THE FOLLOWING WORK: REMOVAL OF THE JOINT ARMOR AND SLIDING PLATES, REMOVAL OF THE EXISTING MODULAR JOINT, REMOVAL OF THE EXISTING CONCRETE SUPPORTING THE JOINT AND REMOVAL OF PORTIONS OF THE TRAFFIC BARRIER AND PARAPET, REMOVAL OF EXISTING REINFORCING STEEL WHERE NECESSARY AND REMOVAL OF THE EXISTING JOINT TO ALLOW FOR INSTALLATION OF THE NEW JOINT. THE LIMITS OF REMOVAL ARE TO BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

THE WORK WILL PROCEED IN A MANNER WHICH WILL NOT DAMAGE PORTIONS OF THE EXISTING STRUCTURE TO REMAIN. CONCRETE TO BE REMOVED SHALL BE BOUNDED BY SAW CUTS APPROXIMATELY ONE INCH (1") DEEP TO PROVIDE A NEAT EDGE. HYDRODEMOLITION OF THE CONCRETE WITHIN THIS AREA AND SURROUNDING THE EXISTING EXPANSION JOINTS SHALL BE PERFORMED. LIGHT PNEUMATIC HAMMERS IN THE 351b CLASS MAY ALSO BE USED. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH REINFORCING STEEL THAT WILL BE RETAINED IN THE REBUILT STRUCTURE.

ALL EXISTING REINFORCING STEEL TO REMAIN IN THE REHABILITATED STRUCTURE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED WITH EPOXY COATED REINFORCING AT THE CONTRACTOR'S EXPENSE.

IN ADDITION TO THE REQUIREMENT SPECIFIED IN THE MOT NOTES PROVIDED IN THESE PLANS, THE CONTRACTOR MUST COMPLY WITH THE REQUIREMENTS OF ODOT CMS 501.05 (B2). SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH ODOT CMS 501.05.

THE PRICE FOR THIS WORK INCLUDED IN ITEM 202 – PORTIONS OF STRUCTURE REMOVED, AS PER PLAN SHALL INCLUDE THE WORK REQUIRED AT ALL TEN JOINTS TO BE REPLACED.

THE WORK WILL BE PAID FOR AS A LUMP SUM PRICE UNDER ITEM 202 – PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

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 ODOT CMS SECTIONS 102.05, 105.02, AND 513.04.

ITEM SPECIAL – MODULAR EXPANSION JOINT REPLACEMENT

A. DESCRIPTION

THIS ITEM SHALL CONSIST OF FURNISHING ALL MATERIALS, SERVICES, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO DESIGN, FABRICATE, INSPECT, TEST AND INSTALL MODULAR EXPANSION JOINTS IN ACCORDANCE WITH THE PLANS AND THESE NOTES. ALL REQUIREMENTS OF ODOT CMS 513 LEVEL UF APPLY, UNLESS MODIFIED BY THESE NOTES. EXCEPT FOR THE WIDTH, WHICH IS LARGER FOR THE NEW JOINTS, JOINT GEOMETRY SHOULD BE SIMILAR TO THE EXISTING PLANS (SEE DESIGN NOTE 16). THE ENDS OF JOINTS SHALL BE TURNED UP SO WATER AND DEBRIS DO NOT WASH OFF THE EDGE OF THE DECK.

THIS ITEM WILL ALSO INCLUDE THE MATERIALS, SERVICES, LABOR, TOOLS AND INCIDENTALS NECESSARY TO DESIGN, FABRICATE, INSPECT, TEST AND INSTALL JOINT ARMOR AND SLIDING PLATES AT THE JOINTS TO BE REPLACED.

THIS WORK ALSO INCLUDES MATERIAL, SERVICES, LABOR, TOOLS AND INCIDENTALS TO REPLACE PORTIONS OF CONCRETE PARAPETS, RAILINGS, AND WALK REMOVED TO ALLOW PLACEMENT OF THE NEW JOINT AND ARMOR OR CONCRETE OTHERWISE DAMAGED BY REMOVALOF THE EXISTING EXPANSION JOINT AND PLATES.

B. DESIGN

THE DESIGN SHALL BE PREPARED BY AND CHECKED UNDER THE AUTHORITY OF AN OHIO REGISTERED PROFESSIONAL ENGINEER AND BEAR HIS OR HER PROFESSIONAL ENGINEER SEAL.

1. THE MODULAR DEVICE'S MAIN LOAD BEARING BEAMS, SUPPORT BEAMS AND WELDS SHALL BE DESIGNED FOR FATIGUE.

   TRAFFIC DATA: (REFER TO TITLE SHEET FOR ADDITIONAL INFORMATION)
   ADT (2007) = 8,990
   TRUCKS (24 HR. B&C) = 3%
   DESIGN SPEED = 45 MPH (35 MPH POSTED)
   DESIGN FUNCTIONAL CLASSIFICATION = PRINCIPAL ARTERIAL

2. THE DESIGN CALCULATIONS SHALL BE INCLUDED WITH THE CONTRACTOR'S SUBMISSION OF SHOP DRAWINGS PER ODOT CMS 513.06.

3. THE SHOP DRAWINGS SHALL CONTAIN A DETAILED INSTALLATION PROCEDURE AND INCLUDE ANY SPECIFIC MANUFACTURER'S NOTES NECESSARY FOR COMPLETION OF THE WORK AND CONSTRUCTION PHASING.

4. THE MODULAR JOINT COMPONENTS, JOINT ARMOR AND ANCHORAGES SHALL BE DESIGNED AND TESTED ACCORDING TO THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT # 402 APPENDIX A AND B.

5. TEMPORARY AND FIELD CONNECTIONS TO THE BRIDGE SHALL BE DESIGNED TO ACCOMMODATE ADJUSTMENTS FOR ROADWAY GEOMETRY AND VARYING TEMPERATURE.

6. THE MODULAR JOINT SHALL ACCOMMODATE THE PLAN SPECIFIED MOVEMENT FOR A COLD CLIMATE AS SPECIFIED BY THE 2002 AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES SECTION 3.16.

7. SUPPORT BAR BEARINGS SHALL BE SUPPLIED TO TRANSFER THE LOAD FROM THE SUPPORT BARS TO THE JOINT ARMOR.

8. EQUALIZATION SPRINGS, WHICH WORK COUNTER TO THE COMPRESSION FORCES OF THE SEALING ELEMENTS, SHALL BE USED TO MAINTAIN EQUALIZATION EXPANSION PROPERTIES FOR EACH ELEMENT ACROSS THE JOINT.

9. CONTROL SPRINGS, WHICH WORK LONGITUDINALLY, SHALL BE USED TO MAINTAIN EQUIDISTANT SPACING BETWEEN TRANSVERSE SEPARATION BEAMS.

10. SEPARATION BEAMS/ TRANSVERSE DIVIDERS SHALL BE SUPPLIED AS NEEDED.

11. IN ORDER TO PRESERVE EXISTING REINFORCING AT THE JOINTS, THE SPACING OF SUPPORT BEAMS UNDER THE BEARING BARS SHALL MATCH THE ORIGINAL PLANS. IN THE UNLIKELY EVENT THAT ANY REINFORCING MUST BE CUT TO ACCOMODATE THE SUPPORT BOXES, THE STEEL WILL BE REPLACED USING EPOXY COATED GRADE 60 REINFORCING DOWELS SET WITH NON–SHRINK EPOXY GROUT IN 8" DRILLED HOLES.

12. THE SEAL SHALL BE A STRIP SEAL TYPE CONNECTED TO MATCHING RETAINERS CONNECTED TO THE JOINT ARMOR AND MACHINED GROOVES IN THE CENTER BEAM. EACH INDIVIDUAL STRIP SEAL SHALL NOT EXCEED 3.15 INCHES OF TOTAL HORIZONTAL MOVEMENT.

13. THE NEOPRENE SEALS, SUPPORT BAR BEARINGS AND EQUALIZATION SPRINGS SHALL BE REMOVABLE AND REPLACEABLE.

14. THE SEALS AND RETAINERS SHALL BE SET 1/8" LOWER THAN THE ROADWAY SURFACE.

15. THE MODULAR EXPANSION JOINT SHALL BE DESIGNED AND FABRICATED AS A CONTINUOUS FULL LENGTH JOINT WITHOUT FIELD SPLICES.

GENERAL NOTES:

16. DESIGN NEW JOINT ARMOR AND SLIDING PLATES TO ACCOMMODATE THE NEW MODULAR JOINTS. IN GENERAL THE PLATE SIZES, SHAPE, ANCHORAGE MATERIAL, AND GALVANIZING REQUIREMENTS SHOWN ON THE ORIGINAL 1979 DESIGN PLANS SHALL BE PROVIDED WITH THE FOLLOWING EXCEPTIONS:

A). SLIDING PLATES ON THE OUTSIDE FACE OF THE PARAPETS OR OUTSIDE FACE OF THE PEDESTRIAN RAILING WILL NOT BE REPLACED.

B). THE LOCATION OF THE JOINT ARMOR AND THE LENGTH OF THE SLIDING PLATES AND STOPS WILL BE ADJUSTED TO ACCOMMODATE THE NEW, WIDER MODULAR EXPANSION JOINTS. ALL SLIDING PLATES MUST ALLOW THE FOLLOWING SUPERSTRUCTURE MOVEMENTS FROM A 60^ REFERENCE TEMPERATURE:

i). ALL 12" MODULAR EXPANSION JOINTS:
SUPERSTRUCTURE EXPANSION (JOINT CONTRACTION) = 4.8 INCHES
SUPERSTRUCTURE CONTRACTION (JOINT EXPANSION) = 7.2 INCHES

ii). ALL 9" MODULAR EXPANSION JOINTS:
SUPERSTRUCTURE EXPANSION (JOINT CONTRACTION) = 4 INCHES
SUPERSTRUCTURE CONTRACTION (JOINT EXPANSION) = 5 INCHES

C). CONDUITS IN EXISTING PARAPETS WILL REMAIN AND SHOULD BE PROTECTED DURING PREPARATION OF THE NEW JOINT. SPLIT OR NOTCHED PLATES WILL BE REQUIRED TO ALLOW PLACEMENT WITHOUT REMOVAL OF THE CONDUITS.

17. THE FOLLOWING SHEETS FROM THE ORIGINAL 1979 DESIGN PLANS MAY BE REFERENCED FOR EXISTING EXPANSION JOINT GEOMETRY AND DETAILS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING STRUCTURE DIMENSIONS AND CONDITIONS. A CD OF THE 1979 DESIGN PLANS WILL BE PROVIDED BY THE CITY.

ABUTMENT JOINTS:	125 OF 167 THROUGH 130 OF 167.
HINGE JOINTS:	130 OF 167 THROUGH 131 OF 167.
COMMON AND MISC. JOINT DETAILS:	132 OF 167 THROUGH 134 OF 167.

C. MATERIALS

1. STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 50. CENTER BEAMS, EDGE BEAMS AND JOINT ARMOR SHALL BE CHARPY V NOTCH IMPACT TESTED PER ASTM A709 TABLE S1.2 ZONE 2 TEMPERATURE RANGE. TUBE SECTIONS SHALL BE ASTM A501 OR A500 GRADE B.

2. STAINLESS STEEL SHALL BE ASTM A240 TYPE 304, NO. 8 FINISH WITH A MINIMUM THICKNESS OF 13 GAGE.

3. ELASTOMERIC, PTFE, URETHANE AND PREFORMED FABRIC MATERIALS USED IN SUPPORT BAR BEARINGS SHALL BE TESTED AND REPORTED BY THE MANUFACTURER OR AN INDEPENDENT TESTING LABORATORY FOR EACH BEARING AND SPRING TYPE. THE SUBMISSION OF MATERIAL CERTIFICATION AND TESTING DATA SHALL BE PER CMS 501.06. THESE MATERIALS SHALL BE TESTED ACCORDING TO THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT #402 APPENDIX A "GUIDELINE FOR DURABILITY TESTING OF SPRINGS AND BEARINGS FOR MBEJ".

4. SUPPLY STRIP SEALS CONFORMING TO ASTM D5973. THE SAMPLE LENGTH SHALL BE AT LEAST 4 FEET AND INCLUDE ALL MANUFACTURER'S MARKINGS. SUBMIT CERTIFIED TEST DATA FROM THE MANUFACTURER OR ACCREDITED LABORATORY ACCORDING TO ODOT CMS 501.06. THE SEAL AND RETAINER ARE AN INTEGRAL SYSTEM SUPPLIED BY ONE MANUFACTURER.
5. SEAL RETAINERS: EXTRUDE, HOT ROLL OR MACHINE, STEEL RETAINERS INTO A SOLID SHAPE. RETAINERS MANUFACTURED FROM BENT LATE OR BUILT UP PIECES ARE NOT ACCEPTABLE. THE INTERNAL DIMENSIONS OF THE RETAINER SHALL BE SPECIFIED BY THE MANUFACTURER TO ACHIEVE POSITIVE SEAL ANCHORAGE.

6. CENTER BEAMS SHALL BE A SOLID, NON–WELDED MACHINED OR EXTRUDED STEEL SECTION.

7. LUBRICANT – ADHESIVE: ONE PART MOISTURE CURING POLYURETHANE COMPOUND MEETING THE REQUIREMENTS OF ASTM D4070 AND AS SPECIFIED BY THE SEAL MANUFACTURER.

8. HARDWARE SHALL BE ASTM A325 TYPE ONE, GALVANIZED OR ASTM A449 GALVANIZED.

D. FABRICATION

1. THE MODULAR JOINTS SHALL BE FABRICATED ACCORDING TO ODOT CMS 513. FABRICATORS OF MODULAR DEVICES SHALL BE PRE–QUALIFIED ODOT CMS 513 LEVEL UF FABRICATORS.

2. THE MODULAR JOINT SHALL BE SHOP ASSEMBLED WITH ALL COMPONENTS EXCEPT NEOPRENE SEALS.

3. JOINTS IN STRIP SEALS: WILL NOT BE PERMITTED.

4. JOINTS IN RETAINERS: WELDS SHALL BE WATER TIGHT, PARTIAL PENETRATION WELDS AROUND THE OUTER PERIPHERY OF THE ABUTTING SURFACES. SPLICES SHALL ONLY BE MADE IN THE COMPRESSION ZONE OF THE JOINT ARMOR. GRIND FLUSH ALL WELDS IN CONTACT WITH THE SEAL AND JOINT ARMOR. DO NOT USE SHORT PIECES OF RETAINERS LESS THAN 6'–0" LONG, UNLESS REQUIRED AT CURBS. DO NOT PROVIDE ADDITIONAL SPLICES IN RETAINERS AT CURB SECTIONS OTHER THAN REQUIRED FOR GEOMETRY.

5. SHOP OR FIELD WELDS OF CENTER BEAMS AND JOINT ARMOR SHALL BE COMPLETE PENETRATION WELDS, GROUND TO PROVIDE SMOOTH TRANSITIONS AND BE 100 % ULTRASONICALLY TESTED PER AWS D1.5: 2008 BRIDGE WELDING CODE, WITH ACCEPTANCE CRITERIA PER TABLE 6.3, WITNESSED BY THE CITY'S REPRESENTATIVE.

6. THE CENTER BEAM TO SUPPORT BAR CONNECTIONS SHALL BE COMPLETE PENETRATION WELDS, GROUND TO PROVIDE SMOOTH TRANSITIONS AND BE 100% ULTRASONICALLY TESTED PER AWS D1.5: 2008 BRIDGE WELDING CODE, WITH ACCEPTANCE CRITERIA PER TABLE 6.3, WITNESSED BY THE CITY'S REPRESENTATIVE.

7. TEMPORARY SUPPORTS: FABRICATOR DESIGNED AND INSTALLED SUPPORTS ARE REQUIRED TO SUPPORT SHIPPING, ERECTION AND CONSTRUCTION FORCES WITHOUT DAMAGE TO THE STEEL ARMOR OR COATINGS. THESE SUPPORTS SHALL BE ADJUSTABLE FOR FIELD TEMPERATURE SETTING.

E. COATING

1. ALL STEEL SURFACES AND COMPONENTS, EXCEPT AT STAINLESS STEEL AND PTFE SLIDING SURFACES SHALL BE GALVANIZED OR METALIZED. THESE COATINGS MAY BE MIXED ON ONE ASSEMBLY, IF ALL SIMILAR COMPONENTS OF THE ASSEMBLY HAVE THE SAME COATING TYPE.

2. THE GALVANIZED COATING SHALL BE PER ASTM A123, WITH A MINIMUM THICKNESS OF 4 MILS. THE FABRICATOR SHALL CLEAN EXCESSIVE GALVANIZING AS NECESSARY TO ACHIEVE MECHANICAL MOVEMENT AND SEAL INSTALLATION.

3. SURFACE PREPARATION AND METALIZED COATING SHALL BE PERFORMED ACCORDING TO THE SOCIETY FOR PROTECTIVE COATINGS (SSPC) INTERIM SPECIFICATION SSPC–CS23.00(I) FOR THERMAL SPRAY METALLIC COATINGS. THE COATING SHALL BE A MINIMUM OF 8 MILS THICK. THE METALIZING WIRE SHALL BE 100% ZINC. AREAS OF STRUCTURAL STEEL THAT ARE IN CONTACT WITH CAST–IN–PLACE CONCRETE SHALL HAVE AN ADDITIONAL COATING. THE COATING SHALL BE THE EPOXY INTERMEDIATE COAT SPECIFIED IN ODOT CMS 708.02C. THE COATING THICKNESS WILL COVER ALL PEAKS, VALLEYS AND SURFACE ROUGHNESS ATTRIBUTED TO METALIZING.

4. COATING REPAIRS: DAMAGED COATINGS SHALL BE REPAIRED BY ASTM A780, ANNEX "A1. REPAIR USING ZINC BASED ALLOYS". THE PROCEDURE SHALL BE AS FOLLOWS: REMOVE SURFACE CONTAMINATES, PREHEAT TO 600 DEGREES F, APPLY ZINC COATING BY RUBBING WITH A PURE ZINC STICK OR SPRINKLING ZINC POWDER ON THE PREHEATED SURFACE TO ACHIEVE A MINIMUM COATING THICKNESS OF 6 MILS.

5. THE GALVANIZED OR METALIZED COATINGS SHOULD NOT BE FIELD PAINTED, EXCEPT FOR AREAS DAMAGED BY CONNECTION TO PAINTED SUPERSTRUCTURE STEEL MEMBERS. THESE AREAS SHALL BE PAINTED USING THE SAME SYSTEM SPECIFIED FOR THE SUPERSTRUCTURE.

6. PRIOR TO SHIPPING, RETAINER GROOVES SHALL BE PROTECTED FROM CONSTRUCTION DEBRIS BY THE INSTALLATION OF BACKER RODS OR OTHER EFFECTIVE MASKING TECHNIQUES.

GENERAL NOTES:

F. INSTALLATION

1. THE JOINT MANUFACTURER'S TECHNICAL REPRESENTATIVE SHALL PHYSICALLY OVERSEE THE FABRICATION, INSTALLATION, ADJUSTMENT AND TESTING DURING ALL OPERATIONS. WHERE SPECIAL INSTRUCTIONS ARE NOT CONTAINED HEREIN OR ELSEWHERE IN THESE NOTES, DIRECTION FOR THE INSTALLATION SHALL BE ACCORDING TO THE RECOMMENDATIONS OF THE TECHNICAL REPRESENTATIVE.

2. THE APPROVED MANUFACTURER/FABRICATOR SHALL SUPPLY A QUALIFIED TECHNICAL REPRESENTATIVE TO THE JOBSITE DURING ALL INSTALLATION PROCEDURES.

3. THE JOINT OPENING SHALL BE PREPARED TO THE LIMITS DETERMINED BY THE CONTRACTOR.

4. THE MODULAR JOINT SHALL THEN BE PLACED IN THE FINAL VERTICAL POSITION WITH RESPECT TO ROADWAY GRADE, CROWN AND SURFACE, AND THE PROPER LONGITUDINAL POSITION WITH RESPECT TO THE SUPERSTRUCTURE. TEMPORARY SUPPORTS SHALL BE PROVIDED AS DIRECTED BY THE MANUFACTURER TO MAINTAIN THE PROPER POSITIONING. SUPERSTRUCTURE CONCRETE IN THE JOINT BOX–OUT SHALL BE PLACED ONLY WHEN POSITIONING IS ACCEPTED BY THE MANFACTURE'S REPRESENTATIVE. CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ODOT CMS ITEM 499 FOR CLASS S CONCRETE (f'c = 4500psi).

5. THE CONTRACTOR'S METHOD OF ABUTMENT CONCRETE PLACEMENT AT THE MODULAR JOINT SHALL INCLUDE VIBRATION AND HAND WORK NECESSARY TO ACHIEVE THOROUGH CONCRETE CONSOLIDATION AROUND AND UNDER THE MODULAR JOINT AND TO ELIMINATE AIR VOIDS. THE MANUFACTURER'S QUALIFIED TECHNICIAN SHALL ENSURE THE CONCRETE IS THOROUGHLY CONSOLIDATED.

6. PRIOR TO PLACING CONCRETE TO COMPLETE THE MODULAR JOINT INSTALLATION, THE MODULAR JOINT SHALL BE ADJUSTED DIMENSIONALLY TO HAVE THE PROPER JOINT WIDTH AT THE ANTICIPATED INSTALLATION TEMPERATURE. SUCH ADJUSTMENT SHALL BE UNDER THE DIRECTION OF THE MANUFACTURER'S TECHNICAL REPRESENTATIVE TO ENSURE THE PROPER WIDTH HAS BEEN PROVIDED. IMMEDIATELY FOLLOWING SUCH ADJUSTMENT, CONCRETE TO SECURE THE JOINT IN THE BOX–OUT SHALL BE PLACED. ALL TEMPORARY MODULAR JOINT SUPPORTS SHALL BE REMOVED AS SOON AS THE BACKWALL CONCRETE HAS ACHIEVED A SET SUFFICIENT TO SUPPORT THE MODULAR JOINT. THE MANUFACTURER'S REPRESENTATIVE SHALL BE PRESENT TO ENSURE THAT ALL RESTRAINTS HAVE BEEN REMOVED FROM THE MODULAR JOINT TO PREVENT DAMAGE TO THE BOND BETWEEN THE MODULAR JOINT AND ADJACENT CONCRETE DUE TO THE SUPERSTRUCTURE RESPONSE TO AMBIENT TEMPERATURE CHANGES. TO GUARD AGAINST SUCH DAMAGE, THE CONCRETE SHALL NOT BE PLACED DURING PERIODS WHEN RAPID TEMPERATURE CHANGES ARE EXPECTED. PREFERABLY, CONCRETE PLACEMENT SHOULD BE DONE AT NIGHT WHEN VARIATIONS IN AMBIENT SHADE AIR TEMPERATURE ARE AT A MINIMUM.

7. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT THE MODULAR JOINT FROM DAMAGE. SPECIAL CARE SHALL BE EXERCISED AT ALL TIMES TO ENSURE PROTECTION OF THE MODULAR JOINT. AFTER INSTALLATION OF THE JOINT SYSTEM, CONSTRUCTION LOADS SHALL NOT BE ALLOWED ON THE MODULAR JOINT. TO ELIMINATE SUCH LOADING, THE CONTRACTOR SHALL BRIDGE OVER THE MODULAR JOINT IN A MANNER APPROVED BY THE ENGINEER.

8. EXAMINE SEAL RETAINERS FOR SOIL OR DEFECTS THAT CAN DAMAGE THE SEAL. REPAIR ANY DEFECTS AS DIRECTED BY THE MANUFACTURER'S REPRESENTATIVE.

9. THE NEOPRENE SEAL ELEMENTS AND THE RETAINER GROOVES SHALL BE SOLVENT CLEANED TO REMOVE OIL, GREASE OR OTHER SOIL IMMEDIATELY PRIOR TO INSTALLING THE SEALS. THE SEALS SHALL BE INSTALLED WITH THE RECOMMENDED ADHESIVE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE BONDING SURFACES SHALL BE CLEAN, DRY AND WARMER THAN 45 DEGREES F.

10. THE COMPLETE, INSTALLED EXPANSION DEVICE SHALL BE TESTED FOR WATERTIGHTNESS, BY FLOODING THE TOTAL EXPANSION JOINT LENGTH WITH WATER FOR A PERIOD OF NOT LESS THAN ONE HOUR. THE ENTIRE JOINT SYSTEM SHALL BE COVERED EITHER BY PONDING OR FLOWING WATER. SHOULD THE JOINT SYSTEM EXHIBIT ANY EVIDENCE OF WATER LEAKAGE, THE CONTRACTOR SHALL LOCATE THE POINTS OF LEAKAGE AND SHALL TAKE ANY AND ALL MEASURES NECESSARY TO STOP THE LEAKAGE. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE. AFTER ALL REPAIRS HAVE BEEN MADE AN ADDITIONAL TEST FOR WATERTIGHTNESS SHALL BE PERFORMED.

G. METHOD OF MEASUREMENT

THE CITY WILL MEASURE THE MODULAR EXPANSION JOINT IN FEET AS HORIZONTALLY MEASURED ALONG THE JOINT CENTERLINE AND BETWEEN THE OUTER LIMITS OF THE FABRICATED JOINT. THE COST OF REPLACING JOINT ARMOR AND SLIDING PLATES AT THE JOINTS REPLACED SHALL BE INCLUDED IN THE PRICE BID FOR EACH MODULAR JOINT. THE BID SHALL INCLUDE THE COST OF ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO DESIGN, SUPPLY, INSTALL AND TEST A MODULAR EXPANSION JOINT ACCORDING TO THE PLAN DIMENSIONS AND THESE NOTES.

H. BASIS OF PAYMENT

PAYMENT WILL BE MADE AT CONTRACT PRICE FOR:

ITEM	UNIT	DESCRIPTION
SPECIAL	FT	MODULAR EXPANSION JOINT REPLACEMENT, 9" MOVEMENT (A1 NORTHBOUND)
SPECIAL	FT	MODULAR EXPANSION JOINT REPLACEMENT, 12" MOVEMENT (H1,H2,H3 NORTHBOUND)
SPECIAL	FT	MODULAR EXPANSION JOINT REPLACEMENT, 9" MOVEMENT (A2 NORTHBOUND)
SPECIAL	FT	MODULAR EXPANSION JOINT REPLACEMENT, 9" MOVEMENT (A1 SOUTHBOUND)
SPECIAL	FT	MODULAR EXPANSION JOINT REPLACEMENT, 12" MOVEMENT (H1,H2,H3 SOUTHBOUND)
SPECIAL	FT	MODULAR EXPANSION JOINT REPLACEMENT, 9" MOVEMENT (A2 SOUTHBOUND)

MANUFACTURER: D.S. BROWN
300 CHERRY STREET
NORTH BALTIMORE, OHIO 45872
(419) 257–0332

'D–240' EXPANSION JOINTS (REQUIRED AT ABUTMENT A–1 NORTHBOUND & SOUTHBOUND)
'D–320' EXPANSION JOINTS (REQUIRED AT HINGE H1, H2, & H3 NORTHBOUND & SOUTHBOUND)

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EXPANSION JOINT

ALL–AMERICA BRIDGE
REHABILITATION

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
TRAFFIC ENGINEERING BUREAU

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NOTE:
THE EXPANSION JOINT SHALL BE FROM AN ODOT APPROVED SUPPLIER

JOINT SETTING DIMENSION

JOINTS SHOULD BE SET IN ACCORDANCE WITH THE FOLLOWING TABLES.

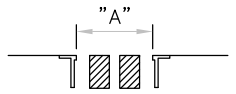
THE BASIS FOR DIMENSION "A" IS AS FOLLOWS:

9" MOVEMENT JOINTS, WABO MODULAR STM 900.

12" MOVEMENT JOINTS, WABO MODULAR STM 1200.

OTHER JOINTS IN ACCORDANCE WITH THE SPECIFICATIONS WILL BE ACCEPTABLE. CONTRACTOR WILL ADJUST DIMENSION "A" AS NEEDED FOR THE JOINT PROVIDED.

ABUTMENTS



SETTING TABLE FOR ABUTMENTS

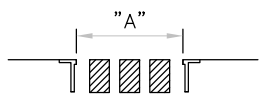
Δ	TEMPERATURE	NET OPENING	DIM "A"
	− 3 0	9	1 4
9 0	3 0	5 . 4	1 0 . 4
8 0	4 0	4 . 8	9 . 8
7 0	5 0	4 . 2	9 . 2
6 0	6 0	3 . 6	8 . 6
5 0	7 0	3 . 0	8 . 0
4 0	8 0	2 . 4	7 . 4
3 0	9 0	1 . 8	6 . 8
JOINT CLOSED	120	0	5

DIMENSION "A" IS DETERMINED BY ASSUMING TWO 2−1/2" BEARING BARS AND IS EQUAL TO THE REQUIRED NET OPENING + 5".

SUPERSTRUCTURE EXPANSION:
THE ASSUMED JOINT CONTRACTION FROM 60° REFERENCE IS 2/5 x 9 = 4 INCHES.

SUPERSTRUCTURE CONTRACTION:
THE ASSUMED JOINT EXPANSION FROM 60° REFERENCE IS 3/5 x 9 = 5 INCHES

HINGES



SETTING TABLE FOR HINGES

Δ	TEMPERATURE	NET OPENING	DIM "A"
	− 3 0	1 2	1 9 . 5
9 0	3 0	7 . 2	1 4 . 7
8 0	4 0	6 . 4	1 3 . 9
7 0	5 0	5 . 6	1 3 . 1
6 0	6 0	4 . 8	1 2 . 3
5 0	7 0	4 . 0	1 1 . 5
4 0	8 0	3 . 2	1 0 . 7
3 0	9 0	2 . 4	9 . 9
JOINT CLOSED	120	0	7.5

DIMENSION "A" IS DETERMINED BY ASSUMING THREE 2−1/2" BEARING BARS AND IS EQUAL TO THE REQUIRED THE NET OPENING + 7−1/2".

SUPERSTRUCTURE EXPANSION:
THE ASSUMED JOINT CONTRACTION FROM 60° REFERENCE IS 2/5 x 12 = 4.8 INCHES.

SUPERSTRUCTURE CONTRACTION:
THE ASSUMED JOINT EXPANSION FROM 60° REFERENCE IS 3/5 x 12 = 7.2 INCHES

GENERAL NOTES:

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

1. DESCRIPTION

THE EXISTING STRUCTURAL STEEL DIAPHRAGMS WILL BE REPLACED AT THE FOLLOWING JOINTS: NORTHBOUND ABUTMENT 1, HINGE 1, HINGE 2, HINGE 3, ABUTMENT 2. SOUTHBOUND ABUTMENT 1, HINGE 1, HINGE 2, HINGE 3, ABUTMENT 2.

ALL NEW DIAPHRAGMS SHALL BE COMPLETE IN PLACE PRIOR TO REPLACING THE EXISTING MODULAR JOINTS. REMOVAL OF THE EXISTING MODULAR JOINTS MAY PROCEED PRIOR TO INSTALLING THE NEW DIAPHRAGMS UNDER THIS ITEM.

AT EACH ABUTMENT THERE IS A SINGLE LINE OF DIAPHRAGMS BETWEEN THE MAIN GIRDERS. AT EACH HINGE THERE ARE TWO LINES OF DIAPHRAGMS, ONE LINE ON EACH SIDE OF THE JOINT OPENING. DIAPHRAGMS AT BOTH THE ABUTMENTS AND HINGES ARE W18 X 40 BEAMS. IN GENERAL THERE ARE THREE DIAPHRAGMS PER LINE EXCEPT AT ABUTMENT 1 ON THE SOUTHBOUND LANES WHERE THERE ARE 4 DIAPHRAGMS IN THE LINE. ALL DIAPHRAGMS SHALL BE REPLACED IN KIND EXCEPT THAT THE NEW BEAMS SHALL CONFORM TO ASTM A709 GRADE 50 W (CVN). IN GENERAL REFERENCE SHOULD BE MADE TO THE ORIGINAL BRIDGE PLAN SHEETS 63 OF 167 THROUGH 70 OF 167 FOR THE FRAMING PLANS AND TO SHEETS 81, 84, 112,113, AND 114 OF 167 FOR DETAILS THOUGH REFERENCE TO OTHER SHEETS MAY BE REQUIRED. IT WILL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY EXISTING PLAN DIMENSIONS PRIOR TO FABRICATION OF THE NEW DIAPHRAGMS.

2. INSTALLATION REQUIREMENTS

ALL DIAPHRAGMS SHALL BE REMOVED FROM BELOW THE BRIDGE DECK. CARE SHALL BE TAKEN NOT TO DAMAGE THE REINFORCED TRANSVERSE HAUNCH IN THE SLAB WHICH PROVIDES SUPPORT FOR THE MODULAR JOINTS. REFER TO SHEETS 112 THROUGH 114 OF 167 IN THE ORIGINAL PLANS FOR DETAILS.

REMOVAL OF THE EXISTING DIAPHRAGMS MAY BE FACILITATED BY SAWING OR FLAME CUTTING THE EXISTING DIAPHRAGMS AND CONNECTIONS. CARE SHALL BE TAKEN NOT TO CUT OR BURN EXISTING STEEL TO REMAIN.

AT HINGE LOCATIONS THE TOP FLANGE OF THE EXISTING DIAPHRAGMS IS COPED. IF THE NEW DIAPHRAGMS ARE BROUGHT IN TO POSITION FROM BELOW IT WILL BE NECESSARY TO ROTATE THEM INTO POSITION TO CLEAR THE BOTTOM GIRDER FLANGES. TO FACILITATE THIS MOVEMENT IT WILL BE ACCEPTABLE TO CLIP THE BOTTOM FLANGES AT 45 DEGREES IN ADDITION TO COPING THE TOP FLANGES. ALTERNATELY, AFTER REMOVAL OF THE EXISTING MODULAR JOINTS, IT MAY BE FEASIBLE AT MOST TEMPERATURES TO LOWER THE NEW DIAPHRAGMS THROUGH THE OPEN JOINTS FROM ABOVE AND MOVE THEM INTO THEIR FINAL POSITION FROM BELOW WITH OUT HAVING TO CLIP THE FLANGES.

THE NEW DIAPHRAGMS SHALL BE BROUGHT INTO CLOSE CONFORMITY WITH THE EXISTING CONCRETE DECK. CONNECTIONS TO THE EXISTING GIRDERS OR STIFFENERS SHALL BE MADE USING THE ORIGINAL HOLES FROM THE PREVIOUS BOLTED CONNECTION. HOWEVER, TO FACILITATE PLACEMENT OF THE DIAPHRAGMS, FINAL CONNECTIONS OF THE CONNECTION PLATES OR ANGLES TO THE DIAPHRAGMS MAY BE MADE USING FIELD WELDS RATHER THAN SHOP WELDS SHOWN ON THE ORIGINAL PLANS.

AFTER PLACEMENT OF THE NEW DIAPHRAGMS IS COMPLETE THE TOP FLANGE OF THE NEW DIAPHRAGMS SHALL BE BROUGHT INTO FULL BEARING WITH THE SLAB ABOVE USING A NON SHRINK EPOXY GROUT CONFORMING TO 705.20. WHERE THE GAP IS SMALL, LOW PRESSURE GROUTING IN ACCORDANCE WITH 512.07 WILL ALSO BE ACCEPTABLE.

3. POWER WASHING

SUBSEQUENT TO THE INSTALLATION OF THE NEW DIAPHRAGMS THE STEEL SHALL BE POWER WASHED WITHIN TEN FEET OF EACH JOINT. IN PARTICULAR ALL DIRT AND DEBRIS SHALL BE REMOVED FROM THE BOTTOM FLANGES OF THE MAIN GIRDERS WHERE IT HAS ACCUMULATED. THE CONTRACTOR WILL PROVIDE TEMPORARY WORKS AS NEEDED TO PROTECT PROPERTY BELOW THE JOINTS.

4. PROTECTION OF THE WORK SITE

IN ADDITION TO THE REQUIREMENTS OF THE MOT NOTES PROVIDED IN THESE PLANS THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF ODOT CMS SECTION 501.05 (B2). SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH ODOT CMS 501.05

5. MEASUREMENT AND PAYMENT

THE CITY WILL PAY FOR THE WORK DESCRIBED HEREIN AS A LUMP SUM. THE ITEM INCLUDES ALL LABOR, EQUIPMENT, MATERIAL AND SUPERVISION TO PROVIDE NEW DIAPHRAGMS COMPLETE AND IN PLACE AT THE LOCATIONS SPECIFIED AND TO CLEAN THE STEEL WITHIN 10 FEET HORIZONTALLY OF THE JOINT. THE WORK ALSO INCLUDES DEMOLITION REQUIRED TO PREPARE FOR INSTALLATION, TEMPORARY WORKS WHICH MAY BE REQUIRED FOR INSTALLATION OR PROTECTION OF THE SITE AND REQUIRED SUBMITTALS.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE FOR ACCEPTED WORK FOR:

ITEM	UNIT	DESCRIPTION
513	LUMP SUM	STRUCTURAL STEEL MEMBERS, LEVEL UF, AS PER PLAN

SHEET INDEX

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EXPANSION JOINT

ALL−AMERICA BRIDGE REHABILITATION

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
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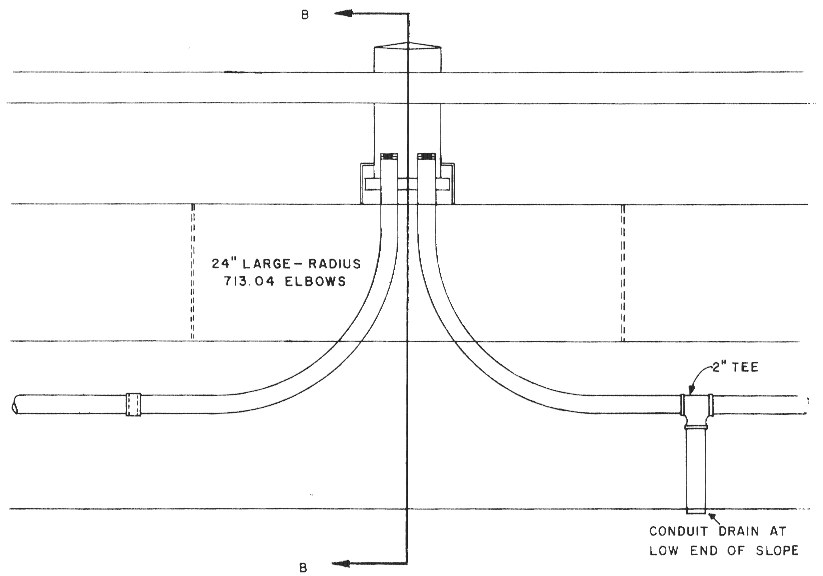
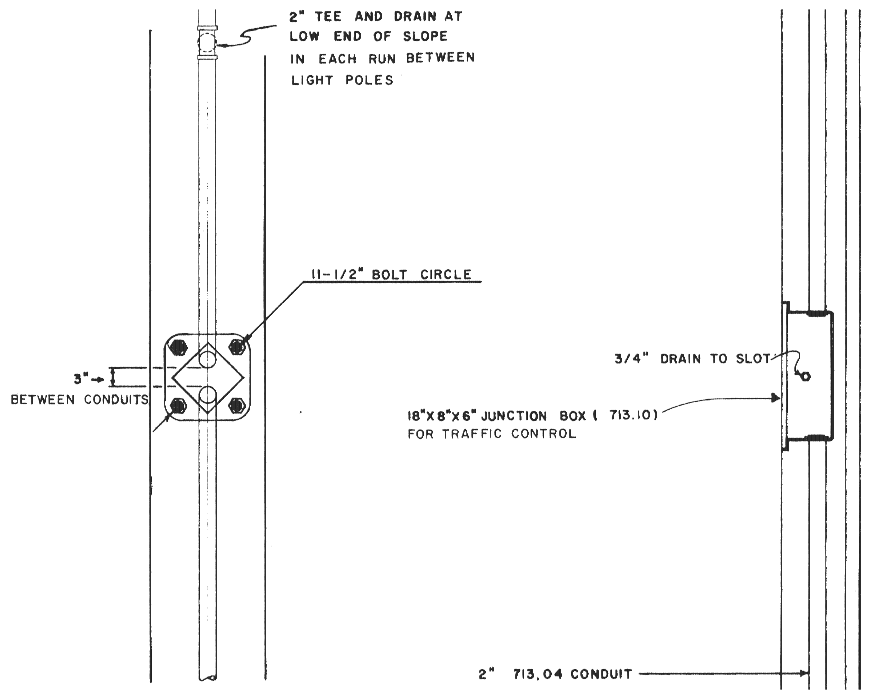
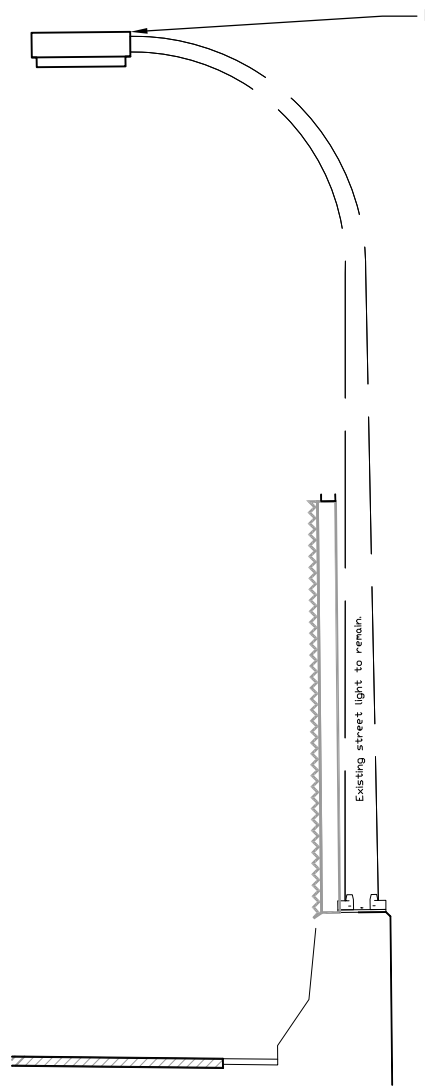


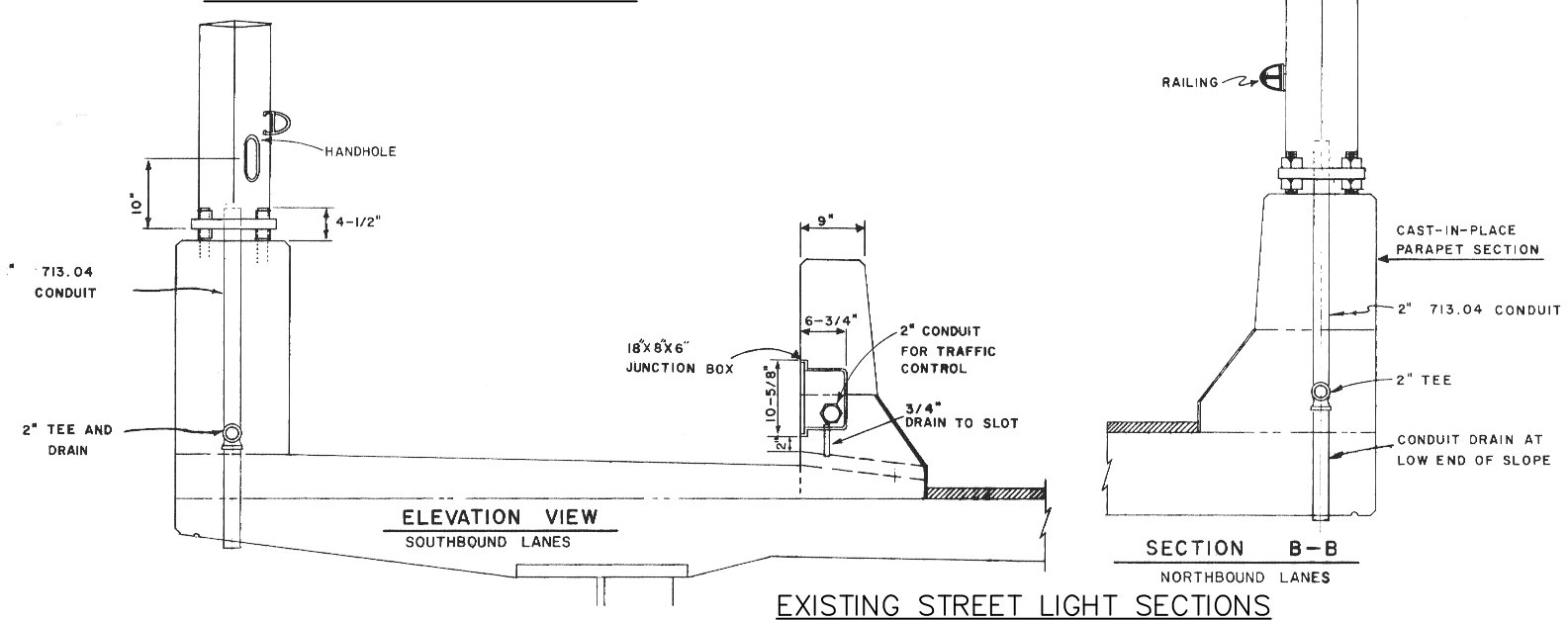
EXISTING STREET LIGHT CONDUIT – PROFILE



EXISTING STREET LIGHT PLAN



EXISTING STREET LIGHT



EXISTING STREET LIGHT SECTIONS

ITEM SPECIAL – LED ROADWAY LUMINAIRE

THIS LUMINAIRE SHALL CONSIST OF A CAST ALUMINUM HOUSING THAT IS NOMINALLY RECTANGULAR IN SHAPE AND MODERATELY THIN IN THICKNESS [3" TO 6"] , OR THIS HOUSING MAY HAVE STANDARD COBRA SHAPE. THIS HOUSING SHALL HAVE ROUNDED CORNERS AND EDGES GIVING IT AN ARCHITECTURALLY PLEASING APPEARANCE.

THE FINISH SHALL BE BLACK GLOSS. THE FINISH SHALL BE A PAINT COAT APPLIED AT THE FACTORY, EITHER A BAKED ON ENAMEL COAT, OR AN ELECTRO STATICALLY APPLIED POWDER COAT. THERE SHALL BE A 10 YEAR LIMITED WARRANTY ON THIS FINISH.

THE HOUSE–SIDE END OF THIS LUMINAIRE SHALL CONTAIN A COMPARTMENT FOR THE SOLID STATE DRIVER ,OTHER ELECTRONIC PARTS NECESSARY FOR REGULATING THE POWER TO THE LIGHT–EMITTING–DIODES, TERMINALS FOR CONNECTIONS OF INCOMING POWER CONDUCTORS, AND FOR CONNECTIONS OF HIGH–TEMPERATURE CONDUCTORS FEEDING TO THE LIGHT–EMITTING–DIODES. THIS DRIVER COMPARTMENT SHALL BE SEALED TO RAINPROOF AND INSECT PROOF CHARACTERISTICS.

THE FRONT SECTION OF THE LUMINAIRE (STREET SIDE SECTION) SHALL CONTAIN THE LIGHT–EMITTING–DIODE ASSEMBLY. THIS ASSEMBLY SHALL CONSIST OF A SYMMETRICAL FLAT ARRANGEMENT OF THE INDIVIDUAL DIODES, MADE UP OF SMALL CLUSTER SECTIONS OF DIODES, AND MOUNTED TOGETHER TO FORM THE LARGE SYMMETRICAL ARRAY OF DIODES IN THE COMPLETE LUMINAIRE. THESE LIGHT–EMITTING–DIODES AS INSTALLED IN THE COMPLETE LUMINAIRE SHALL PRODUCE AN IES TYPE II, OR TYPE III LIGHTING PATTERN, AND WILL BE RATED FULL–CUT–OFF AND DARK SKY COMPLIANT.

THIS COMPLETE LUMINAIRE SHALL BE EQUIPPED WITH A HOUSE–SIDE 2" CAST ALUMINUM SLIP–FITTER ASSEMBLY WHICH SHALL ENABLE THE LUMINAIRE TO BE MOUNTED IN THE FIELD ON A 2" TO 2 3/8" OD TENON ON THE LIGHT POLE ARM. THIS SLIP–FITTER SHALL ENABLE THE LUMINAIRE TO BE ADJUSTED + OR – 5 DEGREES FOR LEVELING PURPOSES.

THE INITIAL LIGHT OUTPUT OF THIS LUMINAIRE SHALL BE CAPABLE OF PRODUCING FROM A MH OF 35' AND WITH AN AVERAGE SPACING OF 148 FEET ON A 2 LANE SECTION OF THE BRIDGE AN AVERAGE OF 1.2 FOOTCANDLES.

THE INPUT VOLTAGE TO THE DRIVER ASSEMBLY SHALL BE 480 VOLT 60 HZ. THE LIGHT COLOR TEMPERATURE PRODUCED BY THE LIGHT–EMITTING–DIODES SHALL BE 5,000 K.

THE LIGHT–EMITTING–DIODE BARS OR SECTIONS AS THEY MAY BE CALLED, SHALL BE GUARANTEED IN WRITING FOR 5 YEARS OF SERVICE, STARTING AT THE DATE THAT THE NEWLY INSTALLED LUMINARIES ARE TURNED ON.

THE ENTIRE LUMINAIRE ASSEMBLY SHALL BE A UNIT DESIGNED AND MANUFACTURED FOR THE PURPOSE OF LIGHTING A ROADWAY, BEING MOUNTED OUTSIDE ON A LIGHT POLE, AND TO BE IN SERVICE FOR AT LEAST 30 YEARS.

THE SUGGESTED MANUFACTURERS AND CATALOG NUMBERS ARE:

1> BETALED....BLD / STR / T3 / 2" SLIP FIT MOUNTING / LED–B / 480V / BLACK /

2> NILAND....NEW YORKER LED SERIES....NY–LED

3> LEOTEK....SL–400

...OR EQUAL AS APPROVED BY THE CITY OF AKRON ENGINEER.

SHOP DRAWINGS ARE TO BE SUBMITTED SHOWING LIGHTING LEVELS. SHOP DRAWINGS PREPARATION AND PURCHASE OF THESE SHALL NOT OCCUR UNTIL AUTHORIZED BY THE CITY OF AKRON.

MANUFACTURER/REP: BETA/JACK DUFFY & ASSOC. (FRANK SGRO)
2010 BETA LED
A DIVISION OF RVVD LIGHTING
1200 92ND STREET
STURTEVANT, WI 53177
(800) 236–6800

BETA LED CATALOG #: STR–LWY–2M–HT–12–C–UL–BK
6000 K WITH TYPE II MEDIUM OPTICS. FURNISH WITH UNIVERSAL 120 –277V DRIVER FOR OPERATION AT 277V

LED PERFORMANCE SPECS: 525 MA (STANDARD) FIXTURE

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SCALE AS NOTED

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ELECTRICAL
EXISTING & STREET LIGHTING

ALL–AMERICA BRIDGE REHABILITATION

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
PUBLIC WORKS DEPARTMENT

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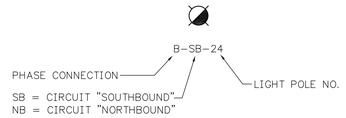
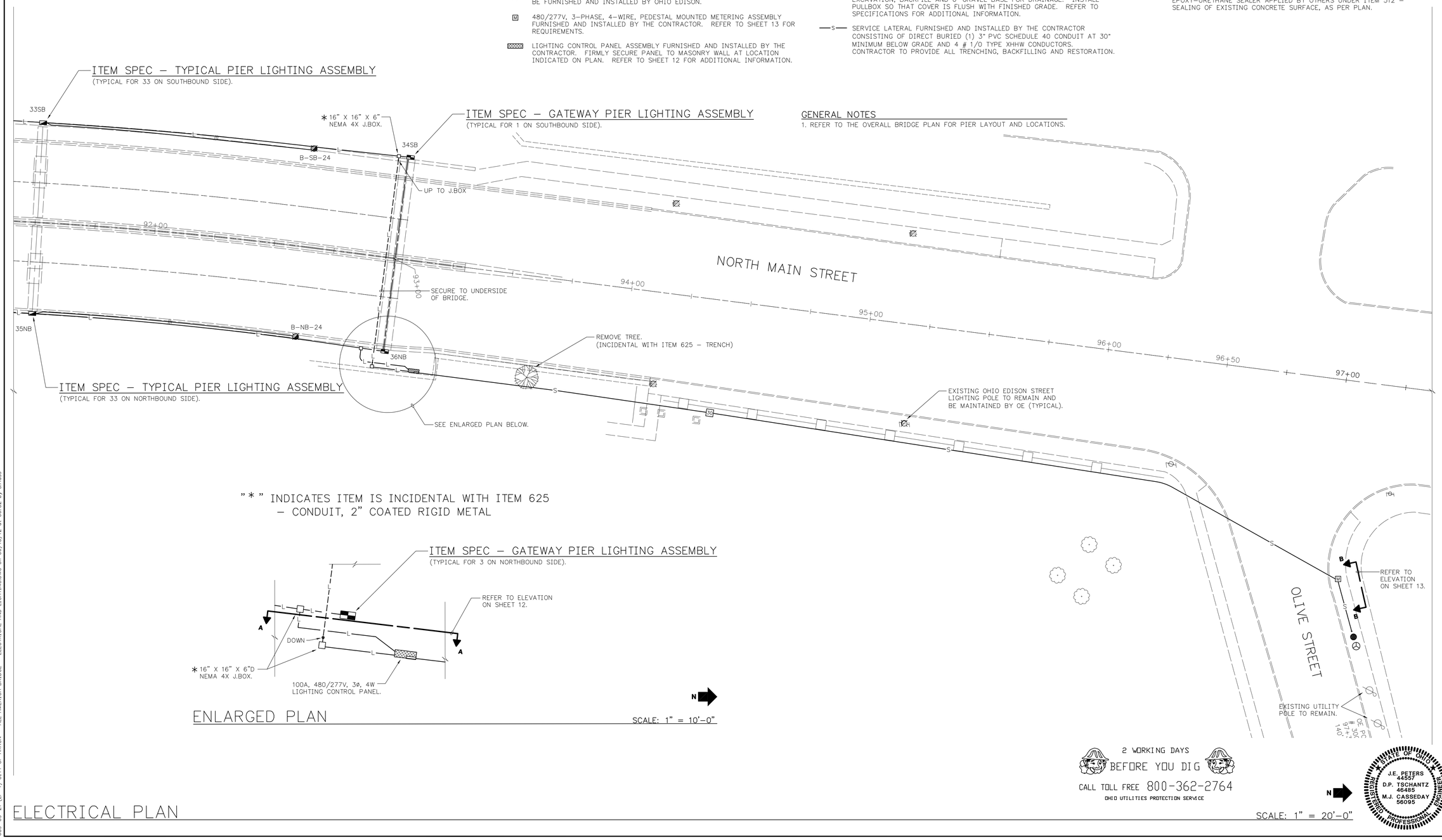
LIGHT POLE LEGEND



SYMBOLS

- EXISTING OHIO EDISON STREET LIGHTING POLE AND HID LUMINAIRE TO REMAIN AND BE MAINTAINED BY OHIO EDISON.
- EXISTING STREET LIGHTING POLE WITH HID LUMINAIRE. CONTRACTOR TO REMOVE LUMINAIRE, POLE CONDUCTORS AND FUSE KIT AND FURNISH TO OHIO EDISON FOR SALVAGE. ALL MATERIALS NOT SELECTED FOR SALVAGE BY OE SHALL BE DISPOSED OF BY THE CONTRACTOR. CONTRACTOR SHALL FURNISH AND INSTALL LED LUMINAIRE AS SPECIFIED ON SHEET 9 OF 24 OF PLANS OR APPROVED EQUAL. FURNISH AND INSTALL NEW POLE CONDUCTORS, FUSE KIT AND GROUNDING AS INDICATED ON SHEET 11 OF 24. FURNISH AND INSTALL LIGHT POLE IDENTIFICATION TAGS PER 625.22.
- ELECTRICAL SERVICE RISER FURNISHED AND INSTALLED BY THE CONTRACTOR ON NEW UTILITY POLE CONSISTING OF PVC CONDUIT, CONDUIT BEND AND WEATHERHEAD. NEW UTILITY POLE TO BE FURNISHED AND INSTALLED BY OHIO EDISON. REFER TO POLE RISER DETAIL ON SHEET 13 FOR REQUIREMENTS.
- 480/277 VOLT, 3-PHASE, 4-WIRE POLE MOUNTED TRANSFORMER BANK TO BE FURNISHED AND INSTALLED BY OHIO EDISON.
- M 480/277V, 3-PHASE, 4-WIRE, PEDESTAL MOUNTED METERING ASSEMBLY FURNISHED AND INSTALLED BY THE CONTRACTOR. REFER TO SHEET 13 FOR REQUIREMENTS.
- LIGHTING CONTROL PANEL ASSEMBLY FURNISHED AND INSTALLED BY THE CONTRACTOR. FIRMLY SECURE PANEL TO MASONRY WALL AT LOCATION INDICATED ON PLAN. REFER TO SHEET 12 FOR ADDITIONAL INFORMATION.
- ILLUMINATED "TYPICAL" PIER CONSISTING OF (3) 12" LONG HIGH BRIGHTNESS LED LINEAR FLOODLIGHTS, (2) 100W, 277 VAC TO 24 VDC DRIVERS, NEMA 3R STAINLESS STEEL 16"W X 20"H X 6" DEEP PULLBOX WITH GASKETED SCREW COVER, FUSING AND CONNECTION KITS AS REQUIRED. REFER TO PIER WIRING DIAGRAM ON SHEET 11 AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ILLUMINATED "GATEWAY" PIER CONSISTING OF (6) 12" LONG HIGH BRIGHTNESS LED LINEAR FLOODLIGHTS, (3) 100W, 277 VAC TO 24 VDC DRIVERS, FLUSH MOUNTED NEMA 3R STAINLESS STEEL 16"W X 36"H X 6" DEEP PULLBOX WITH GASKETED SCREW COVER, FUSING AND CONNECTION KITS AS REQUIRED. REFER TO WIRING DIAGRAM ON SHEET 11 AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- 17" W X 30" L X 24" DEEP REINFORCED POLYMER CONCRETE PULLBOX FURNISHED AND INSTALLED BY CONTRACTOR. PULLBOX TO HAVE OPEN BOTTOM, NON-METALLIC COVER WITH TWO STAINLESS STEEL HEX HEAD COVER BOLTS, AND "COA-ELECTRIC" LOGO. CONTRACTOR TO PROVIDE ALL EXCAVATION, BACKFILL AND 6" GRAVEL BASE FOR DRAINAGE. INSTALL PULLBOX SO THAT COVER IS FLUSH WITH FINISHED GRADE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- —S— SERVICE LATERAL FURNISHED AND INSTALLED BY THE CONTRACTOR CONSISTING OF DIRECT BURIED (1) 3" PVC SCHEDULE 40 CONDUIT AT 30" MINIMUM BELOW GRADE AND 4 # 1/0 TYPE XHHW CONDUCTORS. CONTRACTOR TO PROVIDE ALL TRENCHING, BACKFILLING AND RESTORATION.
- —L— SURFACE MOUNTED 2" COATED RIGID METAL CONDUIT WITH (7) # 2 AWG THWN OR XHHW CONDUCTORS (1 IS GROUND) FURNISHED AND INSTALLED BY THE CONTRACTOR. SECURE TO THE CONCRETE BRIDGE PARAPET AT EXACT LOCATION DESIGNATED BY THE CITY ENGINEER. FURNISH AND INSTALL (2) 8" MOVEMENT EXPANSION COUPLINGS AND BONDING JUMPERS AT EACH BRIDGE EXPANSION JOINT (APPLETON #XJ2008/BJ81520 OR APPROVED EQUAL). PAINT CONDUIT WITH PRIMER COAT TO ENSURE PROPER BONDING OF EPOXY-URETHANE SEALER APPLIED BY OTHERS UNDER ITEM 512 - SEALING OF EXISTING CONCRETE SURFACE, AS PER PLAN.
- --L-- SIMILAR TO "—L—" EXCEPT MOUNTED ON ACCESSIBLE UNDERSIDE OF BRIDGE.
- —#— 3/4" COATED RIGID METAL CONDUIT WITH (3) #10 AWG THWN OR XHHW CONDUCTORS (1 IS GROUND) FURNISHED AND INSTALLED BY THE CONTRACTOR FOR STREET LIGHTING SERVICE. SECURE TO BRIDGE PARAPET AT EXACT LOCATION DESIGNATED BY THE CITY ENGINEER. PAINT CONDUIT WITH PRIMER COAT TO ENSURE PROPER BONDING OF EPOXY-URETHANE SEALER APPLIED BY OTHERS UNDER ITEM 512 - SEALING OF EXISTING CONCRETE SURFACE, AS PER PLAN.



GENERAL NOTES

1. REFER TO THE OVERALL BRIDGE PLAN FOR PIER LAYOUT AND LOCATIONS.

" * " INDICATES ITEM IS INCIDENTAL WITH ITEM 625 - CONDUIT, 2" COATED RIGID METAL

ENLARGED PLAN — SCALE: 1" = 10'-0"

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OHIO UTILITIES PROTECTION SERVICE

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ELECTRICAL PLAN — SCALE: 1" = 20'-0"

J.E. PETERS 44567
D.P. TSCHANTZ 46485
M.J. CASSEDAY 56095
REGISTERED PROFESSIONAL ENGINEER
STATE OF OHIO

DATE	CHECKED	DRAWN	1"=20'-0"
05/22/09	MJS	PTA	

REVISIONS	DATE
STREET LIGHTS ADDED	5/17/10
REVISED PER AS-BUILT DRAWINGS	6/12/12

ELECTRICAL AND LIGHTING PLAN

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
AKRON ENGINEERING BUREAU

ALL-AMERICA BRIDGE REHABILITATION

2009-026-00

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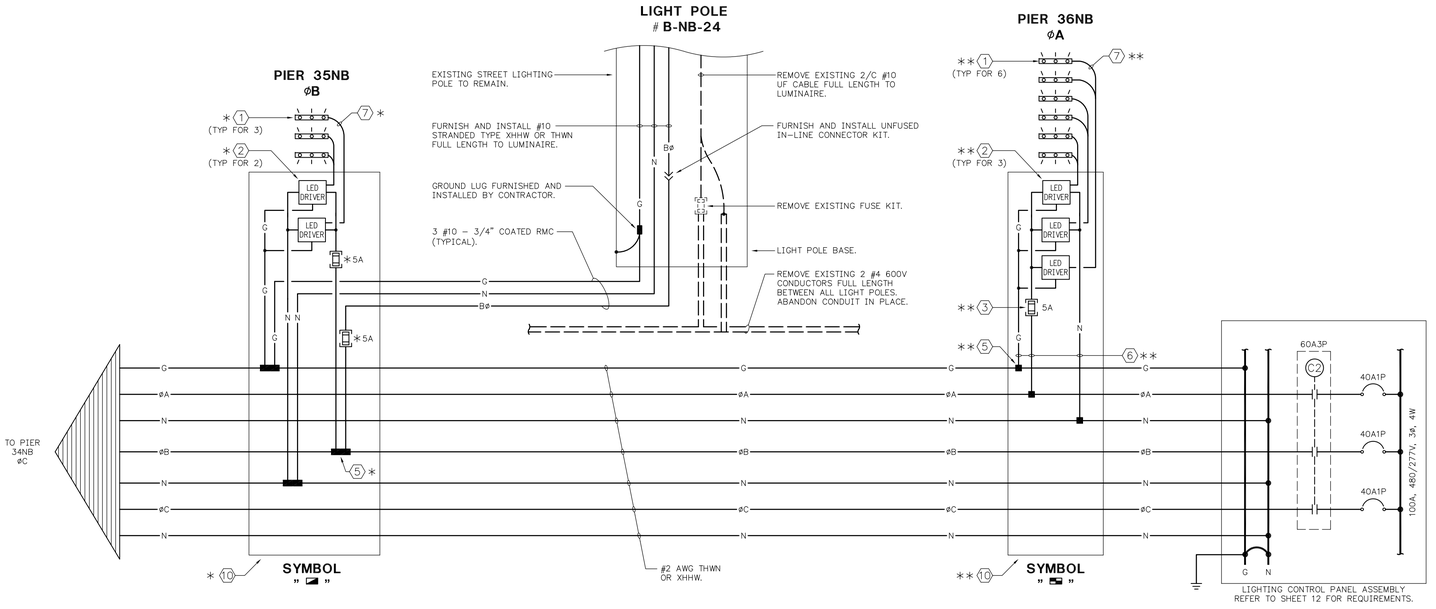
089-09-21 (EP-1) CITY OF AKRON - ALL AMERICA BRIDGE - ELECTRICAL AND LIGHTING.DWG on 06/13/12 at 06:52 by S.Hoss



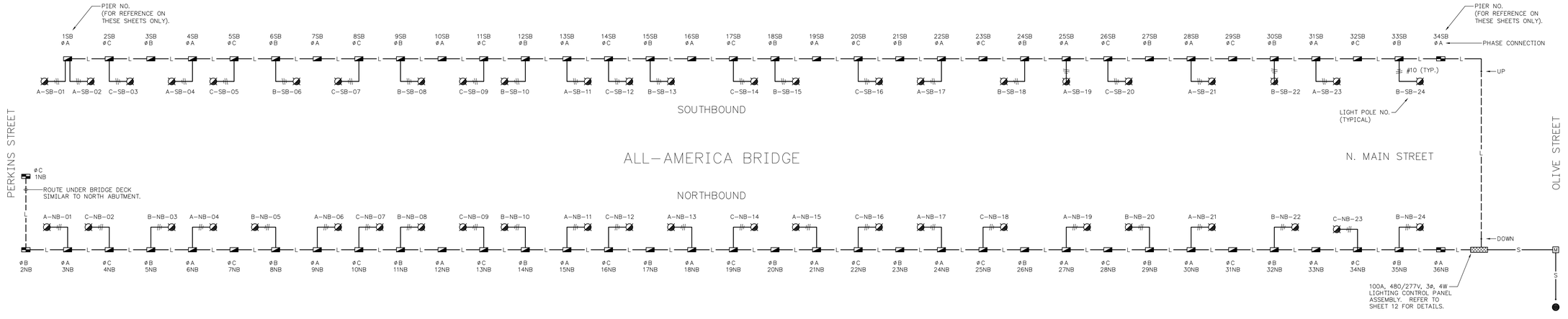
NOTES:

1. LED FLOODLIGHTING FIXTURE, 12" LONG X 3" WIDE X 2" DEEP, WIDE BEAM HIGH BRIGHTNESS SPREAD OPTICS, 5000K LED MODULE, 45 WATTS MAX, FURNISHED WITH WALL MOUNTING BRACKET. FURNISH AND INSTALL LOW VOLTAGE WIRING AS REQUIRED. LIGHT WAVE BAR MANUFACTURER: ILLUMIVISION, 7224 50TH STREET, EDMONTON, AB T6B 2J8, 1-888-705-1028. MODEL NUMBER: LWB-RGB. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. 100W (MIN), 277 VAC TO 24 VDC LED DRIVER, 12"L X 4"W X 4"H MAXIMUM DIMENSION. UNIVERSAL OUTDOOR DRIVER MANUFACTURER: PHILIPS LIGHTING ELECTRONICS N.A., 10275 WEST HIGGINS ROAD, ROSEMONT, IL 60018, 800-372-3531. MODEL NUMBER: ADVANCE XITANIUM LED DRIVER #LED-INTA-0024V-41-F-O. SECURELY MOUNT TO INSIDE OF ENCLOSURE.
3. 600V, 1-POLE DISCONNECTABLE FUSEHOLDER (BUSSMANN TYPE HEB OR EQUAL). WITH CLASS CC FUSE (BUSSMANN TYPE KTK-R OR APPROVED EQUAL).
4. NEMA 3R STAINLESS STEEL ENCLOSURE, 16" WIDE X 20" HIGH X 6" DEEP FURNISHED WITH GASKETTED SCREW COVER. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND INSTALLATION REQUIREMENTS.
5. INSULATED MULTI-TAP CONNECTOR, #2/0 – #14 WIRE RANGE, 90°C, UL LISTED. HOMAC RAB 350 SERIES OR APPROVED EQUAL.
6. TAP CONDUCTORS TO LED DRIVERS IN PIER PULLBOX SHALL BE #12 AWG STRANDED. TAP CONDUCTORS TO EXISTING STREET LIGHT POLES SHALL BE #10 STRANDED. ALL TAP CONDUCTORS SHALL BE 600V TYPE THWN OR XHHW.
7. 3 #14 THWN (1 IS GND) – 1/2" LIQUIDTIGHT METAL CONDUIT (TYPICAL).
8. ALTERNATE CIRCUIT CONNECTIONS BETWEEN PHASES. GROUP EACH NEUTRAL AND ASSOCIATED PHASE CONDUCTOR WITH WIRE TIES OR EQUAL IN EACH PULLBOX TO ENSURE PROPER CONNECTION AND BALANCING OF LOADS.
9. WIRING DIAGRAM SHOWN IS FOR IN-LINE PIERS. ADJUST WIRING FOR END-OF-LINE LOCATION.
10. NEMA 3R STAINLESS STEEL ENCLOSURE, 16" WIDE X 36" HIGH X 6" DEEP (MINIMUM DIMENSIONS) FURNISHED WITH GASKETTED SCREW COVER. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND INSTALLATION REQUIREMENTS.

"*" INDICATES ITEM IS INCIDENTAL WITH ITEM 625 – TYPICAL PIER LIGHTING ASSEMBLY.

"**" INDICATES ITEM IS INCIDENTAL WITH ITEM 625 – GATEWAY PIER LIGHTING ASSEMBLY.

PIER WIRING DIAGRAM – NORTHBOUND SIDE
(SIMILAR FOR SOUTHBOUND SIDE)



ELECTRICAL SCHEMATIC
NOT TO SCALE

NOTE
1. REFER TO THE OVERALL BRIDGE PLAN FOR PIER LAYOUT AND LOCATIONS.

STATE OF OHIO – REGISTERED PROFESSIONAL ENGINEER
J.E. PETERS 44557
D.P. TSCHANTZ 46485
M.J. CASSEDAY 56095
PROFESSIONAL

DATE	CHECKED	DRAWN	DATE	REVISIONS
05/22/09	MJS	PTA	5/17/10	STREET LIGHTS ADDED
SCALE AS NOTED			6/12/12	REVISED PER AS-BUILT DRAWINGS

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
AKRON ENGINEERING BUREAU

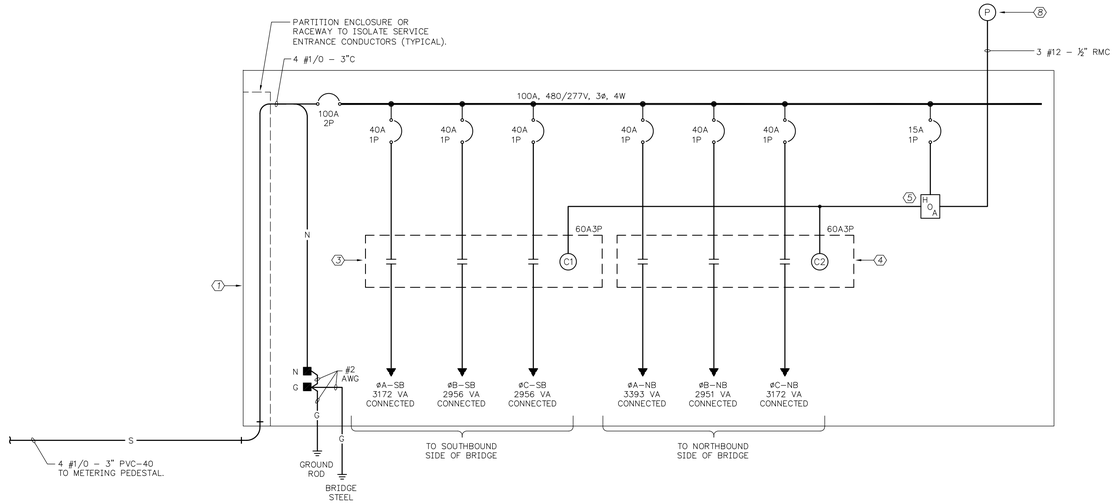
ALL-AMERICA BRIDGE REHABILITATION

2009-026-00

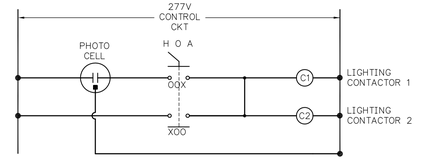
11
24

E-1

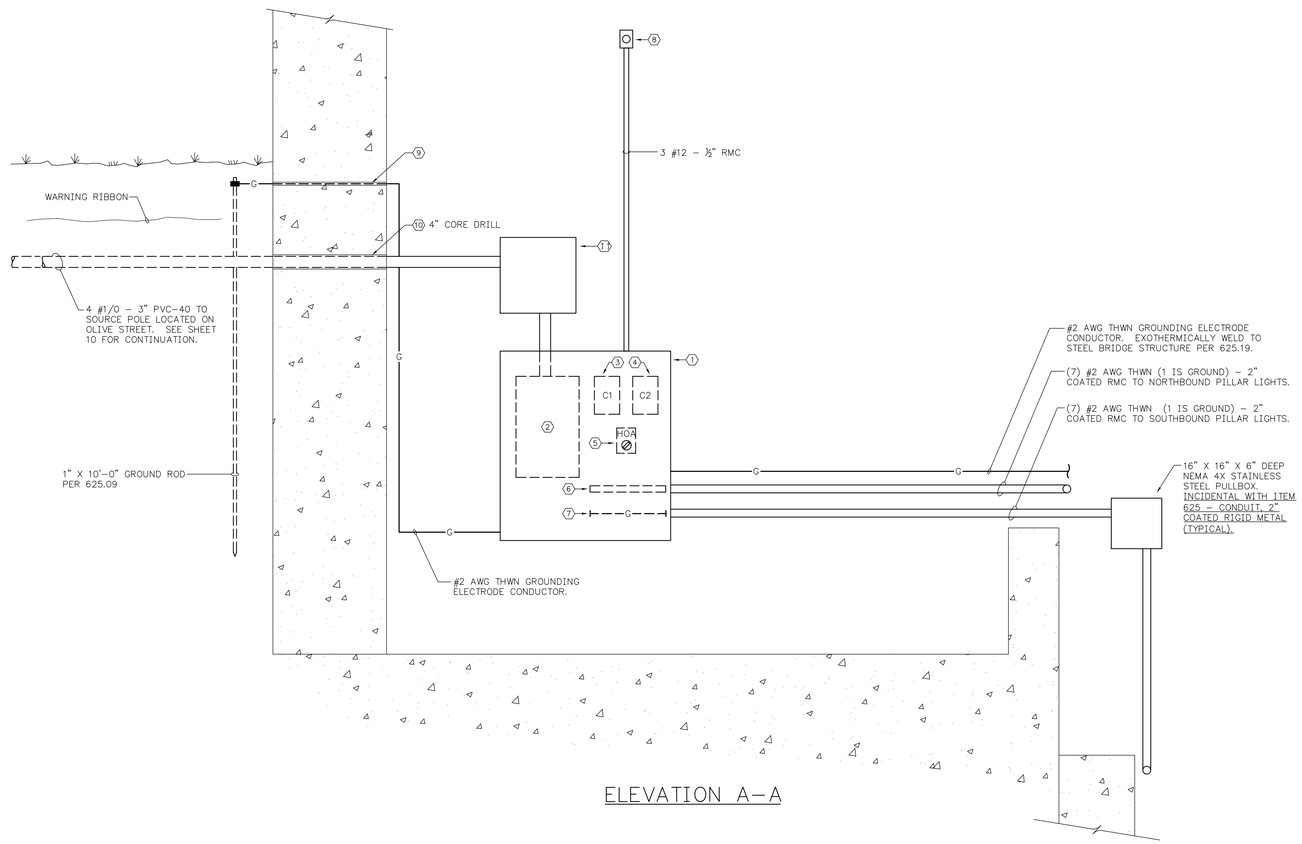
089-09-21 (E-1) CITY OF AKRON - ALL AMERICA BRIDGE - ELECTRICAL SCHEMATIC.DWG on 06/13/12 at 07:03 by S.Hass



ONE–LINE DIAGRAM NOT TO SCALE



CONTROLLER SCHEMATIC NOT TO SCALE



ELEVATION A–A

ITEM 625 – LIGHTING CONTROL PANEL ASSEMBLY
(TYPICAL REQUIREMENTS)

APPROX SCALE: 1/2" = 1'–0"

NOTES:

1. NEMA 4X STAINLESS STEEL DOUBLE DOOR PADLOCKABLE ENCLOSURE WITH VENTILATION LOUVERS. PROVIDE BACK PANEL FOR MOUNTING OF EQUIPMENT INDICATED BELOW. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. 100A, 480/277V, 3ø, 4W MAIN CIRCUIT BREAKER PANEL, NEMA 1 ENCLOSURE. CUTLER–HAMMER "POW–R–LINE 2A", GE "AQ/AE/AD SERIES" SQUARE D "NQOD/NF OR APPROVED EQUAL. EQUIP WITH (6) 40A1P AND (1) 15A1P 10 KAIC CIRCUIT BREAKERS.
3. ELECTRICALLY HELD LIGHTING CONTACTOR WITH 277V COIL. INSTALL ENGRAVED "SOUTHBOUND PILLAR LIGHTING CONTACTOR" NAMEPLATE ON COVER WITH SCREWS. SQUARE D CLASS 8903, CUTLER–HAMMER TYPE CN35, ALLEN BRADLEY BULLETIN 500L, OR APPROVED EQUAL. SEE ONE LINE FOR TYPE AND SIZE.
4. SIMILAR TO ITEM (3) EXCEPT NAMEPLATE READING "NORTHBOUND PILLAR LIGHTING CONTACTOR". SEE ONE–LINE FOR SIZE AND TYPE.
5. 277V THREE–POSITION OILTIGHT "HAND–OFF–AUTO" SELECTOR SWITCH.
6. TERMINAL STRIP AND STAND OFF TYPE MOUNTING RAIL RATED AT 600 VOLTS FOR LANDING OF FIELD WIRING. PROVIDE SOLDERLESS BOX LUG TYPE TERMINALS FOR #12–#1 AWG CONDUCTORS. FURNISH LUGS FOR NEUTRALS, GROUNDS, PHASE CONDUCTORS (INCLUDING THOSE FOR SPARE BREAKERS).
7. EQUIPMENT GROUND BUS.
8. PHOTO ELECTRIC CONTROL, GASKETED HEAVY DUTY DIE CAST ZINC HOUSING AND BASE WITH EPOXY COATED CADMIUM SULPHIDE PHOTOCELL, –40° TO +140°F OPERATING RANGE, SPST SWITCH, AND 277V RATING. TORK #2104 WITH #73866 WALL MOUNTING BRACKET. MOUNT AT APPROX. 8' ABOVE CONTROL CABINET.
9. CORE DRILL 1" DIA HOLE AND INSTALL 3/4" PVC–40 CONDUIT SLEEVE. SEAL PENETRATION TO PREVENT WEEPING.
10. CORE DRILL 4" DIA HOLE AND INSTALL 3" PVC–40 CONDUIT SLEEVE. SEAL PENETRATION TO PREVENT WEEPING.
11. NEMA 4X STAINLESS STEEL 24" X 24" X 6" DEEP PULLBOX WITH GASKETED SCREW COVER.

DRAWN	CHECKED	DATE
PTA	MJS	05/22/09

SCALE AS NOTED

DATE	REVISIONS
5/17/10	STREET LIGHTS ADDED
6/12/12	REVISED PER AS–BUILT DRAWINGS

ELECTRICAL DETAILS

ALL–AMERICA BRIDGE REHABILITATION

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
AKRON ENGINEERING BUREAU

STATE OF OHIO
J.E. PETERS 44557
D.P. TSCHANTZ 46485
M.J. CASSEDAY 56095
REGISTERED PROFESSIONAL ENGINEER

2009–026–00

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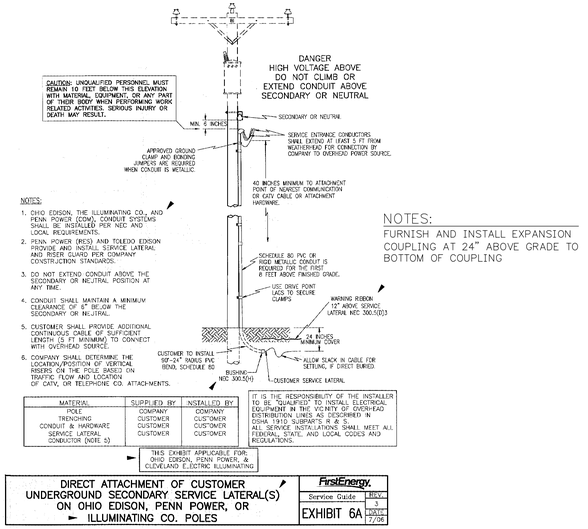
24

E–2

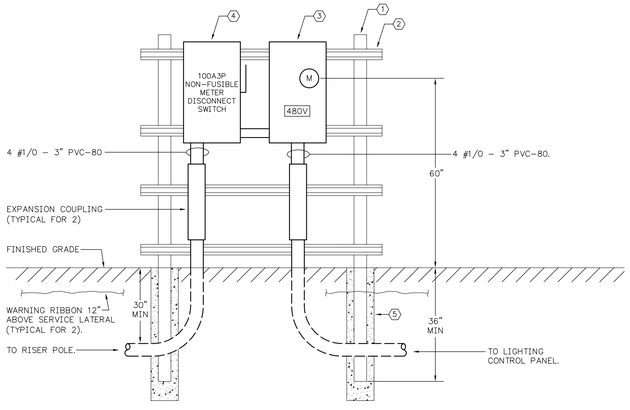
(09-09-21 (E-2) CITY OF AKRON – ALL AMERICA BRIDGE – ELECTRICAL DETAILS.DWG on 06/13/12 at 06:59 by S.Hass

ALL-AMERICA BRIDGE REHABILITATION							
LOAD AND VOLTAGE MEASUREMENTS							
DATE MEASURED: 2/20/2012							
LIGHTING CONTROL PANEL LOAD AND VOLTAGE							
	CIRCUIT:	ØA - SB	ØB - SB	ØC - SB	ØA - NB	ØB - NB	ØC - NB
LOAD AMPS	ACTUAL - AS FOUND	10.1	9.6	9.4	9.5	10.5	10.1
	ACTUAL - AS LEFT	9.8	9.4	9.3	9.3	10.2	9.9
	DESIGN	11.5	10.7	10.7	12.3	10.2	11.5
SERVICE VOLTAGE	AS FOUND	288.0	277.5	285.3	285.7	276.7	285.6
	AS LEFT	288.2	277.7	286.4	288.5	279.4	286.7
	DESIGN (NOMINAL)	277.0	277.0	277.0	277.0	277.0	277.0
VOLTAGE MEASUREMENTS AT END OF ELECTRICAL CIRCUITS							
(MEASURED AT PIERS)							
	CIRCUIT AND PIER NO.	ØA - 1SB	ØB - 3SB	ØC - 2SB	ØA - 3NB	ØB - 2NB	ØC - 1NB
	VOLTAGE MEASURED	281.0	271.5	278.0	282.0	272.3	280.5
	AVERAGE VOLTAGE DROP (VOLTS)	7.1	6.1	7.9	5.1	5.7	5.6
	AVERAGE VOLTAGE DROP (%)	2.5	2.2	2.7	1.8	2.1	2.0
	MAXIMUM DESIGN VOLTAGE DROP (%)	3.15	3.15	3.15	3.15	3.15	3.15
	ALL MEASURED VALUES WERE FOUND TO BE ACCEPTABLE.						

AS-BUILT LOAD AND VOLTAGE MEASUREMENTS – 2/20/2012



ITEM 625 – ELECTRICAL SERVICE RISER NOT TO SCALE
(SYMBOL ·●)



ELEVATION B-B

EQUIPMENT

① SUPPORT POST – 3" DIA HOT DIPPED GALVANIZED RIGID STEEL PIPE CAPPED AND CEMENTED IN GROUND (TYPICAL FOR 2).

② MOUNTING HARDWARE – 12 GUAGE 1-5/8" X 1-5/8" CONTINUOUS SLOT GALVANIZED CHANNEL ("UNISTRUT") COMPLETE WITH 1-1/4" X 5/16" DIA 13 THD SPRING NUT (2 PER CHANNEL), 5/16" HEX NUT, AND LOCK WASHER SECURELY MOUNTED TO SUPPORT POSTS (TYPICAL FOR 3).

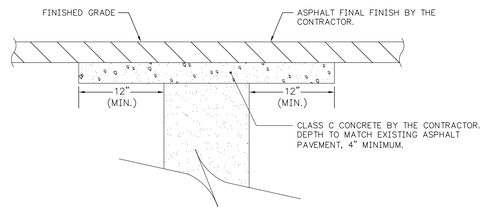
③ 200A CONTINUOUS RATED, 7 TERMINAL METER SOCKET ENCLOSURE WITH LEVER OPERATED JAW RELEASE AND BY-PASS FURNISHED AND INSTALLED BY CONTRACTOR PER OHIO EDISON REQUIREMENTS.

④ 100A3P, 600V, HEAVY DUTY NON-FUSED DISCONNECT SWITCH NEMA 3R RATED, UL LISTED AND LABELED AS SUITABLE FOR USE AS SERVICE EQUIPMENT. INSTALL ENGRAVED NAMEPLATE TO IDENTIFY LOAD. SWITCH SHALL BE LOCKABLE IN THE OPEN AND CLOSED POSITIONS. ENCLOSURE SHALL HAVE PROVISIONS FOR AN OHIO EDISON SEAL AND/OR PADLOCK.

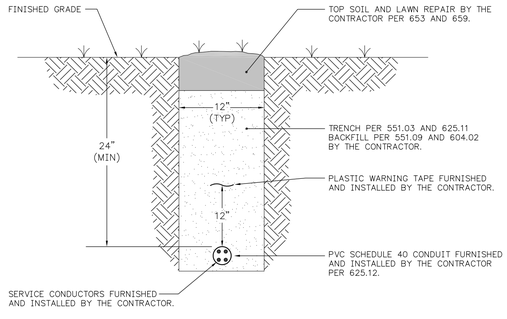
⑤ 12" DIA CONCRETE FORM ("SONOTUBE")

NOTES:
1. ALL EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR.
2. ALL METALLIC HARDWARE SHALL BE BONDED PER N.E.C. ARTICLE 250.
3. REFER TO FIRST ENERGY'S INFORMATION AND GUIDANCE FOR CUSTOMER ELECTRIC SERVICE NOVEMBER 2008 REVISION.

ITEM 625 – PEDESTAL MOUNTED METERING ASSEMBLY APPROX SCALE 1/2"=1'-0"
(SYMBOL " M ")



TRENCH IN PAVED AREAS – TYPE A



ITEM 625 TRENCH NOT TO SCALE
(SYMBOL "—— S ——")

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STATE OF OHIO
REGISTERED PROFESSIONAL ENGINEER

DRAWN	CHECKED	DATE
PTA	MJS	05/22/09
		SCALE AS NOTED

REVISIONS	DATE
REVISED PER AS-BUILT DRAWINGS	6/12/12

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
AKRON ENGINEERING BUREAU

ALL-AMERICA BRIDGE REHABILITATION

2009-026-00

ELECTRICAL DETAILS

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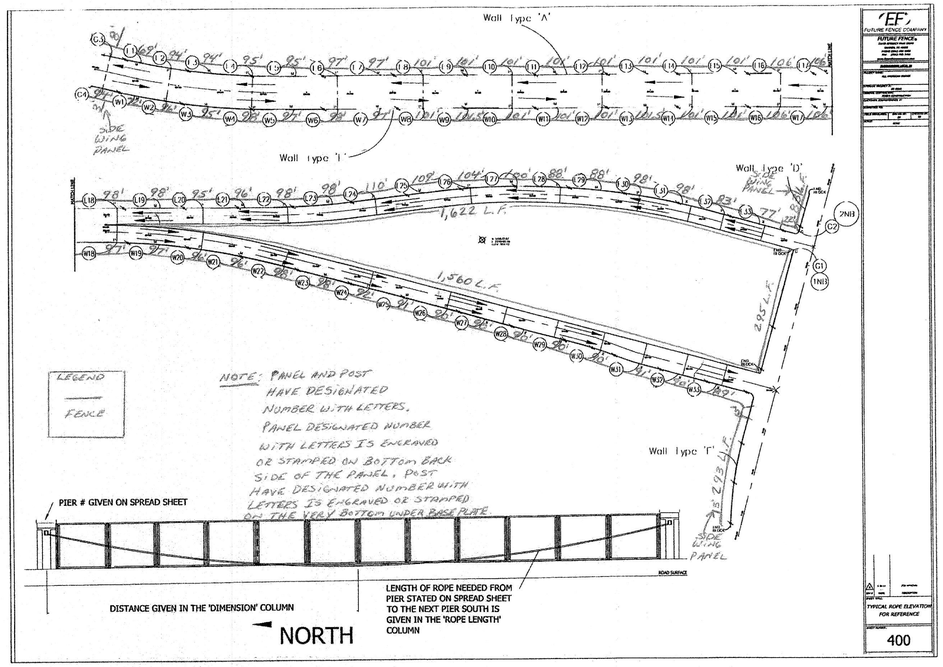
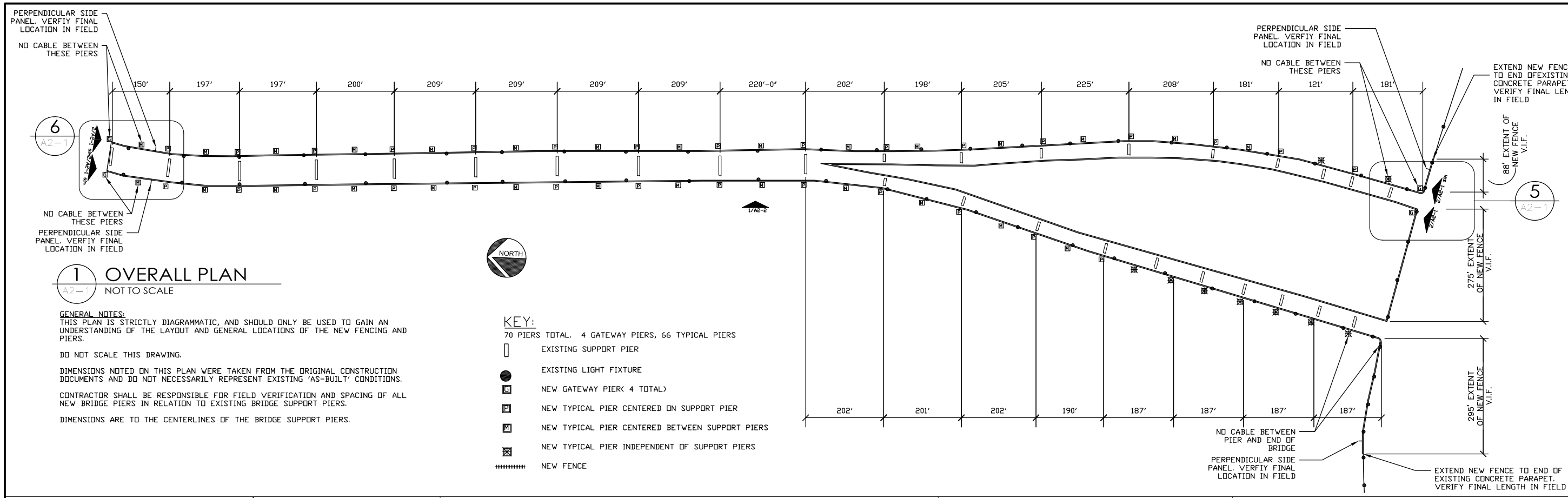
E-3

089-09-21 (E-3) CITY OF AKRON - ALL AMERICA BRIDGE - ELECTRICAL DETAILS.DWG on 06/13/12 at 06:59 by S.Hass


Wall Type 'A'
Wall Type 'I'
Wall Type 'D'
Wall Type 'T'
SIDE WING PANEL
1,622 L.F.
1,560 L.F.
285 L.F.
293 L.F.
LEGEND
FENCE
NOTE: PANEL AND POST HAVE DESIGNATED NUMBER WITH LETTERS. PANEL DESIGNATED NUMBER WITH LETTERS IS ENGRAVED OR STAMPED ON BOTTOM BACK SIDE OF THE PANEL. POST HAVE DESIGNATED NUMBER WITH LETTERS IS ENGRAVED OR STAMPED ON THE VERY BOTTOM UNDER BASE PLATE
PIER # GIVEN ON SPREAD SHEET
ROAD SURFACE
DISTANCE GIVEN IN THE 'DIMENSION' COLUMN
LENGTH OF ROPE NEEDED FROM PIER STATED ON SPREAD SHEET TO THE NEXT PIER SOUTH IS GIVEN IN THE 'ROPE LENGTH' COLUMN
NORTH
FUTURE FENCE COMPANY
TYPICAL ROPE ELEVATION FOR REFERENCE
400



1 OVERALL PLAN
A2-1 NOT TO SCALE

GENERAL NOTES:
THIS PLAN IS STRICTLY DIAGRAMMATIC, AND SHOULD ONLY BE USED TO GAIN AN UNDERSTANDING OF THE LAYOUT AND GENERAL LOCATIONS OF THE NEW FENCING AND PIERS.

DO NOT SCALE THIS DRAWING.

DIMENSIONS NOTED ON THIS PLAN WERE TAKEN FROM THE ORIGINAL CONSTRUCTION DOCUMENTS AND DO NOT NECESSARILY REPRESENT EXISTING 'AS-BUILT' CONDITIONS.

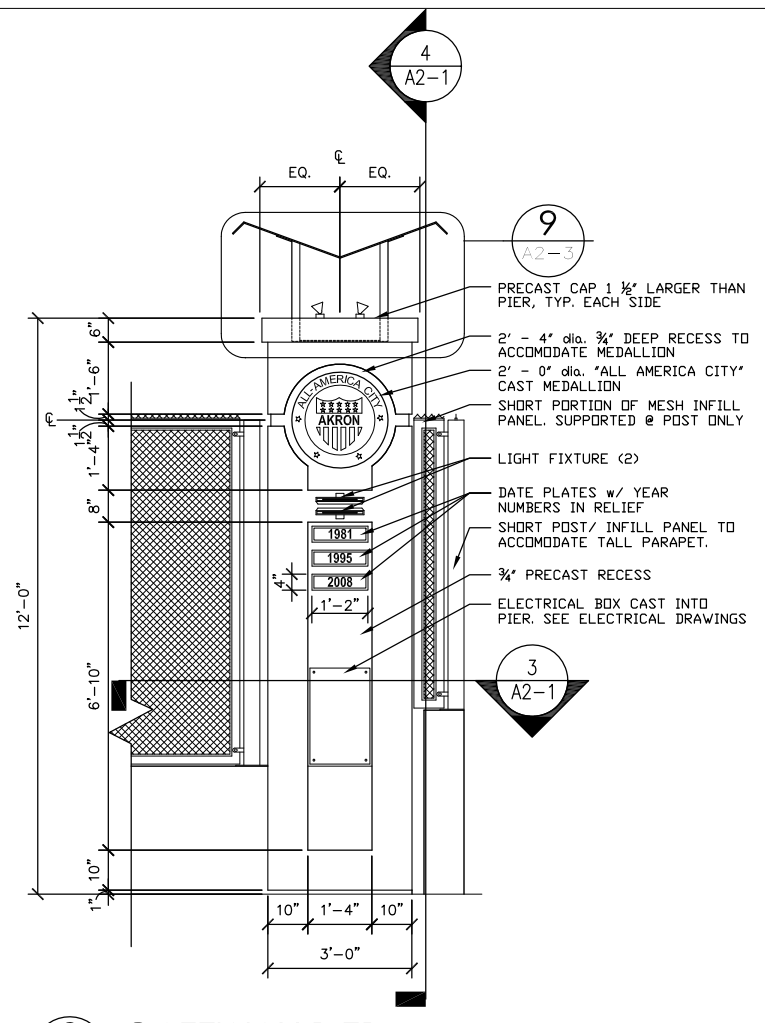
CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION AND SPACING OF ALL NEW BRIDGE PIERS IN RELATION TO EXISTING BRIDGE SUPPORT PIERS.

DIMENSIONS ARE TO THE CENTERLINES OF THE BRIDGE SUPPORT PIERS.

KEY:
70 PIERS TOTAL. 4 GATEWAY PIERS, 66 TYPICAL PIERS

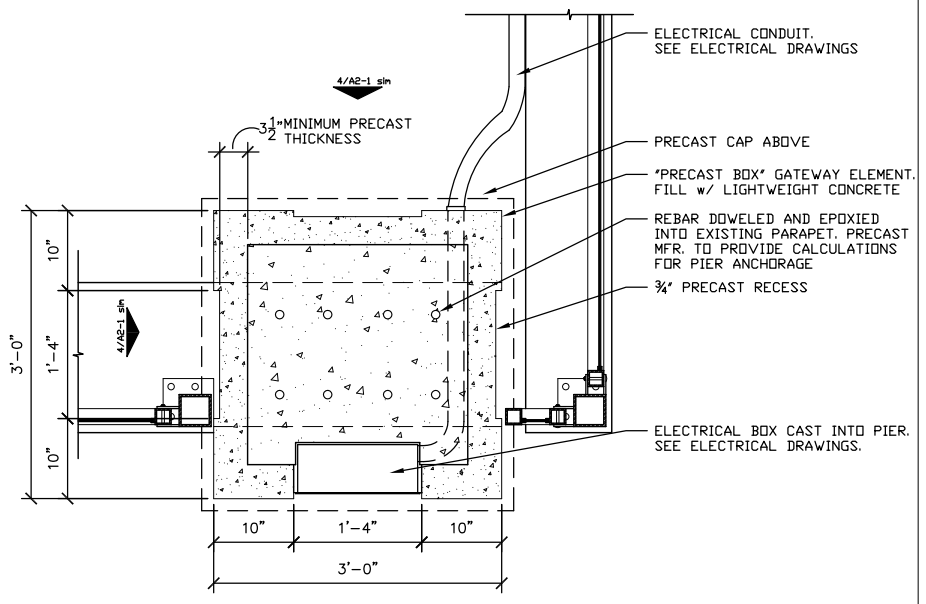
- EXISTING SUPPORT PIER
- EXISTING LIGHT FIXTURE
- G — NEW GATEWAY PIER(4 TOTAL)
- P — NEW TYPICAL PIER CENTERED ON SUPPORT PIER
- M — NEW TYPICAL PIER CENTERED BETWEEN SUPPORT PIERS
- NEW TYPICAL PIER INDEPENDENT OF SUPPORT PIERS
- NEW FENCE

SHEET INDEX

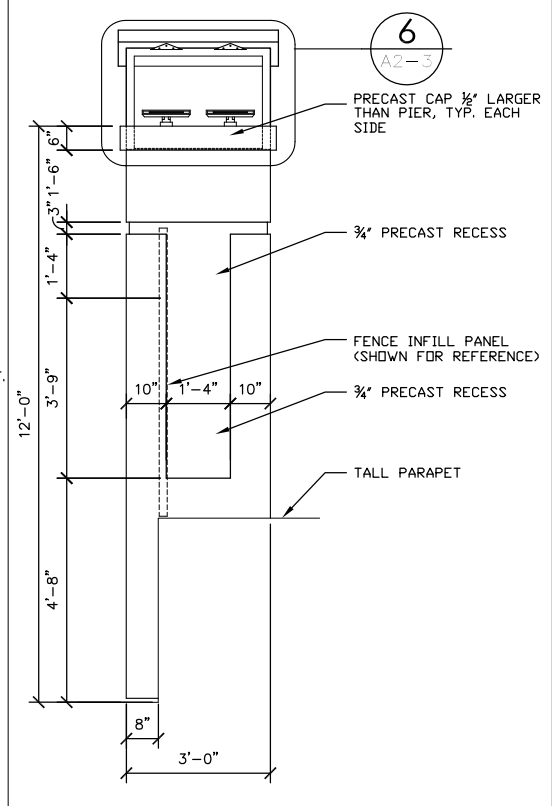


2 GATEWAY PIER
A2-1 SCALE: 1/2″ = 1′-0″ NOTH ELEVATION @ MLK JR. BLVD.

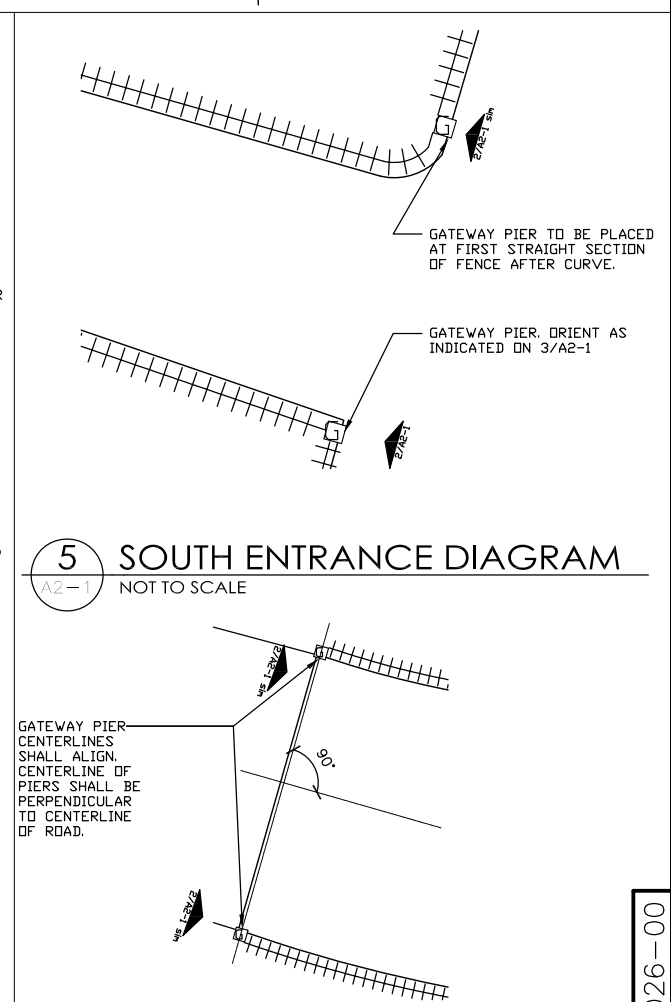
EAST SIDE SIMILAR, MOUNT @ FIRST STRAIGHT PARAPET PORTION ALONG MARTIN LUTHER KING JR. BLVD.



3 DETAIL
A2-1 SCALE: 1″ = 1′-0″ GATEWAY PIER @ MLK JR. BLVD.



4 GATEWAY PIER
A2-1 SCALE: 1/2″ = 1′-0″ EAST ELEVATION @ MLK JR. BLVD.



5 SOUTH ENTRANCE DIAGRAM
A2-1 NOT TO SCALE

6 NORTH ENTRANCE DIAGRAM
A2-1 NOT TO SCALE

DATE	CHECKED	DRAWN	DATE
6/12/12	TEO	MAK	NOT TO SCALE
6/1/09			DATE
6/13/12			

FINAL TRACINGS
RECORD DRAWINGS ADG
REVISIONS

PIER AND FENCE
OVERALL BRIDGE PLAN

ALL-AMERICA BRIDGE
REHABILITATION

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
TRAFFIC ENGINEERING BUREAU

2009-026-00

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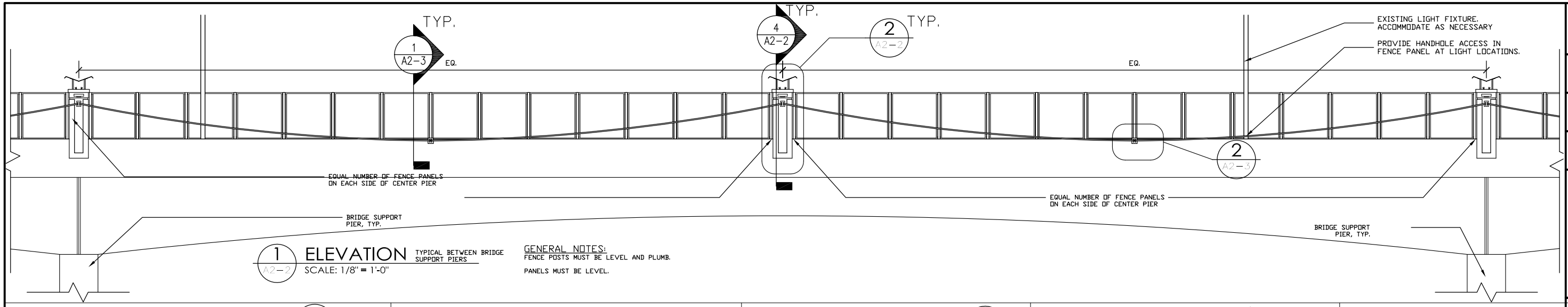
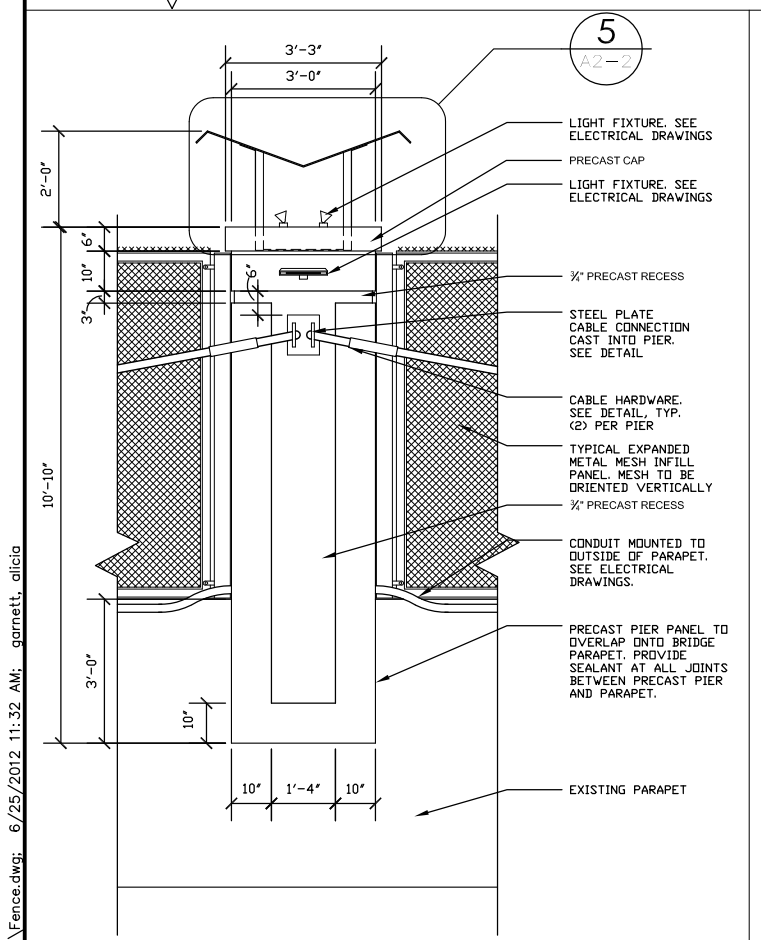
R:\Revisions\2009-026-00 All-America Bridge Rehabilitation\Sheets\Fence.dwg; 6/25/2012 10:23 AM; garnett, alicia



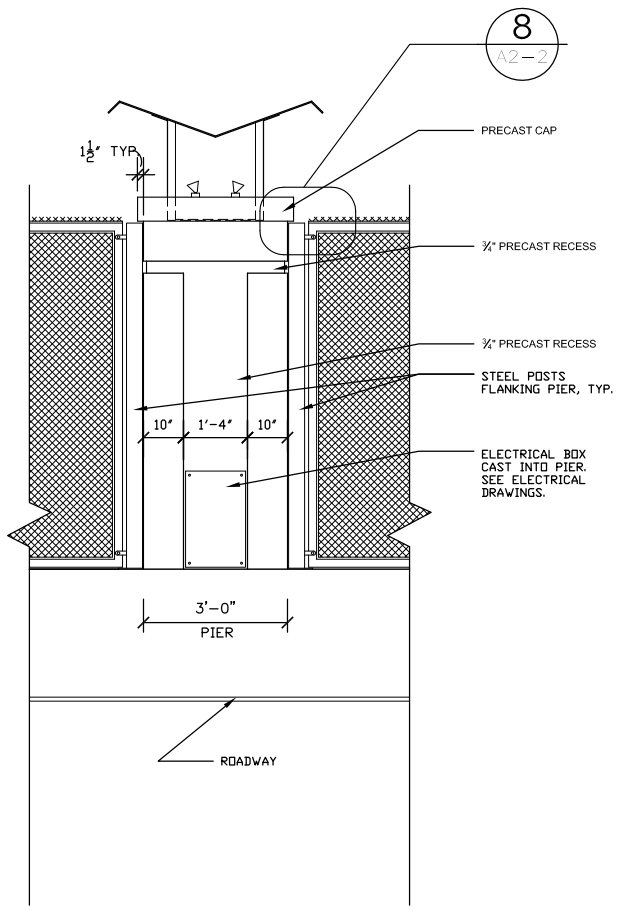
1 A2-2 ELEVATION
TYPICAL BETWEEN BRIDGE SUPPORT PIERS
SCALE: 1/8" = 1'-0"

GENERAL NOTES:
FENCE POSTS MUST BE LEVEL AND PLUMB.

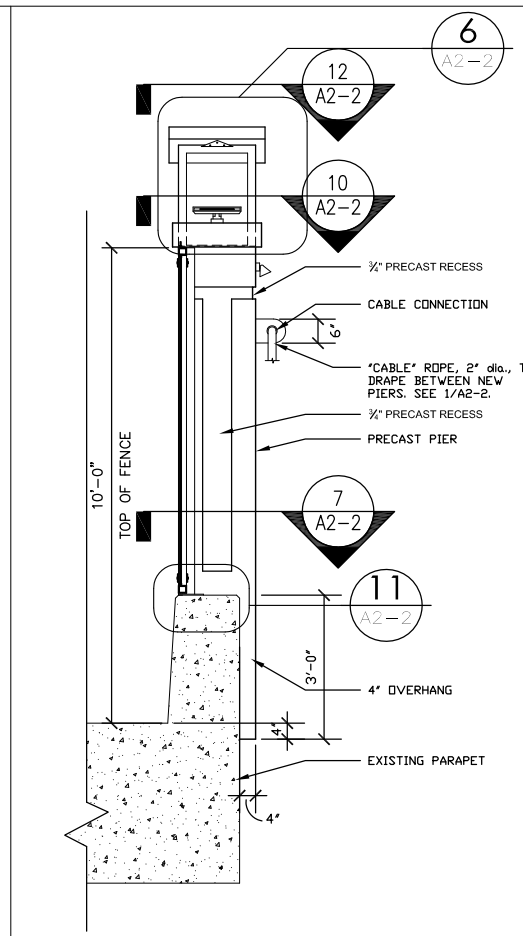
PANELS MUST BE LEVEL.



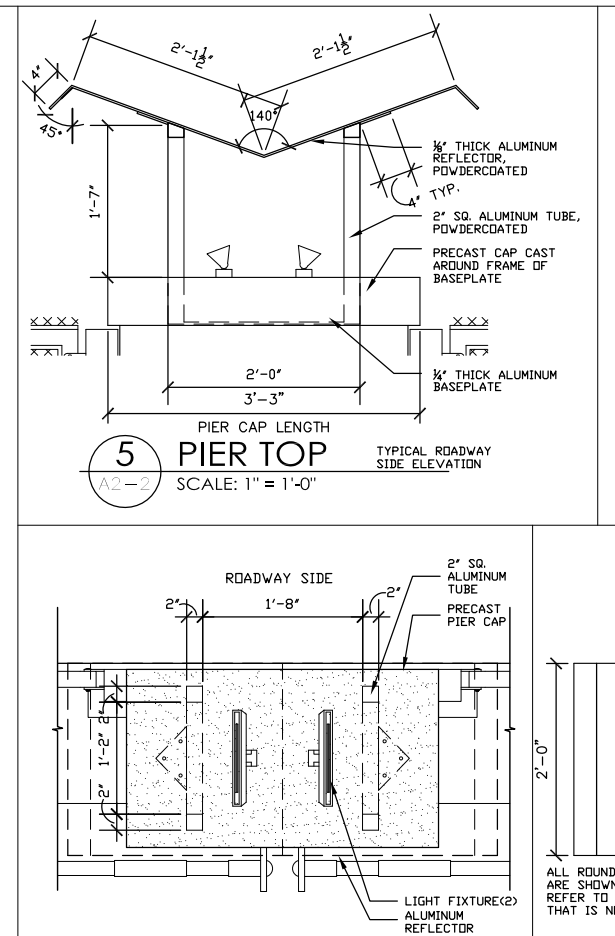
2 A2-2 PIER ELEVATION
OUTSIDE OF TYPICAL PIER
SCALE: 1/2" = 1'-0"



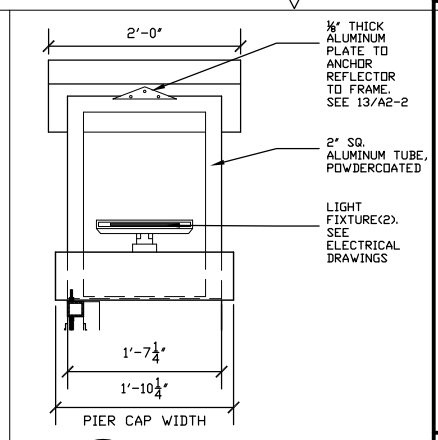
3 A2-2 PIER ELEVATION
ROADWAY SIDE OF TYPICAL PIER
SCALE: 1/2" = 1'-0"



4 A2-2 SECTION
AT TYPICAL PIER
SCALE: 1/2" = 1'-0"

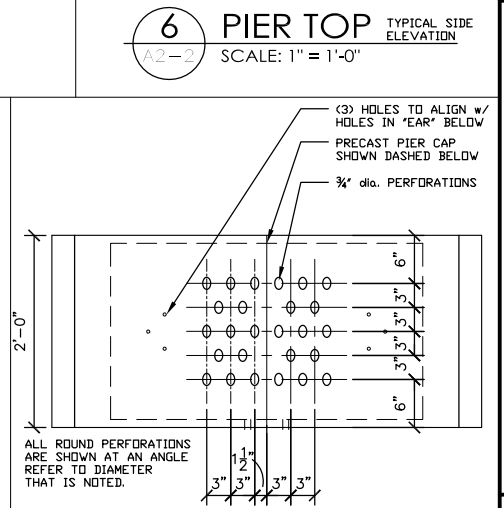


5 A2-2 PIER TOP
TYPICAL ROADWAY SIDE ELEVATION
SCALE: 1" = 1'-0"

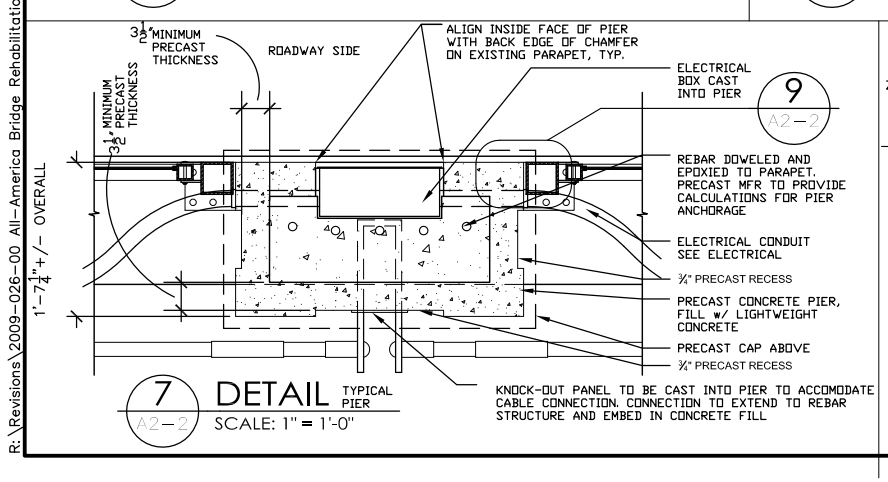


6 A2-2 PIER TOP
TYPICAL SIDE ELEVATION
SCALE: 1" = 1'-0"

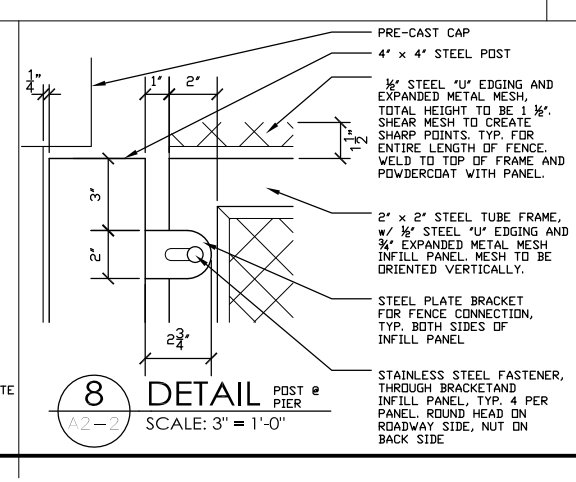
10 A2-2 PIER TOP
PLAN
SCALE: 1" = 1'-0"



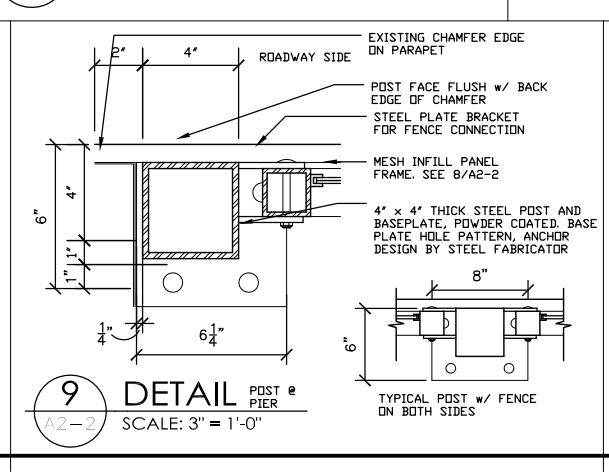
12 A2-2 REFLECTOR
TOP VIEW, TYPICAL PIER
SCALE: 1" = 1'-0"



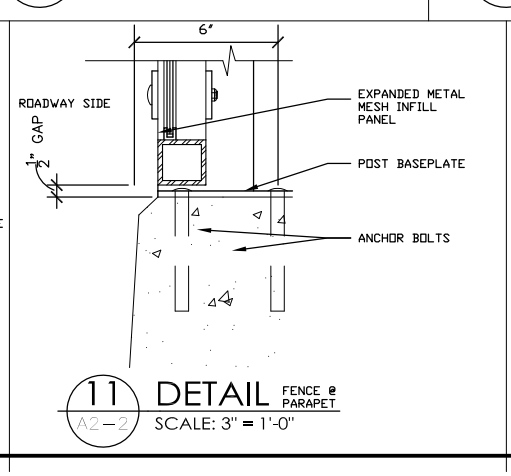
7 A2-2 DETAIL
TYPICAL PIER
SCALE: 1" = 1'-0"



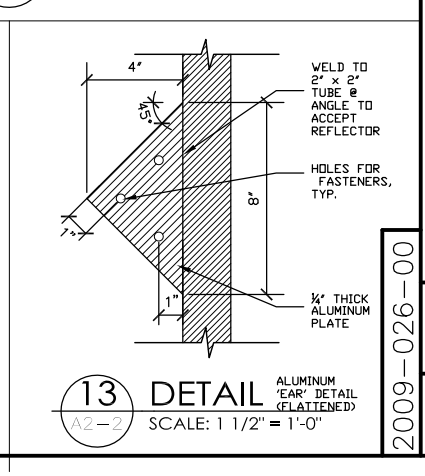
8 A2-2 DETAIL
POST @ PIER
SCALE: 3" = 1'-0"



9 A2-2 DETAIL
POST @ PIER
SCALE: 3" = 1'-0"



11 A2-2 DETAIL
FENCE @ PARAPET
SCALE: 3" = 1'-0"



13 A2-2 DETAIL
ALUMINUM 'EAR' DETAIL (FLATTENED)
SCALE: 1 1/2" = 1'-0"

DATE	CHECKED	DRAWN	DATE	REVISIONS
6/12/12	TEO	MAK	6/1/09	FINAL TRACINGS
			6/22/12	RECORD DRAWINGS ADG

NOT TO SCALE

PIER AND FENCE

ALL-AMERICA BRIDGE REHABILITATION

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
TRAFFIC ENGINEERING BUREAU

2009-026-00

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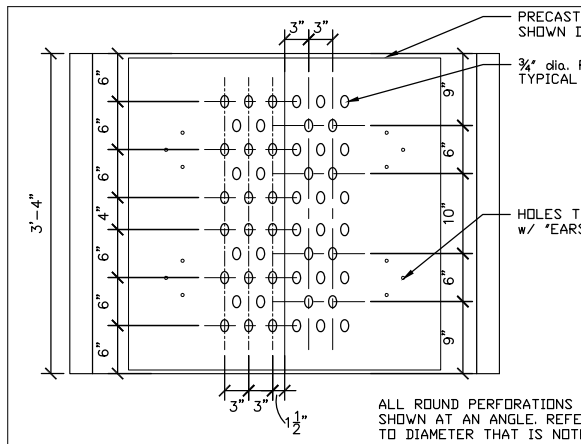
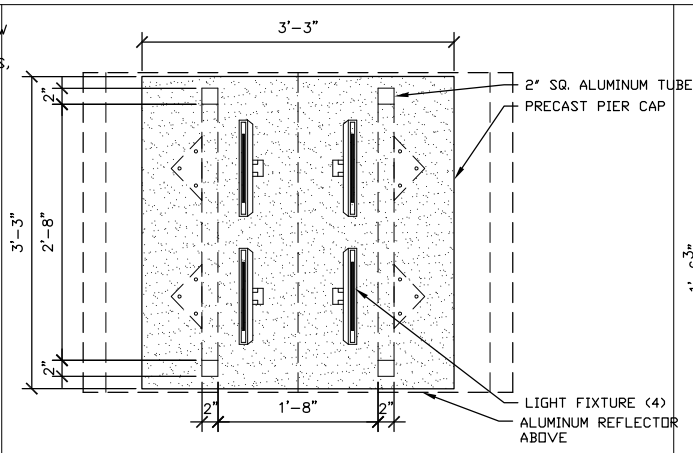
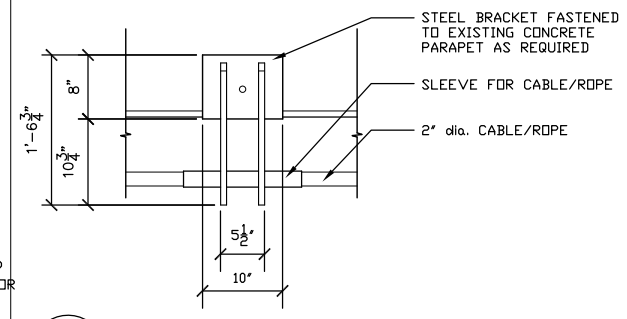


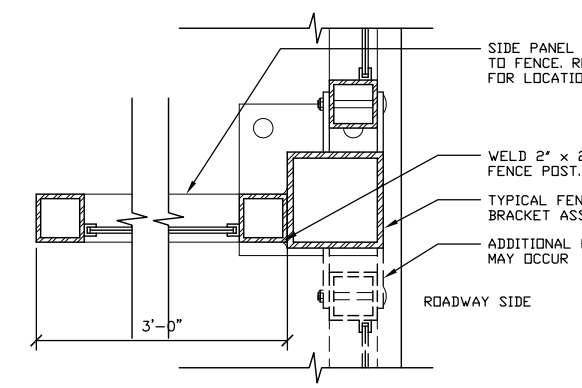
8 A2-3 **REFLECTOR** — TOP VIEW @ GATEWAY PIER
SCALE: 1" = 1'-0"



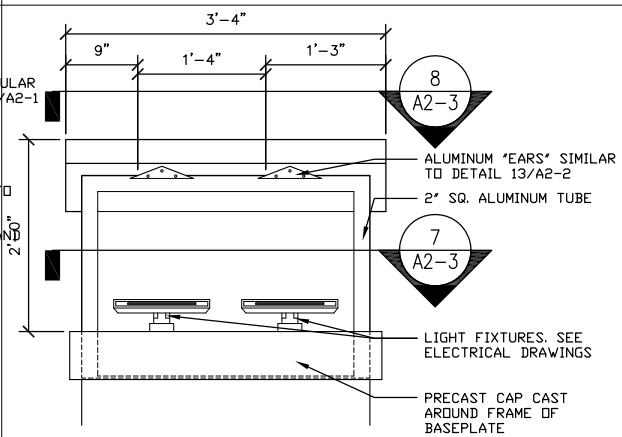
7 A2-3 **PIER TOP** — PLAN @ GATEWAY PIER
SCALE: 1" = 1'-0"



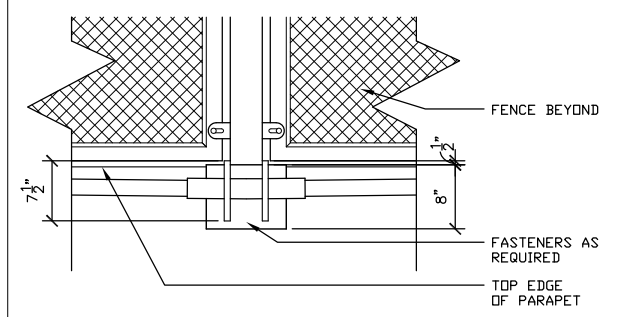
3 A2-3 **PLAN DETAIL** — CABLE RESTRAINT BETWEEN PIERS
SCALE: 1" = 1'-0"



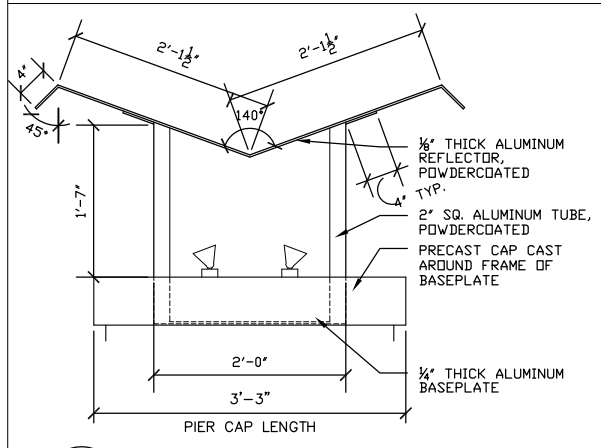
4 A2-3 **SIDE PANEL** — PLAN DETAIL
SCALE: 1" = 1'-0"



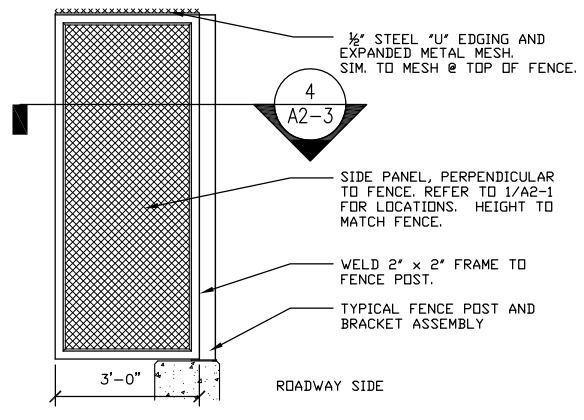
6 A2-3 **PIER TOP** — SIDE ELEVATION @ GATEWAY PIER
SCALE: 1" = 1'-0"



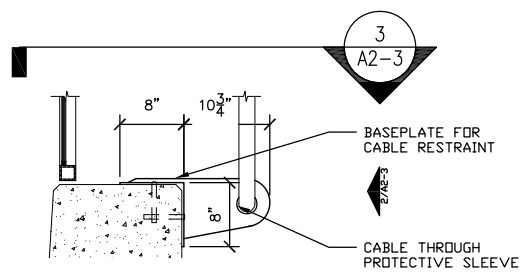
2 A2-3 **ELEVATION** — CABLE RESTRAINT BETWEEN PIERS
SCALE: 1" = 1'-0"



9 A2-3 **PIER TOP** — FRONT ELEVATION @ GATEWAY PIER
SCALE: 1/2" = 1'-0"



5 A2-3 **SIDE PANEL** — ELEVATION
SCALE: 1/2" = 1'-0"



1 A2-3 **ELEVATION** — CABLE RESTRAINT BETWEEN PIERS
SCALE: 1" = 1'-0"

SHEET INDEX

DRAWN	CHECKED	DATE
JLH	TEO	6/12/12

NOT TO SCALE

FINAL TRACINGS	6/1/09
RECORD DRAWINGS ADG	6/22/12
REVISIONS	DATE

PIER AND FENCE
EXISTING RAILING

ALL-AMERICA BRIDGE
REHABILITATION

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
TRAFFIC ENGINEERING BUREAU

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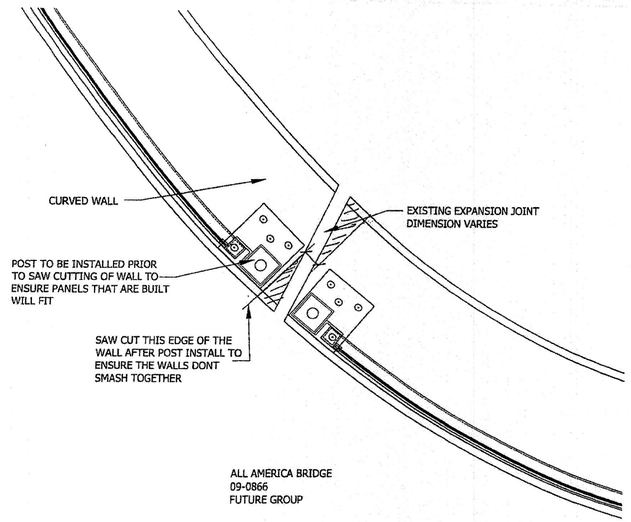


G Stephens, Inc.

113 N. Summit Street
Akron, Ohio 44304

Phone: 330.762.1386
Fax: 330.762.0044

Request For Proposal No.00004

TITLE: Parapet Joint

DATE: 11/2/11

PROJECT: All-America Bridge Rehabilitation

To: Chad Markel
Posen Construction
80 E. North Street
Akron, Ohio 44304
Phone: 330.252.1723

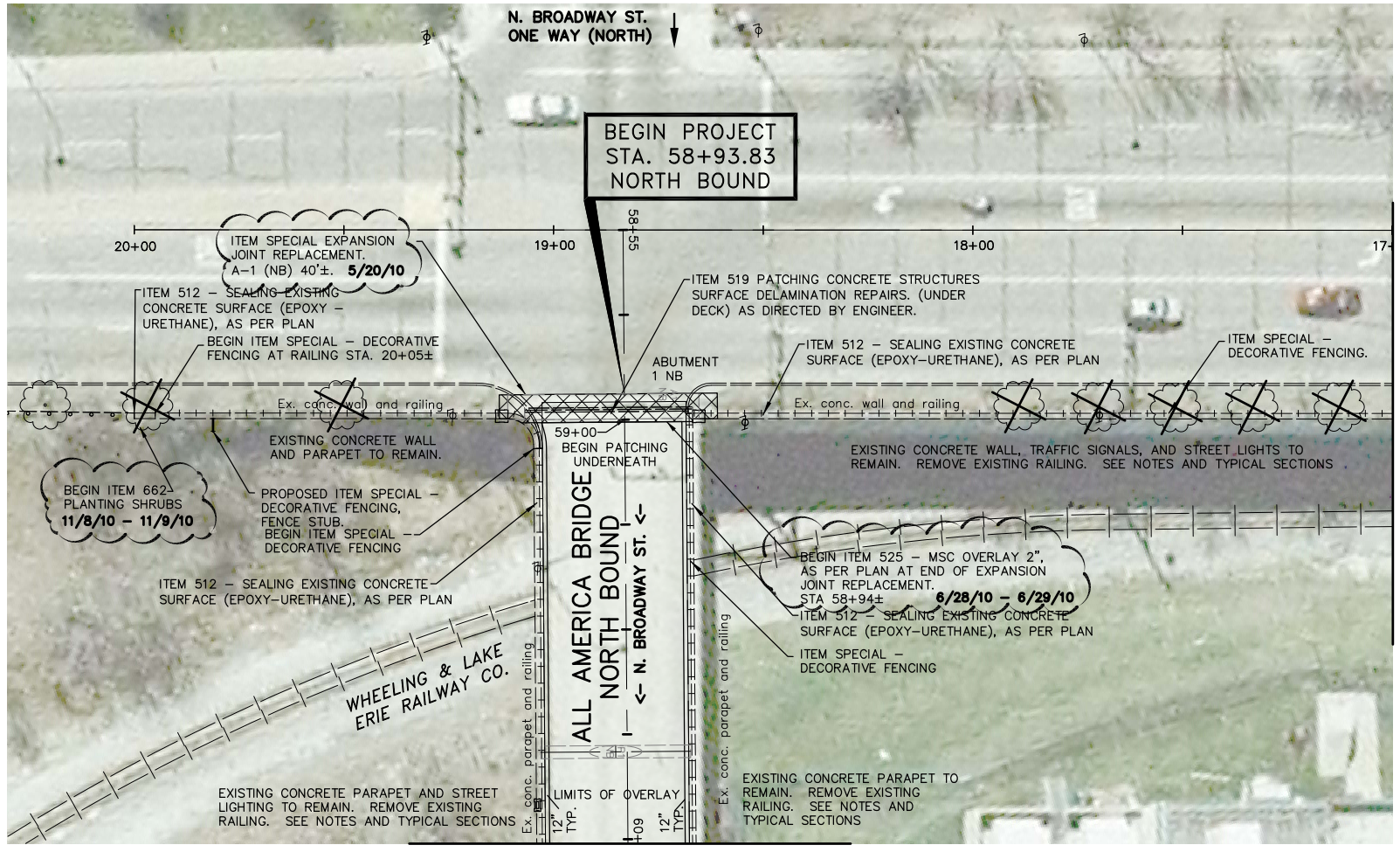
RE: **To:** Posen **From:** G Stephens Inc. **Number:** 86383

DESCRIPTION OF PROPOSAL

Item 1) This proposal is to address the repair to the parapet joint at the southwest parapet wall along Perkins Avenue. The existing joint must be cut the full width of the parapet and the full depth to the bottom of the deck. Final gap should be 3.25" at 60 degrees. This gap would be perpendicular to the original end of the parapet.
Coordination with Future Fence will be required regarding post placement at this location. See attached sketch of the expansion joint showing fence post layout. Cutting the two corners back as shown in the sketch may be a possibility, but the 3.25" gap is still required throughout the joint.
Please provide pricing for costs associated with this work.

By: Rick Evans
Date:

By: Chad Markel
Date:



MATCH LINE STA. 17+00
BELOW

MATCH LINE STA. 60+00
SEE SHEET 18

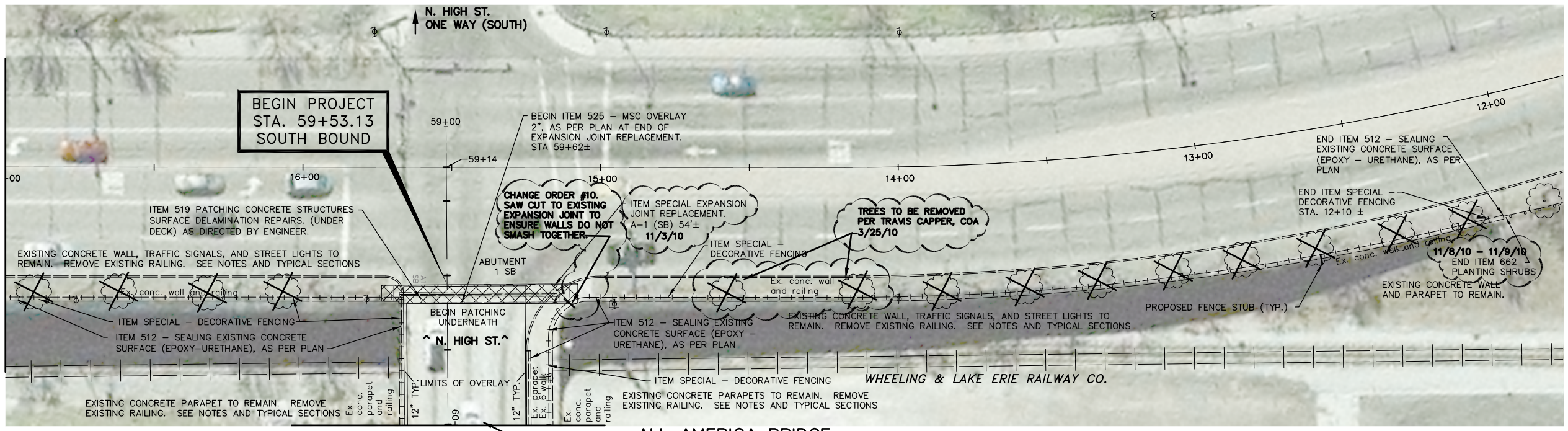
RAILROAD COORDINATION NOTE

THE CONTRACTOR SHALL COORDINATE ALL WORK WITHIN THE RAILROAD LIMITS WITH THE WHEELING & LAKE ERIE RAILWAY COMPANY. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE RAILROAD AGREEMENT WHILE WORKING WITHIN THE RAILROAD LIMITS. PAYMENT FOR THIS COORDINATION AND FLAGGERS, AS REQUIRED, IS INCLUDED IN ITEM SPECIAL – RAILROAD FLAGGER.

SHEET INDEX

PERKINS AVENUE – MARTIN LUTHER KING, JR BOULEVARD (SR–59)

MATCH LINE STA. 17+00
ABOVE



MATCH LINE STA. 60+00
SEE SHEET 18

DATE	CHECKED	DRAWN	SCALE: 1" = 20'
6/12/12	TEO	JLH	

PS&E	5/28/08
RECORD DRAWINGS ADG	6/22/12
REVISIONS	DATE

PLAN SHEETS
PERKINS – STA. 60+00

ALL–AMERICA BRIDGE
REHABILITATION

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
AKRON ENGINEERING BUREAU

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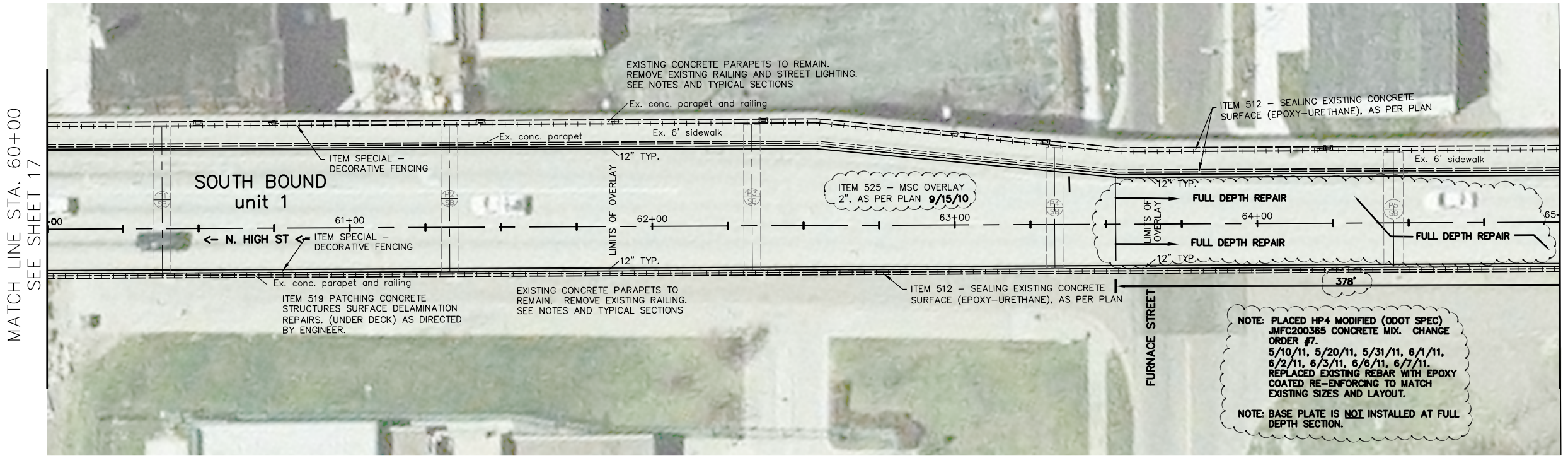
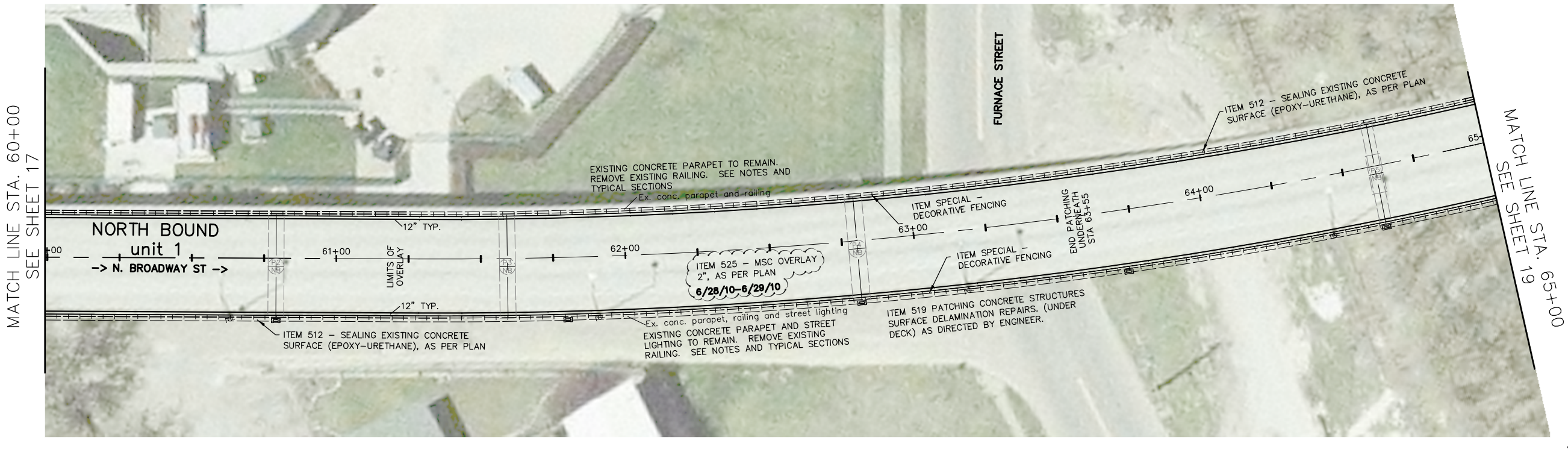


ALL AMERICA BRIDGE



SHEET INDEX

DRAWN	JLH	DATE 6/12/12
CHECKED	TEO	SCALE: 1" = 20'
6/1/09	6/22/12	DATE
FINAL TRACINGS	ADG	
RECORD DRAWINGS		
REVISIONS		

PLAN SHEETS
60+00 - 65+00

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
AKRON ENGINEERING BUREAU

ALL-AMERICA BRIDGE
REHABILITATION

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Mack Ready Mix

Akron Facility JMF Numbers

124 Darrow Rd.
Akron, Oh 44305
330-784-7008
Revised 7/12/10

MIX	JMF	Hanson Sandusky Crushed	Sober Sand & Gravel
CLASS C	C014073	57	CONCRETE SAND
CLASS C	C013900	8	CONCRETE SAND
CLASS C OPT 1	C043882	57	CONCRETE SAND
CLASS C OPT 1	C043410	8	CONCRETE SAND
CLASS C OPT 2	C073646	57	CONCRETE SAND
CLASS C OPT 2	C073574	8	CONCRETE SAND
CLASS C OPT 3	C283569	57	CONCRETE SAND
CLASS COPT 3	C283558	8	CONCRETE SAND
CLASS S	C033788	8	CONCRETE SAND
CLASS S	C033909	57	CONCRETE SAND
CLASS S OPT 3	C303176	57	CONCRETE SAND
CLASS S OPT 2	C093200	57	CONCRETE SAND
HP1		8	CONCRETE SAND
HP2	C253159	57	CONCRETE SAND
HP3	C200294	57/8	CONCRETE SAND
HP4 MODIFIED (ODOT SPEC)	C200365	57/8	CONCRETE SAND
HP4 MODIFIED	C110765	57	CONCRETE SAND
HP4	C273215	57	CONCRETE SAND
MS57	C111142	57	CONCRETE SAND
CLASS F	C100653	8	CONCRETE SAND
CLASS F OPT 3	C293082	57	CONCRETE SAND
FAST SET	C101024	57	CONCRETE SAND
MICRO OVERLAY50	CHD3316	8	CONCRETE SAND

Cement
Essroc Cement

Euclid Admixtures
Air: Air Mix 200
Water Reducer: WR91
MID Range Water Reducer: Eucon MR
Super: Eucon 37
Retarder: Retarder 75
Non Chloride: Accel Guard NCA

Fly Ash
I.S.G.-1st. ENERGY

Slag Cement
Essroc Cement

Micro Silica
Essroc/ Elkhem

MACK CONCRETE, INC.

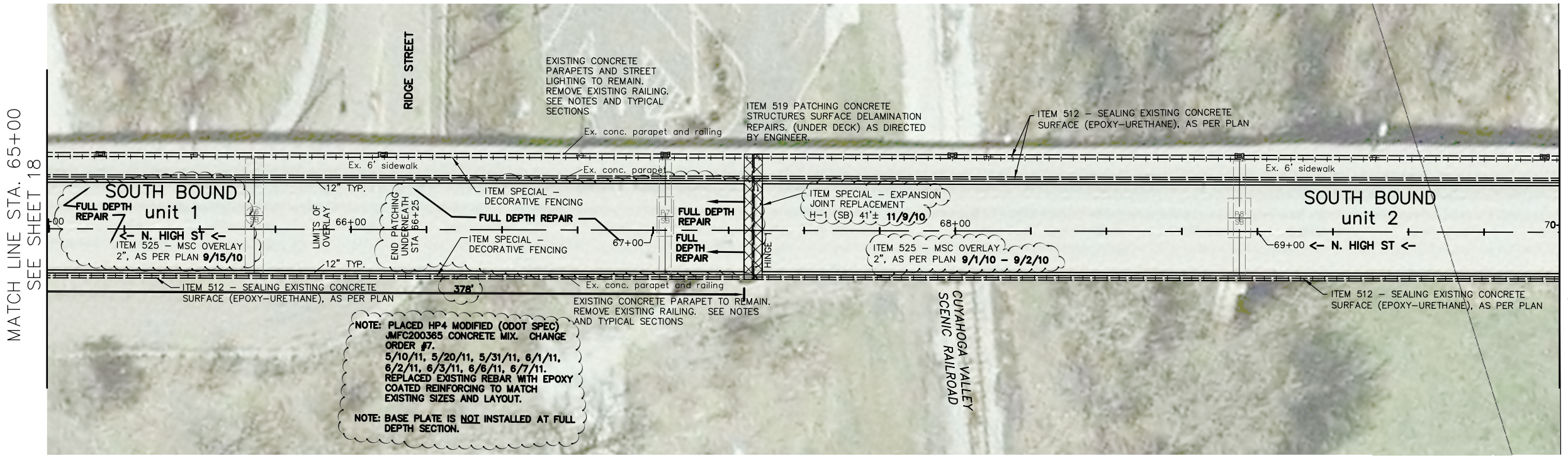
ODOT HP-4 MODIFIED MIX DESIGN

JMF # C200365

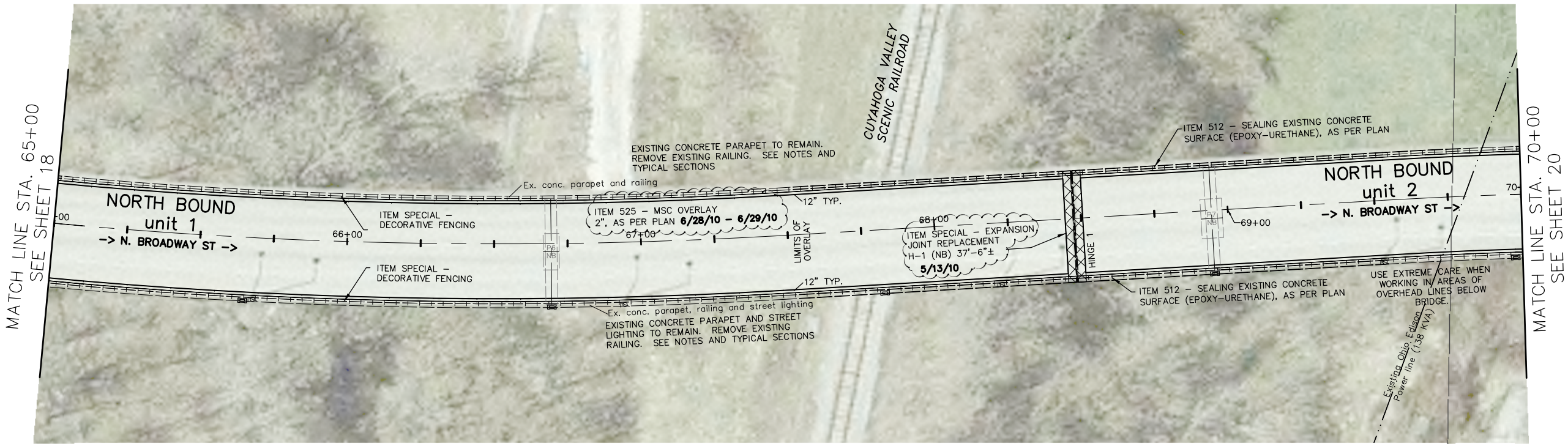
MATERIAL	QUANTITY PER YD.
TYPE I CEMENT	440 POUNDS
GROUND GRANULATED BLAST FURNACE SLAG	190 POUNDS
MICRO SILICA	30 POUNDS
#57 CRUSHED LIMESTONE	825 POUNDS
#8 CRUSHED LIMSTONE	719 POUNDS
CONCRETE SAND	1335 POUNDS
SUPER PLASTICIZER	64 OUNCES
WATER REDUCER	18 OUNCES
AIR ENTRAINMENT	4.66 OUNCES
WATER	30.5 GALLONS

ACTUAL BATCH QUANTITIES MAY VARY DEPENDING ON MOISTURE CONTENT OF COARSE AND FINE AGGREGATES AND 1-2% SCALE TOLERANCE PER ODOT SPEC 499.07

18A



ALL AMERICA BRIDGE



SHEET INDEX

DATE	CHECKED	DRAWN	SCALE
6/12/12	TEO	JLH	1" = 20'

REVISIONS	DATE
FINAL TRACINGS	6/1/09
RECORD DRAWINGS ADG	6/22/12

PLAN SHEETS
65+00 – 70+00

ALL–AMERICA BRIDGE
REHABILITATION

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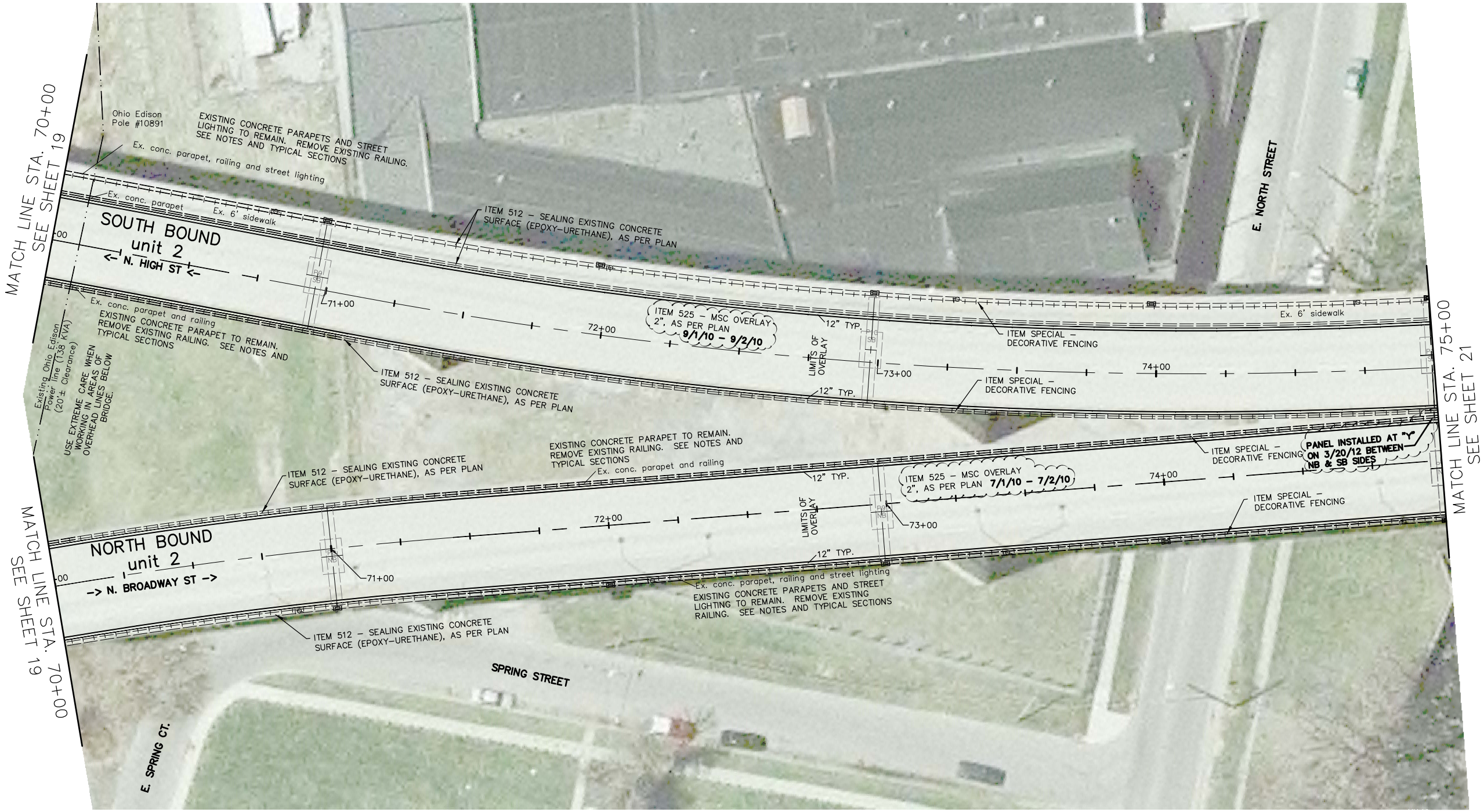

ALL AMERICA BRIDGE

SHEET INDEX

FINAL TRACINGS		6/1/09	
RECORD DRAWINGS	ADG	6/22/12	
REVISIONS			DATE

DRAWN JLH | CHECKED TEO | DATE 6/12/12

SCALE: 1" = 20'

PLAN SHEETS
70+00 – 75+00

ALL–AMERICA BRIDGE
REHABILITATION

CITY OF AKRON
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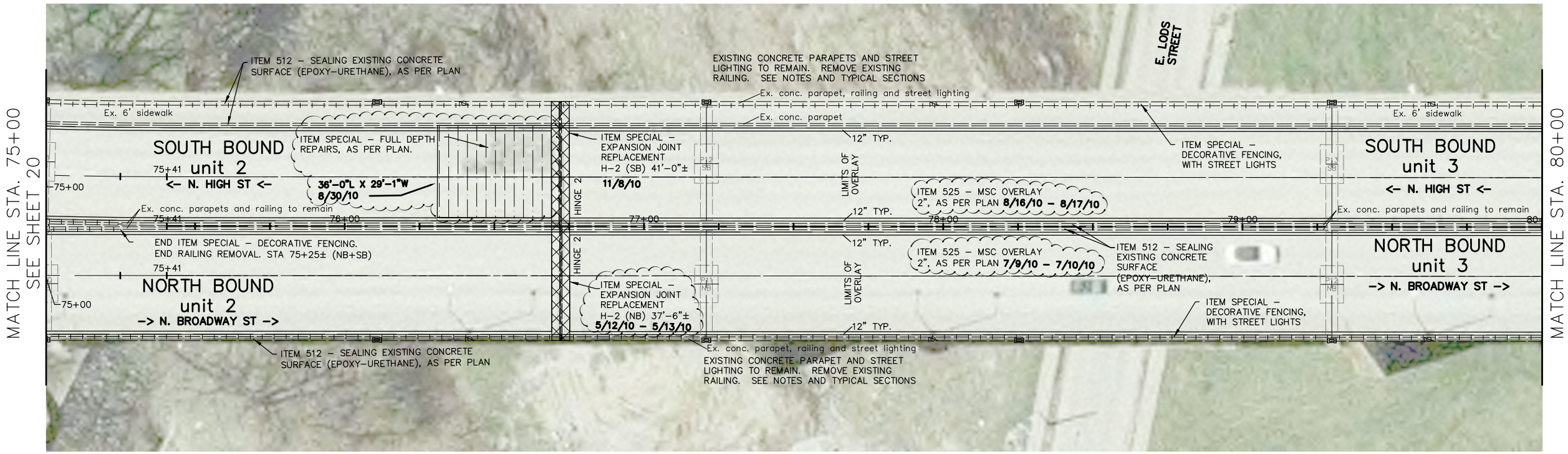
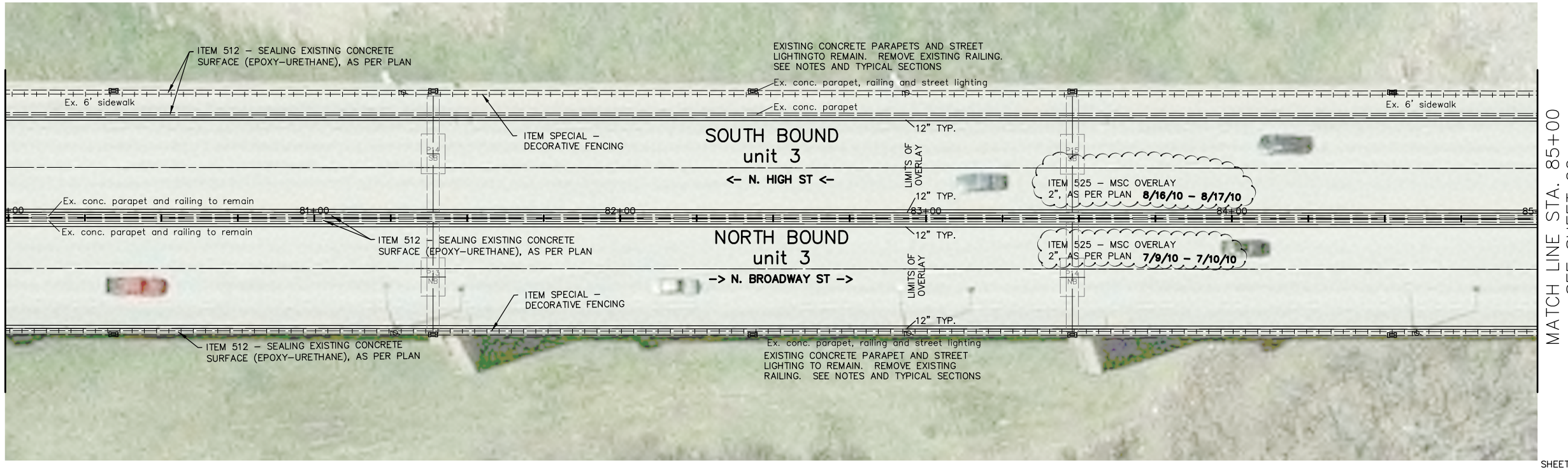


ALL AMERICA BRIDGE



SHEET INDEX

DATE	CHECKED	DRAWN	SCALE:
6/12/12	TEO	JLH	1" = 20'

DATE	FINAL TRACINGS	REVISIONS
6/1/09		
6/22/12	RECORD DRAWINGS ADG	

PLAN SHEETS
75+00 – 85+00

CITY OF AKRON
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REHABILITATION

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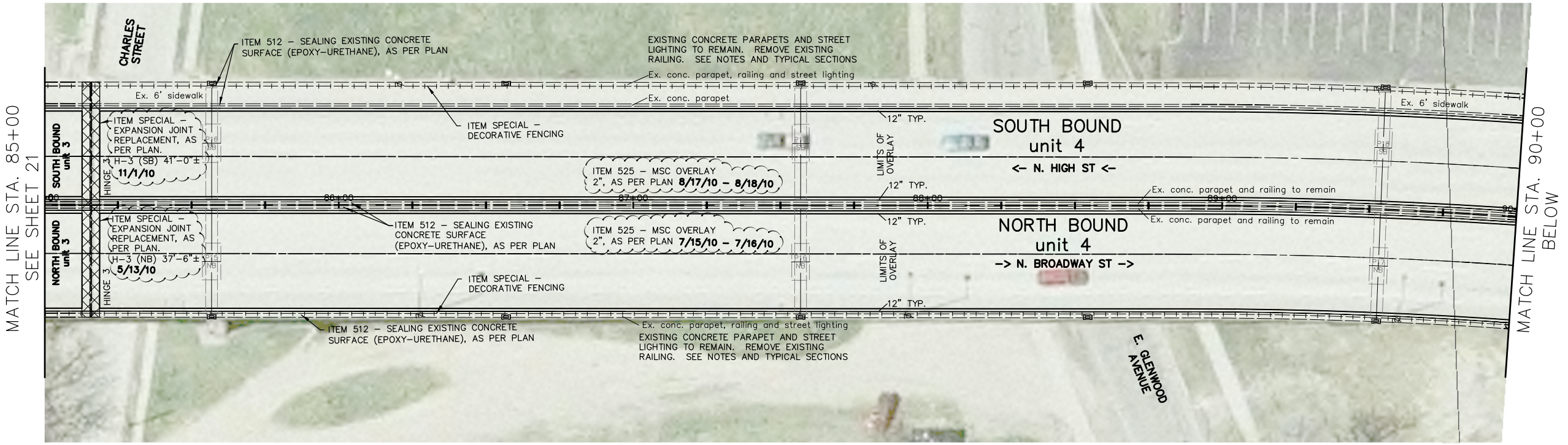
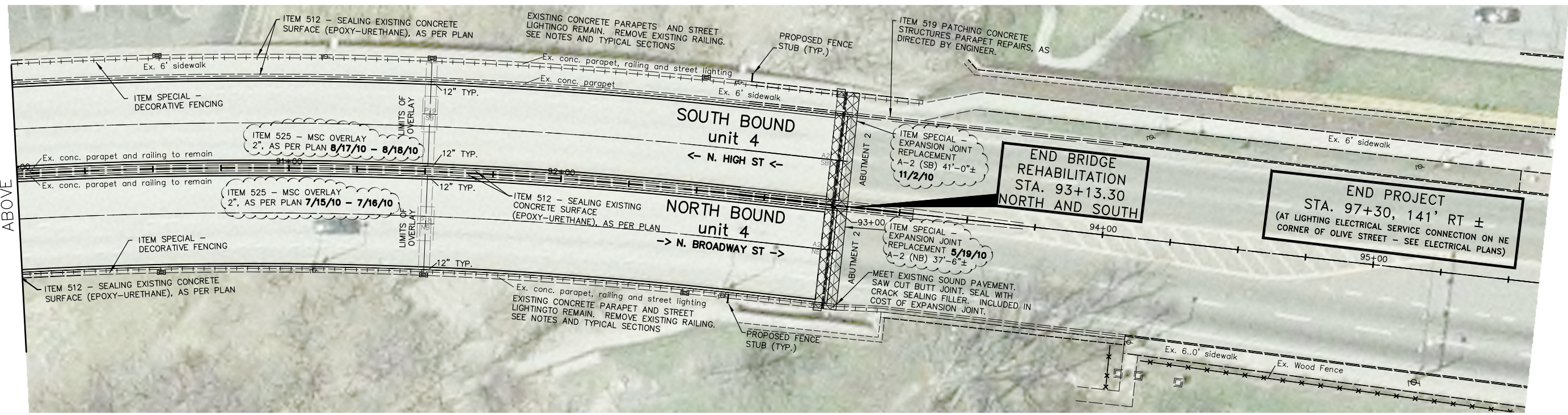


ALL AMERICA BRIDGE



SHEET INDEX

DATE	6/12/12
CHECKED	TEO
DRAWN	JLH
SCALE:	1" = 20'

DATE	REVISIONS
6/1/09	FINAL TRACINGS
6/22/12	RECORD DRAWINGS ADG

PLAN SHEETS
85+00 – 95+00

ALL–AMERICA BRIDGE
REHABILITATION

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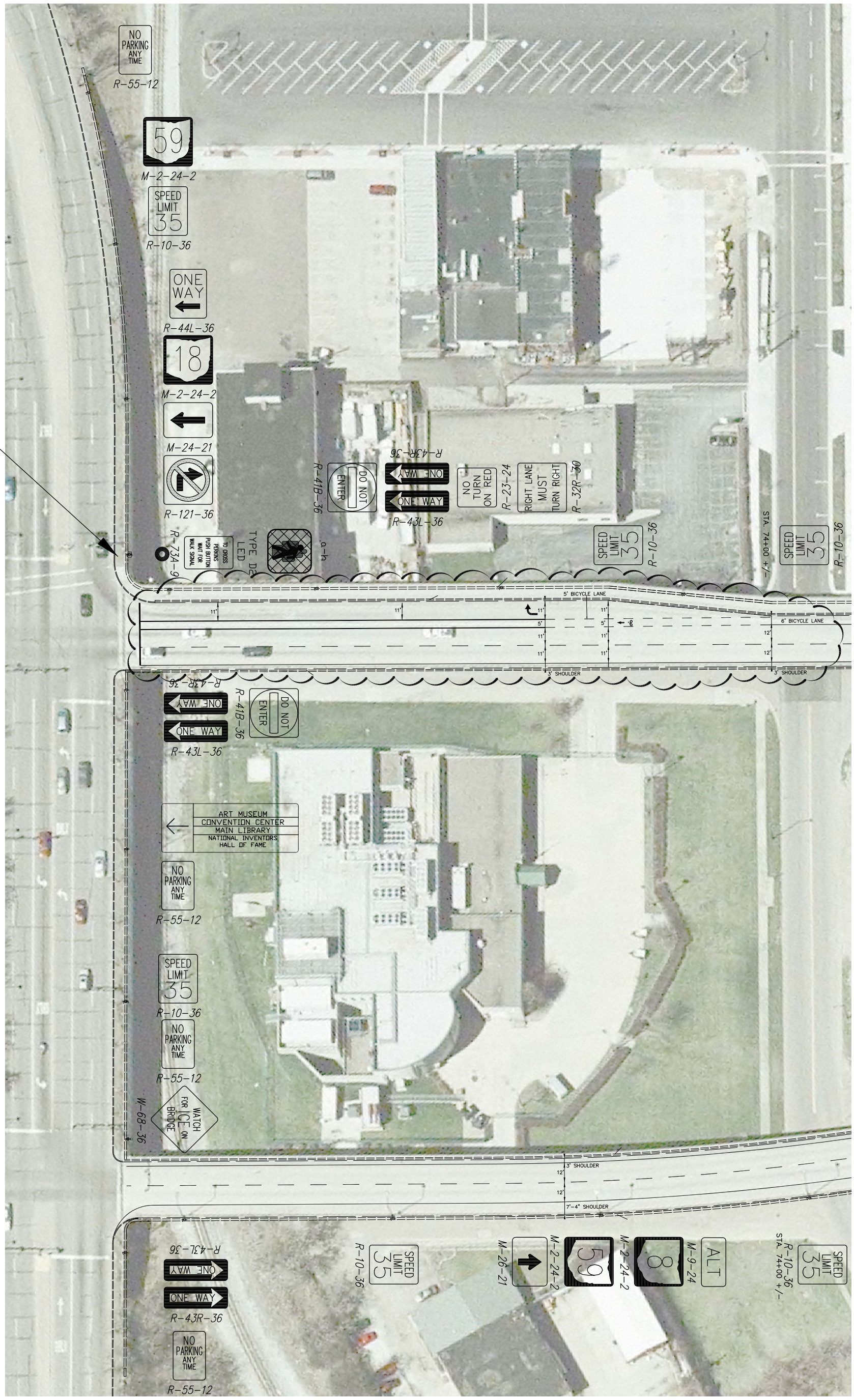

NOTE:
THE EXISTING PEDESTRIAN SIGNAL HEAD, PUSHBUTTON, AND ASSOCIATED SIGNAGE SHALL BE RELOCATED TO A NEW PEDESTRIAN SIGNAL FOUNDATION AND SUPPORT PER AKRON TRAFFIC ENGINEERING STANDARD DRAWINGS. CONDUIT AND WIRING SHALL EXTEND INTO EXISTING HANDHOLE. AKRON TRAFFIC ENGINEERING SHALL MAKE FINAL DISCONNECTIONS AND RECONNECTIONS OF CIRCUITRY.

NOTE:
THE INTENT OF THE PROPOSED TRAFFIC SIGNS AND PAVEMENT MARKINGS IS TO REPLACE THE EXISTING SIGNS AND MARKINGS IN KIND WITHIN THE PROJECT LIMITS. SEE SHEETS 02 GENERAL NOTES AND 04 MAINTENANCE OF TRAFFIC FOR ADDITIONAL INFORMATION

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CITY OF AKRON
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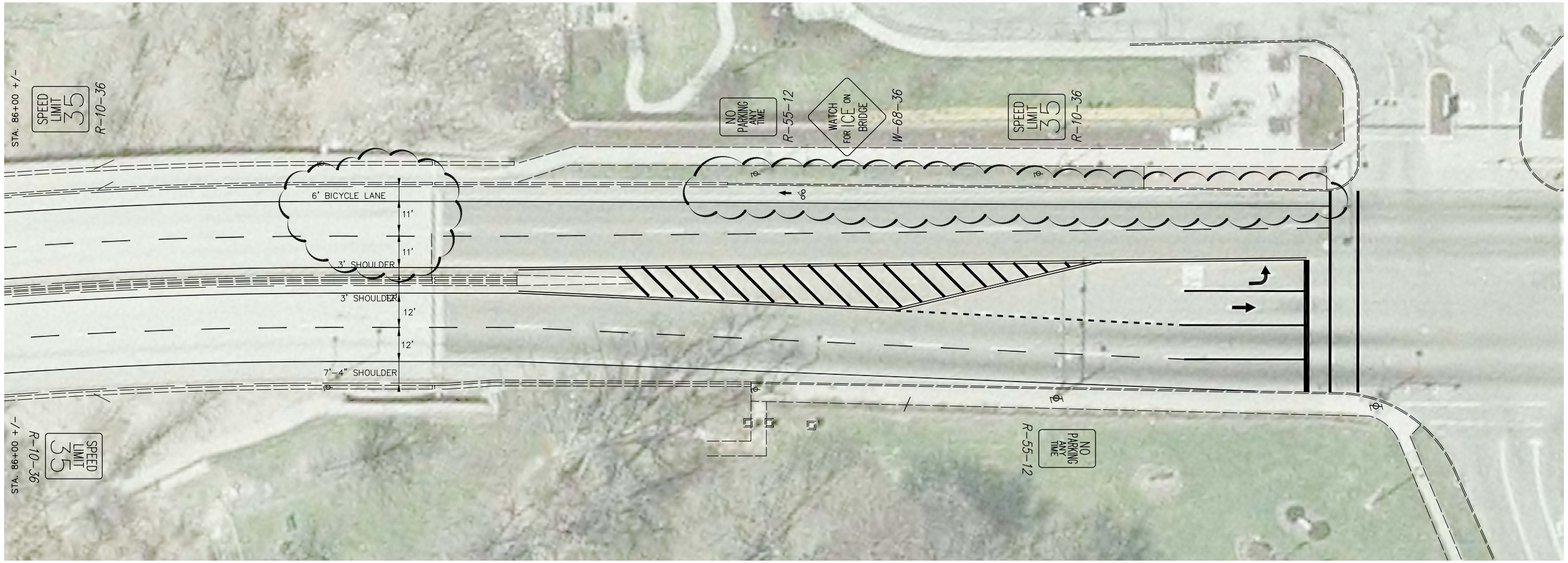
ALL-AMERICA BRIDGE REHABILITATION

TRAFFIC SIGNS AND PAVEMENT MARKINGS
PERKINS ST - STA. 64+00

FINAL TRACINGS	6/1/09	DRAWN	CHECKED	DATE
RECORD DRAWINGS ADG	6/22/12	JLH	TEO	6/12/12
REVISIONS	DATE	SCALE: NO SCALE		



TRAFFIC SIGN INDEX			
O.M.U.T.C.D. REF. NUMBER	FUNCTION	ALTERNATE LEGEND	QUANTITY (EACH)
M-2-24-2	STATE ROUTE	8	1
M-2-24-2	STATE ROUTE	18	1
M-2-24-2	STATE ROUTE	59	2
M-9-24	STATE ROUTE	ALT	1
M-24-21	DIRECTIONAL ARROW	'LEFT'	1
M-26-21	DIRECTIONAL ARROW	'STRAIGHT'	1
R-10-36	SPEED LIMIT	35	9
R-23-24	NO TURN ON RED		1
R-32R-30	RIGHT LANE MUST TURN RIGHT		1
R-41B-36	DO NOT ENTER		1
R-43L-36	ONE WAY		3
R-43R-36	ONE WAY		3
R-44L-36	ONE WAY		1
R-55-12	NO PARKING ANY TIME		6
W-68-36	WATCH FOR ICE ON BRIDGE		2

ITEM 630: TRAFFIC SIGNS AND SUPPORTS, AS PER PLAN

ALL SIGNS SHALL COMPLY WITH THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (O.M.U.T.C.D.), INCLUDING THE LATEST REVISIONS, ACCORDING TO PLACEMENT, SIZE, SHAPE, COLOR, AND REFLECTORIZATION.

ALL SIGNS SHALL CONTAIN THE IDENTICAL LEGEND AS THEIR O.M.U.T.C.D. REFERENCE NUMBER INDICATES UNLESS LISTED WITH AN ALTERNATE LEGEND IN THE FOLLOWING TABLE.

THE CONTRACTOR SHALL INSTALL GROUND MOUNTED TRAFFIC SIGNS IN ACCORDANCE WITH ITEM 630 – TRAFFIC SIGNS WITHIN THE LIMITS OF THE PROJECT, AS DESIGNATED ON THESE PLANS, OR AS DIRECTED BY THE ENGINEER.

FOR THE EXISTING SIGNS ON THE ALL AMERICA BRIDGE, ALL SIGNS SHALL BE REPLACED WITH NEW SIGNS AND MOUNTING HARDWARE, INCLUDING BUT NOT LIMITED TO THOSE LISTED IN THE STREET SIGN INDEX. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING THE LOCATIONS, HEIGHTS, AND METHODS OF ATTACHMENT OR ALTERNATE LOCATIONS FOR REVIEW AND APPROVAL.

FOR THE EXISTING SIGNS ON THE NORTH SIDE OF PERKINS STREET WITHIN THE CONSTRUCTION LIMITS, ALL SIGNS CURRENTLY MOUNTED ON THE EXISTING LIGHT AND TRAFFIC SIGNAL POLES THAT ARE IN CONFLICT WITH THE PROPOSED FENCE SHALL BE REMOVED AND REPLACED WITH NEW SIGNS AND POSTS, INCLUDING BUT NOT LIMITED TO THOSE LISTED IN THE STREET SIGN INDEX. THE EXISTING PEDESTRIAN SIGNAL HEAD AND PUSH BUTTON AT THE HIGH STREET INTERSECTION SHALL BE RELOCATED TO ACCOMMODATE THE PROPOSED FENCE. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING THE PROPOSED LOCATIONS AND HEIGHTS OF THE RELOCATED SIGNS AND PEDESTRIAN SIGNAL DEVICES FOR REVIEW AND APPROVAL.

ALL GROUND MOUNTED TRAFFIC SIGNS SHALL BE MOUNTED ON THEIR OWN GROUND MOUNTED SUPPORT. UNDER NO CIRCUMSTANCES SHALL A TRAFFIC SIGN BE MOUNTED ON A UTILITY POLE OR ANY OTHER MOUNTABLE SURFACE NOT INTENDED FOR TRAFFIC SIGN MOUNTING.

IF AN EXISTING TRAFFIC SIGN IS MOUNTED ON A UTILITY POLE OR ANY OTHER MOUNTABLE SURFACE NOT INTENDED FOR TRAFFIC SIGN MOUNTING, THEN THAT SIGN SHALL BE MOUNTED ON ITS OWN GROUND MOUNTED SUPPORT.

THE PROPOSED GROUND MOUNTED TRAFFIC SIGN LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE. FINAL LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

THE CONTRACTOR SHALL NOT POST ANY NEW SIGNS UNTIL ALL SURFACE RESTORATION HAS BEEN COMPLETED, BUT PRIOR TO SUB-FINAL INSPECTION.

ALL COSTS REQUIRED TO PERFORM THIS WORK SHALL BE PAID FOR UNDER THE PRICE BID FOR ITEM 630 – TRAFFIC SIGNS AND SUPPORTS, AS PER PLAN.

NOTE:
THE INTENT OF THE PROPOSED TRAFFIC SIGNS AND PAVMENT MARKINGS IS TO REPLACE THE EXISTING SIGNS AND MARKINGS IN KIND WITHIN THE PROJECT LIMITS. SEE SHEETS 02 GENERAL NOTES AND 04 MAINTENANCE OF TRAFFIC FOR ADDITIONAL INFORMATION

SHEET INDEX

TRAFFIC SIGNS AND PAVEMENT MARKINGS
STA. 89+00 – OLIVE ST.

FINAL TRACINGS		6/1/09	
RECORD DRAWINGS	ADG	6/22/12	
REVISIONS		DATE	

DRAWN JLH | CHECKED TEO | DATE 6/12/12
SCALE: NO SCALE

ALL-AMERICA BRIDGE REHABILITATION

CITY OF AKRON
DEPARTMENT OF PUBLIC SERVICE
AKRON ENGINEERING BUREAU

2009-026-00

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