

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

CUY-10-16.13

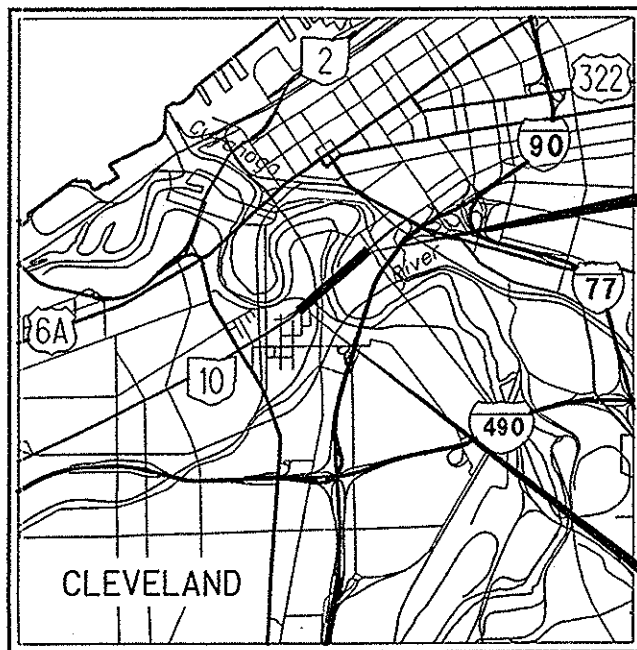
CITY OF CLEVELAND CUYAHOGA COUNTY

PROJECT DESCRIPTION

THE PROJECT IS THE CONSTRUCTION OF MAINTENANCE REPAIRS ON BRIDGE NO. CUY-10-1613. REPAIRS INCLUDE DEBRIS NETTING AND ROADWAY LIGHTING.

PROJECT LENGTH = 0.86 MILES

PROJECT EARTH DISTURBED AREA: N/A - (MAINTENANCE PROJECT)
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: N/A - (MAINTENANCE PROJECT)
NOTICE OF INTENT EARTH DISTURBED AREA: N/A - (MAINTENANCE PROJECT)



LOCATION MAP

LATITUDE: 41°29'20" LONGITUDE: 81°41'40"



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

DESIGN DESIGNATIONS

CURRENT ADT (2012)	11,210
DESIGN YEAR ADT	N/A
DESIGN HOURLY VOLUME	N/A
DIRECTIONAL DISTRIBUTION	N/A
TRUCKS (24 HOUR B&C)	750
DESIGN SPEED	35
LEGAL SPEED	35
DESIGN FUNCTIONAL CLASSIFICATION:	
URBAN MINOR ARTERIAL	
NHS PROJECT	NO

DESIGN EXCEPTIONS

NONE

PLAN PREPARED BY:

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD OHIO 44902
PHONE: (419) 524-0074 FAX: (419) 524-1812

ENGINEERS SEAL:

SIGNED: *Kent A. Kapusta*
DATE: July 17, 2015

INDEX OF SHEETS:

TITLE SHEET	1
GENERAL NOTES	2
MAINTENANCE OF TRAFFIC NOTES	3-4
GENERAL SUMMARY	5-6
LIGHTING NOTES	7-10
LIGHTING SUBSUMMARY	11-20
LIGHTING PLANS	21-31, 31A, 32-35
STRUCTURE (20' AND OVER)	
CUY-10-1613	36-41, 41A, 42-44, 44A, 45, 45A, 45B, 45C, 46, 46A, 46B, 47

2013 SPECIFICATIONS

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

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

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

CALL
1-800-362-2764
(TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE
SERVICE CALL: 1-800-925-0988

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
TC-41.40	10-18-13	HL-10.11	1-17-14	MT-95.31	7-18-14	800	7-17-15		
		HL-10.12	1-17-14	MT-95.41	7-18-14	813	4-17-15		
		HL-30.22	1-17-14	MT-97.10	7-18-14	821	4-20-12		
		HL-40.10	1-17-14	MT-105.10	7-19-13	913	1-16-15		
		HL-50.21	1-16-15	MT-110.10	7-19-13	921	4-20-12		
		HL-60.11	1-17-14						
		HL-60.31	1-16-15						

APPROVED: *M. S. Ke*
DATE: 07-17-15 DISTRICT DEPUTY DIRECTOR

APPROVED: *John W. ...*
DATE: 07-27-15 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO.
NON-FEDERAL

PID NO.
99756

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT
NONE

CUY-10-16.13

1/47

CUY - SR 10-16.13 Repair
150526 PID - 99756 Contract Proposal Available @ www.
Dist 12 9/24/2015 Contracts.dot.state.oh.us/home

F:\2014\11059 CUY-10-16.13 Project\Roadway\Sheets\99756\191-01-CUY-10-16.13.dwg

UTILITIES

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

ELECTRIC:

CITY OF CLEVELAND DIVISION OF CLEVELAND PUBLIC POWER (CPP) (CONDUITS ON STRUCTURE) 1300 LAKESIDE AVE. CLEVELAND, OHIO 44114 ATTN: CHRIS HIRZEL PHONE: (216) 664-3922, EXT. 115 FAX: (216) 664-2972 EMAIL: CHIRZEL@CPP.ORG

DIVISION OF CLEVELAND PUBLIC POWER (CPP) CLEVELAND PUBLIC POWER CIRCUITS: STREET LIGHTING 1300 LAKESIDE AVENUE CLEVELAND, OHIO 44114 ATTN: JAMES FERGUSON, CHIEF, BUREAU OF STREET LIGHTING PHONE: (216) 420-7704, EXT. 183

ILLUMINATING COMPANY (FIRST ENERGY) (NO CONFLICT WITH STRUCTURE) 6896 MILLER ROAD BRECKSVILLE, OHIO 44141 ATTN: TED RADER, ENGINEERING SUPERVISOR PHONE: (440) 546-8738 EMAIL: RADERT@FIRSTENERGYCORP.COM

WATER:

CITY OF CLEVELAND DIVISION OF WATER (NO CONFLICT WITH STRUCTURE) 1201 LAKESIDE AVENUE CLEVELAND, OHIO 44114 ATTN: FRED ROBERTS PHONE: (216) 664-2444, EXT. 5590 FAX: (216) 664-2838

SEWER:

CITY OF CLEVELAND DIVISION OF WATER POLLUTION CONTROL (NO CONFLICT WITH STRUCTURE) 12302 KIRBY ROAD CLEVELAND, OHIO 44108 ATTN: RACHID ZOGHAIB PHONE: (216) 664-3785

NORTHEAST OHIO REGIONAL SEWER DISTRICT (NEORS) (NO CONFLICT WITH STRUCTURE) 3900 EUCLID AVENUE CLEVELAND, OHIO 44115-2504 ATTN: ROBERT STOERKEL PHONE: (216) 881-6600 EXT. 6802 FAX: (216) 881-2738 EMAIL: STOERKELR@NEORS.ORG

GAS: DOMINION EAST OHIO GAS COMPANY TRANSMISSION & STORAGE & GATHERING FACILITIES (20" PIPELINE ON STRUCTURE) 320 SPRINGSIDE DRIVE, SUITE 320 AKRON, OHIO 44333 ATTN: MIKE ANTONIUS, PROJECT MANAGER GAS DESIGN PHONE: (330) 664-2488 FAX: (330) 664-2686 EMAIL: RELOCATION@DOM.COM

DOMINION EAST OHIO GAS COMPANY 320 SPRINGSIDE DRIVE FAIRLAWN, OHIO 44333 ATTN: BRYAN DAYTON PROJECT MANAGER PHONE: (330) 664-2409 EMAIL: BRYAN.D.DAYTON@DOM.COM

ESTIMATED QUANTITIES

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

COMMUNICATIONS:

AT&T OHIO (SBC) (72 - 4" PLASTIC CONDUIT ON STRUCTURE) 13630 LORAIN AVENUE, 2ND FLOOR CLEVELAND, OHIO 44111 ATTN: JAMES JANIS, DESIGN MANAGER PHONE (216) 476-6142 FAX: (216) 476-6013 EMAIL: PJ8191@ATT.COM

AT&T LONG DISTANCE (FIBER-OPTIC CABLE IN AT&T CONDUIT) HLG CONSULTING 5980-G WILCOX PLACE DUBLIN, OHIO 43016 ATTN: TONY LYLE PHONE: 614-760-8320 FAX: 614-760-8323 EMAIL: TLYLE@HLGENGINEERING.COM

FIBERTECH NETWORKS, LLC (FIBER-OPTIC CABLE IN AT&T CONDUIT) 15565 NEO PARKWAY GARFIELD HEIGHTS, OHIO 44128 ATTN: ED DALY CELL: 585-397-5988 EMAIL: EDALY@FIBERTECH.COM

MCI-WORLDCOM (NO CONFLICT WITH STRUCTURE) 120 RAVINE ST. AKRON, OHIO 44303 ATTN: AL GUEST PHONE: (330) 253-8267 ALLAN.GUEST@VERIZON.COM

SPRINT NEXTEL (NO CONFLICT WITH STRUCTURE) 875 GREENTREE RD. STE. 410, BUILDING 7 PITTSBURGH, PA 15220 ATTN: LUKE BRYAN - NTWK / PROJECT MANAGER PHONE: (412) 960-4071 CELL: (412) 505-3139 E-MAIL: LUKE.BRYAN@SPRINT.COM

WINDSTREAM (FIBER-OPTIC CABLE IN AT&T CONDUIT) 560 TERNES AVE. ELYRIA, OHIO 44035 ATTN: GEOFFREY HAMM OSP ENGINEER II PHONE: (440) 329-4245 (OFFICE) PHONE: (330) 256-6133 (CELL) E-MAIL: GEOFFREY.P.HAMM@WINDSTREAM.COM

QWEST COMMUNICATIONS (CENTURYLINK) (NO CONFLICT WITH STRUCTURE) ATTN: CHRIS STRAYER 4650 LAKEHURST COURT, 1ST FLOOR DUBLIN, OHIO 43016 PHONE: (614) 215-5606

CABLE:

TIME WARNER CABLE (UNDETERMINED) 8179 DOW CIRCLE STRONGSVILLE, OHIO 44136 SUPERVISOR: GARY NAUMANN PHONE: (216) 575-8016, EXT. 5033 FIELD ENGINEER: PAUL SILVESTRO PHONE: (216) 575-8016, EXT. 5034 FAX: (440) 826-2940

EXISTING PLANS

EXISTING PLANS MAY BE INSPECTED IN THE ODOT DISTRICT 12 OFFICE IN GARFIELD HEIGHTS.

PROJECT COORDINATION

IT IS EXPECTED THAT DURING THE COURSE OF CONSTRUCTION, THIS PROJECT AND THE CLEVELAND INNERBELT PROJECT (CCG2) WILL HAVE OVERLAPPING PROJECT LIMITS AND CONSTRUCTION ACTIVITIES BETWEEN THE EAST END OF THE HOPE MEMORIAL BRIDGE (CUY-10-1613) AND ONTARIO STREET. A COPY OF THE PROPOSED CCG2 SCHEDULE OF ACTIVITIES IS AVAILABLE AT ODOT DISTRICT 12 OFFICES (GARFIELD HEIGHTS). THE CONTRACTOR SHALL COORDINATE ALL ACTIVITIES IN THE OVERLAPPING AREA, INCLUDING PROJECT MAINTENANCE OF TRAFFIC ACTIVITIES, WITH CCG2. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO AVOID CONFLICTS AND WILL MAINTAIN DOCUMENTS OF THESE EFFORTS IN THE FORM OF PROPOSED SCHEDULE OF ACTIVITIES, MEETING MINUTES, EMAILS, PHONE CALL LOGS, AND SCHEDULE REVISIONS. BOTH PROJECT ENGINEERS SHALL BE COPIED ON ALL COMMUNICATIONS BETWEEN CONTRACTORS.

WORK LIMITS

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

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. THE CITY OF CLEVELAND NOISE ORDINANCE SHALL APPLY TO THE WORK ON THIS PROJECT.

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 85 FEET ABOVE THE SURFACE OF THE BRIDGE DECK. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. NOTIFY THE ODOT OFFICE OF AVIATION WHEN SUBMITTING FAA FORM 7460-1.

NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND THE ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

EXPRESS PROCESSING CENTER THE FEDERAL AVIATION ADMINISTRATION SOUTHWEST REGIONAL OFFICE AIR TRAFFIC AIRSPACE BRANCH ASW-520 2601 MEACHAM BLVD. FORT WORTH, TX 76137-4298

OHIO DEPARTMENT OF TRANSPORTATION OFFICE OF AVIATION 2829 WEST DUBLIN-GRANVILLE ROAD COLUMBUS, OHIO 43235 (614) 387-2346

ENVIRONMENTAL COMMITMENTS

- 1. NO WORK SHALL BE PERFORMED WITHIN THE CUYAHOGA RIVER OR KNOWN WETLANDS.
- 2. PEREGRINE FALCON NESTS A PEREGRINE FALCON NEST IS LOCATED ON THE EXISTING LORAIN CARNEGIE BRIDGE STRUCTURE. PEREGRINE FALCONS ARE PROTECTED AS A STATE THREATENED SPECIES AND UNDER THE FEDERAL MIGRATORY BIRD TREATY ACT OF 1918. NO FORCE OR DETERRENENTS ARE PERMITTED AGAINST THE PEREGRINE FALCON. ANY ACTIVITY THAT RESULTS IN A PURSUIT, HUNT, SHOOT, WOUND, KILL, CAPTURE, OR COLLECTION OF A PEREGRINE FALCON OR ANY ATTEMPT TO CARRY OUT THESE ACTIVITIES IS A STATE AND FEDERAL VIOLATION. THE CONTRACTOR SHALL CONDUCT A MEETING AT LEAST 30 DAYS BEFORE THE SCHEDULED START OF ANY CONSTRUCTION ON THE EXISTING LORAIN CARNEGIE BRIDGE STRUCTURE WITH THE DEPARTMENT AND THE OHIO DEPARTMENT OF NATURAL RESOURCES, DIVISION OF WILDLIFE (ODNR-DOW) PEREGRINE FALCON STATEWIDE COORDINATOR, AND U.S. FISH AND WILDLIFE (USFWS) ODOT LIAISON TO DISCUSS POSSIBLE INTERACTIONS WITH THE PEREGRINE FALCON AND AVOIDANCE AND MINIMIZATION TECHNIQUES THAT ODNR, THE DEPARTMENT, AND THE CONTRACTOR CAN EMPLOY TOGETHER TO REDUCE THE LIKELIHOOD OF IMPACTING THE BIRDS. IF THE CONTRACTOR ENCOUNTERS A PEREGRINE FALCON PRIOR TO OR DURING THE WORK, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DEPARTMENT AND STOP ALL WORK ON THE AFFECTED BRIDGE SPAN AND WITHIN 300 FEET OF WHERE THE FALCON WAS ENCOUNTERED. WITHIN 24 HOURS, THE DEPARTMENT WILL NOTIFY ODNR-DOW OF THE ENCOUNTER. AFTER AN ENCOUNTER WITH A PEREGRINE FALCON AND WORK STOPPAGE, THE WORK SHALL NOT PROCEED IN THAT SPAN UNLESS APPROVED BY THE DEPARTMENT. ENCOUNTERS INCLUDE ACTIVE NESTS ON THE BRIDGE, AGGRESSIVE BEHAVIOR SHOWN BY FALCONS TOWARD WORKERS ON THE BRIDGE, AND ATTEMPTS BY FALCONS TO NEST ANYWHERE ON THE BRIDGE.

THE CONTRACTOR SHALL PROVIDE ANY EQUIPMENT, INCLUDING A POSSIBLE JLG LIFT, NEEDED FOR THE DEPARTMENT AND /OR ODNR TO ACCESS AND REVIEW A PEREGRINE FALCON NESTING LOCATION ANYWHERE ON THE STRUCTURE. THE CONTRACTOR, IN COORDINATION WITH THE DEPARTMENT, SHALL PROPOSE AN ALTERNATIVE WORK PLAN TO COMPLETE THE PROJECT WORK WITHOUT IMPACTING A FALCON NESTING LOCATION. THE FALCON'S BREEDING SEASON IS FROM FEBRUARY 1 TO AUGUST 15 AND THE CONTRACTOR SHALL SCHEDULE NO WORK IN ANY SPAN OR WITHIN 300' OF WHERE A FALCON NEST RESIDES DURING THIS TIME FRAME. ALL WORK AND COORDINATION ASSOCIATED WITH THIS NOTE SHALL BE COMPLETED AT NO ADDITIONAL COST TO THE DEPARTMENT.

- 3. ALL TREE REMOVAL SHALL BE COMPLETED BETWEEN OCTOBER 1 AND MARCH 31 TO AVOID IMPACTS TO ROOSTING INDIANA BATS AND NORTHERN LONG-EARED BATS.

CONSTRUCTION LIMITS

ACTUAL CONSTRUCTION LIMITS ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL LIMIT HIS/HER CONSTRUCTION ACTIVITIES TO THE AREA REQUIRED TO PERFORM THE PROPOSED NETTING AND LIGHTING IMPROVEMENTS INSIDE THE EXISTING RIGHT OF WAY AS APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL RESTRICT ALL OF HIS/HER ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE EXISTING RIGHT OF WAY AND WITHIN THE AREA DESCRIBED IN THIS NOTE. SHOULD THE CONTRACTOR WISH TO USE ANY AREA OUTSIDE THESE LIMITS A REQUEST IN WRITING MUST BE SUBMITTED TO THE PROJECT ENGINEER. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA THAT THE CONTRACTOR PLANS TO USE AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. THE CONTRACTOR SHALL NOT USE THE PROPOSED AREA UNTIL THE ENGINEER APPROVES THE REQUEST IN WRITING.

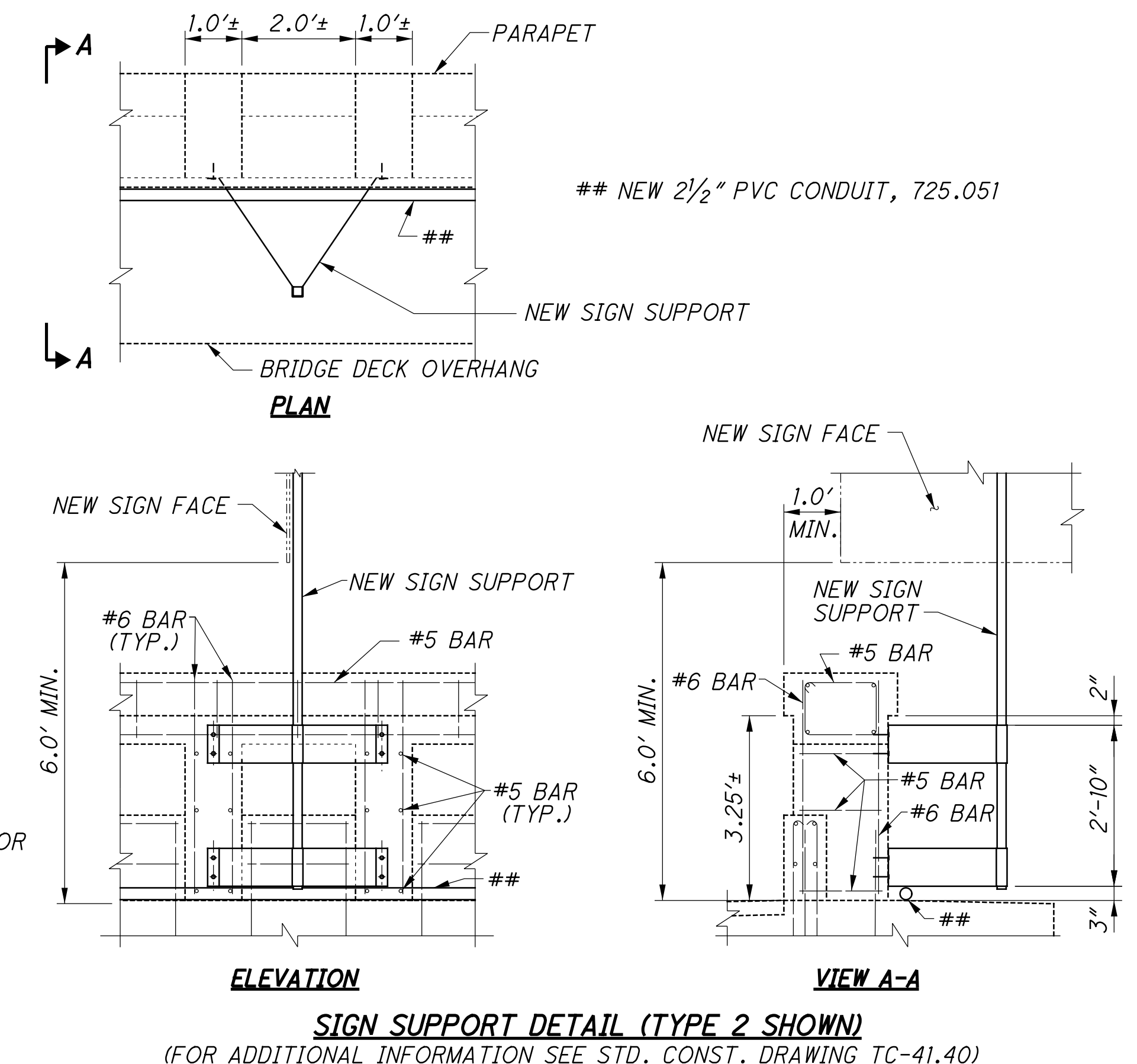
RELOCATION AND REMOVAL OF EXISTING SIGNING

THERE IS EXISTING SIGNING ATTACHED TO THE EXISTING CONCRETE ROADWAY LIGHTING POLES. PRIOR TO REMOVING THE POLES THE CONTRACTOR SHALL RELOCATE THE EXISTING SIGNING AND ATTACH IT TO THE BACKSIDE OF THE EXISTING PARAPET WITH A BRIDGE MOUNTED SIGN SUPPORT ASSEMBLY (TYPE 1 OR TYPE 2) AS PER STANDARD CONSTRUCTION DRAWING TC-41.40. THE SIGNS SHALL BE RELOCATED A MINIMUM OF 5 FEET IN FRONT OF THE EXISTING POLE IN THE DIRECTION OF TRAFFIC. THE CONTRACTOR SHALL ENSURE THAT THE NEW SIGN LOCATION IS NOT OBSTRUCTED FROM VIEW OF THE DRIVER BY OTHER ITEMS ATTACHED TO THE BRIDGE. THE CONTRACTOR SHALL LAY OUT THE NEW SIGN LOCATIONS FOR REVIEW AND APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION. THERE ARE EXISTING DETOUR AND MAINTENANCE OF TRAFFIC SIGNS FROM THE CCG2 INNER BELT BRIDGE PROJECT (PID: 82119) ATTACHED TO THE EXISTING CONCRETE POLES THAT SHALL BE REMOVED AND RELOCATED WITH THIS PROJECT. THE CCG2 (PID: 82119) DETOUR AND MOT SIGNS IN PLACE AT THE TIME THESE PLANS WERE PREPARED HAVE BEEN IDENTIFIED IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE REMOVAL AND RELOCATION OF THE DETOUR AND MOT SIGNS WITH THE CCG2 CONTRACTOR. THE CONTRACTOR SHALL RELOCATE THESE SIGNS ON TEMPORARY SUPPORTS. NO ADDITIONAL QUANTITIES HAVE BEEN INCLUDED FOR THIS WORK. ALL COST ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN ITEM 614 MAINTAINING TRAFFIC. ALL COSTS ASSOCIATED WITH RELOCATING THE PERMANENT SIGNS INCLUDING THE COST FOR THE LAYOUT, REVIEW AND APPROVAL OF THE FINAL LOCATIONS AND ANY COORDINATION WITH THE CCG2 CONTRACTOR SHALL BE INCLUDED IN THE COST OF ITEM 630- REMOVAL OF POLE MOUNTED SIGN AND REERECTION, AS PER PLAN WITH THE EXCEPTION OF THE SIGN SUPPORTS WHICH HAVE BEEN ITEMIZED SEPARATELY.

ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL SHALL CONFORM TO CMS 630 WITH THE EXCEPTION THAT IT SHALL INCLUDE THE REMOVAL AND DISPOSAL OF THE BRIDGE MOUNTED SIGN SUPPORT, BRACKETS AND MISCELLANEOUS HARDWARE.

THE FOLLOWING ITEMS HAVE BEEN INCLUDED FOR USE AS DIRECTED BY THE ENGINEER TO RELOCATE THE EXISTING SIGNS.

- ITEM 630 - SIGN SUPPORT ASSEMBLY, BRIDGE MOUNTED, TYPE 1 7 EACH
- ITEM 630 - SIGN SUPPORT ASSEMBLY, BRIDGE MOUNTED, TYPE 2 11 EACH
- ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL, AS PER PLAN 1 EACH
- ITEM 630 - REMOVAL OF POLE MOUNTED SIGN AND REERECTION, AS PER PLAN 36 EACH



F:\2014\114059 CUY-10-1613\99756 Project 1\Roadway\sheets\99756GN001.dgn 7/17/2015 9:11:48 AM JoeKirk

ITEM 614 – MAINTAINING TRAFFIC

A. GENERAL

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON THE STATE ROUTE 10 (CARNEGIE AVENUE) BRIDGE AND THE CITY STREETS BENEATH THE BRIDGE. THE CONTRACTOR MAY CLOSE ONE LANE OF TRAFFIC IN EACH DIRECTION ON THE STATE ROUTE 10 (CARNEGIE AVENUE) BRIDGE TO INSTALL THE PROPOSED LIGHTING, SUBJECT TO RESTRICTIONS AND EXCEPTIONS LISTED BELOW.

THE CONTRACTOR SHALL MAINTAIN ROADWAY AND PEDESTRIAN LIGHTING ON ONE SIDE OF THE BRIDGE (NORTH OR SOUTH) AT ALL TIMES THROUGH THE USE OF THE EXISTING LIGHTING CIRCUITS, POLES, AND LUMINAIRES; THE PROPOSED LIGHTING CIRCUITS, POLES, AND LUMINAIRES; AND TEMPORARY LIGHTING CIRCUITS INSTALLED BY THE CONTRACTOR.

THE CONTRACTOR SHALL MAINTAIN THE MARINE NAVIGATION LIGHTING AT ALL TIMES.

THE CONTRACTOR MAY CLOSE ONE LANE OF TRAFFIC OR SHOULDERS ON CITY STREETS BENEATH THE CUY-10-16.13 BRIDGE FOR EQUIPMENT ACCESS USING FLAGGERS SUBJECT TO RESTRICTIONS AND EXCEPTIONS LISTED BELOW.

THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN TRAFFIC ON ONE SIDE OF THE BRIDGE AT ALL TIMES. SIDEWALK CLOSED SIGNS SHALL BE INSTALLED IN THE SIDEWALK WHEN PEDESTRIAN ACCESS IS RESTRICTED FOR CONSTRUCTION ACTIVITIES. SIDEWALK CLOSURES AND PEDESTRIAN DETOURS SHALL BE AS PER STANDARD CONSTRUCTION DRAWING MT-110.10.

THE CONTRACTOR SHALL MAINTAIN BICYCLE TRAFFIC AT ALL TIMES. WHEN THE MULTI-USE PATH ON THE NORTH SIDE OF THE BRIDGE IS CLOSED FOR CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL MAINTAIN BICYCLE TRAFFIC ON-STREET THROUGH THE USE OF SHARROWS AND SIGNS (R4-11).

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

B. NOTIFICATION

SINCE FUNCTIONAL TRAFFIC CONTROL IS A MAJOR CONCERN ON THIS PROJECT, IT IS ESSENTIAL THAT THE MOTORING PUBLIC BE ADEQUATELY FOREWARNED OF FUTURE LANE CLOSURES AND TRAFFIC CONSTRUCTIONS. THEREFORE, THE CONTRACTOR SHALL SUBMIT A SCHEDULE TO THE OHIO DEPARTMENT OF TRANSPORTATION PUBLIC INFORMATION OFFICER INDICATING THE LOCATIONS AND DATES OF THE LANE CLOSURES AT LEAST FOURTEEN (14) DAYS PRIOR TO THE IMPLEMENTATION OF ANY SUCH CLOSURES. THE CONTRACTOR SHALL ALSO NOTIFY THE LOCAL AGENCIES LISTED BELOW OF LANE CLOSURES AT LEAST FOURTEEN (14) DAYS PRIOR TO IMPLEMENTATION.

ODOT DISTRICT 12 PUBLIC INFORMATION OFFICER
5500 TRANSPORTATION BLVD.
GARFIELD HEIGHTS, OHIO 44125-5396
PHONE: (216) 584-2006

ODOT STATEWIDE TRAFFIC MANAGEMENT CENTER
1980 W. BROAD STREET
COLUMBUS, OHIO 43223
PHONE: (614) 466-4224
FAX: (614) 887-4107
StatewideTMC@dot.state.oh.us

CAPT. JOHN MCKENNA
FIRE PREVENTION
CITY OF CLEVELAND
DIVISION OF FIRE
1645 SUPERIOR AVE.
CLEVELAND, OHIO 44114
(216) 664-6664
JMckenna@city.cleveland.oh.us

JAMES P. MUHIC
TRAFFIC COMMISSIONER
CITY OF CLEVELAND
DIVISION OF POLICE
2001 PAYNE AVE.
CLEVELAND, OHIO 44114
(216) 857-7398
JMuhic@city.cleveland.oh.us

ROB MAVEC
COMMISSIONER OF TRAFFIC
CITY OF CLEVELAND
DIVISION OF TRAFFIC
CITY OF CLEVELAND
601 LAKESIDE AVE.
CLEVELAND, OHIO 44114
(216) 664-3194
RMavec@city.cleveland.oh.us

NICK JACKSON
DEPUTY CHIEF OF BUSINESS OPERATIONS
CLEVELAND METROPOLITAN SCHOOL DISTRICT
CMSD
1380 E. 6TH STREET
CLEVELAND, OHIO 44114
(216) 574-8147
Nicholas.jackson@cmsdne.net

MIKE SCHIPPER
DEPUTY GENERAL MANAGER, ENGINEERING & PROJECT MANAGEMENT
GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY
GCRTA
1240 W. 6TH STREET
CLEVELAND, OHIO 44113
(216) 566-5084
MSCHIPPER@gcrtat.org

ANTHONY J. TOTH, P.E.
HIGHWAY MANAGEMENT TRAFFIC ENGINEER
OHIO DEPT. OF TRANSPORTATION
5500 TRANSPORTATION BLVD.
GARFIELD HTS., OH 44125
216-584-2220
Anthony.Toth@dot.state.oh.us

C. RESTRICTIONS AND EXCEPTIONS

1. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE 10 FOOT WIDE TRAVEL LANE IN EACH DIRECTION AND A MINIMUM 1 FOOT OFFSET TO ALL TRAFFIC CONTROL CONES, DRUMS, PARAPETS, BARRIERS, GUARDRAIL, CURBS OR EDGES OF PAVED SURFACES.
2. LANE CLOSURES SHALL BE RESTRICTED TO DAY TIME HOURS WHILE WORK IS BEING PERFORMED. NO OVERNIGHT LANE CLOSURES SHALL BE ALLOWED.
3. ALL LANE CLOSURES SHALL BE SHORT TERM CLOSURES USING DRUMS OR CONES. LONG TERM CLOSURES WITH PORTABLE BARRIER SHALL NOT BE ALLOWED.
4. THE CONTRACTOR MAY CLOSE THE CURB LANE ONLY TO TRAFFIC ON STATE ROUTE 10 (CARNEGIE AVENUE) BRIDGE TO CONSTRUCT THE PROPOSED LIGHTING.
5. IF THE CONTRACTOR CANNOT MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON SCRANTON ROAD, WEST FOURTH STREET, WEST THIRD STREET, AND CANAL ROAD, THE CONTRACTOR SHALL MAINTAIN ONE LANE TWO WAY TRAFFIC WITH FLAGGERS AS PER STANDARD CONSTRUCTION DRAWING MT-97.10.
6. LANE CLOSURES ARE PROHIBITED ON WEST THIRD STREET BETWEEN 7:00 AM AND 9:00 AM, AND BETWEEN 3:30 PM AND 6:00 PM WEEKDAYS.
7. LANE CLOSURES ARE PROHIBITED ON S.R. 10 (CARNEGIE AVE.) EASTBOUND FROM 7:00 AM TO 9:00 AM AND WESTBOUND FROM 3:30 PM TO 6:00 PM WEEKDAYS.
8. THE CONTRACTOR SHALL NOT CLOSE THE LAKE LINK CONNECTOR TRAIL OR THE TOWPATH TRAIL BENEATH THE CUY-10-16.13 STRUCTURE TO BIKE OR PEDESTRIAN TRAFFIC AT ANY TIME DURING CONSTRUCTION. THE CONTRACTOR SHALL INSTALL A PROTECTIVE SHIELD TO PROTECT THE LAKE LINK CONNECTOR TRAIL AND THE TOWPATH TRAIL DURING CONSTRUCTION OF THE NETTING. THE PROTECTIVE SHIELD SHALL BE A MINIMUM OF 10 FEET VERTICAL CLEARANCE ABOVE THE TRAIL; 2 FOOT MINIMUM HORIZONTAL CLEARANCE FROM THE LEFT AND RIGHT SIDE OF THE TRAIL EDGE OF PAVEMENT AND A MINIMUM OF 10 FEET LONGITUDINAL BEYOND THE LIMITS OF THE PROPOSED NETTING. THE PROTECTIVE SHIELD SHALL NOT BE ERECTED PRIOR TO FEBRUARY 29, 2016 AND SHALL BE REMOVED BY MARCH 20, 2016.
9. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL BUSINESS AND RESIDENTIAL DRIVES AT ALL TIMES. MAINTENANCE OF DRIVEWAY ACCESS SHALL BE SUBMITTED TO THE ENGINEER 7 DAYS PRIOR TO IMPLEMENTATION FOR APPROVAL. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, BUSINESS AND RESIDENTIAL OWNER IN WRITING A MINIMUM OF 14 DAYS PRIOR TO IMPLEMENTING THE DRIVE MAINTENANCE. THE CONTRACTOR SHALL WORK WITH BUSINESS OWNER TO ACCOMMODATE ANY ACCESS NEEDS PRIOR TO AND DURING THE IMPLEMENTATION OF THE DRIVE MAINTENANCE AS APPROVED BY THE ENGINEER.
10. THE CONTRACTOR SHALL NOT PERFORM WORK ON BOTH SIDES OF PIER 17 OVER THE TOWER CITY PARKING LOT AT THE SAME TIME. THE CONTRACTOR SHALL RESTRICT HIS WORK ACTIVITIES TO OVER NIGHT WHILE WORKING WITHIN THE LIMITS OF THE PARKING LOT. NO PARKING LOT LANES OR SPACES SHALL BE CLOSED DURING THE DAY TIME WHEN NO WORK IS BEING PERFORMED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING PARKING LOT CLOSURES, RESTRICTIONS, AND TRAFFIC PATTERNS WITH THE PARKING LOT OWNER PRIOR TO COMMENCEMENT OF ANY WORK OVER THE PARKING LOT.
11. INTERIM COMPLETION DATE – DEBRIS NETTING:
ALL WORK ASSOCIATED WITH THE INSTALLATION OF THE NETTING OVER THE TOWER CITY PARKING SHALL BE PERFORMED BETWEEN FEBRUARY 29, 2016 AND MARCH 13, 2016.

ALL WORK ASSOCIATED WITH THE INSTALLATION OF NETTING OVER THE TOWPATH TRAIL AND THE LAKE LINK CONNECTOR TRAIL SHALL BE PERFORMED BETWEEN FEBRUARY 29, 2016 AND MARCH 20, 2016.

THESE DATES SHALL CONSTITUTE AN INTERIM COMPLETION DATE AND LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH CMS 108.07 FOR EACH CALENDAR DAY THAT THE NETTING WORK OVER THE TOWER CITY PARKING LOT, THE TOWPATH TRAIL, OR THE LAKE LINK CONNECTOR TRAIL IS NOT COMPLETE.
12. INTERIM COMPLETION DATE – LIGHTING:
ALL ROADWAY AND PEDESTRIAN LIGHTING SHALL BE FUNCTIONAL WITH ALL LIGHTS LIT BY MAY 31, 2016.

THIS DATE SHALL CONSTITUTE AN INTERIM COMPLETION DATE AND LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH CMS 108.07 FOR EACH CALENDAR DAY THAT ALL OF THE LIGHTS ARE NOT LIT.
13. SUSPENSION OF WORK:
THE CONTRACTOR SHALL NOT PERFORM ANY WORK ON THE PROJECT AT THE SITE BETWEEN MAY 31, 2016 AND JULY 30, 2016 DUE TO THE REPUBLICAN NATIONAL CONVENTION. NO EQUIPMENT OR MATERIALS SHALL BE STORED AT THE SITE DURING THIS TIME PERIOD.

14. NO WORK SHALL BE PERFORMED AND EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

HOLIDAYS

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

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

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

EVENTS

LANE CLOSURE TIMES SHALL BE ADJUSTED FOR SPECIAL EVENTS THAT HAVE A SEATING CAPACITY OF 10,000 IN THE DOWNTOWN CLEVELAND AREA. THE CONTRACTOR SHALL NOT CLOSE A LANE(S) IN THE INBOUND DIRECTION 2 HOURS BEFORE AN EVENT AND IN THE OUTBOUND DIRECTION 2 HOURS AFTER AN EVENT ENDS.

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

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$ 50 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

D. REFERENCES

TEMPORARY LANE CLOSURES: SEE STANDARD CONSTRUCTION DRAWINGS MT-95.31, MT-95.41, AND MT-97.10.

SIDEWALK CLOSURES AND PEDESTRIAN DETOURS: SEE STANDARD CONSTRUCTION DRAWING MT-110.10.

ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. PAYMENT FOR ALL WORK ASSOCIATED WITH MAINTAINING TRAFFIC THROUGH THE WORK ZONE SHALL BE INCLUDED UNDER THE LUMP SUM BID FOR ITEM 614 – MAINTAINING TRAFFIC.

E. 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 OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS THEREINAFTER REFERRED TO AS THE "MANUAL". THE TRAFFIC CONTROL DEVICE SYSTEM SHALL CONSTITUTE THE MINIMUM PROVISIONS FOR TRAFFIC CONTROL FOR EACH PARTICULAR SITUATION. WHENEVER THE ENGINEER DEEMS IT NECESSARY, ESPECIALLY WHERE A GRADE, CURVE, OR MERGE 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 MANUAL, AS SHOWN ON THE MAINTENANCE OF TRAFFIC SHEETS OR AS SHOWN ON STANDARD DRAWING MT-97.10 AND MT-95.31.

ITEM 614 – MAINTAINING TRAFFIC NOTE CONTINUED: ON SHEET 4 .

ITEM 614 - MAINTAINING TRAFFIC NOTE CONTINUED FROM PREVIOUS SHEET

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 SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS OR ON STANDARD DRAWING MT-95.31.

5. PROTECTION OF PUBLIC

WHENEVER ANY WORK IS BEING DONE OVER A TRAVELED LANE OR SHOULDER, THE CONTRACTOR SHALL SUPPLY SUFFICIENT SAFETY EQUIPMENT AS APPROVED BY THE DIRECTOR 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, THEY MUST BE APPROVED PRIOR TO IMPLEMENTATION. PERSONAL CARS SHALL NOT BE PARKED WITHIN THE LIMITED ACCESS RIGHT OF WAY.

F. MAINTENANCE OF TRAFFIC SYSTEMS CONTINUED:

6. FLAGGERS

FLAGGERS SHALL BE IN ACCORDANCE WITH MT-97.10. THE MAINTENANCE OF TRAFFIC REQUIRES THE USE OF TWO (2) FLAGGERS. ADDITIONAL FLAGGERS SHALL BE USED AS DIRECTED BY THE ENGINEER.

7. FAILURE TO COMPLY

IF THERE IS ANY FAILURE TO COMPLY WITH PROVISIONS FOR TRAFFIC CONTROL SET OUT IN THESE PLANS AND NOTES, WITH THE PROVISIONS OF THE "MANUAL" OR FAILURE TO KEEP THE HIGHWAY IN THE VICINITY OF THE WORK AREA IN A CONDITION FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC SHALL BE CONSIDERED A BREACH OF THIS CONTRACT. WORK SHALL BE SUSPENDED UNTIL THE CONTRACTOR COMPLIES WITH THE PROVISIONS OF THE AFOREMENTIONED ITEMS.

G. TRAFFIC CONTROL MATERIALS

1. SIGNS

SIGN DIMENSIONS AND SPECIFICATIONS, INCLUDING LETTER SIZES SHALL BE AS PROVIDED IN THE "MANUAL", OR IN STANDARD CONSTRUCTION DRAWINGS PROVIDED BY THE DEPARTMENT OF TRANSPORTATION. 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. FLASHING ARROW PANEL

THE ELECTRIC FLASHING ARROW PANELS SHALL BE AS NOTED IN SUPPLEMENTAL SPECIFICATION 821.

4. CONES

CONES SHALL BE LOCATED AS SHOWN IN THE "MANUAL" AND THE TRAFFIC CONTROL PLANS.

5. DRUMS

DRUMS SHALL BE LOCATED AS SHOWN ON THE TRAFFIC CONTROL PLANS AND ARE REQUIRED FOR NIGHTTIME CLOSURES.

6. MARKINGS

TEMPORARY LONGITUDINAL SUPPLEMENTAL LANE USE MAKINGS, INCLUDING SHARROWS SHALL BE LOCATED AS SHOWN IN THE MANUAL AS DIRECTED BY THE ENGINEER.

H. WORK VEHICLES

ALL WORK VEHICLES LICENSED TO OPERATE ON THE HIGHWAY, INCLUDING TRUCKS, SHALL BE EQUIPPED WITH A FLASHING, ROTATING OR OSCILLATING AMBER LIGHT VISIBLE TO ALL DIRECTIONS OF TRAFFIC FOR A MINIMUM OF 1600 FEET IN BRIGHT SUNLIGHT AND SHALL BE OPERATED WITH LIGHTED HEAD AND TAIL LAMPS. THE AMBER LIGHT SHALL BE IN OPERATION AT ALL TIMES WITHIN THE WORK ZONE AND WHILE TRAVELING TO AND FROM THE WORK ZONE WHENEVER THE VEHICLE SPEED IS BELOW 55 MPH. VEHICLE HAZARD LAMPS DO NOT SATISFY THIS REQUIREMENT. ALL OTHER EQUIPMENT SHALL BE EQUIPPED WITH A FLASHING, ROTATING OR OSCILLATING AMBER LIGHT VISIBLE IN ALL DIRECTIONS OF TRAFFIC FOR A MINIMUM OF 1600 FEET IN BRIGHT SUNLIGHT. THE AMBER LIGHT SHALL BE IN OPERATION WHILE THE EQUIPMENT IS WITHIN THE WORK ZONE.

I. PAYMENT

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

SPECIAL. MAINTAIN EXISTING LIGHTING (ROADWAY AND PEDESTRIAN)

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

- MAINTAIN ROADWAY AND PEDESTRIAN LIGHTING ON ONE SIDE OF ROADWAY AT ALL TIMES THROUGH THE USE OF THE EXISTING LIGHTING CIRCUITS, POLES, AND LUMINAIRES; THE PROPOSED LIGHTING CIRCUITS, POLES, AND LUMINAIRES; AND TEMPORARY LIGHTING CIRCUITS.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF THE EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF EXISTING LIGHTING SHALL BE MADE BY ODOT'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE THE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT SHALL BE MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENT.

ALL MATERIALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS DEFINED IN THIS PLANS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING ITEMS INSTALLED BY THE CONTRACTOR SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES AND BY PROPOSED PERMANENT POWER SERVICES AFTER ACCEPTANCE OF THE LIGHTING WORK. THE CONTRACTOR WILL PAY FOR ELECTRICAL ENERGY, INSTALLATION, REMOVAL AND MAINTENANCE OF ANY TEMPORARY POWER SERVICES.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL "MAINTAIN EXISTING LIGHTING" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

F:\2014\114059_CUY-10-16\13\99756 Project 1\roadway\sheets\99756\MN001.dgn 7/17/2015 9:12:45 AM JoeKirk

CALCULATED
JDL
CHECKED
KAK

MAINTENACNE OF TRAFFIC NOTES

CUY - 10 - 16 . 13

4
47

F:\2014\114059_CUY-10-1613\99756 Project 1\Roadway\sheets\99756GG001.dgn 7/17/2015 9:13:45 AM JoeKirk

SHEET NUMBER											ITEM	ITEM EXT.	FUNDING SPLITS		GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	CALCULATED JDL	CHECKED MES
					2-4	7-9	10	15	20				01/NFP/BR							
											LIGHTING (ROADWAY AND PEDESTRIAN LIGHTING)									
									69		202	62000	69		69	EACH	JUNCTION BOX REMOVED			
								192			625	00450	192		192	EACH	CONNECTION, FUSED PULL APART			
								108			625	00480	108		108	EACH	CONNECTION, UNFUSED PERMANENT			
								49			625	10503	49		49	EACH	LIGHT POLE, (INSTALLATION ONLY), AS PER PLAN	9 & 31		
								196			625	10620	196		196	EACH	LIGHT POLE ANCHOR BOLTS, MISC.: NEW ANCHOR BOLTS	8		
								61,719			625	23201	61,719		61,719	FT	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE, AS PER PLAN	7		
								12,477			625	23401	12,477		12,477	FT	NO. 10 AWG POLE AND BRACKET CABLE, AS PER PLAN	7		
								62			625	25404	62		62	FT	CONDUIT, 2 1/2", 725.04			
								8,655			625	25412	8,655		8,655	FT	CONDUIT, 2 1/2", 725.051			
								485			625	25920	485		485	FT	CONDUIT, MISC.: 1" WATERTIGHT, FLEXIBLE CONDUIT	7		
								278			625	25920	278		278	FT	CONDUIT, MISC.: 2 1/2" WATERTIGHT, FLEXIBLE CONDUIT	7		
								9,060			625	25920	9,060		9,060	FT	CONDUIT, MISC.: CONDUIT REMOVED	7		
								49			625	27602	49		49	EACH	LUMINAIRE, SOLID-STATE (LED), MISC.: DECORATIVE PENDANT, IES-III-M-SC	9		
								25			625	29000	25		25	FT	TRENCH	7		
								148			625	29901	148		148	EACH	JUNCTION BOX, AS PER PLAN	8		
								1			625	32000	1		1	EACH	GROUND ROD			
						9					625	33001	9		9	EACH	STRUCTURE GROUNDING SYSTEM, AS PER PLAN	8		
								1			625	34001	1		1	EACH	POWER SERVICE, AS PER PLAN NO. 1	7		
								25			625	36000	25		25	FT	PLASTIC CAUTION TAPE			
											LUMP	SPECIAL	62540000	LS	LS		MAINTAIN EXISTING LIGHTING (ROADWAY AND PEDESTRIAN)	4		
								49			625	75400	49		49	EACH	LIGHT POLE REMOVED			
								49			625	75505	49		49	EACH	LUMINAIRE REMOVED FOR STORAGE, AS PER PLAN	7		
								3			625	75510	3		3	EACH	POWER SERVICE REMOVED			
								40,464			625	75550	40,464		40,464	FT	DISTRIBUTION CABLE REMOVED			
								27,069			625	75551	27,069		27,069	FT	DISTRIBUTION CABLE REMOVED, AS PER PLAN	7		
								4			625	75801	4		4	EACH	DISCONNECT CIRCUIT, AS PER PLAN	7		
								10			625	98000	10		10	EACH	LIGHTING, MISC.: EXISTING JUNCTION BOXES	7		
											LIGHTING (NAVIGATION LIGHTING)									
								1			625	34001	1		1	EACH	POWER SERVICE, AS PER PLAN NO. 2	10		
								LUMP			SPECIAL	62540000	LS		LS		MAINTAIN EXISTING LIGHTING (NAVIGATION)	10		
								1			625	75511	1		1	EACH	POWER SERVICE REMOVED, AS PER PLAN	10		
								1			625	75800	1		1	EACH	DISCONNECT CIRCUIT			
								6			625	98000	6		6	EACH	LIGHTING, MISC.: BRIDGE-MOUNTED MARINE NAVIGATION LIGHTING, LED	10		
								LUMP			625	98200	LS		LS		LIGHTING, MISC.: REMOVAL OF EXISTING MARINE NAVIGATION LIGHTING SYSTEM	10		

GENERAL SUMMARY

CUY - 10 - 16 - 13

PROPOSED WORK

THE FOLLOWING MAJOR WORK ITEMS ARE PROPOSED:

- ROADWAY AND PEDESTRIAN LIGHTING ON ONE SIDE OF THE BRIDGE (NORTH OR SOUTH) SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION THROUGH THE USE OF THE EXISTING LIGHTING CIRCUITS, POLES AND LUMINAIRES; THE USE OF THE PROPOSED LIGHTING CIRCUITS, POLES AND LUMINAIRES; AND TEMPORARY CIRCUITS INSTALLED BY THE CONTRACTOR.
- EXISTING SIGNING MOUNTED TO EXISTING ROADWAY LIGHTING POLES SHALL BE REMOVED AND ATTACHED TO THE EXISTING PARAPET.
- REMOVE THE EXISTING OVERHEAD ROADWAY LIGHTING CIRCUIT AND POWER SERVICES.
- REMOVE THE EXISTING CONCRETE ROADWAY LIGHT POLES.
- REMOVE THE EXISTING ROADWAY LIGHTING LUMINAIRES AND DELIVER TO CITY OF CLEVELAND PUBLIC POWER (CPP) DESIGNATED YARD FOR STORAGE.
- REMOVE THE EXISTING PEDESTRIAN LIGHTING CIRCUIT CONDUIT, WIRING, AND POWER SERVICE. THE CONTRACTOR MAY REUSE THE EXISTING WIRING AS APPROVED BY THE ENGINEER.
- ERECT NEW FIBERGLASS ROADWAY LIGHT POLES ON NEW ANCHOR BOLTS. NEW POLES, BASE COVERS, AND BRACKET ARMS WILL BE SUPPLIED BY CPP. CONTRACTOR SHALL PICK UP POLES AT THE CPP STORAGE YARD.
- INSTALL NEW LED ROADWAY LIGHTING FIXTURES.
- INSTALL A NEW POWER SERVICE FOR THE ROADWAY AND PEDESTRIAN LIGHTING CIRCUITS IN A SINGLE CONTROL CENTER CABINET.
- CONSTRUCT NEW CIRCUIT WIRING, CONDUIT AND JUNCTION BOXES ON OUTSIDE BRIDGE LEDGE. A SINGLE CONDUIT TO CARRY THE COMBINED ROADWAY AND PEDESTRIAN LIGHTING CIRCUITS.
- PROVIDE STRUCTURE GROUNDING FOR ALL ROADWAY AND PEDESTRIAN LIGHT POLES ATTACHED TO THE CUY-10-16.13 STRUCTURE.
- MAINTAIN MARINE NAVIGATION LIGHTING THROUGHOUT THE DURATION OF THE PROJECT.
- REMOVE THE EXISTING MARINE NAVIGATION LIGHTING CHANNEL MARKERS, CONDUIT, WIRING AND POWER SERVICE.
- INSTALL NEW LED MARINE NAVIGATION LIGHTING CHANNEL MARKERS, CONDUIT, WIRING AND POWER SERVICE IN CONFORMANCE WITH ODOT'S TRAFFIC ENGINEERING MANUAL.

PROPOSED LIGHTING CIRCUITS

THE NEW CITY OF CLEVELAND (CPP) ROADWAY AND PEDESTRIAN LIGHTING CIRCUITS SHALL BE 240 VOLT. EACH CIRCUIT WILL BE 2 WIRE (#4 AWG COPPER) PHASE TO PHASE CONNECTION, WITH A #4 AWG COPPER GROUND CONDUCTOR. ALL 3 WIRES HAVE BEEN INDIVIDUALLY ITEMIZED. EACH CIRCUIT AND WIRE SHALL BE COLOR CODED (PEDESTRIAN SHALL BE RED WIRING, ROADWAY SHALL BE BLACK WIRING) AND TAGGED IN EACH JUNCTION BOX OR PULL BOX TO BE EASILY IDENTIFIED. THE COLOR CODING SCHEME SHALL BE PROVIDED TO THE ENGINEER AND THE MAINTAINING AGENCY IN WRITING PRIOR TO FINAL ACCEPTANCE.

THE NEW ODOT MARINE NAVIGATION LIGHTING CIRCUITS SHALL BE 120 VOLT. AN INDIVIDUAL CIRCUIT SHALL BE RUN TO EACH LIGHT AS PER ITEM 625- LIGHTING MISC.: BRIDGE-MOUNTED MARINE NAVIGATION LIGHTING, LED. EACH CIRCUIT WILL BE #12 AWG-3 CONDUCTOR SIGNAL CABLE AS PER ODOT CMS 632.23 AND 732.19.

ITEM 625 - POWER SERVICE, AS PER PLAN NO. 1

IN ADDITION TO THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOLLOWING IS ADDED.

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

POWER COMPANY CLEVELAND PUBLIC POWER

ADDRESS 1300 LAKESIDE AVENUE, CLEVELAND, OH 44114

PHONE # 216-420-7704 EXT. 183

CONTACT NAME JAMES FERGUSON

THE CONTRACTOR SHALL ENSURE THAT EACH POWER SERVICE ELECTRICAL ENERGY ACCOUNT IS IN THE NAME OF AND THAT THE BILLING ADDRESS IS TO THE MAINTAINING AGENCY NOTED IN THE PLANS. THIS SHALL BE DONE NOT ONLY FOR EACH NEW POWER SERVICE ESTABLISHED BY THIS PROJECT BUT ALSO FOR EACH EXISTING POWER SERVICE, SINCE THERE MAY BE A REASSIGNMENT OF THE RESPONSIBILITY FOR AN EXISTING SERVICE AS A RESULT OF THE WORK PERFORMED BY THIS PROJECT.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, "POWER SERVICE, AS PER PLAN NO. 1" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

EXISTING LIGHTING ITEMS, POLES, JUNCTION BOXES, CABLE AND CONDUIT

THE LOCATIONS OF EXISTING LIGHTING ITEMS, CONDUIT AND DUCT CABLE SHOWN ON THE PLANS HAVE BEEN OBTAINED BY SEARCHES OF AVAILABLE RECORDS AND FIELD CHECKS. THE CONTRACTOR SHALL FIELD VERIFY ALL CIRCUITS.

ITEM 625 - DISCONNECT CIRCUIT, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE DISCONNECTION OF AN EXISTING LIGHT CIRCUIT AT A PULL BOX OR TRANSFORMER BASE.

DISCONNECTION AT A PULL BOX SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL SPLICE KITS. ANY CABLE THAT IS TO BE ABANDONED SHALL BE TERMINATED FROM THE PULL BOX SO THAT NO CABLE IS LEFT IN THE BOX.

DISCONNECTION AT A TRANSFORMER BASE SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL CONNECTOR KITS. ALL DUCT-CABLE NOT TO BE REUSED SHALL BE REMOVED FROM THE TRANSFORMER BASE AND THE EXISTING CONDUIT IN THE FOUNDATION SHALL BE CLEANED OF ALL CABLE AND DEBRIS SO THAT THE NEW DUCT-CABLE CAN BE INSTALLED. ALL EXISTING CABLE TO REMAIN ACTIVE SHALL BE CUT IN A MANNER SO THAT THERE IS SUFFICIENT CABLE LEFT FOR RECONNECTION.

THOSE WIRES THAT ARE TO REMAIN ON ACTIVE CIRCUITS SHALL HAVE A WATER-RESISTANT SEAL AT THE CUT END. THE WATER-RESISTANT SEAL SHALL BE ACCOMPLISHED BY PLUGGING THE DEACTIVATED PORT OF AN EXISTING CONNECTOR KIT OR BY INSTALLING A CABLE SPLICE KIT ON THE CUT END OF THE CABLE.

PAYMENT SHALL BE MADE AT THE UNIT BID PRICE UNDER CMS ITEM 625, "DISCONNECT CIRCUIT, AS PER PLAN" AT EACH LOCATION WHERE DISCONNECTION IS REQUIRED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

PADLOCKS AND KEYS

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH CMS 631.06.

PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEM(S) BEING LOCKED.

ITEM 625 - LUMINAIRE REMOVED FOR STORAGE, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LUMINAIRE AND STORING IT ON SITE FOR INSPECTION BY CITY FORCES. ALL SALVAGEABLE LUMINAIRES WILL BE DELIVERED TO CITY OF CLEVELAND (CPP) DESIGNATED YARD FOR STORAGE.

CONTACT JAMES FERGUSON AT 216-420-7704 EXT. 183 FOR INSPECTION AND DELIVERY OF SALVAGEABLE LUMINAIRES.

ALL LUMINAIRES DEEMED NOT SALVAGEABLE BY THE CITY SHALL BE THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF PROPERLY.

ITEM 625 - DISTRIBUTION CABLE REMOVED, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF REMOVING OVERHEAD DISTRIBUTION CABLE CALLED FOR IN THE PLANS. THE CONTRACTOR SHALL DISPOSE OF THE REMOVED MATERIAL IN AN ACCEPTABLE MANNER.

PAYMENT SHALL BE MADE AT THE UNIT BID PRICE PER LINEAR FOOT FOR ITEM 625 - DISTRIBUTION CABLE REMOVED, AS PER PLAN. PRICE SHALL INCLUDE COST OF ALL LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM IN A SATISFACTORY MANNER.

ITEM 625 - CONDUIT, MISC.: CONDUIT REMOVED

THIS ITEM OF WORK SHALL CONSIST OF THE REMOVAL OF 2" ELECTRICAL CONDUIT, CONNECTORS, CLAMPS, BRACKETS AND SUPPORTS AS CALLED FOR ON THE PLANS. DISPOSAL SHALL BE OFF THE PROJECT SITE IN AN ACCEPTABLE DISPOSAL OR RECYCLING CENTER.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID PER LINEAR FOOT FOR ITEM 625, CONDUIT, MISC.: CONDUIT REMOVED, WHICH PRICE AND PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - LIGHTING, MISC.: EXISTING JUNCTION BOXES

THIS WORK CONSISTS OF FILLING THE UNUSED EXISTING JUNCTION BOXES WITH GROUT WHERE LABELED ON THE PLANS. THE GROUT SHALL CONFORM TO ITEM 701 AND THREE PARTS SAND CONFORMING TO 703.03, BY VOLUME, AND WATER.

BEFORE INSTALLING CEMENT GROUT, CLEAN AND DRY THE EXISTING JUNCTION BOX. PLACE ENOUGH CEMENT GROUT TO COMPLETELY FILL THE EXISTING JUNCTION BOX. THE GROUT SURFACE SHALL BE BROOM FINISHED AND SEALED WITH HMWM RESIN AS PER CMS 512.04 & 705.15. THE CONTRACTOR SHALL PROPERLY DISPOSE OF THE EXISTING JUNCTION BOX LIDS AND DEBRIS REMOVED FROM THE JUNCTION BOXES.

A QUANTITY HAS BEEN PROVIDED IN THE LIGHTING SUBSUMMARY FOR THE LOCATIONS SHOWN IN THE PLANS.

PAYMENT SHALL BE MADE AT THE UNIT CONTRACT BID PRICE FOR EACH ITEM 625 - LIGHTING MISC.: EXISTING JUNCTION BOXES AND SHALL INCLUDE THE COST FOR ALL LABOR, MATERIAL, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMAN LIKE MANNER.

ITEM 625 - CONDUIT, MISC.: 1", WATERTIGHT, FLEXIBLE CONDUIT

THIS ITEM SHALL CONFORM WITH ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATION 625.12 AND 731.08 WITH THE EXCEPTION THAT THE CONTRACTOR HAS THE OPTION TO REUSE THE EXISTING 1" FLEXIBLE CONDUIT FROM THE EXISTING PEDESTRIAN LIGHTING CIRCUITS THAT IS IN GOOD CONDITION. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO REUSE OF ANY EXISTING FLEXIBLE CONDUIT. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED CONDUIT JOINTS AND CONNECTIONS, CONDUIT ANCHORING EQUIPMENT AND OTHER ITEMS INCIDENTAL TO CONDUIT INSTALLATION AS PER CMS 625 FOR ALL REUSED CONDUIT. THE CONTRACTOR SHALL NOT REUSE ANY EXISTING EXPANSION OR DEFLECTION JOINTS.

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT CONTRACT PRICE BID PER FOOT FOR ITEM 625 CONDUIT, MISC.: 1", WATERTIGHT, FLEXIBLE CONDUIT AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIAL, EQUIPMENT AND INCIDENTALS NECESSARY TO FURNISH NEW OR REUSE EXISTING MATERIALS AND INSTALL THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - CONDUIT, MISC.: 2 1/2", WATERTIGHT, FLEXIBLE CONDUIT

THIS ITEM SHALL CONFORM WITH ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATION 625.12 AND 731.08

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT CONTRACT PRICE BID PER FOOT FOR ITEM 625 CONDUIT, MISC.: 2 1/2", WATERTIGHT, FLEXIBLE CONDUIT AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIAL, EQUIPMENT AND INCIDENTALS NECESSARY TO FURNISH NEW MATERIALS AND INSTALL THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

**ITEM 625 - NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE, AS PER PLAN
ITEM 625 - NO. 10 AWG POLE AND BRACKET CABLE, AS PER PLAN**

THIS ITEM SHALL CONFORM WITH ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATION 625 AND 725.02 WITH THE EXCEPTION THAT THE CONTRACTOR HAS THE OPTION TO REUSE THE EXISTING NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE AND THE NO. 10 AWG POLE AND BRACKET CABLE FROM THE EXISTING PEDESTRIAN LIGHTING CIRCUITS IF THE MATERIAL IS IN GOOD CONDITION. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO REUSE OF ANY EXISTING CABLE. THE CONTRACTOR SHALL BE REQUIRED PROVIDE ALL INCIDENTAL CABLE ITEMS AS PER CMS 625 FOR THE REUSED CABLE. NO IN-LINE SPICES SHALL BE ALLOWED. NO ADJUSTMENT IN PROJECT QUANTITY OR UNIT PRICE BID WILL BE MADE FOR WIRING THAT IS REUSED.

PAYMENT FOR THIS ITEM SHALL BE AT THE UNIT CONTRACT PRICE BID PER FOOT FOR ITEM 625 - NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE, AS PER PLAN AND ITEM 625 NO. 10 AWG POLE AND BRACKET CABLE, AS PER PLAN AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIAL, EQUIPMENT AND INCIDENTALS NECESSARY TO FURNISH NEW OR REUSE EXISTING MATERIALS AND INSTALL THESE ITEMS IN A SATISFACTORY AND WORKMANLIKE MANNER.

F:\2014\114059_CUY-10-16\13\99756 Project 1\Roadway\sheets\99756\N001.dgn 7/17/2015 9:15:04 AM JoeKirk

CALCULATED
JDL
CHECKED
DLR

LIGHTING NOTES

CUY - 10 - 16 . 13

CONDUIT EXPANSION AND DEFLECTION

RIGID METALLIC CONDUIT EXPANSION FITTINGS:

EXPANSION FITTINGS SHALL BE OZ TYPE AX, CROUSE HINDS TYPE XJG, APPLETON TYPE AX, OR EQUAL APPROVED BY THE ENGINEER. EACH EXPANSION FITTING SHALL PROVIDE EITHER 4 OR 8 INCHES TOTAL MOVEMENT AS SPECIFIED BY THE PLAN DETAILS AND SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.

RIGID NON-METALLIC CONDUIT EXPANSION FITTINGS:

EXPANSION FITTINGS SHALL BE CARLON TYPE E945, KRALOY TYPE EJ, OR AN EQUAL AS APPROVED BY THE ENGINEER. EACH EXPANSION FITTING SHALL PROVIDE EITHER 4 OR 8 INCHES TOTAL MOVEMENT AS SPECIFIED BY THE PLAN DETAILS. PVC EXPANSION FITTINGS SHALL BE PLACED WHERE SHOWN IN THE PLANS, AT JUNCTION BOXES, AT STRUCTURE EXPANSION/ DEFLECTION JOINTS, AS PER SECTION 352.44 OF THE NATIONAL ELECTRIC CODE, AND AS DIRECTED BY THE ENGINEER.

RIGID METALLIC AND NON-METALLIC CONDUIT DEFLECTION COUPLINGS:

DEFLECTION COUPLINGS SHALL BE OZ TYPE DX, CROUSE HINDS TYPE XD, APPLETON TYPE DF, OR EQUAL APPROVED BY THE ENGINEER. EACH DEFLECTION COUPLING SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.

ITEM 625 - JUNCTION BOX, AS PER PLAN

THIS ITEM SHALL CONFORM TO 625.11 WITH THE EXECPTION THAT THE JUNCTION BOXES SHALL BE PVC AND SHALL BE RATED FOR OUTDOOR INSTALLATION IN DAMP LOCATIONS. THE JUNCTION BOX SHALL BE SURFACE MOUNTED TO THE OUTSIDE LEDGE, AND THE BRIDGE SURFACES AS DETAILED IN THE PLANS. IN ADDITION TO THE JUNCTION BOX THE CONTRACTOR SHALL PROVIDE AND INSTALL A STAINLESS STEEL VANDAL PROTECTION SHROUD AS DETAILED ON SHEET 29 FOR ALL JUNCTION BOXES UNLESS NOTED OTHERWISE IN THE PLANS. THE SHROUDS SHALL BE A MINIMUM OF 1" LARGER THAN THE JUNCTION BOXES ON ALL SIDES AND SHALL HAVE CUTOUTS TO ACCOMMODATE THE CONDUIT ENTRANCES.

PAYMENT SHALL BE MADE AT THE UNIT CONTRACT PRICE FOR EACH ITEM 625 - JUNCTION BOX, AS PER PLAN NO.1 AND SHALL INCLUDE THE COST TO FURNISH AND INSTALL THE JUNCTION BOX, STAINLESS STEEL VANDAL PROTECTIVE SHROUD, AND ALL LABOR, EQUIPMENT, MATERIAL, AND INCIDENTALS NECESSARY TO COMPLETE THE ITEM IN A SATISFACTORY MANNER.

REMOVAL OF EXISTING CONDUIT AND JUNCTION BOXES

THE EXISTING CONDUIT AND JUCTION BOXES INCLUDING THE VANDAL PROTECTION SHROUDS ATTACHED TO THE EXISTING BRIDGE DECK LEDGE AND OTHER BRIDGE SURFACES SHALL BE REMOVED AS INDICATED IN THESE PLANS. ALL VOIDS FROM EXISTING ANCHORING SYSTEMS SHALL BE CLEANED AND FILLED WITH NONSHRINK, NONMETALLIC GROUT CONFORMING TO 705.20. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED UNDER THE ASSOCIATED REMOVAL ITEM.

ITEM 625 - STRUCTURE GROUNDING SYSTEM, AS PER PLAN

PROVIDE A STRUCTURE GROUNDING SYSTEM FOR ALL THE PROPOSED ELECTRICAL ELEMENTS AND CONNECT THE PROPOSED SYSTEM TO THE EXISTING STRUCTURE GROUNDING SYSTEM. IF THE CONTRACTOR CANNOT IDENTIFY OR LOCATE THE EXISTING STRUCTURE GROUNDING SYSTEM A NEW ONE SHALL BE INSTALLED AS PER HL-50.21 AND CMS 625 WHERE SHOWN IN THE PLANS. ALL MATERIALS, TOOLS AND LABOR REQUIRED TO INSTALL THIS SYSTEM AND REPAIR DAMAGE CAUSED TO EXISTING SYSTEM BY THIS CONSTRUCTION PROJECT SHALL BE INCLUDED IN ITEM - 625 STRUCTURE GROUNDING SYSTEM, AS PER PLAN.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 625 - STRUCTURE GROUNDING SYSTEM, AS PER PLAN 9 EACH.

GROUNDING AND BONDING

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS) AND THE TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

1. ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH.
 - A. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CONDUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR.
 - B. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IN PLASTIC OR PVC CONDUIT (725.05 OR 725.051), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED.
 - C. METALLIC CONDUIT CARRYING THE LOOP WIRES FROM IN THE PAVEMENT TO THE PULL BOX SPLICE LOCATION WILL ONLY BE BONDED AT THE PULL BOX END, AND WILL NOT CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR.

- D. METAL PULL BOX LIDS SHALL BE BONDED BY ATTACHMENT OF THE EQUIPMENT GROUNDING CONDUCTOR TO THE FRAME DIAGONAL AS PROVIDED ON HL-30.11.
 - E. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, ONLY ONE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED.
 - F. IF AN EQUIPMENT GROUNDING CONDUCTOR IS NEEDED IN CONDUIT BETWEEN SIGNALIZED INTERSECTIONS FOR UNDERGROUND INTERCONNECT CABLE, THE GROUNDING SYSTEM FOR EACH SIGNALIZED INTERSECTION WILL BE SEPARATED ABOUT MIDWAY BETWEEN THE INTERSECTIONS.
 - G. THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS WILL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT.
2. CONDUITS.
 - A. THE 725.04 CONDUIT SHALL HAVE GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.
 - B. THE 725.05 OR 725.051 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS.
 - C. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.
 - D. METALLIC CONDUIT MAY BE BONDED TO METALLIC BOXES THROUGH THE USE OF CONDUIT FITTINGS UL APPROVED FOR THIS TYPE OF CONNECTION, WITH THE BOX BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.
 3. WIRE FOR GROUNDING AND BONDING.
 - A. USE INSULATED, COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SIZE SHALL BE AS FOLLOWS:
 - I. USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS.
 - II. USE A MINIMUM 8 AWG BETWEEN LOOP DETECTOR PULL BOXES AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.
 - III. USE A MINIMUM 8 AWG BETWEEN THE "PREPARE TO STOP WHEN FLASHING" INSTALLATION (INCLUDING SUPPORT) AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.
 - IV. THE INSULATION SHALL BE GREEN OR GREEN WITH YELLOW STRIPE(S). FOR 4 AWG OR LARGER, INSULATION MAY ALSO BE BLACK WITH GREEN TAPE/LABELS INSTALLED AT ALL ACCESS POINTS.
 - B. IN A HIGHWAY LIGHTING SYSTEM, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE THE SAME WIRE SIZE AS THE DUCT CABLE OR DISTRIBUTION CABLE CIRCUIT CONDUCTORS, WITH THE MINIMUM CONDUCTOR SIZE OF 4 AWG. BONDING JUMPERS WILL BE MINIMUM SIZE 4 AWG.
 4. GROUND ROD.
 - A. THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED, COPPER.
 5. POWER SERVICE AND DISCONNECT SWITCH.
 - A. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE DISCONNECT SWITCH NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS, UNSPLICED CONDUCTOR. IF SPLICED, IT SHALL BE AN EXOTHERMIC WELD BUTT SPICE.
 - B. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE PRIMARY POWER SERVICE DISCONNECT SWITCH.
 - I. NEMA CONTROLLER CABINETS: IF A POWER SERVICE DISCONNECT SWITCH IS LOCATED BEFORE THE CONTROLLER CABINET, THE NEUTRAL (AC-) AND THE GROUNDING BARS IN THE CONTROLLER CABINET SHALL NOT BE CONNECTED TOGETHER AS SHOWN IN NEMA TS-2, FIGURE 5-4.
 - II. IF SECONDARY DISCONNECT SWITCHES ARE CONNECTED AFTER THE PRIMARY DISCONNECT SWITCH, THE NEUTRAL (AC-) SHALL ONLY BE GROUNDED AT THE PRIMARY SWITCH. EQUIPMENT GROUNDING CONDUCTORS SHALL BE BROUGHT TO THE PRIMARY SWITCH, BUT SHALL BE GROUNDED AT BOTH SECONDARY AND PRIMARY SWITCHES.
 6. PAYMENT - ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.

ITEM 625 - LIGHT POLE ANCHOR BOLTS, MISC.: NEW ANCHOR BOLTS

THE INTENT OF THE PROJECT IS TO REMOVE THE EXISTING ANCHOR BOLTS ON THE BRIDGE LEDGE. ALL 4 ANCHOR BOLTS SHALL BE CUT OFF FLUSH WITH THE SURFACE OF THE DECK AND ALL SHARP EDGES REMOVED TO THE SATISFACTION OF THE ENGINEER. THE OPEN CONDUIT SHALL ALSO BE CUT OFF FLUSH WITH THE DECK, THE SHARP EDGES SHALL BE REMOVED AND THE INSIDE SHALL BE CLEANED AND FILLED WITH GROUT CONFORMING TO ITEM 701 AND THREE PARTS SAND CONFORMING TO 703.03, BY VOLUME, AND WATER.

THIS ITEM SHALL CONFORM TO THE REQUIREMENTS OF 510, 625.09 AND 725.21 WITH THE EXCEPTION THAT THE ANCHOR BOLTS SHALL BE SET INTO PREDRILLED HOLES IN THE EXISTING DECK. THE NEW ANCHOR BOLT LOCATION SHALL BE APPROXIMATELY 3 FEET UP-STATION OR DOWN-STATION FROM THE EXISTING POLE AS APPROVED BY THE ENGINEER. THE NEW ANCHOR BOLT DIMENSIONS AND ANCHOR BOLT PATTERN SHALL BE AS PER THE DETAIL SHOWN ON SHEET 26. HOLES SHALL BE DRILLED INTO THE EXISTING DECK LEDGE, THE ANCHOR BOLTS SHALL BE SET AND THE VOIDS FILLED WITH NONSHRINK, NONMETALLIC GROUT CONFORMING TO 705.20. ALL WORK SHALL BE PERFORMED AS PER CMS 510. A QUANTITY OF 4 NEW ANCHOR BOLTS FOR EACH NEW POLE HAS BEEN PROVIDED AND EACH BOLT SHALL INCLUDE 2 NUTS AND 2 WASHERS.

PAYMENT SHALL BE MADE AT THE UNIT CONTRACT PRICE FOR EACH ITEM-625 LIGHT POLE ANCHOR BOLTS, MISC.: NEW ANCHOR BOLTS INCLUDING THE COST FOR ALL LABOR, MATERIAL, EQUIPMENT AND INCIDENTALS TO REMOVE THE EXISTING ANCHOR BOLTS, REMOVE AND FILL THE EXISTING CONDUIT, FIELD DRILL NEW HOLES AND FURNISH AND INSTALL THE NEW ANCHOR BOLTS AS DESCRIBED ABOVE.

F:\2014\114059_CUY-10-16\13\99756 Project 1\roadway\sheets\99756\N001.dgn 7/17/2015 9:15:27 AM JoeKirk

CALCULATED
JDL
CHECKED
DLR

LIGHTING NOTES

CUY - 10 - 16 . 13

ITEM 625 - LIGHT POLE (INSTALLATION ONLY). AS PER PLAN

THIS ITEM SHALL CONFORM TO ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATION 625.09, 725.01 AND 725.21 EXCEPT AS ALTERED IN THE FOLLOWING POLE SPECIFICATIONS NOTE. THE POLES, VIBRATION DAMPENERS, BASE COVERS, AND BRACKET ARMS SHALL BE FURNISHED BY THE CITY OF CLEVELAND (CPP). THE CONTRACTOR SHALL CONTACT JAMES FERGUSON AT 216-420-7704 EXTENSION 183 TO ARRANGE PICK UP OF THE FURNISHED MATERIALS AT THE DESIGNATED CITY OF CLEVELAND STORAGE YARD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE POLES AND BASE COVERS FROM THE TIME HE LOADS THE MATERIAL AND TAKES POSSESSION. THE CONTRACTOR SHALL REPLACE ANY MATERIALS THAT ARE DAMAGED WHILE IN HIS POSSESSION AT NO ADDITIONAL COST TO THE PROJECT UNTIL THEY HAVE BEEN INSTALLED AND THE JOB IS COMPLETE AND ACCEPTED.

POLE SPECIFICATIONS (FURNISHED BY CPP)

ALL POLES SHALL BE A HOLLOW, TRUNCATED CONE OF SUITABLE WALL THICKNESS AND TAPER. THE TAPER SHALL BE UNIFORM FROM TOP TO BOTTOM (ANY SECTION SHALL BE CIRCULAR).

ANY POLE PROVIDED SHALL NOT WEIGH LESS THAN 95% OF THE MANUFACTURER'S ADVERTISED OR SPECIFIED WEIGHTS.

FIBERGLASS POLES FURNISHED AS PART OF THIS SPECIFICATION SHALL BE CONSTRUCTED FOR A 6 FOOT BRACKET ARM AT THE TOP OF POLE FOR A NOMINAL MOUNTING HEIGHT OF 35 FEET ABOVE THE ROADWAY SURFACE.

THE POLE SUPPLIED SHALL BE A TR52-35-AB-BLK-SMS AS MANUFACTURED BY WHATLEY WITH OTHER OPTIONS AS SPECIFIED BY CPP.

WIND LOADING

THE POLES FURNISHED AS PART OF THIS SPECIFICATION SHALL BE DESIGNED IN ACCORDANCE WITH 90 MPH (30% GUST FACTOR) AASHTO WIND LOADING.

MATERIAL

THE REINFORCING GLASS SHALL BE A COMMERCIAL GRADE OF "E" GLASS FIBERS IN CONTINUOUS FILAMENT, WOVEN FILAMENTS, CHOPPED STRAND FORMS OR A COMBINATION OF THE SAME. THE GLASS FIBERS SHALL BE RATED WITH A COUPLING AGENT COMPATIBLE WITH THE RESIN USED. THE POLE SHALL BE NON-CONDUCTIVE AND CHEMICALLY INERT. THE THERMOSETTING RESIN SHALL CONTAIN ULTRAVIOLET INHIBITORS AND PIGMENT THROUGHOUT.

SURFACE

THE POLE EXTERIOR SURFACE SHALL BE SMOOTH AND UNIFORM IN TEXTURE AND COLOR AND SHOULD NOT CONTAIN ANY EXPOSED SURFACE FIBERS.

A NON-WOVEN POLYESTER FABRIC TAPE IS TO BE DOUBLE WRAPPED OVER THE UNCURED FIBERGLASS POLE. THE POLYESTER FABRIC IS TO BE PRE-SATURATED WITH POLYESTER RESIN TO IMPREGNATE THE POLE AND INSURE A POSITIVE BOND. THE POLYESTER FABRIC TAPE IS TO BE APPLIED TO THE POLE TO MAINTAIN SURFACE INTEGRITY WITHOUT SIGNIFICANT NOTICEABLE CHANGE IN APPEARANCE DUE TO ULTRAVIOLET, CHEMICALS AND EXTREME WEATHER CONDITIONS.

THE FINISH COAT SHALL BE A HIGHLY WEATHER RESISTANT, COLOR PIGMENTED POLYURETHANE AND SHALL HAVE A DRY FILM THICKNESS OF 1/2 MILS MINIMUM. THE POLE COLOR SHALL BE BLACK.

THE SURFACE IS TO BE TESTED FOR A MINIMUM OF 2,500 HOURS OF ACCELERATED TESTING IN ACCORDANCE WITH ASTM G-53, LATEST REVISION. THE RESULTS SHALL INDICATE NO FIBER EXPOSURE, CRAZING, OR CHECKING. THERE MAY BE ONLY SLIGHT CHALKING AND COLOR MAY ONLY DULL SLIGHTLY.

REINFORCING

POLES SHALL BE REINFORCED IN THE AREA BETWEEN FOURTEEN (14) FEET AND TWENTY-FOUR (24) FEET ABOVE THE GROUND LINE TO ALLOW BAND MOUNTING OF HOLIDAY ORNAMENTS, BANNERS.

POLE TOP

THE POLE TOP FOR THE STANDARD STREETLIGHT POLES, 30 FEET OR MORE IN HEIGHT SHALL BE A TENON SIZED APPROPRIATELY TO ACCEPT THE SPECIFIED BRACKET ARM. THE TENON SHALL BE ALUMINUM OR STEEL PERMANENTLY ATTACHED TO THE POLE SHAFT. THE TENON SHALL BE STRAIGHT WITH NO TAPER AND COATED WITH MATCHING URETHANE FINISH. STANDARD STREETLIGHT POLES SHALL ALSO BE SUPPLIED WITH A TENON CAP WHEN A SIDE MOUNTING BRACKET ARM IS USED.

PULL WIRES

EACH POLE SHALL HAVE A PULL WIRE INSTALLED TO FACILITATE INSTALLATION OF CONDUCTORS.

BRACKET ARM

THE BRACKET ARMS SHALL BE MODEL KA30-T6-BK AS MANUFACTURED BY KING LUMINAIRE AND AS DETAILED IN CPP STANDARD DRAWING 9561-3 ON SHEET 31A. THEY SHALL BE 6' LONG WITH A 24" UPSWEEP AND A BLACK FINISH TO MATCH THE POLES.

VIBRATION DAMPENERS

EACH POLE SHALL HAVE A VIBRATION DAMPENER PROVIDED. THE VIBRATION DAMPENER SHALL BE AN INTERNAL STYLE MODEL VD30 AS MANUFACTURED BY VALMONT INDUSTRIES OR EQUAL AS APPROVED BY CLEVELAND PUBLIC POWER (CCP).

HAND HOLE

EACH POLE SHALL HAVE A HAND HOLE WITH A NON-METALLIC, REMOVABLE, LOCKABLE COVER AND SEAL. THE COVER SHALL BE THE SAME COLOR AND TEXTURE AS THE POLE. THE HAND HOLE SHALL BE 2-1/2"x5" MINIMUM. THE HAND HOLE SHALL BE ORIENTED 90° FROM THE BRACKET ARM ON THE POLE AND 180° FROM THE 1" CONDUIT ENTRANCE IN THE BASE COVER UNLESS OTHERWISE APPROVED BY THE ENGINEER.

BASE PLATE FOR STRUCTURE MOUNTED POLES

A ONE PIECE, STEEL (HOT DIPPED GALVANIZED) ANCHOR BASE CASTING SHALL BE PROVIDED WHICH IS PERMANENTLY ATTACHED TO THE BOTTOM OF THE POLE. THE BASE SHALL BE ADHESIVELY BONDED TO THE POLE AND SHALL ALSO BE MECHANICALLY LOCKED TO THE POLE IN SUCH MANNER THAT IT CANNOT COME LOOSE EVEN IF THE ADHESIVE BOND FAILS. THE ANCHOR BASE CASTING SHALL BE CAPABLE OF ACCEPTING A BOLT CIRCLE RANGE OF 11" TO 15" AS DETAILED THE PLANS.

ANCHOR RODS FOR ANCHOR BASE POLES

NEW ANCHOR BOLTS WILL BE PLACED ON THE STRUCTURE APPROXIMATELY 3' UPSTATION OR DOWNSTATION FROM THE EXISTING POLES AS APPROVED BY THE ENGINEER. SEE DETAIL ON SHEET 26. A SEPARATE PAY ITEM AND QUANTITY FOR NEW ANCHOR BOLTS HAS BEEN PROVIDED.

ORNAMENTAL BASE COVER

A MODEL BC-140 DECORATIVE COVER, THE SAME COLOR AS THE POLE SHALL BE PROVIDED. THE COVER SHALL BE A TWO PIECE FIBERGLASS OR URETHANE DESIGN AND SHALL ATTACH TO THE POST WITH STAINLESS STEEL HEX SOCKET LOCKING SCREWS. THE BASE COVER SHALL COMPLETELY SURROUND THE BASE PLATE.

THE 1" FLEXIBLE CONDUIT SHALL ENTER THE BASE OF THE POLE THROUGH THE DECORATIVE BASE COVER. THE CONTRACTOR SHALL FIELD DRILL AN ENTRANCE HOLE IN THE BASE COVER FURNISHED BY THE CITY OF CLEVELAND (CPP).

LOADING TEST

THE MANUFACTURER SHALL PROVIDE ONE SET OF SHOP DRAWINGS WITH CERTIFIED TEST DATA FOR DEFLECTION AND ULTIMATE STRENGTH. ALL TESTING IS TO BE PERFORMED ON THE POLE WITH THE APPROPRIATE SIZE HAND HOLE LOCATED ON THE COMPRESSION SIDE.

1. A HORIZONTAL LOAD IS TO BE APPLIED IN 100 POUND INCREMENTS AT A POINT 12 INCHES FROM THE TOP UNTIL AN ULTIMATE TOP LOAD OF 1400 POUNDS HAS BEEN APPLIED. THE POLE SHALL WITHSTAND A MINIMUM OF 1400 POUNDS OF HORIZONTAL LOAD BEFORE FAILURE.

UNDER THE SAME TEST PROCEDURE, THE MAXIMUM DEFLECTION UNDER 100 POUND LOADING SHALL BE 4% OF THE ABOVE GROUND LENGTH OF THE POLE.

2. A HORIZONTAL LOAD IS TO BE APPLIED IN 100 POUND INCREMENTS AT A POINT 12 INCHES FROM THE TOP OF THE POLE. THE LOAD IS TO BE HELD FOR FIVE (5) MINUTES WITHOUT POLE FAILURE AND THE POLE IS TO HAVE NO MORE THAN 1% PERMANENT DEFLECTION AFTER UNLOADING.

INVENTORY IDENTIFICATION

ALL POLES SHALL BE PERMANENTLY MARKED WITH INVENTORY CODES SUPPLIED AT THE TIME OF ORDER. MARKING SHALL BE SUCH THAT THEY CANNOT BE REMOVED BY HAND OR FADED OR OTHERWISE MADE ILLEGIBLE BY RAIN, SNOW, WIND, SUN OR OTHER WEATHER CONDITIONS ENCOUNTERED IN OUTDOOR STORAGE.

SHIPPING

EACH POLE SHALL BE INDIVIDUALLY WRAPPED WITH PLASTIC SHRINK FILM OR POLY-BAGGED FOR PROTECTION DURING SHIPPING AND STORAGE. CONTRACTOR TO REMOVED PROTECTIVE COVERING AND CLEAN POLE AFTER INSTALLATION.

PAYMENT

PAYMENT WILL BE MADE AT THE UNIT PRICE FOR EACH CMS ITEM 625 - LIGHT POLE (INSTALLATION ONLY), AS PER PLAN AND SHALL INCLUDE PICK UP, STORAGE, AND INSTALLATION OF MATERIALS SPECIFIED IN THIS NOTE FOR EACH LIGHT POLE AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - LUMINAIRE, SOLID STATE (LED), MISC.: DECORATIVE PENDANT, IES-III-M-SC

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS 625 NEW ROADWAY LIGHTING UNITS SHALL BE AS FOLLOWS:

1. "TEARDROP" PENDENT LUMINAIRES
LUMINAIRES SHALL BE SIMILAR IN DESIGN, FUNCTION AND APPEARANCE TO THE KING K803, WITH EXTERNAL GLASS DEEPPISH OPTICS, OR EQUAL. KING LUMINAIRE ORDER # K803-P4RAD-III-220-SSL-8084-(120-277)-KPL21-PR-TB-BK.
2. HOUSING CONSTRUCTION
THE HOUSING AND DOOR FRAME SHALL BE TWO-PIECE DIE-CAST ALUMINUM REINFORCED AND SEALED WITH A CONTINUOUS O-RING SILICONE GASKET. DOOR FRAME ASSEMBLY SHALL BE ONE-PIECE DIE-CAST ALUMINUM AND SHALL PROVIDE TOOLLESS ENTRY TO HOUSING. THE GLOBE SHALL BE THERMAL AND IMPACT RESISTANT GLASS AND SHALL SEAL TO THE DOOR WITH A WEATHER-TIGHT CONTINUOUS GASKET. THE OPTICAL CHAMBER SHALL BE SEALED AGAINST ENTRY OF DIRT AND MOISTURE BY A CONTINUOUS DOOR MOUNTED GASKET WHICH FIRMLY COMPRESSES AGAINST OPTICAL ENCLOSURE WALLS. FINISH ON THE HOUSING SHALL BE BLACK, 5 STAGE PREMIUM TGIC POLYESTER POWDER COAT PAINT, 2.5 MIL NOMINAL THICKNESS. ONE HOUSING SIZE SHALL ACCOMMODATE ALL LISTED LAMP WATTAGES.
3. REFLECTOR
REFLECTOR SYSTEMS SHALL BE HIGH PERFORMANCE PRESSED ALUMINUM. ALL REFLECTOR MODULES SHALL FEATURE TOOLLESS REMOVAL AND QUICK DISCONNECT WIRING PLUGS. REFLECTOR SYSTEM SHALL BE FACTORY PRESET TO PROVIDE STANDARD I.E.S. DISTRIBUTION PATTERN III.
4. MOUNTING
MOUNTING ARMS SHALL BE 2" I.P.S. ALUMINUM AND SHALL SLIPFIT OVER A 2 3/8" O.D. X 2 3/4" LONG HEAVY DUTY TENON. A LEVELING DEVICE SHALL BE INCLUDED FOR THE PURPOSE OF ATTACHING THE LUMINAIRE TO THE BRACKET ARM.
5. PHOTO EYE
A LONG LIFE PHOTO EYE SHALL BE PROVIDED WITH EACH LUMINAIRE AND INCLUDED IN THE UNIT PRICE BID FOR EACH LUMINAIRE. THE PHOTO EYE SHALL BE COMPATIBLE WITH THE PHOTO RECEPTACLE INCLUDED WITH THE LUMINAIRE.

PAYMENT WILL BE MADE AT THE UNIT CONTRACT BID PRICE FOR EACH ITEM 625 - LUMINAIRE, SOLID STATE (LED), MISC.: DECORATIVE PENDANT, IES-III-M-SC AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIAL, EQUIPMENT AND INCIDENTALS TO FURNISH AND INSTALL THIS ITEM IN A SATISFACTORY AND WORKMAN LIKE MANNER.

ITEM 625 - POWER SERVICE, AS PER PLAN NO. 2

IN ADDITION TO THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOLLOWING IS ADDED.

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

POWER COMPANY CLEVELAND PUBLIC POWER
ADDRESS 1300 LAKESIDE AVENUE, CLEVELAND, OH 44114
PHONE # 216-420-7704 EXT. 183
CONTACT NAME JAMES FERGUSON

THE CONTRACTOR SHALL ENSURE THAT EACH POWER SERVICE ELECTRICAL ENERGY ACCOUNT IS IN THE NAME OF AND THAT THE BILLING ADDRESS IS TO THE MAINTAINING AGENCY NOTED IN THE PLANS. THIS SHALL BE DONE NOT ONLY FOR EACH NEW POWER SERVICE ESTABLISHED BY THIS PROJECT BUT ALSO FOR EACH EXISTING POWER SERVICE, SINCE THERE MAY BE A REASSIGNMENT OF THE RESPONSIBILITY FOR AN EXISTING SERVICE AS A RESULT OF THE WORK PERFORMED BY THIS PROJECT.

THIS ITEM SHALL INCLUDE A NEW METERBASE AT THE EXISTING POWER SERVICE POLE, A NEW AERIAL SERVICE LINE TO PIER 9, NEW JUNCTION BOXES, NEW CONDUIT AND NEW NO. 4 AWG POWER CABLE, AND THE POWER SERVICE CONTROL PANEL ON THE MAINTENANCE DECK AS SHOWN IN THE PLANS, COMPLETE AND ACCEPTED IN PLACE.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, "POWER SERVICE, AS PER PLAN NO. 2" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - MAINTAIN EXISTING LIGHTING (NAVIGATION):

THE CONTRACTOR SHALL MAINTAIN THE EXISTING NAVIGATION LIGHTS AT ALL TIMES THROUGH THE USE OF THE EXISTING OR PROPOSED LIGHTING FIXTURES. THE EXISTING WIRING SHALL BE MAINTAINED TO ALL NAVIGATION LIGHTS UNTIL THE PROPOSED NAVIGATION LIGHTS ARE FUNCTIONAL ON THE NEW WIRING CIRCUITS. BATTERY OR SOLAR POWERED LIGHTS MAY BE USED FOR TEMPORARY NAVIGATION LIGHTS SUBJECT TO THE APPROVAL OF THE ENGINEER. HOURS OF OPERATION SHALL BE FROM DUSK TO DAYLIGHT AND AS DIRECTED BY THE GOVERNING COAST GUARD DISTRICT.

ITEM 625 - POWER SERVICE REMOVED, AS PER PLAN

THIS ITEM SHALL INCLUDE THE REMOVAL AND DISPOSAL OF THE EXISTING NAVIGATION LIGHTING POWER SERVICE FROM THE EXISTING POWER SERVICE POLE TO THE CONTROL CENTER ON THE MAINTENANCE DECK INCLUDING THE REMOVAL AND DISPOSAL ALL WIRING, CONDUITS, JUNCTION BOXES, ETC.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, "POWER SERVICE REMOVED, AS PER PLAN" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - LIGHTING, MISC.: BRIDGE-MOUNTED MARINE NAVIGATION LIGHTING, LED

THIS ITEM CONSISTS OF INSTALLATION AND TESTING OF IALA/AISM-COMPLIANT, U.S. COAST GUARD APPROVED MARINE NAVIGATION LIGHTING FOR MARKING OF STRUCTURES OVER NAVIGABLE WATERS. LOCATION AND WIRING SHALL BE AS SHOWN IN THE NAVIGATION LIGHTING PLANS.

EACH MARINE NAVIGATION LAMP SHALL UTILIZE LIGHT EMITTING DIODES (LEDS). THE MARINE NAVIGATION LAMP SHALL HAVE A WRITTEN MINIMUM 5-YEAR MANUFACTURER WARRANTY. THE LAMP SHALL MEET THE U.S. COAST GUARD REQUIREMENTS FOR COLOR, BRIGHTNESS (RANGE), SECTORING, AND DIVERGENCE REQUIREMENTS AND AS APPROVED BY THE APPLICABLE COAST GUARD DISTRICT. THE LAMP SHALL BE MANUFACTURED BY ONE OF THE FOLLOWING MANUFACTURERS OR AN APPROVED EQUAL:

- 1. TIDELAND SIGNAL CORPORATION, HOUSTON, TX
- 2. B&B ROADWAY, RUSSELLVILLE, AL
- 3. PHAROS MARINE AUTOMATIC POWER, HOUSTON TX

EACH MARINE NAVIGATION LAMP SHALL HAVE ITS OWN CONTROLLER/POWER SUPPLY, HOUSED IN ITS OWN METAL ENCLOSURE ACCESSIBLE BY MAINTENANCE PERSONNEL, AS SHOWN ON THE NAVIGATION LIGHTING PLANS. THE CONTROLLER SHALL OPERATE AT 120VAC, 60HZ AND HAVE ITS OWN DEDICATED CIRCUIT BREAKER IN A NEARBY PANELBOARD AS DETAILED IN THE NAVIGATION LIGHTING PLANS. THE MARINE NAVIGATION LAMP SHALL OPERATE CONTINUOUSLY TWENTY-FOUR (24) HOURS PER DAY, WITH NO INTERVENING PHOTOCCELL CONTROL. THE CONTROLLER SHALL PROVIDE ALARM STATUS OUTPUT IN THE FORM OF A BLUE LED CONFIRMATION LIGHT VISIBLE TO ODOT MAINTENANCE PERSONNEL FROM THE MAINTENANCE DECK LEVEL TO INDICATE DEFECTIVE OR INOPERATIVE MARINE NAVIGATION LAMP CONDITIONS.

THE CONTRACTOR SHALL FULLY TEST THE SYSTEM AND ARRANGE FOR ACCEPTANCE INSPECTION OF THE MARINE NAVIGATION LIGHTING INSTALLATION BY ODOT DISTRICT 12 SIGNAL MAINTENANCE PERSONNEL AFTER THE SYSTEM IS OPERATIONAL. DURING ACCEPTANCE INSPECTION, THE CONTRACTOR SHALL DEMONSTRATE THE PROPER OPERATION OF ALL LAMPS AND ALARMS. THE CONTRACTOR SHALL PROVIDE WRITTEN MANUFACTURER WARRANTY AND ALL OPERATING MANUALS FOR MARINE NAVIGATION LIGHTING CONTROLLER AND LAMP TO ODOT DISTRICT 12 SIGNAL MAINTENANCE PERSONNEL AT THE TIME OF INSPECTION.

THE DEPARTMENT SHALL MEASURE BRIDGE-MOUNTED MARINE NAVIGATION LIGHTING BY EACH INDIVIDUAL MARINE NAVIGATION LIGHT, COMPLETE AND INSTALLED INCLUDING ANY CONTROL DEVICES AND ALL WIRING AND CONDUITS.

ITEM 625 - LIGHTING, MISC.: REMOVAL OF EXISTING MARINE NAVIGATION LIGHTING SYSTEM

THIS ITEM SHALL INCLUDE THE REMOVAL AND DISPOSAL OF THE EXISTING NAVIGATION LIGHTING SYSTEM FROM THE CONTROL CENTER ON THE MAINTENANCE DECK TO THE MARINE NAVIGATION LIGHTS INCLUDING THE REMOVAL AND DISPOSAL ALL WIRING, CONDUITS, JUNCTION BOXES, ETC.

PAYMENT WILL BE MADE AT THE LUMP SUM BID PRICE FOR CMS ITEM 625 - LIGHTING, MISC.: REMOVAL OF EXISTING MARINE NAVIGATION LIGHTING SYSTEM WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

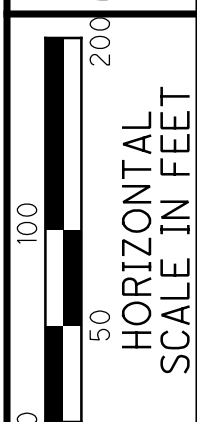
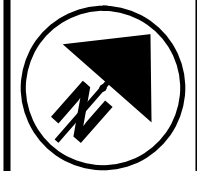
JUNCTION BOX FOR NAVIGATION LIGHTING

THE JUNCTION BOX SHALL HAVE AN EMBOSSEMENT IN THE BACK OF THE BOX THAT SHALL BE DRILLED AND TAPPED FOR A 1/4"-20 CAP SCREW FOR CONNECTION OF GROUNDS.

WHEN SURFACE MOUNTED, THE JUNCTION BOX MAY HAVE IN LIEU OF BOSSED DRILLED AND TAPPED CONNECTIONS, FIELD INSTALLED HUBS TO ACCOMODATE THE CONDUITS ENTERING THE BOX. THE COVER PLATE SHALL BE FLUSH WITH THE RIM OF THE BOX SECURED WITH QUICK RELEASE BOX CLAMPS.

NAVIGATION LIGHTING SUBSUMMARY			
ITEM	DESCRIPTION	QUANTITY	UNIT
625	POWER SERVICE, AS PER PLAN NO. 2	1	EACH
SPECIAL	MAINTAIN EXISTING LIGHTING (NAVIGATION)	LUMP	
625	POWER SERVICE REMOVED, AS PER PLAN	1	EACH
625	DISCONNECT CIRCUIT	1	EACH
625	LIGHTING, MISC.: BRIDGE - MOUNTED MARINE NAVIGATION LIGHTING, LED	6	EACH
625	LIGHTING, MISC.: REMOVAL OF EXISTING MARINE NAVIGATION LIGHTING SYSTEM	LUMP	

THE ABOVE QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY



CALCULATED JDL CHECKED DLR

LIGHTING SCHEMATIC PLAN

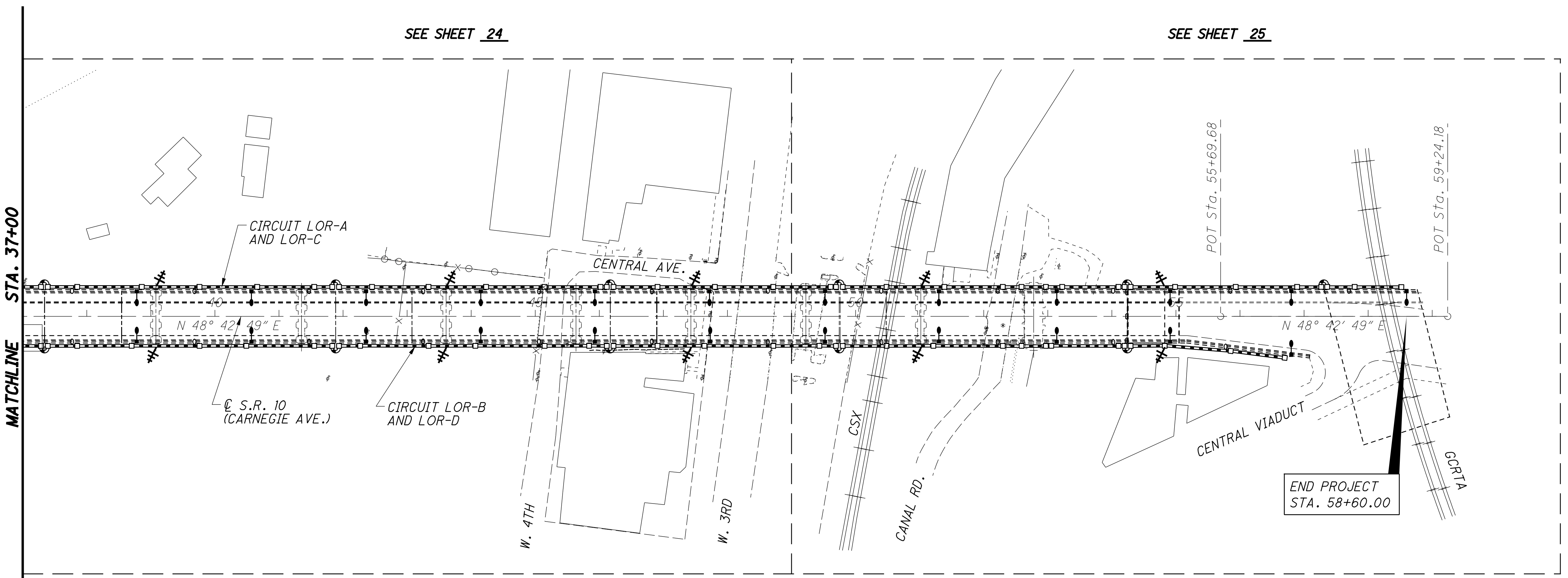
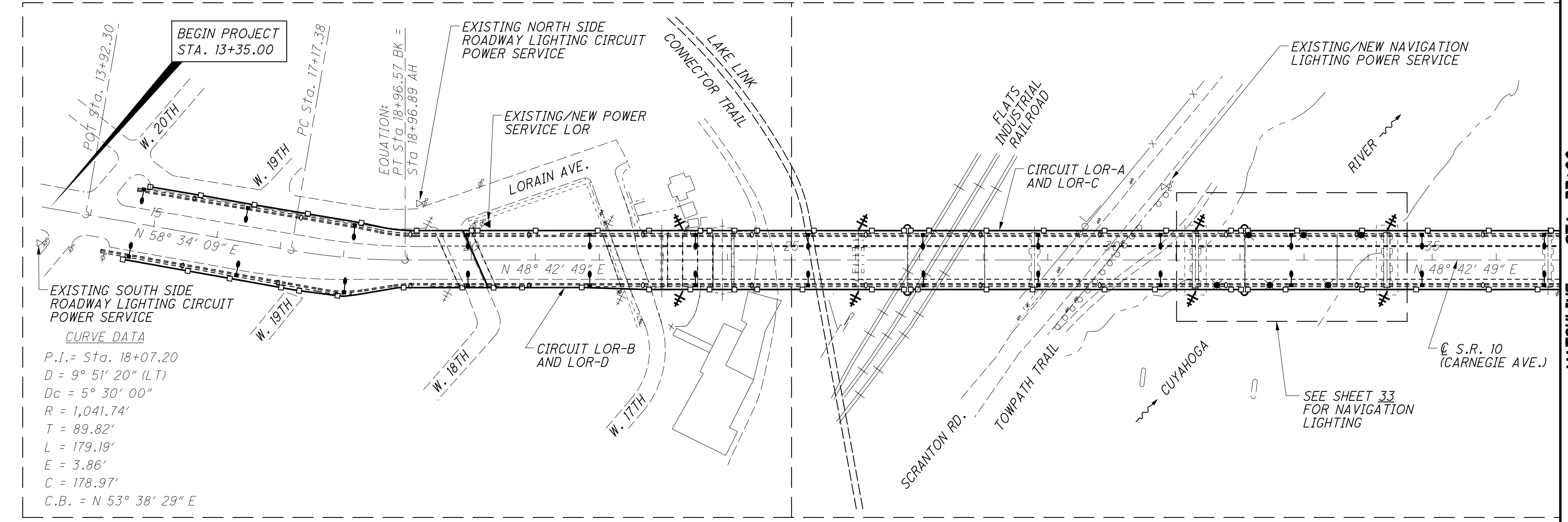
CUY - 10 - 16 . 13

SEE SHEET 22

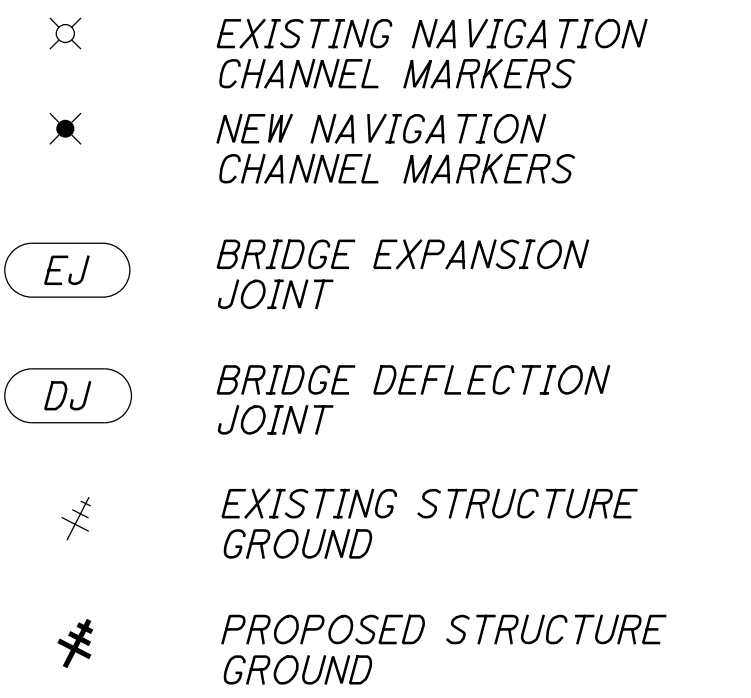
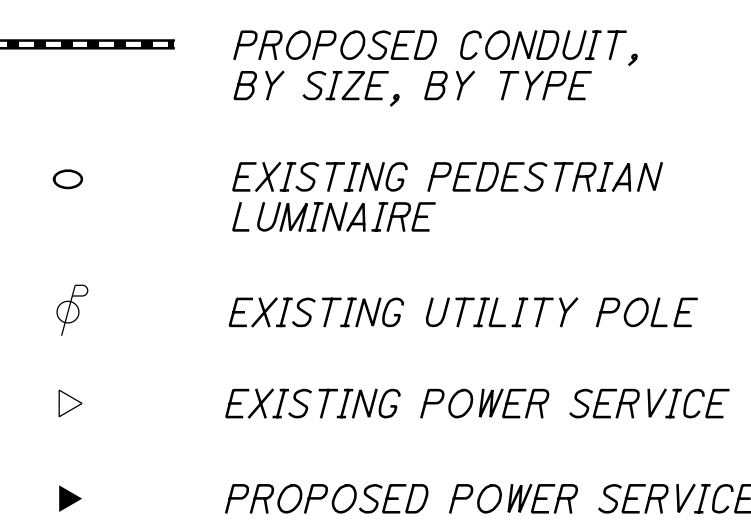
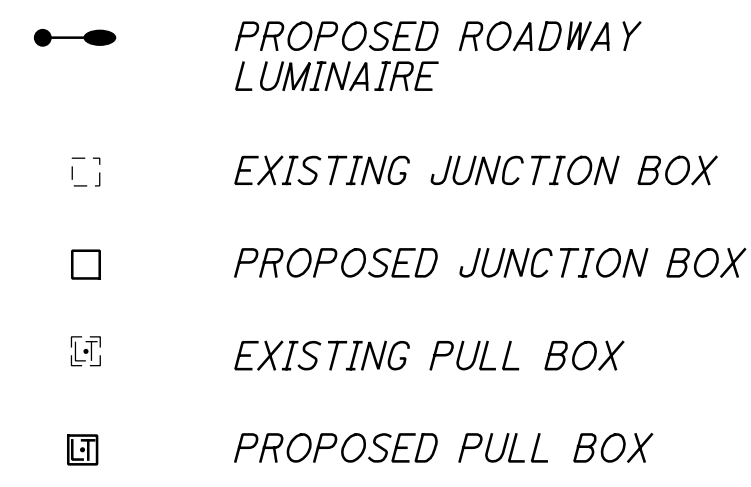
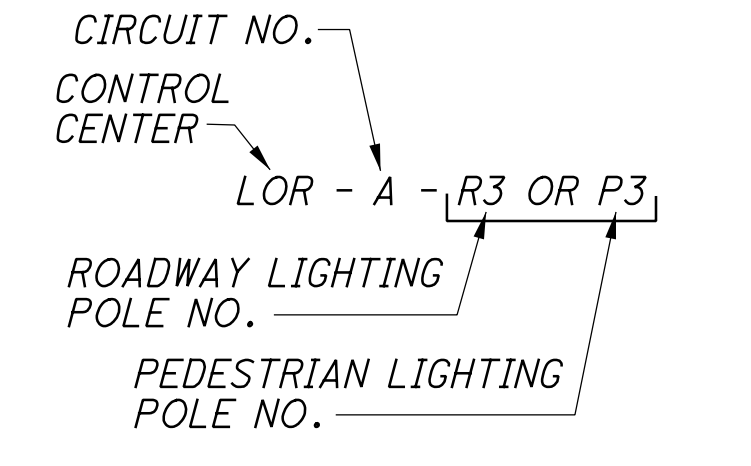
SEE SHEET 23

SEE SHEET 24

SEE SHEET 25



LIGHTING SYMBOL LEGEND

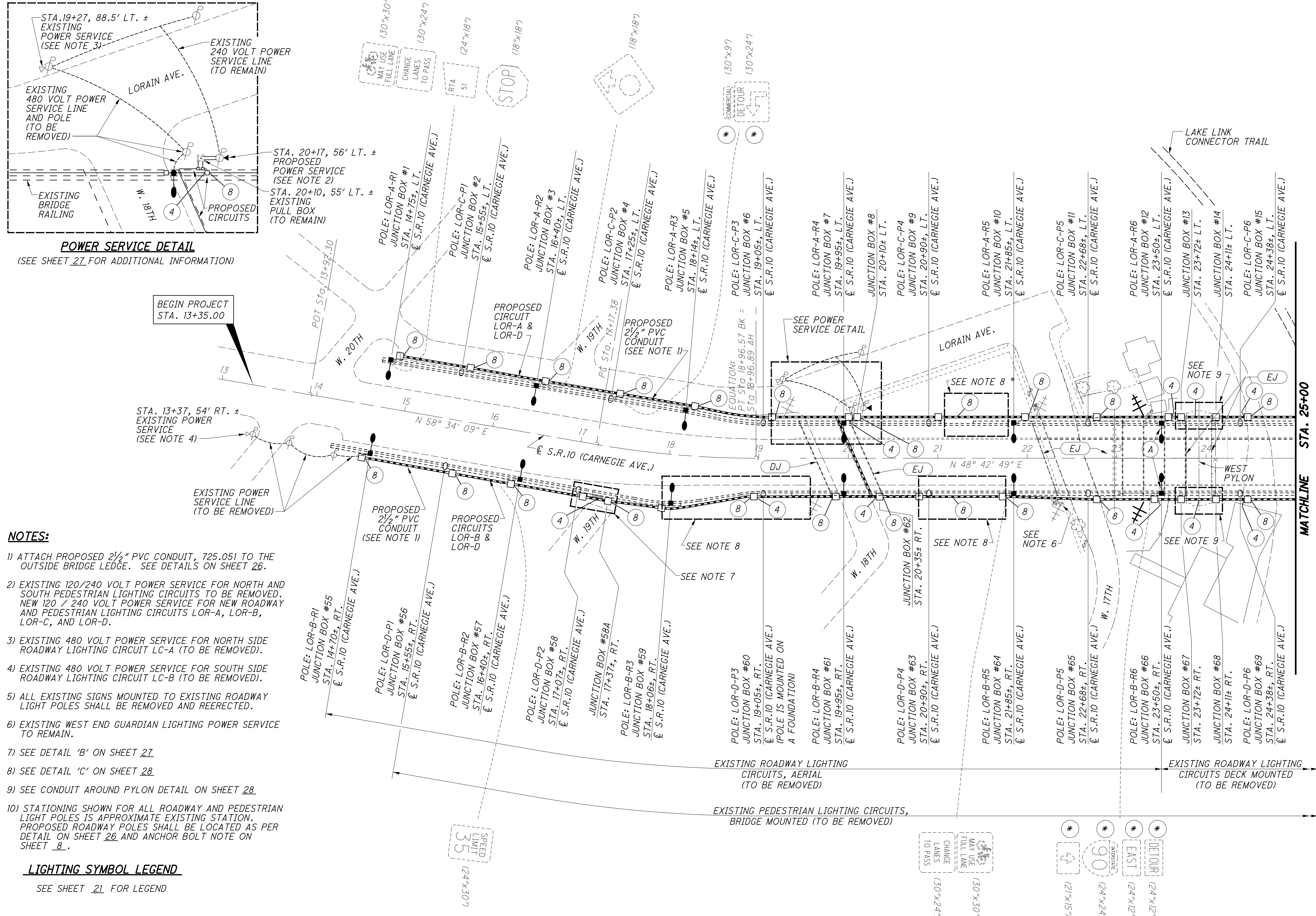


MATCHLINE STA. 37+00

MATCHLINE STA. 37+00

END PROJECT STA. 58+60.00

F:\2014\114059 CUY-10-1613\99756 Project 1\roadway\sheets\99756LPO01.dgn 7/17/2015 9:21:11 AM JoeKirk

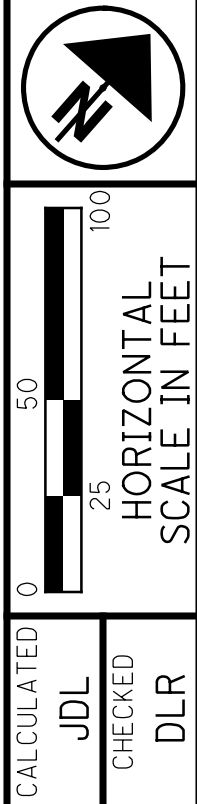
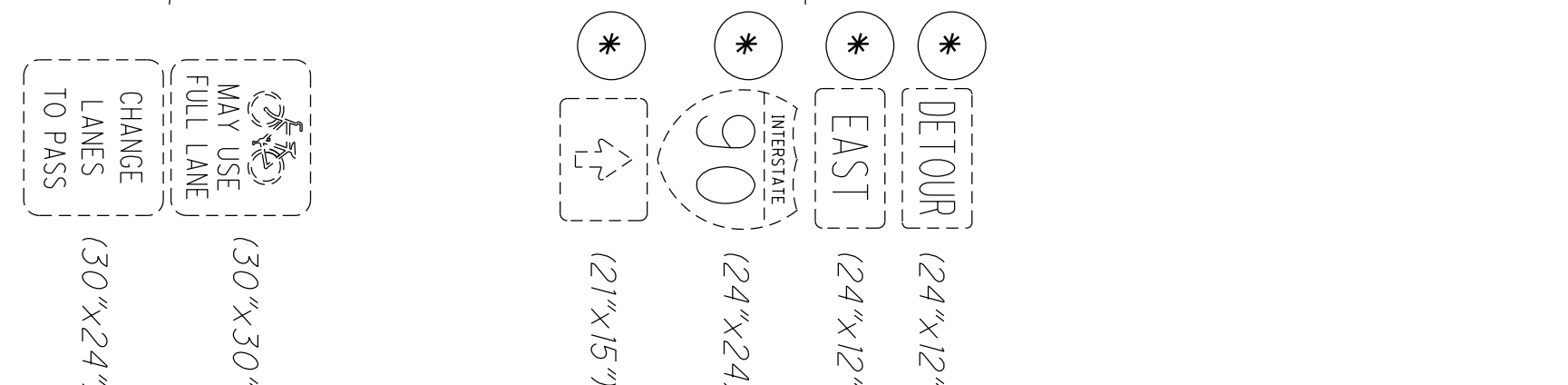


NOTES:

- 1) ATTACH PROPOSED 2 1/2" PVC CONDUIT, 725.051 TO THE OUTSIDE BRIDGE LEDGE. SEE DETAILS ON SHEET 26.
- 2) EXISTING 120/240 VOLT POWER SERVICE FOR NORTH AND SOUTH PEDESTRIAN LIGHTING CIRCUITS TO BE REMOVED. NEW 120 / 240 VOLT POWER SERVICE FOR NEW ROADWAY AND PEDESTRIAN LIGHTING CIRCUITS LOR-A, LOR-B, LOR-C, AND LOR-D.
- 3) EXISTING 480 VOLT POWER SERVICE FOR NORTH SIDE ROADWAY LIGHTING CIRCUIT LC-A (TO BE REMOVED).
- 4) EXISTING 480 VOLT POWER SERVICE FOR SOUTH SIDE ROADWAY LIGHTING CIRCUIT LC-B (TO BE REMOVED).
- 5) ALL EXISTING SIGNS MOUNTED TO EXISTING ROADWAY LIGHT POLES SHALL BE REMOVED AND REERECTED.
- 6) EXISTING WEST END GUARDIAN LIGHTING POWER SERVICE TO REMAIN.
- 7) SEE DETAIL 'B' ON SHEET 27
- 8) SEE DETAIL 'C' ON SHEET 28
- 9) SEE CONDUIT AROUND PYLON DETAIL ON SHEET 28
- 10) STATIONING SHOWN FOR ALL ROADWAY AND PEDESTRIAN LIGHT POLES IS APPROXIMATE EXISTING STATION. PROPOSED ROADWAY POLES SHALL BE LOCATED AS PER DETAIL ON SHEET 26 AND ANCHOR BOLT NOTE ON SHEET 8.

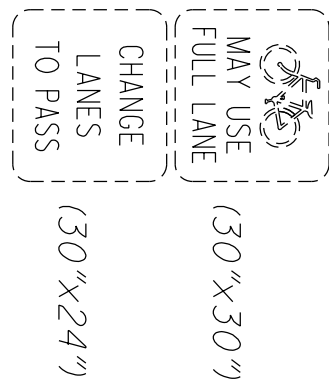
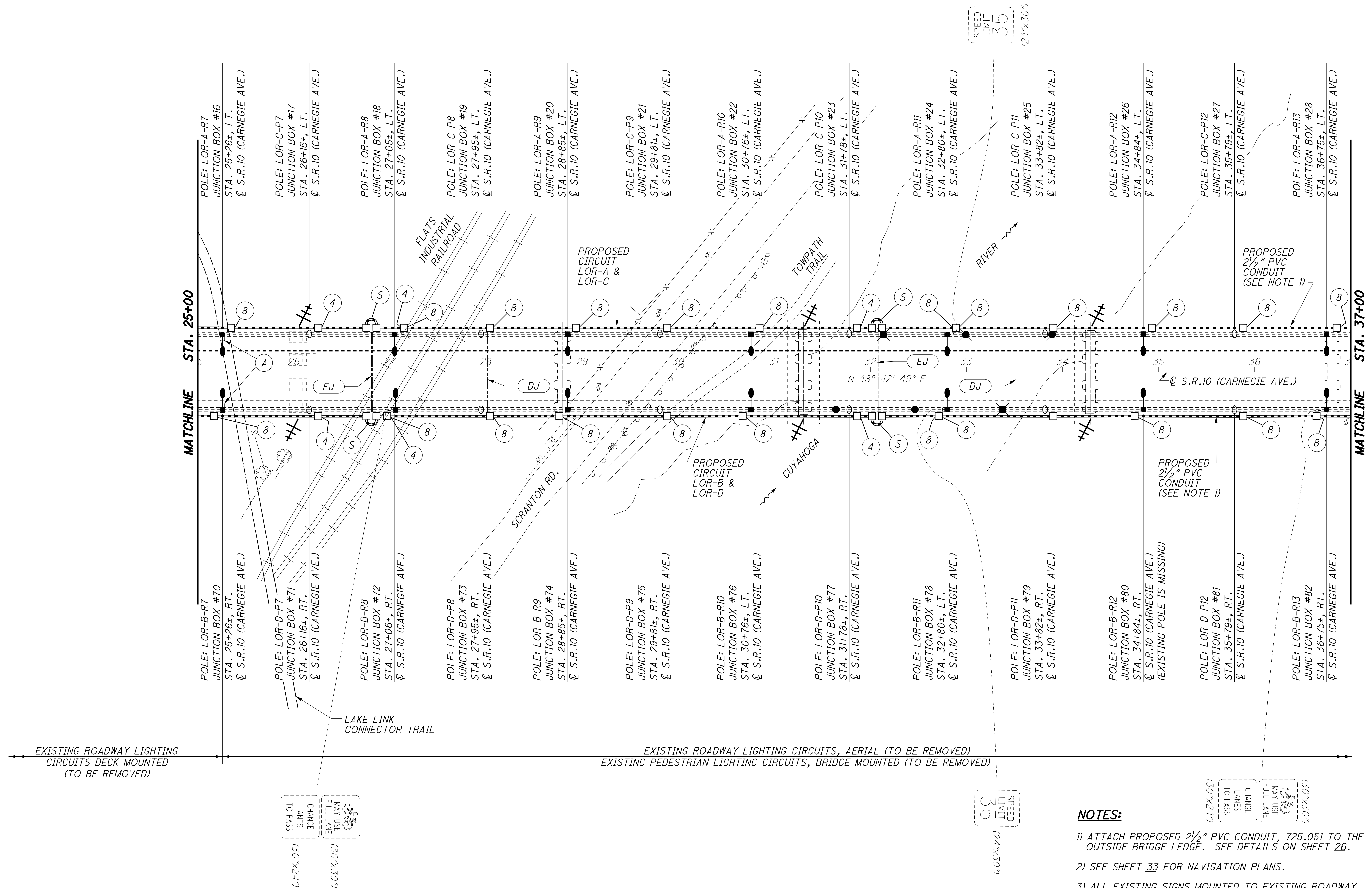
LIGHTING SYMBOL LEGEND

SEE SHEET 21 FOR LEGEND



CALCULATED JDL CHECKED DLR
LIGHTING PLAN
STA. 14+00.00 TO STA. 25+00.00

CUY-10-16.13
 22
 47



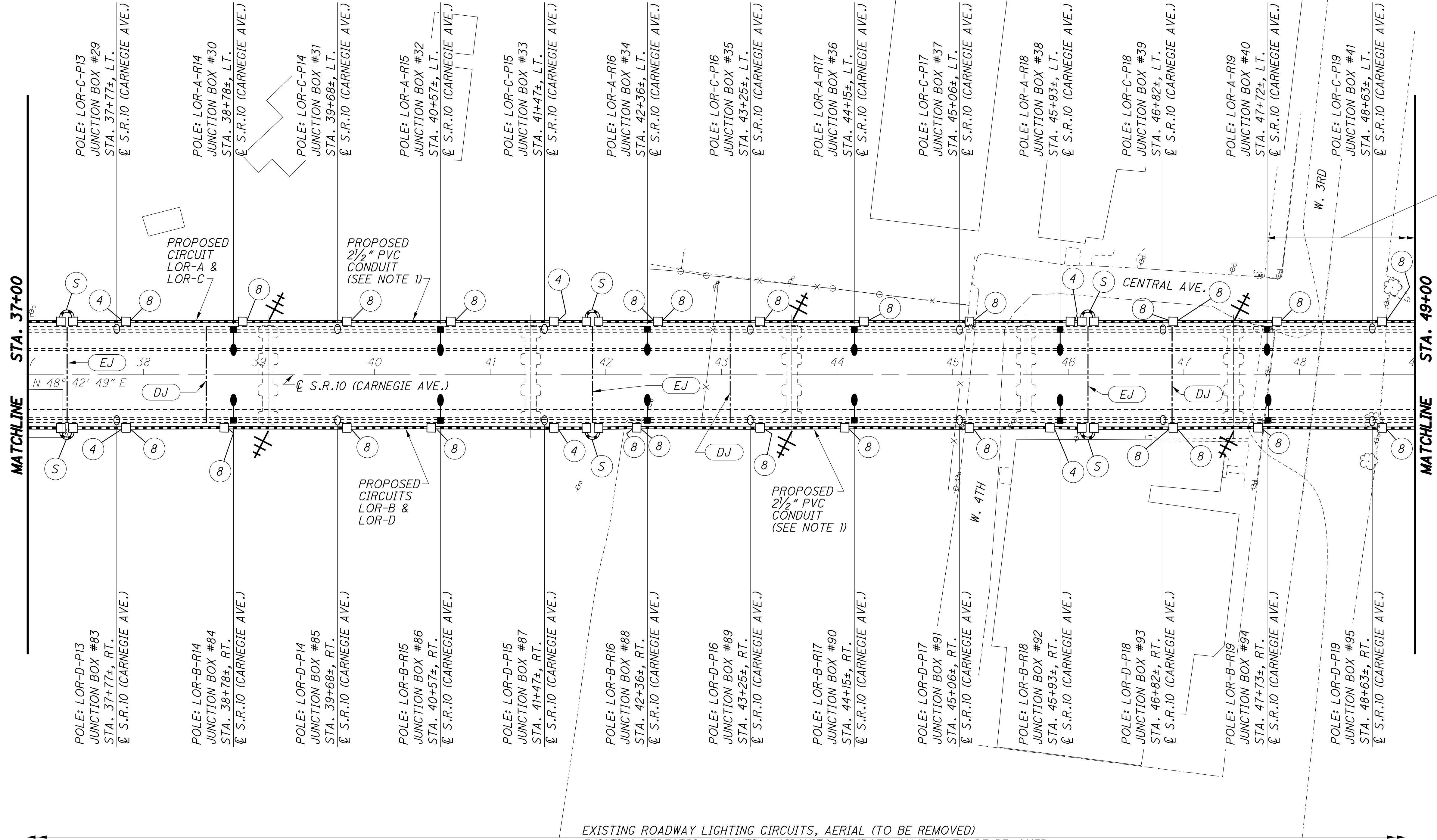
LIGHTING SYMBOL LEGEND
SEE SHEET 21 FOR LEGEND

- NOTES:**
- 1) ATTACH PROPOSED 2 1/2" PVC CONDUIT, 725.051 TO THE OUTSIDE BRIDGE LEDGE. SEE DETAILS ON SHEET 26.
 - 2) SEE SHEET 33 FOR NAVIGATION PLANS.
 - 3) ALL EXISTING SIGNS MOUNTED TO EXISTING ROADWAY LIGHT POLES SHALL BE REMOVED AND REERECTED.
 - 4) STATIONING SHOWN FOR ALL ROADWAY AND PEDESTRIAN LIGHT POLES IS APPROXIMATE EXISTING STATION. PROPOSED ROADWAY POLES SHALL BE LOCATED AS PER DETAIL ON SHEET 26 AND ANCHOR BOLT NOTE ON SHEET 8.

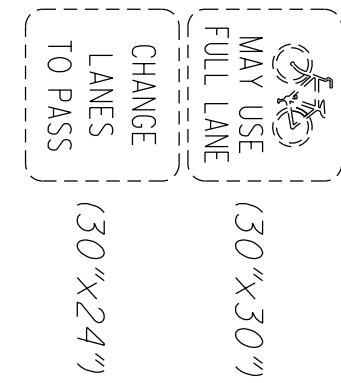
CALCULATED 0
JD/L
CHECKED
DLR

50
25
100
HORIZONTAL
SCALE IN FEET

LIGHTING PLAN
STA. 25+00.00 TO STA. 37+00.00



LIGHTING SYMBOL LEGEND
SEE SHEET 21 FOR LEGEND

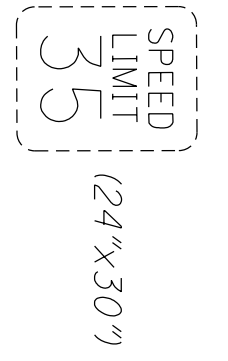


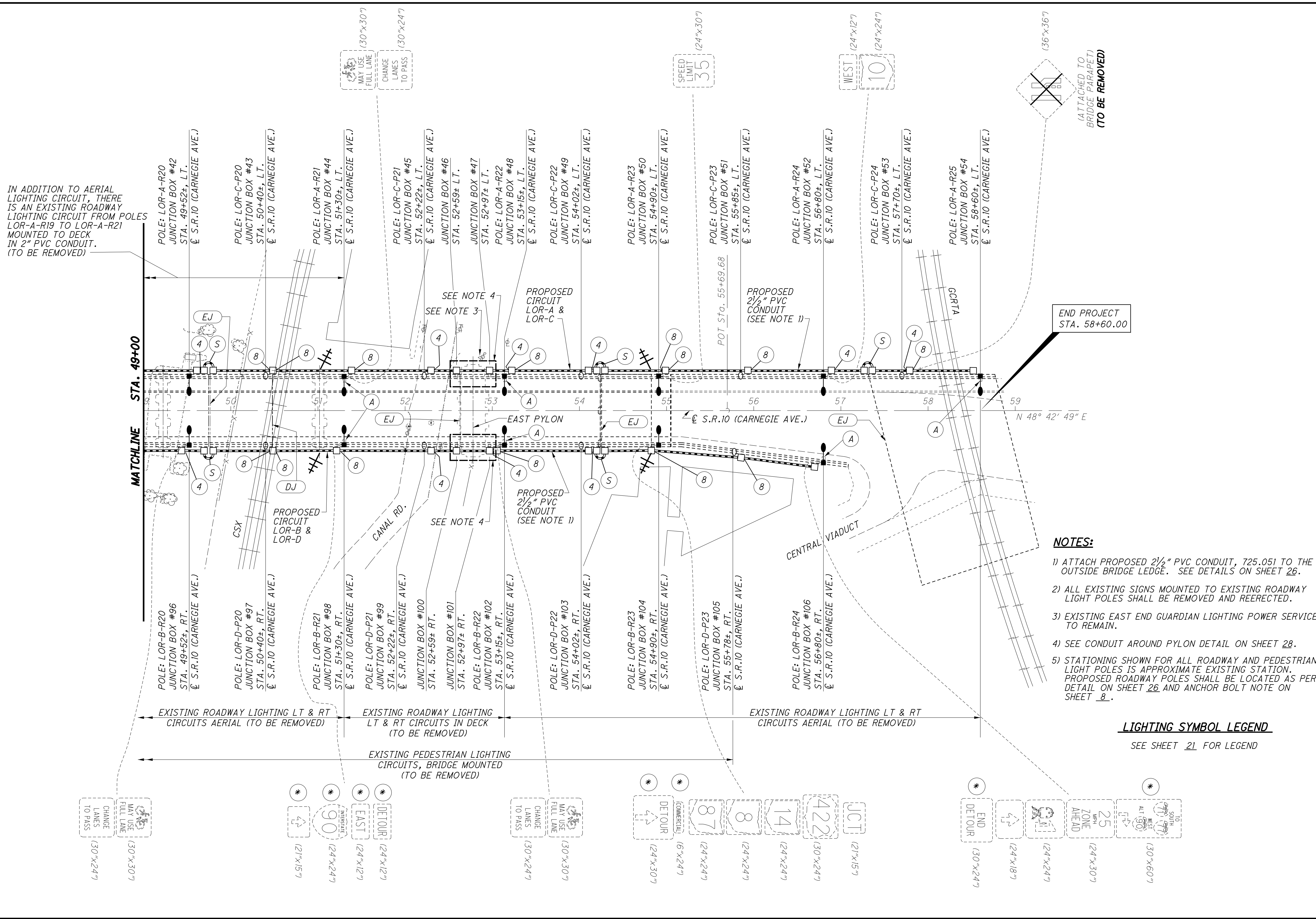
EXISTING ROADWAY LIGHTING CIRCUITS, AERIAL (TO BE REMOVED)
EXISTING PEDESTRIAN LIGHTING CIRCUITS, BRIDGE MOUNTED (TO BE REMOVED)

NOTES:

- 1) ATTACH PROPOSED 2 1/2" PVC CONDUIT, 725.051 TO THE OUTSIDE BRIDGE LEDGE. SEE DETAILS ON SHEET 26.
- 2) ALL EXISTING SIGNS MOUNTED TO EXISTING ROADWAY LIGHT POLES SHALL BE REMOVED AND REERECTED.
- 3) STATIONING SHOWN FOR ALL ROADWAY AND PEDESTRIAN LIGHT POLES IS APPROXIMATE EXISTING STATION. PROPOSED ROADWAY POLES SHALL BE LOCATED AS PER DETAIL ON SHEET 26 AND ANCHOR BOLT NOTE ON SHEET 8.

IN ADDITION TO AERIAL LIGHTING CIRCUIT, THERE IS AN EXISTING ROADWAY LIGHTING CIRCUIT FROM POLES LOR-A-R19 TO LOR-A-R21 MOUNTED TO DECK IN 2" PVC CONDUIT. (TO BE REMOVED)

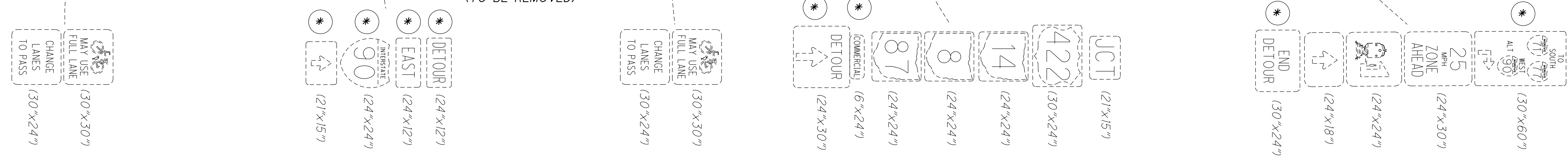




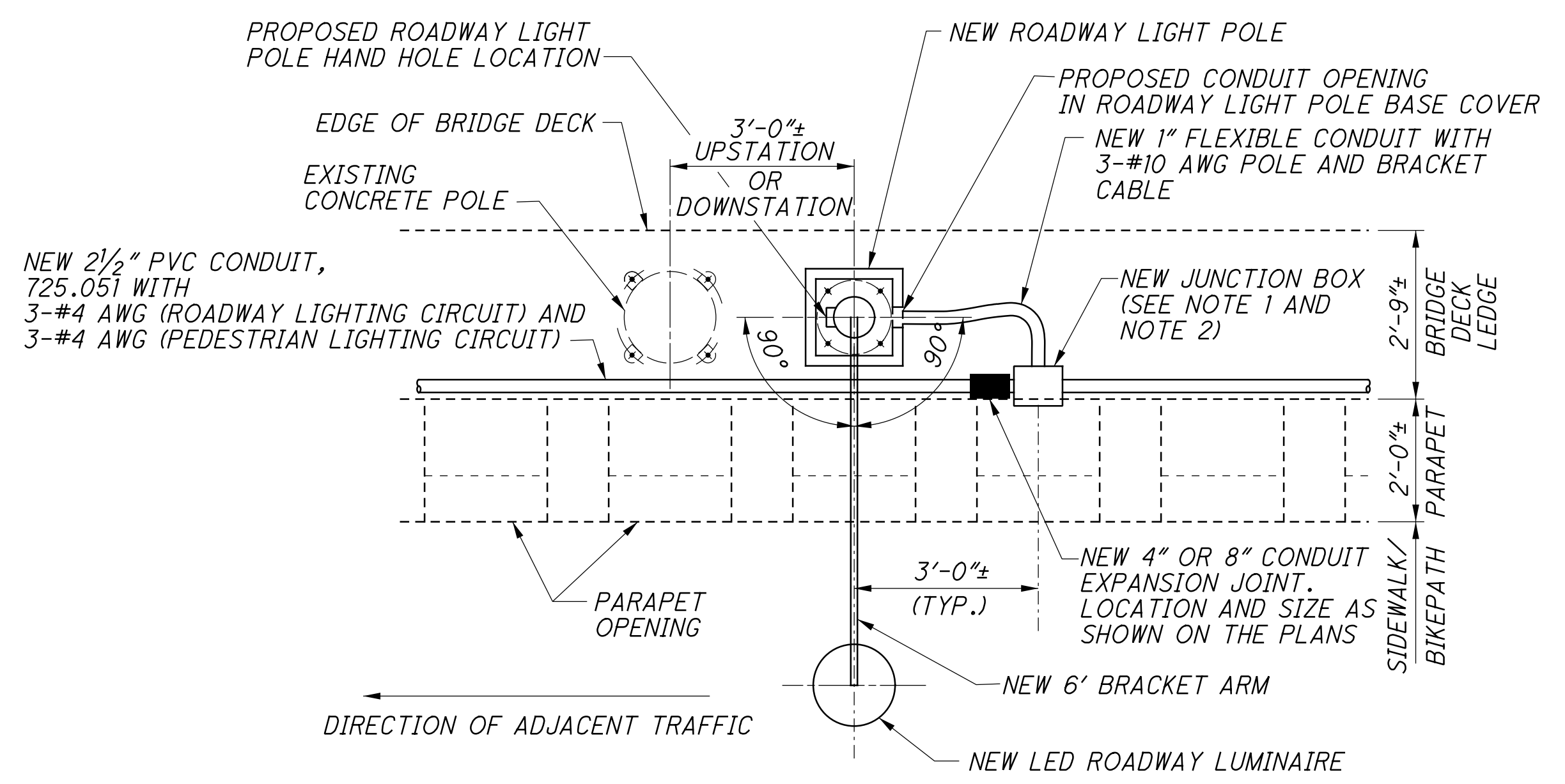
IN ADDITION TO AERIAL LIGHTING CIRCUIT, THERE IS AN EXISTING ROADWAY LIGHTING CIRCUIT FROM POLES LOR-A-R19 TO LOR-A-R21 MOUNTED TO DECK IN 2" PVC CONDUIT. (TO BE REMOVED)

- NOTES:**
- 1) ATTACH PROPOSED 2 1/2" PVC CONDUIT, 725.051 TO THE OUTSIDE BRIDGE LEDGE. SEE DETAILS ON SHEET 26.
 - 2) ALL EXISTING SIGNS MOUNTED TO EXISTING ROADWAY LIGHT POLES SHALL BE REMOVED AND REERECTED.
 - 3) EXISTING EAST END GUARDIAN LIGHTING POWER SERVICE TO REMAIN.
 - 4) SEE CONDUIT AROUND PYLON DETAIL ON SHEET 28.
 - 5) STATIONING SHOWN FOR ALL ROADWAY AND PEDESTRIAN LIGHT POLES IS APPROXIMATE EXISTING STATION. PROPOSED ROADWAY POLES SHALL BE LOCATED AS PER DETAIL ON SHEET 26 AND ANCHOR BOLT NOTE ON SHEET 8.

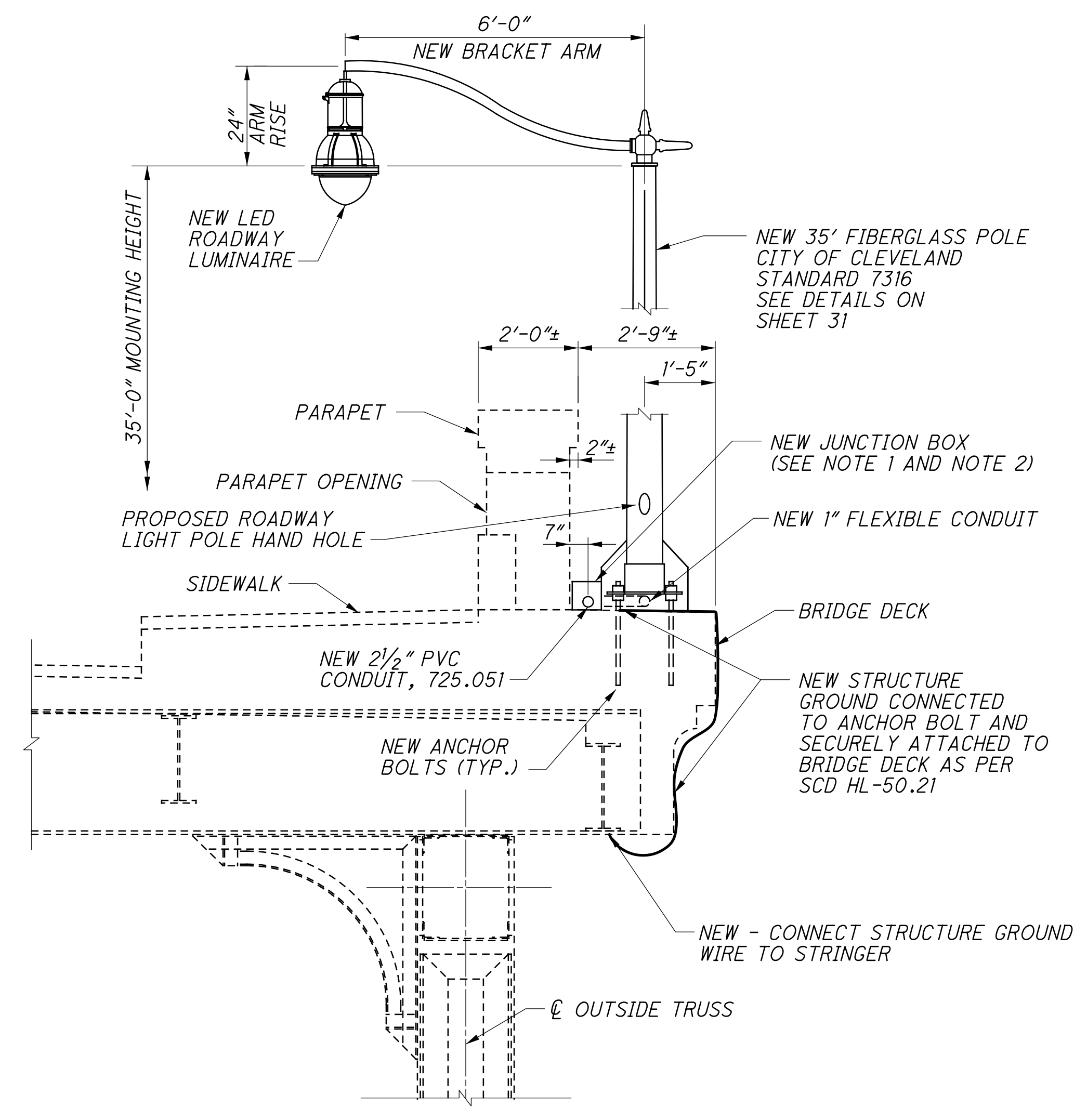
LIGHTING SYMBOL LEGEND
SEE SHEET 21 FOR LEGEND



F:\2014\114059_CUY-10-16\13\99756 Project 1\roadway\sheet\99756L.D001.dgn 7/17/2015 9:32:59 AM JoeKirk

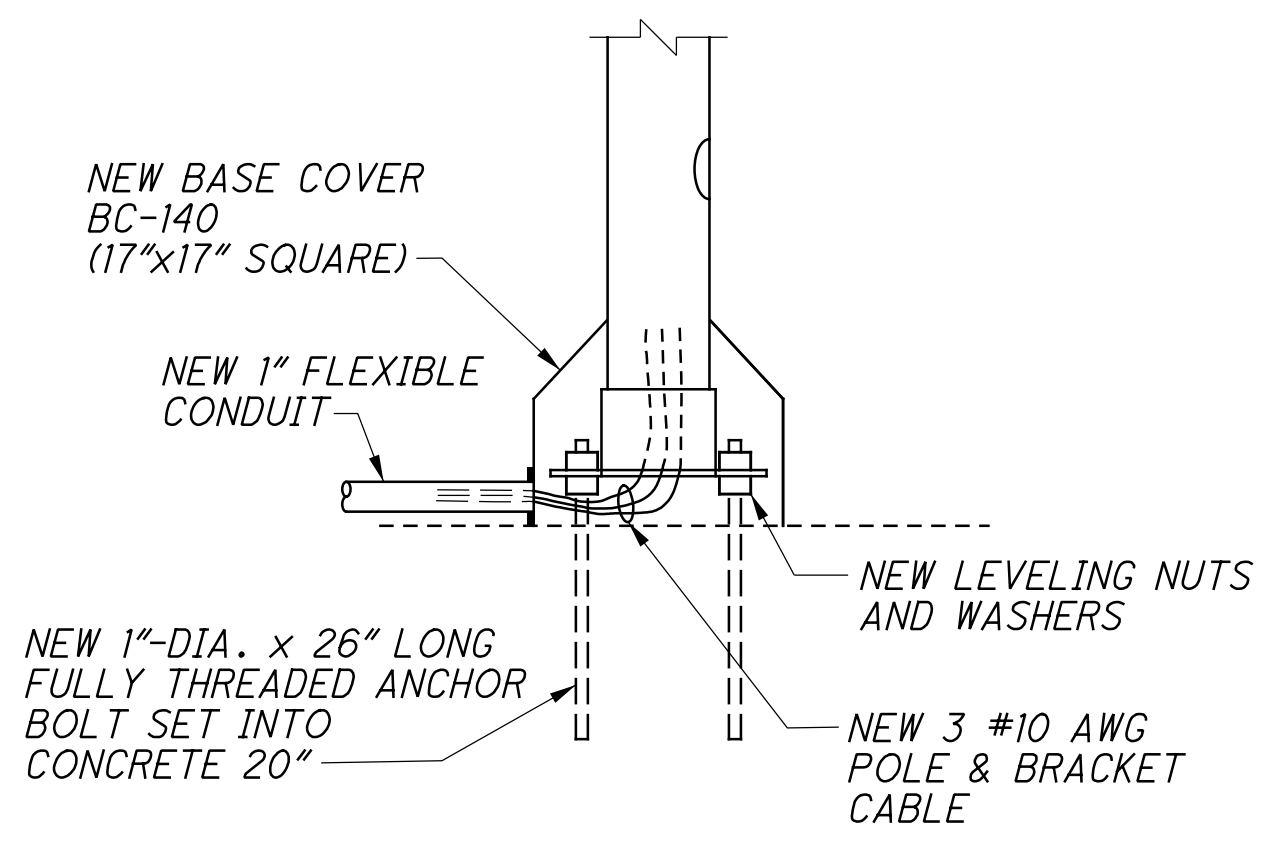


PLAN

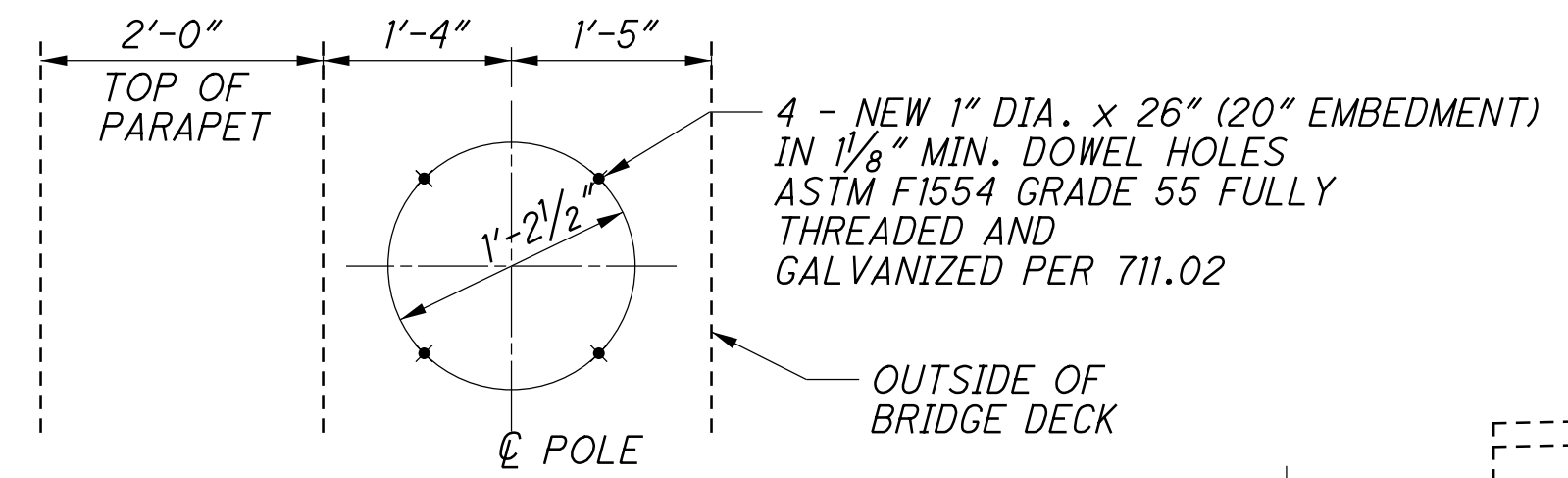


SECTION

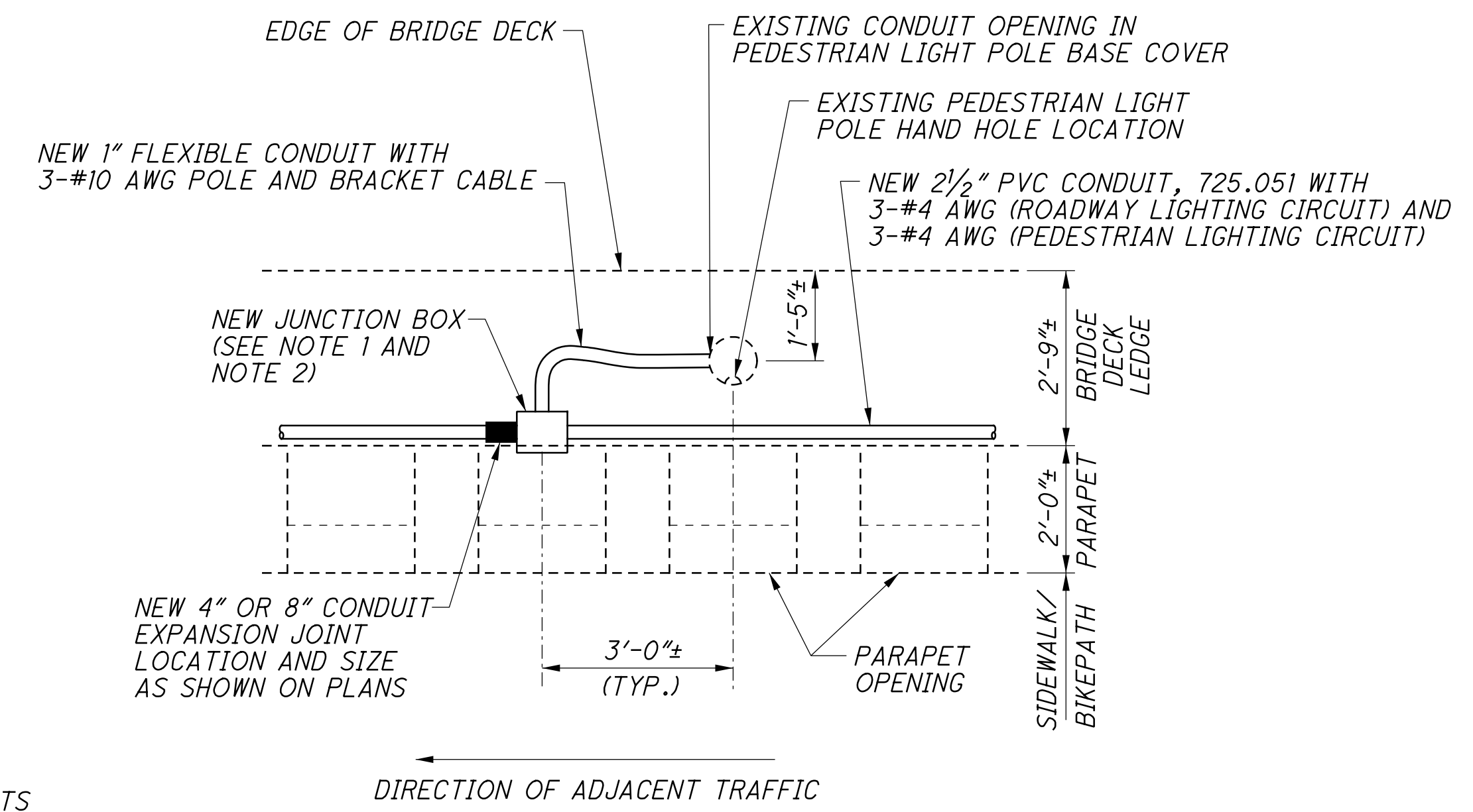
PROPOSED ROADWAY LIGHTING



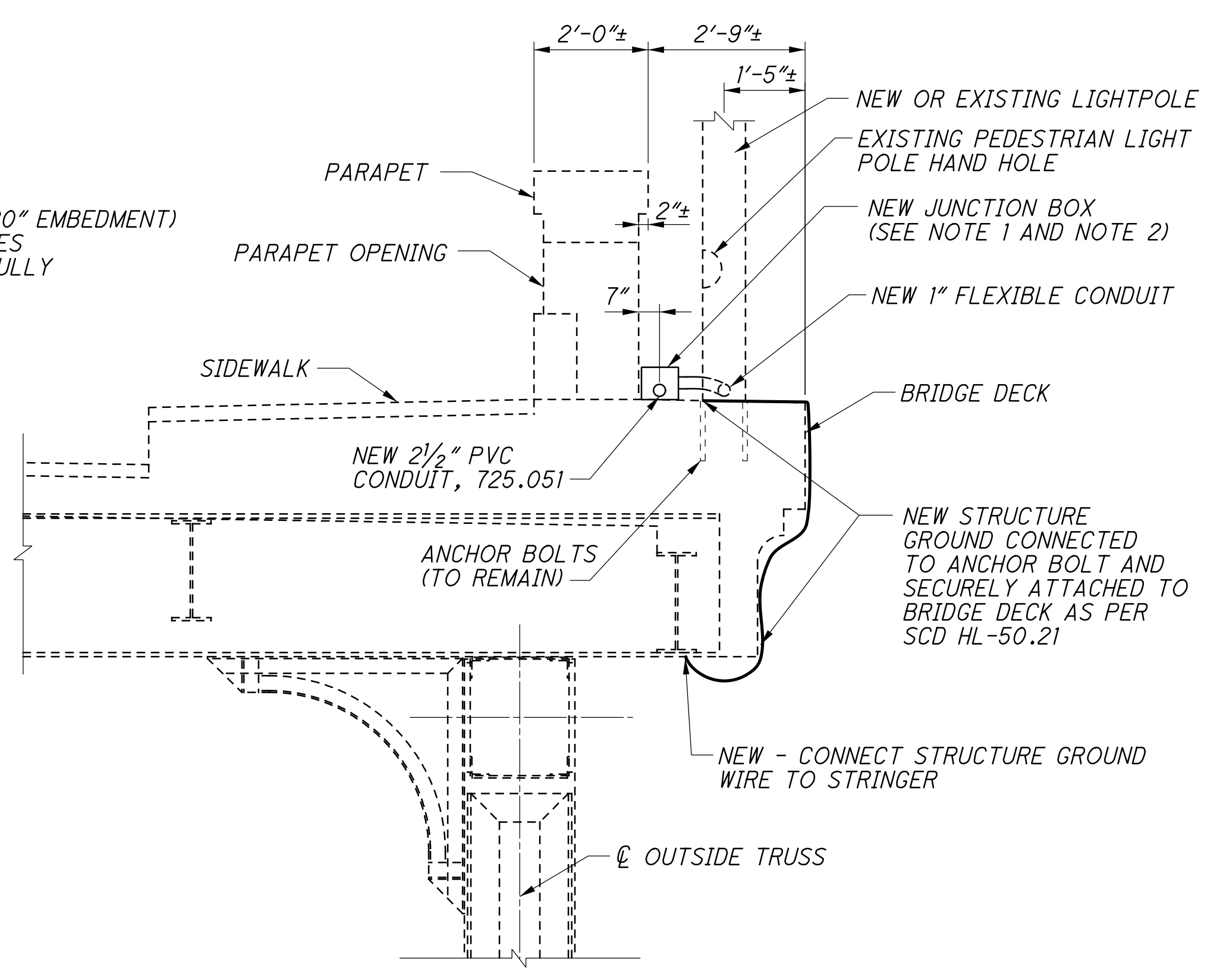
SECTION OF PROPOSED ROADWAY LIGHTING BASE



ITEM 625 - LIGHT POLE ANCHOR BOLTS, MISC.:
NEW ANCHOR BOLTS



PLAN

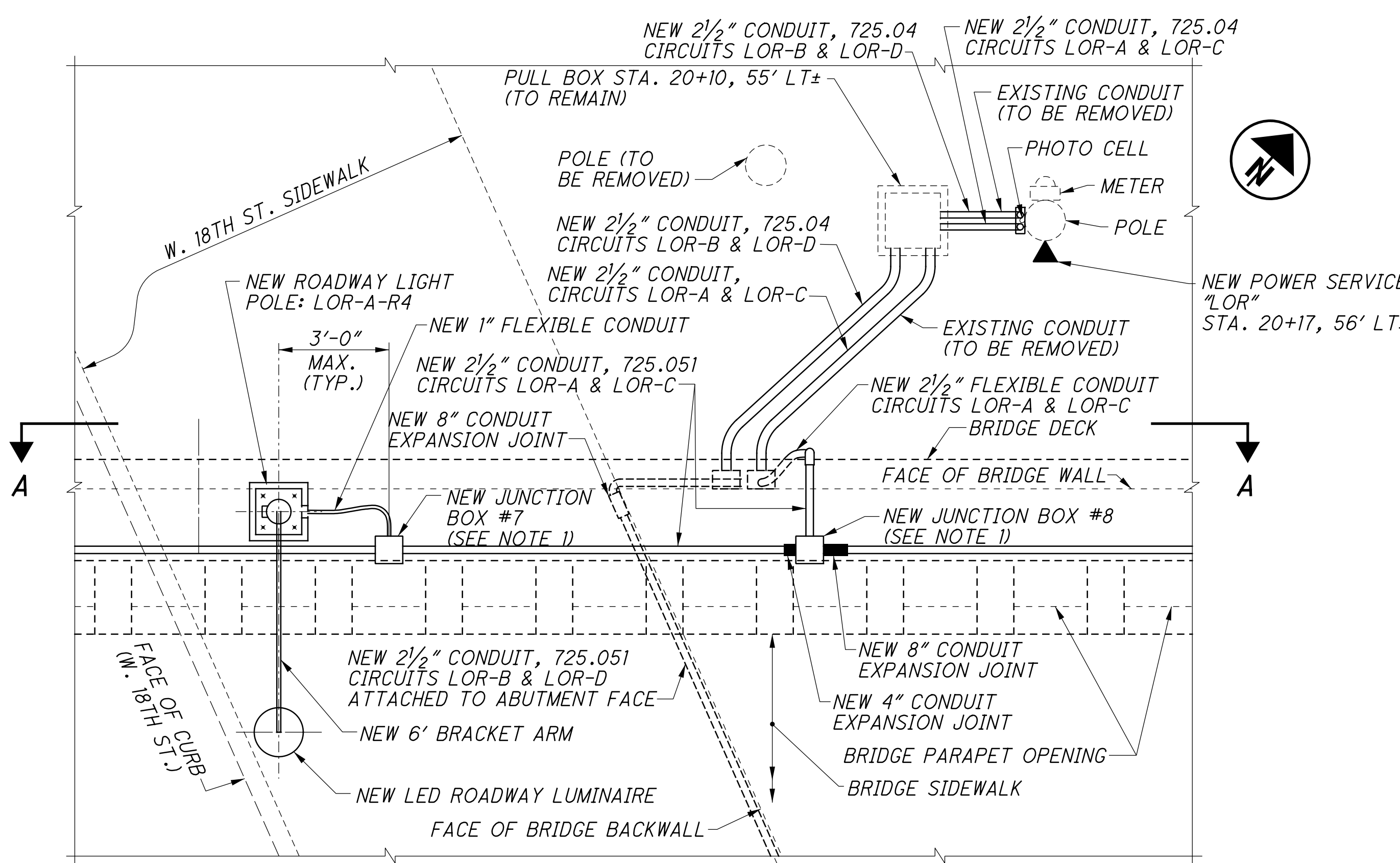


SECTION

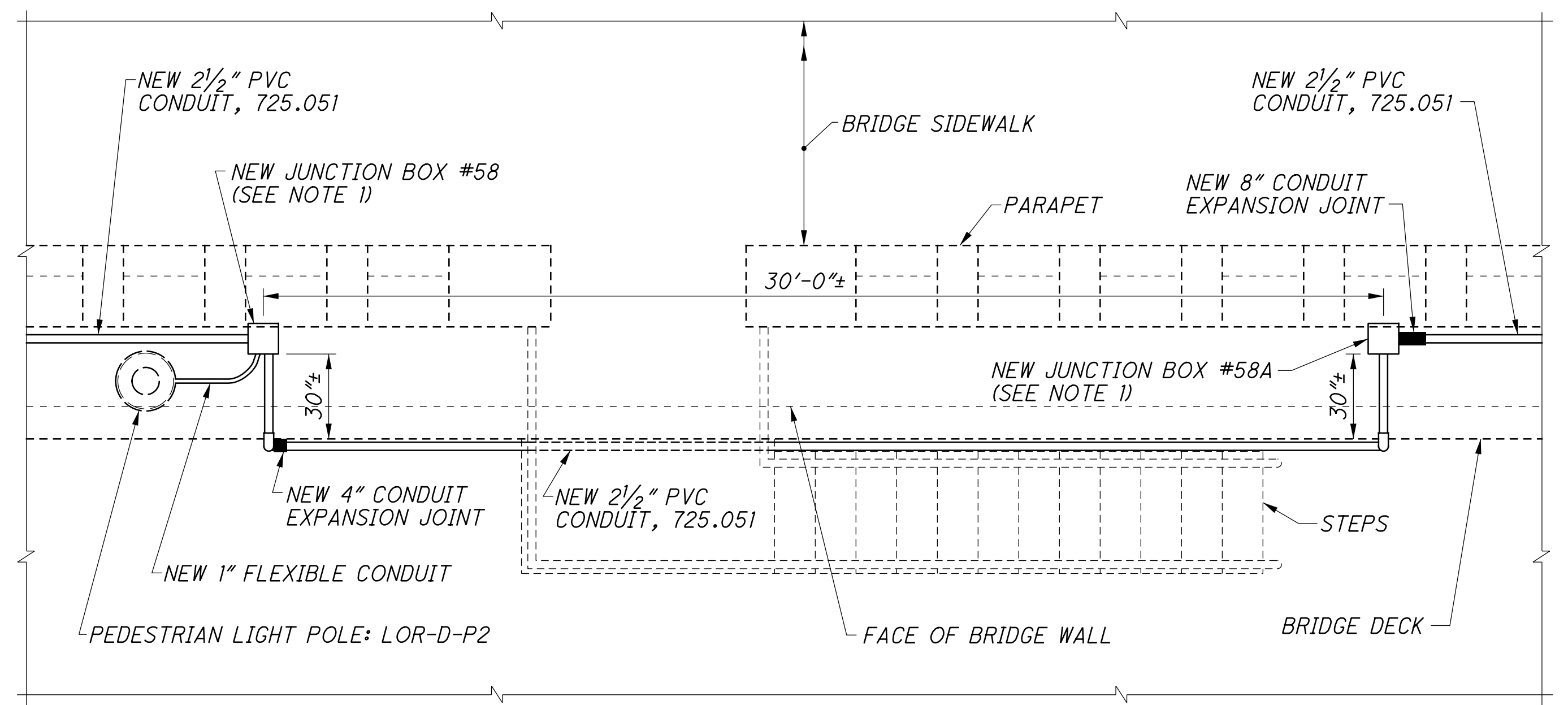
LIGHTPOLE, JUNCTION BOX LOCATION DETAIL

NOTES:

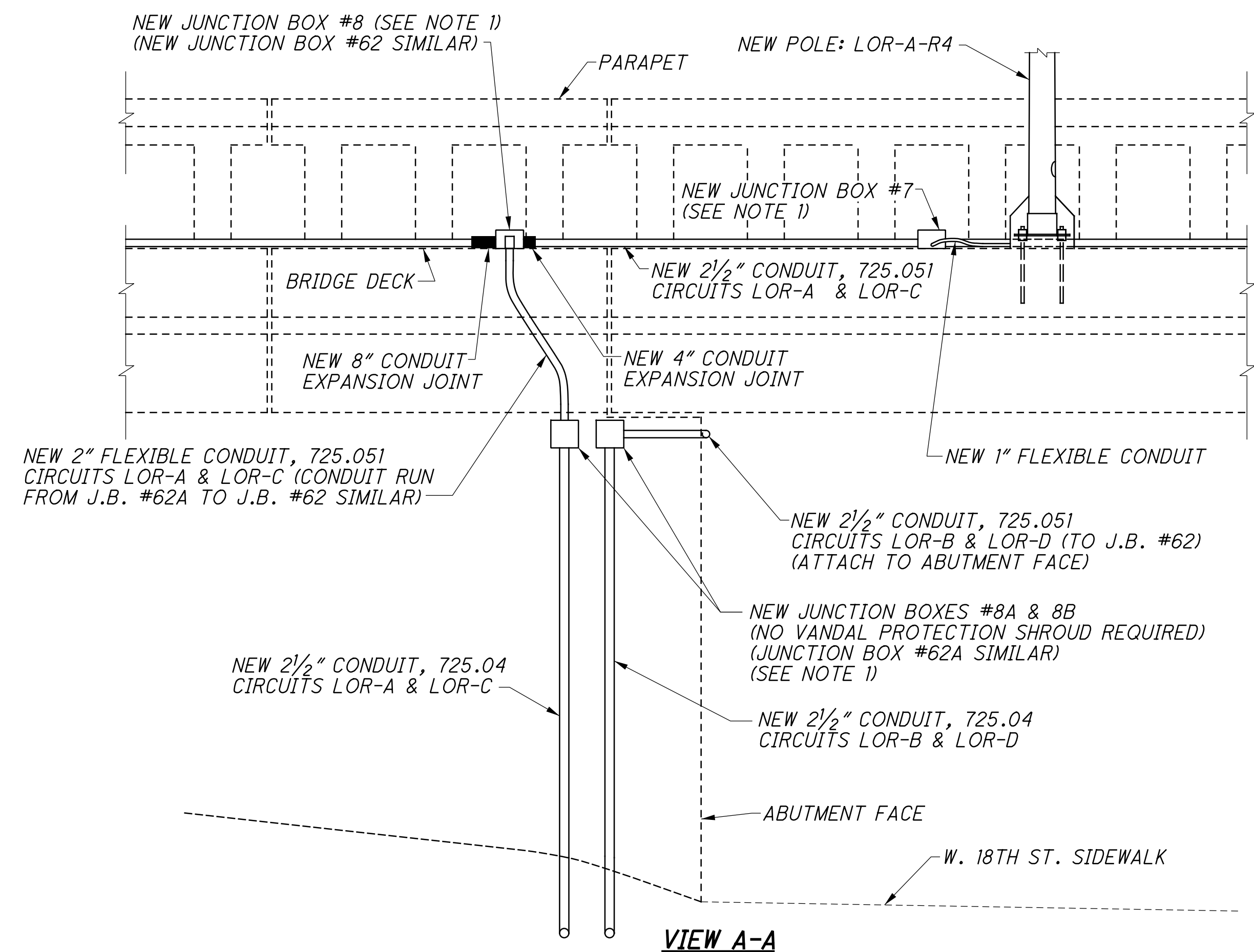
- MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
- 1) NEW JUNCTION BOXES SHALL BE MINIMUM 12"x12"x8" PVC WITH A STAINLESS STEEL VANDAL PROTECTION SHROUD ANCHORED TO THE LEDGE. SEE DETAIL ON SHEET 29.
 - 2) MAKE CONNECTIONS TO POLE AND BRACKET CABLES INSIDE NEW JUNCTION BOXES.



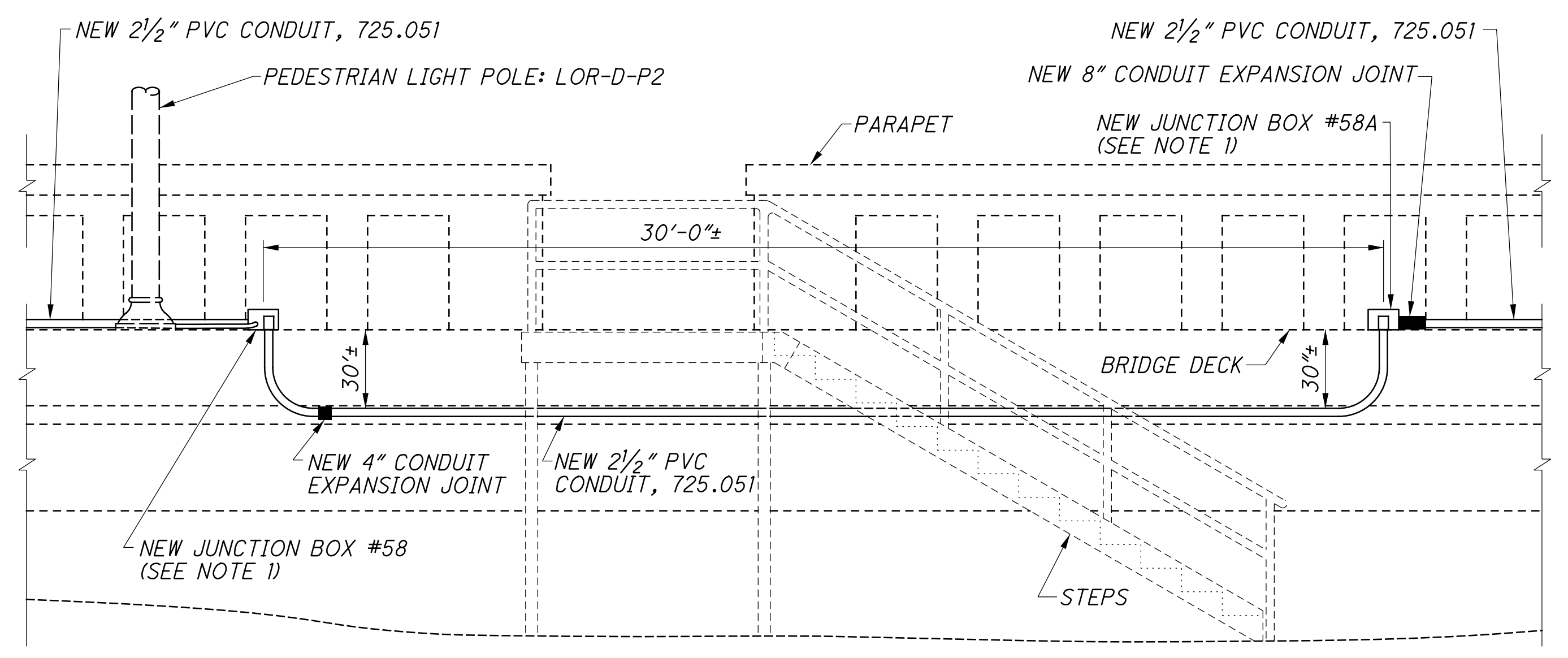
PLAN



PLAN



VIEW A-A
POWER SERVICE DETAIL
(LORAIN AVE. AT WEST 18TH ST.)



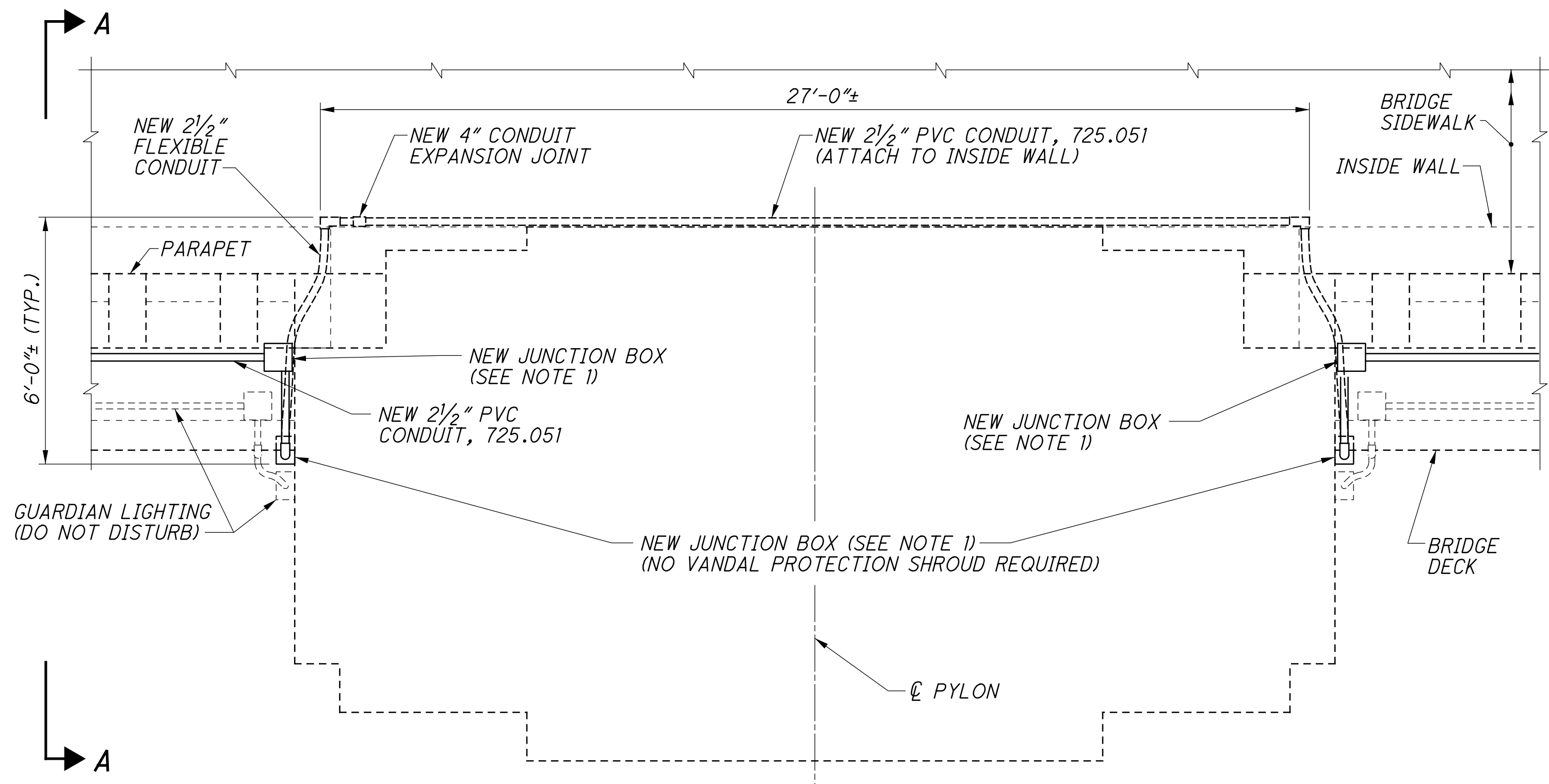
ELEVATION

DETAIL 'B'
(EXISTING STEPS AT END OF W. 19TH)

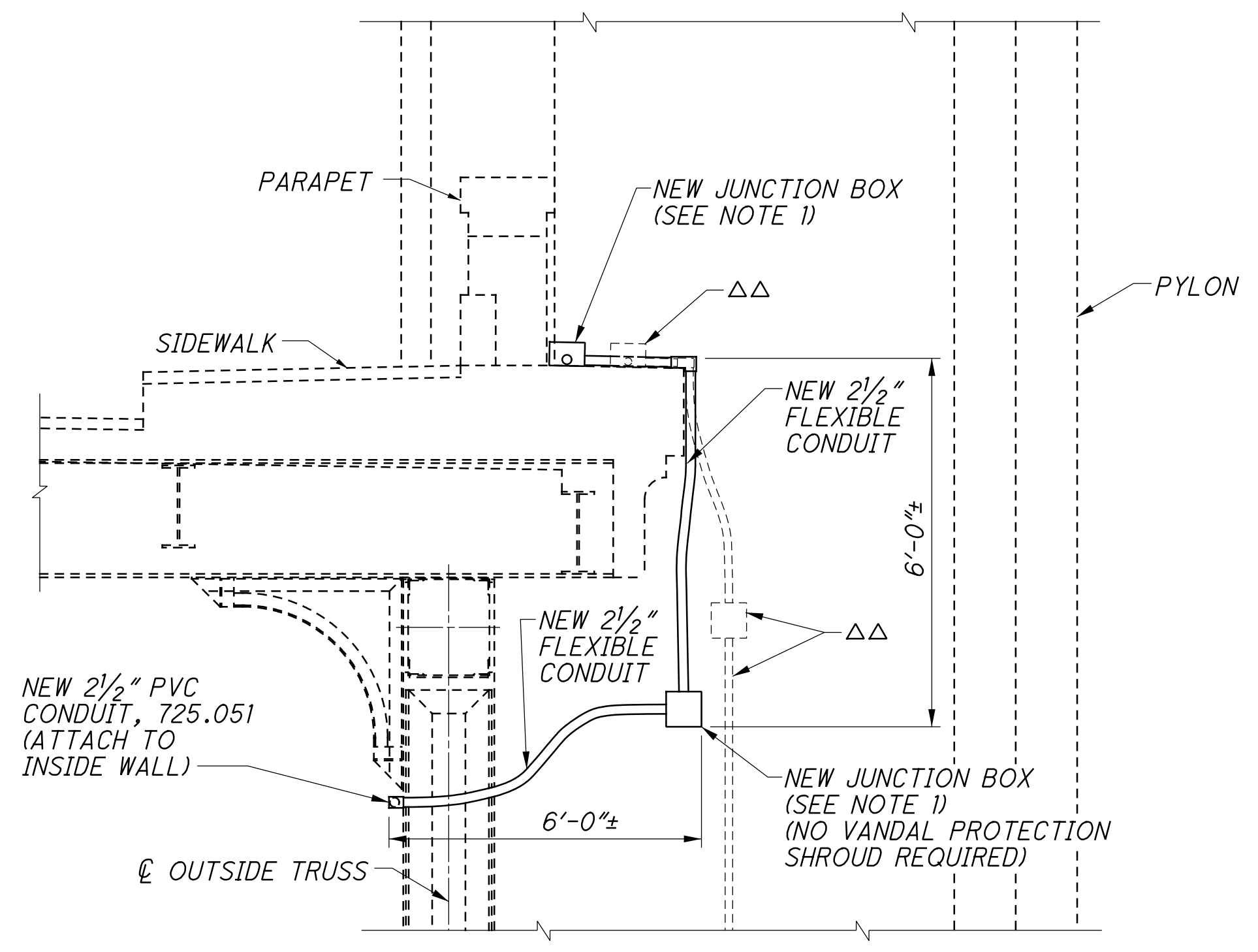
NOTES:

- MATERIALS** SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
- 1) NEW JUNCTION BOXES SHALL BE MINIMUM 12"x12"x8" PVC WITH A STAINLESS STEEL VANDAL PROTECTION SHROUD ANCHORED TO THE LEDGE. SEE DETAIL ON SHEET 29.
- 2) SEE SHEET 30 FOR NEW POWER SERVICE DETAIL.

F:\2014\114059_CUY-10-1613\99756 Project 1\roadway\sheet\99756\LD002.dgn 7/17/2015 9:39:58 AM JoeKirk

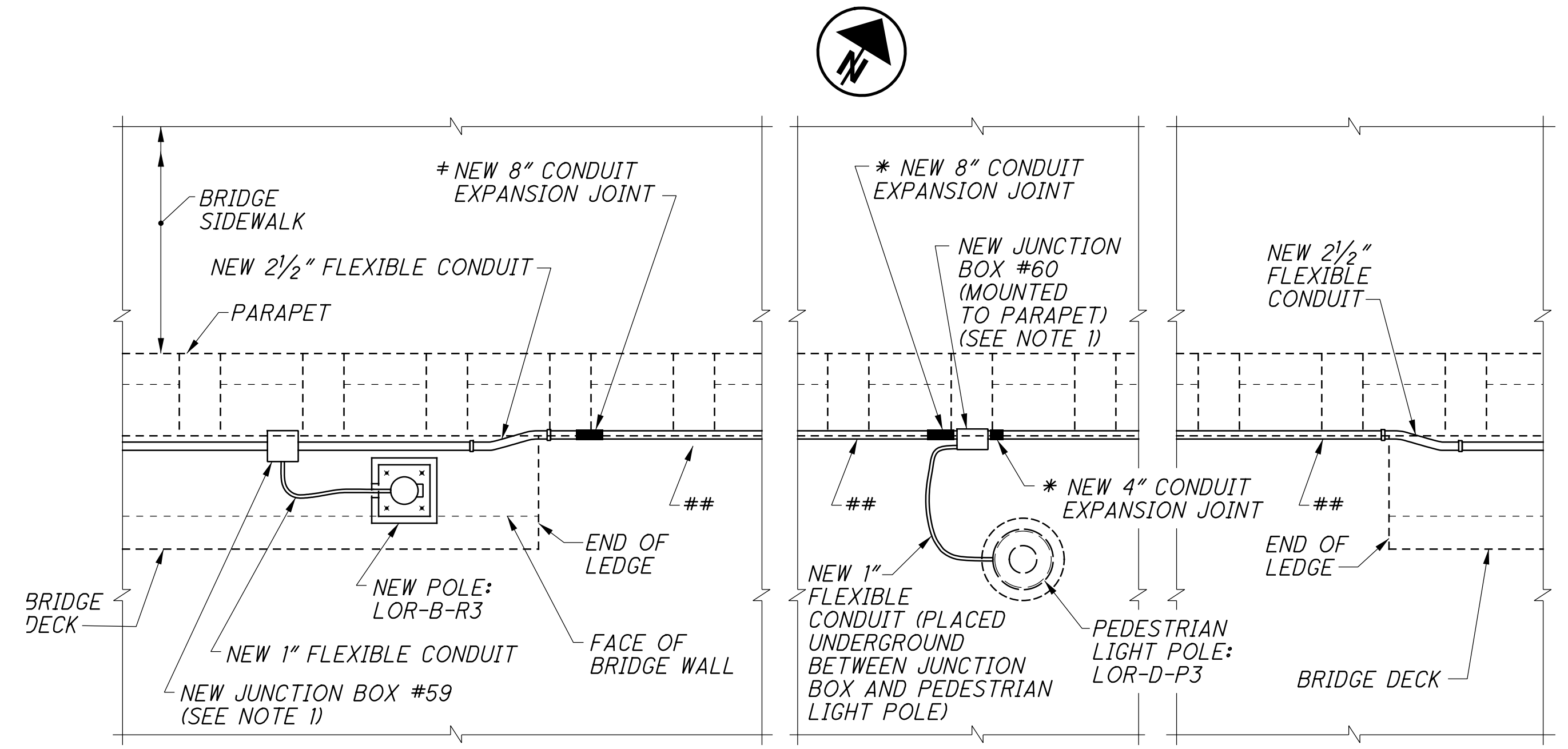


PLAN

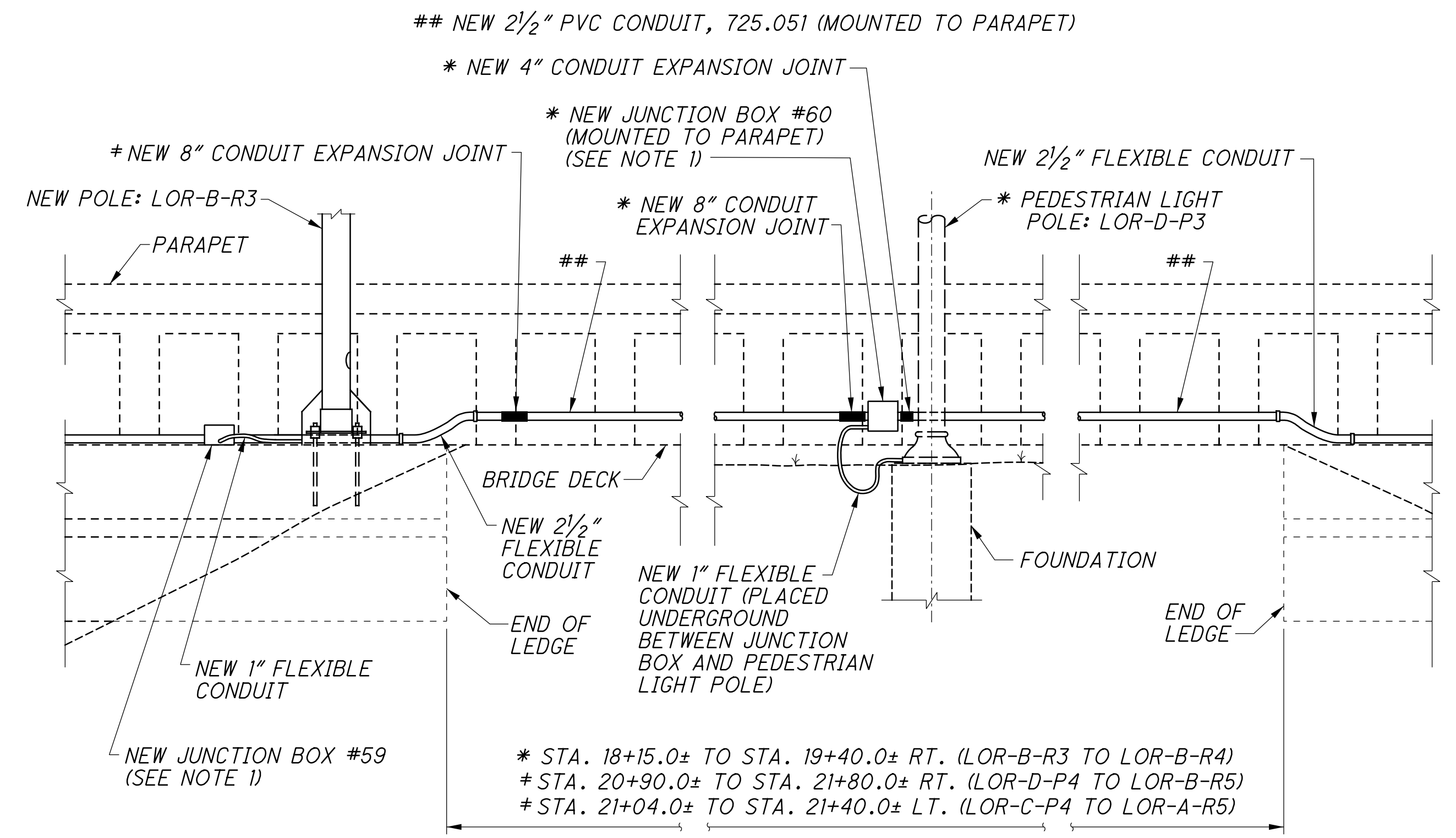


VIEW A-A

NEW CONDUIT AROUND PYLON DETAIL (TYP.)



PLAN



ELEVATION

DETAIL 'C'

(NEW CONDUIT TYPICAL LAYOUT WITHOUT LEDGE)

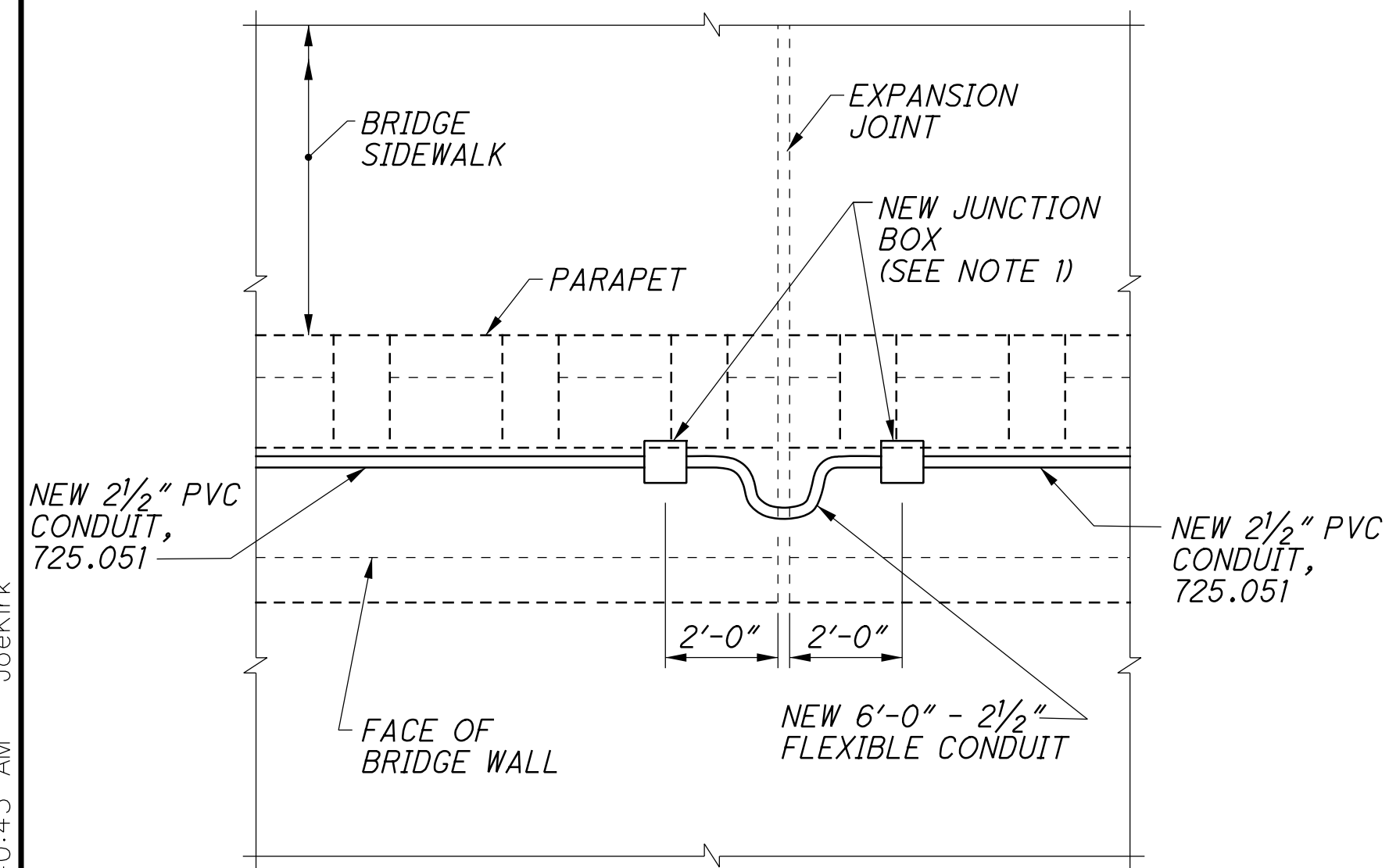
NOTES:

MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.

1) NEW JUNCTION BOXES SHALL BE MINIMUM 12"x12"x8" PVC WITH A STAINLESS STEEL VANDAL PROTECTION SHROUD ANCHORED TO THE LEDGE. SEE DETAIL ON SHEET 29.

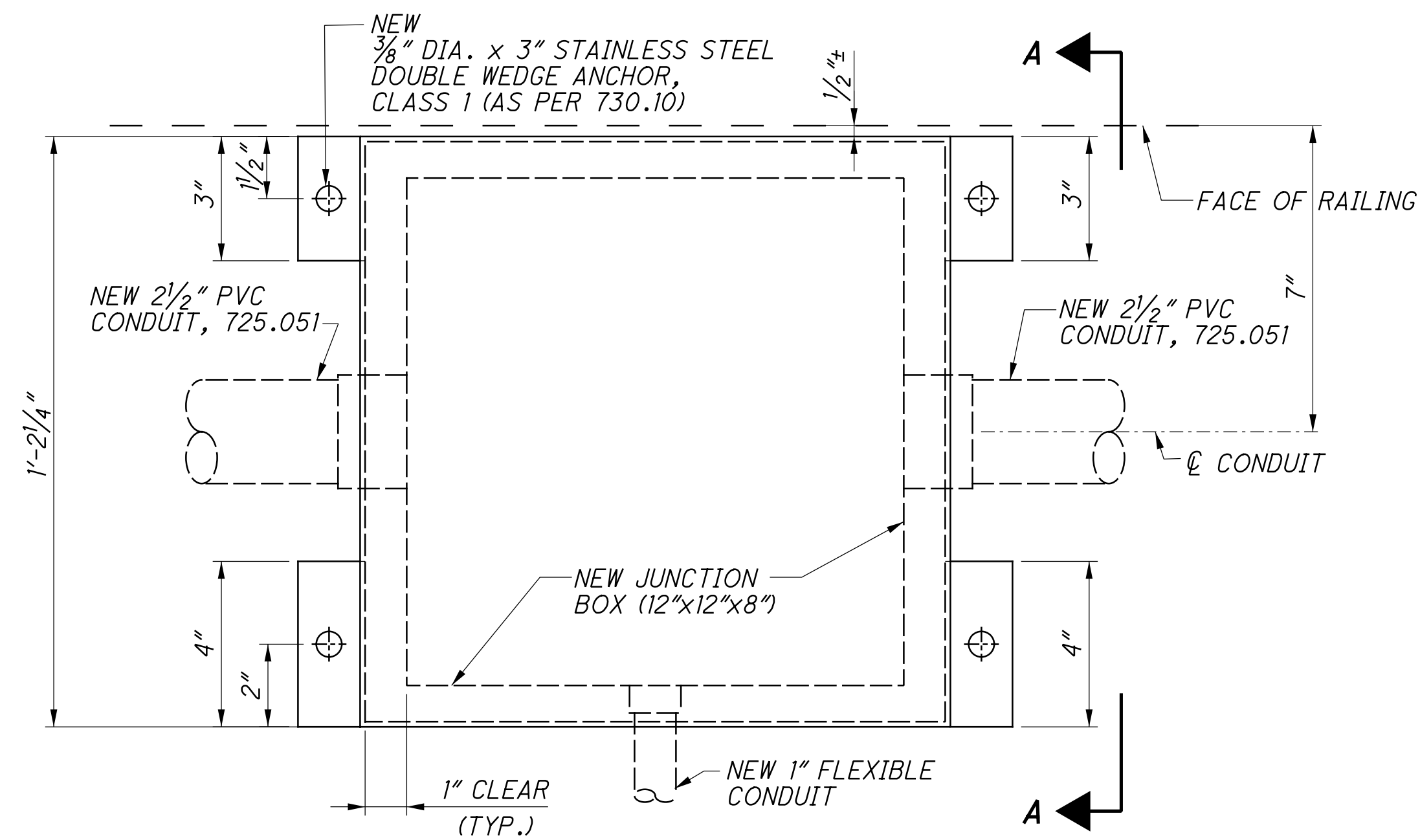
F:\2014\114059_CUY-10-1613\99756 Project 1\roadway\sheet\99756L003.dgn 7/17/2015 9:40:19 AM JoeKirk

F:\2014\114059_CUY-10-16\13\99756 Project 1\roadway\sheets\99756\LD008.dgn 7/17/2015 9:40:43 AM JoeKirk

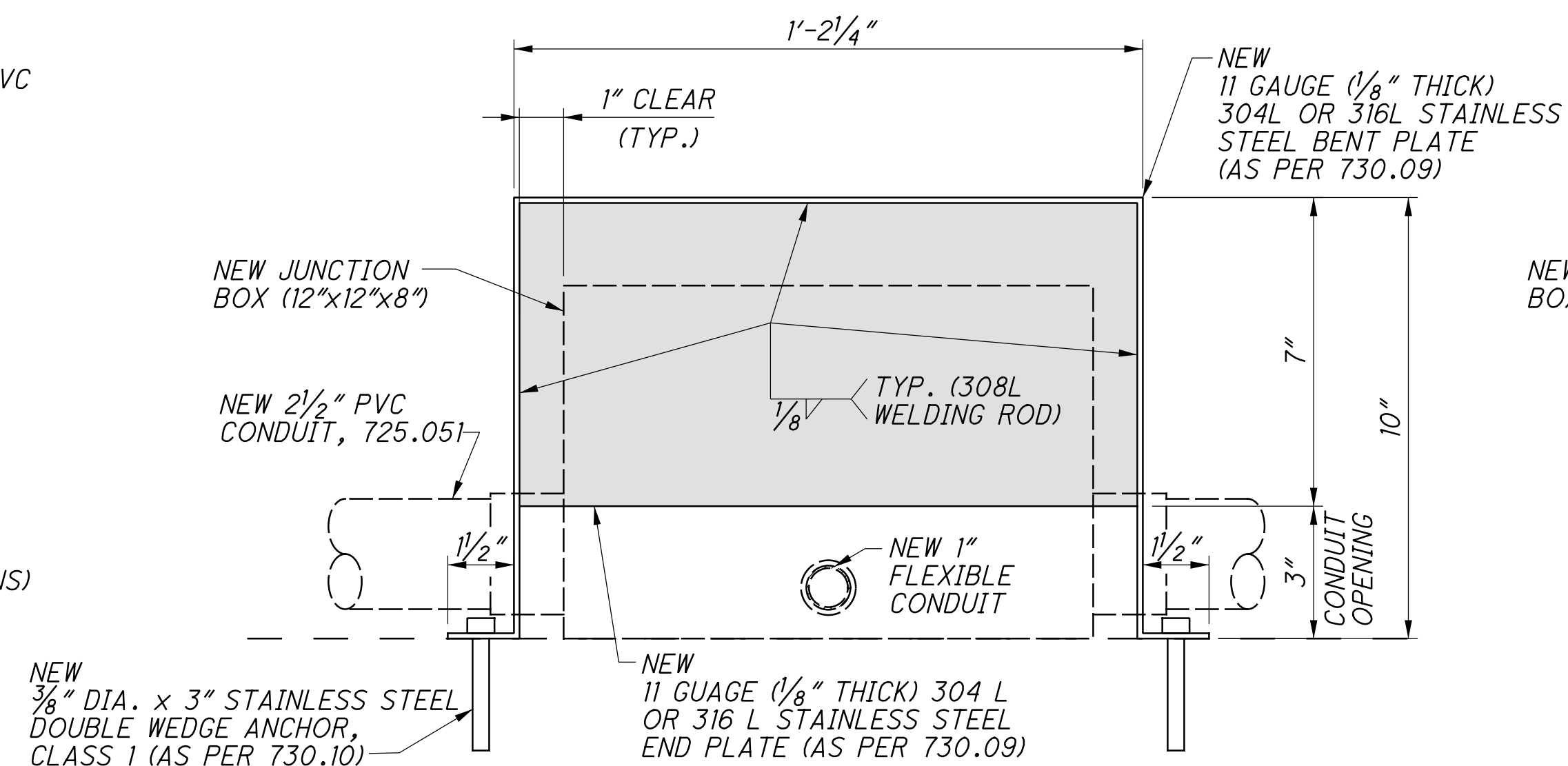


PLAN

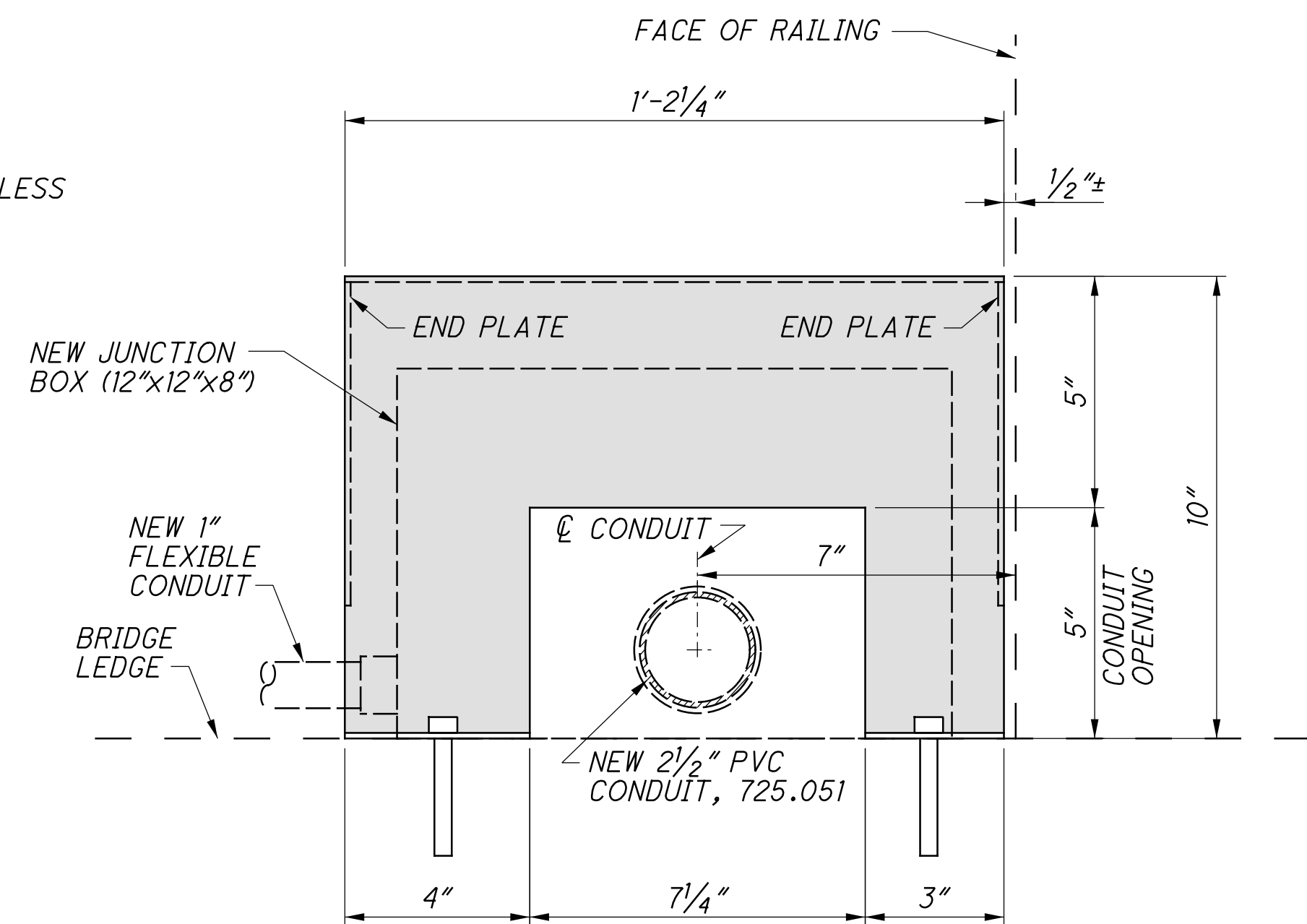
MAIN STRUCTURE SPECIAL EXPANSION JOINT DETAIL
(NEW CONDUIT TYPICAL LAYOUT AT EXPANSION JOINT WHERE SHOWN ON THE PLANS)



PLAN



ELEVATION



VIEW A-A

JUNCTION BOX VANDAL PROTECTION SHROUD DETAIL

(OUTER SHROUD DIMENSIONS ARE FOR A 12"x12"x8" PVC JUNCTION BOX.
CONTRACTOR SHALL CONFIRM SHROUD DIMENSIONS SHOWN WILL
WORK WITH THE JUNCTION BOX PROVIDED AND ADJUST AS
NECESSARY PRIOR TO ORDERING)

NOTES:

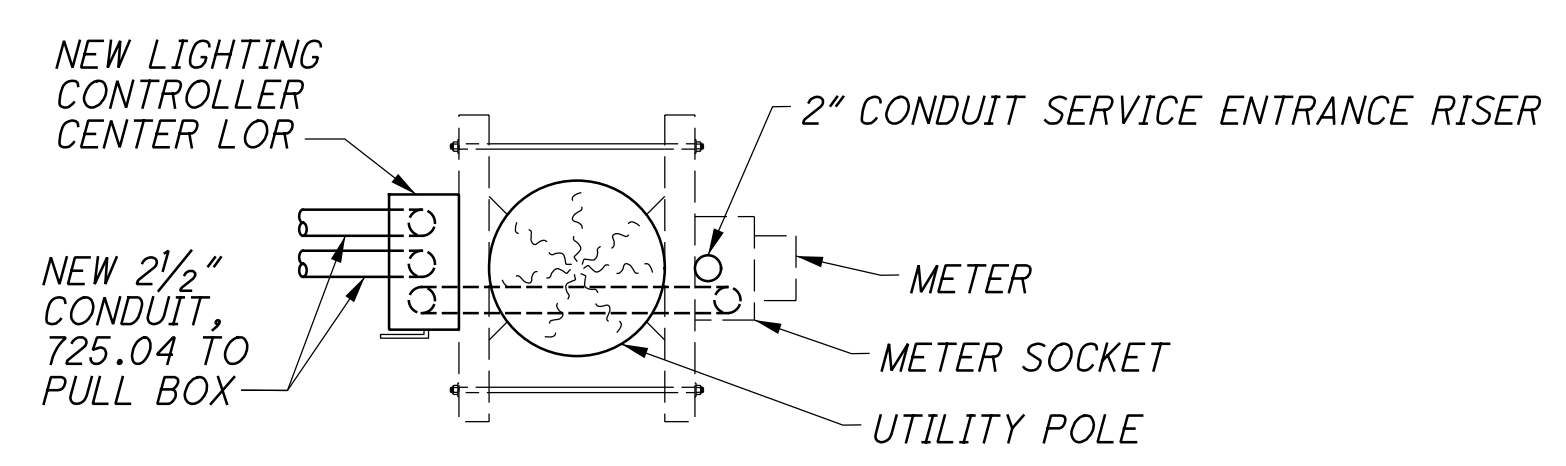
MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.

1) NEW JUNCTION BOXES SHALL BE MINIMUM 12"x12"x8" PVC WITH
A STAINLESS STEEL VANDAL PROTECTION SHROUD ANCHORED
TO THE LEDGE. SEE DETAIL ABOVE.

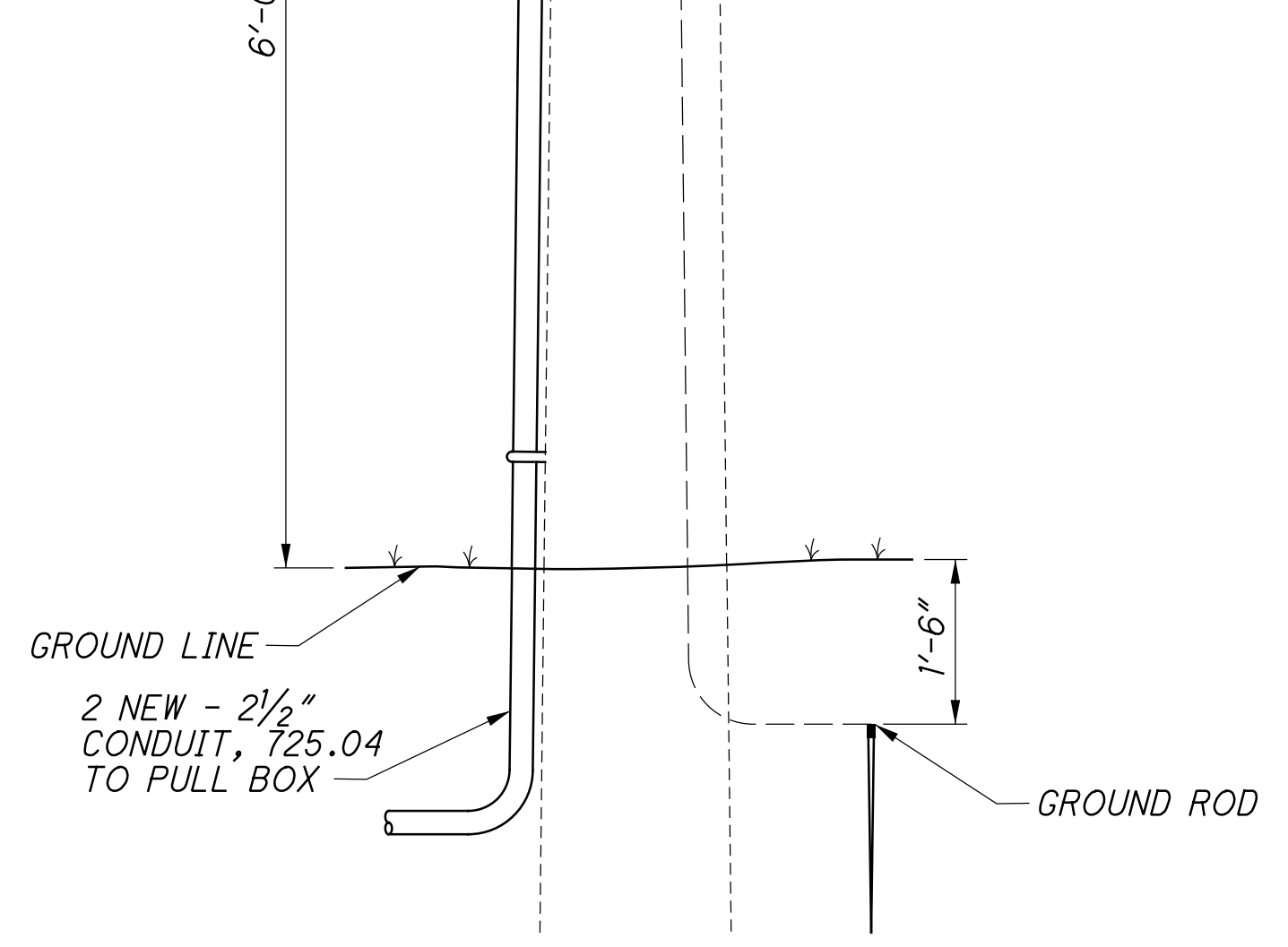
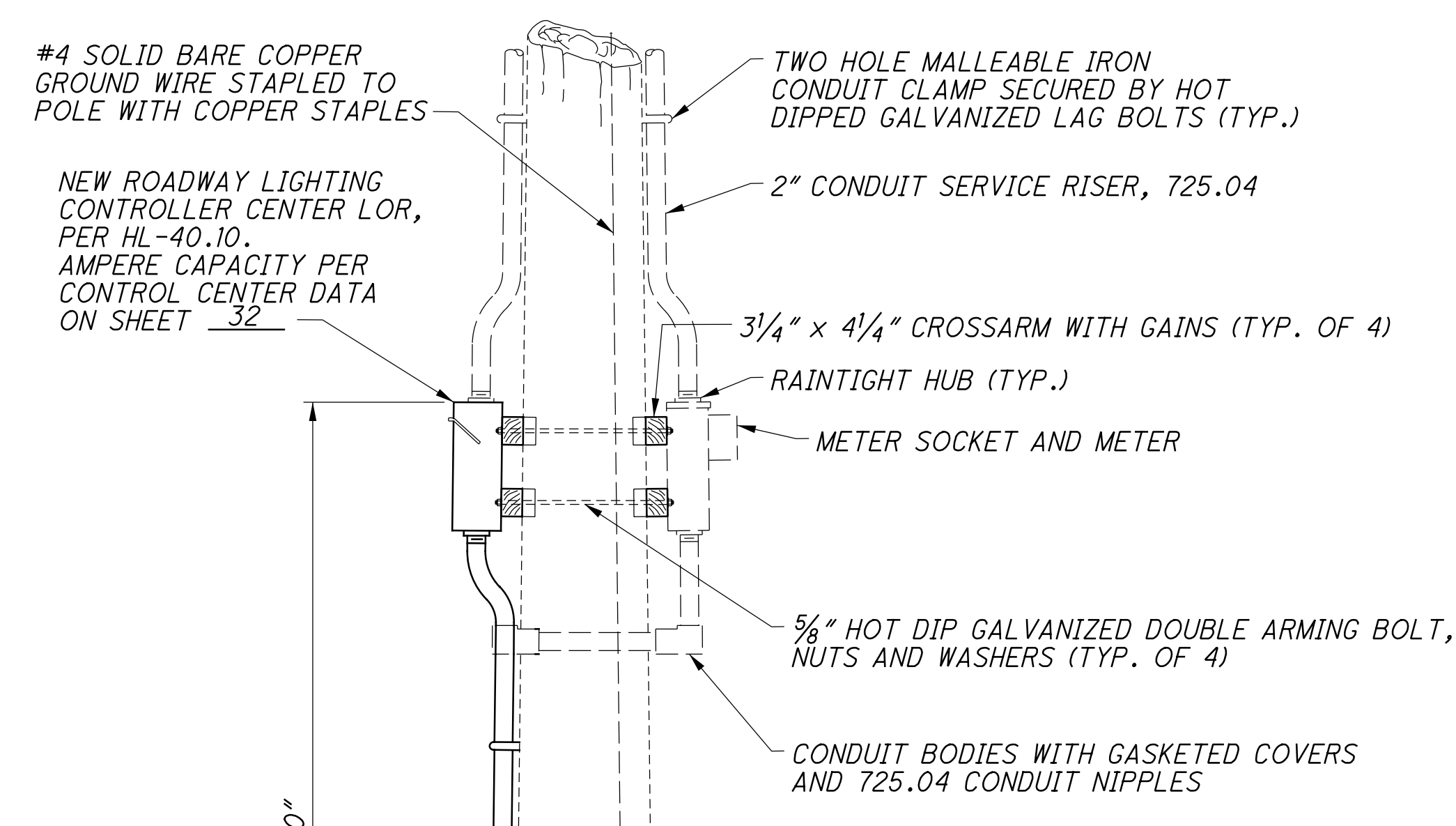
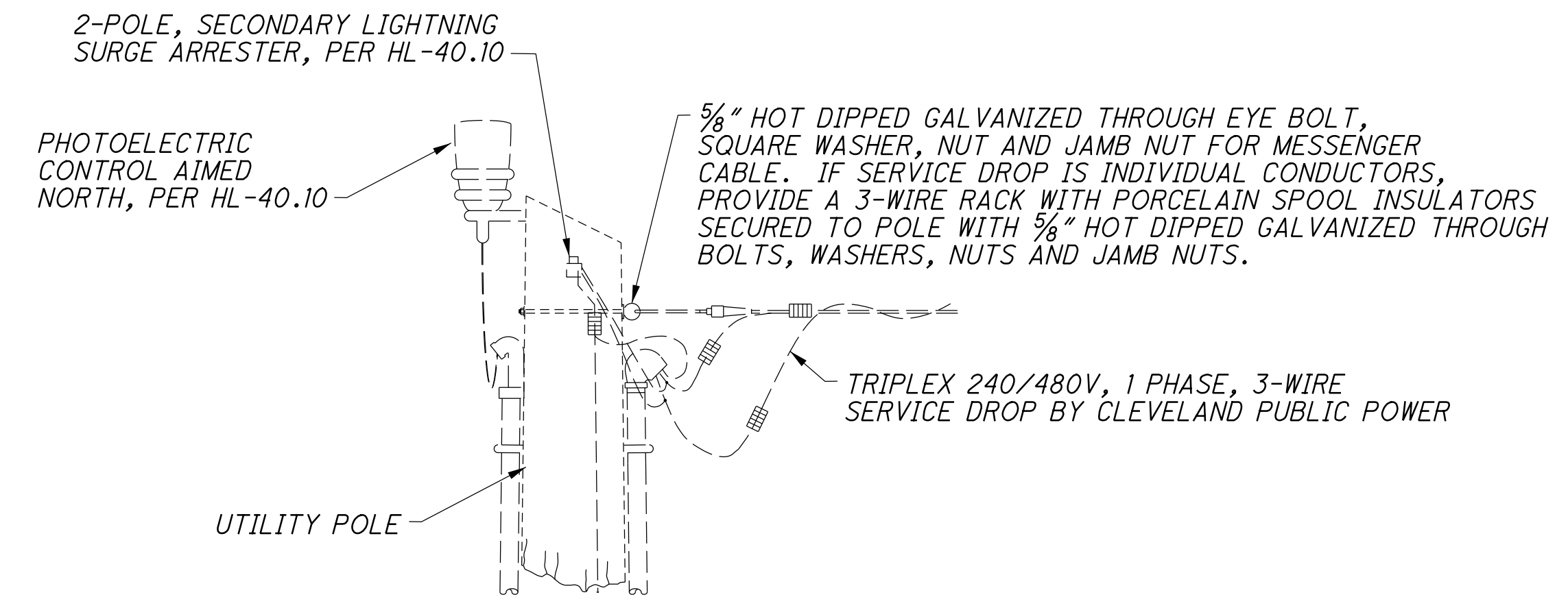
CALCULATED
JDL
CHECKED
DLR

LIGHTING DETAILS

CUY-10-16.13

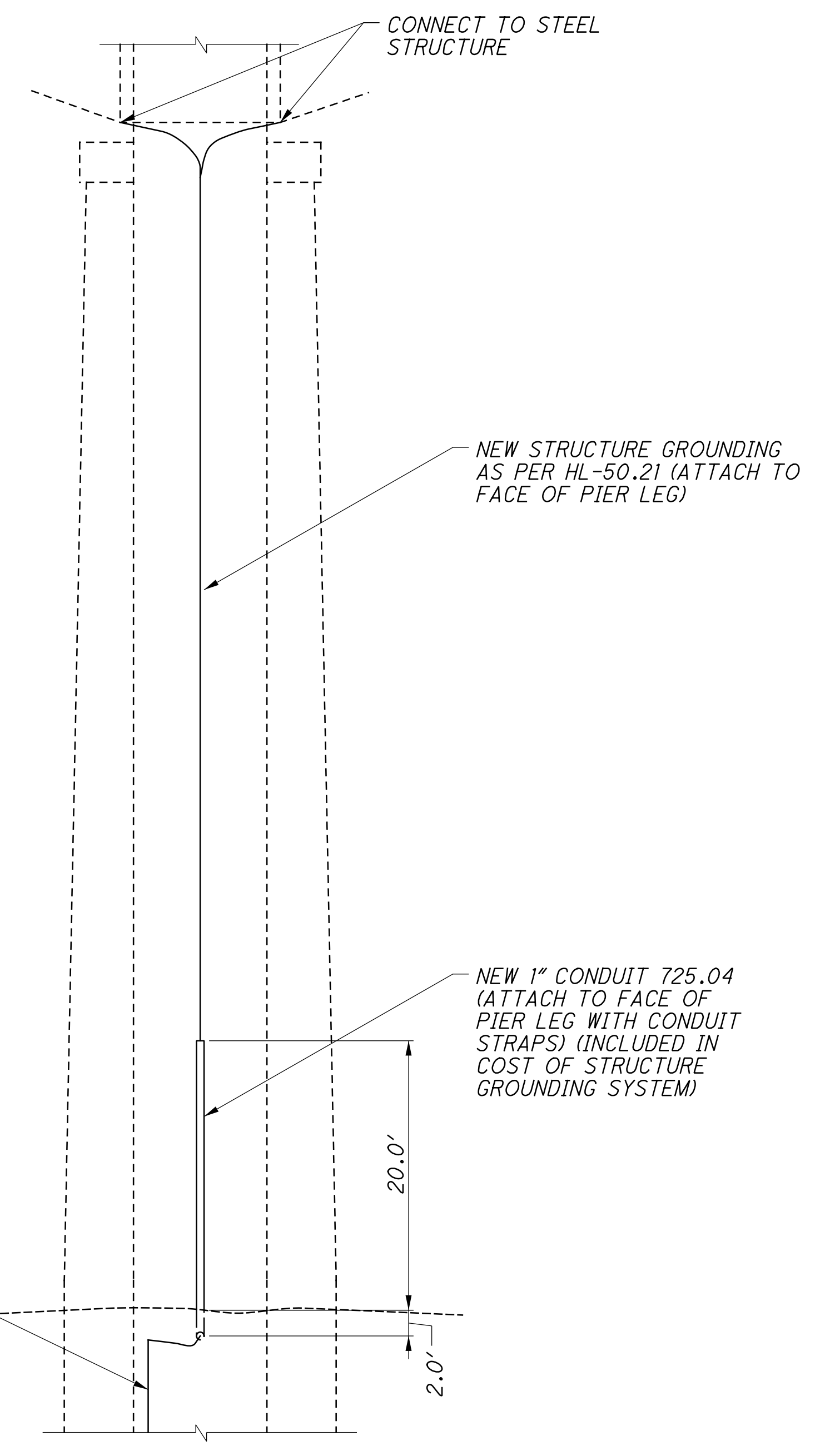


PLAN



ELEVATION

NEW POWER SERVICE ON EXISTING POLE
(NOT TO SCALE)



ELEVATION

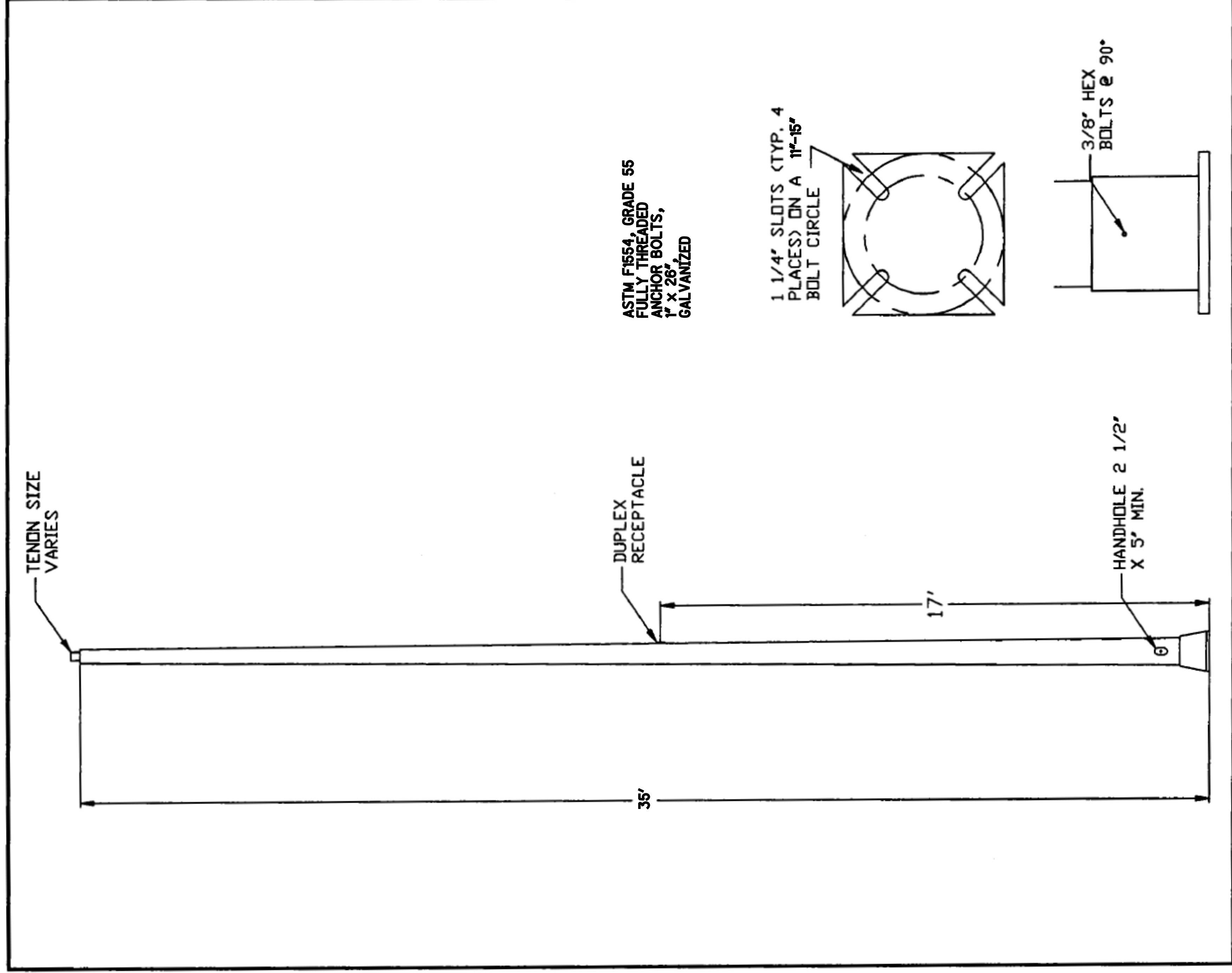
TYPICAL STRUCTURE GROUNDING DETAIL
(NOT TO SCALE)

(LEFT AND RIGHT OUTSIDE OF PIERS 7, 9, 10, 12, 14, 16, 18 AND EAST ABUTMENT)

NOTES:

MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.

F:\2014\114059_CUY-10-16\13\99756 Project 1\Roadway\sheets\99756L.D005.dgn 7/17/2015 9:41:05 AM JoeKirk

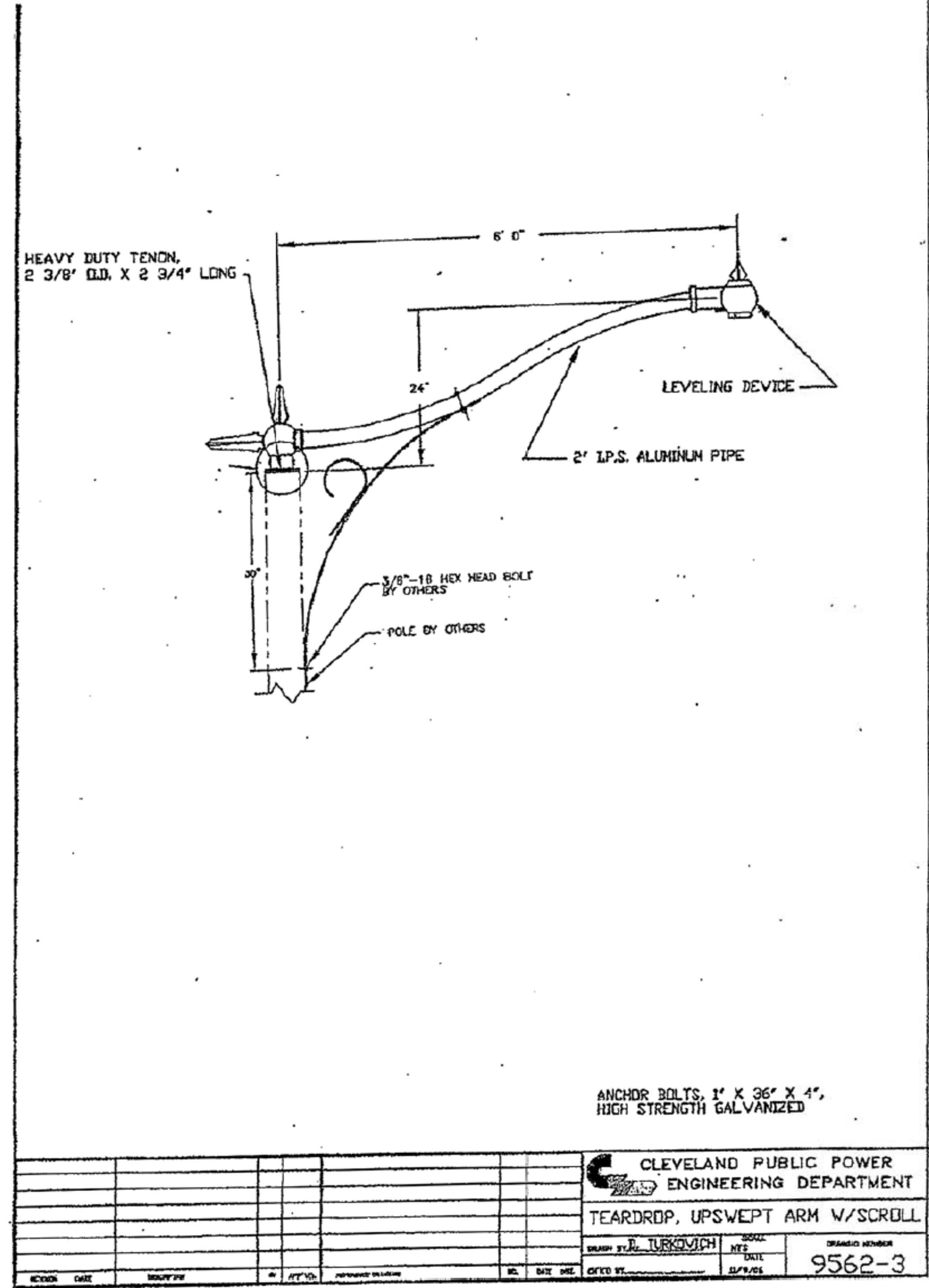
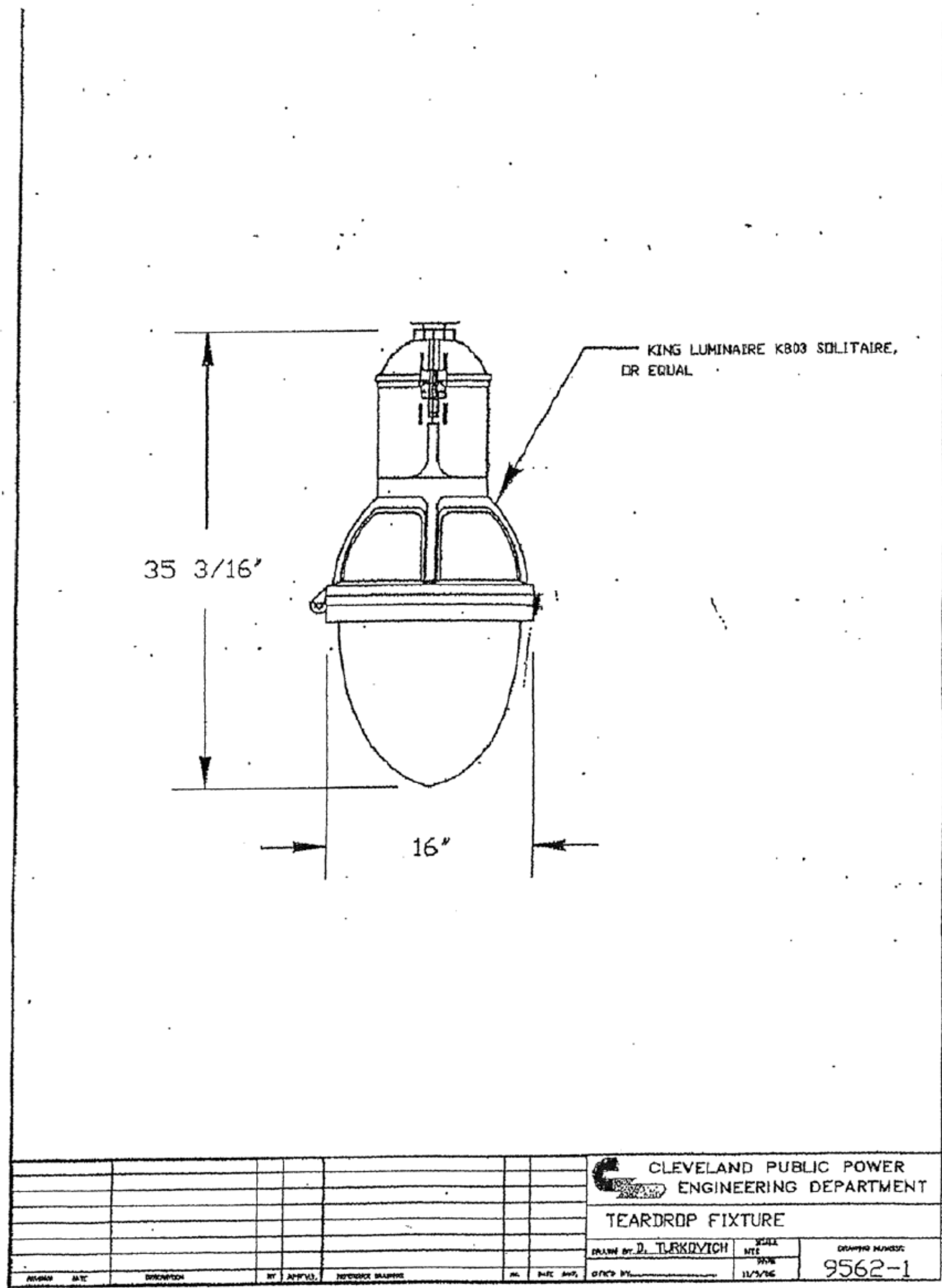


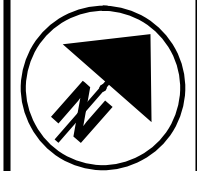
REVISION	DATE	DESCRIPTION	BY	APPROV.	REFERENCE DRAWING	NO.	DATE	INCL.

**CLEVELAND PUBLIC POWER
ENGINEERING DEPARTMENT**

STANDARD ROUND TAPERED FIBERGLASS POLE

DRAWN BY: **D. TURKOVICH** SCALE: NTS DATE: 7/12/04
 CHECKED BY: _____ DRAWING NUMBER: **7316**

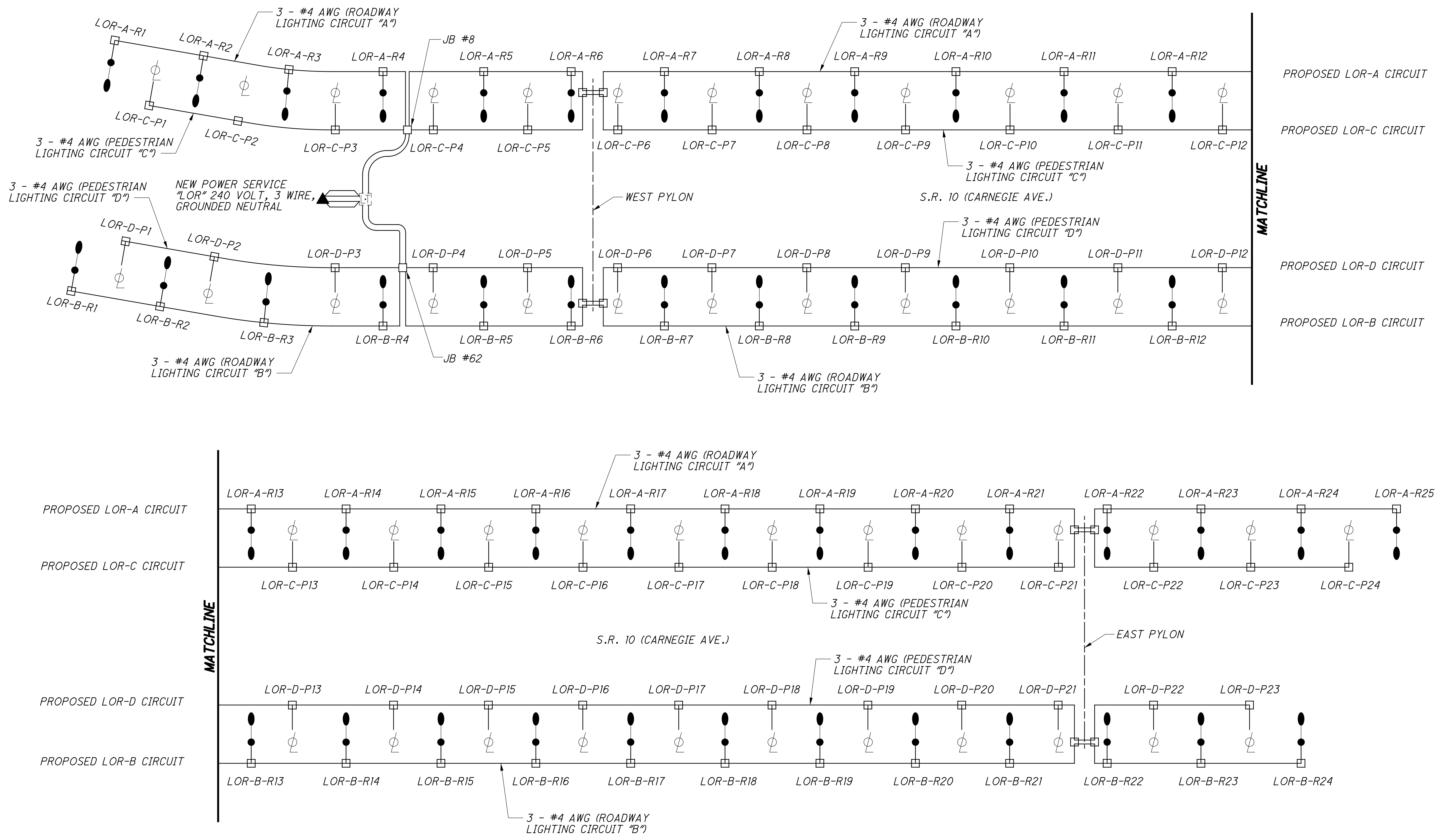




CALCULATED
JDL
CHECKED
DLR

LIGHTING CIRCUIT PLAN

CUY-10-16.13

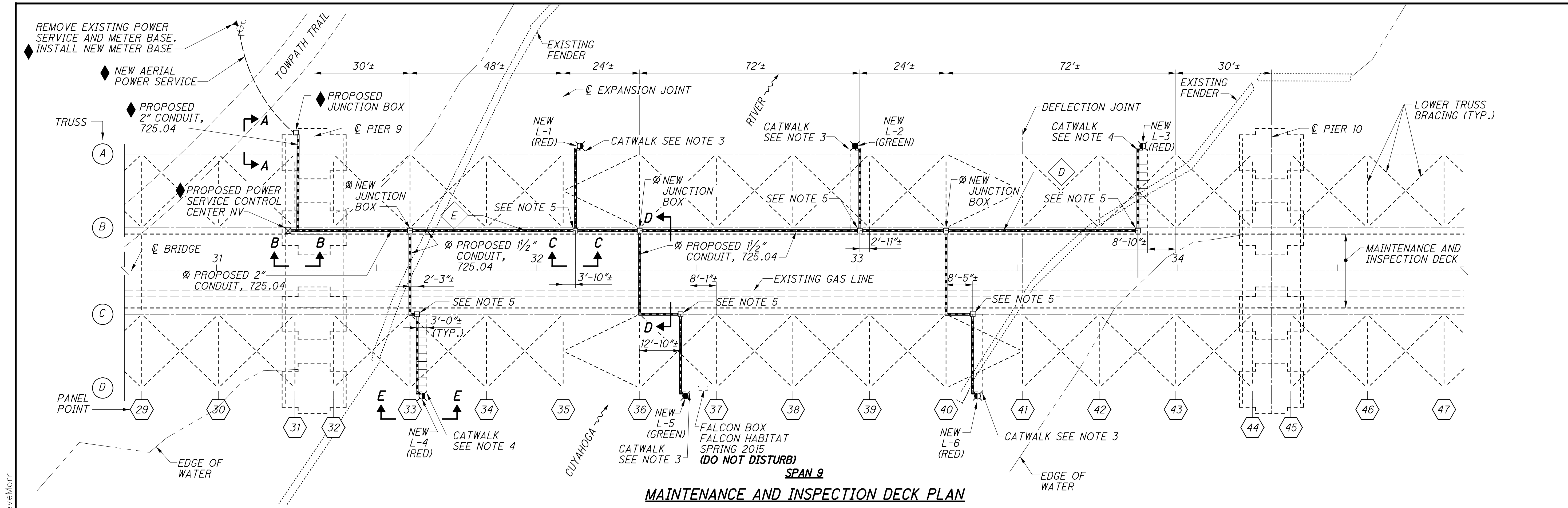


PROPOSED POWER SERVICE DATA									
CONTROL CENTER	LINE VOLTAGE (VOLTS)	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CABLE (AWG)	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD (AMPS)	CIRCUIT FUSE SIZE (AMPS)	CIRCUIT CABLE SIZE (AWG)	MAINTAINING AGENCY
LOR	240	19.8	#4 ♦	125	A	30.0	40	#4	CLEVELAND PUBLIC POWER
					B	28.8	40	#4	
					C	12.0	20	#4	
					D	11.5	20	#4	

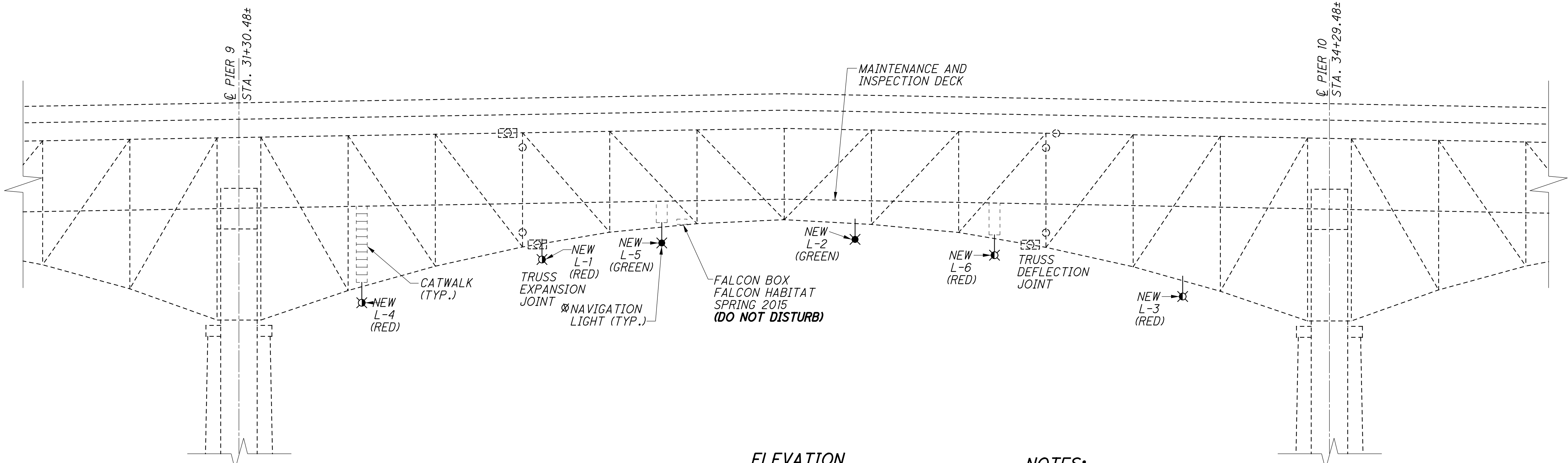
♦ EXISTING INFORMATION TAKEN FROM CUY-10-15.96, PID: 89194 PLANS

- LEGEND**
- PROPOSED ROADWAY LIGHTING
 - PROPOSED JUNCTION BOX
 - EXISTING PEDESTRIAN LIGHT POLE
 - EXISTING LIGHTING PULL BOX

F:\2014\114059_CUY-10-1613.99756 Project 1\roadway\sheet\99756L001.dgn 7/17/2015 9:43:00 AM JoeKirk



MAINTENANCE AND INSPECTION DECK PLAN



ELEVATION

LEGEND

- RIGID METALLIC CONDUIT DEFLECTION JOINT (1")
- RIGID METALLIC CONDUIT EXPANSION JOINT (4")

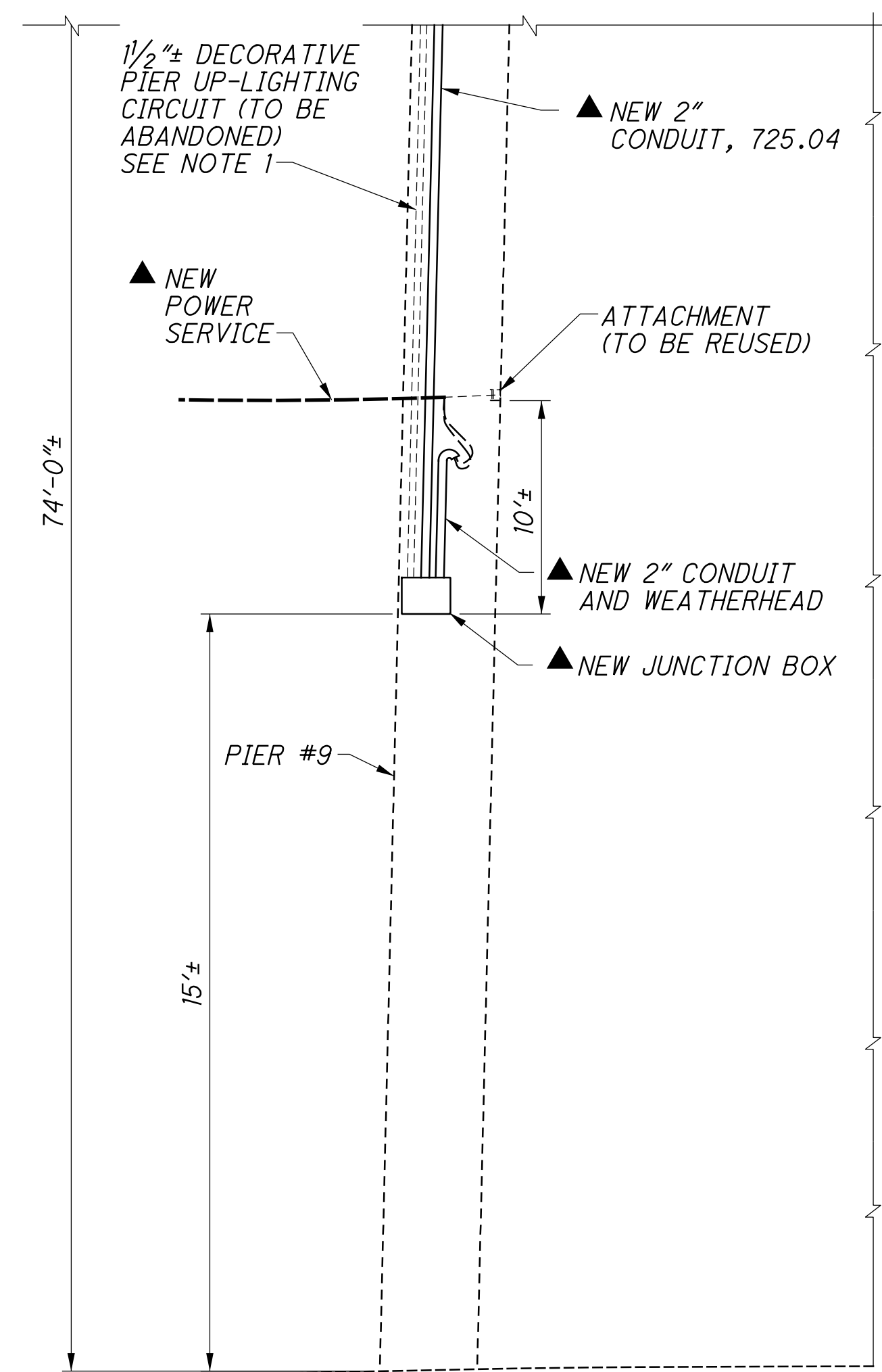
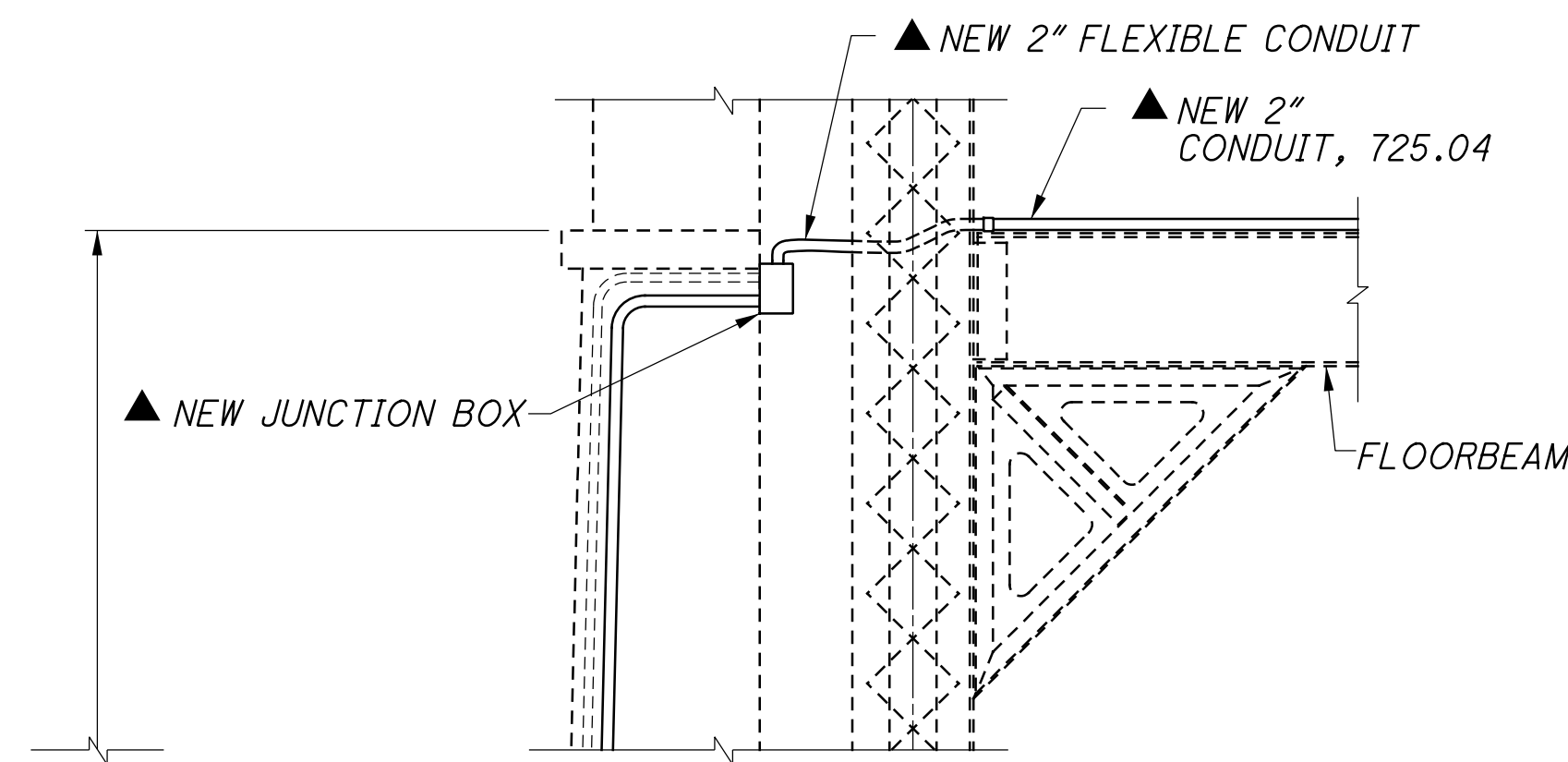
- ITEMS INCLUDED IN THE COST OF ITEM 625 POWER SERVICE, AS PER PLAN NO. 2
- ITEMS INCLUDED IN THE COST OF ITEM 625 LIGHTING, MISC.: BRIDGE MOUNTED MARINE NAVIGATION LIGHTING, LED

NOTES:

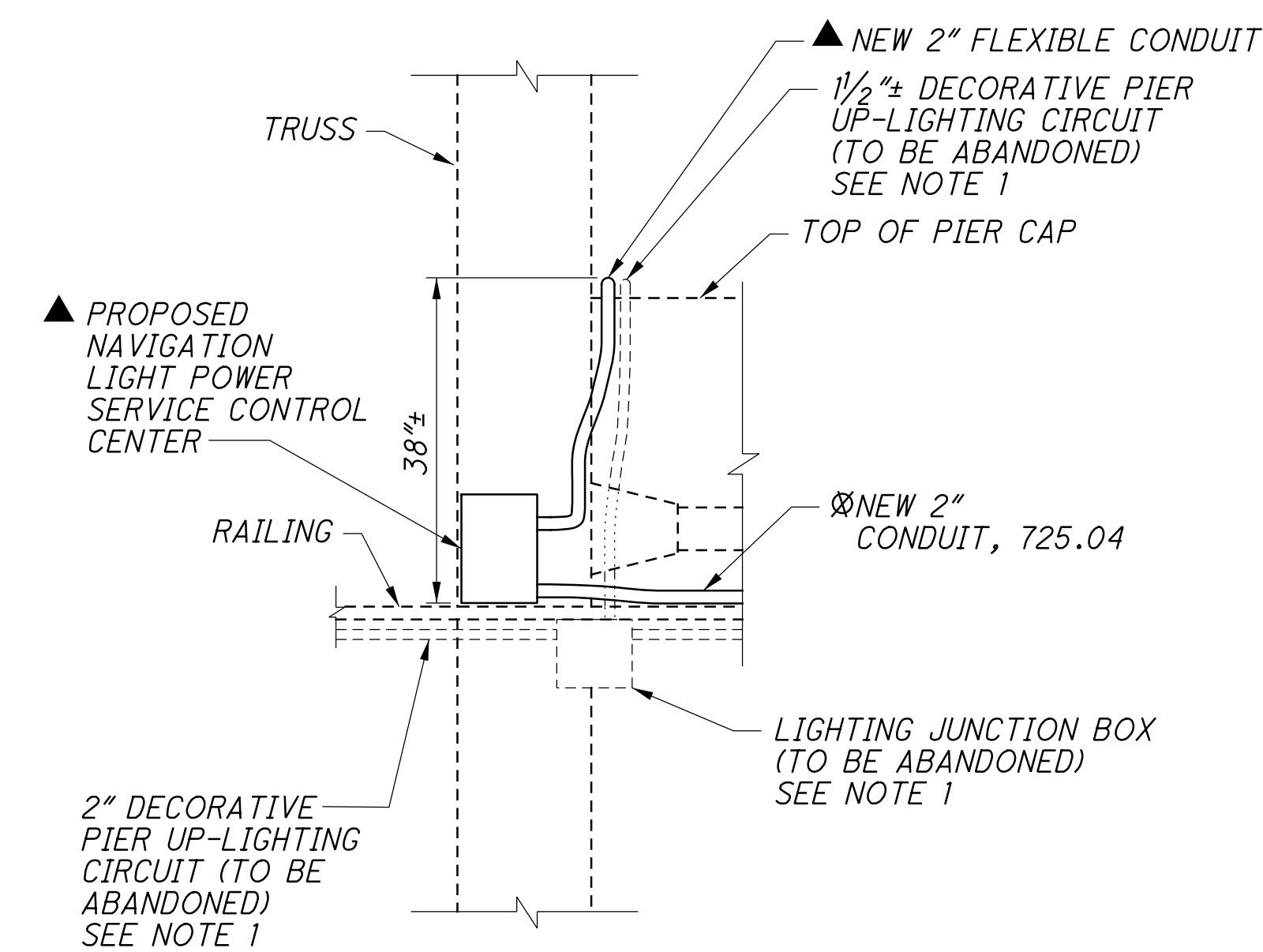
- 1) LIGHTS L-1, L-3, L-4 & L-6 SHALL BE RED CHANNEL EDGE MARKERS (180°).
 - 2) LIGHTS L-2 & L-5 SHALL BE GREEN CHANNEL CENTER MARKERS (360°).
 - 3) EXISTING CATWALK IS 3'-0"± WIDE AND 27'± LONG.
 - 4) EXISTING CATWALK IS 3'-0"± WIDE AND 30'± LONG WITH STEPS.
 - 5) NEW MARINE NAVIGATION LIGHT JUNCTION BOX WITH CONTROLLER AND BLUE LED ALARM STATUS LIGHT.
- VIEWS A-A, B-B, C-C, D-D & E-E:** SEE DETAIL SHEET 34.

F:\2014\114059 CUY-10-1613\99756 Project 1\roadway\sheet\99756L\99756L.P005.dgn 6/17/2015 1:25:41 PM SteveMorr

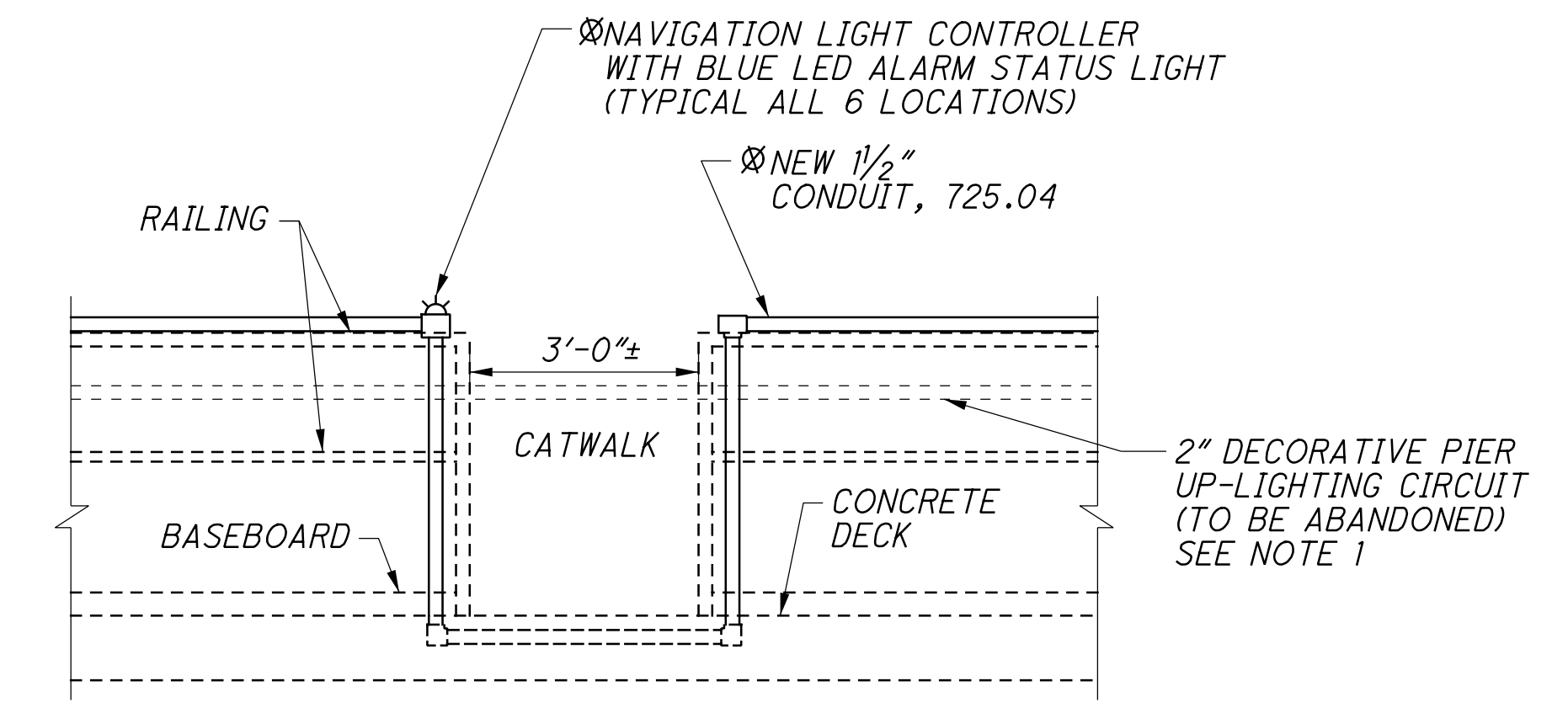
F:\2014\114059_CUY-10-1613\99756 Project 1\roadway\sheets\99756L.D004.dgn 6/17/2015 1:26:20 PM SteveMorr



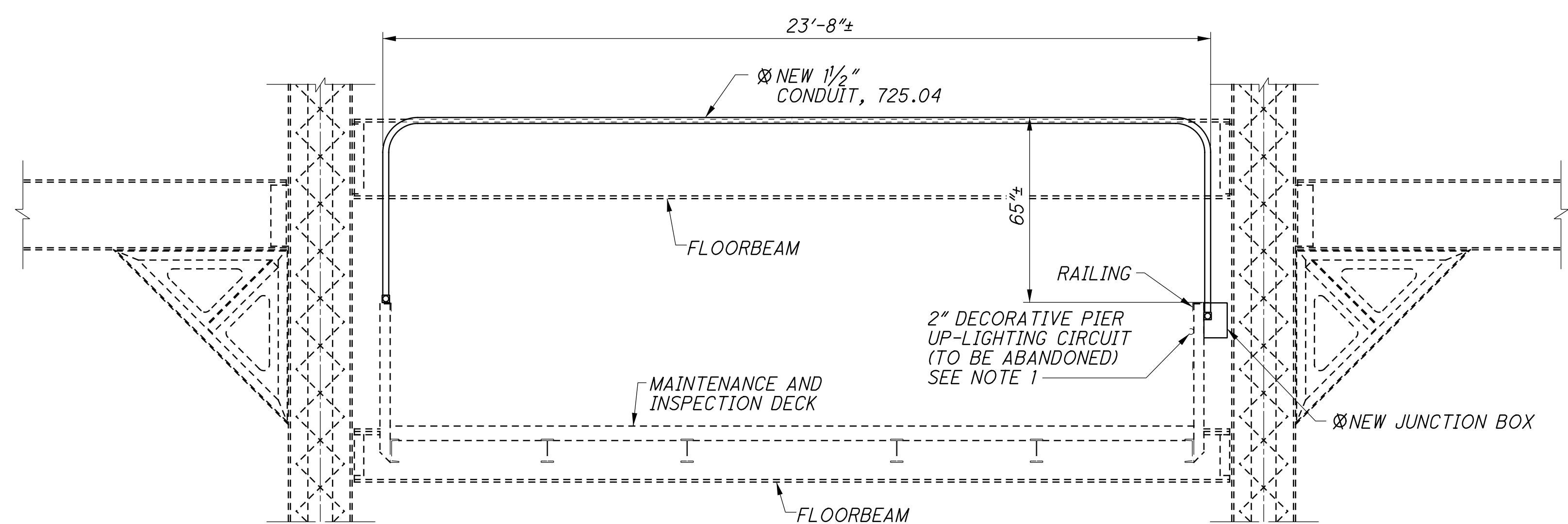
VIEW A-A



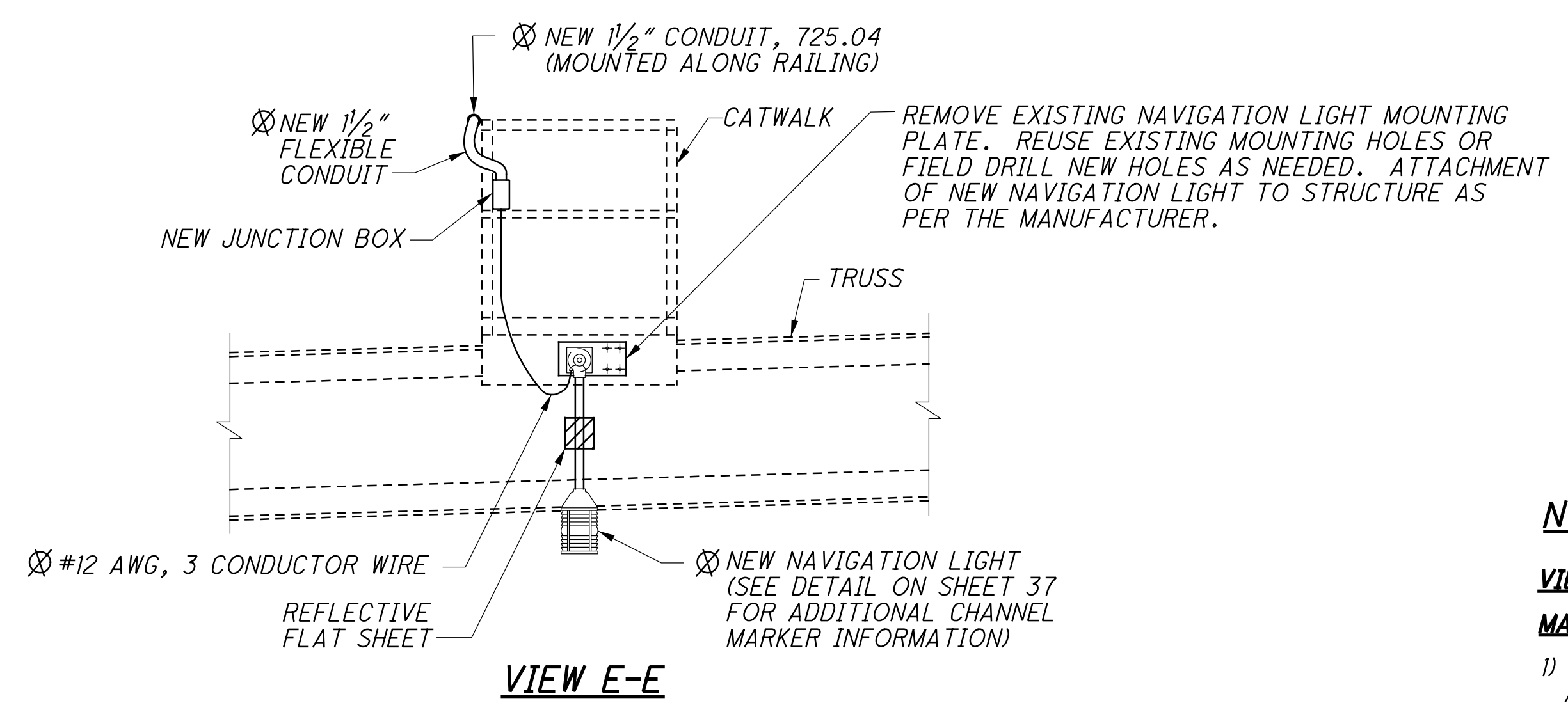
VIEW B-B



VIEW C-C



VIEW D-D
(TYPICAL FOR 3 LOCATIONS)



VIEW E-E

- ▲ ITEMS INCLUDED IN THE COST OF ITEM 625 POWER SERVICE, AS PER PLAN NO. 2
- Ø ITEMS INCLUDED IN THE COST OF ITEM 625 LIGHTING, MISC.: BRIDGE MOUNTED MARINE NAVIGATION LIGHTING, LED

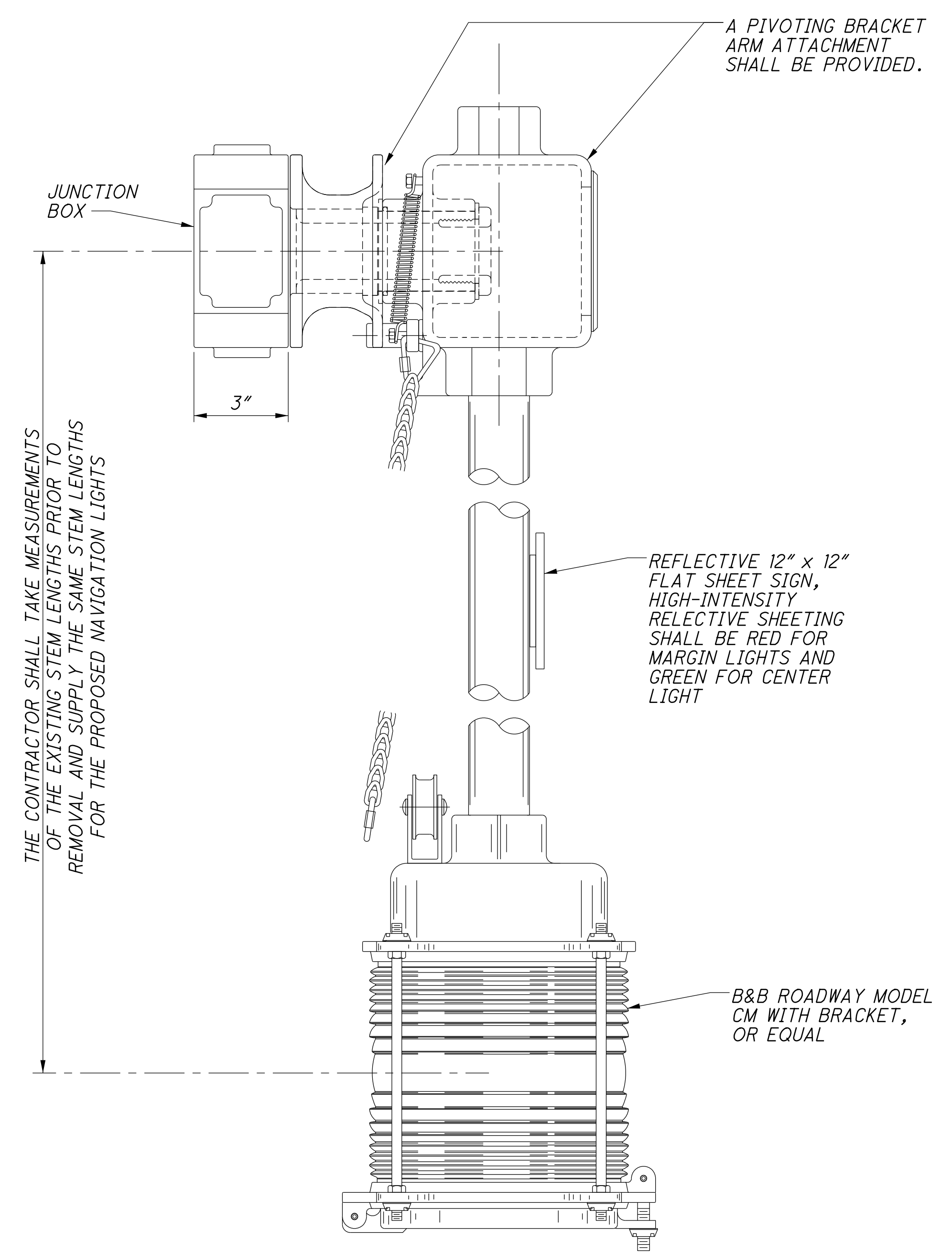
NOTES:

- VIEWS A-A, B-B, C-C, D-D AND E-E:** SEE SHEET 33
- MATERIALS** SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
- 1) THE EXISTING DECORATIVE PIER UP-LIGHTING CIRCUIT AND APPURTENANCES SHALL BE DISCONNECTED AND ABANDONED IN PLACE.

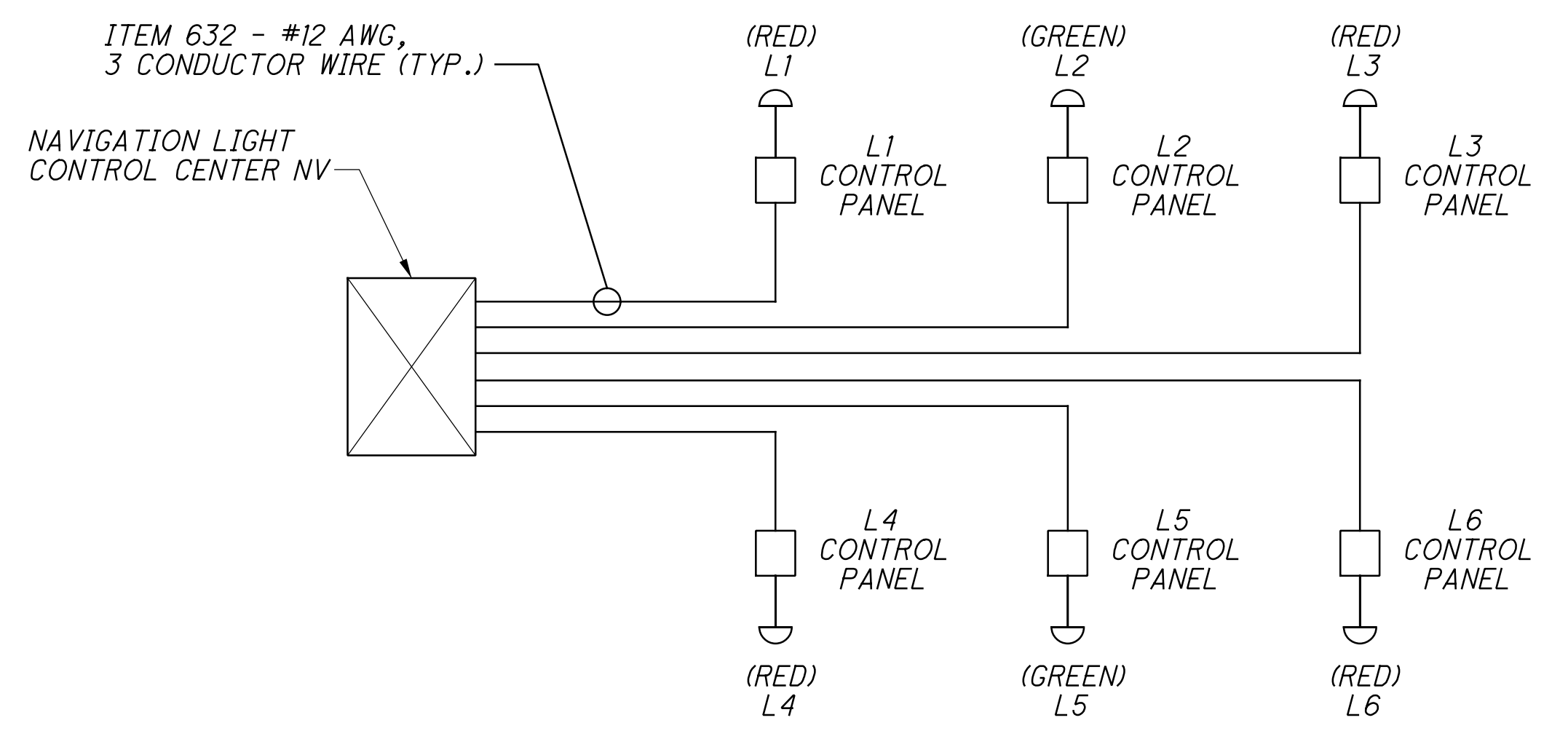
CALCULATED
JDL
CHECKED
DLR

NAVIGATION LIGHTING DETAILS

CUY-10-16.13



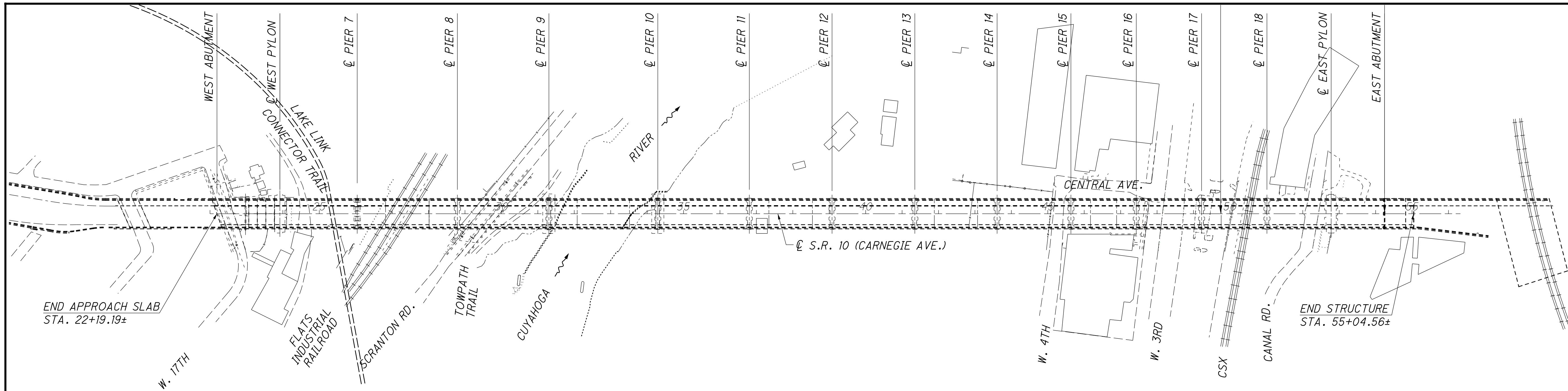
NAVIGATION LIGHT DETAIL
CHANNEL CENTER LIGHT 360°, GREEN (L2 & L5)
CHANNEL MARGIN LIGHT 180°, RED (L1, L3, L4, & L6)



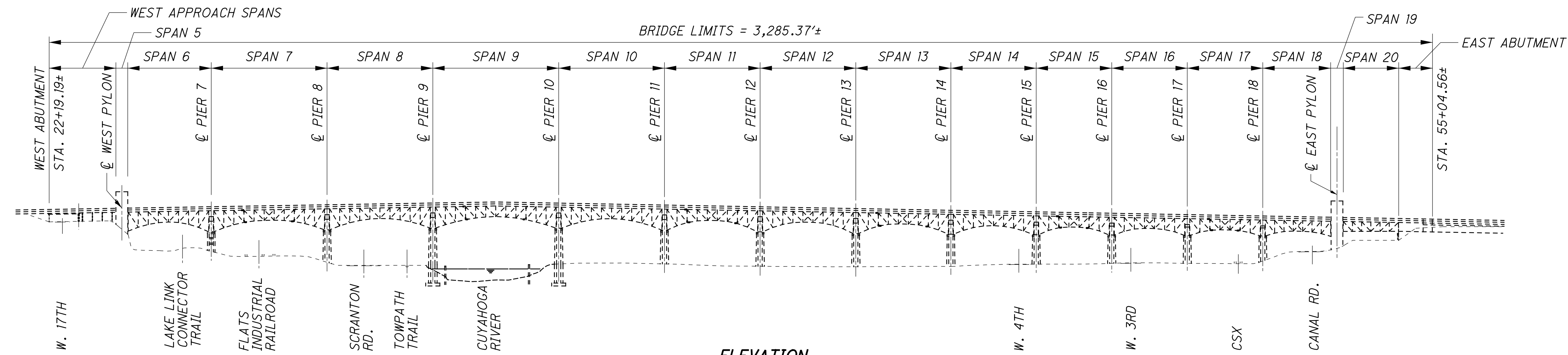
CIRCUIT DIAGRAM

PROPOSED POWER SERVICE DATA									
MAINTAINING AGENCY	CONTROL CENTER	LINE VOLTAGE (VOLTS)	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CABLE (AWG)	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD (AMPS)	CIRCUIT FUSE SIZE (AMPS)	CIRCUIT CABLE SIZE (AWG)
ODOT	NV	120	0.1	#4	60	L1	0.1	10	#12
						L2	0.1	10	#12
						L3	0.1	10	#12
						L4	0.1	10	#12
						L5	0.1	10	#12
						L6	0.1	10	#12

F:\2014\114059_CUY-10-16\13\structures\CUY010-16\13C\sheets\010_1613CGP001.dgn 7/17/2015 9:44:28 AM JoeKirk



PLAN



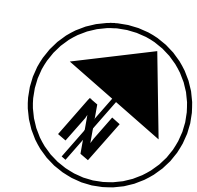
ELEVATION

EXISTING STRUCTURE - WEST APPROACH SPANS
TYPE: WELDED STEEL GIRDER AND STEEL BEAMS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE
SPANS: 75'-8½"±, 8'-0"± CANTILEVER; 3 SPANS @ 23'-5¾"±
ROADWAY: 14'-3½"± MULTI-USE PATH; 51'-0"± ROADWAY FACE TO FACE CURBS; 6'-9"± SIDEWALK
DESIGN LOADING: HS 20-44, CASE II AND ALTERNATE MILITARY LOADING
SKEW: VARIES 19°22'37" R.F. TO NONE
WEARING SURFACE: 1¼"± MICRO-SILICA MODIFIED CONCRETE OVERLAY
ALIGNMENT: TANGENT
CROWN RATE: 0.0156±
CONDITION: GOOD
YEAR BUILT: 1983, REHABILITATED 2000
STRUCTURE FILE NO.: 1801503
DISPOSITION: NO WORK

EXISTING STRUCTURE - TRUSS SPANS
TYPE: STEEL DECK TRUSSES WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE
SPANS: 198'-4"±, 275'-1"±, 251'-2"±, 299'-0"±, 251'-2"±, 227'-3"±, 227'-3"±, 225'-9"±, 202'-8"±, 179'-5"±, 179'-5"±, 179'-5"±, 162'-2"±, 132'-2"±
ROADWAY: 14'-3½"± MULTI-USE PATH; 51'-0"± ROADWAY FACE TO FACE CURBS; 6'-9"± SIDEWALK
DESIGN LOADING: EQUIVALENT HS 16.8
SKEW: NONE
WEARING SURFACE: 1¼"± MICRO-SILICA MODIFIED CONCRETE OVERLAY
ALIGNMENT: TANGENT
CROWN RATE: 0.0156±
CONDITION: FAIR
YEAR BUILT: 1932, REHABILITATED 1983, 2000
STRUCTURE FILE NO.: 1801503
DISPOSITION: DEBRIS NETTING

EXISTING STRUCTURE - EAST ABUTMENT
TYPE: REINFORCED CONCRETE SLAB AND BEAMS ON REINFORCED CONCRETE SUBSTRUCTURE
SPANS: 58'-7"±, 22'-0"±
ROADWAY: 14'-3½"± MULTI-USE PATH; 51'-0"± ROADWAY FACE TO FACE CURBS; 6'-9"± SIDEWALK
DESIGN LOADING: EQUIVALENT HS 10.8
SKEW: NONE
WEARING SURFACE: 1¼"± MICRO-SILICA MODIFIED CONCRETE OVERLAY
ALIGNMENT: TANGENT
CROWN RATE: 0.0156±
CONDITION: FAIR
YEAR BUILT: 1932, REHABILITATED 1983, 2000
STRUCTURE FILE NO.: 1801503
DISPOSITION: NO WORK

PROPOSED STRUCTURE
TYPE: SAME AS EXISTING
PROPOSED WORK: ADD DEBRIS NETTING BENEATH ROADWAY DECK; AND MAINTENANCE AND INSPECTION DECK ABOVE PUBLIC AREAS
SPANS: 75'-8½"±, 8'-0"± CANTILEVER; 3 SPANS @ 23'-5¾"±; 198'-4"±, 275'-1"±, 251'-2"±, 299'-0"±, 251'-2"±, 227'-3"±, 227'-3"±, 225'-9"±, 202'-8"±, 179'-5"±, 179'-5"±, 179'-5"±, 162'-2"±, 132'-2"±, 58'-7"±, 22'-0"±
ROADWAY: 14'-3½"± MULTI-USE PATH; 51'-0"± ROADWAY FACE TO FACE CURBS; 6'-9"± SIDEWALK
DESIGN LOADING: SAME AS EXISTING
SKEW: VARIES 19°22'37" R.F. TO NONE
WEARING SURFACE: 1¼"± MICRO-SILICA MODIFIED CONCRETE OVERLAY
ALIGNMENT: TANGENT
CROWN RATE: 0.0156±
COORDINATES: LATITUDE 41°29'20" LONGITUDE 81°41'40"



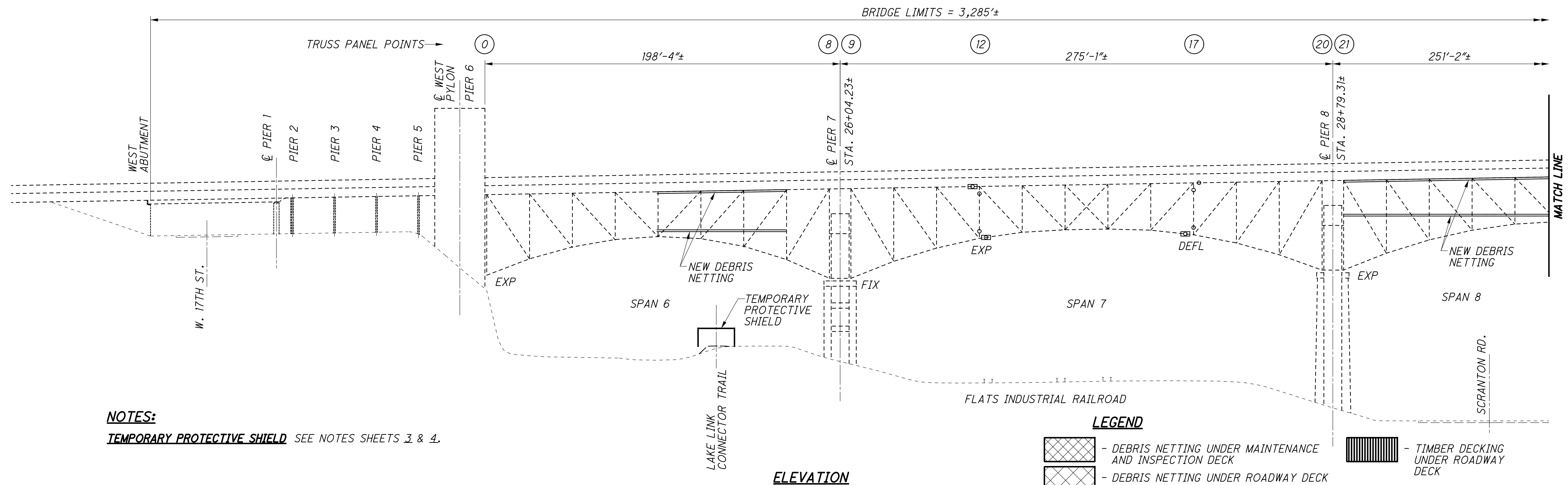
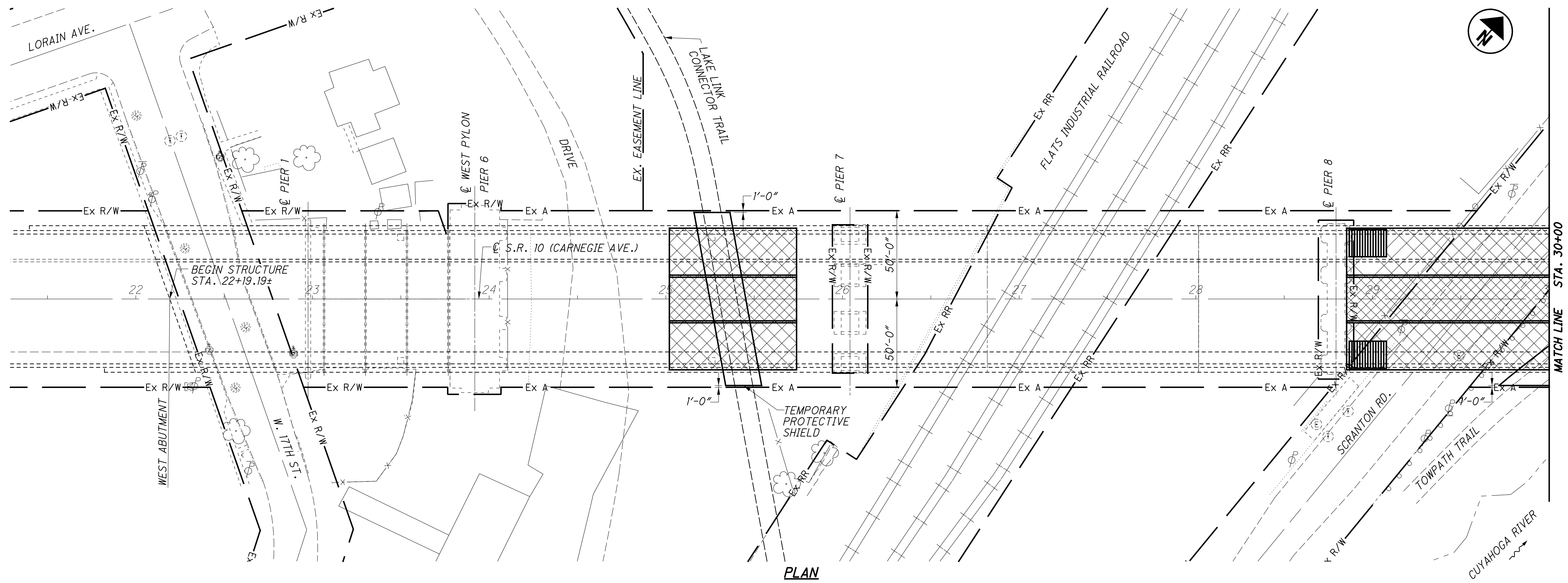
RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DATE: 7/16/15
REVIEWED: DLR
DRAWN: USB
DESIGNED: DAP
CHECKED: KAK
STRUCTURE FILE NUMBER: 1801503

KEY PLAN
BRIDGE NO. CUY-10-1613
S.R. 10 OVER THE CUYAHOGA RIVER

CUY-10-16.13
PID No. 99756
1/12
36
47

F:\2014\114059 CUY-10-1613\99756 Project\1\structures\CUY010_1613C\sheets\010_1613CGP002.dgn 7/17/2015 9:45:06 AM JoeKirk



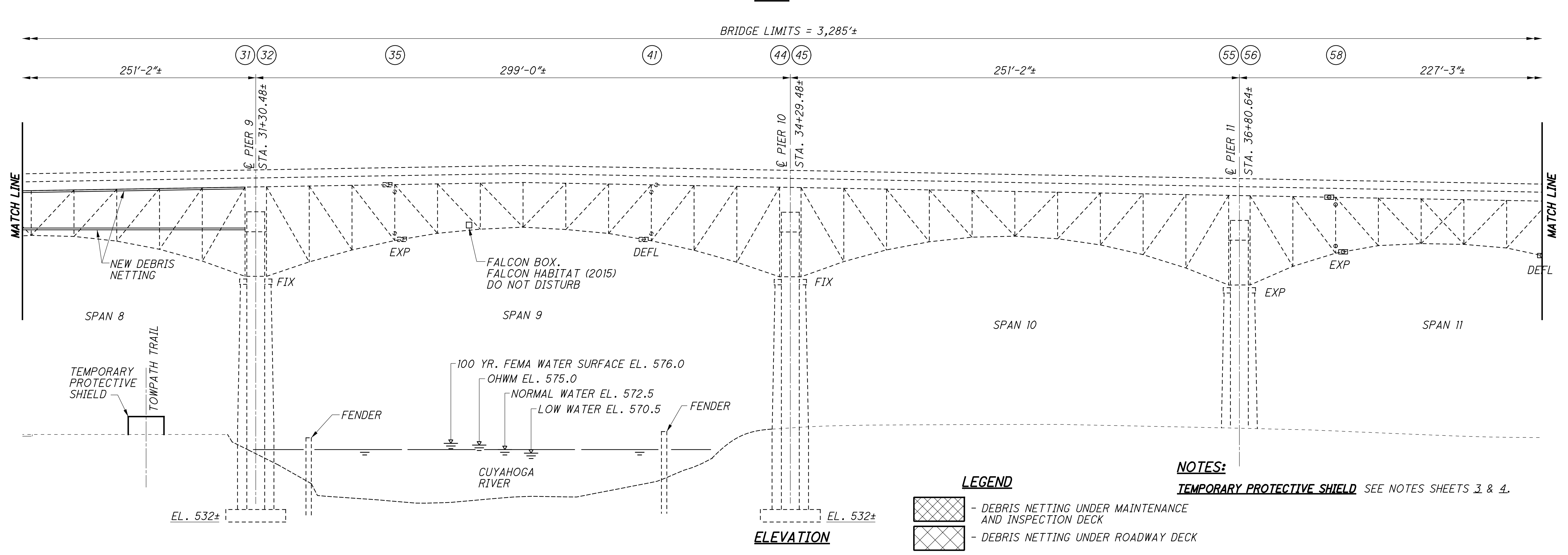
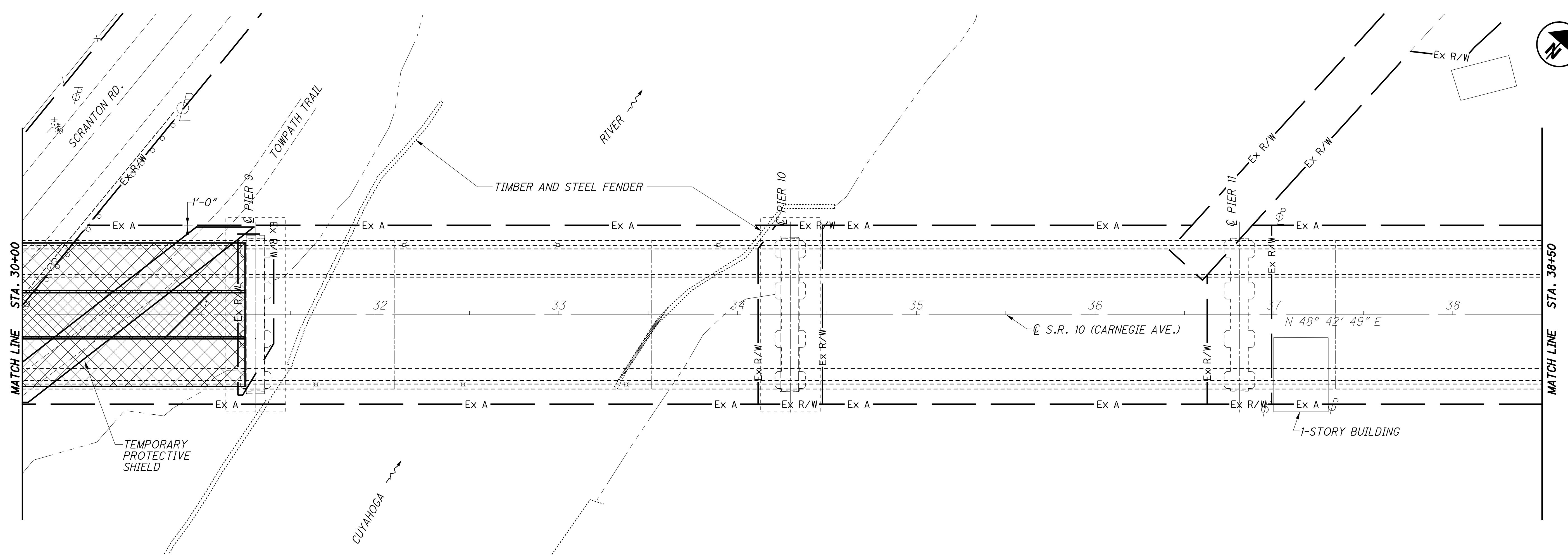
NOTES:
TEMPORARY PROTECTIVE SHIELD SEE NOTES SHEETS 3 & 4.

LEGEND

	- DEBRIS NETTING UNDER MAINTENANCE AND INSPECTION DECK		- TIMBER DECKING UNDER ROADWAY DECK
	- DEBRIS NETTING UNDER ROADWAY DECK		

GENERAL PLAN - 1		RICHLAND ENGINEERING LIMITED	
DESIGNED	DAP	DATE	7/16/15
CHECKED	KAK	REVIEWED	DLR
BRIDGE NO. CUY-10-1613		29 NORTH PARK STREET	
S.R. 10 OVER THE CUYAHOGA RIVER		MANSFIELD, OHIO 44902	
PID No. 99756		STRUCTURE FILE NUMBER 1801503	
2 / 12			
37		47	

F:\2014\114059_CUY-10-1613\99756 Project\1\structures\CUY010_1613\CGP003.dgn 7/17/2015 9:45:47 AM JoeKirk

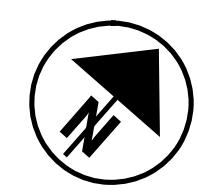
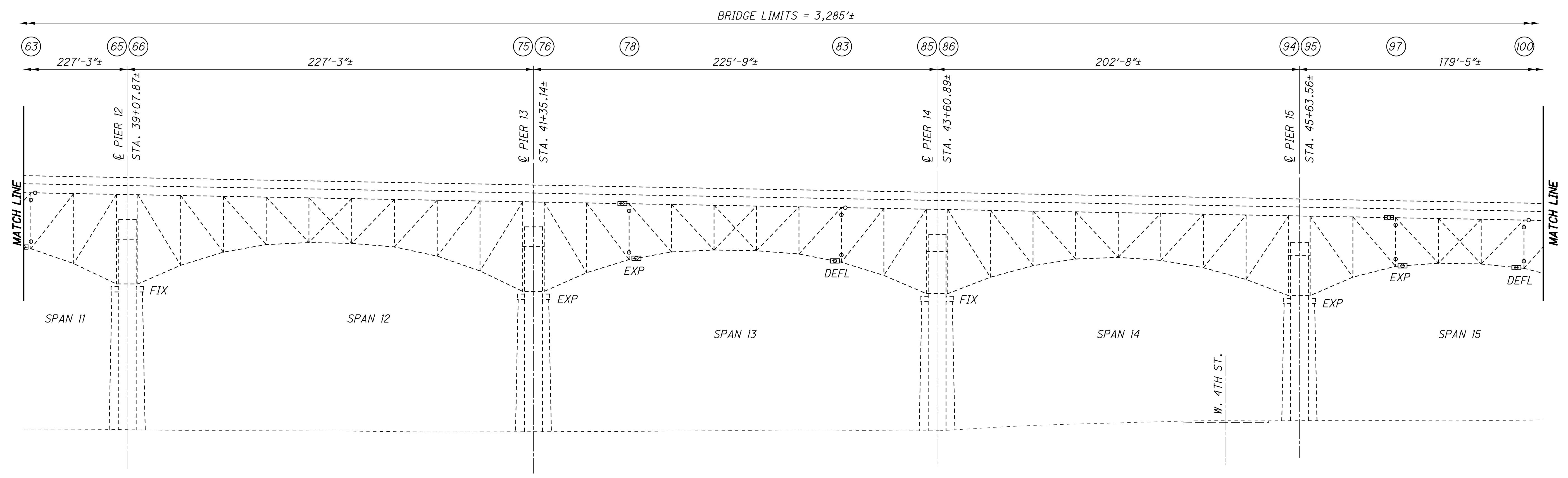
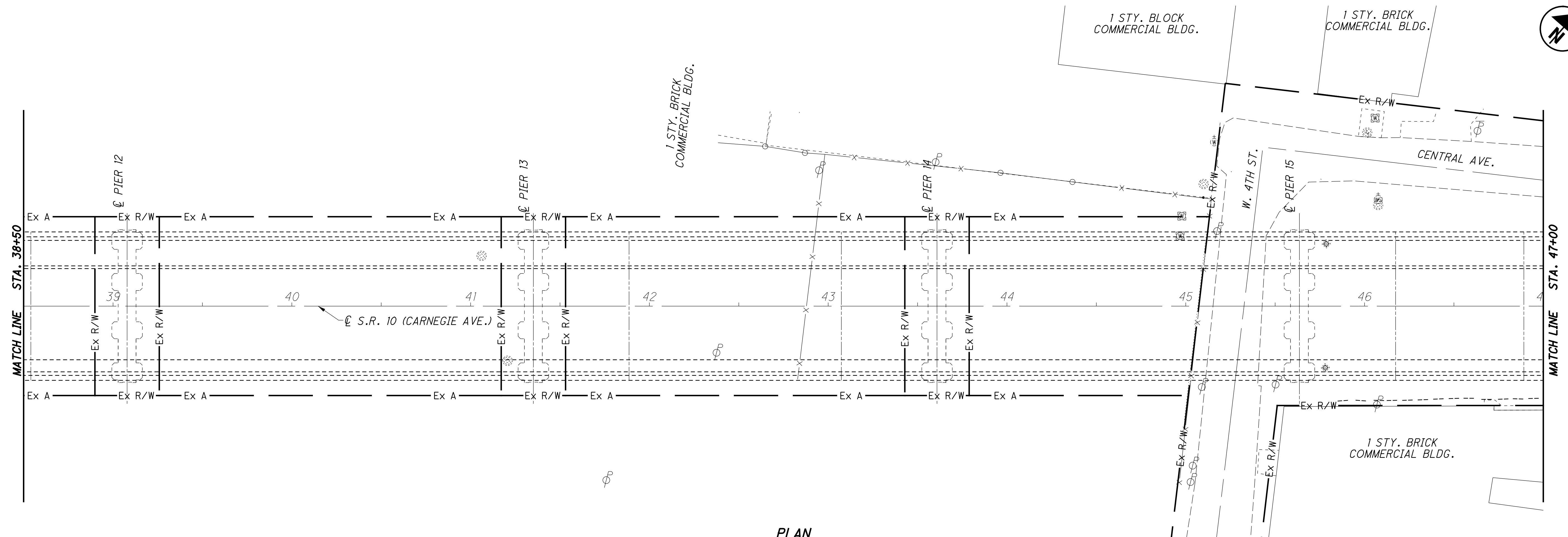


- LEGEND**
- DEBRIS NETTING UNDER MAINTENANCE AND INSPECTION DECK
 - DEBRIS NETTING UNDER ROADWAY DECK

NOTES:
 TEMPORARY PROTECTIVE SHIELD SEE NOTES SHEETS 3 & 4.

GENERAL PLAN - 2	RICHLAND ENGINEERING LIMITED 29 NORTH PARK STREET MANSFIELD, OHIO 44902
BRIDGE NO. CUY-10-1613 S.R. 10 OVER THE CUYAHOGA RIVER	DATE: 7/16/15 REVIEWED: DLR DRAWN: USB DESIGNED: DAP CHECKED: KAK
CUY-10-16.13 PID No. 99756	STRUCTURE FILE NUMBER 1801503
3 / 12	38 / 47

F:\2014\114059_CUY-10-1613\99756 Project\1\structures\CUY010_1613C\sheets\010_1613CGP004.dgn 7/17/2015 9:46:16 AM JoeKirk



RICHLAND ENGINEERING LIMITED
 29 NORTH PARK STREET
 MANSFIELD, OHIO 44902

DATE: 6/18/15
 REVIEWED: DLR
 DRAWN: USB
 DESIGNED: DAP
 CHECKED: KAK
 STRUCTURE FILE NUMBER: 1801503

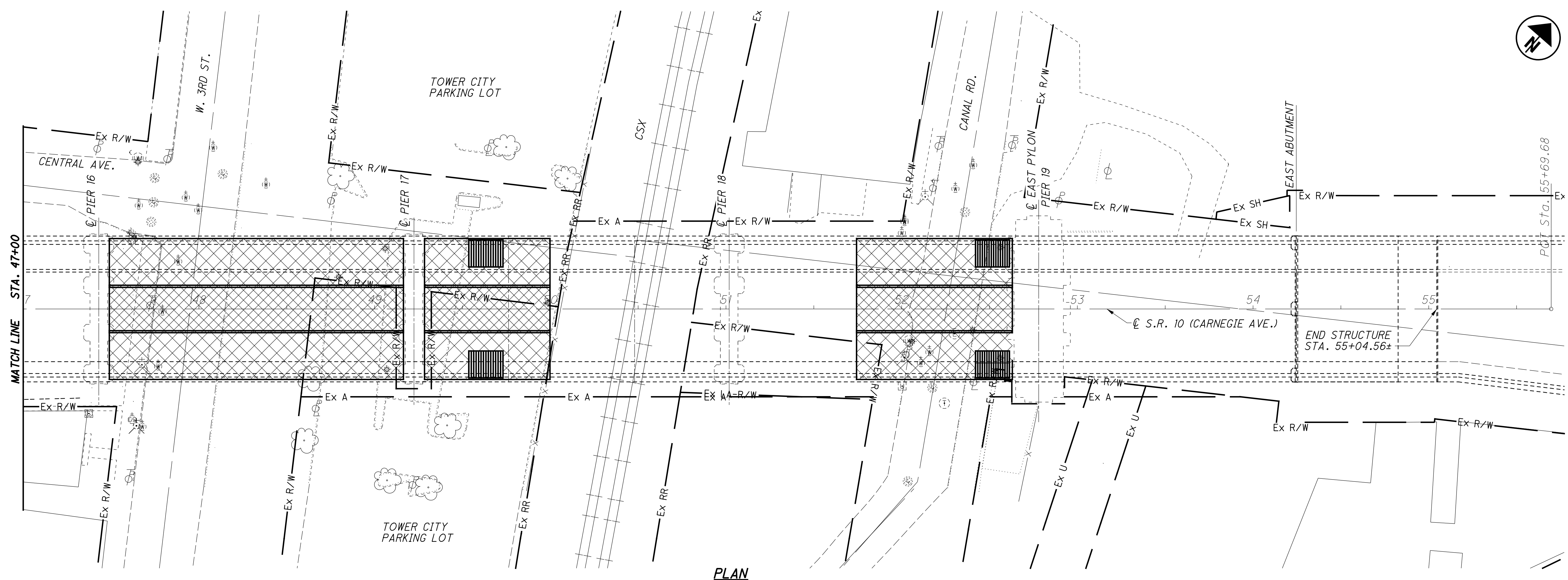
GENERAL PLAN - 3
 BRIDGE NO. CUY-10-1613
 S.R. 10 OVER THE CUYAHOGA RIVER

CUY-10-16.13
 PID No. 99756

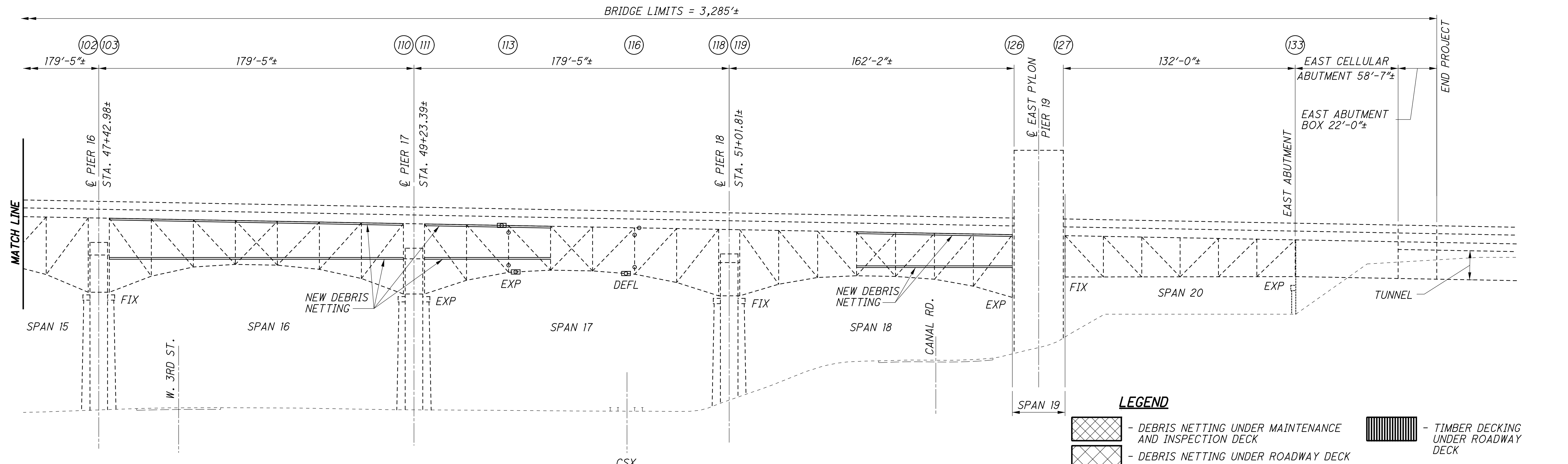
4 / 12

39 / 47

F:\2014\114059 CUY-10-1613\99756 Project\1\structures\CUY010_1613\CGP005.dgn 7/17/2015 9:46:48 AM JoeKirk



PLAN



ELEVATION

LEGEND

	- DEBRIS NETTING UNDER MAINTENANCE AND INSPECTION DECK		- TIMBER DECKING UNDER ROADWAY DECK
	- DEBRIS NETTING UNDER ROADWAY DECK		



RICHLAND ENGINEERING LIMITED
 29 NORTH PARK STREET
 MANSFIELD, OHIO 44902

DATE: 7/16/15
 REVIEWED: DLR
 DRAWN: USB
 DESIGNED: DAP
 CHECKED: KAK

GENERAL PLAN - 4
 BRIDGE NO. CUY-10-1613
 S.R. 10 OVER THE CUYAHOGA RIVER

CUY-10-16.13
 PID No. 99756
 5 / 12
 40 / 47

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

NONE

DESIGN SPECIFICATIONS

THE NETTING SYSTEM AND INSTALLATION CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, INCLUDING INTERIM SPECIFICATIONS; AND THE 2004 ODOT BRIDGE DESIGN MANUAL INCLUDING QUARTERLY UPDATES.

DESIGN LOADING

THE NETTING, CONNECTORS, CABLE SYSTEM, AND CABLE SUPPORTS SHALL BE DESIGNED FOR A UNIFORM 5.0 PSF LOAD OVER THE AREA OF THE NETTING. THE NETTING CONNECTORS TO THE CABLE SUPPORT SYSTEM SHALL BE REMOVABLE AND REUSABLE. IT IS INTENDED THAT AS DEBRIS IS FOUND IN THE NETTING, THE DEBRIS WILL BE REMOVED TO REDUCE THE STATIC LOADING ON THE NETTING SYSTEM.

EXISTING STRUCTURE VERIFICATION

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

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

EXISTING STRUCTURE PLANS MAY BE VIEWED BY PROSPECTIVE BIDDERS AT THE ODOT DISTRICT 12 OFFICE, 5500 TRANSPORTATION BLVD, GARFIELD HEIGHTS, OHIO.

PROPOSED WORK

1. SOUND AND REMOVE AREAS OF LOOSE CONCRETE FROM THE BOTTOM OF THE MAINTENANCE AND INSPECTION DECK AND ROADWAY DECK WITHIN THE DEBRIS NETTING LIMITS. REMOVE STEEL BOX FRAME OBSTRUCTIONS BENEATH STRINGERS WITHIN NETTING LIMITS.
2. FURNISH AND INSTALL A SUPPORT CABLE SYSTEM BENEATH THE MAINTENANCE AND INSPECTION DECK AND ROADWAY DECK.
3. FURNISH AND INSTALL A "STACKED" DEBRIS NETTING SYSTEM SUSPENDED FROM THE SUPPORT CABLE SYSTEM FOR PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC BELOW THE BRIDGE.

ACCESS FOR WORK

ACCESS TO THE WORK AREAS SHALL BE FROM THE MAINTENANCE AND INSPECTION DECK OR THE GROUND BELOW THE BRIDGE WITHIN THE PUBLIC RIGHT OF WAY. NO TEMPORARY RIGHT OF WAY HAS BEEN OBTAINED FOR CONSTRUCTION OF THIS PROJECT. NO AGREEMENTS HAVE BEEN MADE OR PERMISSION OBTAINED FROM PRIVATE PROPERTY, LEASED PROPERTY, OR RAILROAD PROPERTY FOR ACCESS FOR THIS PROJECT EXCEPT AS NOTED WITH MAINTAINING TRAFFIC, SEE RESTRICTIONS AND EXCEPTIONS NOTE ON SHEET 3.

ENTRY ONTO THE RAILROAD PROPERTY FOR THE PURPOSE OF CONSTRUCTING THE PROPOSED WORK IS PROHIBITED.

PROVISIONS FOR MAINTAINING TRAFFIC AND PEDESTRIANS WHILE WORKING WITHIN THE PUBLIC RIGHT OF WAY SHALL BE MADE ACCORDING TO THE MAINTENANCE OF TRAFFIC NOTES ON SHEETS 3 AND 4.

ASBESTOS ABATEMENT

AN ASBESTOS SURVEY OF THE CUY-10-16.13 BRIDGE OVER THE CUYAHOGA RIVER VALLEY WAS COMPLETED IN NOVEMBER 2014 BY A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST. ASBESTOS COATING WAS DISCOVERED ON 21,600 SQUARE FEET OF THE CORRUGATED METAL ROOF OF THE 72-CONDUIT SUPPORT TRUSS. THE SUPPORT TRUSS IS BELOW THE ROADWAY DECK AND RUNS THE LENGTH OF THE BRIDGE.

THE PROJECT DOES NOT REQUIRE THE REMOVAL OF THE ASBESTOS-COATED ROOF. THE ROOF SHALL BE AVOIDED DURING CONSTRUCTION AND SHALL NOT BE CUT OR DAMAGED IN ANY WAY.

A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM WITH SECTIONS I-IV, VI, VII, AND XVI COMPLETED IS INCLUDED WITH THE BID PACKAGE. THE CONTRACTOR SHALL COMPLETE SECTIONS V, VIII-XVIII OF THE SIGNED FORM AND SUBMIT THE COMPLETED FORM TO THE LOCAL AIR AUTHORITY AT LEAST TEN (10) DAYS PRIOR TO DEMOLITION OF THE BRIDGE. THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED FORM TO THE ENGINEER. THE LOCAL AIR AUTHORITY IS:

THE DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENT
1925 ST. CLAIR AVENUE
CLEVELAND, OHIO 44114
PHONE: (216) 664-2300

THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL TRAINED IN THE PROVISIONS OF NESHAP THAT WILL BE ON-SITE DURING REMOVAL OF ANY ASBESTOS CONTAINING MATERIALS. ANY NON-VISIBLE ASBESTOS ENCOUNTERED WITHIN THE PROJECT WORK LIMITS SHALL BE MONITORED BY THIS INDIVIDUAL.

THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE, SUBMIT, AND COMPLY WITH THE OEPA NOTIFICATION FORM; AND TO REMOVE, TRANSPORT AND DISPOSE OF THE MATERIALS CONTAINING ASBESTOS FROM WITHIN THE PROJECT WORK LIMITS. PAYMENT OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT COST.

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

WORK UNDER THIS ITEM INCLUDES THE REMOVAL OF TWO WELDED STEEL FRAME BOX-TYPE APPURTENANCES SUPPORTED BY THE EXTERIOR TRUSS AND INTERIOR STRINGER ADJACENT TO THE TRUSS. THESE FRAMES ARE LOCATED AT THE SOUTH EXTERIOR TRUSS IN SPANS 8 AND 16 AS SHOWN IN THE FRAMING PLANS. THE REMOVALS ARE NEEDED TO FACILITATE THE INSTALLATION OF THE DEBRIS-CATCHING NETTING BELOW THE ROADWAY DECK.

THE FRAMES SHALL BE REMOVED FOR DISPOSAL, INCLUDING EXISTING WELDED ATTACHMENTS TO THE TRUSS TOP CHORD AND STRINGER. REMOVE ALL STIFFENING ELEMENTS ASSOCIATED WITH THE FRAMES. PERFORM WORK CAREFULLY TO PROTECT EXISTING STEEL, SUCH AS THE TRUSS CHORD AND STRINGER, TO REMAIN ON THE BRIDGE.

REMOVE ALL EXISTING WELDED ATTACHMENTS FROM THE FRAMES TO EXISTING STEEL TO REMAIN. GRIND SMOOTH THE WELDS REMAINING ON THE EXISTING STEEL TO REMAIN, GRINDING PARALLEL TO THE DIRECTION OF PRIMARY STRESS (PARALLEL TO THE LONGITUDINAL AXES OF THE MEMBERS). REPAIR DAMAGE PAINT ON THE EXISTING STEEL TO REMAIN UNDER AND IN ACCORDANCE WITH THE ITEM SPECIAL STRUCTURE, MISC.: PAINT DAMAGE REPAIR GENERAL NOTE.

PAYMENT FOR ALL LABOR, MATERIALS, AND EQUIPMENT FOR THE SPECIFIED REMOVALS SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 202 PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

ITEM 202 - REMOVAL, MISC.: DELAMINATED CONCRETE INSPECTION AND REMOVAL

THE CONTRACTOR SHALL PROVIDE ACCESS AND SOUND ALL POSSIBLE AREAS OF LOOSE CONCRETE FROM THE BOTTOM OF THE DECK WITHIN THE DEBRIS NETTING LIMITS AND TIMBER SUBDECK LIMITS AS SHOWN IN THE PLANS.

THE CONTRACTOR SHALL DETERMINE THE AREAS OF CONCRETE THAT ARE TO BE REMOVED SUBJECT TO THE APPROVAL OF THE ENGINEER. STANDARD DESCRIPTIONS OF CONCRETE AREAS SUBJECT TO REMOVAL INCLUDE, BUT ARE NOT LIMITED TO: SPALLED, DELAMINATED, SCALED, MOTTLED, DAMP, HONEYCOMBED, AND EFFLORESCENCE.

THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN PROXIMITY TO THE EXISTING UTILITY FACILITIES. SECTIONS 105.07 AND 107.16 OF THE CMS REQUIRE THAT THE CONTRACTOR COOPERATE WITH ALL UTILITIES LOCATED WITHIN THE LIMITS OF THE CONSTRUCTION PROJECT AND TAKE RESPONSIBILITY FOR THE PROTECTION OF THE UTILITY PROPERTY AND SERVICES.

THE CONTRACTOR SHALL MAKE PROVISIONS TO ENSURE PUBLIC SAFETY WHILE REMOVING THE LOOSE AND DELAMINATED CONCRETE. THE REMOVED CONCRETE SHALL BE DISPOSED OF OFF SITE IN CONFORMANCE WITH LOCAL, STATE, AND FEDERAL POLLUTION CONTROL LAWS.

REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HAND HELD CONVENTIONAL HAMMERS MAY BE USED TO REMOVE MINOR SPALLS. HOWEVER, PNEUMATIC HAMMERS SHOULD ALSO BE EMPLOYED TO ENSURE COMPLETE REMOVAL OF ALL DELAMINATED CONCRETE. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH EXISTING REINFORCING STEEL.

THE DEPARTMENT HAS ESTIMATED THE QUANTITY OF REMOVAL, MISC.: DELAMINATED CONCRETE INSPECTION AND REMOVAL AT 5% OF THE NETTING AREA FOR ESTIMATED PURPOSES. THE BIDDERS SHALL PERFORM A REVIEW OF THE WORK AREA AND BID ACCORDINGLY.

PAYMENT FOR ALL LABOR, MATERIALS, ACCESS, ACCESS EQUIPMENT, SOUNDING, REMOVAL, PROTECTION OF THE PUBLIC, PROTECTION OF EXISTING UTILITIES, DISPOSAL, AND ALL OTHER INCIDENTALS REQUIRED TO IDENTIFY AND REMOVE ALL THE LOOSE CONCRETE AND SPALLS WITHIN THE LIMITS SHOWN IN THE PLANS SHALL BE INCLUDED WITH THE LUMP SUM PRICE BID FOR ITEM 202 - REMOVAL, MISC.: DELAMINATED CONCRETE INSPECTION AND REMOVAL.

ITEM SPECIAL - STRUCTURE, MISC.: PAINT DAMAGE REPAIR

THIS ITEM INCLUDES THE REPAIR OF PAINT DAMAGE CAUSED BY THE CONTRACTOR'S WORK INSTALLING THE NETTING SUPPORT CABLE SYSTEM AND THE STRUCTURE DEBRIS NETTING. THE PAINT DAMAGE CAUSED BY DRILLING HOLES, INSTALLING CONNECTORS, AND INSTALLING OTHER MATERIALS SHALL BE REPAIRED. THE ITEM ALSO INCLUDES FIELD TOUCH-UP OF DAMAGED PAINT FROM THE WELD REMOVAL OF THE STEEL FRAMES DESCRIBED IN THE ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN NOTE.

THE REPAIRS SHALL BE COMPLETED WITH BRUSH APPLIED COLD GALVANIZE PAINT (95% ZINC) IN ACCORDANCE WITH CMS 711.02 GALVANIZED STEEL REPAIR PROCEDURES.

PAYMENT FOR ALL LABOR, MATERIALS, AND EQUIPMENT FOR REPAIRING DAMAGED PAINT SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM SPECIAL STRUCTURE, MISC.: PAINT DAMAGE REPAIR.

ITEM SPECIAL - STRUCTURE, MISC.: STRUCTURE DEBRIS NETTING

THIS WORK SHALL CONSIST OF A "STACKED" DEBRIS NETTING SYSTEM TO BE PLACED UNDER PORTIONS OF THE MAINTENANCE AND INSPECTION DECK AND ROADWAY DECK AS SHOWN IN THE PLAN DRAWINGS. THE STRUCTURE NETTING SHALL BE INSTALLED FOR PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC BELOW AND SHALL MEET ALL APPLICABLE GUIDELINES AND FOLLOW MANUFACTURER'S SPECIFICATIONS.

THE DEBRIS NETTING SYSTEMS UTILIZED FOR THESE INSTALLATIONS SHALL BE FROM THE FOLLOWING MANUFACTURERS OR AN APPROVED EQUAL:

NETTINGNOW, LLC
885 MAIN STREET, UNIT #445
SOUTH GLASTONBURY, CT 06073
PHONE: 800-481-9534
WWW.NETTINGNOW.COM
CONTACT: HERVE RIVARD

FALLPROOF NETWORK SYSTEMS, INC.
61 SECOND AVENUE
TRENTON, NJ 08619
PHONE: 800-452-0222
WWW.FALLPROOF.COM
CONTACT: BURKE SINCLAIR

THE COMBINATION OF THE HEAVY DEBRIS NETTING MESH TOGETHER WITH THE LIGHTWEIGHT NETTING OR DEBRIS LINER SPECIFIED SHALL BE CONSIDERED A "SYSTEM". THE "SYSTEM" SHALL BE UTILIZED AS SPECIFIED IN THESE NOTES AND SHALL BE CONSIDERED A UNIT. THE LIGHTWEIGHT DEBRIS LINER SHALL BE INSTALLED ABOVE THE HEAVY DEBRIS NETTING MESH.

THE CABLE SUPPORT SYSTEM SHALL CONSIST OF CABLES, EYEBOLTS, THIMBLES, SHACKLES, AND TURNBUCKLES AND IS PROVIDED IN A SEPARATE PAY ITEM. THE DEBRIS NETTING SYSTEM SHALL INCLUDE ALL ASSOCIATED HARDWARE NECESSARY TO SECURELY FASTEN THE NETTING SYSTEM TO THE CABLE SYSTEM. HARDWARE SHALL BE DROP FORGED, PRESSED OR FORMED STEEL OR MATERIAL OF EQUAL OR BETTER QUALITY. SURFACES SHALL BE SMOOTH AND FREE OF SHARP EDGES. ALL HARDWARE SHALL HAVE A CORROSION RESISTANT FINISH CAPABLE OF WITHSTANDING A FIFTY HOUR SALT SPRAY TEST IN ACCORDANCE WITH ASTM B1117. BEAM CLAMP TYPE CONNECTORS SHALL NOT BE USED.

THE NETTING CONNECTORS TO THE CABLE SUPPORT SYSTEM SHALL BE SPRING SNAP HOOKS OR CARABINERS THAT ARE REMOVABLE AND REUSEABLE. THE NETTING CONNECTORS SHALL BE AT ABOUT 2 FEET SPACING AND CONNECTED TO A NETTING WEB BORDER WITH GROMMETS.

SPECIFICATIONS FOR HEAVY DUTY NETTING

STYLE: RASCHEL KNOTLESS MONOFILAMENT FIBER NETTING
FIBER: HIGH TENACITY POLYPROPYLENE (HTPP)
COLOR: BLACK

NAME/DESCRIPTION	TEST DESIGNATION (IF APPLICABLE)	ACCEPTANCE RANGE
CORD DIAMETER		3/16"
MESH SIZE		2.5"x 2.5" TO 4"x 4"
MESH BREAK	ASTM D5034	GREATER THAN 700 LBF
DYNAMIC DROP TEST	ANSI 10.11	350 LB DROPPED 34.5 FEET

SPECIFICATIONS FOR LIGHT DUTY NETTING OR DEBRIS LINER

STYLE: RASCHEL KNOTLESS MONOFILAMENT FIBER NETTING
FIBER: KNIT POLYESTER
COLOR: BLACK

NAME/DESCRIPTION	TEST DESIGNATION (IF APPLICABLE)	ACCEPTANCE RANGE
MESH SIZE		3/8" x 3/8"
BREAKING STRENGTH	ASTM D5034	233 PSI WARP/79 PSI FILL
BURSTING STRENGTH	ASTM D3787	170 PSI
FLAME RETARDANT TEST	NFPA-701 CRITERIA	METHOD 1 MUST PASS

EACH DEBRIS LINER SHALL COVER THE ENTIRE AREA SPECIFIED IN THE PLAN DRAWINGS AND SHALL ALLOW FOR A 12" TO 24" OVERLAP OF NET SECTIONS. OVERLAP IS NOT TO BE CONSIDERED IN THE QUANTITY FOR PAYMENT IN THE UNIT PRICE BID FOR THIS ITEM. THE MAXIMUM SAG IN THE DEBRIS NETTING AT THE TIME OF INSTALLATION SHALL NOT BE BELOW THE DIMENSIONS AS SHOWN IN THE PLAN DETAILS. EACH DEBRIS NETTING PANEL SHALL BE SECURED FROM MOVING LONGITUDINALLY ALONG THE LENGTH OF THE BRIDGE.

EACH STRUCTURE NETTING PANEL SHALL BE PERMANENTLY LABELED WITH THE FOLLOWING INFORMATION:

- 1) NAME OF MANUFACTURER
- 2) IDENTIFICATION OF NET MATERIAL
- 3) DATE OF MANUFACTURE

ALL WORK VEHICLES, EQUIPMENT, AND RIGGING NECESSARY TO ACCESS THE UNDERSIDE OF THE STRUCTURE SHALL BE INCLUDED IN THE PRICE BID FOR THE STRUCTURE DEBRIS NETTING INSTALLATION. CARE SHALL BE TAKEN WHEN WORKING AROUND TRAFFIC, ACCESS ROADS, AND ANY AREAS WHERE THE GENERAL PUBLIC MAY HAVE ACCESS TO THE UNDERSIDE OF THE STRUCTURE AND ASSOCIATED RIGHT-OF-WAY.

PAYMENT FOR ALL LABOR, MATERIALS, AND EQUIPMENT FOR INSTALLING THE DEBRIS NETTING AND NETTING CONNECTORS SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER HORIZONTAL SQUARE FOOT FOR ITEM SPECIAL - STRUCTURE, MISC.: STRUCTURE DEBRIS NETTING.

GENERAL NOTES CONTINUED: SEE SHEET [6A/12].

F:\2014\114059 CUY-10-16\13\99756 Project\1\structures\CUY010_16\13\cs\sheets\010_16\13CGN001.dgn 7/17/2015 9:47:31 AM JoeKirk

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

DATE: 7/16/15
REVIEWED: DLR
DRAWN: USB
DESIGNED: DAP
CHECKED: KAK

STRUCTURE FILE NUMBER: 1801503

GENERAL NOTES
BRIDGE NO. CUY-10-1613
S.R. 10 OVER THE CUYAHOGA RIVER

CUY-10-16.13
PID No. 99756
6/12
41
47

F:\2014\114059_CUY-10-16\13\99756 Project 1\structures\CUY010_16\13C\sheets\010_16\13CGN002.dgn 7/17/2015 9:47:57 AM JoeKirk

ITEM SPECIAL - STRUCTURE, MISC.: TIMBER SUBDECK

THIS ITEM SHALL CONSIST OF FURNISHING, CUTTING, FITTING, PLACING AND ERECTING OF TIMBER, AND THE FURNISHING AND INSTALLING OF ALL NECESSARY HARDWARE AS SPECIFIED.

STRUCTURAL TIMBER SHALL CONFORM TO C.M.S. 711.26 AND SHALL BE DOUGLAS FIR LARCH, GRADE 2 OR BETTER.

PRESERVATIVE TREATMENT FOR STRUCTURAL TIMBER SHALL CONFORM TO C.M.S. 712.06.

THE TIMBER PLYWOOD SHEETING SHALL BE CDX - 3/4" THICK DOUGLAS FIR PLYWOOD OR BETTER. ALL TRANSVERSE EDGES OF THE PLYWOOD SHALL BE SUPPORTED BY THE TIMBER BEAMS, EXCEPT AS DETAILED AT THE DOWNSPOUTS.

THE BOLTS SHALL BE ASTM A449 - TYPE 1 OR SAE J429 - GRADE 5. 3/8" DIAMETER GALVANIZED BOLTS WITH GALVANIZED FENDER WASHERS AND LOCK NUTS. SPACING OF THE BOLTS SHALL BE A MAXIMUM OF 2 FOOT SPACING.

WOOD SCREWS SHALL BE GALVANIZED 3" LONG #10 FASTENERS SPACED AT 2 FOOT MAXIMUM, UNLESS OTHERWISE NOTED.

FIELD MEASUREMENTS SHALL BE TAKEN BY THE CONTRACTOR BEFORE ANY FABRICATION IS PERFORMED. THE 4 x 4'S AND THE PLYWOOD SHALL BE FABRICATED AS SHOWN IN THESE DETAILS.

THE BEAM SPACING DETERMINES THE LENGTH OF THE 4 x 4'S IN ADDITION TO THE PLYWOOD LENGTH; HOWEVER, THE LENGTHS MAY NOT BE EQUAL AT ALL LOCATIONS. THE CONTRACTOR WILL HAVE TO MAKE ADJUSTMENTS WHEN DOWNSPOUTS, AND STIFFENERS ARE ENCOUNTERED. ALL FIELD ADJUSTMENTS MUST BE APPROVED BY THE ENGINEER.

PAYMENT FOR ALL LABOR, MATERIALS, AND EQUIPMENT FOR INSTALLING THE TIMBER SUBDECK SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER SQUARE FOOT FOR ITEM SPECIAL - STRUCTURE, MISC.: TIMBER SUBDECK.

ITEM SPECIAL - STRUCTURE, MISC.: NETTING SUPPORT CABLE SYSTEM

THIS ITEM SHALL CONSIST OF DRILLING HOLES AND FURNISHING AND INSTALLING A SUPPORT CABLE SYSTEM ALONG THE MAINTENANCE AND INSPECTION DECK FLOORBEAMS AND ROADWAY DECK STRINGERS AS DETAILED IN THE PLANS, IN ACCORDANCE WITH THE SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER.

EYE BOLTS SHALL BE HOT DIP GALVANIZED, FORGED STEEL SHOULDERED EYE BOLTS. THE EYE BOLT SHALL BE 3/4" DIAMETER AND BOLTED TIGHT TO THE SHOULDER WITH A GALVANIZED WASHER AND NUT ON THE BACK SIDE. THE EXPOSED THREADS OF THE EYEBOLT SHALL BE BURRED TO PREVENT THE NUT FROM LOOSENING AFTER ERECTION.

THE CABLE SHALL BE 3/8" DIAMETER 7x19 GALVANIZED AIRCRAFT STRAND. THE CABLE SHALL HAVE A MINIMUM BREAKING STRENGTH OF 14,400 POUNDS. THE MAXIMUM CABLE LENGTH BETWEEN FIXED END CONNECTIONS SHALL BE 75 FEET. CABLE END ATTACHMENTS SHALL BE GALVANIZED STEEL WIRE ROPE THIMBLES AND THREE FORGED WIRE ROPE CLIPS CAPABLE OF DEVELOPING 80% OF THE CABLE STRENGTH. TRIM EXCESS CABLE LENGTH. IN ADDITION EACH CABLE SHALL BE TERMINATED AT ONE END WITH A 3/4" GALVANIZED JAW AND EYE TURNBUCKLE. THE TURNBUCKLE SHALL HAVE A MINIMUM WORKING LOAD OF 5,200 POUNDS. GALVANIZED STEEL 3/4" SAFETY ANCHOR SHACKLES SHALL BE USED TO CONNECT CABLE ENDS TO CONNECTION ANGLES.

CONNECTION ANGLES SHALL BE ASTM A709, GRADE 50, FABRICATED AND GALVANIZED IN ACCORDANCE WITH CMS ITEM 513 STRUCTURAL STEEL MEMBERS. HIGH STRENGTH CONNECTION BOLTS SHALL BE GALVANIZED ASTM A325, TYPE 1.

THE CABLE SYSTEM SHALL BE PRETENSIONED TO 500 POUNDS, RESULTING IN APPROXIMATELY 4 INCH SAG IN THE CABLE BETWEEN SUPPORTS BEFORE THE NETTING IS ATTACHED, UNLESS OTHERWISE NOTED IN THE PLAN DETAILS. ADDITIONAL SAG SHALL BE PROVIDED AT STRUCTURE EXPANSION JOINTS.

PAYMENT FOR ALL LABOR, MATERIALS, AND EQUIPMENT FOR DRILLING HOLES IN EXISTING STEEL, INSTALLING CONNECTORS, AND INSTALLING THE CABLE SUPPORT SYSTEM SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER HORIZONTAL FOOT OF CABLE FOR ITEM SPECIAL - STRUCTURE, MISC.: NETTING SUPPORT CABLE SYSTEM.

ESTIMATED QUANTITIES									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	STRUCTURE				SEE SHEET
					SUPER	ABUTS.	PIERS	GEN'L	
202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	LS				6/12
202	98000	LS		REMOVAL, MISC.: DELAMINATED CONCRETE INSPECTION AND REMOVAL	LS				6/12
SPECIAL	53000200	LS		STRUCTURE, MISC.: PAINT DAMAGE REPAIR	LS				6/12
SPECIAL	53000600	48631	SF	STRUCTURE, MISC.: STRUCTURE DEBRIS NETTING	48631				6/12
SPECIAL	53000600	2147	SF	STRUCTURE, MISC.: TIMBER SUBDECK	2147				6A/12
SPECIAL	53001300	8878	FT	STRUCTURE, MISC.: NETTING SUPPORT CABLE SYSTEM	8878				6A/12

CALCULATED RWC DATED 7/2015
 CHECKED KAK DATED 7/2015

RICHLAND ENGINEERING LIMITED
 29 NORTH PARK STREET
 MANSFIELD, OHIO 44902

DATE: 7/16/15
 FILE NUMBER: 1801503

REVIEWED: DLR
 STRUCTURE FILE NUMBER: 1801503

DRAWN: DPH
 REVISED:

DESIGNED: KAK
 CHECKED: DAP

GENERAL NOTES AND ESTIMATED QUANTITIES

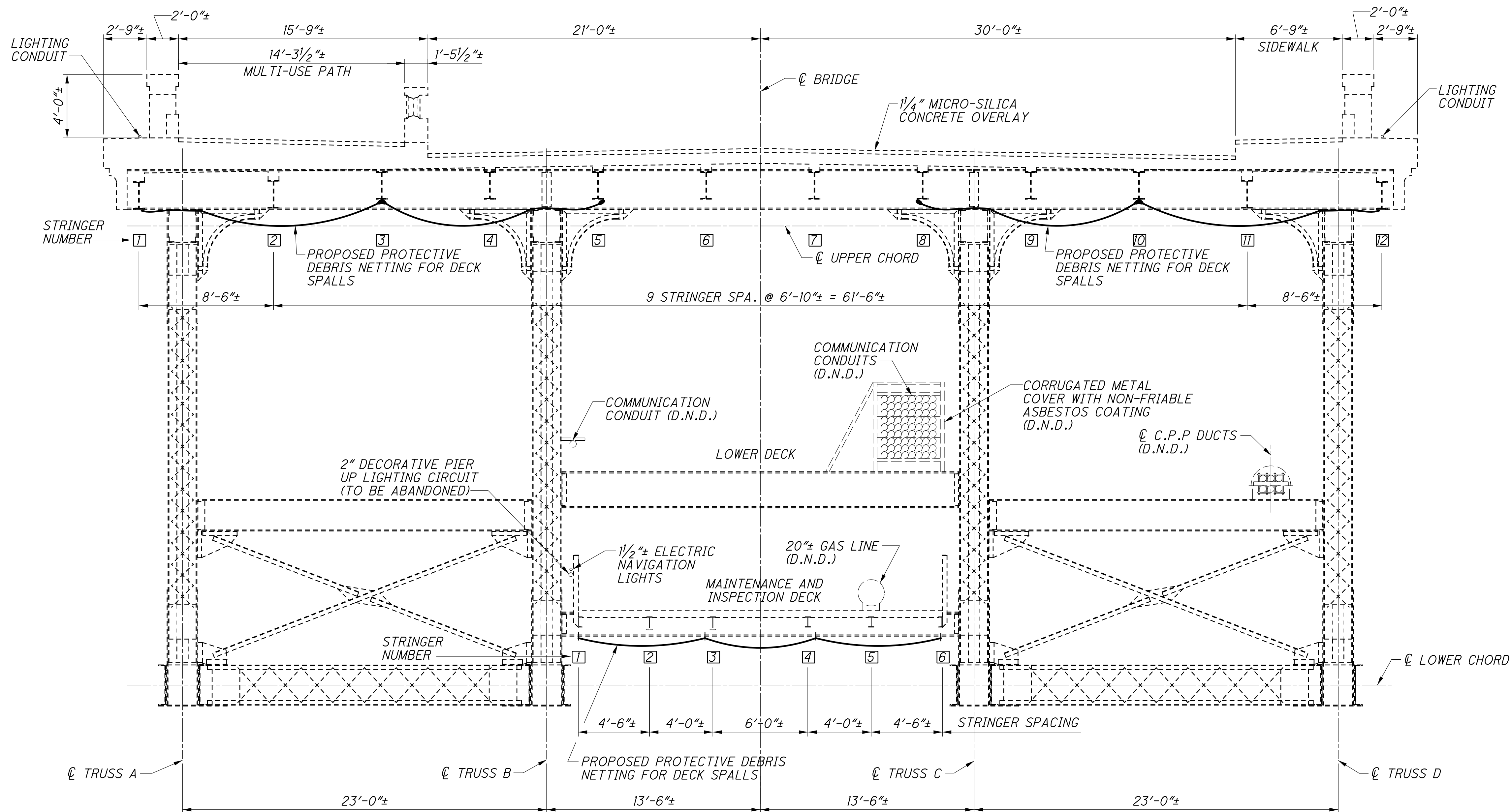
BRIDGE NO. CUY-10-1613
 S.R. 10 OVER THE CUYAHOCA RIVER

CUY - 10 - 16.13
PID No. 99756

6A/12

41A
 47

F:\2014\114059_CUY-10-1613\99756 Project\1\structures\CUY010_1613\sheets\010_1613CTS002.dgn 7/17/2015 9:50:04 AM Joekirk

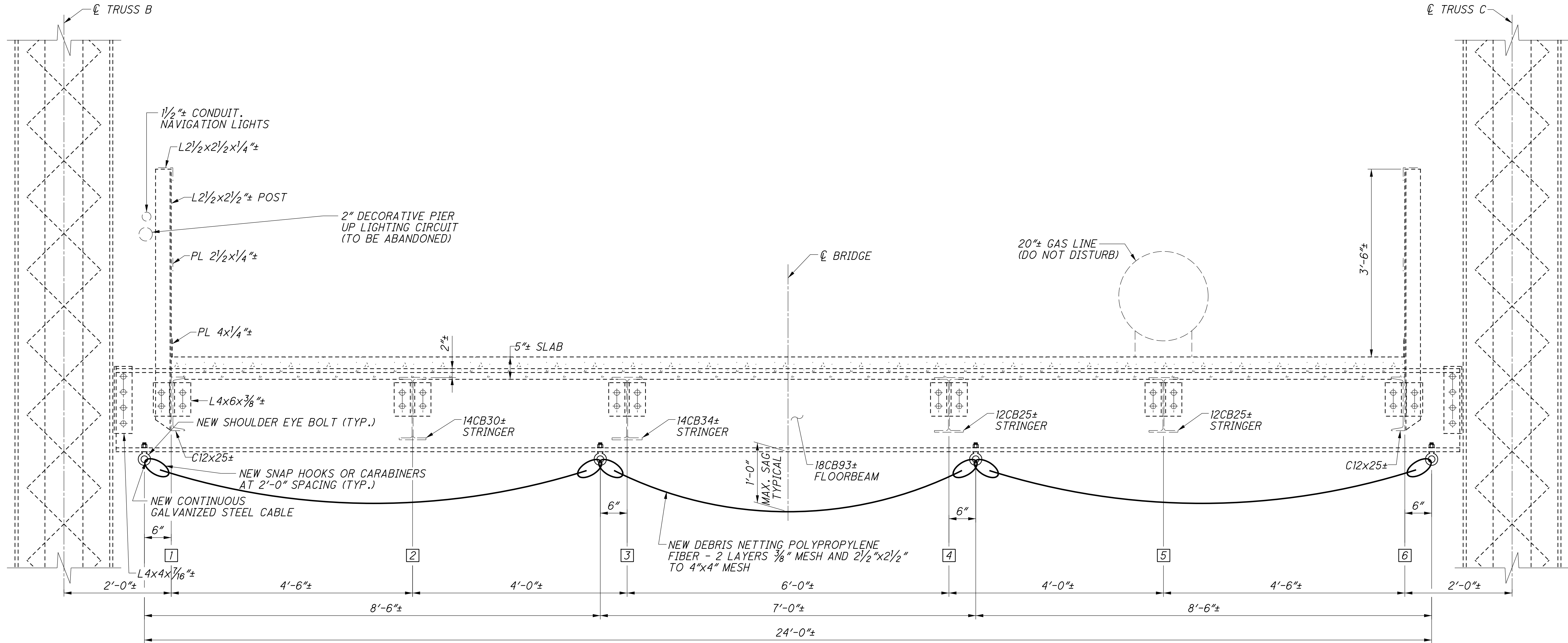


EXISTING TRANSVERSE SECTION NEAR MID-SPAN

NOTES

NOTATION: C.P.P. - CLEVELAND PUBLIC POWER
D.N.D. - DO NOT DISTURB

F:\2014\114059_CUY-10-1613\99756 Project\1\structures\CUY010_1613\CD005.dgn 7/17/2015 9:50:37 AM JoeKirk

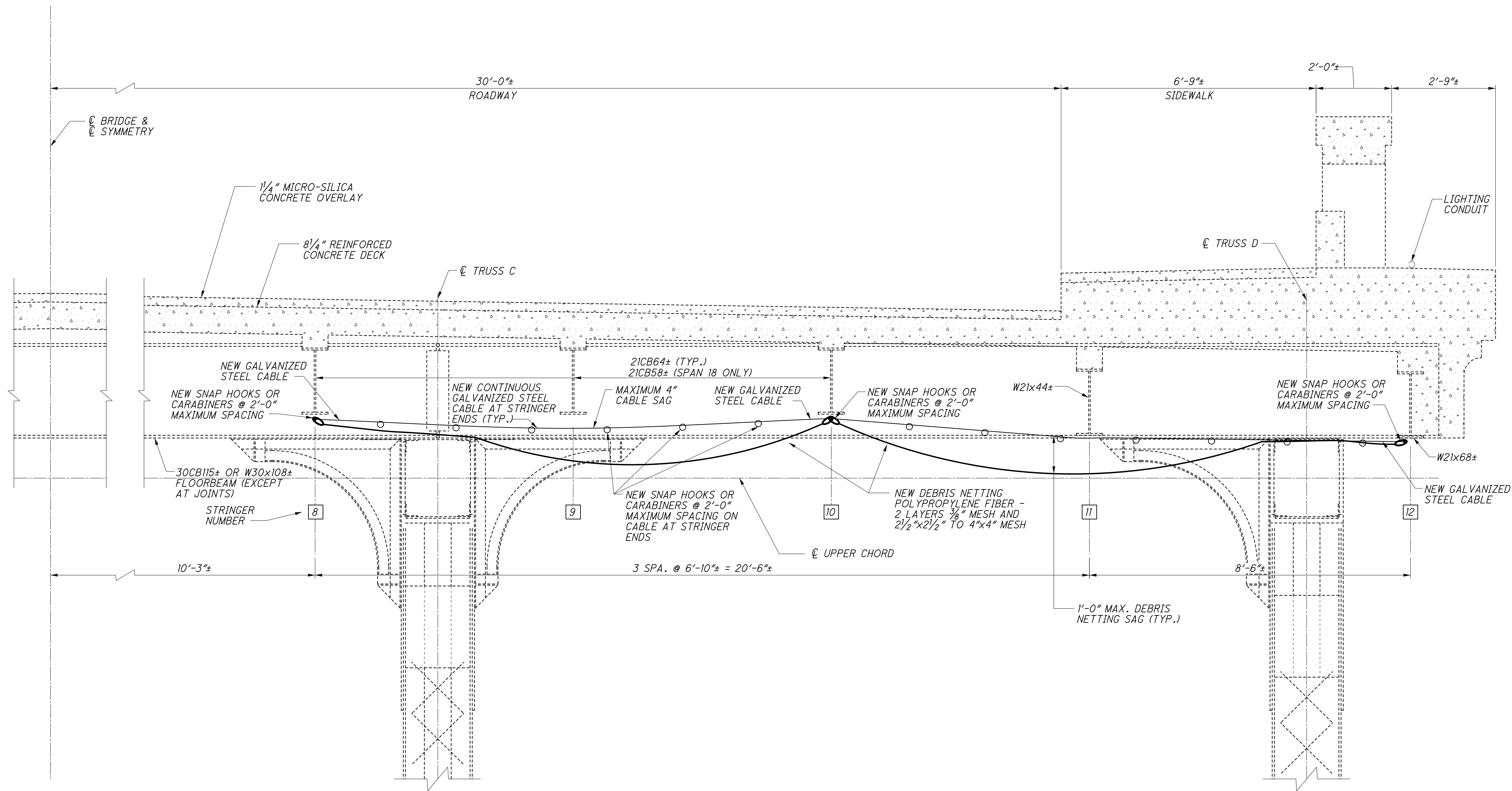


TRANSVERSE SECTION

NOTES:
MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
DEBRIS NETTING DETAILS: SEE SHEET 11/12.

RICHLAND ENGINEERING LIMITED 29 NORTH PARK STREET MANSFIELD, OHIO 44902	
REVIEWED DLR	DATE 7/16/15
DRAWN JSB	STRUCTURE FILE NUMBER 1801503
DESIGNED DAP	CHECKED KAK
MAINTENANCE AND INSPECTION DECK TRANSVERSE SECTION BRIDGE NO. CUY-10-1613 S.R. 10 OVER THE CUYAHOGA RIVER	
CUY-10-16.13 PID No. 99756	9 / 12

F:\2014\114059_CUY-10-1613\99756 Project\1\structures\CUY010_1613\CD006.dgn 7/17/2015 9:51:17 AM JoeKirk



PARTIAL UPPER ROADWAY DECK TRANSVERSE SECTION

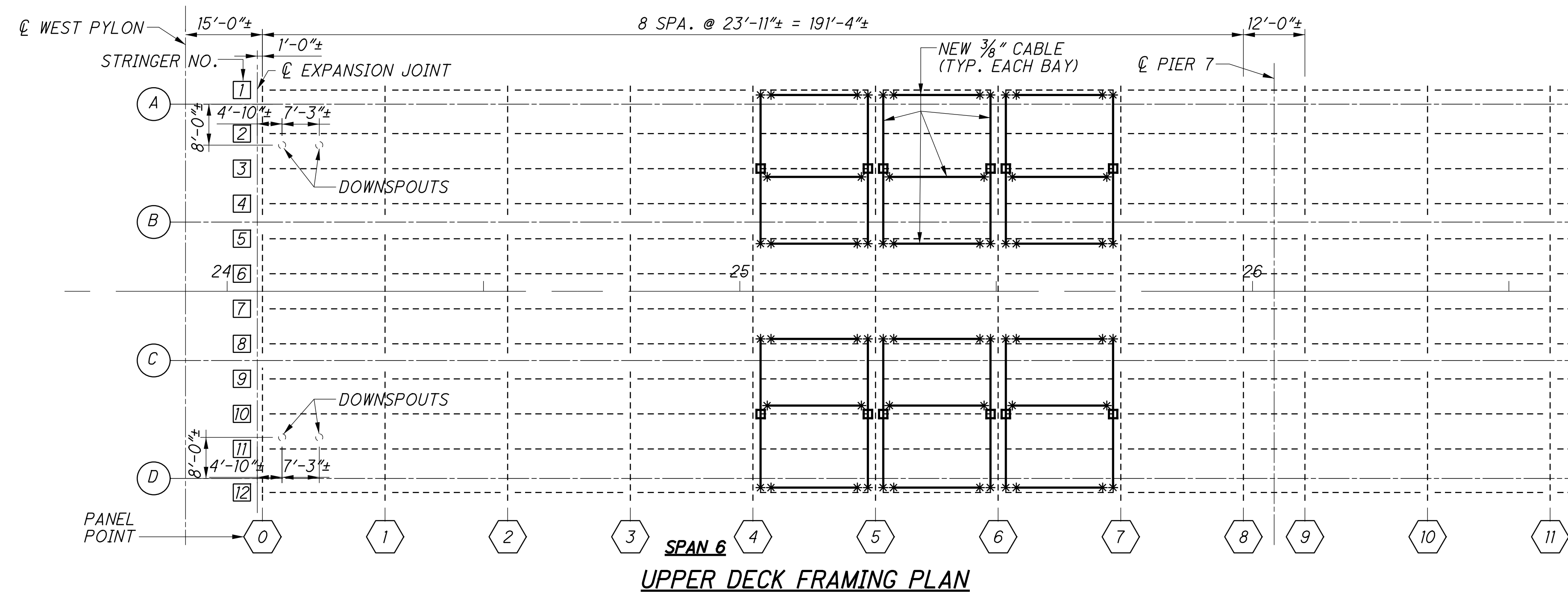
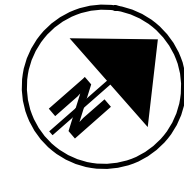
(SOUTH SIDE OF BRIDGE SHOWN - NORTH SIMILAR EXCEPT FOR WIDENED SIDEWALK)

NOTES:

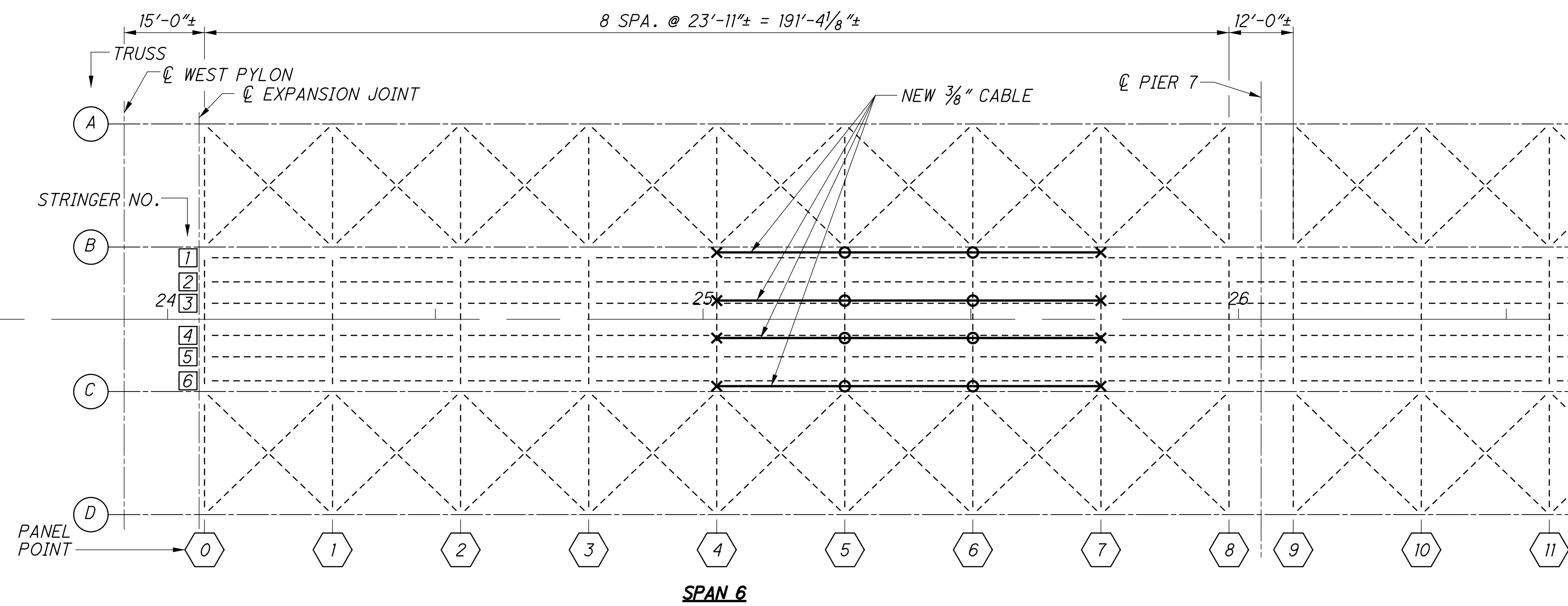
MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.

DEBRIS NETTING DETAILS: SEE SHEET 11A/12.

SOUTH SIDE OF BRIDGE SHOWN. WORK ON NORTH SIDE OF BRIDGE IS SIMILAR.



UPPER DECK FRAMING PLAN



MAINTENANCE AND INSPECTION DECK FRAMING PLAN

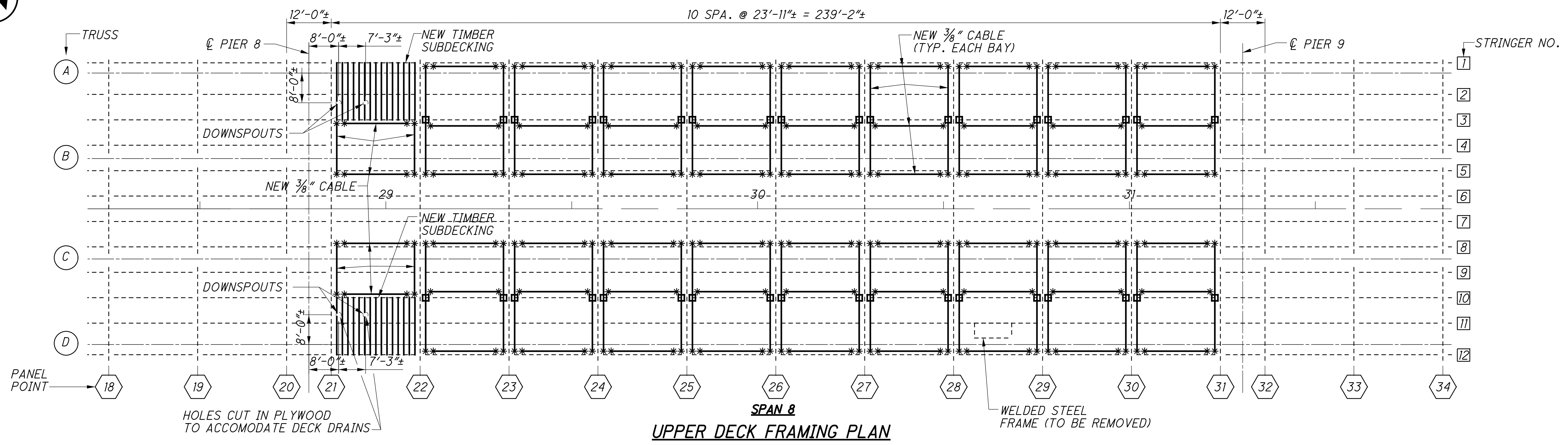
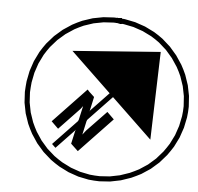
LEGEND

- * - ANCHOR (UPPER DECK)
- - EYEBOLT (UPPER DECK)
- xx - ANCHOR WITH 2 HOLES (M & I DECK)
- x - ANCHOR WITH ONE HOLE (M & I DECK)
- o - EYEBOLT (M & I DECK)

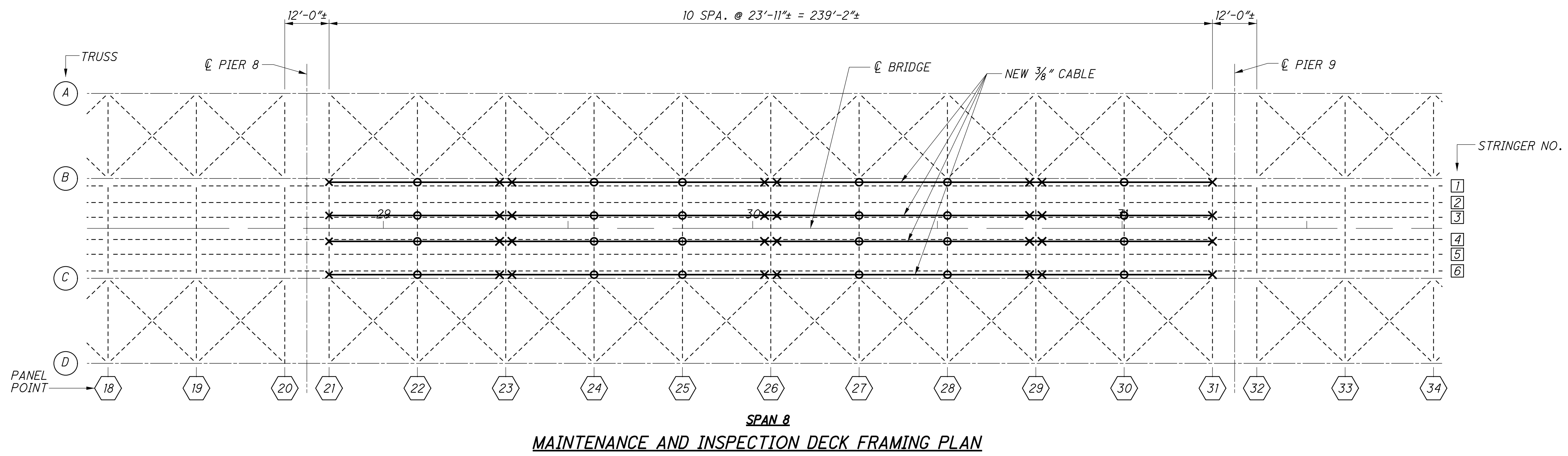
NOTES:

ANCHOR DETAIL "xx", "x" AND "o" SEE SHEET 11/12.
 ANCHOR DETAIL "*" AND "□" SEE SHEET 11A/12.
 M & I DECK: MAINTENANCE AND INSPECTION DECK.

F:\2014\114059_CUY-10-1613\99756 Project\structures\CUY010_1613C\sheets\010_1613CSD003.dgn 7/17/2015 9:52:00 AM JoeKirk



UPPER DECK FRAMING PLAN



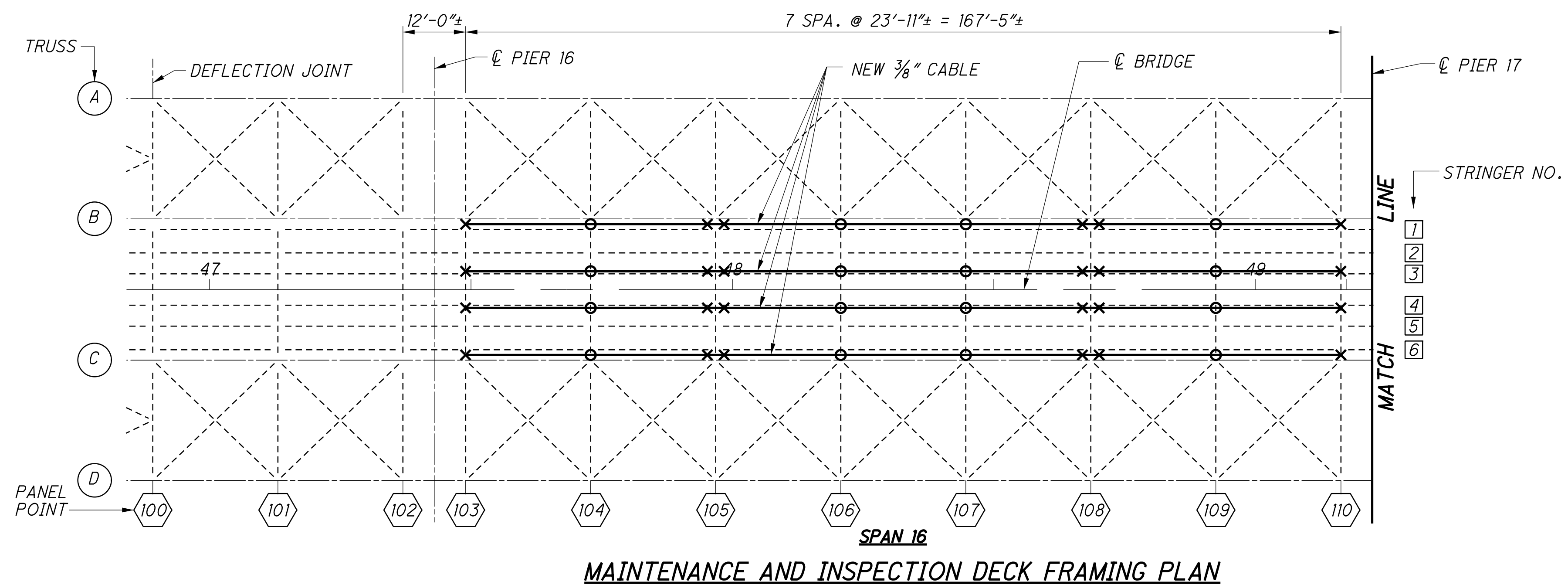
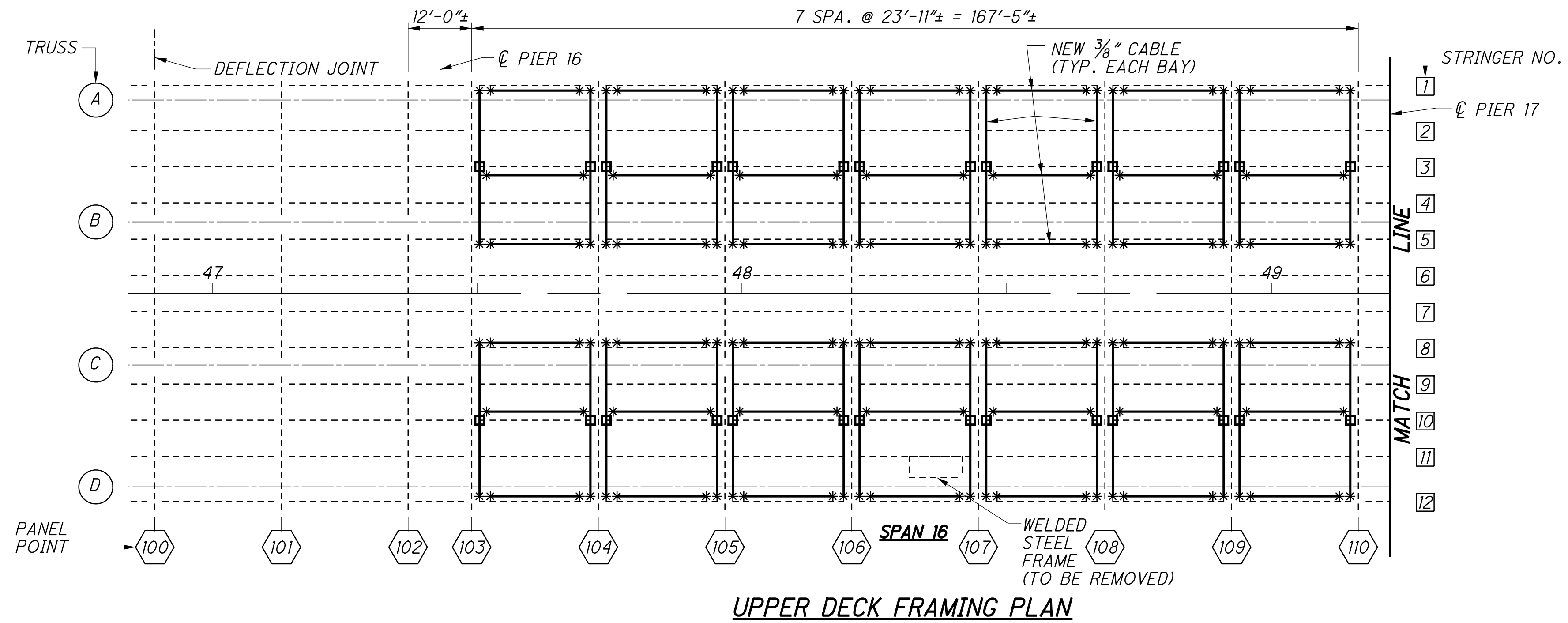
MAINTENANCE AND INSPECTION DECK FRAMING PLAN

- LEGEND**
- * - ANCHOR (UPPER DECK)
 - - EYEBOLT (UPPER DECK)
 - XX - ANCHOR WITH 2 HOLES (M & I DECK)
 - X - ANCHOR WITH ONE HOLE (M & I DECK)
 - - EYEBOLT (M & I DECK)

- NOTES:**
- ANCHOR DETAIL "XX", "X" AND "O" SEE SHEET 11/12.
 - ANCHOR DETAIL "□" AND "□" SEE SHEET 11A/12.
 - M & I DECK: MAINTENANCE AND INSPECTION DECK.
 - TIMBER SUBDECKING DETAILS: SEE SHEET 12/12.

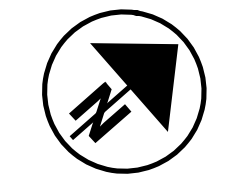
F:\2014\114059_CUY-10-1613\99756 Project\1\structures\CUY010_1613C\sheets\010_1613CSD002.dgn 7/17/2015 9:52:38 AM JoeKirk

F:\2014\114059_CUY-10-1613\99756 Project\1\structures\CUY010_1613C\sheets\010_1613CSD008.dgn 7/17/2015 9:53:18 AM JoeKirk

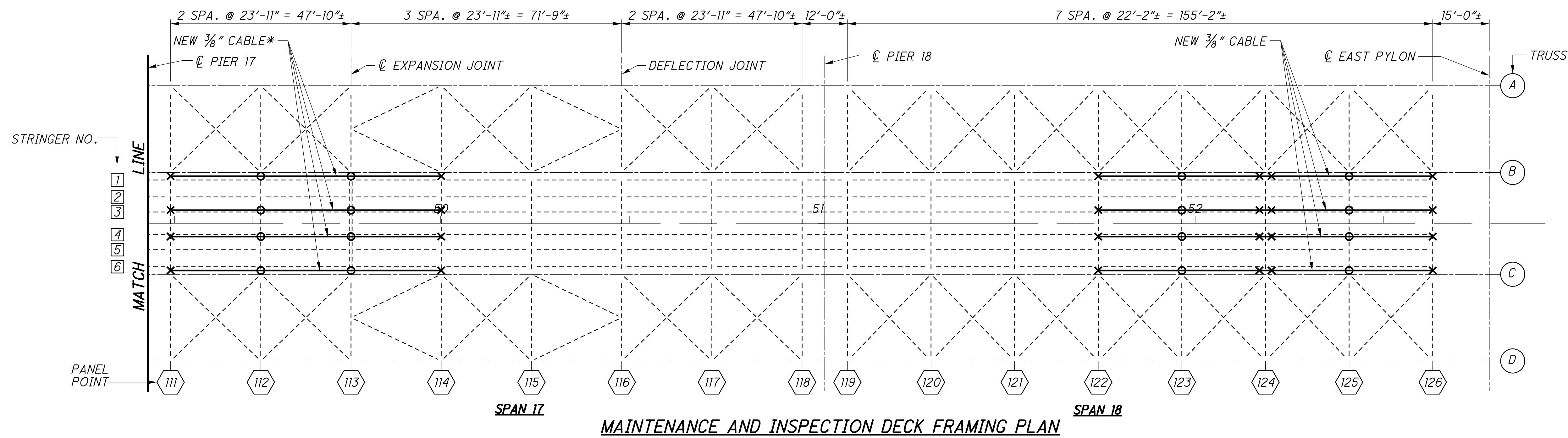
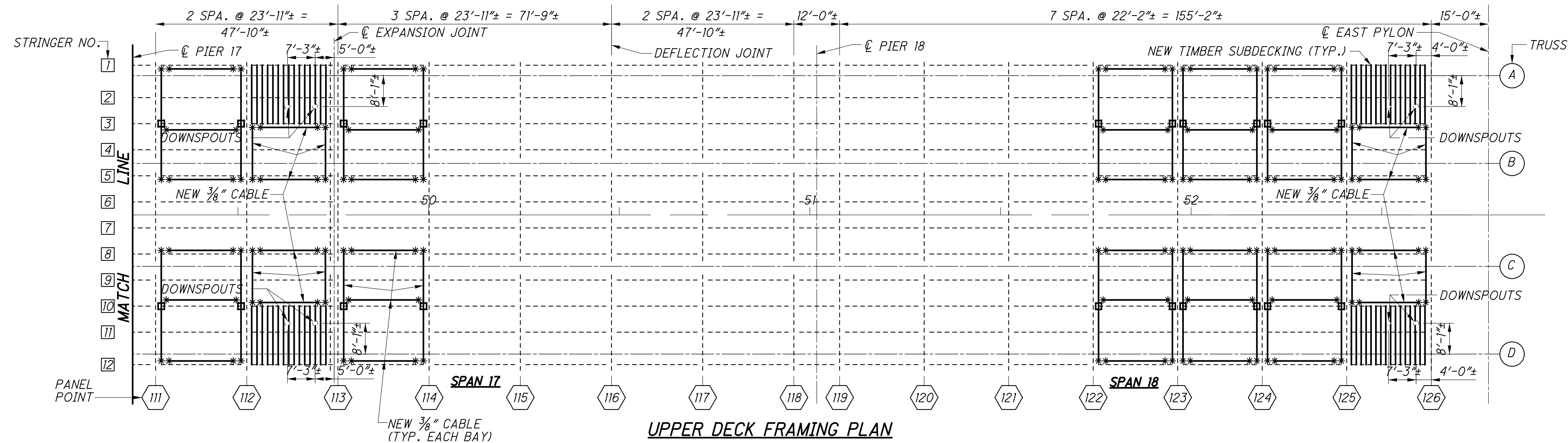
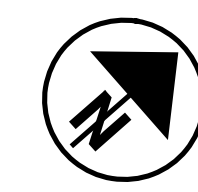


- LEGEND**
- * - ANCHOR (UPPER DECK)
 - - EYEBOLT (UPPER DECK)
 - XX - ANCHOR WITH 2 HOLES (M & I DECK)
 - X - ANCHOR WITH ONE HOLE (M & I DECK)
 - - EYEBOLT (M & I DECK)

NOTES:
ANCHOR DETAIL "XX", "X" AND "O" SEE SHEET 11/12.
ANCHOR DETAIL "*" AND "□" SEE SHEET 11A/12.
M & I DECK: MAINTENANCE AND INSPECTION DECK.



FRAMING PLAN - 3 BRIDGE NO. CUY-10-1613 S.R. 10 OVER THE CUYAHOGA RIVER	CUY-10-16.13 PID No. 99756	10B/12 45B 47	RICHLAND ENGINEERING LIMITED 29 NORTH PARK STREET MANSFIELD, OHIO 44902 DATE: 7/16/15 REVIEWED: DLR DRAWN: SJK DESIGNED: DAP CHECKED: KAK STRUCTURE FILE NUMBER: 1801503
--	--------------------------------------	---	--



* PROVIDE A MINIMUM 1'-0" SAG PER 23'-11" BAY AT INITIAL INSTALLATION FOR TEMPERATURE MOVEMENT AT PANEL POINT 113 EXPANSION JOINT.

LEGEND

- * - ANCHOR (UPPER DECK)
- - EYEBOLT (UPPER DECK)
- xx - ANCHOR WITH 2 HOLES (M & I DECK)
- x - ANCHOR WITH ONE HOLE (M & I DECK)
- - EYEBOLT (M & I DECK)

NOTES:

- ANCHOR DETAIL "XX", "X" AND "O" SEE SHEET 11/12.
- ANCHOR DETAIL "*" AND "□" SEE SHEET 11A/12.
- M & I DECK: MAINTENANCE AND INSPECTION DECK.
- TIMBER SUBDECKING DETAILS: SEE SHEET 12/12.

F:\2014\114059_CUY-10-1613\99756 Project\1\structures\CUY010_1613C\sheets\010_1613CSD007.dgn 7/17/2015 9:53:54 AM JoeKirk

FRAMING PLAN - 4

BRIDGE NO. CUY-10-1613
S.R. 10 OVER THE CUYAHOGA RIVER

CUY-10-16.13
PID No. 99756

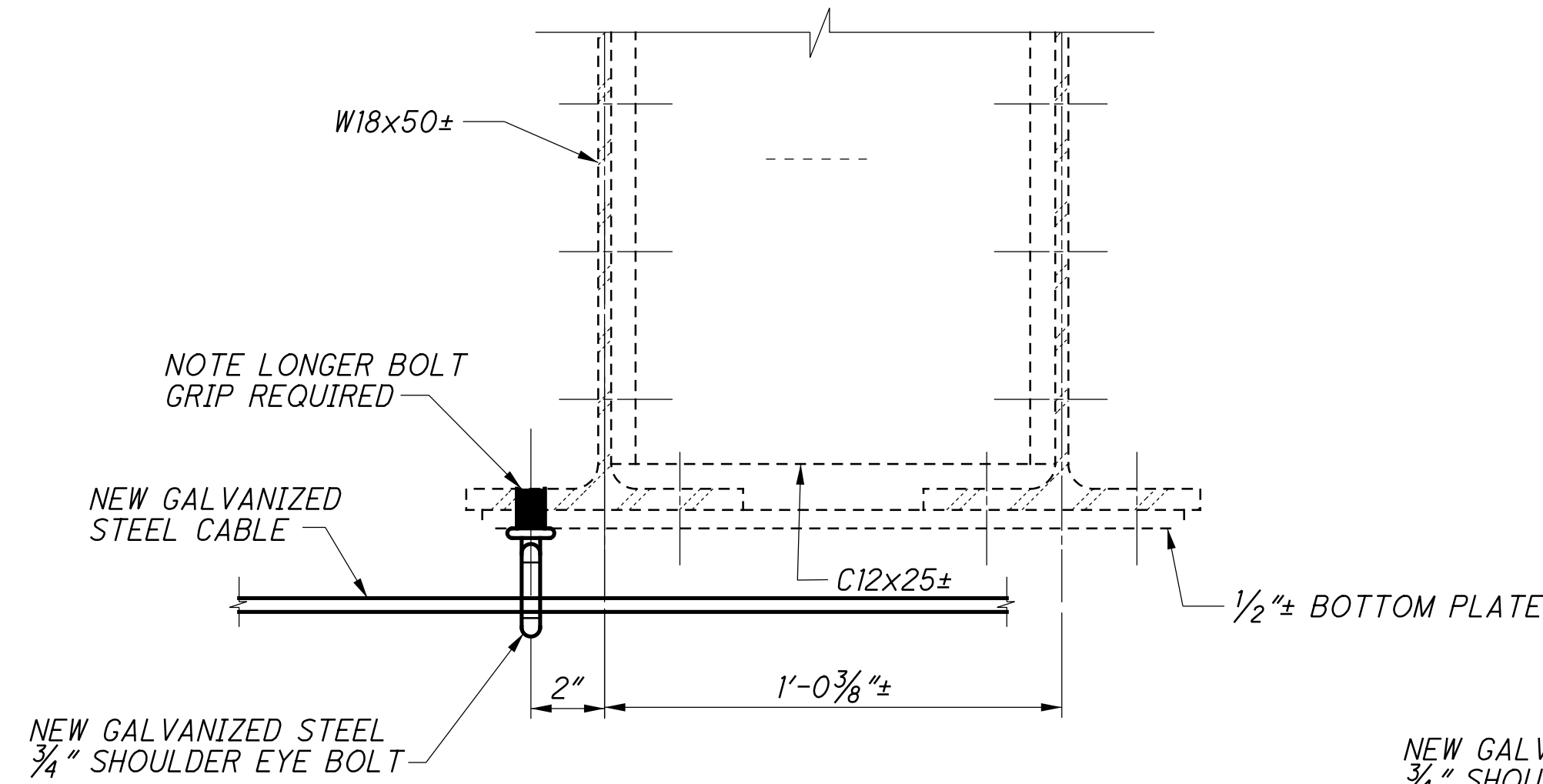
10C/12

45C
47

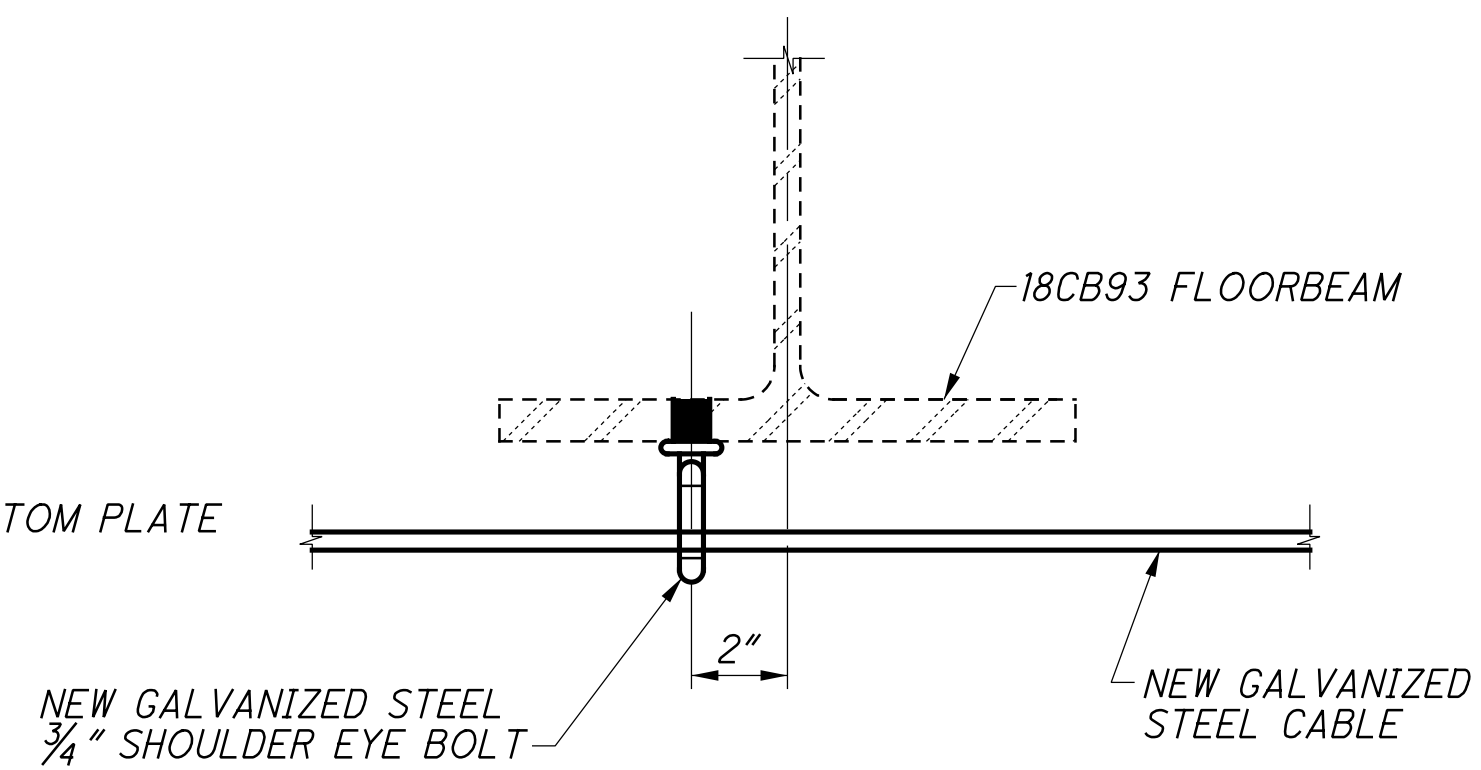
DESIGNED	DAP	CHECKED	KAK
DRAWN	SJK	REVISED	
REVIEWED	DLR	STRUCTURE FILE NUMBER	1801503
DATE	7/16/15		

RICHLAND ENGINEERING LIMITED
29 NORTH PARK STREET
MANSFIELD, OHIO 44902

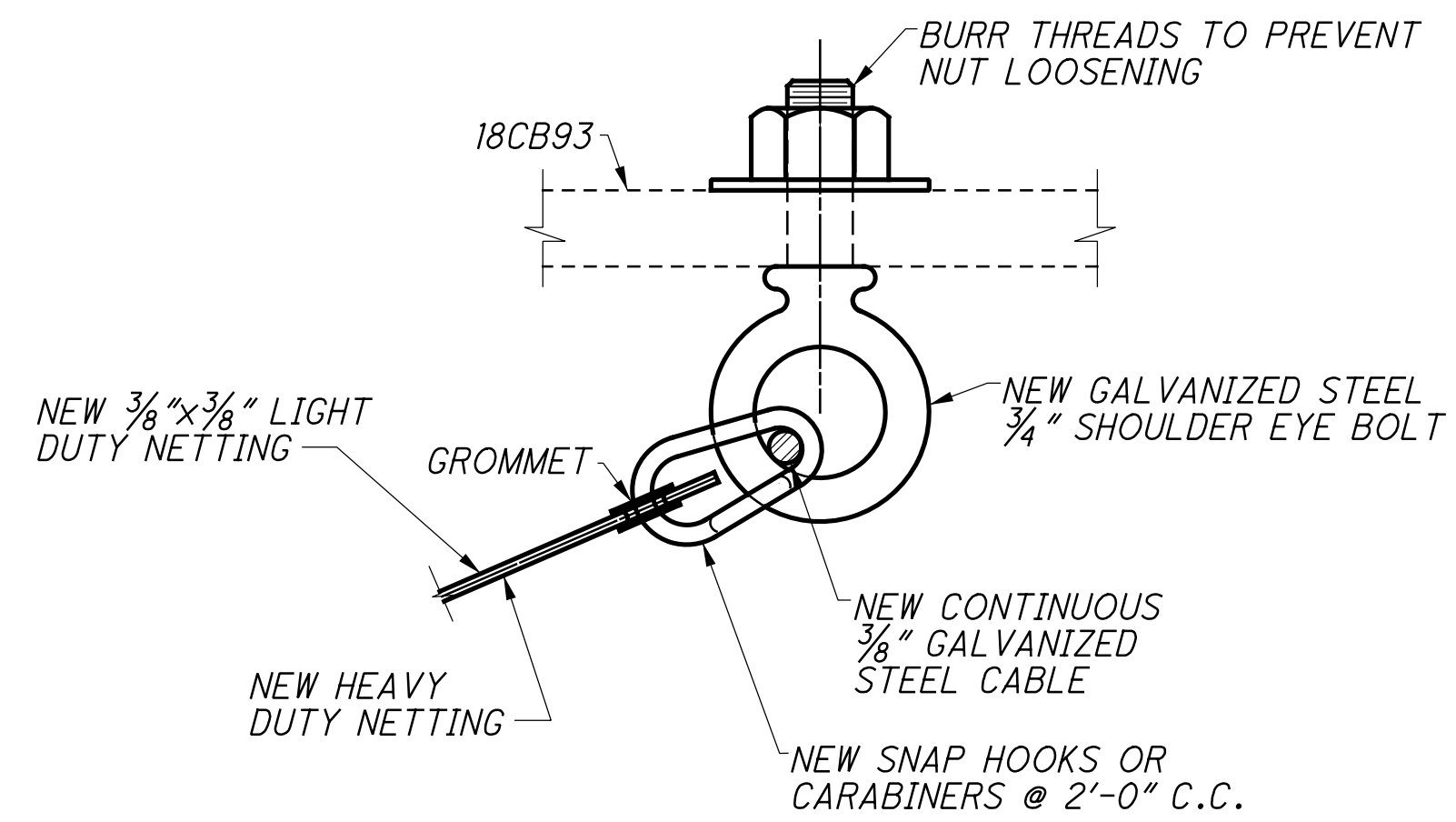
F:\2014\114059_CUY-10-16\13\99756 Project 1\structures\CUY010_16\13\sheets\010_16\13\CD100.dgn 7/17/2015 9:54:38 AM JoeKirk



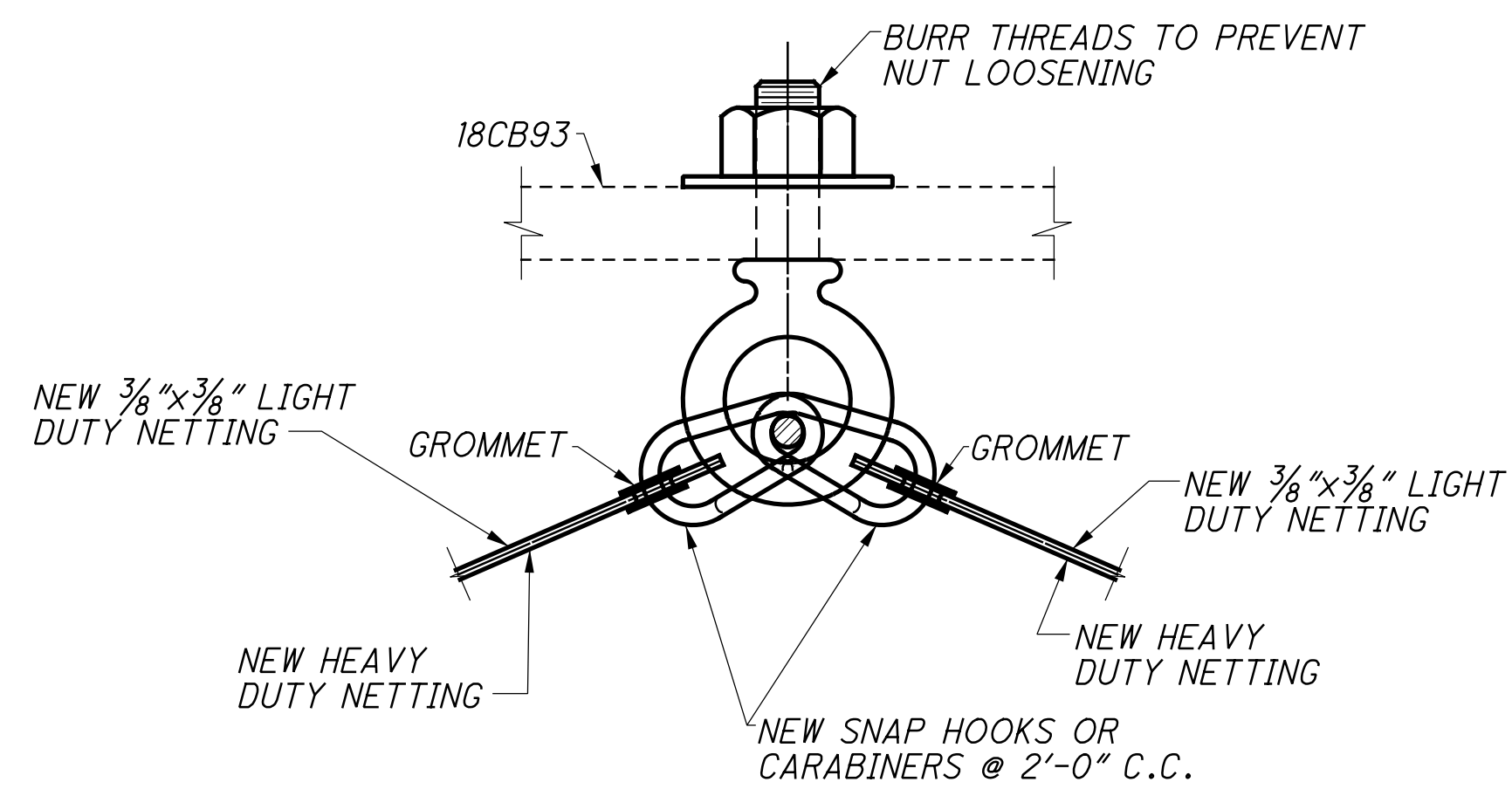
DETAIL "O"
AT EXPANSION JOINT (113)



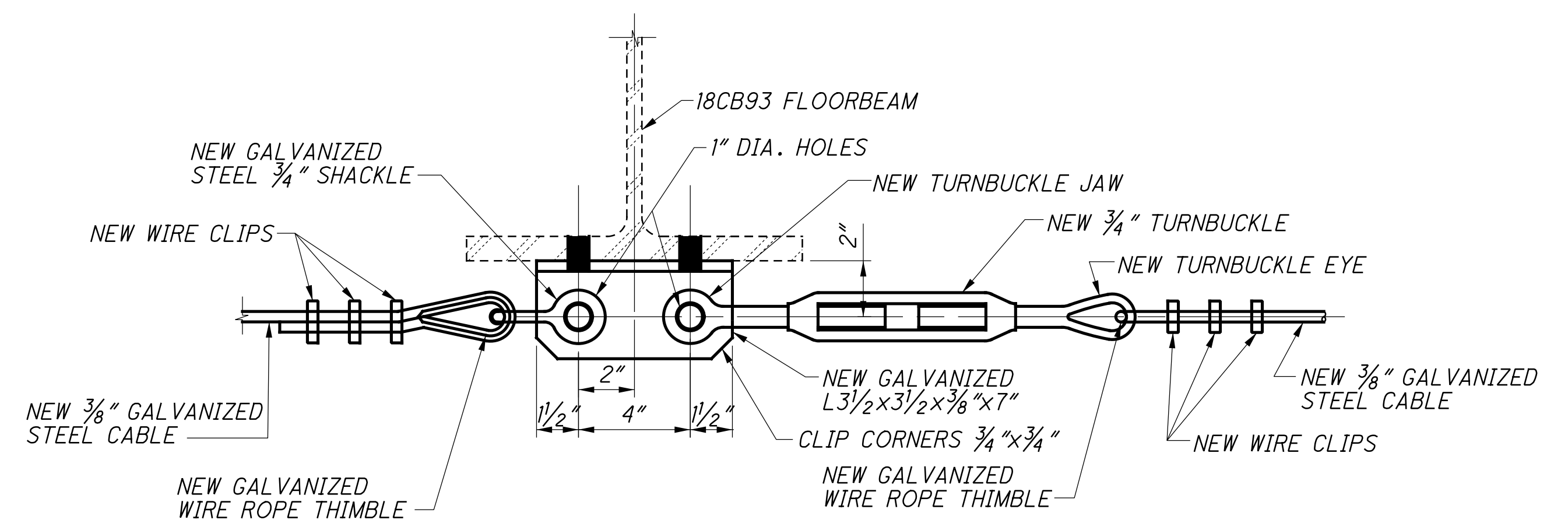
DETAIL "O"



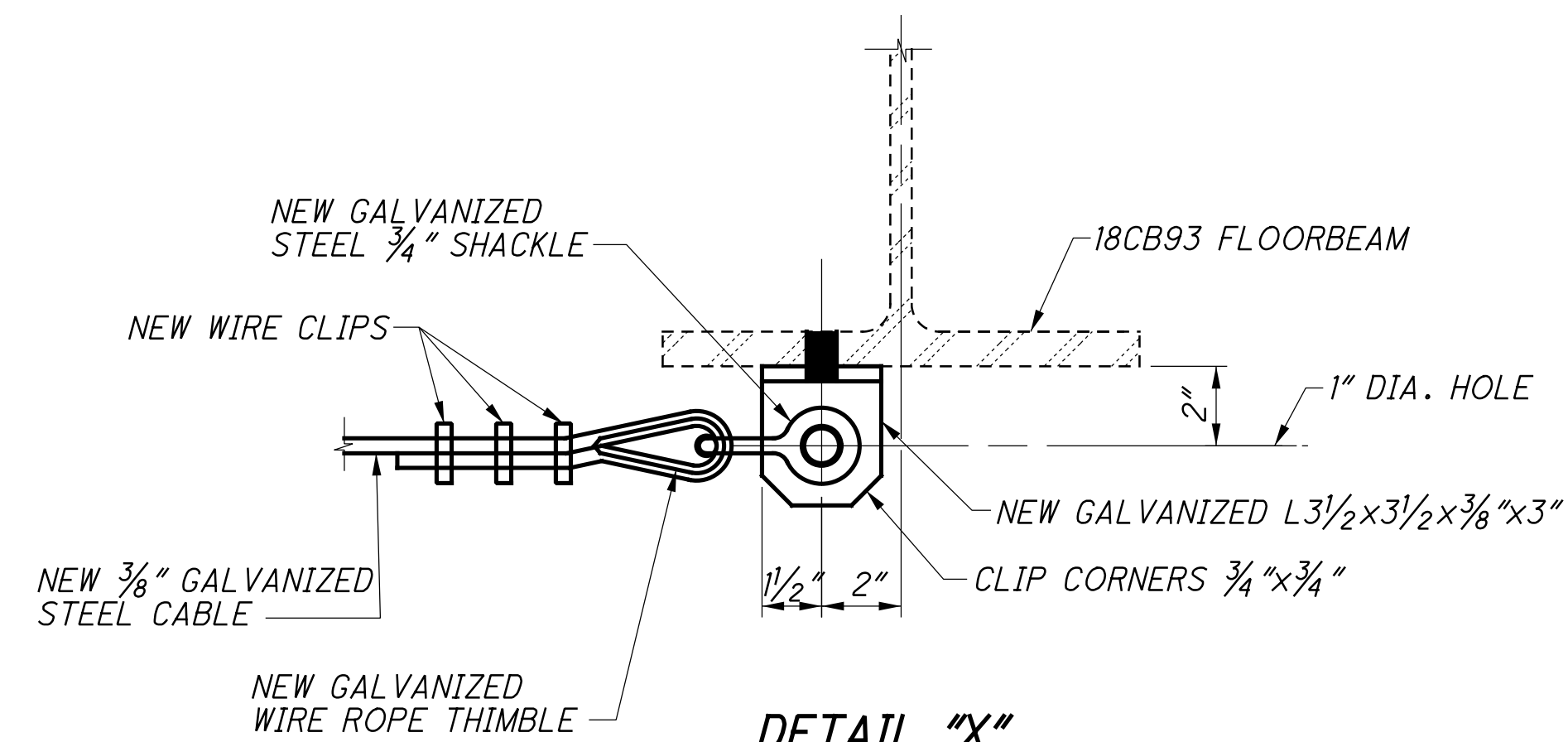
DEBRIS NETTING CONNECTION
OUTER CABLES



DEBRIS NETTING CONNECTION
INNER CABLES



DETAIL "XX"



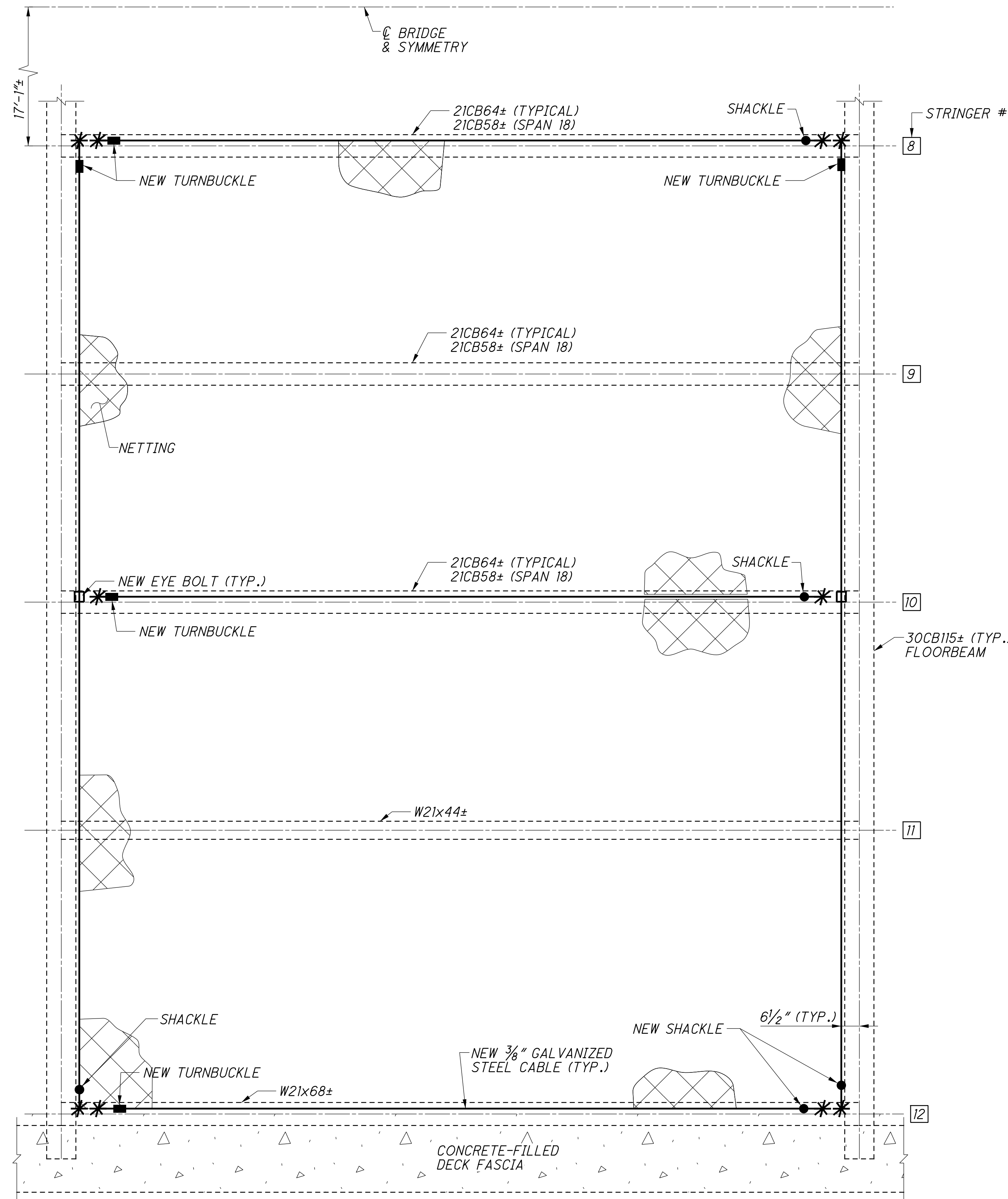
DETAIL "X"

NOTES:

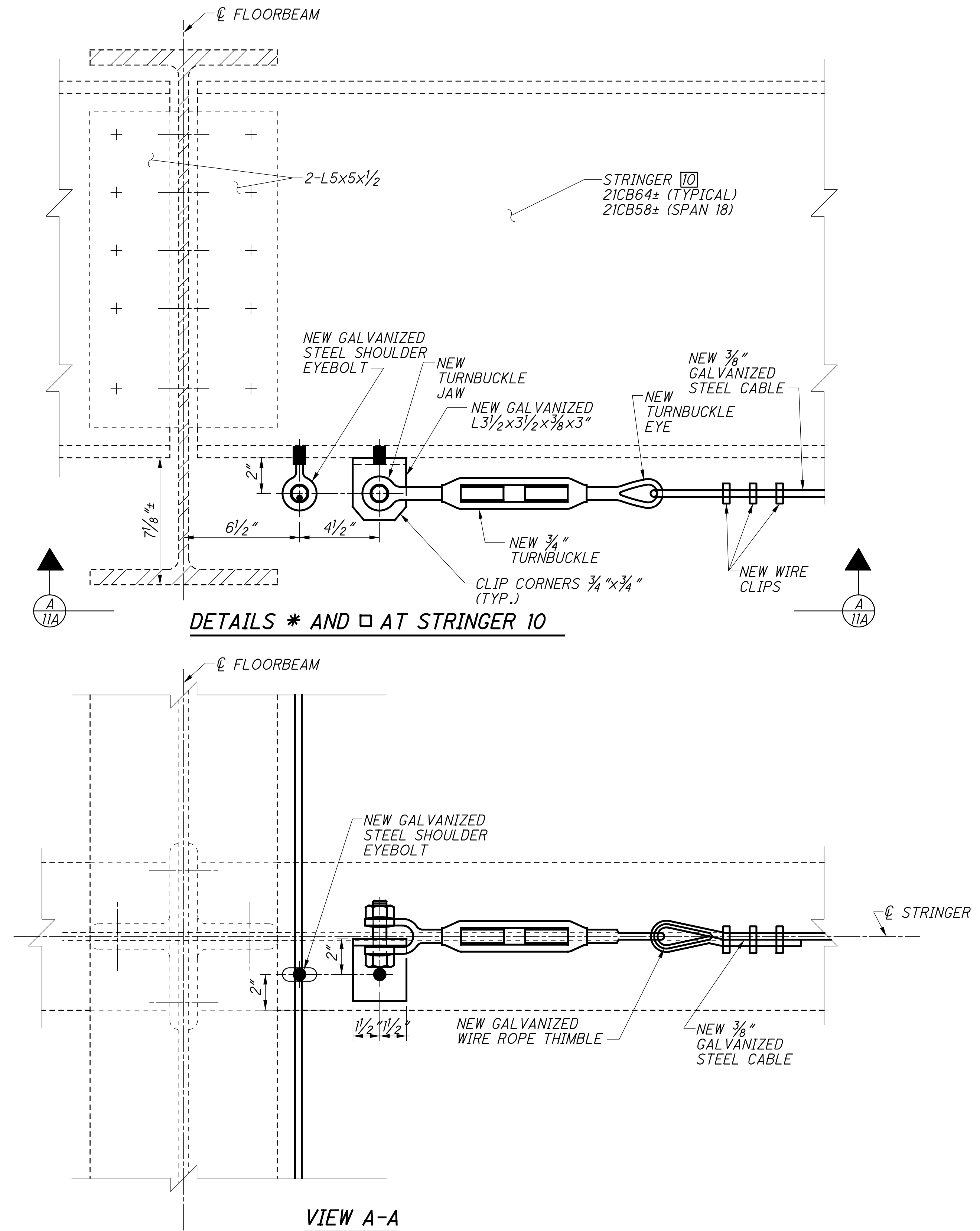
MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.

STRUCTURAL STEEL CONNECTION BOLTS SHALL BE 3/4" HIGH STRENGTH GALVANIZED ASTM A325 BOLTS, TYPE 1.

F:\2014\114059_CUY-10-1613\99756 Project\1\structures\CUY010_1613C\sheets\010_1613CMD008.dgn 7/17/2015 9:55:17 AM JoeKirk



UPPER ROADWAY BAY - TYPICAL NETTING SUPPORT DETAIL
(SOUTH DECK EDGE SHOWN - NORTH EDGE OPPOSITE HAND)



LEGEND

- - EYE BOLT (UPPER DECK)
- * - ANCHOR (UPPER DECK)

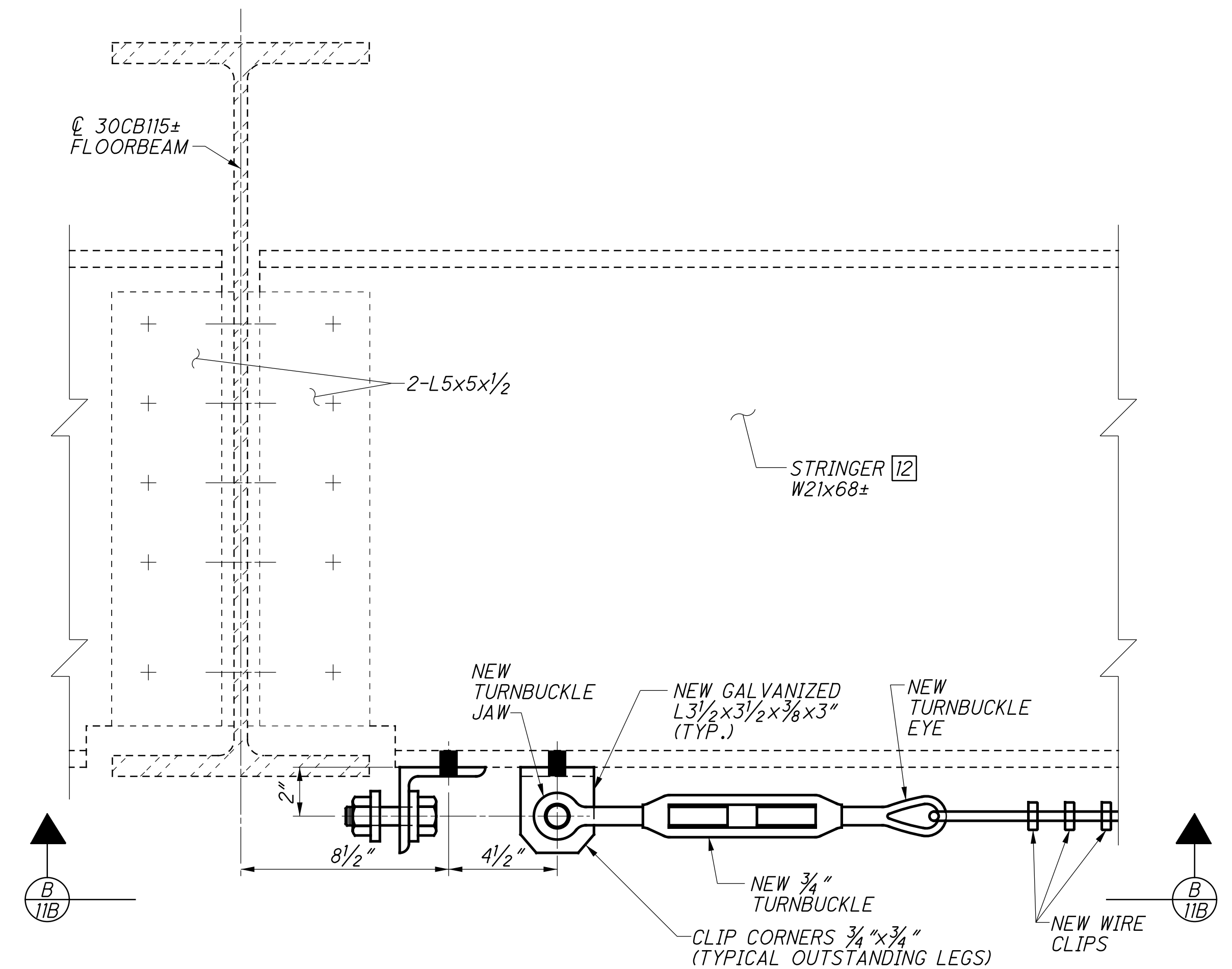
NOTES:

MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.

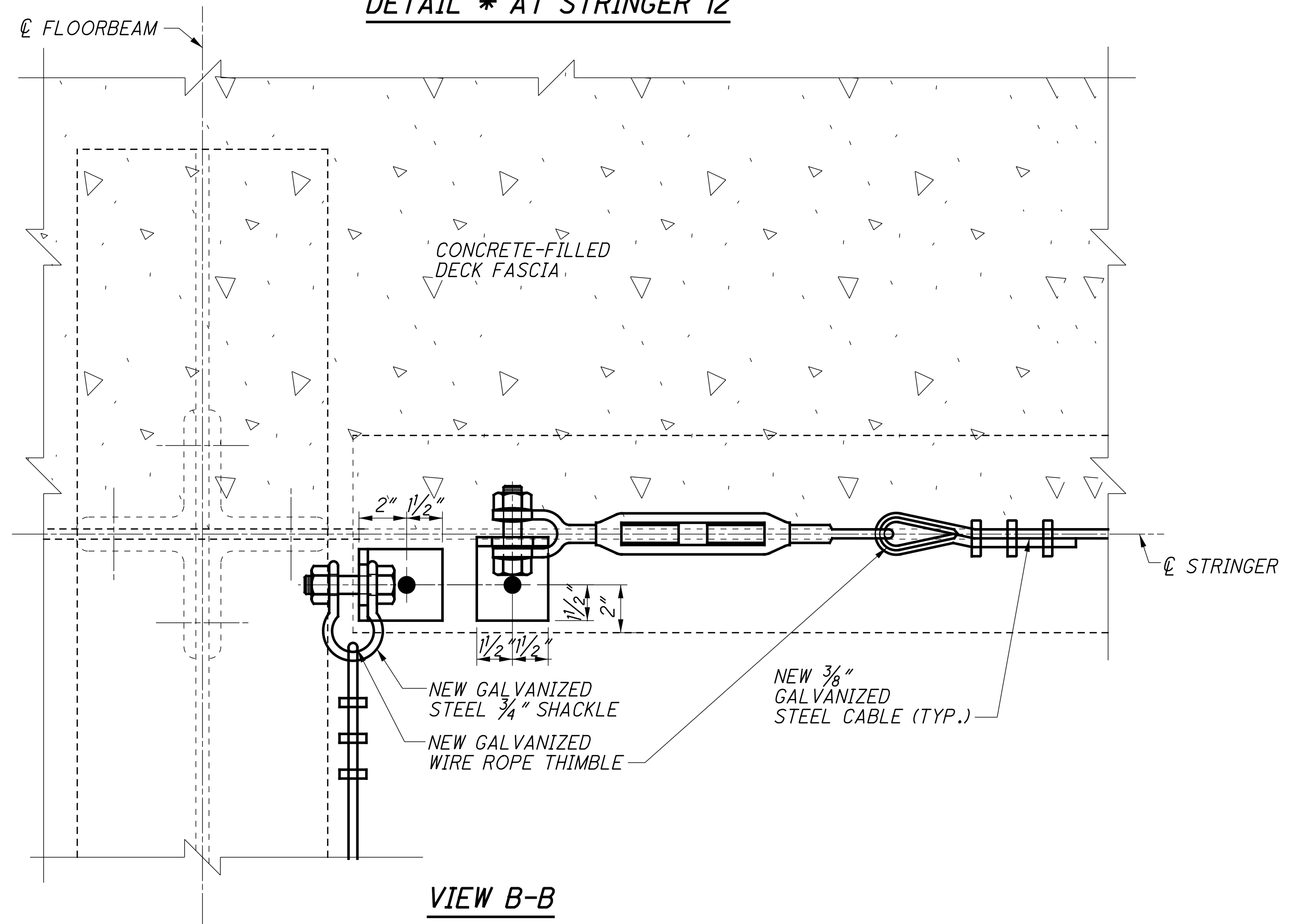
STRUCTURAL STEEL CONNECTION BOLTS SHALL BE 3/4" HIGH STRENGTH GALVANIZED ASTM A325 BOLTS, TYPE 1.

EYEBOLT DETAILS: SEE "DEBRIS NETTING CONNECTION OUTER CABLES" ON SHEET 11/12.

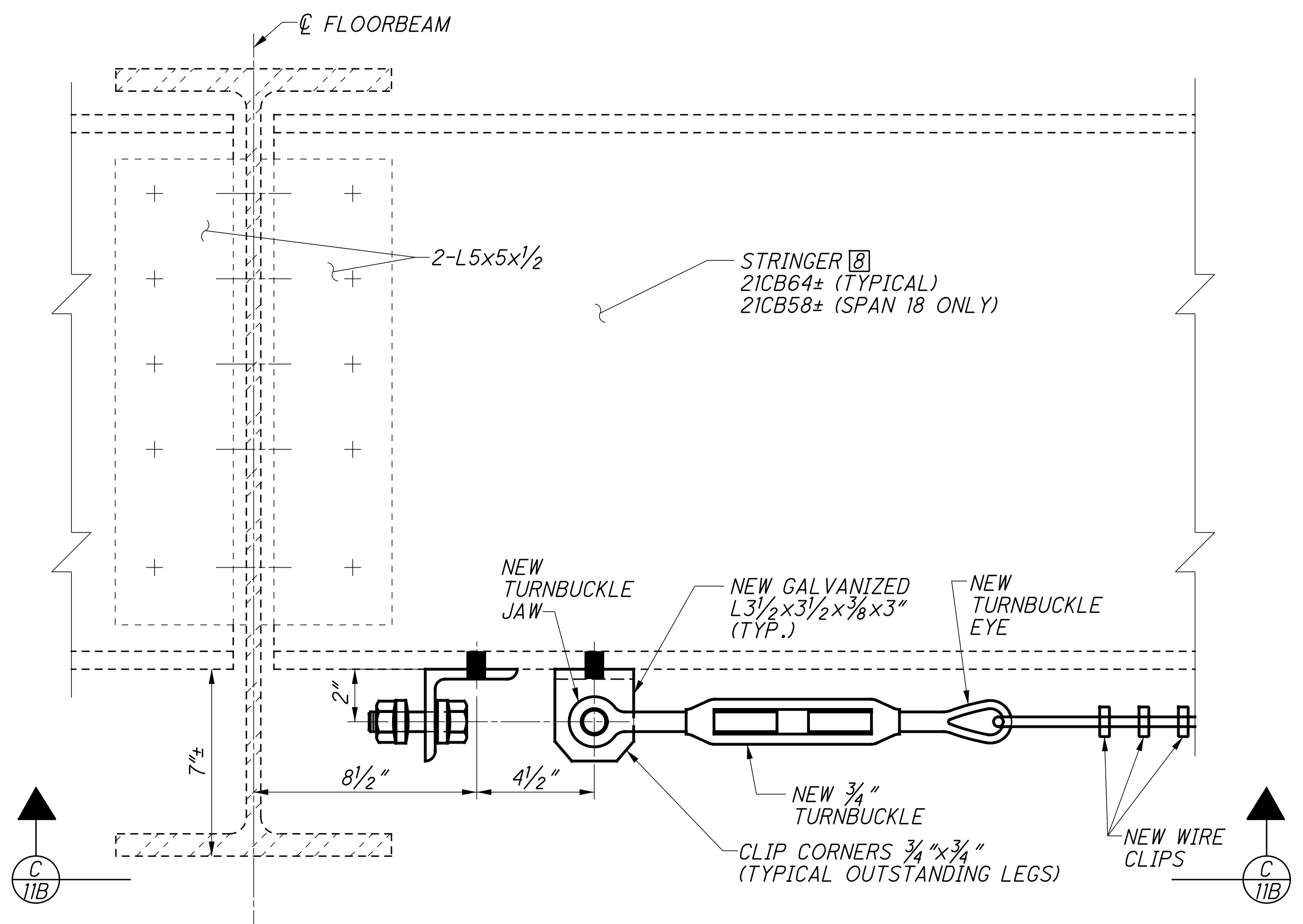
F:\2014\114059 CUY-10-1613\99756 Project 1\structures\CUY010_1613\CD009.dgn 7/17/2015 9:56:03 AM JoeKirk



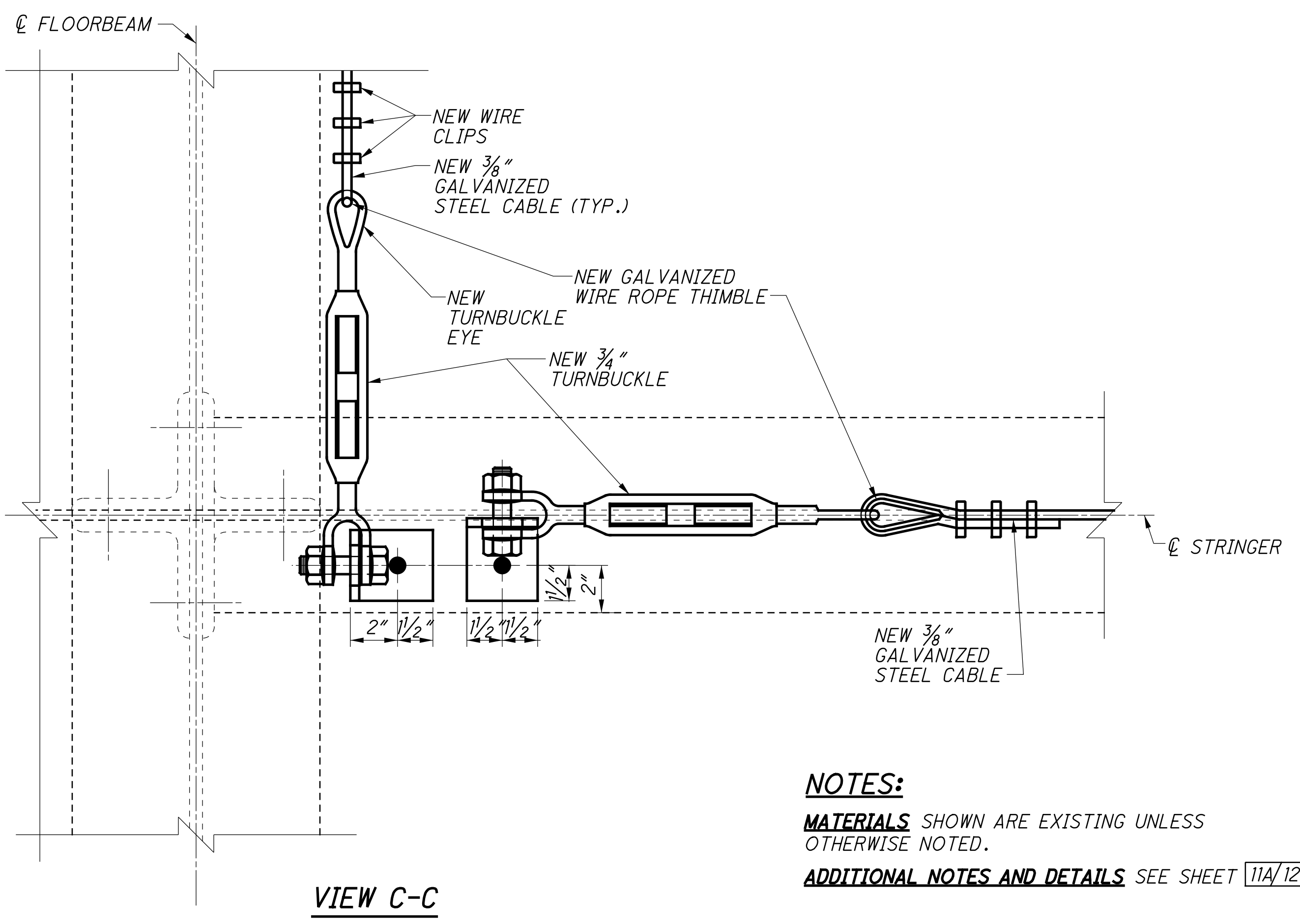
DETAIL * AT STRINGER 12



VIEW B-B



DETAIL * AT STRINGER 8

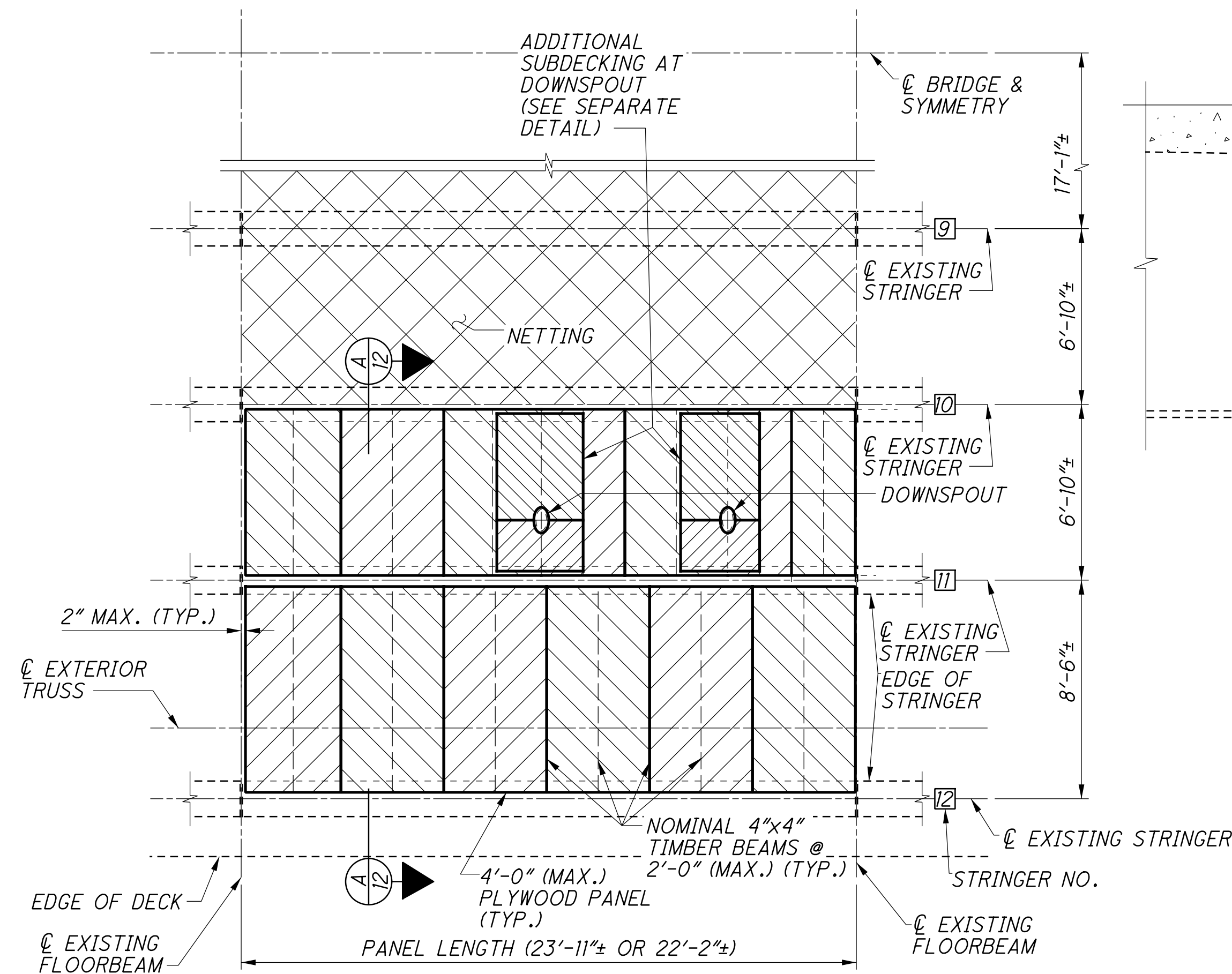


VIEW C-C

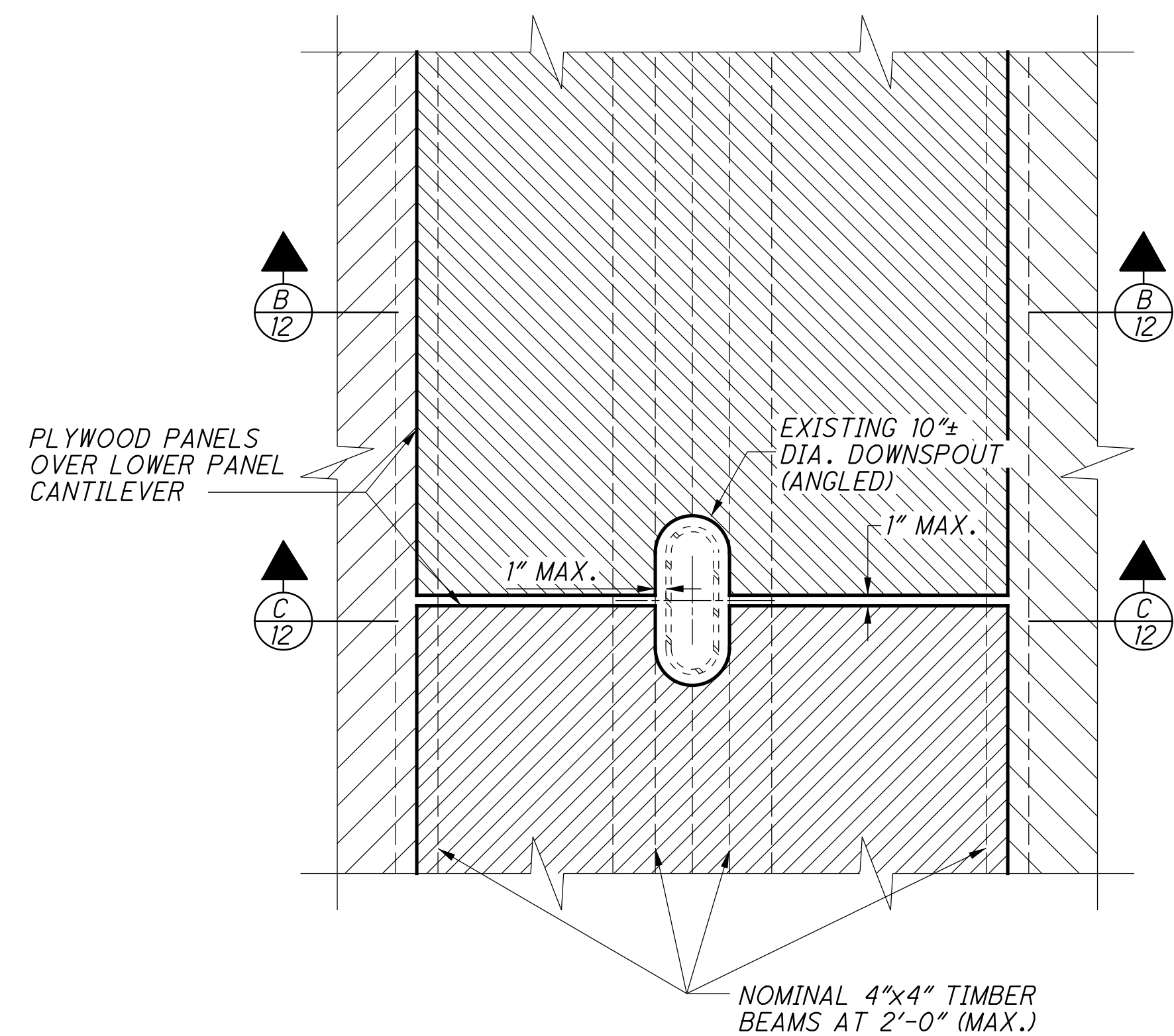
NOTES:
MATERIALS SHOWN ARE EXISTING UNLESS OTHERWISE NOTED.
ADDITIONAL NOTES AND DETAILS SEE SHEET 11A/12

RICHLAND ENGINEERING LIMITED 29 NORTH PARK STREET MANSFIELD, OHIO 44902 	
REVIEWED DLR	DATE 7/16/15
DRAWN JSB	STRUCTURE FILE NUMBER 1801503
DESIGNED RWC	CHECKED KAK
ROADWAY DECK DEBRIS NETTING DETAILS - 2 BRIDGE NO. CUY-10-1613 S.R. 10 OVER THE CUYAHOGA RIVER	
CUY-10-16-13	PID No. 99756
11B / 12	46B 47

F:\2014\14059 CUY-10-16\13\99756 Project\structures\CUY010-16\13\99756 sheets\010-16\13\CDMD007.dgn 7/17/2015 9:56:46 AM JoeKirk

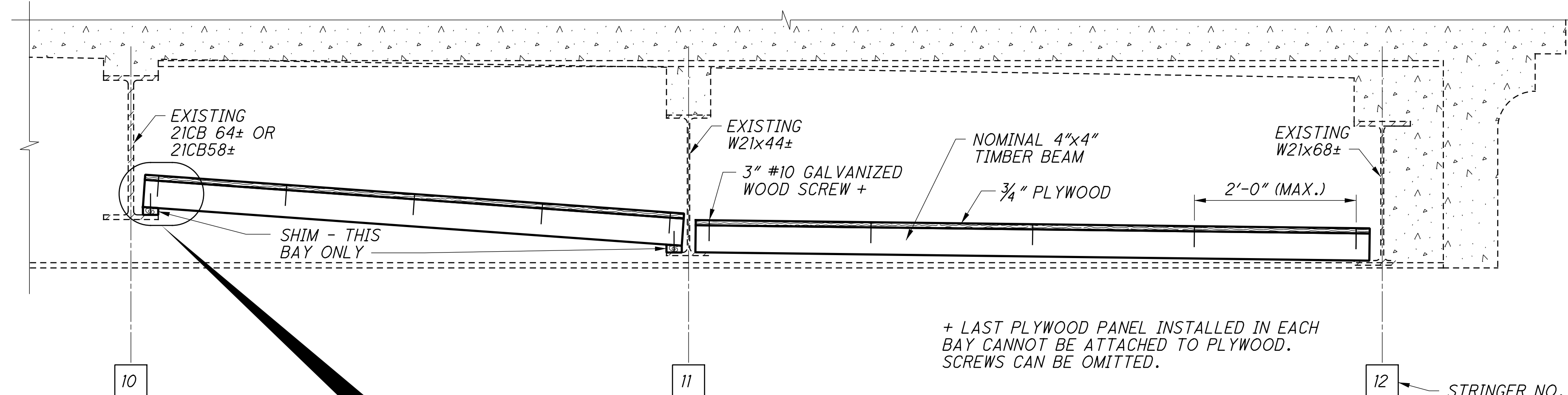


PARTIAL UPPER ROADWAY DECK FRAMING AT EXISTING DOWNSPOUTS
(SOUTH DECK EDGE SHOWN - NORTH EDGE OPPOSITE HAND)
(ILLUSTRATION ONLY)



ADDITIONAL SUBDECKING DETAIL AT DOWNSPOUT

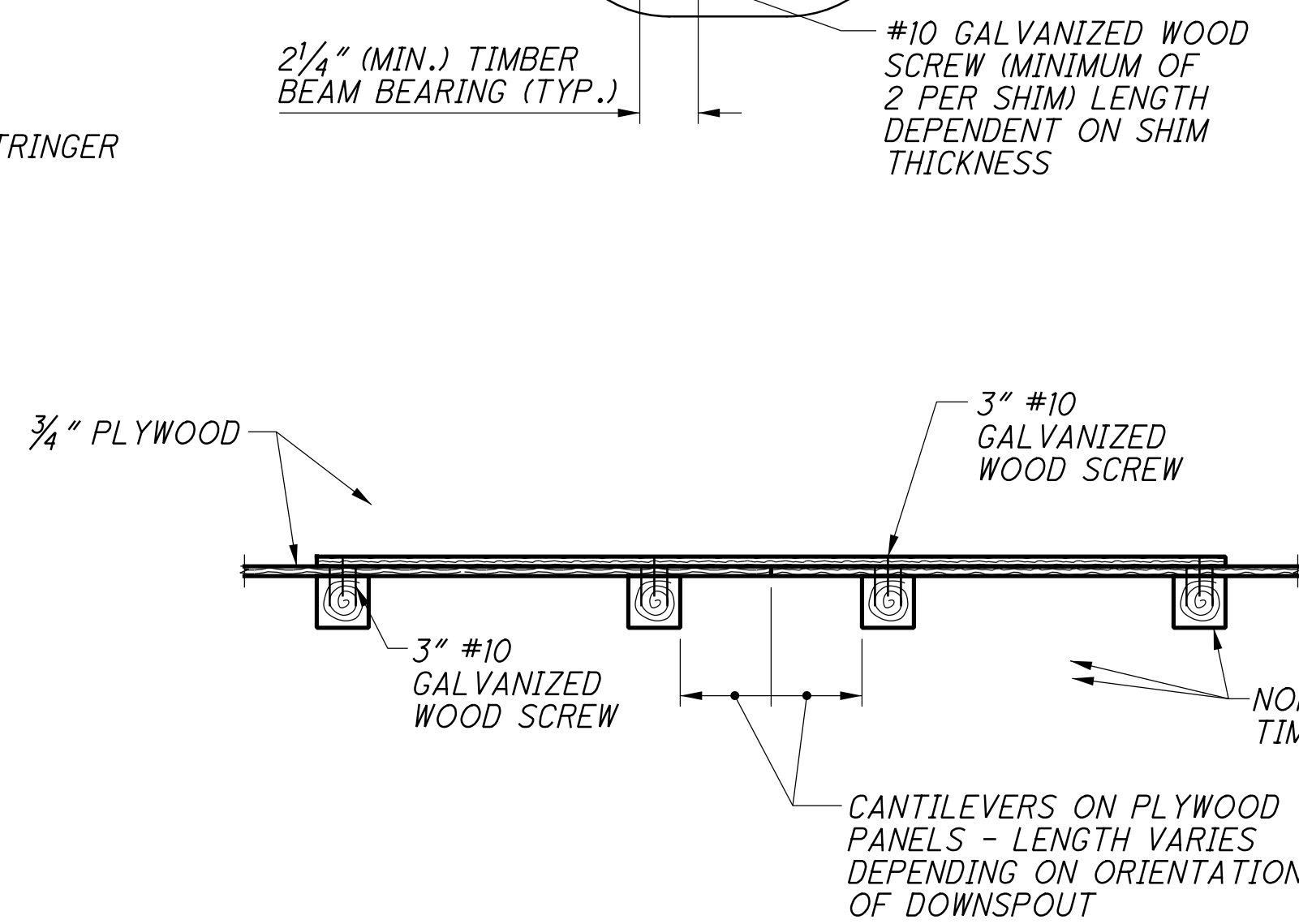
(LOWER PLYWOOD PANELS BENEATH ADDITIONAL SUBDECKING NOT SHOWN FOR CLARITY)



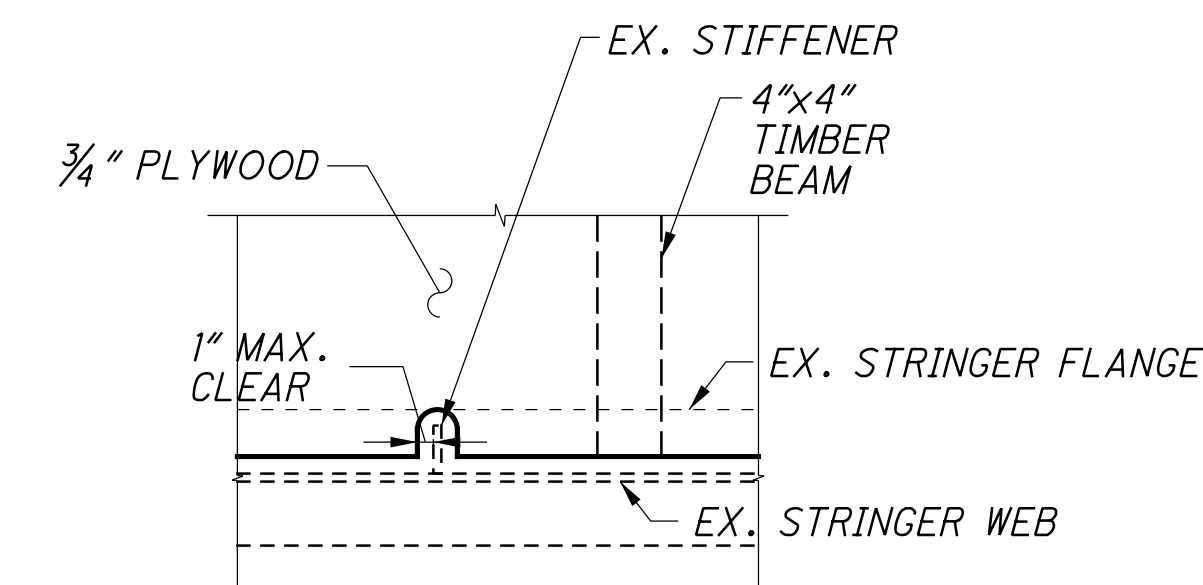
SECTION A-A

+ LAST PLYWOOD PANEL INSTALLED IN EACH BAY CANNOT BE ATTACHED TO PLYWOOD. SCREWS CAN BE OMITTED.

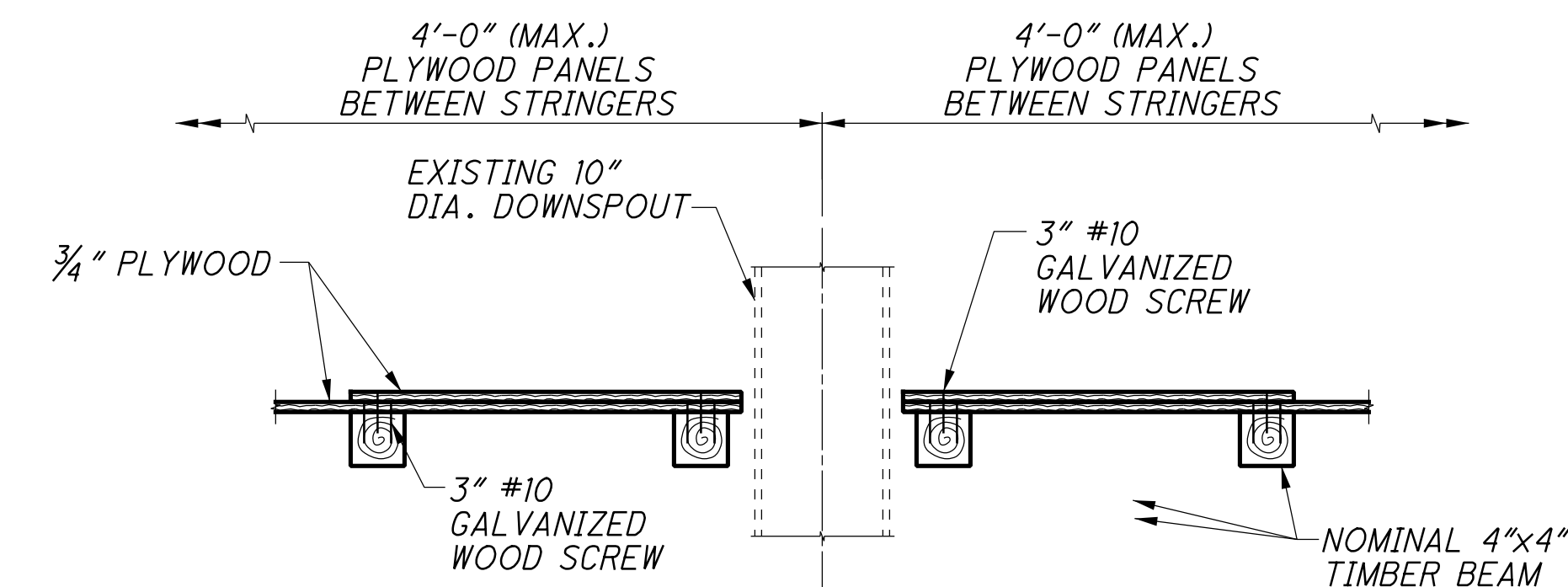
+ LAST PLYWOOD PANEL INSTALLED IN EACH BAY CANNOT BE ATTACHED TO PLYWOOD. SCREWS CAN BE OMITTED.



SECTION B-B

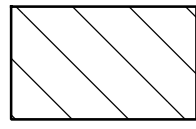
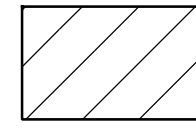
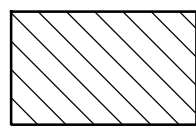
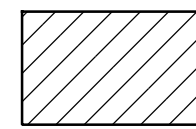



DETAIL AT EXISTING STIFFENER



SECTION C-C

LEGEND

-  OR  - PLYWOOD PANEL BETWEEN STRINGERS
-  OR  - PLYWOOD PANEL OVER LOWER PANEL CANTILEVER
-  - NETTING

NOTES:

MATERIALS SHOWN ARE NEW UNLESS OTHERWISE NOTED.

DOWNSPOUT LOCATIONS: SEE FRAMING PLAN SHEETS 10A/12 AND 10C/12.