



REHABILITATION OF EXISTING BRIDGE 01.94  
OVER CHATFIELD AVENUE, GREATER CLEVELAND  
REGIONAL TRANSIT AUTHORITY, NORFOLK SOUTHERN  
RAILROAD (DEARBORN DIV. MP CD-188.53)  
& EMERY ROAD EXTENSION

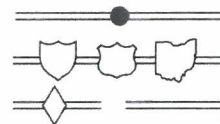
**BRIDGE 01.94**

LATITUDE: 41° 26' 47" N LONGITUDE: 81° 48' 05" W



INTERSTATE, U.S. AND STATE ROUTES

COUNTY AND OTHER ROADS



CURRENT ADT (2024)	31,200
DESIGN YEAR ADT (2044)	31,300
DESIGN HOURLY VOLUME (DHV)	3,130
DIRECTIONAL DISTRIBUTION (D)	60.0%
TRUCKS (T) (24 HOUR B&C)	8.2%
DESIGN SPEED	45 MPH
LEGAL SPEED	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	MINOR ARTERIAL
NHS PROJECT	NO

(NONE REQUIRED)

TITLE SHEET	1
GENERAL PLAN	2
GENERAL NOTES	3-9
MAINTENANCE OF TRAFFIC	10-14
GENERAL SUMMARY	15
WORK ZONE DETAILS	16
PIER 5 DETAILS	17-23

APPROVED IN THE \_\_\_\_\_ CITY OF CLEVELAND  
ORDINANCE OF CONSENT NO. \_\_\_\_\_ 353-2020  
PASSED JUNE 17, 2020

THIS PROJECT CONSISTS OF THE REMOVAL AND REPLACEMENT OF THE PIER CAP AND BEARINGS, AND PATCHING OF EXISTING PIER 5 OF THE WEST 150TH ST. BRIDGE.

PROJECT EARTH DISTURBED AREA.. MAINTENANCE PROJECT

ESTIMATED CONTRACTOR N/A  
EARTH DISTURBED AREA ..... MAINTENANCE PROJECT

NOTICE OF INTENT N/A  
EARTH DISTURBED AREA . . . . . MAINTENANCE PROJECT

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

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE ROADWAY EXCEPT AS NOTED ON SHEETS 10-14 OF 23, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

DAVE RAY, P.E., P.S.  
CUYAHOGA COUNTY ENGINEER

Dave Ray 3/18/24  
CUYAHOGA COUNTY ENGINEER DATE

MICHAEL W. DEVER, M.P.A  
DIRECTOR OF PUBLIC WORKS

Michael W. [Signature] 3/15/2024  
DIRECTOR OF PUBLIC WORKS DATE

CHRIS RONAYNE  
CUYAHOGA COUNTY EXECUTIVE

 3/18/24  
GUYAHOGA COUNTY EXECUTIVE DATE

[illegible]

FEDERAL PROJECT NO. N/A

PID NO.	N/A
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CONSTRUCTION PROJECT NO.

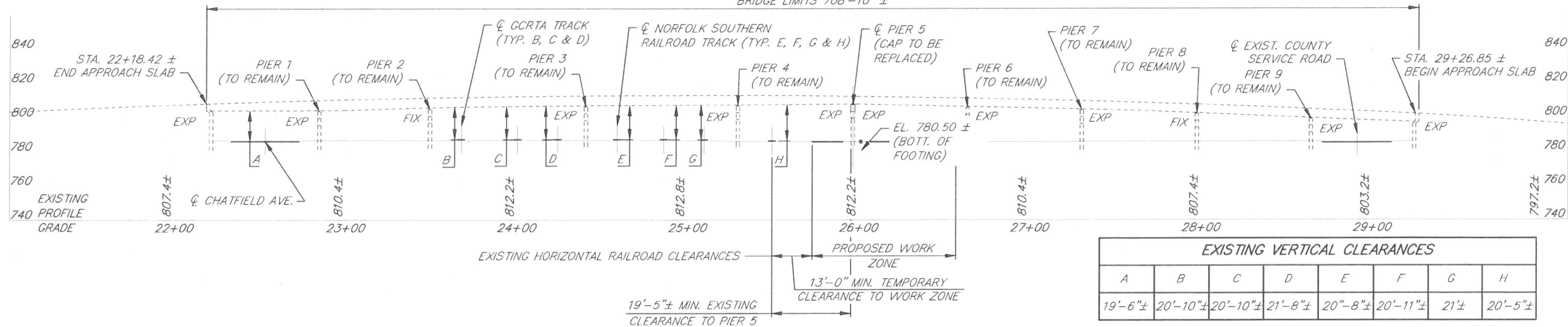
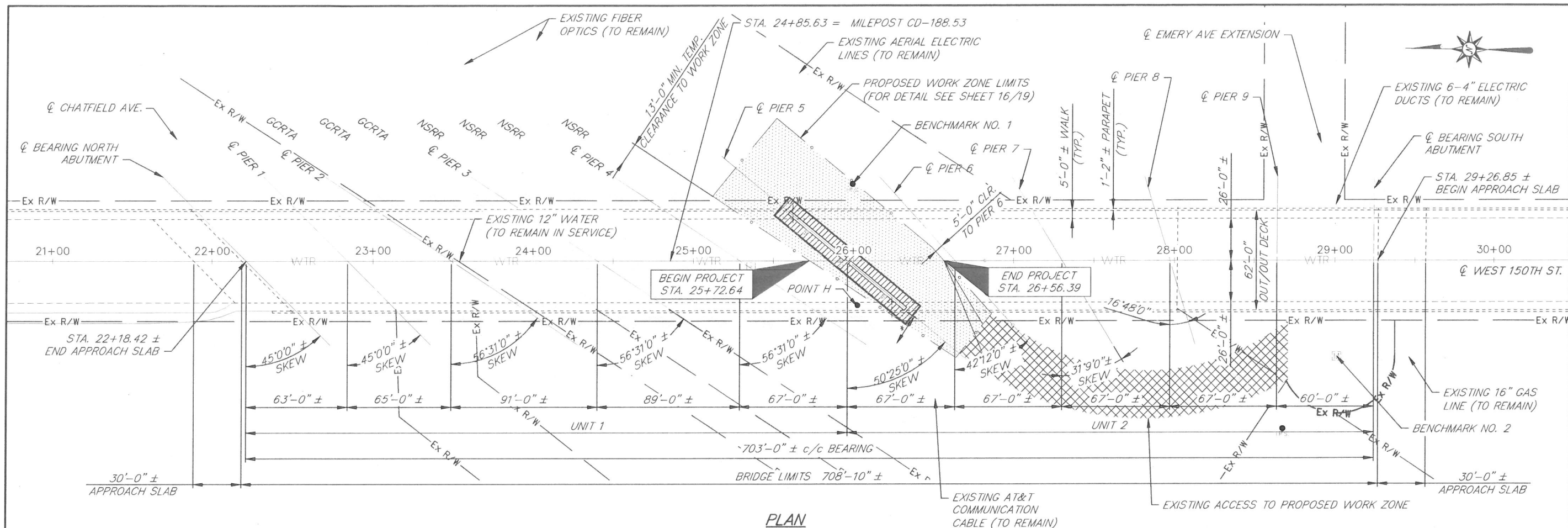
RAILROAD INVOLVEMENT  
NORFOLK SOUTHERN

**WEST 150TH STREET  
[C.R. 66]**

$$\frac{1}{23}$$



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CDDW Production Sheet 11.3 3/1/2024



#### EXISTING STRUCTURE DATA

TYPE: CONTINUOUS COMPOSITE STEEL BEAM WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE  
SPAN: UNIT 1 - 63'-0" ±, 65'-0" ±, 91'-0" ±, 89'-0" ±, AND 66'-4" ±  
UNIT 2 - 66'-4" ±, 3 SPANS OF 67'-0" ±, AND 60'-0" ± C/C OF BEARING MEASURED ALONG C WEST 150TH ST.  
ROADWAY: 52'-0" ± TOE/TOE CURB WITH 5'-0" ± SIDEWALKS  
APPROACH SLABS: AS-1-81M (30'-0" ±)  
LOADING: HS20-44 & ALTERNATE MILITARY LOADING  
SKEW: VARIES 0° TO 56°-31' ± RIGHT FORWARD (SEE PLANS)  
ALIGNMENT: TANGENT  
WEARING SURFACE: 1.25" LATEX MODIFIED CONCRETE  
CROWN: 0.0156" ± FT/FT  
DATE BUILT: 1967  
STRUCTURE FILE NO. 1833405  
LATITUDE: 41° 26' 47" N LONGITUDE: 81° 48' 05" W

#### PROFILE ALONG C WEST 150TH ST

##### PROPOSED REHABILITATION

PROPOSED WORK:  
REPLACEMENT OF THE EXISTING PIER 5 CAP.  
REPLACEMENT OF THE EXISTING POT BEARINGS ON PROPOSED PIER CAP.  
PATCHING OF PIER 5 STEMS AND SEALING OF PROPOSED PIER CAP AND STEM.

##### BENCHMARK DATA

BENCHMARK NO. 1	BENCHMARK NO. 2
IRON PIN STA. 25+99.28, 47.71' LT. ELEV. 784.34	MONUMENT HUB IN BOX STA. 29+01.04, 59.63' RT. ELEV. 782.31

##### TRAFFIC DATA

ROADWAY:  
CLASSIFICATION: URBAN - MINOR ARTERIAL  
DESIGN SPEED: 40 MPH  
LEGAL SPEED: 35 MPH  
2023 ADTT: 3,120 2043 ADTT: 3,130  
2023 ADT: 31,200 2043 ADT: 31,300  
DIRECTIONAL DISTRIBUTION: 0.6

RAILROAD:  
TRAINS PER DAY: 90  
SPEED: 60 MPH

#### NOTES

- THE CONTRACTOR SHALL USE EXTREME CARE NOT TO DISTURB OR INTERFERE WITH OPERATION OF THE EXISTING CVD WATERLINE ON THE BRIDGE.
- NORTH TO SOUTH STATIONING ORIENTATION AND EXISTING HORIZONTAL AND VERTICAL CLEARANCES BASED ON ORIGINAL CONSTRUCTION PLANS DESIGNED IN 1966.

#### LEGEND

- PROPOSED ACCESS ROAD TO PROPOSED WORK ZONE
- LIMITS OF PROPOSED WORK ZONE (13' MIN. CLEAR OF RAILROAD)
- LIMITS OF PROPOSED TEMPORARY JACKS & SUPPORTS
- \* 19'-5" ± MIN. EXISTING HORIZONTAL CLEARANCE TO PIER 5

GENERAL

SCOPE OF WORK

THE PROJECT CONSISTS OF THE REMOVAL OF THE EXISTING UPPER PORTION OF THE PIER 5 SUBSTRUCTURE AND REPLACEMENT WITH NEW CONCRETE. THE EXISTING BEARING DEVICES AT PIER 5 SHALL BE REMOVED, REHABILITATED AND RE-INSTALLED. ADDITIONAL WORK INCLUDES PATCHING ON THE EXISTING LOWER PORTION OF THE PIER.

UTILITIES

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

AT&T OHIO  
Contact:  
James Janis pj8191@att.com  
Design Manager Office: (216) 476-6142  
13630 Lorain Ave, 2nd Floor Cell: (216) 534-7285  
Cleveland, OH 44111

CHARTER / SPECTRUM COMMUNICATIONS  
Contact:  
Rick Palencar rick.palencar@charter.com  
Construction Coordinator Office: (216) 575-8016 ext. (216) 555-5032  
8150 Dow Circle Cell: (440) 343-6606  
Strongsville, OH 44136

COX COMMUNICATIONS  
Contact:  
Craig Smith craig.smith@cox.com  
Construction Planner Office: (216) 535-3356  
12221 Plaza Drive  
Parma, OH 44130

CLEVELAND DIVISION OF WATER (CWD)  
Contact:  
Fred Roberts fred\_roberts@clevelandwater.com  
Engineering Manager Office: (216) 664-2444 ext. 75590  
1201 Lakeside Ave, 6th Floor  
Cleveland, OH 44114

CLEVELAND WATER POLLUTION CONTROL (CWPC)  
Contact:  
Elie Ramy eramy@clevelandwpc.com  
Engineer - Plan Reviews Office: (216) 664-2756  
12302 Kirby Ave  
Cleveland, OH 44108

DOMINION ENERGY OHIO (DEO)  
Contact:  
Micah Risacher Micah.J.Risacher@dominionenergy.com  
Supervisor Distribution Design relocation@dominionenergy.com  
320 Springside Dr. Office: (440) 371-1533  
Akron, OH 44333

LUMAN / LEVEL 3 COMMUNICATIONS / CENTURYLINK  
Contact:  
Doug Holloway doug.holloway@lumen.com  
Engineer relocations@lumen.com  
4000 Chester Ave Office: (216) 426-6010  
Cleveland, OH 44103

THE ILLUMINATING CO. / FIRST ENERGY (CEI)  
Contact:  
John Zassick jnzassick@firstenergycorp.com  
Distribution Technician Office: (440) 546-8706  
6896 Miller Rd, Suite 101 Cell: (216) 538-1580  
Brecksville, OH 44141

VERIZON BUSINESS (MCI)  
Contact:  
Allan Guest allan.guest@verizon.com  
OSP Engineer Office: (330) 253-8267

120 Ravine Street Cell: (330) 329-5495  
Akron, OH 44303

WINDSTREAM COMMUNICATIONS  
Contact:  
Geoff Hamm geoffrey.p.hamm@windstream.com  
Manager Office: (440) 329-4245  
560 Ternes Ave  
Elyria, OH 44035

ZAYO GROUP / ZAYO FIBER SOLUTIONS  
Contact:  
Dave Galuska dave.galuska@zayo.com  
Operations Director Office: (234) 281-0025  
4199 Kinross Lakes Pkwy, Suite 10  
Richfield, OH 44286

CALL OHIO UTILITIES PROTECTION SERVICE TWO (2) WORKING DAYS BEFORE YOU DIG  
TOLL FREE NO. 1-800-362-2764. (NON-MEMBERS MUST BE CALLED DIRECTLY).

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

CONTINGENCY 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 SUBSIDIARY AGREEMENT GOVERNING COMPLETION OF THIS PROJECT.

ELEVATION DATUM

HORIZONTAL COORDINATES ARE TO BE PROJECT GROUND COORDINATES EXPRESSED IN U.S. SURVEY FEET BASED ON THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE AND REFERENCE THE NORTH AMERICAN DATUM OF 1983 (NAD 83) AND THE 2011 CORS ADJUSTMENT. THE COMBINED SCALE FACTOR IS TO BE INCLUDED WITH THE PROJECT CONTROL INFORMATION FOR THE PROJECT.

VERTICAL CONTROL IS TO BE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. IN ADDITION TO THE REQUIREMENTS OF SECTION 614.05, THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN, AND SUBSEQUENTLY REMOVE ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES, INCLUDING SUCH ADDITIONAL TRAFFIC CONTROL DEVICES LOCATED OUTSIDE THE LIMITS OF CONSTRUCTION.

EXISTING TYPICAL SECTIONS

EXISTING TYPICAL SECTIONS HAVE BEEN DEVELOPED FROM SITE MEASUREMENTS, PAVEMENT CORES AND RECORD PLANS AND ARE BELIEVED TO REPRESENT THE WIDTH AND COMPOSITION OF THE EXISTING PAVEMENT, BUT THE COUNTY DOES NOT GUARANTEE THE ACCURACY OF SAME.

ITEM 619 - FIELD OFFICE, TYPE B, AS PER PLAN

THE FIELD OFFICE SHALL, IN ADDITION TO THE ITEMS LISTED IN ITEM 619, BE FURNISHED WITH TWO CELLULAR TELEPHONES.

THE CONTRACTOR'S INSURANCE SHALL INCLUDE A RIDER FOR COVERAGE OVER ANY CUYAHOGA COUNTY PROPERTY INSIDE THE FIELD OFFICE WHICH MAY BECOME DAMAGED OR STOLEN.

THE FOLLOWING QUANTITY HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR THIS ITEM:

ITEM 619 - FIELD OFFICE, TYPE B, AS PER PLAN 9 MNTH

LOCAL LAWS, ORDINANCES AND REGULATIONS

IN ACCORDANCE WITH SECTION 107.01 OF THE GENERAL PROVISIONS, THE CONTRACTOR SHALL STAY FULLY INFORMED OF ALL LOCAL LAWS, ORDINANCES, CODIFIED ORDINANCE 509.11, REGULATIONS, ORDERS AND DECREES THAT AFFECT THE WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBSERVE AND COMPLY WITH ALL SUCH LAWS, ORDINANCES, REGULATIONS, ORDERS AND DECREES AT NO ADDITIONAL COST TO THE PROJECT/COUNTY.

ADJUSTMENTS IN CONTRACT TIME

TIME EXTENSIONS WILL ONLY BE CONSIDERED WHEN CONTROLLING ITEMS OF WORK ON THE APPROVED PROGRESS SCHEDULE ARE AFFECTED DUE TO NO FAULT OF THE CONTRACTOR.

WHEN ADDITIONAL WORK IS REQUIRED, TIME EXTENSIONS WILL ONLY BE GRANTED FOR CONTROLLING ITEMS ON THE PROGRESS SCHEDULE (SEE SECTION 108.06 OF THE CUYAHOGA COUNTY ENGINEER'S GENERAL PROVISIONS).

PROJECT PROGRESS MEETINGS

PROGRESS MEETINGS WILL BE HELD EVERY FOUR (4) WEEKS AT THE PROJECT OFFICE OR OTHER LOCATION DESIGNATED BY THE AREA CONSTRUCTION ENGINEER, AND WILL BE ATTENDED BY COUNTY AND CONTRACTOR DECISION-MAKING PERSONNEL. THE CITY OF CLEVELAND SHALL BE INVITED TO SUCH MEETINGS.

THE PURPOSE OF THESE MEETINGS IS TO DISCUSS CRITICAL OPERATIONS AND POTENTIAL PROBLEMS. ALSO, THE CONTRACTOR WILL CONFIRM THE NUMBER AND DURATION OF WORK SHIFTS, NUMBER OF WORK CREWS, AND SPECIFIC PORTIONS OF THE WORK TO BE PERFORMED DURING THE FOLLOWING WEEKS.

THESE MEETINGS CAN ONLY BE WAIVED BY THE AREA CONSTRUCTION ENGINEER.

DEFINITIONS AND TERMS

WHEREVER THERE APPEARS, IN THE STANDARD SPECIFICATIONS (ODOT ITEMIZED CMS), SUPPLEMENTAL SPECIFICATIONS OR PROPOSAL NOTES, THE TERM "THE STATE", "DIRECTOR OF TRANSPORTATION", "DEPARTMENT", "DISTRICT CONSTRUCTION ENGINEER/DISTRICT CONSTRUCTION ADMINISTRATOR (DCA)", "ENGINEER", OR ANY OTHER TERM DESIGNATING ANY REPRESENTATIVE OR EMPLOYEE OF THE STATE OR ITS DEPARTMENT OF TRANSPORTATION, SUCH TERM SHALL, FOR THE PURPOSE OF THIS CONTRACT, BE CONSIDERED AND TAKEN AS MEANING AND DESIGNATING THE RESPECTIVE OFFICER OR EMPLOYEE OF CUYAHOGA COUNTY WHOSE DUTY OR FUNCTION IT IS TO DEAL WITH THE SUBJECT MATTER IN CONNECTION WITH WHICH SUCH TERM IS USED AND SPECIFICALLY:

- |  |   |
|--|---|
| THE STATE  | - MEANS CUYAHOGA COUNTY.  |
| DEPARTMENT   | - MEANS THE CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS.   |
| DIRECTOR   | - MEANS THE CUYAHOGA COUNTY DIRECTOR OF PUBLIC WORKS, HIS/HER DEPUTIES OR ANY ENGINEER DESIGNATED AS THE DIRECTOR'S REPRESENTATIVE.   |
| DISTRICT CONSTRUCTION ENGINEER (DCE) / DISTRICT CONSTRUCTION ADMINISTRATOR (DCA) | - MEANS THE AREA CONSTRUCTION ENGINEER, OR THE DULY AUTHORIZED AGENT OR REPRESENTATIVE OF THE CUYAHOGA COUNTY DIRECTOR OF PUBLIC WORKS, ACTING WITHIN THE SCOPE OF HIS/HER AUTHORITY FOR THE PURPOSES OF CONSTRUCTION ENGINEERING AND ADMINISTRATION OF THE CONTRACT. |
| LABORATORY   | - MEANS ANY LABORATORY DESIGNATED BY THE COUNTY.  |

GENERAL PROVISIONS

ALL REFERENCES TO THE GENERAL PROVISIONS (SECTION 100) OF THE OHIO DEPARTMENT OF TRANSPORTATION'S CONSTRUCTION AND MATERIAL SPECIFICATIONS (ODOT CMS) THAT ARE CITED IN THE ITEMIZED SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS, PROPOSAL NOTES, PLANS OR ELSEWHERE IN THE CONTRACT DOCUMENTS SHALL, FOR THE PURPOSE OF THIS CONTRACT, BE CONSIDERED AND TAKEN AS MEANING THE CUYAHOGA COUNTY ENGINEER'S GENERAL PROVISIONS AS CONTAINED IN THE "CUYAHOGA COUNTY ENGINEER SPECIFICATION BOOKLET". THE SUBSECTION NUMBERS AND TOPICS USED IN THE COUNTY'S GENERAL PROVISIONS CORRESPOND TO THOSE CONTAINED IN THE ODOT CMS.

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CDDPW Production Sheet v1.3 2/16/2021

SUGGESTED CONSTRUCTION SEQUENCE

- OBTAIN ALL NECESSARY PERMITS.
- PRIOR TO WORK ON PIER 5, COORDINATE WITH NORFOLK SOUTHERN RAILROAD FOR ACCESS AND TO OBTAIN ANY NECESSARY FLAGGERS.
- ACQUIRE ALL NECESSARY CONSTRUCTION MATERIALS AND PERFORM ALL NECESSARY SURVEY, STRUCTURE VERIFICATION, DVD RECORDING AND OTHER PRE-CONSTRUCTION TASKS.
- PHASE 1 REMOVAL AND CONSTRUCTION – REFER SHEET 17/23.
- PHASE 2 REMOVAL AND CONSTRUCTION – REFER SHEET 18/23.
- SEAL ALL SUBSTRUCTURE CONCRETE ON PIER 5.

COOPERATION BETWEEN CONTRACTORS

IT IS ANTICIPATED THAT OTHER CONTRACTORS WILL BE WORKING ON PROJECTS ADJACENT TO OR WITHIN THE LIMITS OF THIS PROJECT, EITHER FOR THE COUNTY OR FOR OTHER PUBLIC AGENCIES. THE CONTRACTOR SHALL COOPERATE AND COORDINATE HIS/HER OPERATIONS, INCLUDING PROVISIONS FOR THE MAINTENANCE OF TRAFFIC, WITH THE CONTRACTORS OF OTHER PROJECTS THAT MAY BE IN FORCE DURING THE LIFE OF THIS CONTRACT. THE CONTRACTOR'S ATTENTION IS SPECIFICALLY DRAWN TO SECTION 105.08 OF THE CUYAHOGA COUNTY ENGINEER'S GENERAL PROVISIONS. NO WAIVER OF ANY OF THE PROVISIONS OF SECTION 105.08 IS INTENDED.

RIGHT OF WAY

ALL WORK SHALL BE PERFORMED WITHIN THE EXISTING RIGHT OF WAY OR TEMPORARY EASEMENTS. RIGHT OF WAY ACQUISITION IS NOT ANTICIPATED FOR THIS PROJECT.

FOR MORE INFORMATION REGARDING CONSTRUCTION AND RIGHT OF WAY ACCESS SEE THE PROJECT AGREEMENT WITH NORFOLK SOUTHERN RAILROAD COMPANY.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION – TYPE DEVICES BETWEEN THE HOURS OF 7:00 PM AND 7:00 AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

ACCESS TO THE SITE

ACCESS TO THE SITE IS VIA EMERY AVENUE EXTENSION. SEE PLAN SHEET 2/23 FOR ADDITIONAL DETAILS.

ITEM 623 – CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN

623.08 CONSTRUCTION LAYOUT STAKING.

- ALL HORIZONTAL CONTROL AND, IF NECESSARY, VERTICAL CONTROL REQUIRED FOR THE COMPLETE LAYOUT AND PERFORMANCE OF THE WORK UNDER THIS CONTRACT SHALL BE DONE BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE AND MAY BE PERIODICALLY REVIEWED BY THE ENGINEER. ANY INSPECTION OR REVIEWING OF THE CONTRACTOR'S LAYOUT BY THE ENGINEER AND THE ACCEPTANCE OF ALL OR ANY PART OF IT SHALL NOT RELIEVE THE CONTRACTOR OF HIS/HER RESPONSIBILITY TO PRODUCE THE PROPER WORK DIMENSIONS, GRADES AND ELEVATIONS. THE REQUIREMENTS OF SECTION 107.10 OF THE GENERAL PROVISIONS ALSO APPLY.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND, IF APPLICABLE, ALL GRADES, LINES AND LEVELS AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS, AND HE/SHE SHALL REPORT ANY ERRORS OR INCONSISTENCIES IN THE ABOVE TO THE ENGINEER BEFORE COMMENCING WORK OR ORDERING ANY MATERIAL.
- THE CONTRACTOR SHALL MARK (PAINT) OR STAKE THE PROJECT STATION NUMBERS AT INTERVALS OF 50 FEET (OR LESS AS DIRECTED OR APPROVED BY THE ENGINEER) BEFORE COMMENCING THE WORK.

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL STAKES AND MARKS AND SHALL REPLACE THEM AT HIS/HER EXPENSE IF THEY ARE DAMAGED, LOST, DISPLACED OR REMOVED. THE CONTRACTOR SHALL USE COMPETENT PERSONNEL AND SUITABLE EQUIPMENT FOR THE LAYOUT WORK REQUIRED AND SHALL PROVIDE THAT IT IS DONE UNDER THE SUPERVISION OF A REGISTERED SURVEYOR.

623.11 BASIS OF PAYMENT.

PAYMENT WILL BE MADE UNDER:

ITEM 623 – CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN (LUMP SUM)

EROSION CONTROL

ITEM 832 – EROSION CONTROL

THE FOLLOWING ESTIMATED QUANTITY IS PROVIDED FOR TEMPORARY SEDIMENT AND EROSION CONTROL (TSEC) IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF ODOT SUPPLEMENTAL SPECIFICATION 832:

ITEM 832 – EROSION CONTROL 1000 EACH

UNLESS OTHERWISE APPROVED BY THE ENGINEER, DAMAGED FILTER FABRIC FENCE SHALL BE REPLACED IN LIEU OF ANY/ALL METHODS OF REPAIR.

DRAINAGE

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE COUNTY, REPRESENTATIVES OF THE COUNTY AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE COUNTY.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE COUNTY.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT OR 611 STRUCTURE ITEMS.

MAINTENANCE OF TRAFFIC

CONSTRUCTION TRAFFIC

ALL CONSTRUCTION TRAFFIC SHALL USE ACCEPTABLE TRUCK ROUTES TO ACCESS THE CONSTRUCTION AREA. USE OF LOCAL RESIDENTIAL STREETS IS STRICTLY PROHIBITED UNLESS ALLOWED IN WRITING BY THE LOCAL ENFORCEMENT AUTHORITY.

CONSTRUCTION WARNING SIGNS

IMMEDIATELY PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL INSTALL THE CONSTRUCTION WARNING SIGNS SHOWN ON SHEET 10/23.

THESE SIGNS SHALL BE ERECTED AND VISIBLE TO TRAFFIC ONLY WHEN, AND FOR THE DURATION OF THE PERIOD WHEN THE APPROPRIATE PAVEMENT MARKINGS ARE NOT PRESENT. THEY SHALL BE PROMPTLY COVERED OR REMOVED AFTER THE FINAL PAVEMENT MARKINGS HAVE BEEN INSTALLED.

NO SEPARATE PAYMENT FOR THESE SIGNS WILL BE MADE. THE COST OF FURNISHING, INSTALLING, MAINTAINING, AND REMOVING THESE SIGNS SHALL BE INCLUDED IN THE LUMP SUM BID ITEM 614 – MAINTAINING TRAFFIC.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER AND CALCIUM CHLORIDE FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616 – WATER 10 MGAL  
ITEM 616 – CALCIUM CHLORIDE 1 TON

NOTIFICATION

THE CONTRACTOR SHALL NOTIFY IN WRITING THE FOLLOWING AGENCIES AT LEAST TWO WEEKS PRIOR TO THE START OF CONSTRUCTION, AND AT LEAST 72 HOURS BEFORE IMPLEMENTING ANY SUBSTANTIAL CHANGE IN TRAFFIC PATTERN OR CLOSING ANY STREET TO TRAFFIC:

THE CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS – PUBLIC INFORMATION OFFICE  
THE OHIO DEPARTMENT OF TRANSPORTATION – DISTRICT 12 – PUBLIC INFORMATION OFFICE  
THE GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY  
THE CUYAHOGA COUNTY BOARD OF DEVELOPMENTAL DISABILITIES  
THE UNITED STATES POSTAL SERVICE BRANCH  
THE CLEVELAND BOARD OF EDUCATION  
THE CITY OF CLEVELAND: DIVISION OF ENGINEERING AND CONSTRUCTION DIVISION OF STREETS  
DIVISION OF TRAFFIC ENGINEERING  
DIVISION OF EMERGENCY MEDICAL SERVICE (EMS)  
DIVISION OF FIRE  
DIVISION OF POLICE  
CLEVELAND MUNICIPAL OF SCHOOL DISTRICT

GENERAL NOTES

WEST 150TH STREET (C.R. 66)

4  
23

CALCULATED  
AREA  
CHECKED  
ECM



MAINTENANCE OF TRAFFIC (CONTD)

ITEM 614 – LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE, AS PER PLAN

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

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

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

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

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

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP). IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.

WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC. IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.

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

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

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS WITH PATROL CAR REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614 – LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE, AS PER PLAN. THE FOLLOWING ESTIMATED QUANTITIES HAS BEEN PROVIDED FOR THIS ITEM:

ITEM 614 – LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE, AS PER PLAN 80 HOURS

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

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR

TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614 – LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE, AS PER PLAN.

ITEM 614 – DETOUR SIGNING, AS PER PLAN

ADVANCE TRAFFIC SIGNING AND SUPPORTS, INCLUDING DETOUR SIGNING, CONSTRUCTION WORK ZONE APPROACH SIGNING, BARRICADES AND SIGNS ON BARRICADES SHOWN ON THE PLANS BEYOND THE WORK LIMITS SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR AND ALL ASSOCIATED COST SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 – DETOUR SIGNING, AS PER PLAN.

THE CITY OF CLEVELAND SHALL BE NOTIFIED OF THE DETOUR PRIOR TO ERECTING SIGNS WITHIN THE MUNICIPALITY.

FLUORESCENT ORANGE TYPE G SIGN SHEETING SHALL BE USED FOR ALL DETOUR AND CONSTRUCTION WARNING SIGNS.

ITEM 614 – REPLACEMENT SIGN

FLAT SHEET SIGNS, USING TYPE G SIGN SHEETING, FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS, AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT SIGNS SHALL BE NEW. OTHER MATERIALS MAY BE IN USED BUT IN GOOD CONDITION SUBJECT TO THE APPROVAL OF THE ENGINEER.

WHEN ADDITIONAL SIGNS ARE FOUND BY THE ENGINEER TO BE NECESSARY FOR THE SAFE MAINTENANCE OF TRAFFIC, ABOVE AND BEYOND THE SIGNING SHOWN IN THE PLANS AND/OR ON THE STANDARD CONSTRUCTION DRAWINGS, THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN, AND REMOVE THE ADDITIONAL SIGNS UNDER THIS ITEM, AS DIRECTED BY THE ENGINEER.

PAYMENT FOR THE NEW SIGNS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614 – REPLACEMENT SIGN, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF DAMAGED SIGNS, HARDWARE AND SUPPORTS, AND PROVIDING THE NECESSARY REPLACEMENT HARDWARE, SUPPORTS, ETC.

AN ESTIMATED QUANTITY OF 10 EACH HAS BEEN PROVIDED FOR THIS ITEM.

ITEM 614 – MAINTAINING TRAFFIC (PART WIDTH-MULTI LANE)

THE CONTRACTOR SHALL MAINTAIN SAFE AND SATISFACTORY ACCESS TO ABUTTING PROPERTY. THE CONTRACTOR SHALL MAINTAIN ADEQUATE PEDESTRIAN WALKS AT ALL INTERSECTIONS, INCLUDING ASPHALT CONCRETE WALKS, WHERE DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL DIVERT TRAFFIC FROM NORMAL CHANNELS BY PLASTIC DRUMS, TRAFFIC SIGNS AND WORK ZONE PAVEMENT MARKINGS, AS SHOWN ON SHEETS 10-14 / 23.

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, AS SHOWN ON SHEETS 10-14 / 23.

PART WIDTH CONSTRUCTION SHALL BE USED TO FACILITATE MAINTAINING TWO WAY TRAFFIC. WORK SHALL BE DONE IN PHASES AS OUTLINED BELOW.

THE CONTRACTOR SHALL BEGIN WORK ON THE EXISTING SOUTHBOUND PORTION OF THE BRIDGE SUBSTRUCTURE WHILE TRAFFIC IS MAINTAINED ON THE EXISTING NORTHBOUND PORTION. AFTER SUBSTRUCTURE REHABILITATION IS COMPLETE ON THE EXISTING SOUTHBOUND SUBSTRUCTURE PORTION, THE MAINTENANCE OF TRAFFIC PATTERN WILL BE RECONFIGURED TO ALLOW BIDIRECTIONAL TRAFFIC ON THE SOUTHBOUND PORTION OF THE EXISTING BRIDGE. REHABILITATION WORK WILL THEN BEGIN ON THE NORTHBOUND SUBSTRUCTURE PORTION. WORK SHALL BE PERFORMED IN TWO (2) MAINTENANCE OF TRAFFIC PHASES.

ALL CONSTRUCTION TRAFFIC CONTROL DEVICES USED FOR THIS PROJECT SHALL CONFORM TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AND SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR, EXCEPT AS NOTED BELOW.

THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY SAFEGUARDS, SUCH AS TYPE III BARRICADES, LIGHTING, FLAGGERS, AND SUCH OTHER TRAFFIC CONTROL DEVICES AS PROVIDED IN ITEM 614 – MAINTAINING TRAFFIC, SO AS TO AVOID DAMAGE AND/OR INJURY TO VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION.

EXISTING TRAFFIC CONTROL DEVICES (SIGNS AND/OR TRAFFIC SIGNALS), LOCATED WITHIN THE WORK AREA, WHICH ARE REQUIRED FOR INTERIM OR PERMANENT TRAFFIC CONTROL, SHALL BE RELOCATED TO POINTS APPROVED BY THE ENGINEER. APPROPRIATE TRAFFIC CONTROL DEVICES SHALL BE MAINTAINED, IN COMPLIANCE WITH THE MANUAL, AT ALL TIMES WHILE TRAFFIC IS MAINTAINED. THE COST OF RELOCATION, IF REQUIRED, SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 – MAINTAINING TRAFFIC.

THE LENGTH AND DURATION OF LANE CLOSURES AND/OR TRAFFIC RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. THE INTENT IS TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 – MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

ITEM 614 – PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, TWO (2) CHANGEABLE MESSAGE SIGNS. THE PCMS SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE (OFFICE OF MATERIALS MANAGEMENT WEB PAGE). THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

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

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

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

ALL MESSAGES TO BE DISPLAYED ON THE PCMS WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE PCMS SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE. THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGES AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

MAINTENANCE OF TRAFFIC (CONT'D)

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

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

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

ITEM 614 – PORTABLE CHANGEABLE MESSAGE SIGN, 8 SNMT AS PER PLAN

ITEM 614 – MAINTAINING TRAFFIC WORK ZONE PAVEMENT MARKINGS

UNLESS OTHERWISE SHOWN ON THE PLANS, THE CONTRACTOR MAY USE 740.02 TYPE 1 OR TYPE 1A PAINT OR 740.06 TYPE I OR TYPE II PREFORMED MATERIAL FOR WORK ZONE PAVEMENT MARKINGS. FURNISH PAINTED MARKINGS ACCORDING TO ITEM 642 EXCEPT THAT:

USE CLASS I MARKINGS ON ALL SURFACES EXPOSED TO TRAFFIC FOR MORE THAN 14 DAYS PRIOR TO APPLICATION OF FINAL MARKINGS AND TO OVER-WINTER THE PROJECT, WITH THE FOLLOWING EXCEPTION: DO NOT USE CLASS I MARKINGS ON A SURFACE COURSE IF THERMOPLASTIC, SPRAY THERMOPLASTIC OR EPOXY FINAL MARKINGS ARE TO BE APPLIED TO THE SURFACE COURSE. IF THERMOPLASTIC, SPRAY THERMOPLASTIC OR EPOXY FINAL MARKINGS ARE TO BE APPLIED TO THE SURFACE COURSE, USE CLASS III MARKINGS ON THAT COURSE.

USE CLASS III MARKINGS ON SURFACE COURSES THAT ARE EXPECTED TO RECEIVE THERMOPLASTIC, SPRAY THERMOPLASTIC OR EPOXY FINAL MARKINGS WITHIN 30 DAYS. CLASS III MARKINGS USE A LOWER APPLICATION RATE WHICH REDUCES THE SURFACE PREPARATION NEEDED PRIOR TO APPLICATION OF THERMOPLASTIC, SPRAY THERMOPLASTIC OR EPOXY FINAL MARKINGS. IF CLASS III MARKINGS HAVE BEEN APPLIED AND WEATHER CONDITIONS ARE EXPECTED TO PREVENT THERMOPLASTIC, SPRAY THERMOPLASTIC OR EPOXY FINAL MARKINGS APPLICATION FOR 30 DAYS OR MORE, RE-APPLY CLASS III MARKINGS IF THERMOPLASTIC, SPRAY THERMOPLASTIC OR EPOXY FINAL MARKINGS APPLICATION IS EXPECTED TO OCCUR WITHIN 30 DAYS OR APPLY CLASS I MARKINGS AS NECESSARY TO CARRY THE PROJECT THROUGH THE SEASON OR OVER THE WINTER.

STRUCTURE

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17TH EDITION, 2002, INCLUDING ALL ISSUED INTERIM SPECIFICATIONS, THE ODOT BRIDGE DESIGN MANUAL, 2020 INCLUDING ANY UPDATES AND THE CURRENT CUYAHOGA COUNTY SUPPLEMENT THERETO, EXCEPT AS NOTED ELSEWHERE IN THE PLANS.

DESIGN LOADING

DESIGN LOAD: HS20 AND THE ALTERNATE MILITARY LOADING

FUTURE WEARING SURFACE (FWS) OF 60 POUNDS PER SQUARE FOOT

DESIGN DATA

CONCRETE CLASS QC1 – COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL – EPOXY COATED STEEL, MINIMUM YIELD STRENGTH = 60 KSI

STRUCTURAL STEEL – ASTM A572 OR A709, GRADE 50, GALVANIZED

CONCRETE COVER FOR REINFORCING STEEL

MINIMUM CONCRETE COVER FOR ALL REINFORCING STEEL SHALL BE TWO INCHES (2") UNLESS SHOWN OTHERWISE IN THE PLANS.

CITY OF CLEVELAND PERMITS

IN THE CITY OF CLEVELAND, ALL PERMITS MUST BE OBTAINED FROM THE DIVISION OF ASSESSMENTS AND LICENSES PRIOR TO BEGINNING ANY WORK. PERMITS INCLUDE, BUT ARE NOT LIMITED TO; STREET OPENING PERMIT, OVERLOAD PERMIT, OBSTRUCTION PERMIT AND/OR SIDEWALK PERMIT. PERMITS MAY BE OBTAINED THROUGH THE FOLLOWING CONTACT:

TRAVIS EVANS  
DEPARTMENT OF FINANCE  
DIVISION OF ASSESSMENTS AND LICENSES  
601 LAKESIDE AVENUE, ROOM 122  
CLEVELAND, OHIO 44114  
PHONE: (216) 64-2174  
DALPERMITS@CITY.CLEVELAND.OH.US

ALL STREET REPAIRS, CURB REPAIRS, AND/OR SIDEWALK REPAIRS EITHER INCIDENTAL TO THE PROJECT, OR PART OF THE PROJECT MUST BE PERFORMED IN ACCORDANCE TO THE CITY OF CLEVELAND STANDARDS. A COPY OF THE STANDARDS CAN BE OBTAINED FROM THE DIVISION OF ENGINEERING AND CONSTRUCTION BY CALLING (216) 664-2381

ALL PERMITS, FEES, AND CHARGES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THEIR ASSOCIATED COST SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THE PERTINENT WORK ITEMS. FOR BIDDING PURPOSES, FEES AND CHARGES MAY BE OBTAINED FROM THE DIVISION OF ASSESSMENTS AND LICENSES AT (216) 664-2174

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/OR FIELD MEASUREMENTS. THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO SECTIONS 102.05 AND 105.02 OF THE CUYAHOGA COUNTY ENGINEER'S SPECIFICATION BOOKLET.

CONTRACT BID PRICES SHALL BE BASED UPON THE RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON THE CONTRACTOR'S PRE-BID EXAMINATION OF THE EXISTING STRUCTURE. ALL PROJECT WORK, HOWEVER, SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

PLANS OF THE EXISTING STRUCTURE ARE ON FILE AT THE CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS, 2079 EAST NINTH STREET, CLEVELAND, OHIO, 44115, (PHONE: 216-348-3800) AND ALSO ARE PROVIDED ELECTRONICALLY WITH THE BID PACKAGE DOCUMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH ALL PERTINENT EXISTING DRAWINGS AND DETAILS RELEVANT TO THIS PROJECT.

ITEM SPECIAL – PREMIUM ON RAILROAD'S PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE (NS)

THE CONTRACTOR SHALL CARRY ADDITIONAL LIABILITY INSURANCE COVERING RAILROAD'S PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY FOR NORFOLK SOUTHERN CORPORATION (NS).

SPECIAL PROVISIONS FOR THE PROTECTION OF RAILWAY INTEREST

PRIOR TO THE INITIATION OF ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL FURNISH EVIDENCE TO THE ENGINEER THAT COMMERCIAL GENERAL LIABILITY INSURANCE AND RAILROAD PROTECTIVE LIABILITY INSURANCE AS SPECIFIED IN THE "SPECIAL PROVISIONS FOR PROTECTION OF RAILWAY INTEREST" FOUND IN SECTION 200 "SPECIAL PROVISIONS" OF THE CUYAHOGA COUNTY ENGINEER'S SPECIFICATION BOOKLET. SUCH 'EVIDENCE' SHALL CONSIST OF FURNISHING THE ENGINEER WITH THREE (3) CERTIFIED COPIES OF THE INSURANCE POLICY. PAYMENT WILL BE MADE AT THE LUMP SUM PRICE BID FOR ITEM SPECIAL – PREMIUM ON RAILROAD'S PROTECTIVE PUBLIC LIABILITY AND PROPERTY DAMAGE LIABILITY INSURANCE.

REFER TO SECTION 200 "SPECIAL PROVISIONS" OF THE CUYAHOGA COUNTY ENGINEER'S SPECIFICATION BOOKLET FOR ADDITIONAL SPECIAL PROVISIONS FOR THE PROTECTION OF THE RAILWAY'S INTERESTS.

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

THIS ITEM SHALL INCLUDE REMOVAL OF THE DESIGNATED PORTIONS OF THE STRUCTURE INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. LIMITS OF REMOVAL SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. SUBMIT WORKING DRAWINGS AND CALCULATIONS IN ACCORDANCE WITH CMS 501.05.

THE METHOD OF REMOVAL AND THE WEIGHT OF THE HAMMER SHALL BE APPROVED BY THE ENGINEER. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING REINFORCING STEEL TO BE PRESERVED. IT IS IMPERATIVE THAT THE BAR LENGTHS RETAINED ARE NOT LESS THAN THAT SHOWN IN THE PLANS. CARE SHALL BE TAKEN TO PRESERVE THE BOND OF THE EXISTING REINFORCING STEEL IN THE EXISTING CONCRETE. PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH THE REINFORCING BARS TO BE RETAINED IN THE REBUILT STRUCTURE. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND CLASS. HAND TOOLS SHALL BE EMPLOYED TO CLEAN/REMOVE ALL CONCRETE FRAGMENTS AND FOREIGN MATTER FROM THE REINFORCING BARS TO REMAIN. WHERE EXISTING REINFORCING BARS TO REMAIN ARE DAMAGED, THE ENGINEER MAY DIRECT THAT THE REPAIRS BE MADE BY LAPPING EXISTING BARS WITH NEW REINFORCING STEEL OR BY PROVIDING DOWELS.

ALL CONCRETE, REINFORCING STEEL ASPHALT, ETC., REMOVED FROM THE STRUCTURE AND NOT REUSED SHALL, UNLESS OTHERWISE SPECIFIED, BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED BY HIM/HER FROM THE SITE. THE MATERIALS SHALL NOT BE PERMITTED TO REMAIN ON SITE, WITHIN THE RIGHT-OF-WAY OR ELSEWHERE UNLESS SPECIFIED BY THE ENGINEER.

ITEM 503 – COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN

THE CONTRACTOR SHALL DESIGN ALL COFFERDAMS, CRIBS, SHEETING, SHORING, BRACING, OR OTHER MEANS NECESSARY TO SAFELY SUPPORT THE SIDES OF EXCAVATIONS, EMBANKMENTS, ADJACENT BUILDINGS OR OTHER PREMISES IMPACTED BY THE PROPOSED CONSTRUCTION WORK. THE CONTRACTOR SHALL PREPARE AND PROVIDE DETAILED PLANS IN ACCORDANCE WITH CMS 501.05. PAYMENT FOR THE DESIGN, CONSTRUCTION AND REMOVAL OF ALL MEANS OF TEMPORARY SUPPORT SHALL BE AT THE LUMP SUM PRICE FOR ITEM 503 – COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN.



STRUCTURE (CONTD)

ITEM 509 – EPOXY COATED STEEL REINFORCEMENT, AS PER PLAN

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD BEND AND/OR FIELD CUT THE REINFORCING STEEL DESIGNATED IN THE PLANS, AS NECESSARY, IN ORDER TO MAINTAIN THE REQUIRED CLEARANCES AND BAR SPACING. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 709.00.

ITEM 509 – CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING CONCRETE REINFORCEMENT, AS PER PLAN

A CONTINGENCY QUANTITY OF 1000 LBS OF ITEM 509 – REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL HAS BEEN INCLUDED FOR THE REPLACEMENT OF ANY EXISTING REINFORCING STEEL THAT IS DETERMINED BY THE ENGINEER TO BE TOO CORRODED TO BE ABLE TO BE REUSED. PAYMENT WILL BE MADE PER POUND ACCEPTED IN PLACE.

ITEM 511 – CLASS QC1 CONCRETE, SUBSTRUCTURE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 511, THESE ITEMS SHALL CONFORM TO THE "MODIFICATIONS TO ITEM 499 CONCRETE – GENERAL" AS CONTAINED IN SECTION 400 "PROPOSAL NOTES" OF THE CUYAHOGA COUNTY ENGINEER SPECIFICATION BOOKLET. THE FOLLOWING WORK IS ALSO INCLUDED:

AFTER THE REMOVAL OF CONCRETE AT EXISTING PIER CAP TO THE LIMITS SHOWN IN THE PLANS, ALL DISINTEGRATED, LOOSE, SOFT AND HONEYCOMBED CONCRETE SHALL BE REMOVED AND THE SOUND CONCRETE AREAS SHALL BE PROPERLY SHAPED PRIOR TO INSTALLING THE REINFORCING DOWELS. THE CONTRACTOR MAY BLAST CLEAN THE CONCRETE SURFACE WITH HIGH PRESSURE WATER BLASTING WITH CONTAINMENT OR VACUUM ABRASIVE BLASTING. PLACE BONDING GROUT OVER ENTIRE ROUGHENED SURFACE IN A MANNER MEETING THE MANUFACTURER'S SPECIFICATIONS. THE ENGINEER SHALL APPROVE THE PREPARATION AND CONDITION OF ALL SURFACES PRIOR TO PLACEMENT OF CONCRETE.

PAYMENT FOR THE ABOVE COMPLETED AND ACCEPTED QUANTITIES WILL BE MADE AT THE CONTRACT BID PRICE PER CUBIC YARD PLACED FOR ITEM 511 – CLASS QC1 CONCRETE, SUBSTRUCTURE, AS PER PLAN.

ITEM 516 – JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

THE WORK PERFORMED UNDER THIS ITEM SHALL CONSIST OF RAISING OR REPOSITIONING THE EXISTING STRUCTURE TO THE DIMENSIONS AND REQUIREMENTS DEFINED IN THE PROJECT PLANS.

THE CONTRACTOR SHALL SUBMIT CONSTRUCTION PLANS IN ACCORDANCE WITH ODOT CMS 501.05

IF, DURING JACKING OPERATIONS, CRACKING OF THE CONCRETE SUPERSTRUCTURE, SEPARATION OF THE CONCRETE DECK FROM THE STEEL STRINGERS, OR OTHER DAMAGE TO THE STRUCTURE IS VISUALLY OBSERVED, IMMEDIATELY CEASE THE JACKING OPERATION AND INSTALL SUPPORTS TO THE SATISFACTION OF THE ENGINEER. ANALYZE THE DAMAGE AND SUBMIT METHOD OF CORRECTION TO THE ENGINEER FOR APPROVAL. EPOXY INJECT ALL BEAMS THAT SEPARATE FROM THE DECK FOR A DISTANCE OF THE SEPARATION IN ACCORDANCE WITH ODOT CMS 512.07. THE COST FOR THIS EPOXY INJECTION OR OTHER REQUIRED REPAIRS WILL BE BORNE SOLELY BY THE CONTRACTOR. IF FULL SEATING IS NOT OBTAINED THE CONTRACTOR WILL PERFORM REPAIRS TO ENSURE FULL SEATING OF THE BEARINGS AT HIS OWN EXPENSE.

THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE LOAD REACTIONS FOR SHORING CALCULATIONS. SEE EXISTING STRUCTURE VERIFICATION NOTE ON SHEET 6/23.

PAYMENT FOR THIS WORK WILL BE MADE ON A LUMP SUM BASIS AT THE CONTRACT BID PRICE FOR ITEM 516 – JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN.

ITEM SPECIAL – SEALING, MISC.: ELASTOMERIC PROTECTIVE AND DECORATIVE CONCRETE COATING

THIS ITEM SHALL CONFORM TO "ITEM SPECIAL – SEALING, MISC.: ELASTOMERIC PROTECTIVE AND DECORATIVE CONCRETE COATING" AS CONTAINED IN SECTION 400 "PROPOSAL NOTES" OF THE CUYAHOGA COUNTY ENGINEER SPECIFICATION BOOKLET.

MATCH THE SEALER COLOR TO THE EXISTING PIERS, AS ACCEPTABLE BY THE ENGINEER.

ITEM 518 – STRUCTURE DRAINAGE MISC.: SCUPPER DRAINAGE PIPES REMOVAL AND REINSTALLATION

THE CONTRACTOR SHALL REMOVE AND STORE THE EXISTING SCUPPER DRAINAGE PIPES BEFORE DEMOLITION OF THE EXISTING PIER CAP. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TEMPORARY DRAINAGE ITEMS NEEDED TO MAINTAIN FUNCTIONALITY OF SCUPPERS DURING CONSTRUCTION. AFTER THE RECONSTRUCTION OF PIER 5 THE EXISTING SCUPPER PIPES SHALL BE REINSTALLED.

PAYMENT WILL BE BASED ON THE CONTRACT UNIT PRICE BID PER EACH FOR ITEM 518 – STRUCTURE DRAINAGE MISC.: SCUPPER DRAINAGE PIPES REMOVAL AND REINSTALLATION.

ITEM 519 – PATCHING CONCRETE STRUCTURE, AS PER PLAN

CONCRETE SURFACES SHALL BE PATCHED IN ACCORDANCE WITH CMS 519 AND THE FOLLOWING ADDITIONS.

ESTIMATED PATCHING QUANTITIES ARE BASED ON THE MOST RECENT INSPECTION OF THE STRUCTURE. AREAS TO BE PATCHED HAVE BEEN DETAILED IN THE PLANS AND MAY ALSO HAVE BEEN IDENTIFIED ON THE STRUCTURE WITH PAINT OR OTHER MARKING MATERIAL DURING THE MOST RECENT INSPECTION OF THE STRUCTURE.

IT IS POSSIBLE THAT ADDITIONAL AREAS REQUIRING PATCHING MAY HAVE DEVELOPED SINCE THE MOST RECENT INSPECTION OF THE STRUCTURE. THEREFORE, THE CONTRACTOR SHALL SOUND THE STRUCTURE AND PATCH NEW AREAS FOUND THAT HAVE NOT BEEN DETAILED IN THE PLANS OR PREVIOUSLY MARKED ON THE STRUCTURE.

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

PAYMENT WILL BE BASED ON THE CONTRACT UNIT PRICE BID PER SQUARE FOOT FOR ITEM 519 – PATCHING CONCRETE STRUCTURE, AS PER PLAN FOR THE ACCEPTED WORK PERFORMED AND MEASURED IN PLACE.

NORFOLK SOUTHERN RAILWAY – SPECIAL REQUIREMENTS

REFER TO THE SPECIAL CLAUSES IN THE PROPOSAL FOR REQUIREMENTS REGARDING WORK ON OR ABOVE RAILWAY PROPERTY. ALL REFERENCE TO "THE RAILROAD" OR "THE RAILROAD COMPANY" HEREIN SHALL BE MEANT TO APPLY TO THE NORFOLK SOUTHERN RAILWAY COMPANY.

ALL WORK TO BE PERFORMED ON, OVER, UNDER OR ADJACENT TO THE RAILROAD RIGHT-OF-WAY SHALL COMPLY WITH THE NORFOLK SOUTHERN RAILWAY COMPANY ("RAILROAD"; "NSR" OR "NS") PUBLIC PROJECTS MANUAL (APPENDIX E, SPECIAL PROVISIONS FOR THE PROTECTION OF RAILWAY INTERESTS, AND APPENDIX H1, OVERHEAD GRADE SEPARATION DESIGN CRITERIA). WHEN IN CONFLICT WITH OTHER PROJECT SPECIFICATIONS, THE MOST STRINGENT ONE SHALL APPLY.

THE AUTHORIZED REPRESENTATIVE OF THE RAILROAD COMPANY, HEREINAFTER REFERRED TO AS THE "RAILROAD ENGINEER", SHALL HAVE FINAL AUTHORITY IN ALL MATTERS AFFECTING THE SAFE MAINTENANCE OF RAILROAD TRAFFIC OF THIS COMPANY INCLUDING THE ADEQUACY OF THE FOUNDATIONS AND STRUCTURES SUPPORTING THE RAILROAD TRACKS.

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NORFOLK SOUTHERN "SPECIAL PROVISIONS FOR PROTECTION OF RAILWAY INTERESTS".

1. GENERAL

THE CONTRACTOR SHALL:

- a. COOPERATE AT ALL TIMES WITH THE LOCAL OFFICIALS OF THE RAILROAD COMPANY.
- b. USE CARE AND DILIGENCE IN THE WORK IN ORDER TO AVOID ACCIDENTS, DAMAGE OR UNNECESSARY DELAY TO, OR INTERFERENCE WITH, THE TRAINS AND OTHER PROPERTY OF THE RAILROAD COMPANY.
- c. CONDUCT WORK IN A MANNER SATISFACTORY TO THE CHIEF ENGINEER OF THE RAILROAD COMPANY OR ITS AUTHORIZED REPRESENTATIVE, IN SUCH MANNER AND AT SUCH TIME AS TO NOT UNNECESSARILY INTERFERE WITH THE MOVEMENT OF TRAINS OR RAILROAD TRAFFIC, AND TO HOLD THE WORK AT ALL TIMES OPEN TO INSPECTION BY RAILROAD COMPANY INSPECTORS.
- d. COOPERATE WITH PUBLIC UTILITIES, RAILROAD COMPANIES OR OTHER ORGANIZATIONS HAVING OCCASION TO DO WORK ON AND IN CONNECTION WITH THE IMPROVEMENT.
- e. PRIOR TO COMMENCING ANY WORK INVOLVING THE REMOVAL OF THE EXISTING STRUCTURE, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER AND RAILROADS, FOR APPROVAL, COMPLETE DETAILS OF THE PROPOSED METHOD FOR REMOVING THE EXISTING STRUCTURE AND PROTECTION OF RAILROAD TRAFFIC ADJACENT TO AND/OR UNDER THE EXISTING STRUCTURE. NO DEMOLITION SHALL BEGIN UNTIL WRITTEN APPROVAL IS RECEIVED FROM THE RAILROADS AND THE ENGINEER. ALL WORK ABOVE OR DIRECTLY ADJACENT TO THE RAILROAD SHALL BE SUBJECT TO THE APPROVAL OF THE RAILROAD COMPANY AND TO INSPECTION AT ALL TIMES BY ITS PROPERLY DESIGNATED REPRESENTATIVE. SAFETY AND CONTINUITY OF OPERATIONS OF THE RAILROAD TRAFFIC AND THE PROTECTION OF RAILROAD COMMUNICATION AND POWER LINES SHALL BE OF MAJOR IMPORTANCE AND SHALL AT ALL TIMES BE PROTECTED AND SAFEGUARDED. THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO THE DULY AUTHORIZED REPRESENTATIVE OF THE RAILROAD AT LEAST TEN WORKING DAYS IN ADVANCE OF THE TIME THE CONTRACTOR INTENDS TO COMMENCE ANY WORK ABOVE OR DIRECTLY ADJACENT TO THE RAILROAD. WHENEVER PERFORMING ANY WORK SUCH AS CONSTRUCTION OF PIERS OR SETTING OF NEW BEAMS WHICH, IN THE OPINION OF THE ENGINEER, COULD AFFECT RAILROAD OPERATION, THE CONTRACTOR SHALL SUBMIT COMPLETE PLANS AND DETAILS OF THE PROPOSED WORK TO BOTH THE RAILROAD AND THE ENGINEER FOR APPROVAL. NO SUCH WORK SHALL BE COMMENCED OR PROSECUTED WITHOUT PRIOR APPROVAL OF BOTH AGENCIES. APPROVAL OF SUCH WORK SHALL NOT BE CONSTRUED AS A RELEASE FROM RESPONSIBILITY OR LIABILITY FOR ANY DAMAGE WHICH THE RAILROAD MAY SUFFER.

GENERAL NOTES

WEST 150TH STREET (C.R. 66)

STRUCTURE (CONTD)

NORFOLK SOUTHERN RAILWAY – SPECIAL REQUIREMENTS (CONTD)

f. PROTECTIVE SERVICES AND DEVICES DO NOT RELIEVE THE CONTRACTOR FROM THE LIABILITY OF PAYMENT FOR DAMAGE CAUSED BY THEIR OPERATIONS.

THE CONTRACTOR WILL NOT BE PERMITTED TO OPERATE ANY OF HIS EQUIPMENT ON RAILROAD TRACKS EXCEPT UNDER AN ACCEPTABLE ARRANGEMENT WITH THE RAILROAD COMPANY. SUCH EQUIPMENT AND THE OPERATION OF SUCH EQUIPMENT, OR EQUIPMENT RENTED FROM THE RAILROAD COMPANY, SHALL BE ARRANGED FOR BY THE CONTRACTOR WITH THE RAILROAD AND THE COST FOR ITS USE, INCLUDING PROTECTION OF RAILROAD TRAFFIC, SHALL BE BORNE BY THE CONTRACTOR.

g. THE DECISION OF THE DEPARTMENT SHALL BE FINAL IN THE EVENT OF CONTROVERSY AS TO THE NECESSITY FOR ANY PROTECTION SERVICES PROVIDED AND NOT UTILIZED BY THE CONTRACTOR AS DESCRIBED IN THE PRECEDING PARAGRAPH. PAYMENT TO THE CONTRACTOR SHALL BE WITHHELD UNTIL SUCH DECISION HAS BEEN MADE.

h. RAILROAD AERIAL LINES WILL BE RELOCATED BY THE RAILROAD. USE ALL PRECAUTIONS NECESSARY TO SEE THAT THE LINES ARE NOT DISTURBED DURING THE CONSTRUCTION STAGE AND COOPERATE WITH THE RAILROAD IN THE RELOCATION OF THESE LINES. THE COST OF THE RELOCATION WILL BE INCLUDED IN THE RAILROAD FORCE ACCOUNT WORK.

i. CONSTRUCTION CLEARANCE: THE TEMPORARY CONSTRUCTION CLEARANCE SHALL BE AS LISTED BELOW:

VERTICALLY ABOVE THE TOP OF RAIL 20'-5"±  
HORIZONTAL FROM THE CENTER OF TRACKS 13'-0"

NO OBSTRUCTION CLOSER TO THE TRACK THAN PERMITTED BY THE TEMPORARY CONSTRUCTION CLEARANCE SHALL EXTEND ABOVE THE TOP OF RAIL.

j. AVOID UNNECESSARY USE OF RAILROAD PROPERTY WITHOUT WRITTEN PERMISSION OF THE RAILROAD COMPANY AND LEAVE RAILROAD ROADBED AND PROPERTY IN A CONDITION ACCEPTABLE TO THE CHIEF ENGINEER OF THE RAILROAD COMPANY.

k. CONTRACTOR SHALL PAY THE RAILROAD OR OWNING COMPANY FOR ANY CHANGES, REQUESTED FOR HIS CONVENIENCE, TO RAILROAD PROPERTY, FACILITIES, WIRE, FIBER OPTIC AND/OR PIPE LINES OTHER THAN SHOWN ON THE PLANS FOR THE PROJECT.

2. REMOVAL

a. THE CONTRACTOR SHALL REMOVE THE DESIGNATED PORTIONS OF THE EXISTING BRIDGE TO THE LIMITS SHOWN ON THE PLANS OR AS INDICATED IN THE CMS OR TO THE LIMITS DIRECTED BY THE ENGINEER. PARTS DESIGNATED BY THE PLANS FOR REMOVAL MAY BE REMOVED BY METHODS OF THE CONTRACTOR'S SELECTION. NO PART OF DEBRIS SHALL BE PERMITTED TO BE DROPPED ON THE GROUND OR ON THE RAILROAD. THE PLANS OF THE EXISTING BRIDGES ARE AVAILABLE FOR PERUSAL AT ROOM 518, CITY HALL, CLEVELAND, OHIO.

b. REFER TO ITEM 202 – PORTIONS OF STRUCTURE REMOVED, OVER 20' SPAN, AS PER PLAN FOR REMOVAL ITEMS.

c. THE CONTRACTOR'S ATTENTION IS ALSO DRAWN TO THE CONSTRUCTION CLEARANCE REQUIREMENTS. HE SHALL OBTAIN THE APPROVAL OF THE ENGINEER FOR THE REMOVAL METHOD BEFORE THE ACTUAL DEMOLITION WORK IS STARTED.

d. ALL MATERIAL, INCLUDING THE CHAIN LINK FENCE, ALL CONCRETE, STEEL, REINFORCING STEEL, ASPHALT CONCRETE, ETC., REMOVED FROM THE STRUCTURE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR AT HIS OWN EXPENSE.

e. UNDER NO CIRCUMSTANCE SHALL THE MATERIAL BE PERMITTED TO REMAIN ON THE PREMISES, RIGHT-OF-WAY OR STREETS PENDING DISPOSAL OF SAME OR FOR ANY OTHER PURPOSES, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

3. NOTICE OF STARTING WORK

a. CONTRACTOR SHALL NOT COMMENCE ANY WORK ON RAILROAD RIGHT OF WAY UNTIL HE HAS COMPLIED WITH THE FOLLOWING CONDITIONS:

(1) GIVE THE RAILROAD ENGINEER AT LEAST TEN (10) WORKING DAY ADVANCE WRITTEN NOTICE, WITH COPY TO THE ENGINEER, OF THE DATE HE PROPOSES TO BEGIN WORK ON RAILROAD RIGHT OF WAY. SAID NOTICE SHALL BE SENT TO:

E. W. CHAMBERS  
ENGINEER PUBLIC IMPROVEMENTS  
NORFOLK SOUTHERN CORPORATION  
1200 PEACHTREE STREET, NE  
ATLANTA, GA 30309  
(404) 529-1436 (O)  
ELDRIDGE.CHAMBERS@NSCORP.COM

(2) OBTAIN WRITTEN AUTHORIZATION FROM THE RAILROAD ENGINEER TO BEGIN WORK ON RAILROAD RIGHT OF WAY.

(3) OBTAIN WRITTEN APPROVAL FROM THE RAILROAD OF THE RAILROAD PROTECTIVE LIABILITY POLICY OF INSURANCE.

(4) FURNISH A SCHEDULE FOR ALL WORK WITHIN THE RAILROAD RIGHTS-OF-WAY.

b. THE RAILROAD ENGINEER'S WRITTEN AUTHORIZATION TO PROCEED SHALL INCLUDE THE NAMES, ADDRESSES AND TELEPHONE NUMBERS OF THE RAILROAD'S LOCAL REPRESENTATIVES WHO ARE TO BE NOTIFIED AS HEREINAFTER REQUIRED. WHERE MORE THAN ONE REPRESENTATIVE IS DESIGNATED, THE AREA OF RESPONSIBILITY SHALL BE SPECIFIED.

c. "ONE CALL" SERVICES DO NOT LOCATE BURIED RAILROAD SIGNAL AND COMMUNICATION LINES. THE CONTRACTOR SHALL CONTACT THE RAILROAD'S REPRESENTATIVE 2 DAYS IN ADVANCE OF WORK AT THOSE PLACES WHERE EXCAVATION, PILE DRIVING, OR HEAVY LOADS MAY DAMAGE THE RAILROAD'S UNDERGROUND FACILITIES. UPON REQUEST FROM THE CONTRACTOR OR SPONSOR, RAILROAD FORCES WILL LOCATE AND PAINT MARK OR FLAG THE RAILROAD'S UNDERGROUND FACILITIES. (SEE NS PUBLIC PROJECTS MANUAL, APPENDIX E, SECTION 3.D).

4. CONTRACTOR PROTECTIVE SERVICES

a. QUALIFIED PROTECTIVE SERVICES ARE THOSE SERVICES OF A CONTRACTOR, DIRECTLY HIRED BY THE PRIME CONTRACTOR, THAT HAVE BEEN VETTED THROUGH THE RAILROAD AND ARE ALLOWED TO BE PERFORMED ON RAILROAD PROPERTY.

b. CONTRACTOR PROTECTIVE SERVICES SHALL BE ONSITE ANYTIME CONSTRUCTION ACTIVITIES ARE TAKING PLACE ON OR ADJACENT TO THE RAILROAD PROPERTY AND/OR HAVE THE POTENTIAL TO FOUL THE RAILROAD'S TRACK OR OPERATIONS.

c. CONTRACTOR PROTECTIVE SERVICES SHALL BE THOSE SERVICES OF A SUBCONTRACTOR TO THE CONTRACTOR WHO HAVE THE ABILITY TO FULLY PROTECT THE CONTRACTOR'S WORKERS AND MACHINERY ONCE THE QUALIFIED PROTECTIVE SERVICES CONTRACTOR CONFIRMS THE CONTRACTOR PROTECTIVE SERVICES ARE PROPERLY EQUIPPED AND SITE SPECIFIC TRAINED BY THE RAILROAD REPRESENTATIVE. CONTRACTOR PROTECTIVE SERVICES MAY ACT AS AN OBSERVER UNTIL SUCH CONTRACTOR PROTECTIVE SERVICES ARE SITE SPECIFIC TRAINED BY THE RAILROAD REPRESENTATIVE. THE REFERENCE TO AN "OBSERVER" IS DEFINED AS A PERSON WHO HAS THE AUTHORITY TO DENY ACCESS TO CONTRACTOR'S WORKERS AND MACHINERY TO A SPECIFIED RAILROAD OPERATION ZONE AS DIRECTED TO THE QUALIFIED PROTECTIVE SERVICES CONTRACTOR BY RAILROAD AND PREVENT THOSE POTENTIAL TO FOUL WORK EVENTS WHICH MAY PUT THE CONTRACTOR'S WORKERS AND MACHINERY AT RISK FOR INJURY OR DAMAGE.

d. CONTRACTOR PROTECTIVE SERVICES WILL NOT BE ALLOWED ON THE PROPERTY UNTIL ALL ITEMS ON THE NORFOLK SOUTHERN CHECKLIST FOR CONSTRUCTION-DIRECT HIRE HAVE BEEN COMPLETED AND THE AUTHORIZATION TO PROCEED IS GIVEN BY THE RAILROAD ENGINEER.

e. UNDER THE TERMS OF THE AGREEMENT BETWEEN THE DEPARTMENT AND THE RAILROAD, THE RAILROAD HAS SOLE AUTHORITY TO DETERMINE THE NEED FOR ANY RAILROAD PROTECTIVE SERVICES REQUIRED TO PROTECT ITS OPERATIONS OR WORK DESIGNATED TO BE DONE BY THE RAILROAD THROUGH THE FORCE ACCOUNT ESTIMATE.

f. SCHEDULING AND NOTIFICATION: THE CONTRACTOR SHALL FURNISH TO THE RAILROAD'S LOCAL REPRESENTATIVE AND THE ENGINEER A SCHEDULE FOR ALL WORK REQUIRED COMPLETING THE PORTION OF THE PROJECT WITHIN THE RAILROAD RIGHT OF WAY AND ARRANGING FOR A JOB SITE MEETING BETWEEN THE CONTRACTOR, ENGINEER AND THE RAILROAD'S LOCAL REPRESENTATIVE. FLAGGING SERVICES MAY NOT BE PROVIDED UNTIL SUCH MEETING HAS BEEN CONDUCTED AND THE CONTRACTOR'S WORK SCHEDULED.

THE CONTRACTOR SHALL NOTIFY THE FOLLOWING NAMED INDIVIDUAL AT LEAST 30 DAYS, OR AS DIRECTED BY THE AUTHORIZED REPRESENTATIVE OF THE RAILROAD, IN ADVANCE OF STARTING ANY WORK WHICH MIGHT REQUIRE PROTECTION:

E. W. CHAMBERS  
ENGINEER PUBLIC IMPROVEMENTS  
NORFOLK SOUTHERN CORPORATION  
1200 PEACHTREE STREET, NE  
ATLANTA, GA 30309  
(404) 529-1436 (O)  
ELDRIDGE.CHAMBERS@NSCORP.COM

THE CONTRACTOR SHALL GIVE THE RAILROAD'S LOCAL REPRESENTATIVE, COPY TO THE ENGINEER, AT LEAST 10 WORKING DAYS ADVANCE WRITTEN NOTICE OF WORK TO BE PERFORMED WITHIN RAILROAD RIGHT OF WAY. SUCH NOTICES SHALL INCLUDE SUFFICIENT DETAILS OF THE PROPOSED WORK TO ENABLE THE RAILROAD'S LOCAL REPRESENTATIVE TO DETERMINE IF FLAGGING WILL BE REQUIRED. IF FLAGGING IS REQUIRED NO WORK SHALL BE UNDERTAKEN UNTIL THE FLAGGERS ARE PRESENT AT THE JOB SITE.

GENERAL NOTES

WEST 150TH STREET (C.R. 66)



STRUCTURE (CONT'D)

NORFOLK SOUTHERN RAILWAY – SPECIAL REQUIREMENTS (CONT'D)

5. EMERGENCIES

IF EMERGENCIES ARISE WHICH REQUIRE THE FLAGGER'S PRESENCE ELSEWHERE, THE CONTRACTOR SHALL DELAY HIS WORK UNTIL SUCH TIME AS THE FLAGGERS ARE AGAIN AVAILABLE.

6. SUSPENSION OF WORK

IF WORK IS SUSPENDED, THE CONTRACTOR SHALL GIVE THE RAILROAD'S LOCAL REPRESENTATIVE AT LEAST THREE (3) WORKING DAYS NOTICE BEFORE RESUMPTION OF SAID WORK.

METHODS AND PROCEDURES FOR PERFORMING WORK ON PROPERTY OF THE NORFOLK SOUTHERN RAILWAY COMPANY MUST BE APPROVED BY:

E. W. CHAMBERS  
ENGINEER PUBLIC IMPROVEMENTS  
NORFOLK SOUTHERN CORPORATION  
1200 PEACHTREE STREET, NE  
ATLANTA, GA 30309  
(404) 529-1436 (O)  
ELDRIDGE.CHAMBERS@NSCORP.COM

7. DEMOLITION AND ERECTION

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER AND THE RAILWAY DEMOLITION PLANS AND PROCEDURES FOR ALL DEMOLITION WORK ABOVE OR ADJACENT TO THE TRACKS OF THE RAILWAY. THE LOCATION OF ALL TRACKS AND OTHER RAILROAD FACILITIES AS WELL AS OBSTRUCTIONS SUCH AS WATER LINES, POLES, ADJACENT STRUCTURES, ETC. MUST BE SHOWN.

THE PLAN AND PROCEDURE SHALL INDICATE THE METHOD OF PROTECTING THE TRACK STRUCTURE, THE SEQUENCE OF DEMOLITION AND THE PROCEDURES AND EQUIPMENT TO BE USED. NO DEBRIS SHALL BE ALLOWED TO INTENTIONALLY FALL TO RAILWAY PROPERTY.

ALL ERECTION AND DEMOLITION PLANS, PROCEDURES, DATA SHEETS, ETC. SUBMITTED MUST BE PREPARED, SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.

THE RAILROAD'S REPRESENTATIVE MUST BE PRESENT AT THE SITE DURING THE ENTIRE DEMOLITION AND ERECTION PROCEDURE PERIOD.

ALL PROCEDURES, PLANS AND CALCULATIONS SHALL FIRST BE APPROVED BY THE ENGINEER AND THE RAILROAD ENGINEER, BUT SUCH APPROVAL DOES NOT RELIEVE THE CONTRACTOR FROM LIABILITY.

8. VERTICAL AND HORIZONTAL CLEARANCES

A TEMPORARY MINIMUM VERTICAL CLEARANCE OF 20'-5"± ABOVE THE TOP OF RAIL ELEVATION AND A TEMPORARY MINIMUM HORIZONTAL CLEARANCE OF 13'-0" AS MEASURED FROM THE TRACK CENTERLINE SHALL BE MAINTAINED TO ANY TEMPORARY FORM WORK, FALSE WORK, STOCKPILED MATERIALS OR OTHER CONSTRUCTION WHICH WILL BE LEFT IN PLACE DURING TRAIN MOVEMENTS THROUGH THE JOB SITE.

DURING REMOVAL OF THE EXISTING STRUCTURE, THE EXISTING HORIZONTAL AND VERTICAL CLEARANCES SHALL NOT BE REDUCED.

EXISTING VERTICAL AND HORIZONTAL CLEARANCES ARE NOT TO BE ALTERED BY THIS PROJECT.

EXISTING TOP OF RAIL AND BRIDGE SEAT ELEVATIONS SHOULD BE VERIFIED IN THE FIELD AND SUBMITTED TO NORFOLK SOUTHERN PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.

FINAL TOP OF RAIL AND BRIDGE SEAT ELEVATIONS SHOULD BE VERIFIED IN THE FIELD AND SUBMITTED TO NORFOLK SOUTHERN PRIOR TO DEMOBILIZATION AND PROJECT CLOSEOUT.

9. FINAL INSPECTION

UPON COMPLETION OF THE WORK ON RAILROAD PROPERTY, THE CONTRACTOR SHALL REQUEST THE ENGINEER TO ARRANGE A FINAL INSPECTION OF THE PROJECT WITH THE RAILWAY'S DIVISION ENGINEER OR HIS AUTHORIZED REPRESENTATIVE.

10. PROPERTY LEASING

NORFOLK SOUTHERN PROPERTY MAY BE AVAILABLE, BY LEASE, TO THE CONTRACTOR FOR STAGING AND MATERIAL STORAGE. A PLAN DEPICTING AREAS INTENDED FOR USE AND INGRESS/EGRESS WILL BE REQUIRED.

CONTACT: MR. JOHN FOLEY  
MANAGER OF REAL ESTATE  
TELEPHONE (412) 893-7244  
FAX (404) 653-3438  
JOHN.FOLEY@NSCORP.COM

11. DITCHES AND DRAINAGE STRUCTURES

THE PROPOSED PROJECT WILL NOT CHANGE THE QUANTITY AND/OR CHARACTER OF FLOW IN THE RAILWAY'S DITCHES AND DRAINAGE STRUCTURES.

12. PAYMENT

PAYMENT FOR THIS WORK WILL BE MADE ON A LUMP SUM BASIS AT THE CONTRACT BID PRICE FOR ITEM SPECIAL – RAILROAD COORDINATION AND FLAGGING.

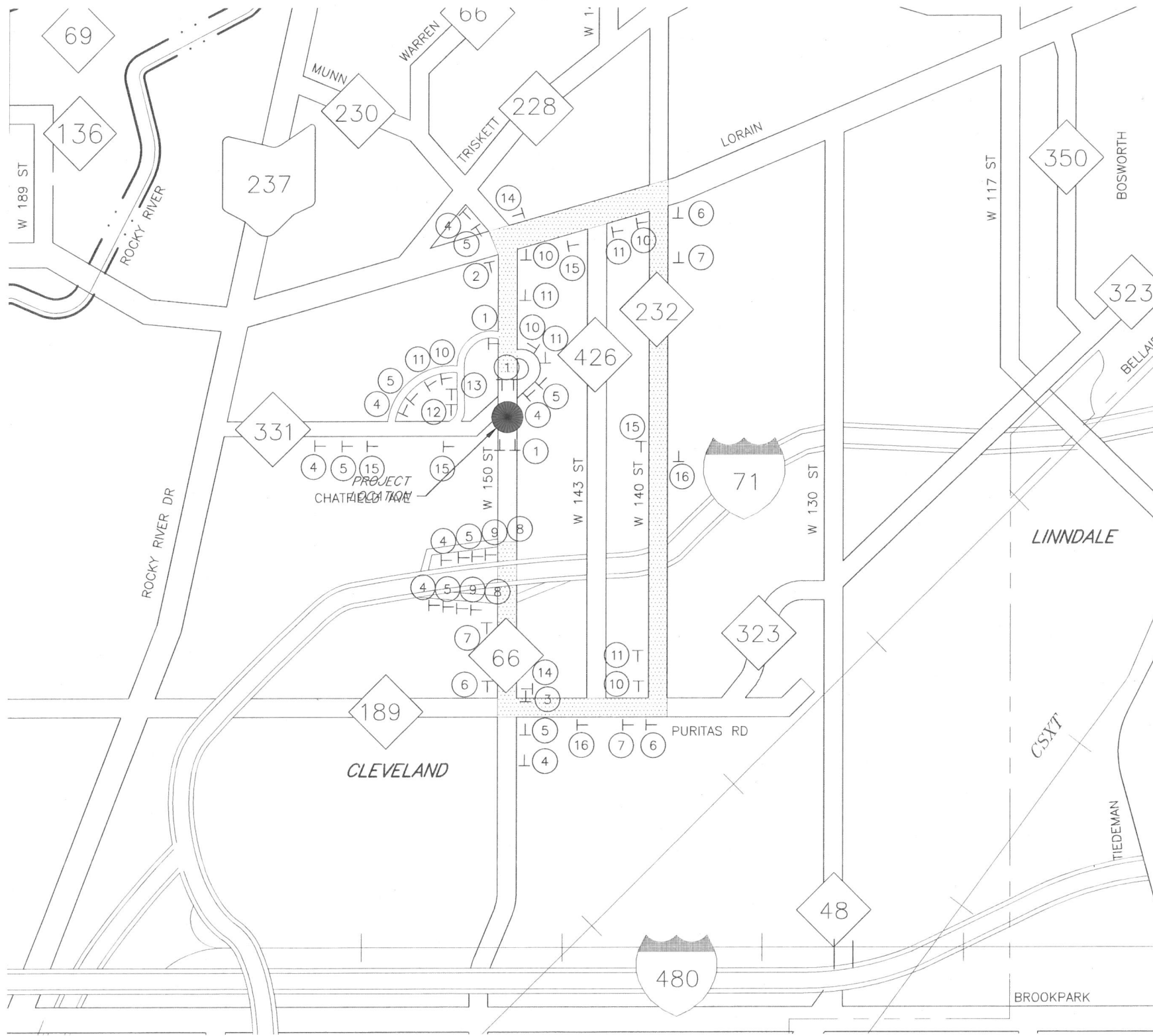
ABBREVIATIONS

THE FOLLOWING ABBREVIATIONS, WHEN USED IN THE STRUCTURE GENERAL NOTES, PLANS AND DETAILS, REPRESENT THE FULL TEXT SHOWN.

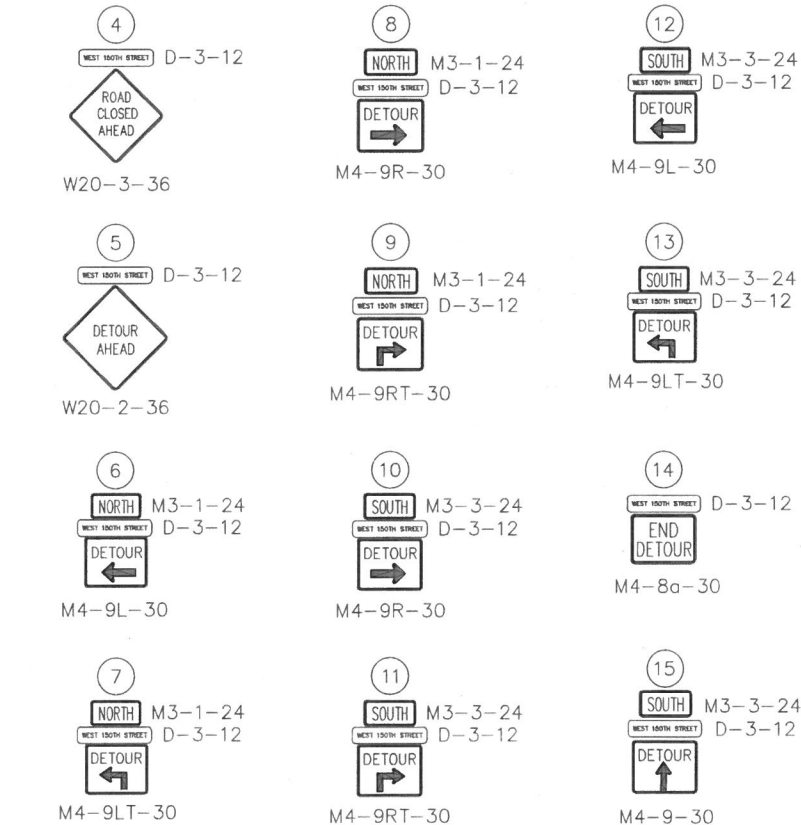
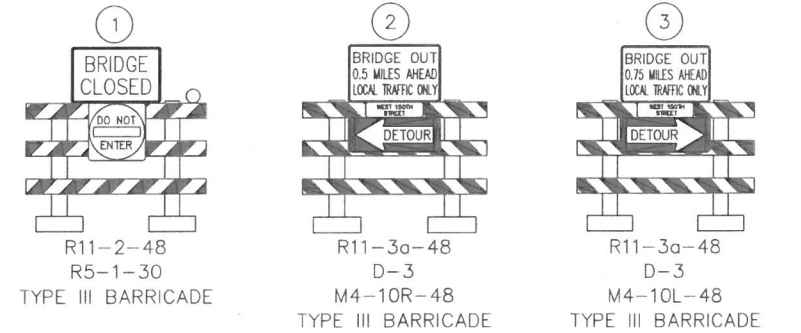
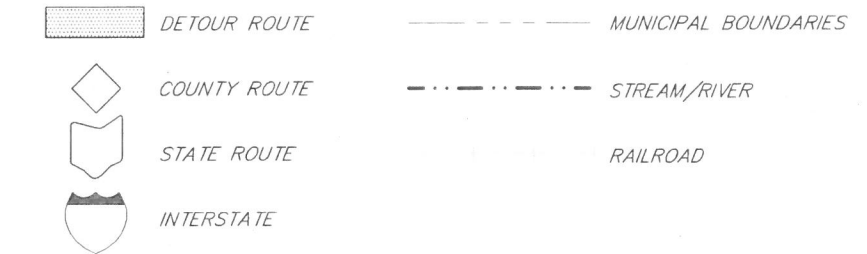
AASHTO	– AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ABUT	– ABUTMENT
AVG	– AVERAGE
BDM	– BRIDGE DESIGN MANUAL
C/C	– CENTER TO CENTER
CB	– CATCH BASIN
CCE	– CUYAHOGA COUNTY ENGINEER
CFS	– CUBIC FEET PER SECOND
CH	– CHANNEL EASEMENT
CJ	– CONSTRUCTION JOINT
CL	– CHAIN LINK FENCE
CLR	– CLEAR
CMP	– CORRUGATED METAL PIPE
CMS	– STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS SPECIFICATIONS
CONC.	– CONCRETE
CONST	– CONSTRUCTION
DIA	– DIAMETER
DWG	– DRAWING
E.F	– EACH FACE
EL/ELEV	– ELEVATION
EQ.	– EQUAL
EX.	– EXISTING
F/F	– FACE TO FACE
FF	– FAR FACE
FS	– FAR SIDE
FT/S	– FEET PER SECOND
FWD	– FORWARD
HW	– HIGH WATER
INCL	– INCLUDE/INCLUDED
KSI	– KIPS PER SQUARE INCH
KSF	– KIPS PER SQUARE FOOT
LT	– LEFT
MAX	– MAXIMUM
MH	– MANHOLE
MIN	– MINIMUM
NF	– NEAR FACE
NO	– NUMBER
NS	– NEAR SIDE
ODOT	– OHIO DEPARTMENT OF TRANSPORTATION
OHW	– ORDINARY HIGH WATER
OVHD	– OVERHEAD
P/G	– PROFILE GRADE
PROP	– PROPOSED
PSI	– POUNDS PER SQUARE INCH
R/W	– RIGHT OF WAY
RT	– RIGHT
SH	– STANDARD HIGHWAY EASEMENT
SPA	– SPACING
STA	– STATION
STD	– STANDARD
STR	– STRAIGHT
T	– THICK/THICKNESS
TBR	– TO BE REMOVED
TYP	– TYPICAL
UG	– UNDERGROUND
W/	– WITH

GENERAL NOTES

WEST 150TH STREET (C.R. 66)



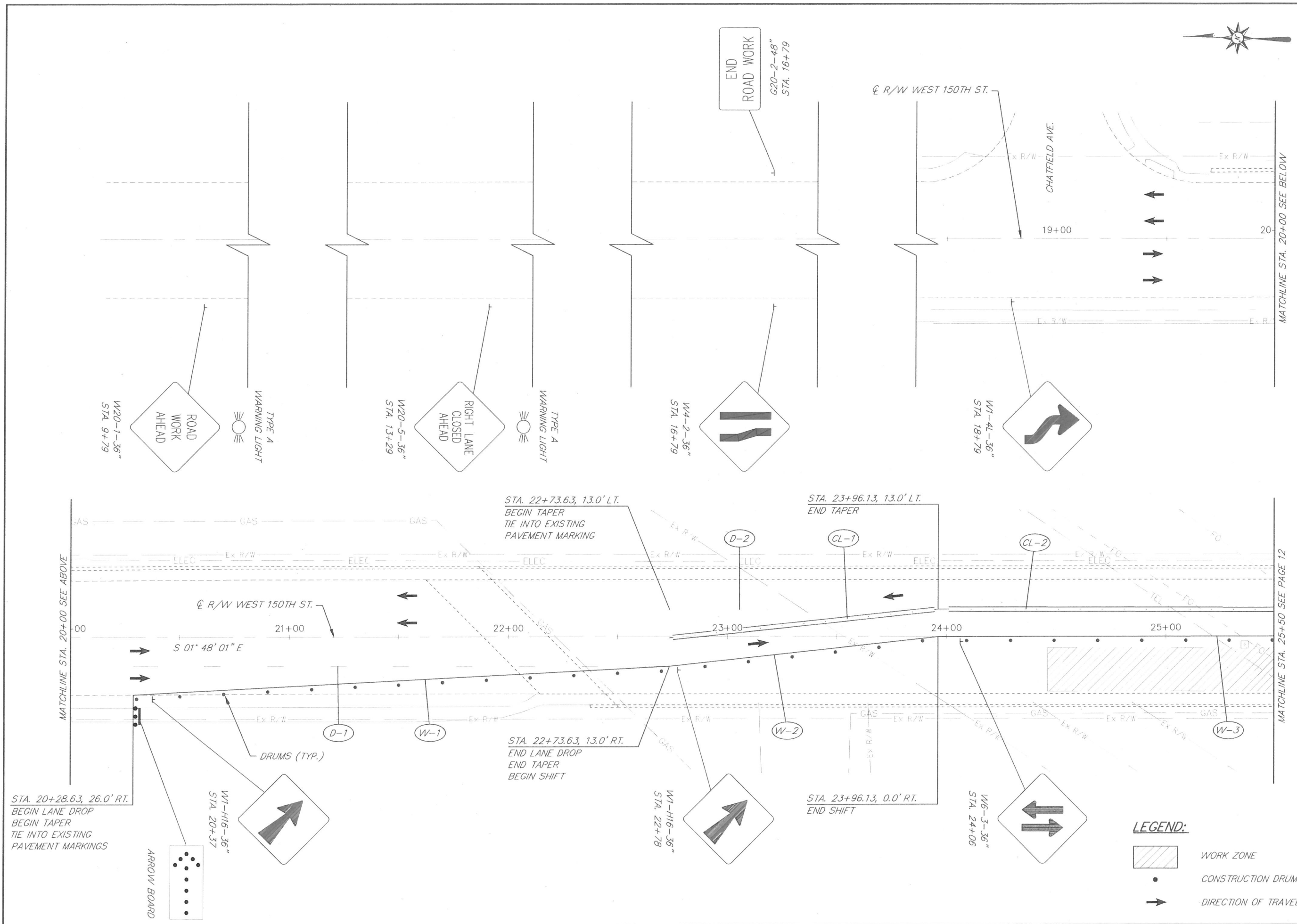
### LEGEND





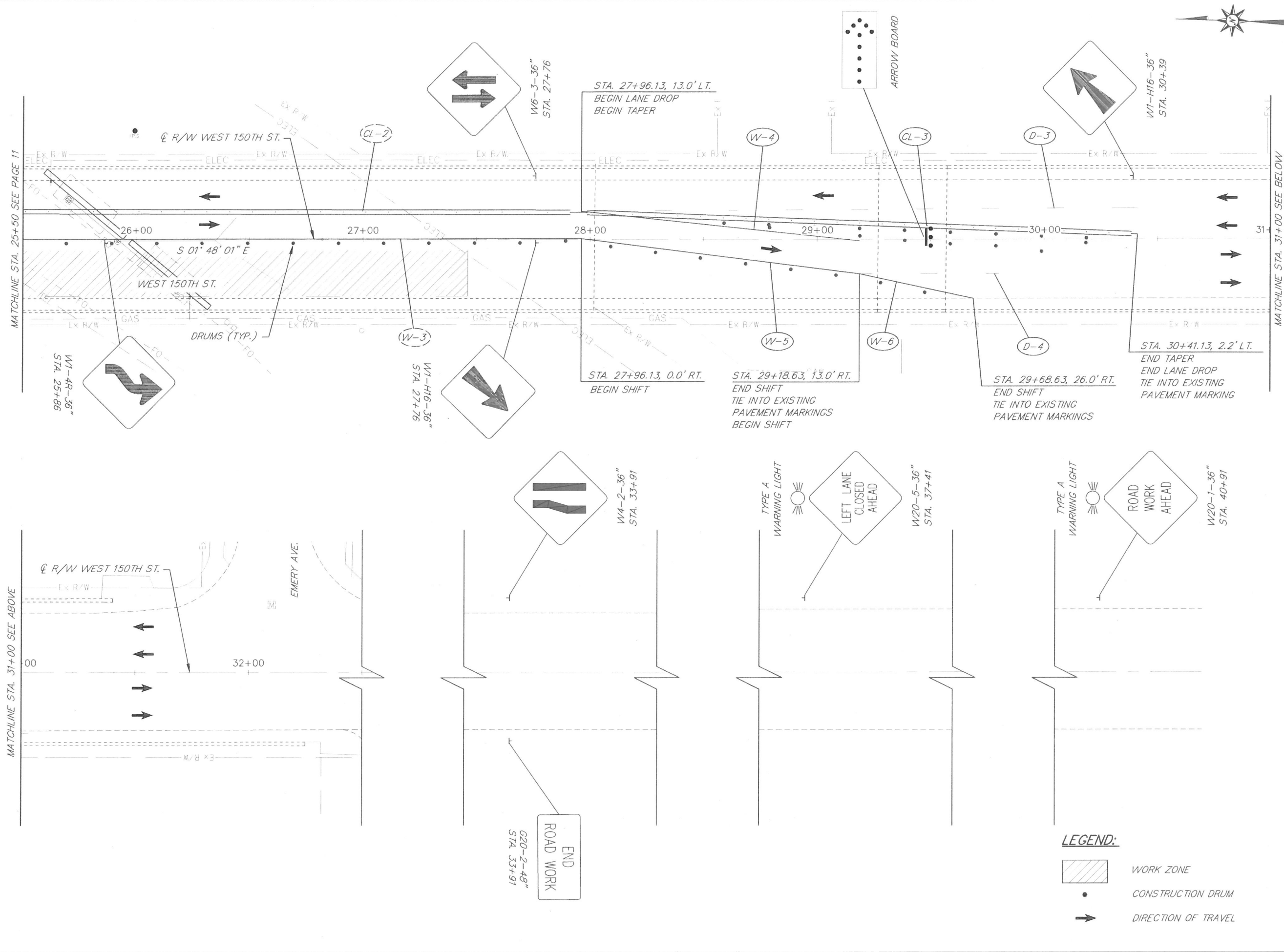
### NOTES:

1. DETOUR TO BE USED FOR OVERNIGHT BRIDGE CLOSURE. WEST 150TH STREET SHALL NOT BE CLOSED DURING DAYTIME; OVERNIGHT CLOSURE SHALL BE LIMITED TO IN BETWEEN 7:00PM TO 6:00 AM THE FOLLOWING MORNING. THE DETOUR PLAN SHALL ONLY BE UTILIZED FOUR (4) SEPARATE WORK NIGHTS FOR JACKING AND LOWERING BRIDGE SUPERSTRUCTURE.





<div style="text-align: center;">  </div>	<div style="text-align: center;">  </div>	<div style="text-align: center;"> <b>WEST 150TH ST.</b>            (C.R. 66)         </div>	<div style="text-align: center;"> <b>MAINTENANCE OF TRAFFIC – PHASE 1</b>            BRIDGE 01.94            OVER NORFOLK SOUTHERN, RTA, CHATFIELD AVE &amp; COUNTY SERVICE ROAD         </div>	DESIGNED	DRAWN	REVISED	DATE	DESIGN AGENCY CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS
				CHECKED	REVISED	STRUCTURE FILE NO.		
				ARA	ARA	BDS	07/25/23	
				ECM				1833405

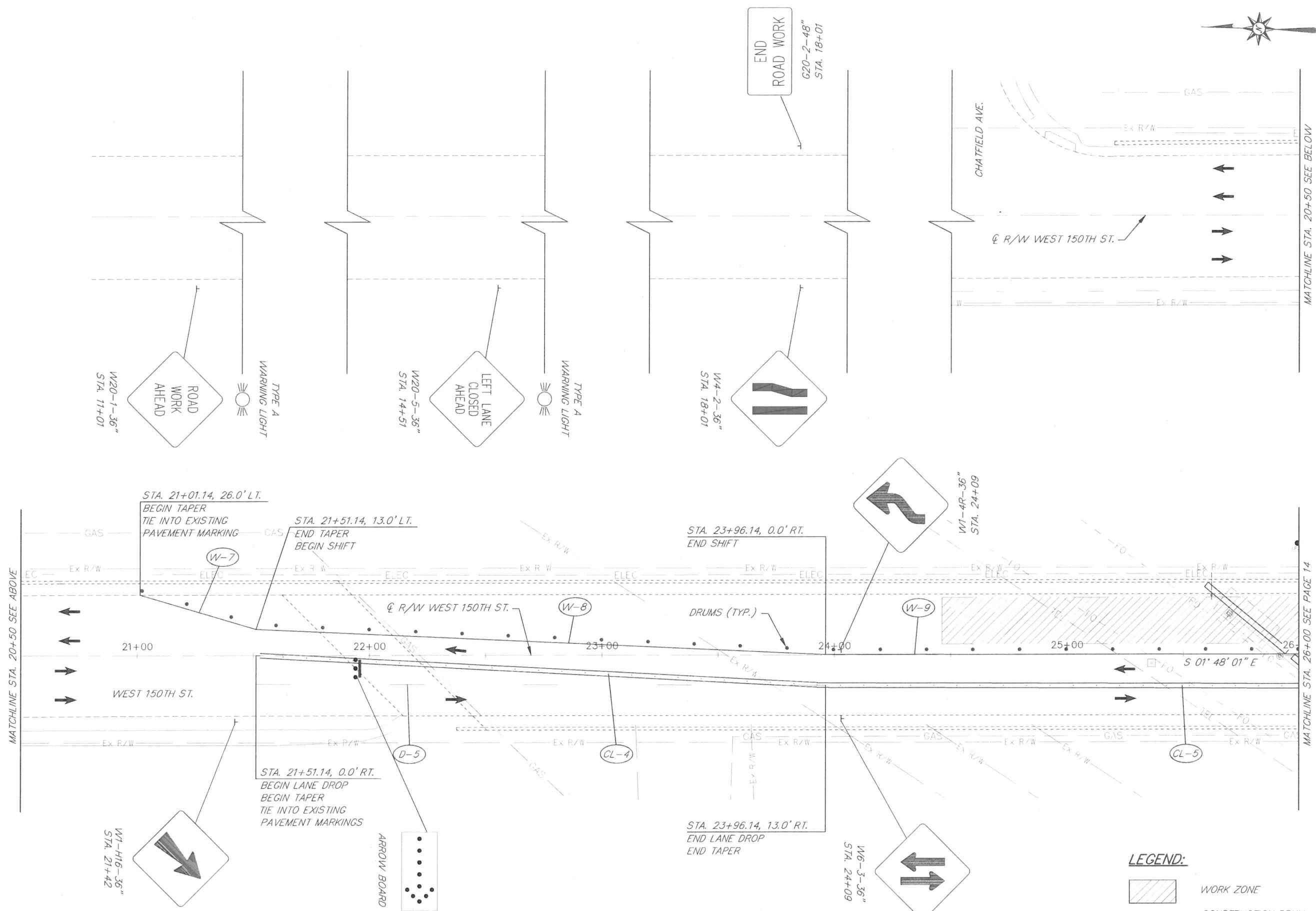


**LEGEND:**

- WORK ZONE
- CONSTRUCTION DRUM
- DIRECTION OF TRAVEL

	DESIGN AGENCY CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS	
	DATE 07/25/23	STRUCTURE FILE NO. 1833405
DESIGNED ARA	DRAWN ARA	REVIEWED BDS
	CHECKED ECM	DATE 07/25/23
MAINTENANCE OF TRAFFIC - PHASE 1 BRIDGE 01.94 OVER NORFOLK SOUTHERN, RTA, CHATFIELD AVE & COUNTY SERVICE ROAD		
WEST 150TH ST. (C.R. 66)		
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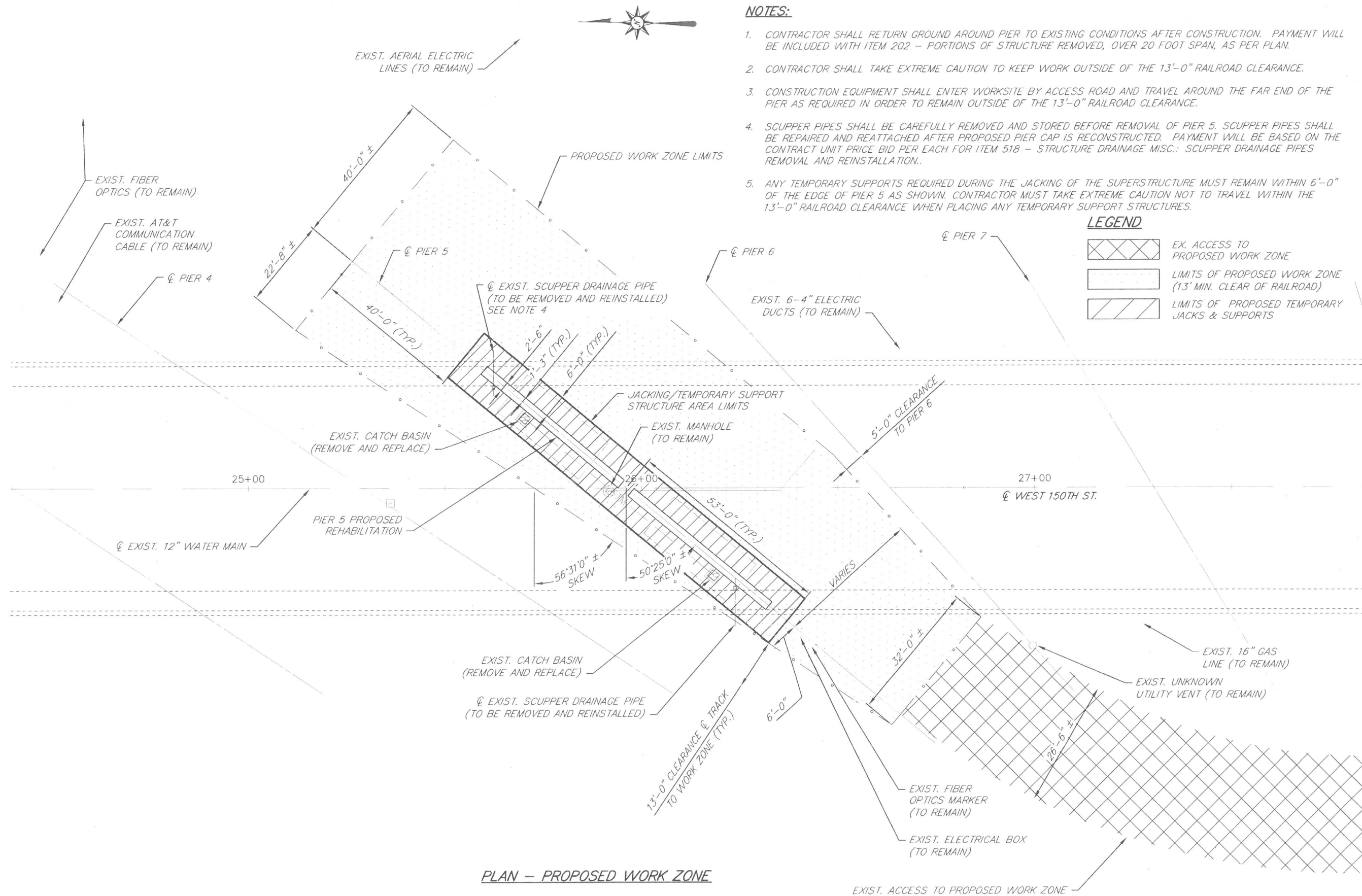








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PLAN - PROPOSED WORK ZONE

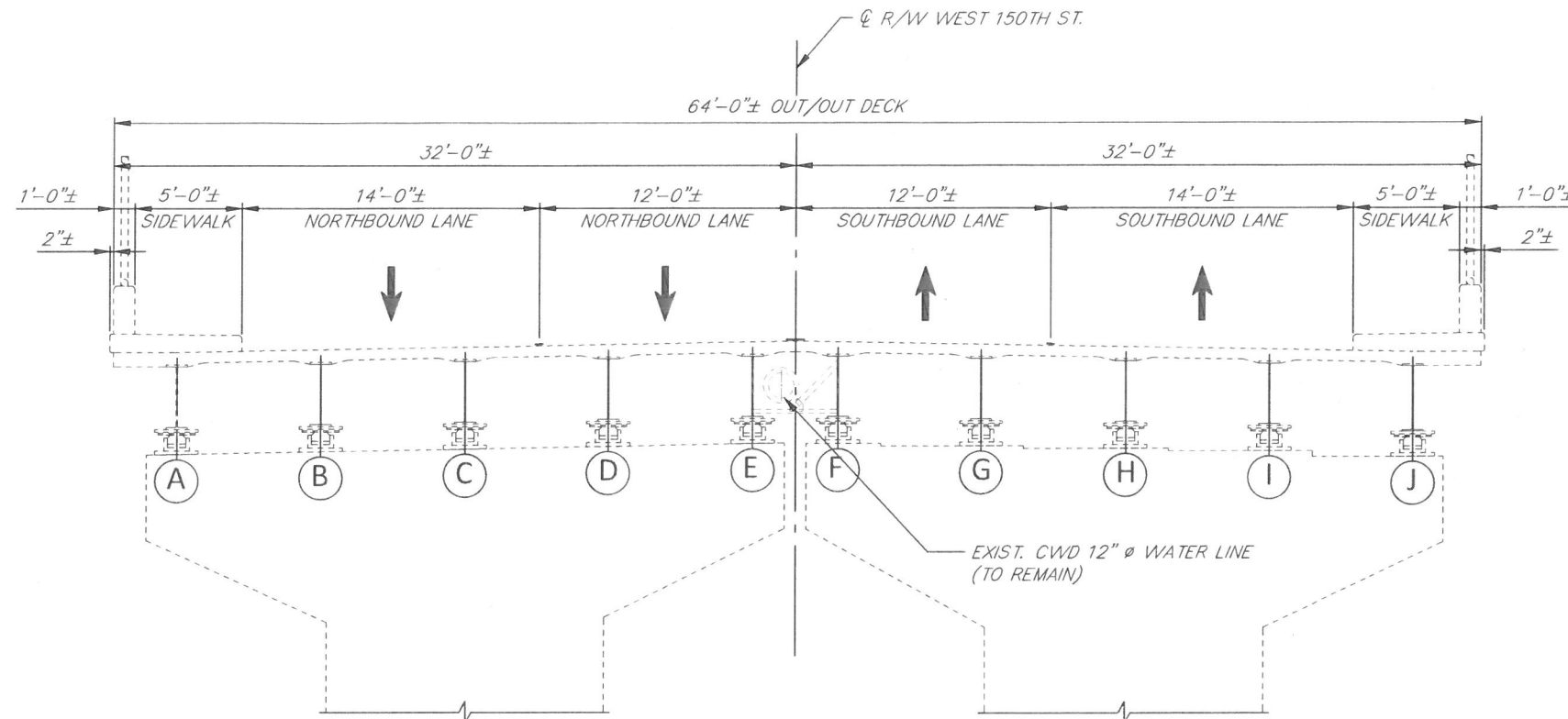
**NOTES:**

1. CONTRACTOR SHALL RETURN GROUND AROUND PIER TO EXISTING CONDITIONS AFTER CONSTRUCTION. PAYMENT WILL BE INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.
2. CONTRACTOR SHALL TAKE EXTREME CAUTION TO KEEP WORK OUTSIDE OF THE 13'-0" RAILROAD CLEARANCE.
3. CONSTRUCTION EQUIPMENT SHALL ENTER WORKSITE BY ACCESS ROAD AND TRAVEL AROUND THE FAR END OF THE PIER AS REQUIRED IN ORDER TO REMAIN OUTSIDE OF THE 13'-0" RAILROAD CLEARANCE.
4. SCUPPER PIPES SHALL BE CAREFULLY REMOVED AND STORED BEFORE REMOVAL OF PIER 5. SCUPPER PIPES SHALL BE REPAIRED AND REATTACHED AFTER PROPOSED PIER CAP IS RECONSTRUCTED. PAYMENT WILL BE BASED ON THE CONTRACT UNIT PRICE BID PER EACH FOR ITEM 518 - STRUCTURE DRAINAGE MISC.: SCUPPER DRAINAGE PIPES REMOVAL AND REINSTALLATION.
5. ANY TEMPORARY SUPPORTS REQUIRED DURING THE JACKING OF THE SUPERSTRUCTURE MUST REMAIN WITHIN 6'-0" OF THE EDGE OF PIER 5 AS SHOWN. CONTRACTOR MUST TAKE EXTREME CAUTION NOT TO TRAVEL WITHIN THE 13'-0" RAILROAD CLEARANCE WHEN PLACING ANY TEMPORARY SUPPORT STRUCTURES.

**LEGEND**

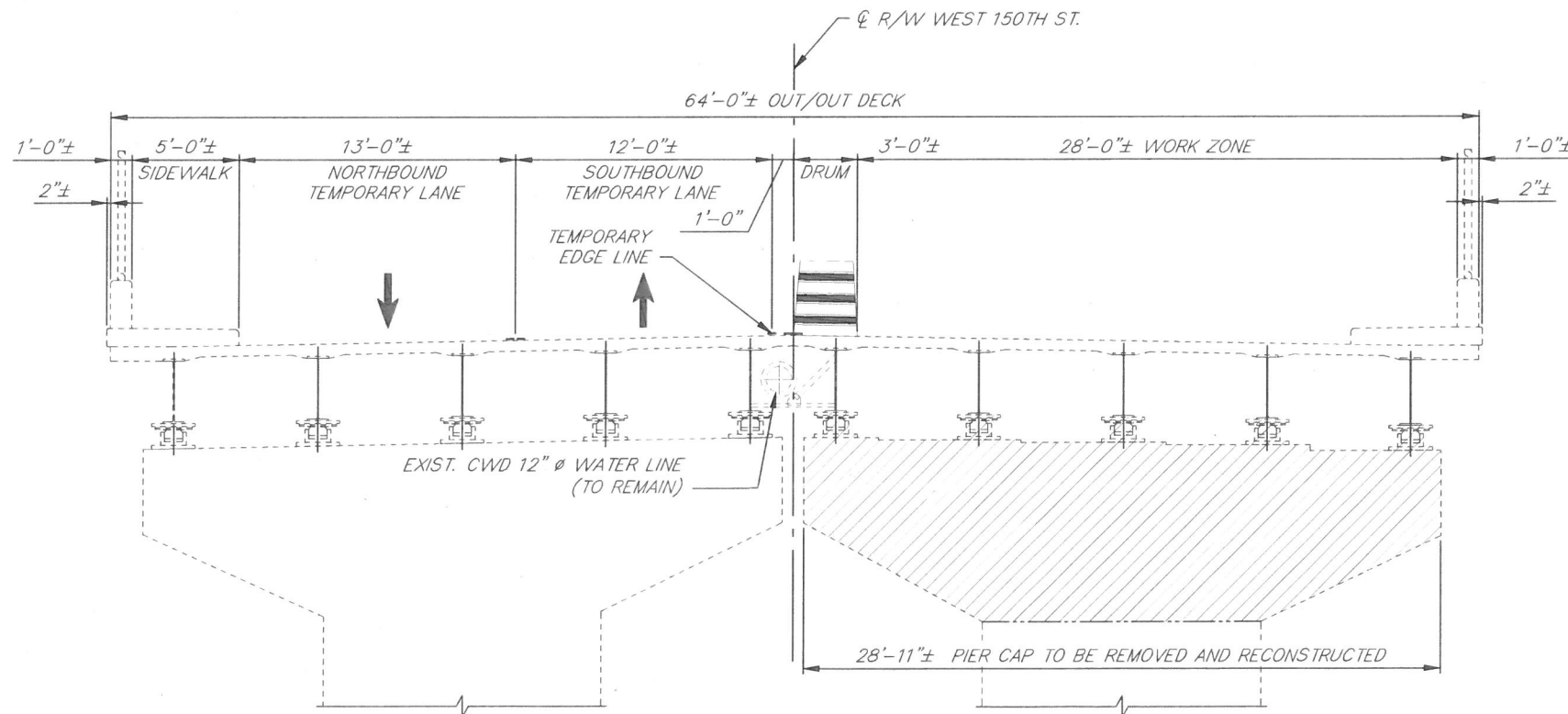
- |  |   |
|--|---|
|  | EX. ACCESS TO PROPOSED WORK ZONE                          |
|  | LIMITS OF PROPOSED WORK ZONE (13' MIN. CLEAR OF RAILROAD) |
|  | LIMITS OF PROPOSED TEMPORARY JACKS & SUPPORTS             |





NOTE: EX. CROSSFRAMES ARE NOT SHOWN.  
THIS INFORMATION CAN BE FOUND ON EX. PLANS.

**EXISTING TRANSVERSE SECTION**  
(LOOKING UPSTATION)



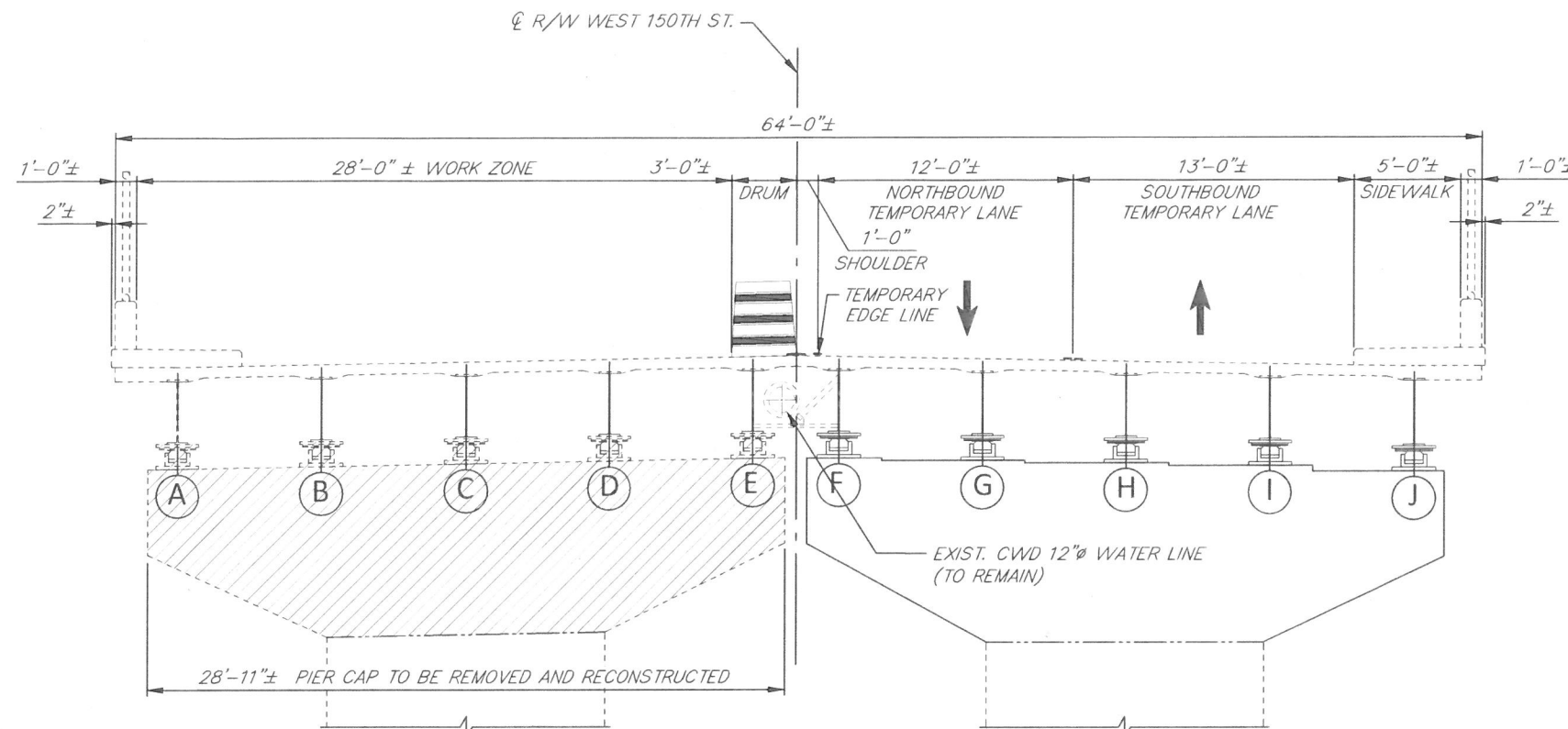
**MAINTENANCE OF TRAFFIC - PHASE 1**  
(LOOKING UPSTATION)

**SUGGESTED PHASE 1 REMOVAL & CONSTRUCTION**

1. CONSTRUCT TEMPORARY SUPPORT STRUCTURES UNDER EXISTING SOUTHBOUND PIER CAP BEAM LINES.
2. SHIFT EXISTING TRAFFIC TO PHASE 1 MAINTENANCE OF TRAFFIC PATTERN WITH BOTH LANES ON THE EXISTING NORTHBOUND PIER CAP.
3. CLOSE BRIDGE OVERNIGHT. UTILIZE DETOUR PLAN.
4. ENGAGE LIFTING JACKS FROM THE TEMPORARY SUPPORT STRUCTURES TO ELIMINATE SUPERSTRUCTURE DEAD LOAD FROM EXISTING PIER 5. THE BRIDGE MAY BE LIFTED OFF OF ITS EXISTING SUPPORTS AT THE PIER 5 SUPPORTS A MAXIMUM OF 1/4 INCH.
5. OPEN BRIDGE UP AFTER OVERNIGHT CLOSURE.
6. REMOVE AND STORE EXISTING SCUPPER DRAINAGE PIPES FOR REUSE.
7. REMOVE THE EXISTING MASONRY PLATES, LOAD PLATES, AND POT BEARING ASSEMBLIES.
8. REMOVE EXISTING PIER 5 CAP CONCRETE. EXISTING VERTICAL STEM REINFORCEMENT SHALL REMAIN.
9. PLACE REINFORCING STEEL, FORM AND POUR CONCRETE CAP TO REQUIRED ELEVATIONS.
10. PLACE NEW BEARING ASSEMBLIES ON REHABILITATED PIER CAP.
11. CLOSE BRIDGE OVERNIGHT. UTILIZE DETOUR PLAN.
12. LOWER EXISTING SOUTHBOUND LANE PIER CAP SECTIONS OF THE BRIDGE ONTO NEW BEARING ACHIEVING FULL CONTACT WITH ALL BEARINGS.
13. WELD LOAD PLATES TO EXISTING BEAMS.
14. REINSTALL SCUPPER DRAINAGE PIPES AS REQUIRED.
15. OPEN BRIDGE UP AFTER OVERNIGHT CLOSURE.
16. REMOVE ALL STRUCTURE SUPPORTS ON THE SOUTHBOUND PIER CAP.

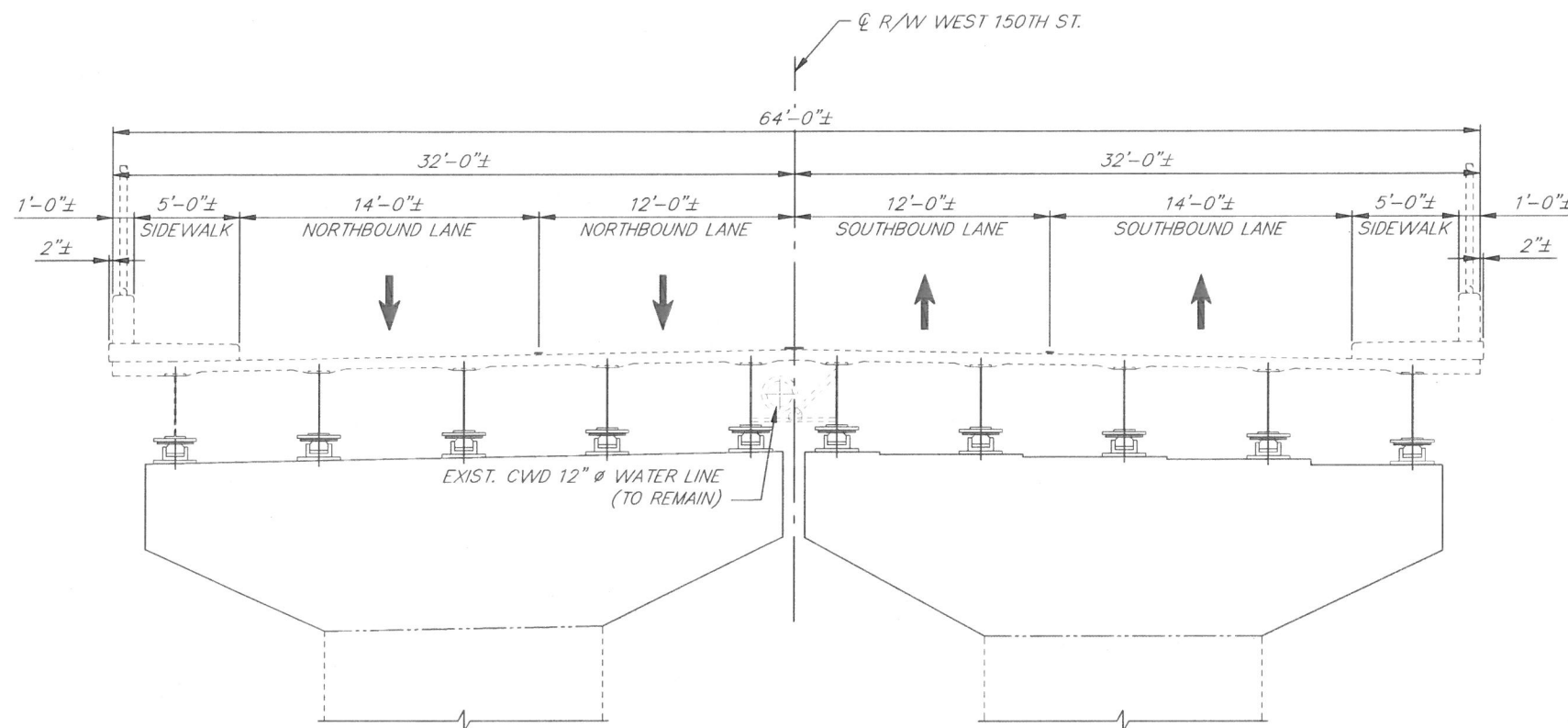
**LEGEND:**

PORTIONS OF PIER TO BE REMOVED. PAYMENT INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN



NOTE: EX. CROSSFRAMES ARE NOT SHOWN.  
THIS INFORMATION CAN BE FOUND ON EX. PLANS.

### MAINTENANCE OF TRAFFIC - PHASE 2 (LOOKING UPSTATION)




### PROPOSED TRANSVERSE SECTION (LOOKING UPSTATION)

### SUGGESTED PHASE 2 REMOVAL & CONSTRUCTION

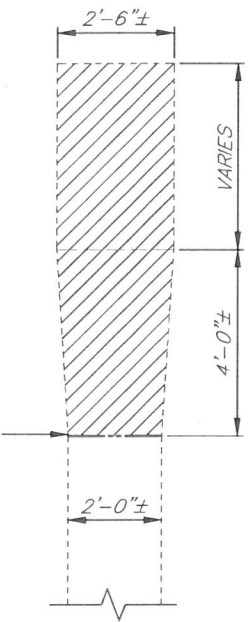
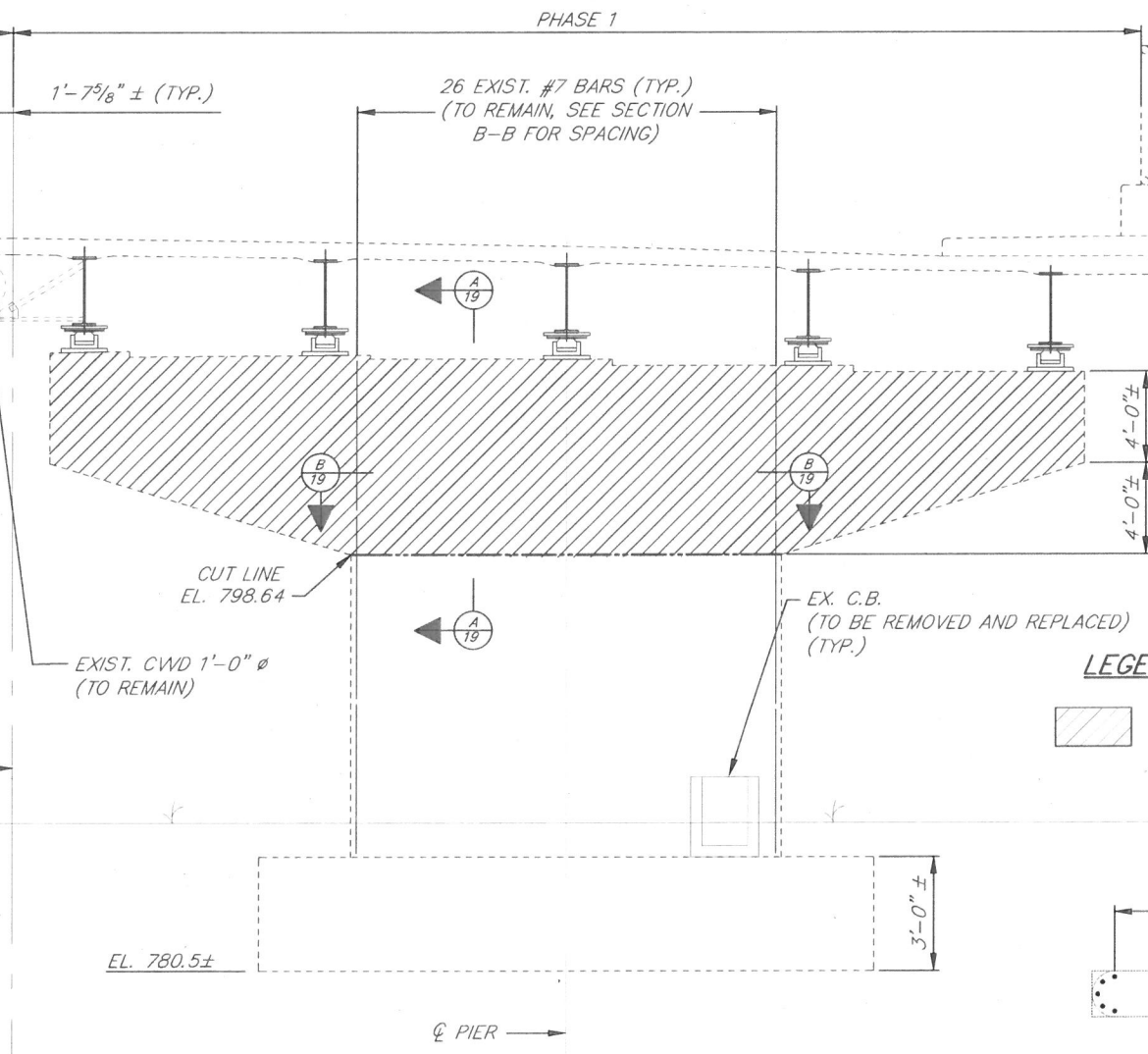
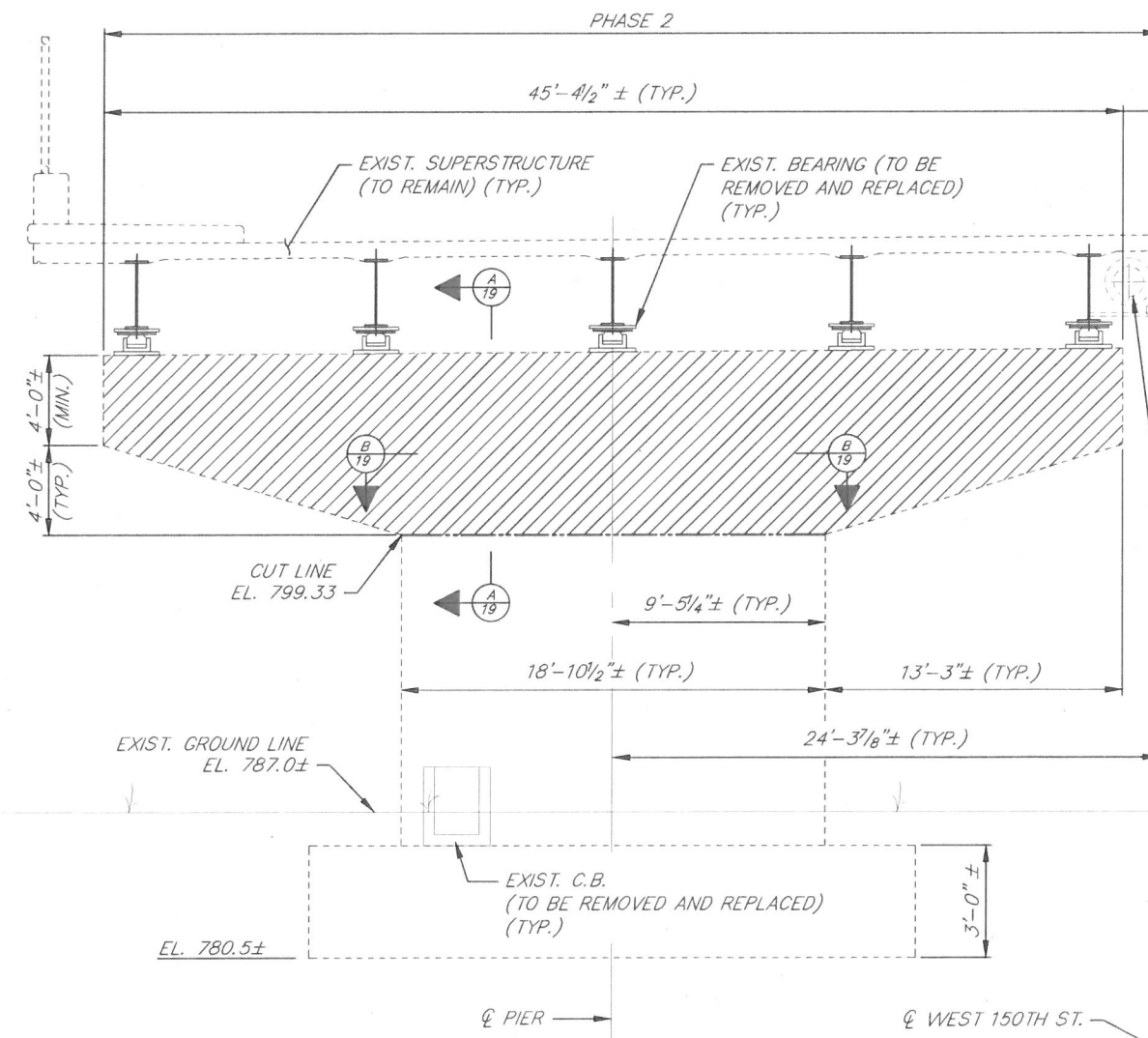
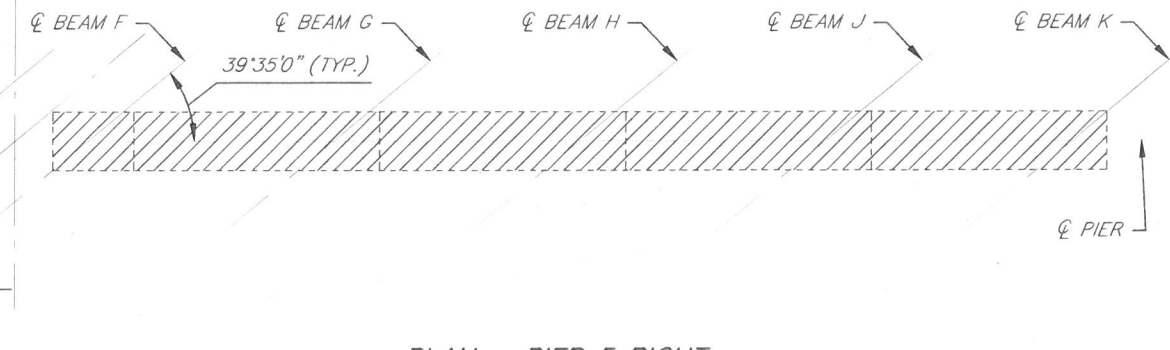
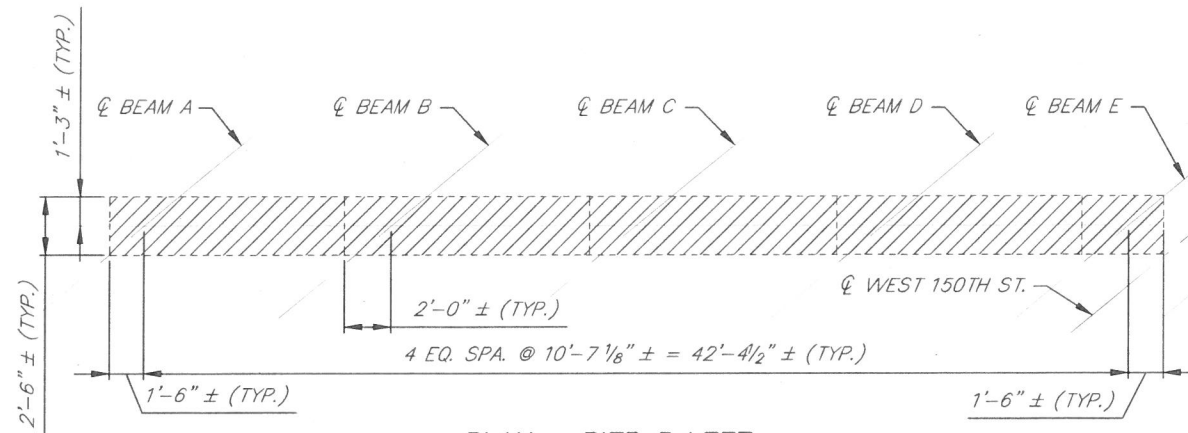
1. CONSTRUCT TEMPORARY SUPPORT STRUCTURES UNDER EXISTING NORTHBOUND PIER CAP BEAM LINES.
2. SHIFT PHASE 1 TRAFFIC TO PHASE 2 MAINTENANCE OF TRAFFIC PATTERN WITH BOTH LANES ON THE REHABILITATED SOUTHBOUND PIER CAP.
3. CLOSE BRIDGE OVERNIGHT. UTILIZE DETOUR PLAN.
4. ENGAGE LIFTING JACKS FROM THE TEMPORARY SUPPORT STRUCTURES TO ELIMINATE SUPERSTRUCTURE DEAD LOAD FROM EXISTING PIER 5. THE BRIDGE MAY BE LIFTED OFF OF ITS EXISTING SUPPORTS AT THE PIER 5 SUPPORTS A MAXIMUM OF 1/4 INCH.
5. OPEN BRIDGE UP AFTER OVERNIGHT CLOSURE.
6. REMOVE AND STORE EXISTING SCUPPER DRAINAGE PIPES FOR REUSE.
7. REMOVE THE EXISTING MASONRY PLATES, LOAD PLATES, AND POT BEARING ASSEMBLIES.
8. REMOVE EXISTING PIER 5 CAP CONCRETE. EXISTING VERTICAL STEM REINFORCEMENT SHALL REMAIN.
9. PLACE REINFORCING STEEL, FORM AND POUR CONCRETE CAP TO REQUIRED ELEVATIONS.
10. PLACE NEW BEARING ASSEMBLIES ON REHABILITATED PIER CAP.
11. CLOSE BRIDGE OVERNIGHT. UTILIZE DETOUR PLAN.
12. LOWER EXISTING NORTHBOUND LANE PIER CAP SECTIONS OF THE BRIDGE ONTO NEW BEARING ACHIEVING FULL CONTACT WITH ALL BEARINGS.
13. WELD LOAD PLATES TO EXISTING BEAMS.
14. REINSTALL SCUPPER DRAINAGE PIPES AS REQUIRED.
15. OPEN BRIDGE UP AFTER OVERNIGHT CLOSURE.
16. REMOVE ALL STRUCTURE SUPPORTS ON THE NORTHBOUND PIER CAP.
17. SHIFT TRAFFIC FROM PHASE 2 MAINTENANCE OF TRAFFIC BACK TO EXISTING TRAFFIC PATTERN.

### LEGEND:

 PORTIONS OF PIER TO BE REMOVED. PAYMENT INCLUDED WITH ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

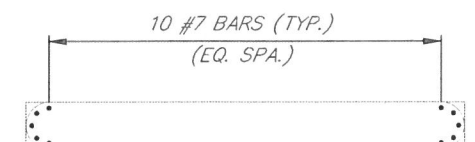


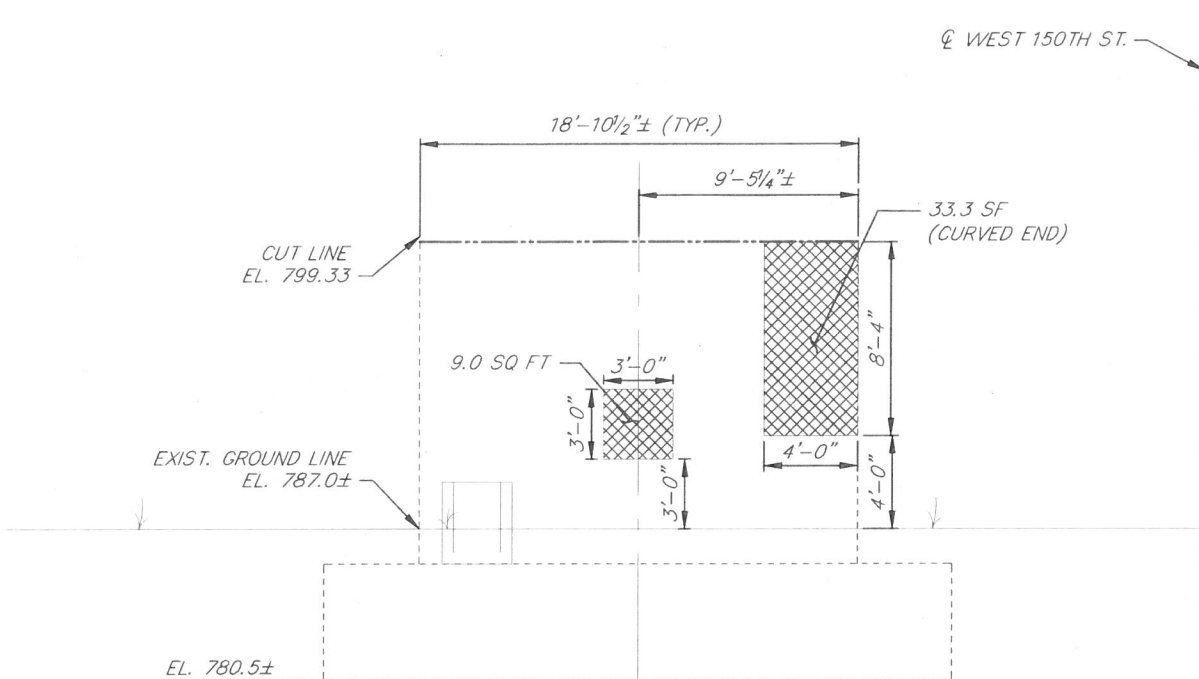
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CDDPW Production Sheet v1.3 2018/03/01



**LEGEND**

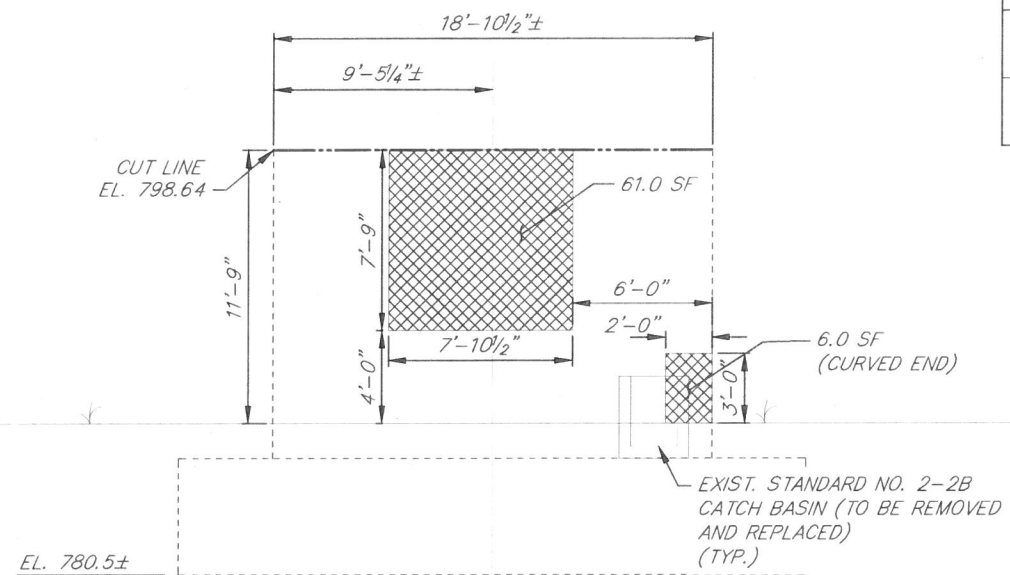
PORTIONS OF PIER TO BE REMOVED.  
PAYMENT INCLUDED WITH ITEM 202  
- PORTIONS OF STRUCTURES REMOVED,  
OVER 20 FOOT SPAN, AS PER PLAN





LEFT

ELEVATION - PIER 5  
(LOOKING UPSTATION)



RIGHT

ITEM 519 - PATCHING CONCRETE  
STRUCTURE, AS PER PLAN

PIERS	ACTUAL (SF)	ESTIMATE (SF)
RIGHT	90.5	**135.8
LEFT	76.1	**114.1

\*\* THE MEASURED TOTAL AREA OF PATCHING SHOWN HAS BEEN INCREASED BY 50% FOR UNCERTAINTY AND IS APPROXIMATE. ADDITIONALLY, THE FINAL LOCATIONS OF REPAIRS ARE APPROXIMATE. FINAL DETERMINATION OF REPAIRS AND THEIR LOCATIONS SHALL BE MADE BY THE PROJECT ENGINEER AT THE TIME OF CONSTRUCTION.

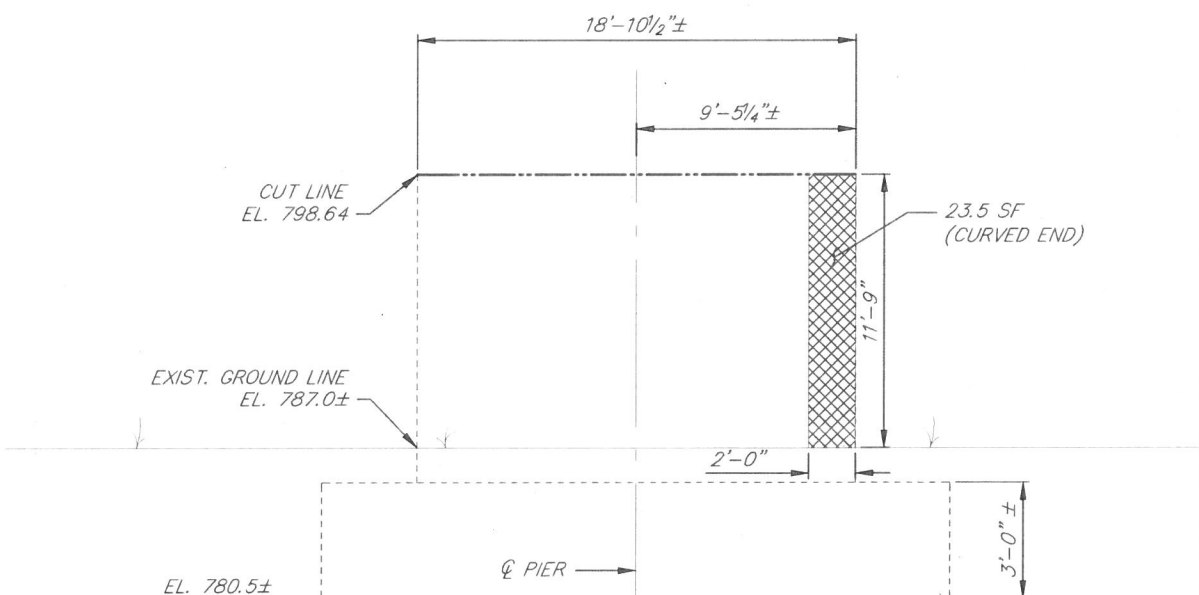
LEGEND



ITEM 519 - PATCHING CONCRETE  
STRUCTURE, AS PER PLAN.

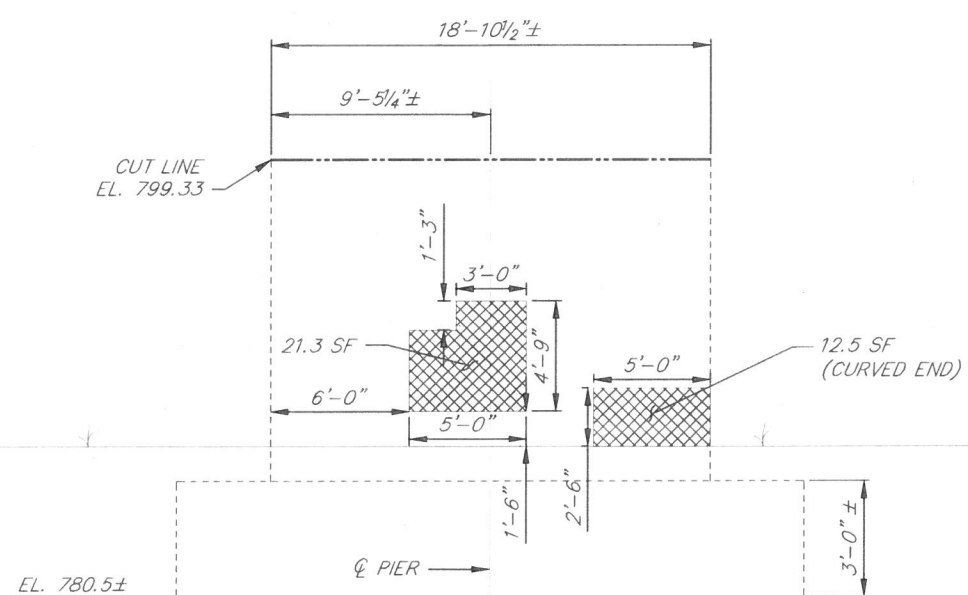
NOTES:

- FOR ADDITIONAL ITEM 519 - PATCHING CONCRETE STRUCTURE, A.P.P. NOTES, SEE GENERAL NOTES. SHEET 7 OF 23.



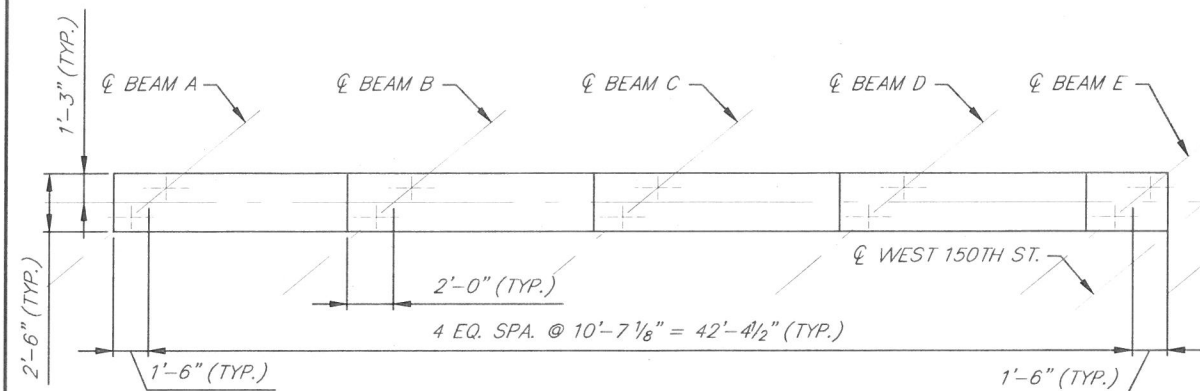
RIGHT

ELEVATION - PIER 5  
(LOOKING DOWNSTATION)

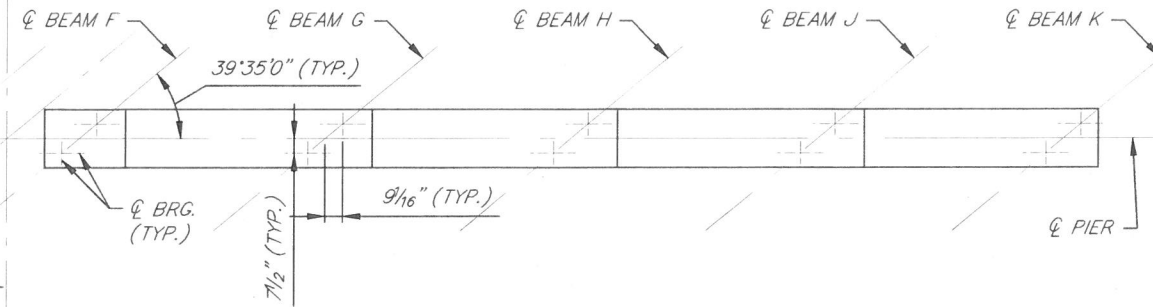


LEFT

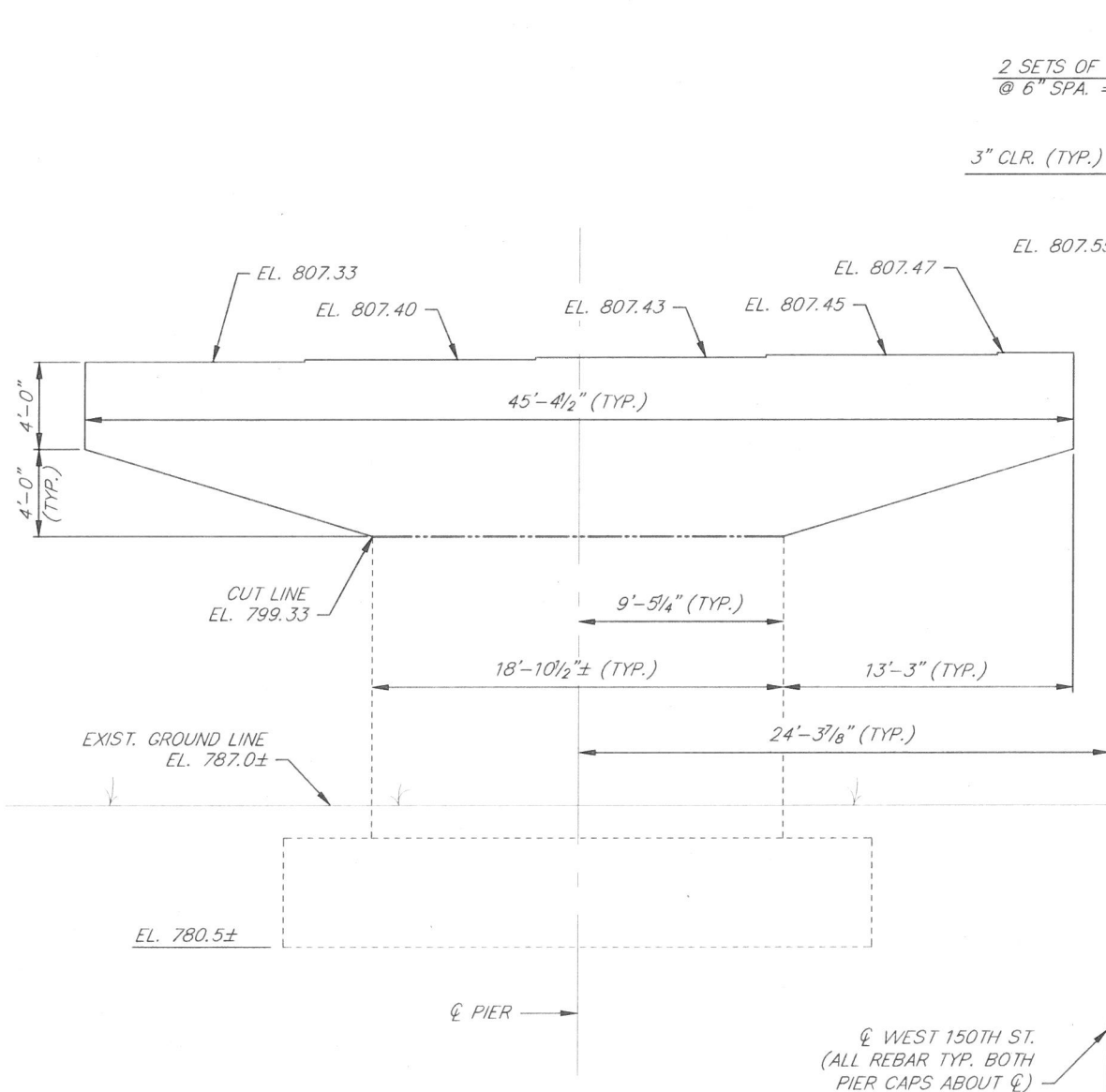




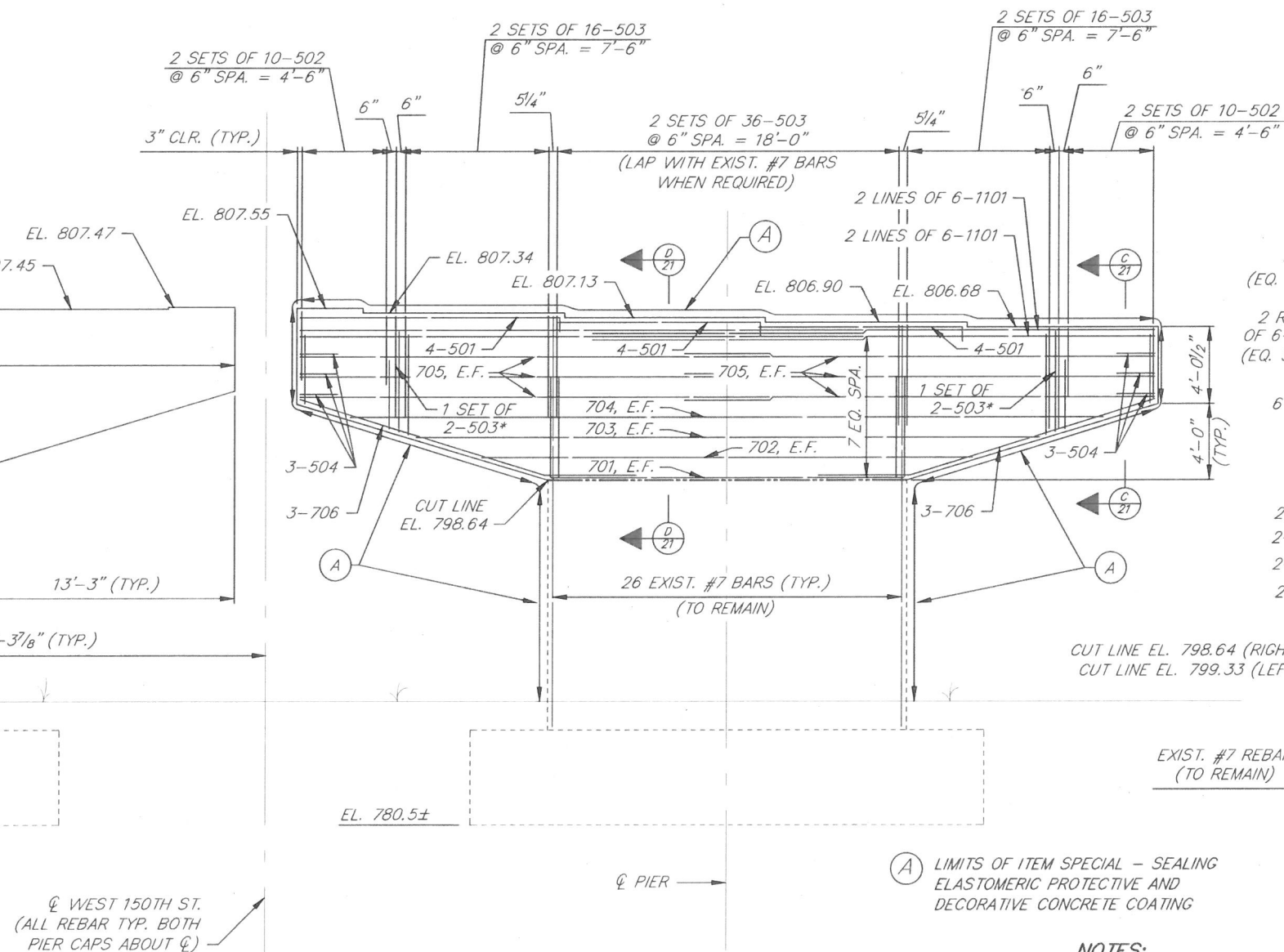
PLAN - PIER 5 LEFT



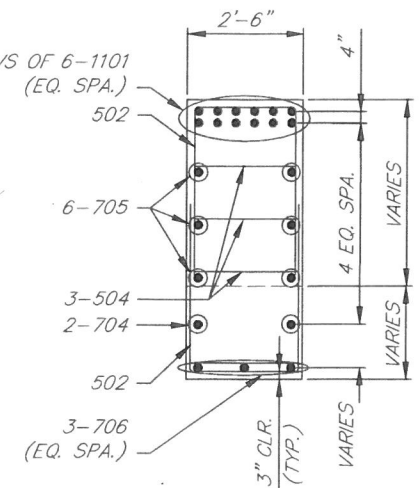
PLAN - PIER 5 RIGHT



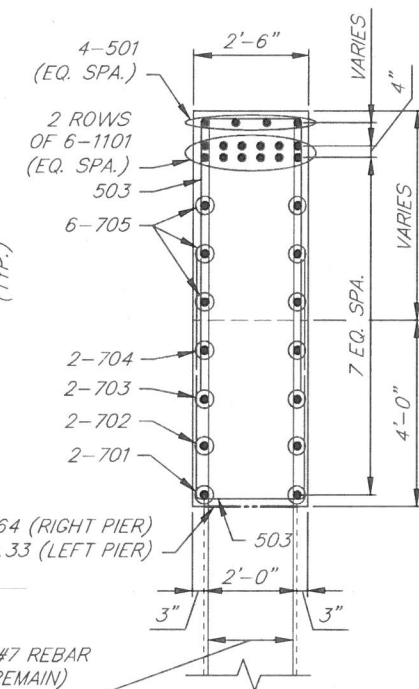
ELEVATION - PIER 5 LEFT



ELEVATION - PIER 5 RIGHT



SECTION C  
21



SECTION D  
21

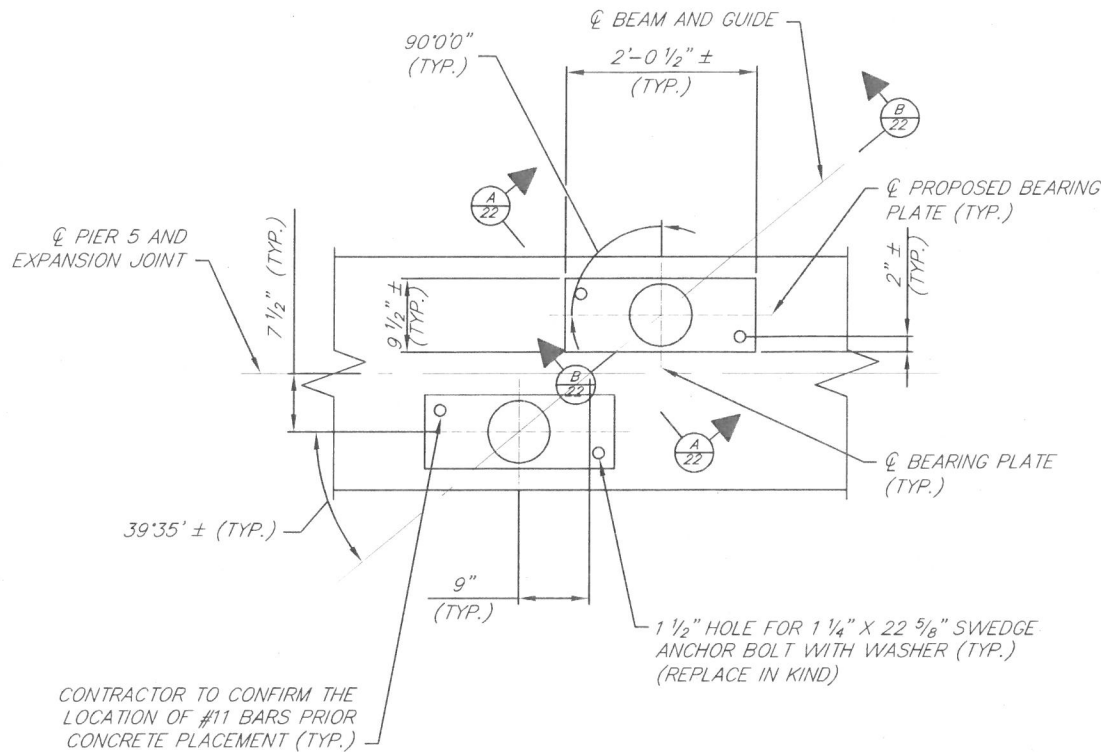
(A) LIMITS OF ITEM SPECIAL - SEALING ELASTOMERIC PROTECTIVE AND DECORATIVE CONCRETE COATING

\*CONTRACTOR MAY CUT BAR TO FIT

NOTES:

LAP LENGTHS ARE AS FOLLOWS:

- #5 : 2'-5"
- #6 : 4'-0"
- #7 : 4'-6"
- #11 : 9'-9"



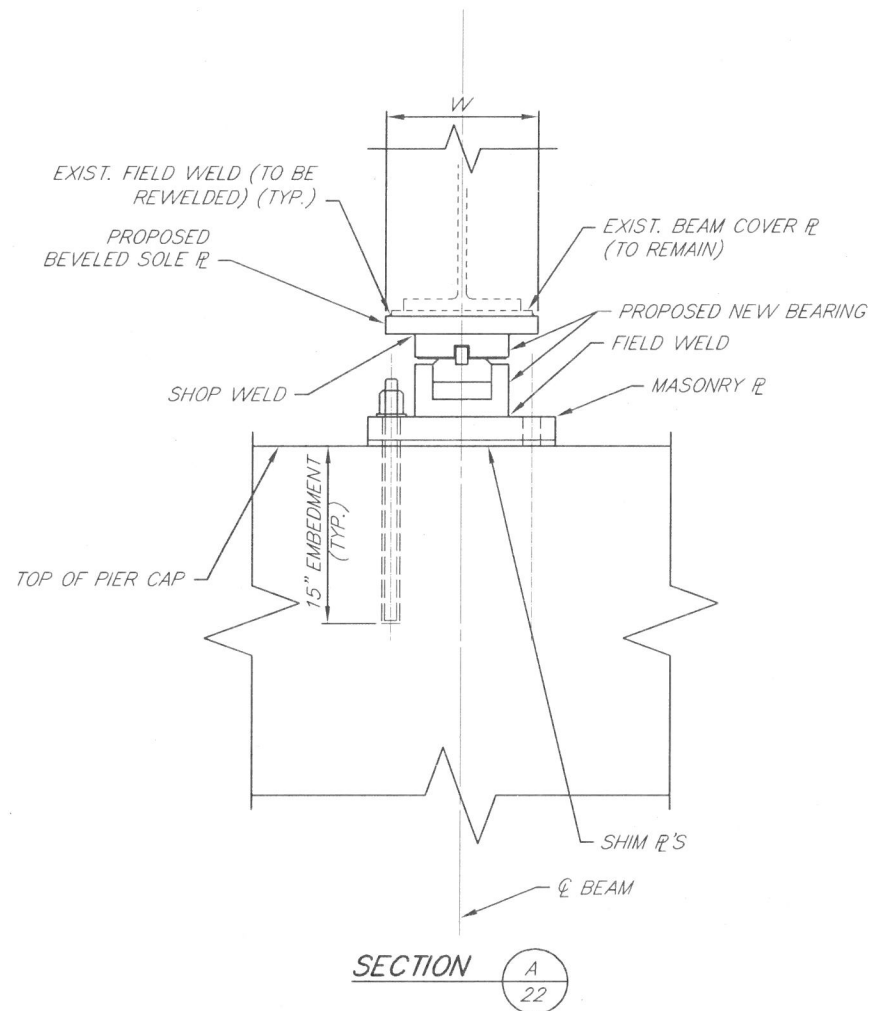
**TYPICAL NEW BEARING  
DETAIL AT PIER 5**

"H" BEARING HEIGHT		
BEAMS	CL BEARING SPAN 5 (INCH)	CL BEARING SPAN 6 (INCH)
A THRU E	10.6 ±	10.6 ±
F THRU K	9.4 ±	9.6 ±

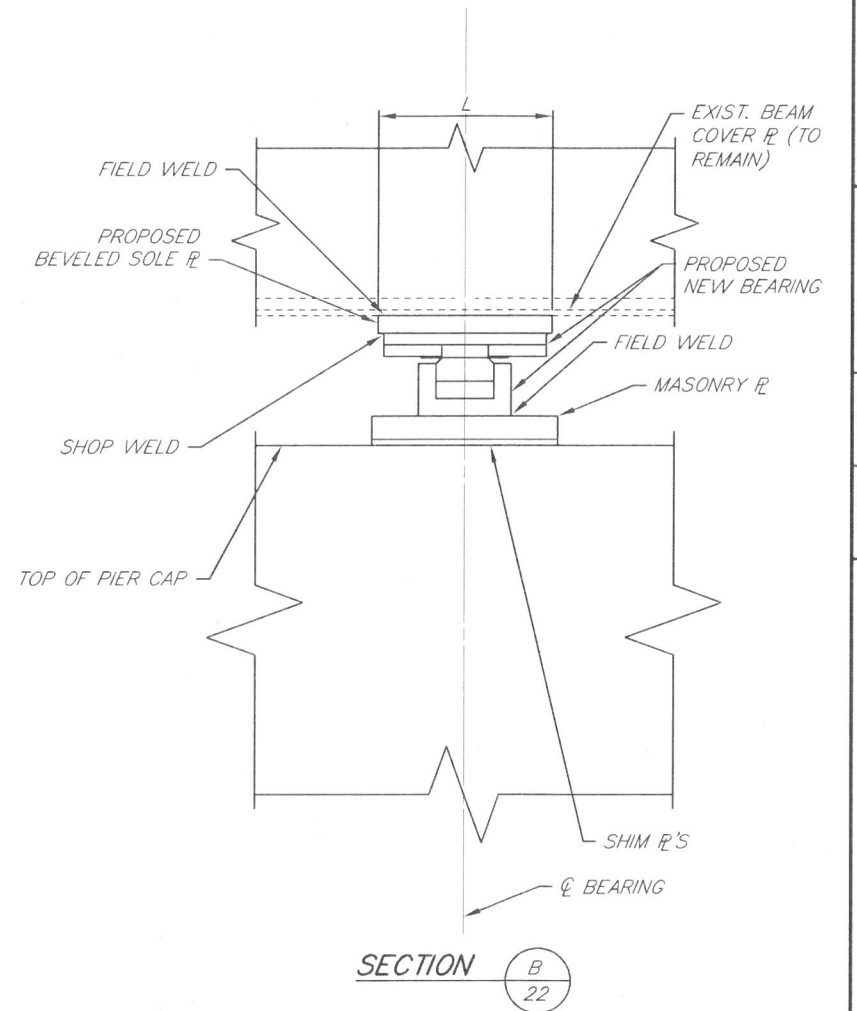
LOCATION	BEARING TYPE	DESIGN DEAD LOAD (KIPS)	DESIGN LIVE LOAD (KIPS)	DESIGN LOAD TOTAL (KIPS)	MASONRY PLATE			SOLE PLATE			MAX. DESIGN ROTATION (RADIAN)	ONE WAY DESIGN MOVEMENT (INCH)	41° F TEMP. MOVEMENT (INCH)	BEARING HEIGHT (SEE NOTE A) (INCH)	MIN. LATERAL CAPACITY (KIPS)
					L LENGTH (INCH)	W WIDTH (INCH)	T THICKNESS (INCH)	L LENGTH (INCH)	W WIDTH (INCH)	T THICKNESS (INCH)					
PIER 5 SPAN-5	GUIDED EXPANSION	44	46	90	9.5 ±	24.5 ±	2.0 ±	15.1 ±	13.2 ±	1.5 ±	0.003	1.8	0.2	"H"	9
PIER 5 SPAN-6	GUIDED EXPANSION	45	46	91	9.5 ±	24.5 ±	2.0 ±	15.1 ±	13.2 ±	1.5 ±	0.003	1.6	0.1	"H"	9

**NOTES:**

1. THE CONTRACTOR MAY SUPPLY EITHER POT OR DISC TYPE BEARINGS ACCORDING TO ODOT SUPPLEMENTAL SPECIFICATION 869 - HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARING.
2. REMOVAL AND REPLACEMENT OF THE EXISTING BEARING DEVICES, MASONRY PLATES, SOLE PLATES, NUTS, WASHERS AND BEARING PADS SHALL BE INCLUDED WITH ITEM 869 - HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARING.
3. ALL BEARINGS SHALL BE UNIDIRECTIONAL AND ONLY ALLOW MOVEMENT IN THE LONGITUDINAL DIRECTION.
4. THE BEARING HEIGHT SPECIFIED IS THE DISTANCE FROM THE BEAM SEAT ELEVATION TO THE BOTTOM OF EXISTING BEAM COVER PLATE (INCLUDES 1/8" ± LEAD SHEET). THE CONTRACTOR IS TO FIELD VERIFY THE BEARING HEIGHTS PRIOR TO ORDERING NEW BEARINGS. IF THE CONTRACTOR'S SELECTED BEARING MANUFACTURER HAS A DESIGN THAT DOES NOT CONFORM TO THE HEIGHTS PROVIDED, ADJUST THE BEARING SEAT ELEVATIONS AT NO ADDITIONAL COST TO THE COUNTY.
5. ADJUST THE LOCATION OF CONCRETE REINFORCEMENT HORIZONTALLY AS NECESSARY TO AVOID INTERFERENCE WITH THE BEARING ANCHOR BOLTS. MAINTAIN THE MINIMUM CONCRETE COVER AND MINIMUM SPACING REQUIRED BY THE PROJECT PLANS. IF THE CONCRETE REINFORCEMENT CANNOT BE MOVED TO PROVIDE THE REQUIRED POSITION FOR THE ANCHOR BOLTS, THE CONTRACTOR'S BEARING MANUFACTURER SHALL RE-DESIGN THE BEARINGS TO ACCOMMODATE AN ACCEPTABLE ANCHOR BOLT CONFIGURATION.
6. INSTALL ANCHOR BOLTS PER ITEM 510. REPLACEMENT OF THE ANCHOR BOLTS, NUTS AND WASHERS SHALL BE INCLUDED WITH ITEM 869 - HIGH LOAD MULTI-ROTATIONAL (HLMR) BEARING.
7. THE DESIGN LOAD AND PLATE PARAMETER TABLE IS CONVERTED FROM THE EXISTING PLANS.



**SECTION A-A**



**SECTION B-B**

## PIERS

SUBTOTAL = 15251 POUNDS



1. ALL STEEL REINFORCEMENT IS TO BE EPOXY COATED.

2. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P701 IS A NO. 7 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.