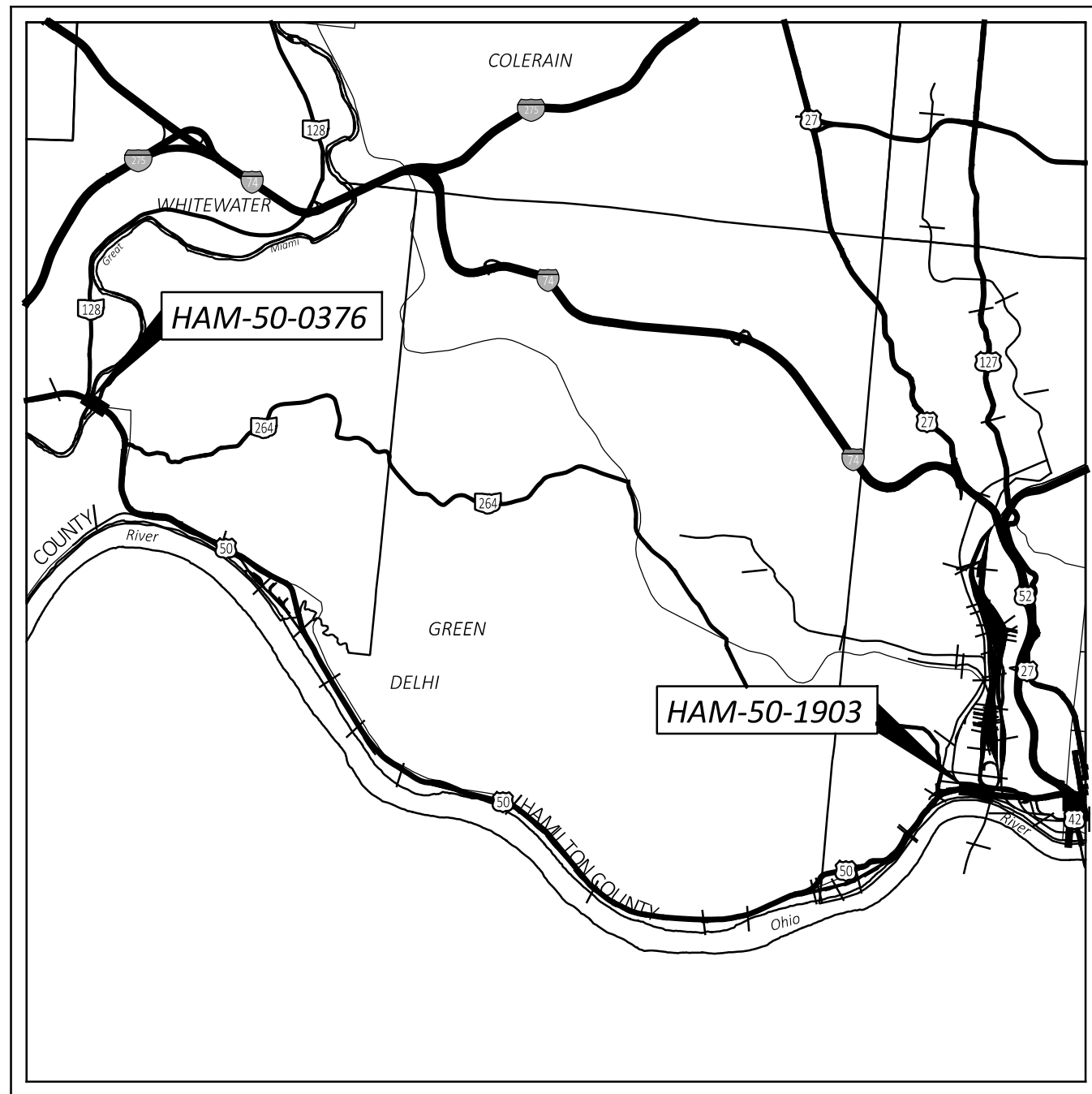
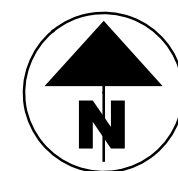


*CITY OF CINCINNATI
VILLAGE OF CLEVES
MIAMI TOWNSHIP
WHITEWATER TOWNSHIP
HAMILTON COUNTY*



LOCATION MAP

LATITUDE: 39°10'11"N LONGITUDE: 84°45'28"W
LATITUDE: 39°06'06"N LONGITUDE: 84°32'40"W



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

DESIGN DESIGNATION

DESIGN DESIGNATION	HAM-50-0376 L/R	HAM-50-1903L
CURRENT ADT (2026)	19,500	44,000
DESIGN YEAR ADT (2038)	20,500	46,500
DESIGN HOURLY VOLUME (2038)	2,600	6000
DIRECTIONAL DISTRIBUTION	52.0%	70.0%
TRUCKS (24 HOUR B&C)	6.0%	7.0%
DESIGN SPEED	50	55
LEGAL SPEED	50	40
DESIGN FUNCTIONAL CLASSIFICATION:		
HAM-50-0376 L/R:	MINOR ARTERIAL (URBAN)	
HAM-50-1903L:	PRINCIPAL ARTERIAL (URBAN)	
NHS PROJECT	YES	

DESIGN EXCEPTIONS

NONE

ADA DESIGN WAIVERS

NONE REQUIRED

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
 OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764 (Non members must be called directly)

PLAN PREPARED BY:
 ODOT DISTRICT 8 ENGINEERING
 505 S. STATE ROUTE 741
 LEBANON, OHIO 45036

INDEX OF SHEETS:

TITLE SHEET	1
GENERAL NOTES	2
MAINTENANCE OF TRAFFIC	3 - 8
GENERAL SUMMARY	9
STRUCTURES GENERAL NOTES	10 - 11
STRUCTURES SUBSUMMARY	12
STRUCTURES OVER 20' SPAN	
HAM-50-0376L	13 - 29
HAM-50-0376R	30 - 35
HAM-50-1903L	36 - 52

[illegible]**FEDERAL PROJECT NUMBER**

E250 (741)

RAILROAD INVOLVEMENT

CENTRAL RAILROAD OF INDIANA (CIND)
CSX TRANSPORTATION

PROJECT DESCRIPTION

FIELD PAINT ALL STRUCTURAL STEEL AND REPAIR DETORIORATED STEEL AT BRIDGE HAM-50-0376L WHICH CARRIES WB US 50 OVER THE GREAT MIAMI RIVER. FIELD PAINT THE BEAM ENDS AT BRIDGE HAM-50-0376R THAT CARRIES EB US 50 OVER THE GREAT MIAMI RIVER. FIELD PAINT ALL STRUCTURAL STEEL AT BRIDGE HAM-50-1903L THAT CARRIES WB US 50 OVER THE MILL CREEK AND A RAILROAD. OTHER MINOR REHAB WORK IS ALSO TO BE INCLUDED.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	0.0 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.25 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A (NOI NOT REQUIRED)

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2023 SPECIFICATIONS

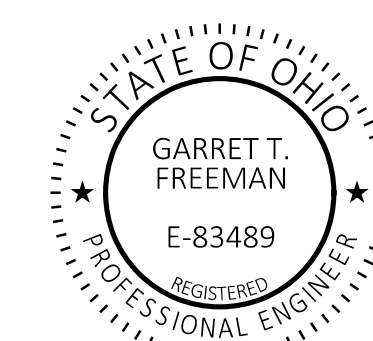
THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF
TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN
THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL
SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN
THIS IMPROVEMENT.

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.


Douglas A. Gruver, P.E.
District 08 Deputy Director


Pamela Boratyn
Director, Department of Transportation

ENGINEER'S SEAL



TITLE SHEET

DESIGN AGENCY



DESIGNER

GTF

REVIEWER

DO 07/14/2

PROJECT ID

114515

HEET	TOTAL
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
55	55
56	56
57	57
58	58
59	59
60	60
61	61
62	62
63	63
64	64
65	65
66	66
67	67
68	68
69	69
70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

UTILITIES

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

HAM-50-0376 L/R

CHEVRON, USA
4800 FOURNACE PLACE
BELLAIRE, TX 77401
(877) 596-2800

VILLAGE OF CLEVES WATERWORKS
92 E. CLEVES AVENUE
CLEVES, OH 45002
(513) 941-3409

DUKE ENERGY
139 E. FOURTH ST., RM 467A
CINCINNATI, OHIO 45202
(513) 287-2366

ALTA FIBER
209 W. 7TH STREET FL 1
CINCINNATI, OHIO 45202
(513) 565-2111

SPRINT
11370 ENTERPRISE PARK DR.
SHARONVILLE, OH 45241
(440) 447-6163

HAM-50-1903L

SHANE ERHART
DUKE ENERGY CORP. (ELECTRIC)
139 EAST 4TH ST, ROOM 467A
CINCINNATI, OH 45202
PHONE: 513-508-9609

ANDY MCNICHOLS
DUKE ENERGY CORP. (GAS)
139 EAST 4TH ST, ROOM 460A
CINCINNATI, OH 45202
PHONE: 513-384-4731

BRECK COWAN
ALTA FIBER
221 EAST 4TH STREET, BLDG 121-900
CINCINNATI, OHIO 45201
PHONE: 513-565-7187

JOHN LONGSWORTH
CHARTER COMMUNICATIONS
11252 CORNELL PARK DR
CINCINNATI, OH 45242
PHONE: 513-386-5235

DAN LOUIS
CINCINNATI WATER WORKS
4747 SPRING GROVE AVE
CINCINNATI, OH 45232
PHONE: 513-352-3723

ROB FRANKLIN
METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI
1600 GEST STREET
CINCINNATI, OH 45204
PHONE: 513-557-7188

ANDY CARTER
CITY OF CINCINNATI TRANSPORTATION AND ENGINEERING
801 PLUM STREET, ROOM 450
CITY HALL
CINCINNATI, OHIO 45202
PHONE: 513-378-6190

PAUL BECKER
COGNET
PHONE: 815-557-8416

CYNTHIA MARTINEZ
MCI NETWORK SERVICES, INC./ VERIZON - FIBER OPTIC
5400 DUFF DRIVE
CINCINNATI, OH 45246
757-799-8038

BRUCE MILLER
LUMEN TECHNOLOGIES
9490 MERIDIAN WAY
WEST CHESTER, OH 45069
513-644-8943

GREATER CINCINNATI WATERWORKS (GCWW) WATERLINE PROTECTION

GREATER CINCINNATI WATER WORKS (GCWW) HAS A WATER MAIN ATTACHED TO BRIDGE No.: HAM-50-1903L, EXTENDING FROM SPAN 3N TO SPAN 7N IN BAY 3. THIS FACILITY IS NOT TO BE DISTURBED DURING SURFACE PREPARATION AND PAINTING OF THE ADJACENT EXISTING STRUCTURAL STEEL. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT PAINT, OVERSPRAY, OR ANY RELATED MATERIALS FROM COMING INTO CONTACT WITH THE GCWW WATER MAIN. THE METHOD OF PROTECTION SHALL BE DETERMINED BY THE CONTRACTOR BUT MUST BE EFFECTIVE IN FULLY SHIELDING THE WATERLINE FROM OVERSPRAY, DEBRIS, AND ANY OTHER POTENTIAL IMPACTS. ALL PROTECTION MEASURES SHALL BE IN PLACE PRIOR TO THE START OF ANY SURFACE PREPARATION OR PAINTING OPERATIONS IN THE VICINITY OF THE WATERLINE. FOR COORDINATION AND INSPECTION, THE CONTRACTOR SHALL CONTACT DAN LOUIS AT GCWW AT (513) 352-3723 PRIOR TO BEGINNING WORK NEAR THE WATER MAIN.

THE COST FOR MATERIAL AND LABOR TO PROVIDE PROTECTION OF UTILITIES AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE COST OF ITEM 514, SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL.

ITS CONTACT INFORMATION

THERE ARE EXISTING ITS ASSETS NEAR THE PROJECT LIMITS. THERE ARE NO ANTICIPATED IMPACTS TO THESE FACILITIES. PRIOR TO PERFORMING ANY WORK AT THESE LOCATIONS CONTACT CENTRAL OFFICE ITS.

ODOT ITS LAB
1606 WEST BROAD STREET
COLUMBUS, OHIO 43223
614-387-4113
CEN.ITS.LAB@DOT.OHIO.GOV

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

SOLE SOURCE AQUIFER

PROJECT LOCATION HAM-US-50 3.759 L / R IS LOCATED WITHIN THE GREATER MIAMI SOLE SOURCE AQUIFER. USE PROPER CONTAINMENT AND DIKING IN REFUELING AREAS. DO NOT STORE FUELS, TOXIC/HAZARDOUS MATERIALS, AND CHEMICALS NEAR DRAINAGE WAYS, DITCHES, OR STREAMS. MAINTAIN A SPILL KIT ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. IMMEDIATELY MITIGATE ANY EVENT, SUCH AS A SPILL OF FUELS, OILS, OR CHEMICALS, THAT COULD THREATEN TO CONTAMINATE THE DRINKING WATER SUPPLY. REPORT ALL SPILLS OR EVENTS TO THE GREATER CINCINNATI WATER WORKS (513) 591-7700. IF THE SPILL IS A REPORTABLE AMOUNT (PER OHIO EPA'S RELEASE REPORTING REQUIREMENTS), CONTACT VILLAGE OF CLEVES FIRE DEPARTMENT (513) 941-3618 OR THE OHIO EPA'S SPILLS HOTLINE 1-800-282-9378 FOR CLEAN-UP OF THE SPILL

DEMOLITION DEBRIS

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING WATERWAYS OR FALLING ONTO TRAFFIC LANES. ANY MATERIAL THAT DOES FALL INTO A WATERWAY OR ONTO TRAFFIC LANES SHALL BE IMMEDIATELY REMOVED AT THE CONTRACTOR'S EXPENSE. DAMAGE TO PROPERTY AS A RESULT OF FALLING DEMOLITION DEBRIS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. WHILE SEALING ANY PORTION OF THE BRIDGE STRUCTURES, AN APPROPRIATE APRON WILL BE UTILIZED TO PREVENT DEBRIS, OVER SPRAY, AND SEALANTS FROM ENTERING INTO THE WATERWAYS OR AFFECTING VEHICULAR/PEDESTRIAN TRAFFIC AND/OR PROTECTED AREAS.

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.

CITY OF CINCINNATI NOTES

CONSTRUCTION NOTIFICATION:
TEN BUSINESS DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING THE PROJECT ENGINEER WILL NOTIFY THE CITY OF CINCINNATI LPA COORDINATOR OF THE PRECONSTRUCTION MEETING'S DATE, TIME, AND LOCATION. CONTACT CITY OF CINCINNATI, DEPARTMENT OF TRANSPORTATION AND ENGINEERING, DIRECTOR'S OFFICE, AT (513) 352-2366, ATTENTION: CHRIS KELLY AT (513) 352-3721 OR BY EMAIL AT CHRIS.KELLY@CINCINNATI-OH.GOV.

PERMITS:
A CITY OF CINCINNATI DEPARTMENT OF TRANSPORTATION AND ENGINEERING (DOTE) PERMIT IS REQUIRED PRIOR TO THE ODOT CONTRACTOR COMMENCING WORK IN THE CITY OF CINCINNATI'S PUBLIC RIGHT-OF-WAY. PERMIT APPLICATIONS FOR STREET USE, STREET BARRICADE, STREET OPENING, ETC. MAY BE MADE AT ROOM 425, CITY HALL, 801 PLUM STREET CINCINNATI, OHIO 45202.
CITY ISSUED PERMITS MAY REQUIRE MAJOR EVENT WORK RESTRICTIONS ON THE CONTRACTOR'S ACTIVITIES. THE CITY MAINTAINS A LIST OF KNOWN MAJOR EVENTS AT THE FOLLOWING WEBSITE:

[HTTP://CINCINNATI-OH.GOV/POLICE/SPECIAL-EVENTS-REGULATIONS-AUCTIONS/EVENTPERMITS/.](http://cincinnati-oh.gov/police/special-events-regulations-auctions/eventpermits/)

THE CITY OF CINCINNATI RESTRICTS NIGHTTIME CONSTRUCTION WORK BETWEEN THE HOURS OF 11:00 P.M. AND 7:00 A.M. CITY ISSUED PERMITS WILL REQUIRE THE CONTRACTOR TO SECURE THE CITY ENGINEERS APPROVAL FOR NIGHTTIME WORK.

RAILROAD SECTION

TEMPORARY CONSTRUCTION CLEARANCE - ENSURE ALL FALSEWORK, BRACING OR FORMS HAVE A MINIMUM HORIZONTAL CLEARANCE OF 12 FEET MEASURED PERPENDICULAR TO THE CENTERLINE OF THE NEAREST TRACK AND 23 FEET MEASURED VERTICALLY FROM THE TOP OF RAIL.

ALL WASTE MATERIALS GENERATED BY THIS PROJECT, INCLUDING BUT NOT LIMITED TO WASHING WITH CLEANING SOLVENTS, BLASTING, SCRAPING, BRUSHING AND PAINTING OPERATIONS, SHALL BE THE RESPONSIBILITY OF THE PROJECT SPONSOR OR ITS CONTRACTOR AND SHALL BE CONTAINED, COLLECTED AND PROPERLY DISPOSED OF BY THE PROJECT SPONSOR OR ITS CONTRACTOR. THE PROJECT SPONSOR AND ITS CONTRACTOR AGREE TO FULLY COMPLY WITH ALL FEDERAL, STATE, AND LOCAL ENVIRONMENTAL LAWS, REGULATIONS, STATUTES AND ORDINANCES AT ALL TIMES.

IF CONTRACTOR HAS THE POTENTIAL TO PENETRATE THE DECK DURING THE DECK REHABILITATION WORK, THEN CONTRACTOR WILL BE REQUIRED TO INSTALL FALSEWORK/DEMO SHIELD PROTECTION DIRECTLY OVER THE CSXT RAILROAD SPAN. THE FALSEWORK/DEMO SHIELD PROTECTION WILL BE INSTALLED PRIOR TO THE DECK BEING PENETRATED AND WILL STAY IN PLACE FOR THE DURATION OF THE CONSTRUCTION ACTIVITIES. THE FALSEWORK/DEMO SHIELD SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE TO CSX'S CONSTRUCTION SUBMISSION CRITERIA. IN ADDITION, FILTER FABRIC PROTECTION WILL BE REQUIRED TO PROTECT THE TRACK AND BALLAST DIRECTLY UNDER THE FALSEWORK/DEMO SHIELD PROTECTION.

EMERGENCY ACTION PLAN —SUBMIT AN EMERGENCY ACTION PLAN INDICATING THE LOCATION OF THE SITE, CONTACT NUMBERS, ACCESS TO THE SITE, INSTRUCTIONS FOR EMERGENCY RESPONSE AND LOCATION OF THE NEAREST HOSPITALS. THIS PLAN SHOULD COVER ALL ITEMS REQUIRED IN THE EVENT OF AN EMERGENCY AT THE SITE INCLUDING FIRE SUPPRESSION. COORDINATE THE EMERGENCY ACTION PLAN WITH THE SAFETY RELATED DISCUSSION OF THE MEANS AND METHODS SUBMISSION DISCUSSED ABOVE. THE PLAN SHOULD ALSO INCLUDE A METHOD TO PROVIDE THIS INFORMATION TO EACH PROJECT WORKER FOR EACH DAY ON SITE.

RAILROAD SECTION (CONTINUED)

BALLAST PROTECTION - CONTRACTOR SHALL INSTALL A NON-WOVEN GEOTEXTILE FABRIC BALLAST PROTECTION SYSTEM TO PREVENT CONSTRUCTION/DEMOLITION DEBRIS AND FINES FROM FOULING THE BALLAST. THE GEOTEXTILE BALLAST PROTECTION SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR TO THE SATISFACTION OF CSX'S CONSTRUCTION REPRESENTATIVE. FABRIC SHOULD EXTEND AT LEAST 15' PAST THE CONSTRUCTION LIMITS IN BOTH DIRECTIONS OF THE TRACK AND COVER ALL RAILROAD BALLAST STONE (FROM FENCE TO FENCE, INCLUDING THE AREAS BETWEEN THE TRACK).

RAILROAD PROJECT COORDINATION

THE CONTRACTOR SHALL PERFORM ONGOING COORDINATION OF THEIR DESIGN AND CONSTRUCTION ACTIVITIES WITH THE RAILROAD(S) THROUGHOUT THE PROJECT. THE CONTRACTOR SHALL PROVIDE A CURRENT SCHEDULE ON A MONTHLY BASIS INCLUDING ANTICIPATED DATES OF THE FOLLOWING ITEMS:

- CONSTRUCTION SUBMITTALS REQUIRING RAIL REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION (PER THE RAIL AGREEMENT(S)).
- CONSTRUCTION START AND END DATES FOR WORK THAT MAY CREATE AN IMPACT TO THE RAILFACILITY/ OPERATIONS.
- ANTICIPATED DATES AND DURATION FOR FLAGGERS.
- ANY OTHER MILESTONES THAT MAY IMPACT RAIL FACILITIES OR OPERATIONS.

MEANS AND METHODS

THE CONTRACTOR SHALL DEVELOP A DETAILED SUBMISSION INDICATING THE PROGRESSION OF WORK WITH SPECIFIC TIMES WHEN TASKS WILL BE PERFORMED FOR WORK ACTIVITIES THAT ARE ON OR IN THE VICINITY OF THE RAILROAD PROPERTY. THIS SUBMISSION MAY REQUIRE A WALKTHROUGH AT WHICH TIME THE RAILROAD AND/OR THEIR REPRESENTATIVE WILL BE PRESENT. WORK WILL NOT BE PERMITTED TO COMMENCE UNTIL THE CONTRACTOR HAS PROVIDED THE RAILROADS WITH A SATISFACTORY PLAN THAT THE PROJECT WILL BE UNDERTAKEN WITHOUT SCHEDULING, PERFORMANCE, OR SAFETY RELATED ISSUES. PROVIDE A LISTING OF THE ANTICIPATED EQUIPMENT TO BE USED, THE LOCATION OF ALL EQUIPMENT TO BE USED AND ENSURE A CONTINGENCY PLAN OF ACTION IS IN PLACE SHOULD A PRIMARY PIECE OF EQUIPMENT MALFUNCTIONS. ALL WORK IN THE VICINITY OF THE RAILROAD PROPERTY THAT HAS THE POTENTIAL OF AFFECTING TRAIN OPERATIONS MUST BE SUBMITTED AND APPROVED BY THE RAILROAD PRIOR TO WORK BEING PERFORMED. THIS SUBMISSION WILL ALSO INCLUDE A DETAILED NARRATIVE DISCUSSING THE COORDINATION OF PROJECT SAFETY ISSUES BETWEEN THE CONTRACTOR AND THE RAILROAD AND/OR THEIR REPRESENTATIVE. THE NARRATIVE SHALL ADDRESS PROJECT LEVEL COORDINATION AND DAY TO DAY, SPECIFIC WORK OPERATIONS INCLUDING CRANE AND EQUIPMENT OPERATIONS, ERECTIONS PLANS AND TEMPORARY WORKS.

UP TO THIRTY (30) CALENDAR DAYS WILL BE REQUIRED TO REVIEW ALL CONSTRUCTION SUBMISSIONS. UP TO AN ADDITIONAL THIRTY (30) CALENDAR DAYS WILL BE REQUIRED TO REVIEW ANY SUBSEQUENT SUBMISSIONS RETURNED NOT APPROVED.

CONSTRUCTION SCHEDULE

SUBMIT A DETAILED CONSTRUCTION SCHEDULE FOR THE DURATION OF THE PROJECT CLEARLY INDICATING THE TIME PERIODS WHILE WORKING ON AND AROUND THE RAILROADS RIGHT-OF-WAY. AS THE WORK PROGRESSES, THIS SCHEDULE SHALL BE UPDATED MONTHLY AND RESUBMITTED AS NECESSARY TO REFLECT CHANGES IN WORK SEQUENCE, DURATION AND METHOD, ETC.

DESIGN AGENCY



DESIGNER

GTF

REVIEWER

JDO 07/14/25

PROJECT ID

114515

SHEET

2

TOTAL

52

ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT AND THE COMPLETED PAVEMENT.

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

NEW YEAR'S (OBSERVED)	ELECTION DAY (NOV)
MEMORIAL DAY	THANKSGIVING
FOURTH OF JULY (OBSERVED)	CHRISTMAS (OBSERVED)
LABOR DAY	

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

DAY OF HOLIDAY	TIME ALL LANES
OR SPECIAL EVENT	MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY	(GEN./REG. ELECTION)
	5:00 AM TUESDAY THROUGH 12:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY	(THANKSGIVING ONLY)
	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE C&MS TABLE 108.07-1

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

TRAFFIC SHALL BE MAINTAINED AT ALL INTERSECTIONS AND DRIVES AT ALL TIMES AND SHALL BE CONTROLLED WITH FLAGGERS AND TRAFFIC CONTRAOL DEVICES AS REQUIRED AND SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 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.

VERTICAL CLEARANCE

ANY WORK (FALSEWORK, TRAFFIC PROTECTION, CONTAINMENT, ETC.) OVER LIVE TRAFFIC BY THE CONTRACTOR THAT REDUCES THE EXISTING VERTICAL CLEARANCE IS PROHIBITED UNLESS 30 DAYS ADVANCED NOTICE IS PROVIDED WITH NEW PROPOSED VERTICAL CLEARANCES. THE CONTRACTOR SHALL PROVIDE FIELD MEASUREMENTS BEFORE ALLOWING TRAFFIC UNDERNEATH. IF ANY WORK IS TO OCCUR BELOW 14'-6", THEN SIGNS ON THE STRUCTURE AND ADVANCE WARNING SIGNS SHALL BE INSTALLED A MINIMUM OF 2 WEEKS PRIOR TO PERFORMING SUCH WORK. SIGNING SHALL BE IN ACCORDANCE WITH THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (OMUTCD) AND THE OHIO "TRAFFIC ENGINEERING MANUAL" (TEM). NO WORK OVER TRAFFIC SHALL OCCUR WITH A VERTICAL CLEARANCE LESS THAN 14'-0". LOWERING THE VERTICAL CLEARANCE DURING CONSTRUCTION IS CONSIDERED THE CONTRACTOR'S MEANS AND METHODS OF ACCOMPLISHING THE WORK, AND THEREFORE THE STATE IS NOT RESPONSIBLE FOR ANY DAMAGE FROM VEHICULAR IMPACTS THAT MAY RESULT AS PER 107.10."

SEQUENCE OF CONSTRUCTION - HAM-50-0376L

PHASE 1

- * CLOSE THE RIGHT LANE OF WESTBOUND US 50 BETWEEN COOPER AVENUE AND SR 128.
- * MAINTAIN THRU TRAFFIC IN THE LEFT LANE OF WESTBOUND US 50 AND BOTH LANES OF EASTBOUND US 50.
- * PERFORM STRUCTURAL REPAIRS IN THE RIGHT LANE OF WESTBOUND US 50.

PHASE 2

- * CLOSE THE LEFT LANE OF WESTBOUND US 50 BETWEEN COOPER AVENUE AND SR 128 AND CLOSE THE LEFT LANE OF EASTBOUND US 50 BETWEEN 1000" WEST OF SR 128 AND 100" EAST OF THE NORTHWEST END POST OF THE HAM-50-0376R BRIDGE.
- * MAINTAIN THRU TRAFFIC IN THE RIGHT LANE OF WESTBOUND US 50 AND EASTBOUND US 50.
- * PERFORM STRUCTURAL REPAIRS IN THE LEFT LANE OF WESTBOUND US 50.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE LISTED CONTACTS. THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS. INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO LISTED CONTACTS
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE. CONTACT THE FOLLOWING:
-DISTRICT PUBLIC INFORMATION OFFICER BY EMAIL AT DOT.D08.PIO@DOT.OHIO.GOV
-DISTRICT PERMIT SECTION BY EMAIL AT D08.PERMITS@DOT.OHIO.GOV
-CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY EMAIL AT HAULING.PERMITS@DOT.OHIO.GOV

HAM-50-1903L PEDESTRAIN & BICYCLE TRAFFIC

PEDESTRIAN AND BIKE TRAFFIC ON THE OHIO RIVER TRAIL, THE MULTI-USE PATH UNDER THE BRIDGE, SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR MUST IMPLEMENT SAFETY MEASURES TO PROTECT USERS AND PREVENT FALLING DEBRIS DURING CONSTRUCTION.

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW SHALL NOT BE PERMITTED AT PROJECT COST NOR TIME COMPENSATION. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 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 REQUIREMENT OF C&MS 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 AS APPROVED BY THE ENGINEER:

- FOR LANE CLOSURES THAT MEET ALL OF THE CRITERIA LISTED BELOW: 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).
 - o CRITERIA
 - ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND,
 - AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND,
 - AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS AND/OR IN CONTRARY TO OTHER TRAFFIC CONTROL DEVICES IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORISTâ??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 LEOSâ?? DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS (CONTINUED)

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.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. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEOWITH A TWO-WAY COMMUNICATION DEVICE THAT 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. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 200 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.

PERMITTED LANE CLOSURE SCHEDULE (PLCS)

LANE CLOSURE(S) SHALL CONFORM TO THE PLCS. PUBLISHED PLCS INFORMATION CAN BE FOUND ON THE ODOT WEBSITE AT: [HTTPS://WWW.TRANSPORTATION.OHIO.GOV/WPS/PORTAL/GOV/ODOT/WORKING/DATA-TOOLS/RESOURCES/PERMITTED-LANE-CLOSURE](https://www.transportation.ohio.gov/wps/portal/gov/odot/working/data-tools/resources/permited-lane-closure)

THE MONTHLY PUBLISHED SCHEDULES REQUIRED TO BE USED, FOR EACH PLCS SEGMENT WITHIN THE PROJECT AREA, ARE THOSE THAT COMPRISE THE CONSECUTIVE 12-MONTH PERIOD BEGINNING 15 MONTHS PRIOR TO THE MONTH AND YEAR OF SALE AND ENDING 4 MONTHS PRIOR TO THE MONTH AND YEAR OF SALE. THESE SAME 12 MONTHS APPLY FOR THE LIFE OF THE PROJECT AND SHALL BE APPLIED TO EACH RESPECTIVE MONTH OF CONSTRUCTION (MONTH OF LANE CLOSURE(S) SHALL MATCH MONTH OF PLCS USED). LANE CLOSURE(S) IN PLACE FOR MULTIPLE MONTHS SHALL ALWAYS COMPLY WITH THE CURRENT RESPECTIVE MONTH.

(FOR EXAMPLE: IF THE SALE DATE FOR THE PROJECT WAS MARCH OF 2021, THE MONTHLY PUBLISHED SCHEDULES FOR EACH APPLICABLE PLCS SEGMENT WOULD BE DECEMBER 2019 TO NOVEMBER 2020.

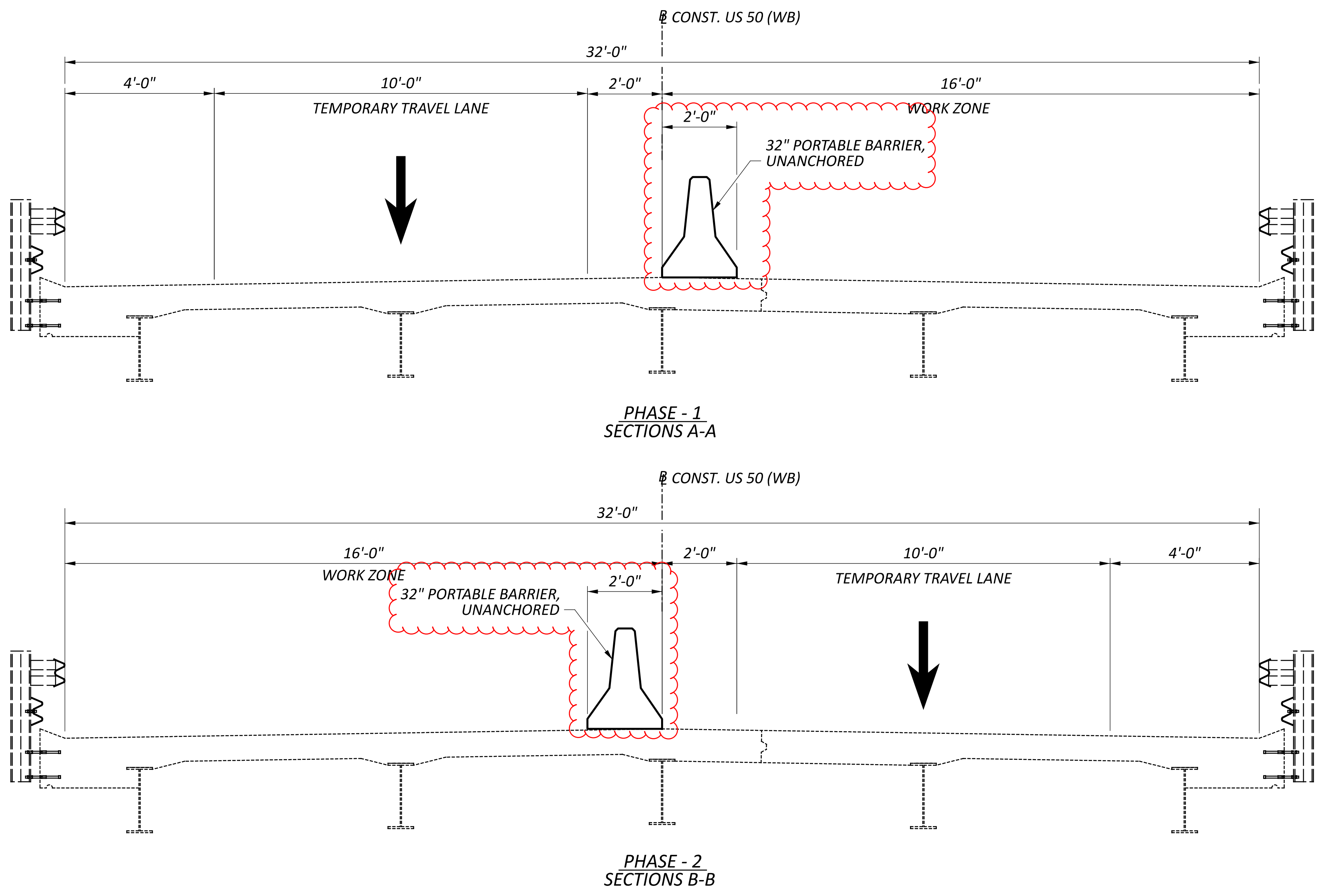
MORE RESTRICTIVE CHANGES TO THE ALLOWABLE LANE CLOSURE HOURS ARE AT THE DISCRETION OF THE ENGINEER IN ORDER TO COMPLY WITH THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

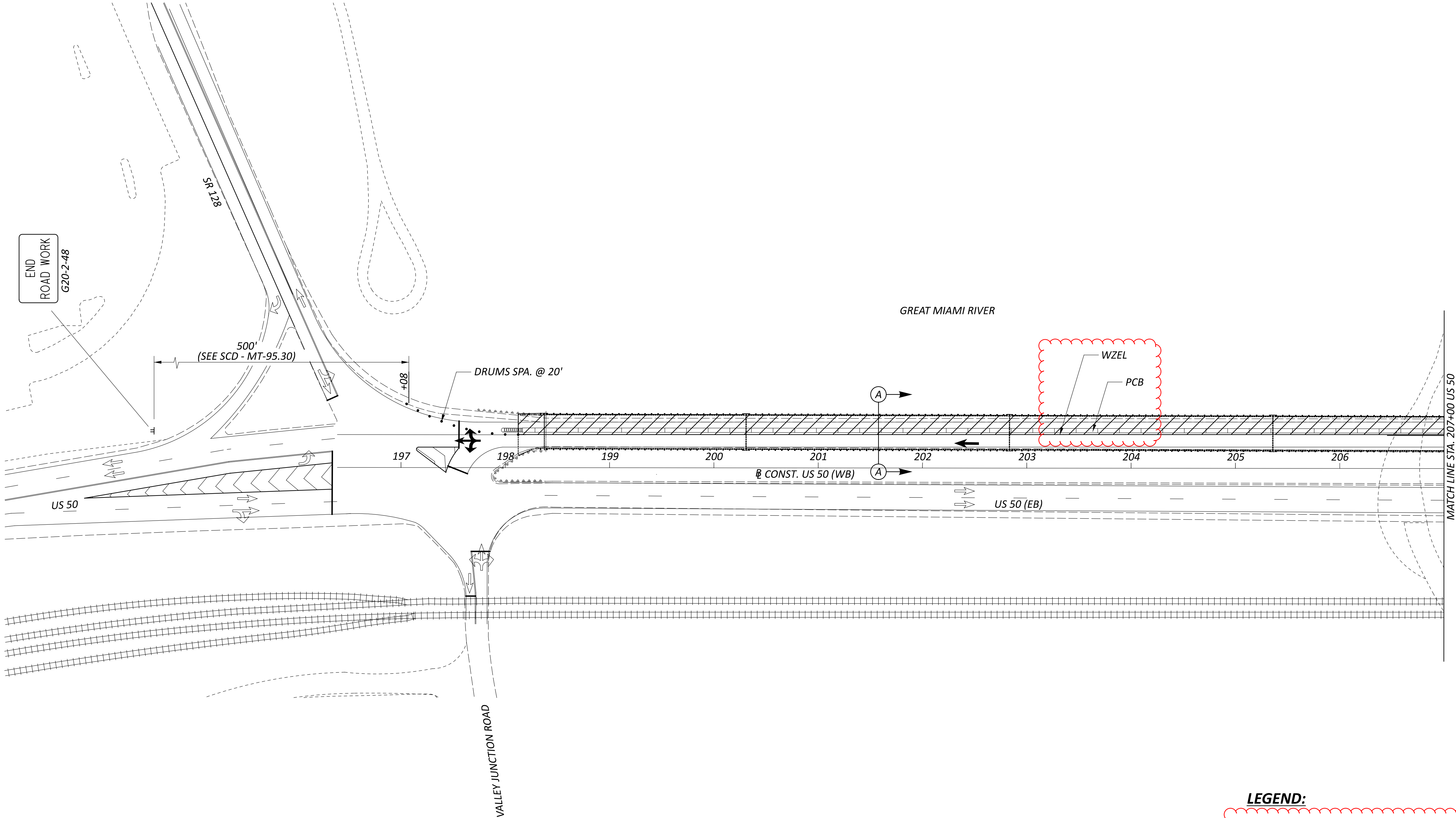
LESS RESTRICTIVE CHANGES TO THE ALLOWABLE LANE CLOSURE HOURS ARE SUBJECT TO THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)) AND SHALL NOT BE IMPLEMENTED UNTIL, AND UNLESS, APPROVED BY THE PROPER ODOT AUTHORITY.

ALLOWABLE LANE CLOSURE HOURS FOR FACILITIES NOT COVERED BY THE PLCS, IF ANY, SHALL BE AS SPECIFIED ELSEWHERE IN THE PLANS.

DESIGN AGENCY	
	
DESIGNER	GTF
REVIEWER	SRK 07/14/25
PROJECT ID	114515
SHEET	TOTAL
3	52

MAINTENANCE OF TRAFFIC SUBSUMMARY													
PHASE NO.	SHEET NO.	STATION		SIDE	LENGTH (FEET)	614							622
						WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS (BI-DIR.)	BARRIER REFLECTOR, TYPE 1 (ONE-WAY)	BARRIER REFLECTOR, TYPE 5 (ONE-WAY)	OBJECT MARKER, ONE-WAY	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE 1 (WHITE)	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE 1 (YELLOW)		PORTABLE BARRIER, UNANCHORED
		FROM	TO			EACH	EACH	EACH	EACH	MILE	MILE		FT
1	5	197+50	207+00	LT	950	1	19	19	19	0.18			900
1	6	207+00	210+50	LT	350	1	7	7	7	0.07			260
1	6	211+00	216+00	LT	500			11					
2	7	197+50	207+00	LT	950	1	19	19	19		0.18		900
2	8	207+00	210+50	LT	350	1	7	7	7		0.07		260
TOTALS CARRIED TO GENERAL SUMMARY						4	52	63	52	0.50			2,320





NOTE:

1. PLACE ALL ADVANCE WARNING AND TRAILING MAINTENANCE OF TRAFFIC SIGNS PER STANDARD CONSTRUCTION DRAWING MT-95.30.

LEGEND:

	IMPACT ATTENUATOR
	TYPE 3 BARRICADE WITH FLASHING LIGHTS
	PORTABLE CONCRETE BARRIER
	WORK ZONE
	DRUMS
	DIRECTION OF TRAFFIC
	EXISTING DIRECTION OF TRAFFIC
	FOR TYPICAL SECTION, SEE SHEET 4

MAINTENANCE OF TRAFFIC PLAN - 1
HAM-50-0376L PHASE 1

DESIGN AGENCY



DESIGNER

GTF

REVIEWER

SRK 07/14/25

PROJECT ID

114515

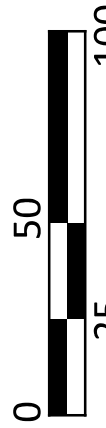
SHEET

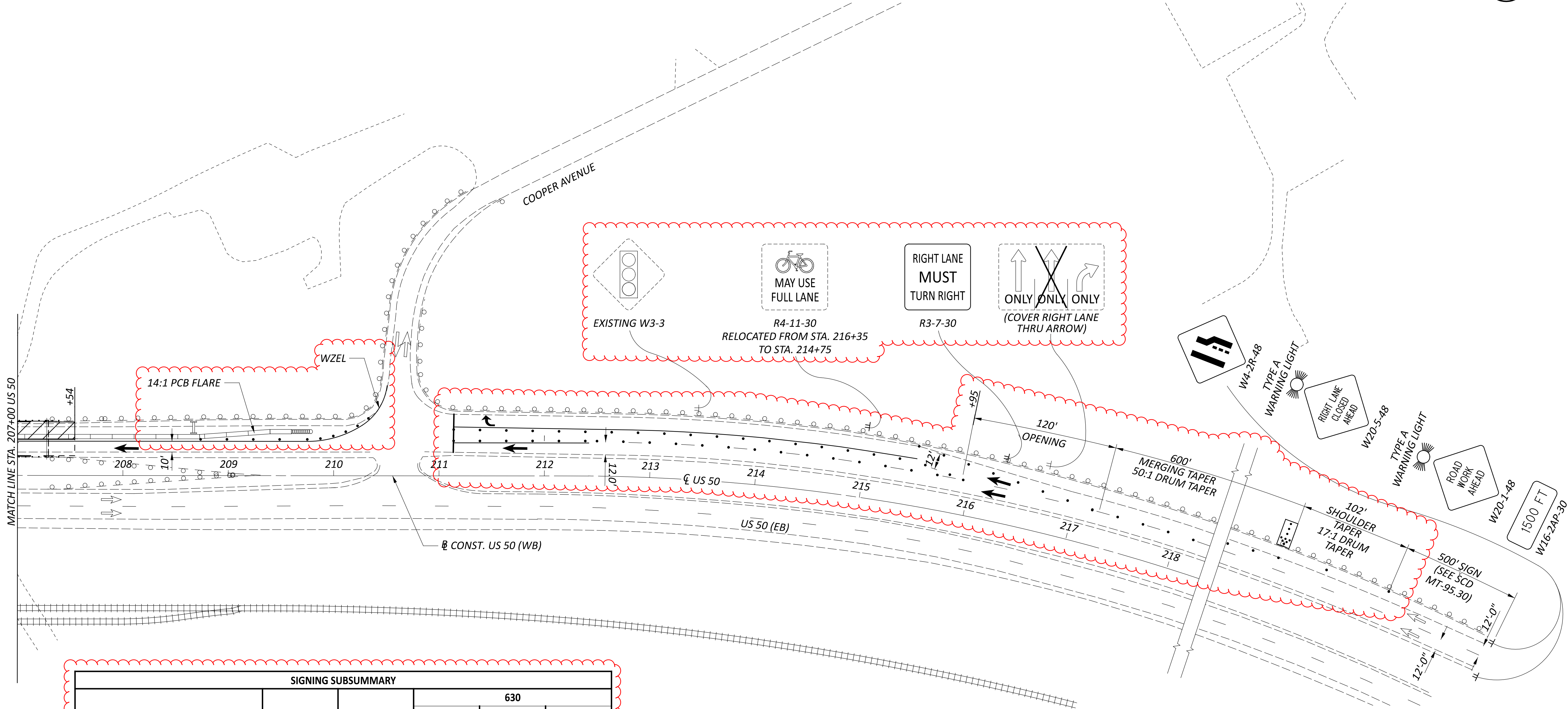
5

TOTAL

52

HORIZONTAL
SCALE IN FEET





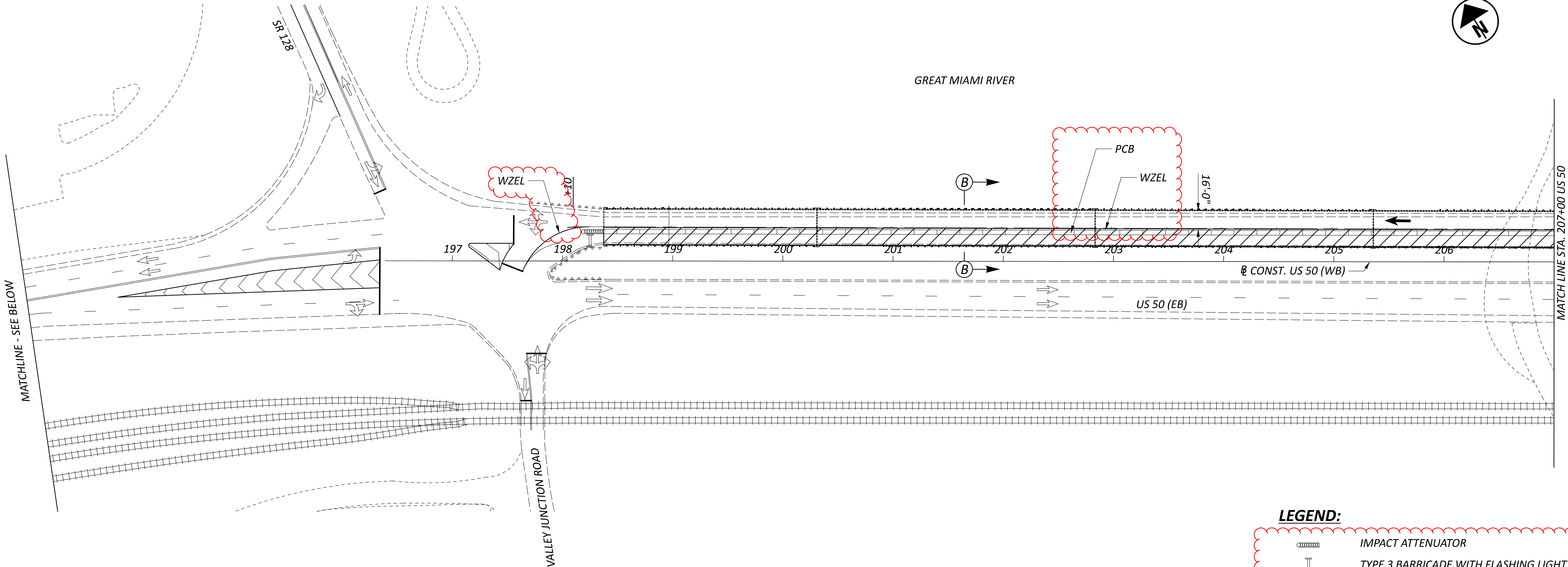
SIGNING SUBSUMMARY						
STATION		SIDE	CODE	REMOVAL OF GROUND MOUNTED SIGN AND REECTION	630	GROUND MOUNTED SUPPORT, NO. 3 POST
				EACH		FT
214+75	216+35	LT	R4-11-30	1		15
TOTALS CARRIED TO GENERAL SUMMARY				1		15

NOTES:

1. PLACE ALL ADVANCE WARNING AND TRAILING MAINTENANCE OF TRAFFIC SIGNS PER STANDARD CONSTRUCTION DRAWING MT-95.30.

LEGEND:

- IMPACT ATTENUATOR
- TYPE 3 BARRICADE WITH FLASHING LIGHTS
- PORTABLE CONCRETE BARRIER
- WORK ZONE
- DRUMS
- DIRECTION OF TRAFFIC
- EXISTING DIRECTION OF TRAFFIC

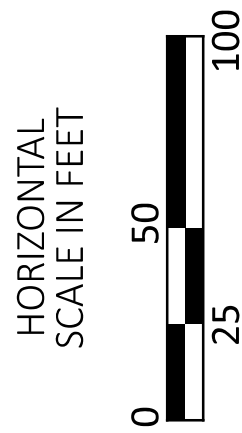


LEGEND:

- IMPACT ATTENUATOR
- TYPE 3 BARRICADE WITH FLASHING LIGHTS
- PORTABLE CONCRETE BARRIER
- WORK ZONE
- DRUMS
- DIRECTION OF TRAFFIC
- EXISTING DIRECTION OF TRAFFIC

NOTE:

1. PLACE ALL ADVANCE WARNING AND TRAILING MAINTENANCE OF TRAFFIC SIGNS PER STANDARD CONSTRUCTION DRAWING MT-95.32.



MAINTENANCE OF TRAFFIC PLAN - 1
HAM-50-0376L PHASE 2

DESIGN AGENCY



DESIGNER

GTF

REVIEWER

SRK 07/14/25

PROJECT ID

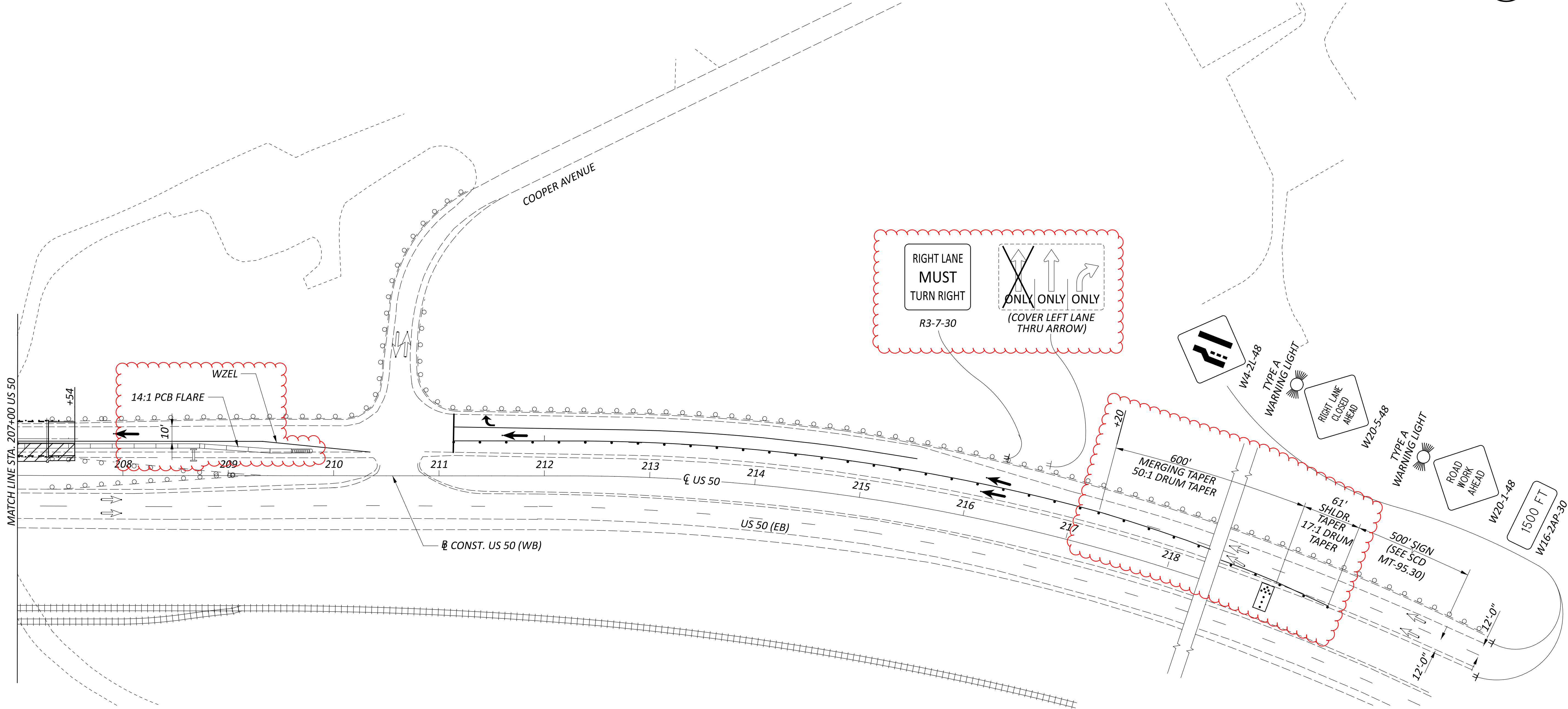
114515

SHEET

7

TOTAL

52



RIGHT LANE
MUST
TURN RIGHT
R3-7-30

ONLY ONLY ONLY
(COVER LEFT LANE
THRU ARROW)

LEGEND:

IMPACT ATTENUATOR

TYPE 3 BARRICADE WITH FLASHING LIGHTS

PORTABLE CONCRETE BARRIER

WORK ZONE

DRUMS

DIRECTION OF TRAFFIC

EXISTING DIRECTION OF TRAFFIC

- NOTES:
1. PLACE ALL ADVANCE WARNING AND TRAILING MAINTENANCE OF TRAFFIC SIGNS PER STANDARD CONSTRUCTION DRAWING MT-95.30.

SHEET NUMBER												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
4	6											01/NHS	02/NHS						
												LUMP		201	11000	LS		ROADWAY CLEARING AND GRUBBING	2
																		EROSION CONTROL	
												5,000		832	30000	5,000	EACH	EROSION CONTROL	
	15											15		630	03100	15	FT	TRAFFIC CONTROL GROUND MOUNTED SUPPORT, NO. 3 POST	
	1											1		630	85100	1	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
																		STRUCTURE OVER 20 FOOT SPAN (HAM-50-0376L)	
																		SEE SHEET 12	
																		STRUCTURE OVER 20 FOOT SPAN (HAM-50-0376R)	
																		SEE SHEET 12	
																		STRUCTURE OVER 20 FOOT SPAN (HAM-50-1903L)	
																		SEE SHEET 12	
																		MAINTENANCE OF TRAFFIC	
4												4		614	12384	4	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	
52												52		614	13310	52	EACH	BARRIER REFLECTOR, TYPE 1 (ONE-WAY)	
63												63		614	13318	63	EACH	BARRIER REFLECTOR, TYPE 5 (ONE-WAY)	
52												52		614	13350	52	EACH	OBJECT MARKER, ONE WAY	
0.5												0.5		614	22210	0.5	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I	
2,320												2,320		622	41100	2,320	FT	PORTABLE BARRIER, UNANCHORED	
												200		614	11111	200	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE, AS PER PLAN	3
																		INCIDENTALS	
												LUMP	LUMP	614	11000	LS		MAINTAINING TRAFFIC	
												LUMP	LUMP	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
												LUMP	LUMP	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY

DESIGNER

GTF

REVIEWER

CAH 07/14/25

PROJECT ID

114515

SHEET

9

TOTAL

52

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FFOLLOWING SUPPLEMENTAL SPECIFICATION:

SS 844 DATED 01-17-2025

DESIGN SPECIFICATIONS

THE PROPOSED WORK CONFORMS TO THE 10th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPOR-TATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DESIGN LOADING

HS20-44, CASE II AND THE ALTERNATE MILITARY LOADING, NO FUTURE WEARING SURFACE.

DESIGN DATA (NEW MATERIAL)

STRUCTURAL STEEL - ASTM A709 GRADE 50, YIELD STRENGTH 50,000 PSI

STEEL TUBING - ASTM A500 GRADE B, YIELD STRENGTH 46,000 PSI

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.

CONSTRUCTION PROCEDURES

THE CONTRACTOR SHALL SUBMIT ALL PROPOSED REMOVAL AND REPLACEMENT PROCEDURES TO THE ENGINEER FOR APPROVAL. THE PROCEDURES SHALL INCLUDE PROPOSED METHODS, ORDER OF OPERATION, AND EQUIPMENT. ALL SUBMITTALS SHALL BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OHIO AND BE SUBMITTED A MINIMUM OF FOUR (4) WEEKS PRIOR TO INTENDED DATE FOR COMMENCEMENT OF WORK. ALL COSTS FOR THIS WORK SHALL BE INCLUDED WITH THE APPROPRIATE BID ITEMS.

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK LISTED IN THE GENERAL SUMMARY FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER.

RIVET REMOVAL PROCEDURE

THE PROCEDURE FOR RIVET REMOVAL AND PREPARATION OF THE EXISTING HOLES FOR NEW BOLTS SHALL BE AS FOLLOWS:

RIVET REMOVAL - EXISTING RIVETS SHALL BE REMOVED BY FIRST SAW CUTTING OR CHISELING HEADS OFF AND THEN REMOVING THE REMAINDER OF THE RIVET BY CHISELING OR OTHER MECHANICAL METHOD APPROVED BY THE ENGINEER. AT NO TIME SHALL THERMAL CUTTING, AIR CARBON ARC, OR GOUGING BE ALLOWED. CARE SHALL BE TAKEN TO ENSURE THAT THE REMOVAL OF THE EXISTING FASTENERS CAUSES NO DAMAGE TO THE CONNECTED ELEMENTS THAT ARE TO REMAIN. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL A METHOD OF REPAIR TO THE ENGINEER FOR ANY EXISTING ELEMENTS DAMAGED DURING RIVET REMOVAL. ALL REPAIRS TO DAMAGED STEEL SHALL BE MADE AT NO ADDITIONAL COST TO THE PROJECT.

REAMING - OPEN RIVET HOLES THAT WILL RECEIVE NEW HIGH STRENGTH BOLTS SHALL BE PROPERLY SIZED TO A DIAMETER THAT IS ONE-SIXTEENTH INCH (1/16") LARGER THAN THE NEW BOLTS. IN THE EVENT THAT THE EXISTING RIVET HOLE IS NOT ADEQUATE TO ACCEPT THE NEW SPECIFIED BOLT, THE HOLE SHALL BE DRILLED OR REAMED AS REQUIRED TO PROVIDE A PROPER SIZED HOLE.

ITEM 513 - STRUCTURAL STEEL, MISC.: LACING BAR REPAIRS

DESCRIPTION: THIS WORK INCLUDES ALL ACCESS, LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO REPLACE LACING BARS AS SHOWN IN THE PLANS AND SHALL CONFORM TO THE REQUIREMENTS OF CMS 513 SUPPLEMENTED WITH THE FOLLOWING INFORMATION. EXISTING RIVETS ARE TO BE REMOVED PER THE RIVET REMOVAL PROCEDURE.

NO MORE THAN THREE FASTENERS (ONE LACING BAR) SHALL BE REMOVED AT ONE TIME.

THE CONTRACTOR SHALL PERFORM ALL WORK IN A MANNER THAT WILL NOT GOUGE, CUT, OR DAMAGE THE EXISTING STEEL TO REMAIN. IF EXISTING STEEL TO REMAIN IS DAMAGED DURING REMOVAL OR INSTALLATION OF THE RETROFIT, THE CONTRACTOR SHALL REPLACE THE DAMAGED AREA AT NO COST TO THE DEPARTMENT AND TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR IS TO FIELD VERIFY ALL MEMBER DIMENSIONS, RIVET/BOLT LAYOUTS, AND LACING BARS TO BE RETROFITTED PRIOR TO PERFORMING THE WORK.

STEEL MEMBERS TO BE FABRICATED UNDER THIS ITEM WILL NOT REQUIRE SHOP DRAWINGS PRIOR TO FABRICATION. THE CONTRACTOR SHALL MAKE NECESSARY MEASUREMENTS AND PREPARE SKETCHES, DRAWINGS, TABLES, ETC. THE ENGINEER SHALL HAVE AUTHORITY AND RESPONSIBILITY FOR ENSURING THAT THE FABRICATED STEEL IS ACCEPTABLE. MILL TEST REPORTS AND SHIPPING DOCUMENTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INCORPORATING STEEL ITEMS INTO THE WORK, AS REQUIRED BY CMS 501.06.

MEASUREMENT AND PAYMENT: PAYMENT SHALL INCLUDE FULL COMPENSATION FOR ALL MATERIAL, TOOLS, EQUIPMENT, LABOR, AND ACCESS NECESSARY TO COMPLETE THE REPAIRS. PAYMENT FOR CUTTING, GRINDING, DRILLING, AND BOLTING AS PART OF THE REPAIR SHALL BE CONSIDERED INCIDENTAL TO THESE ITEMS.

ANY LABOR AND/OR MATERIALS AND EQUIPMENT INCIDENTAL TO STEEL WORK NOT SPECIFICALLY PAID FOR UNDER ANY OTHER ITEM SHALL BE INCLUDED AND PAID FOR UNDER THE FOLLOWING CONTRACT ITEM (PAY ITEM):

ITEM	UNIT	DESCRIPTION
513	EACH	STRUCTURAL STEEL, MISC.: LACING BAR REPAIRS

ITEM 513 - STRUCTURAL STEEL, MISC.: RIVET REPLACEMENT

DESCRIPTION: THIS WORK INCLUDES FURNISHING ALL ACCESS, LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO REPLACE RIVETS WITH HIGH STRENGTH BOLTS AS SHOWN IN THE PLANS. COMPLETED AND IN PLACE WORK SHALL CONFORM TO THE REQUIREMENTS OF CMS 513 SUPPLEMENTED WITH THE FOLLOWING ADDITIONAL INFORMATION.

THE CONTRACTOR SHALL REMOVE NO MORE THAN ONE RIVET AT ANY TIME FOLLOWING THE RIVET REMOVAL PROCEDURE, UNLESS REPLACING LACES, WHICH WILL HAVE A MAXIMUM RIVET REMOVAL LIMIT OF 3 RIVETS.

MATERIAL: NEW BOLTS SHALL BE GALVANIZED (PER CMS 711.02) ASTM A325 AND MATCH EXISTING RIVET SIZES. NEW MATERIAL SHALL BE CERTIFIED PER CMS 501.06.

SEQUENCE OF CONSTRUCTION: LIMIT REMOVAL AND CONSTRUCTION OPERATIONS TO ONE GUSSET PLATE ON EITHER THE NORTH OR SOUTH TRUSS AT ANY GIVEN TIME. THIS WORK MAY OCCUR SIMULTANEOUSLY WITH STEEL REPAIRS IN OTHER SPANS.

- PERFORM RIVET REPLACEMENT WITH BOLTS AS FOLLOWS:
- A. ABRASIVE BLAST AREA ENCOMPASSING GUSSET PLATE CONNECTION IN ACCORDANCE WITH CMS 514.13.C.
 - B. REMOVE A SINGLE RIVET PER RIVET REMOVAL PROCEDURE.
 - C. IN THE OPEN RIVET HOLE, INSTALL A NEW BOLT WITH SUFFICIENT GRIP LENGTH TO ACCOMMODATE ALL BEARING SURFACES.
 - D. PROPERLY TENSION NEW BOLT.
 - E. REPEAT "B" THROUGH "D" UNTIL ALL SPECIFIED RIVETS ARE REPLACED.
 - F. THE ENGINEER SHALL INSPECT NEW BOLT TENSION WITH A CALIBRATED TORQUE WRENCH PRIOR TO FIELD PAINTING.
 - G. FIELD PAINT EXPOSED STEEL PER CMS 514.

MEASUREMENT AND PAYMENT: PAYMENT FOR SURFACE PREPARATION AND PAINTING SHALL BE INCLUDED FOR PAYMENT WITH ITEM 514.

PAYMENT SHALL INCLUDE FULL COMPENSATION FOR ALL MATERIAL, TOOLS, EQUIPMENT, LABOR, AND ACCESS NECESSARY TO COMPLETE THE REPAIRS. PAYMENT FOR REAMING, GRINDING, AND BOLTING AS PART OF THE REPAIR SHALL BE CONSIDERED INCIDENTAL TO THESE ITEMS. THE UNIT "EACH" REFERS TO A SINGLE GUSSET PLATE AT A PANEL POINT LOCATION.

ANY LABOR AND/OR MATERIALS AND EQUIPMENT INCIDENTAL TO STEEL WORK NOT SPECIFICALLY PAID FOR UNDER ANY OTHER ITEM SHALL BE INCLUDED AND PAID FOR UNDER THE FOLLOWING CONTRACT ITEM (PAY ITEM):

ITEM	UNIT	DESCRIPTION
513	EACH	STRUCTURAL STEEL, MISC.: RIVET REPLACEMENT

STRUCTURAL STEEL, MISC.: BEARING ANCHOR BOLT

DESCRIPTION: THE INTENT OF THE ANCHOR BOLT ITEM IS TO RE-TIGHTEN BEARING ANCHOR BOLT NUTS THAT HAVE BACKED OFF FROM THEIR ORIGINAL POSITIONS. THE LOCATIONS WHERE THIS WORK IS TO BE PERFORMED ARE AT PIER 3 UNDER BOTH THE NORTH AND SOUTH TRUSS.

PAYMENT SHALL INCLUDE FULL COMPENSATION FOR ALL MATERIAL, TOOLS, EQUIPMENT, LABOR, AND ACCESS NECESSARY TO COMPLETE THE REPAIRS. ANY LABOR AND/OR MATERIALS AND EQUIPMENT INCIDENTAL TO COMPLETION OF THE WORK AS STATED ABOVE SHALL BE INCLUDED AND PAID FOR UNDER THE FOLLOWING CONTRACT ITEM (PAY ITEM):

ITEM	UNIT	DESCRIPTION
513	EACH	STRUCTURAL STEEL, MISC.: RIVET REPLACEMENT

ITEM 513 - STRUCTURAL STEEL, MISC.: GUSSET/COVER PLATE HOLE REPAIRS

DESCRIPTION: THIS WORK INCLUDES FURNISHING ALL ACCESS, LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO REPAIR HOLES IN GUSSET PLATES WITH A NEW STEEL PLATE ADHERED TO THE EXISTING GUSSET PLATE USING A METAL POLYMER MATERIAL. COMPLETED AND IN PLACE WORK SHALL CONFORM TO THE REQUIREMENTS OF CMS 513 SUPPLEMENTED WITH THE FOLLOWING ADDITIONAL INFORMATION.

MATERIAL: THE MATERAILS USED TO COMPLETE THE WORK SHALL BE AS FOLLOWS OR AN APPROVED EQUAL MATERIAL APPROVED BY THE ENGINEER. METAL POLYMER MATERIAL MANUFACTURER INFORMATION:

DEVCON <https://itwperformancepolymers.com/>

DIAMANT MM1018 <https://diamant-polymer.com>

RESIMETAL <https://resimacsolutions.com/product/101-metal-repair-paste/>

SEQUENCE OF CONSTRUCTION: LIMIT REMOVAL AND CONSTRUCTION OPERATIONS TO ONE GUSSET/COVER PLATE ON EITHER THE NORTH OR SOUTH TRUSS AT ANY GIVEN TIME. THIS WORK MAY OCCUR SIMULTANEOUSLY WITH STEEL REPAIRS IN OTHER SPANS.

- PERFORM RIVET REPLACEMENT WITH BOLTS AS FOLLOWS:
- A. ABRASIVE BLAST AREA ENCOMPASSING NEW STEEL PLATE CONNECTION IN ACCORDANCE WITH CMS 514.13.C.
 - B. INSTALL A MINIMUM OF 1/4" THICK LAYER OF METAL POLYMER OR AS RECOMMENDED BY THE MANUFACTURER
 - C. INSTALL 1/2" THICK UNCOATED STEEL PLATE CENTERED OVER THE HOLE IN THE GUSSET/ COVER PLATE.
 - D. SEAL PERIMETER WITH MINIMUM 1/2" DEVCON/MM1018/RESIMETAL WEDGE
 - E. COVER TOP SURFACE WITH MINIMUM 1/16" COAT OF DEVCON/MM1018/RESIMETAL.
 - G. FIELD PAINT EXPOSED STEEL PER CMS 514.

MEASUREMENT AND PAYMENT: PAYMENT FOR SURFACE PREPARATION AND PAINTING SHALL BE INCLUDED FOR PAYMENT WITH ITEM 514.

PAYMENT SHALL INCLUDE FULL COMPENSATION FOR ALL MATERIAL, TOOLS, EQUIPMENT, LABOR, AND ACCESS NECESSARY TO COMPLETE THE REPAIRS. THE UNIT "EACH" REFERS TO A SINGLE HOLE IN A PLATE AT THE SPECIFIED LOCATION.

ANY LABOR AND/OR MATERIALS AND EQUIPMENT INCIDENTAL TO STEEL WORK NOT SPECIFICALLY PAID FOR UNDER ANY OTHER ITEM SHALL BE INCLUDED AND PAID FOR UNDER THE FOLLOWING CONTRACT ITEM (PAY ITEM):

UNIT	DESCRIPTION
EACH	STRUCTURAL STEEL, MISC.: GUSSET/COVER PLATE HOLE REPAIRS

DESIGN AGENCY



DESIGNER
GTF

REVIEWER
CAH 07/14/25

PROJECT ID
114515

SHEET	TOTAL
10	52

ITEM 514 - SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN

ITEM 514 - FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN

THIS ITEM INCLUDES THE SURFACE PREPARATION AND COATING OF THE EXISTING STEEL MEMBERS TO REMAIN TO THE LIMITS DESCRIBED OR SHOWN IN THE PLANS. THIS WORK SHALL BEGIN AFTER THE REMOVALS UNDER ITEM 202 AND 513 ARE FINISHED AT A REPAIR LOCATION, AND BEFORE THE PLACEMENT OF THE NEW MEMBERS.

THE COLOR OF THE FINISH COAT FOR ALL STRUCTURAL STEEL IS TO MATCH THE EXISTING AND THE CONTRACTOR SHALL PROVIDE SAMPLES TO THE ENGINEER FOR APPROVAL PRIOR TO APPLICATION.

IN ADDITION TO THE AREAS SHOWN ON THE PLANS, A QUANTITY OF 500 SF HAS BEEN ADDED TO THE ESTIMATED QUANTITIES FOR PURPOSES OF ESTABLISHING A UNIT BID PRICE. THIS QUANTITY SHALL BE USED TO PAINT AREAS SUCH AS THE TRUSS CHORD MEMBERS, FLOORBEAM ENDS, LATERAL BRACING MEMBERS, ETC. AT THE DISCRETION OF THE ENGINEER.

THE REQUIREMENTS OF CMS 514 SHALL APPLY WITH THE FOLLOWING ADDITIONS/MODIFICATIONS:

514.13.C - ABRASIVE BLASTING (QCP #3):

PORTIONS OF THE INSIDE OF THE TRUSS MEMBERS ARE IDENTIFIED AS BEING POSSIBLY INACCESSIBLE. THE CONTRACTOR SHALL MAKE A REASONABLE EFFORT TO CLEAN STEEL SURFACES IN THESE AREAS, AND IN ALL OTHER AREAS DETERMINED BY THE ENGINEER AS BEING INACCESSIBLE, ACCORDING TO SSPC-SP 6 (COMMERCIAL BLAST CLEANING) AND AS SHOWN ON THE PICTORIAL SURFACE PREPARATION STANDARDS FOR PAINTING STEEL SURFACES IN SSPC-VIS 1.

ALL OTHER ACCESSIBLE STEEL SURFACES SHALL BE BLASTED TO SSPC-SP 10 AS PER CMS 514.13.C.

IN ADDITION, THIS WORK WILL INCLUDE THE REPAIR OF PACK-RUSTED AREAS OF THE EXISTING STEEL AS DIRECTED BY THE ENGINEER. PACK RUSTED AREAS ARE DEFINED AS THOSE LOCATIONS WHERE IMPACTED RUST HAS PRODUCED A GAP BETWEEN ADJACENT STEEL PLATES MORE THAN ¼". PACK RUST SHALL BE REMOVED FROM THE JOINTS RUSTED APART MORE THAN ¼" BY CHIPPING, HAMMERING, PUNCHING, CHISELING OR BY OTHER SUITABLE MEANS, TO A DEPTH OF AT LEAST EQUAL TO THE WIDTH OF THE GAP. ALL JOINTS SHALL THEN BE VACUUMED WITH A COMMERCIAL VACUUM CLEANER HAVING A NOZZLE OPENING OF 1" TO 1½" OR AIR BLOWN SUCH THAT ALL DUST AND DEBRIS ARE REMOVED TO THE SATISFACTION OF THE ENGINEER.

514.13.D - CONTAINMENT/WASTE DISPOSAL (QCP#4):

THE CONTRACTOR SHALL INSTALL AND MAINTAIN CONTAINMENT SYSTEMS SURROUNDING THE WORK FOR THE PURPOSE OF CONTROLLING EMISSIONS OF DUST AND DEBRIS IN ACCORDANCE WITH THE REQUIREMENTS OF CMS 514. WORKING PLATFORMS AND CONTAINMENT MATERIALS THAT ARE USED SHALL BE FIRM AND STABLE, AND PLATFORMS SHALL BE DESIGNED TO SUPPORT THE WORKERS, INSPECTORS, SPENT SURFACE PREPARATION MEDIA (E.G. ABRASIVES) AND EQUIPMENT DURING ALL PHASES OF SURFACE PREPARATION AND PAINTING. PLATFORMS, CABLES AND OTHER SUPPORTING STRUCTURES SHALL BE DESIGNED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE OHIO INDUSTRIAL COMMISSION AND OSHA. INSPECTION ACCESS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF CMS 514.10.

ITEM 514 - SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN (CONTINUED)

ITEM 514 - FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN (CONTINUED)

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN (CONTINUED)

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN (CONTINUED)

IF THE CONTAINMENT IS PROPOSED TO BE ATTACHED TO THE STRUCTURE, THE CONTAINMENT SHALL BE ATTACHED BY BOLTING, CLAMPING OR SIMILAR MEANS. WELDING ONTO OR DRILLING INTO THE STRUCTURE IS PROHIBITED. THE CONTRACTOR SHALL PROVIDE DRAWINGS SHOWING THE CONTAINMENT SYSTEM AND INDICATING THE METHOD(S) OF SUPPORTING THE WORKING PLATFORMS AND CONTAINMENT MATERIALS.

IN THE EVENT OF SUSTAINED WINDS OF 40 MPH OR GREATER, THE CONTAINMENT SHALL BE DROPPED AND ALL MATERIALS AND EQUIPMENT SHALL BE SECURED TO AVOID OVERSTRESSING AND/OR DAMAGING THE BRIDGE STRUCTURE.

THE CONTRACTOR SHALL SUBMIT CALCULATIONS AND DRAWINGS SIGNED, SEALED, AND DATED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER IN THE EMPLOY OF THE CONTRACTOR, ASSURING THE STRUCTURAL INTEGRITY OF THE BRIDGE UNDER LIVE AND DEAD LOADS IMPOSED, INCLUDING THE DESIGN WIND LOADING. DESIGN SHALL BE IN ACCORDANCE WITH APPLICABLE PROVISIONS OF THE MOST CURRENT VERSION OF AASHTO'S "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" AND ODOT'S BRIDGE DESIGN MANUAL. THE CONTAINMENT SUBMITTAL SHALL INCLUDE CALCULATIONS THAT ASSURE STRUCTURAL INTEGRITY OF THE BRIDGE WHEN IT SUPPORTS THE CONTAINMENT.

THE CONTRACTOR IS NOTIFIED THAT THE EXISTING PAINT SYSTEM MAY CONTAIN LEAD, AND CMS 514.13.D.1 MAY APPLY.

514.17 COATING APPLICATION:

IN ADDITION TO THE REQUIREMENTS OF CMS 514, A STRIPE COATING OF THE PRIME COAT SHALL BE APPLIED TO ALL WELDS, CREVICES, RIVET HEADS, NUTS, BOLT HEADS, BOLT THREADS AND OTHER SURFACE IRREGULARITIES. ALSO, THE AREAS SPECIFIED UNDER THIS CONTRACT FOR SURFACE PREPARATION PER SSPC-SP 2 (HAND TOOL CLEANING), SSPC-SP 3 (POWER TOOL CLEANING) OR SSPC-SP 11 (POWER TOOL CLEANING TO BARE METAL) SHALL HAVE THE EDGES OF THE PREPARED AREAS STRIPE COATED WITH THE PRIME COAT. THE STRIPE COATING SHALL BE APPLIED TO THE SPECIFIED SURFACES BEFORE THE APPLICATION OF THE FULL PRIME COAT OVER THE SAME AREAS AND ADJACENT PREPARED SURFACES. STRIPING SHALL EXTEND A MINIMUM OF 1" FROM THE EDGES REQUIRING STRIPE COATING. THE STRIPE COATING SHALL SET TO TOUCH BEFORE APPLICATION OF THE FULL PRIME COAT OVER THE SAME AREA; HOWEVER, THE STRIPE COATING SHALL NOT BE PERMITTED TO DRY FOR A PERIOD LONG ENOUGH TO ALLOW RUSTING OF THE ADJACENT UNPRIMED STEEL SURFACES BEFORE THE FULL PRIME COAT CAN BE APPLIED TO THE AREA.

THE CONTRACTOR SHALL THOROUGHLY COAT ALL SURFACES RECEIVING A STRIPE COATING, PAYING PARTICULAR ATTENTION TO HARD-TO-REACH AREAS AND IRREGULAR SURFACES, SUCH AS LACING BARS, BOLT HEADS, LAP SPLICES, GUSSET PLATES, PINS, ETC. WHEN STRIPE COATING MULTI-PLANED SURFACE CONFIGURATIONS, SUCH AS ON NUTS AND BOLT THREADS, THE CONTRACTOR SHALL APPLY THE STRIPE COATING FROM MULTIPLE DIRECTIONS TO ENSURE COMPLETE COVERAGE OF ALL SURFACES, CREVICES, CORNERS AND SHARP EDGES.

ITEM 514 - SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN (CONTINUED)

ITEM 514 - FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN (CONTINUED)

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN (CONTINUED)

ITEM 514 - FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN (CONTINUED)

DEVCON PLASTIC PUTTY OR DIAMANT MM1018P.

PRIOR TO THE PRIMER COAT HAS BEEN APPLIED, THE CONTRACTOR SHALL FILL ALL GAPS OR CREVICES GREATER THAN ¾" REMOVED BY ABRASIVE BLASTING WITH DEVCON PLASTIC PUTTY OR DIAMANT MM1018P IN LIEU OF CAULKING PER CMS 514.19. THE STEEL SURFACE SHALL BE FREE OF CONTAMINANTS WHEN THE DEVCON PLASTIC PUTTY OR DIAMANT MM1018P IS APPLIED.

THE DEVCON PLASTIC PUTTY OR DIAMANT MM1018P SHALL BE APPLIED EVENLY TO THE JOINTS AND GAPS. VOIDS SHALL BE COMPLETELY FILLED ,BE APPLIED BY TROWEL OR CAULKING GUN AND SPREAD SMOOTHLY USING HEAVY PRESSURE TO DISPLACE AIR BUBBLES. EXCESS MATERIAL SHALL BE REMOVED IMMEDIATELY. ALL PROCEDURES SHALL CONFORM TO THE REQUIREMENTS OF THE MANUFACTURER'S WRITTEN SPECIFICATIONS AND TO THE SATISFACTION OF THE ENGINEER.

MEASUREMENT AND PAYMENT:

THE ACCEPTED QUANTITIES FOR THE COMPLETED WORK AS DESCRIBED WILL BE MEASURED AND PAID FOR USING THE FOLLOWING CONTRACT ITEMS (PAY ITEMS):

ITEM	UNIT	DESCRIPTION
514	LS	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN
514	LS	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN
514	LS	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN
514	LS	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN

ITEM 519, PATCHING CONCRETE STRUCTURES, AS PER PLAN

THE QUANTITY GIVEN IN THE ESTIMATE QUANTITY TABLE HAS BEEN ESTIMATED FROM FIELD INSPECTION AND ORIGINAL PLANS. IT IS POSSIBLE THAT ADDITIONAL AREAS REQUIRING PATCHING MAY HAVE DEVELOPED SINCE THE MOST RECENT INSPECTION OF THE STURCUTRE. THEREFORE, THE CONTRACTOR SHALL SOUND THE SURROUNDING PERIMETER OF THE AREA TO BE PATCHED AND PATCH NEW AREAS APPROVED BY THE ENGINEER THAT HAVE NOT BEEN DETAILED IN THE PLANS. PAYMENT SHALL BE MADE PER SQ. FT. AT THE PRICE BID FOR THE ACTUAL AREA PATCHED AND SHALL INCLUDE ALL COST FOR LABOR, MATERIALS AND EQUIPMENT.

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

REMOVE THE FORMS WITHIN 24 HOURS AFTER PLACING CONCRETE AND FINISH ALL EXPOSED SURFACES BY RUBBING TO MATCH THE SURROUNDING SURFACE. APPLY MEMBRANE CURING ACCORDING TO C&MS 511.14, METHOD B, IMMEDIATELY AFTER RUBBING THE SURFACES.

ITEM 517 - RAILING, MISC.: 3.5" O.D. ALUMINUM TUBE WITH ANCHOR

ITEM 517 - RAILING, MISC.: 4.5" O.D. ALUMINUM TUBE WITH ANCHOR

DESCRIPTION:

THIS WORK CONSISTS OF REMOVAL AND REPLACEMENT OF THE EXISTING ALUMINUM TUBE RAILING IN THE LOCATIONS AS DIRECTED BY THE ENGINEER. THE PROVISIONS OF ITEM 202 SHALL APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING REMOVAL TO PROTECT PORTIONS OF THE BRIDGE RAILING TO BE SALVAGED AND INCORPORATED INTO THE NEW STRUCTURE.

NO HAZARD SHALL BE LEFT UNPROTECTED EXCEPT FOR THE ACTUAL TIME NECESSARY TO REMOVE THE EXISTING RAIL AND INSTALL THE NEW RAIL IN A CONTINUOUS OPERATION. NO RAIL SHALL BE REMOVED UNTIL THE REPLACEMENT MATERIAL IS ON SITE AND READY FOR INSTALLATION. FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE DEEMED SUFFICIENT CAUSE TO ORDER WORK SUSPENDED UNTIL SUCH TIME AS THE ENGINEER IS ASSURED OF COMPLIANCE.

THE CONTRACTOR SHALL TAKE PRECAUTIONS NOT TO DAMAGE THE EXISTING GALVANIZED COATING ON THE PORTIONS TO REMAIN. THE CONTRACTOR SHALL REPAIR ANY DAMAGED TO THE GALVANIZED COATING PER CMS 711.02 AND TO THE ENGINEER'S SATISFACTION. THIS SHALL BE CONSIDERED INCIDENTAL TO THIS PAYMENT ITEM.

THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE THROUGH LANE IN EACH DIRECTION OF TRAFFIC AT THE WORK OPERATION AREA AT ALL TIMES. FOR ADDITIONAL INFORMATION REGARDING THE MAINTENANCE OF TRAFFIC, REFER TO ITEM 614 ON SHEET 3.

MEASUREMENT AND PAYMENT:

THE ACCEPTED QUANTITIES FOR THE COMPLETED WORK AS DESCRIBED WILL BE PAID FOR USING THE FOLLOWING CONTRACT ITEM (PAY ITEM):

ITEM	UNIT	DESCRIPTION
517	FT	ITEM 517 - RAILING, MISC.: 3.5" O.D. ALUMINUM TUBE WITH ANCHOR
517	FT	ITEM 517 - RAILING, MISC.: 4.5" O.D. ALUMINUM TUBE WITH ANCHOR

ABBREVIATIONS:

THE FOLLOWING ABBREVIATIONS HAVE BEEN USED THROUGHOUT THESE PLANS TO INDICATE THE DESIGNATIONS CONTAINED IN THE LEGEND BELOW:

ABUT. - ABUTMENT	O/O - OUT TO OUT
APPR. - APPROACH	P.C.P - PERFORATED CORRUGATED
BTM. - BOTTOM	PLASTIC PIPE
BRG. - BEARING	P.E.J.F. - PREFORMED EXPANSION
BRGS. - BEARINGS	JOINT FILLER
I - CENTERLINE	PG - PROFILE GRADE
C/C - CENTER TO CENTER	PGL - PROFILE GRADE LINE
CIP - CAST-IN-PLACE	PROP. - PROPOSED
C.J. - CONSTRUCTION JOINT	PT - POINT OF TANGENCY
CLR. - CLEARANCE	PVC - POINT OF VERTICAL CURVATURE
CMS - CONSTRUCTION AND	PVI - POINT OF VERTICAL INTERSECTION
MATERIAL SPECIFICATIONS	PVT - POINT OF VERTICAL TANGENCY
CONC. - CONCRETE	R. - RADIUS
CONSTR. - CONSTRUCTION	R.A. - REAR ABUTMENT
CONTR. - CONTRACTION	RF - RIGHT FORWARD
CU YD - CUBIC YARD	RT. - RIGHT
DIA. - DIAMETER	R/W - RIGHT OF WAY
E.F. - EACH FACE	SAN. - SANITARY
ELEV., EL. - ELEVATION	SER. - SERIES
EQ. - EQUAL	SHT. - SHEET
EX. - EXISTING	S.O. - SERIES OF
EXP. - EXPANSION	SPA. - SPACES OR SPACING
F.A. - FORWARD ABUTMENT	SR - STATE ROUTE
F.F. - FAR FACE	STA. - STATION
F.S. - FIELD SPICE	STD. - STANDARD
FT/FT - FOOT PER FOOT	STM. - STORM
FTG. - FOOTING	STR. - STRAIGHT
FWD. - FORWARD	TBM - TEMPORARY BENCH MARK
GALV. = GALVANIZED	TEMP. - TEMPORARY
GEN. - GENERAL	T.O.S. - TOE OF SLOPE
LF - LEFT FORWARD	T/PARAPET - TOE OF PARAPET
LT. - LEFT	T/T - TOE TO TOE
MAX. - MAXIMUM	TYP. - TYPICAL
MIN. - MINIMUM	U.G. - UNDERGROUND
MISC. - MISCELLANEOUS	VAR. - VARIES
MOT - MAINTENANCE OF TRAFFIC	VC - VERTICAL CURVE
N.F. - NEAR FACE	VERT. - VERTICAL
N.P.C.P.P. - NON-PERFORATED	W/O - WITHOUT
CORRUGATED	
PLASTIC PIPE	
NO./# - NUMBER	

DESIGN AGENCY



DESIGNER

GTF

REVIEWER

CAH 07/14/25

PROJECT ID

114515

SHEET

11

TOTAL

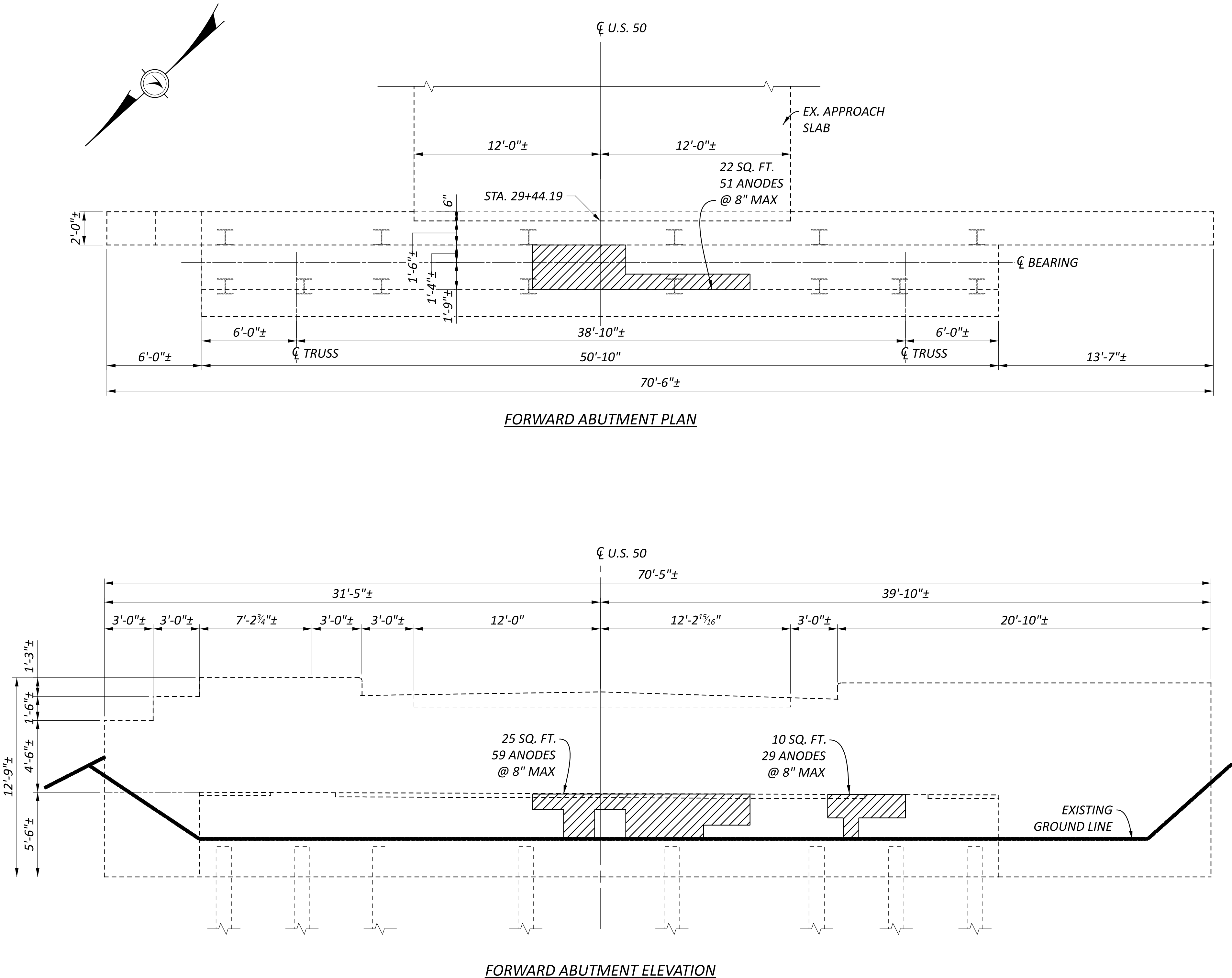
52

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-50-0376L (SFN: 3102521) (01/NHS FUNDING SPLIT)										
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET	
512	10600	123	FT	CONCRETE REPAIR BY EPOXY INJECTION		123				
512	73500	3139	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN			3139			
513	95030	32	EACH	STRUCTURAL STEEL, MISC.: LACING BAR REPAIRS			32		10	
513	95030	66	EACH	STRUCTURAL STEEL, MISC.: RIVET REPLACEMENT			66		10	
513	95030	2	EACH	STRUCTURAL STEEL, MISC.: BEARING ANCHOR BOLT			2		10	
513	95030	2	EACH	STRUCTURAL STEEL, MISC.: GUSSET/COVER PLATE HOLE REPAIRS			2		10	
514	00101	LS	LS	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL, AS PER PLAN			LUMP		11	
514	00201	LS	LS	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT, AS PER PLAN			LUMP		11	
514	00301	LS	LS	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT, AS PER PLAN			LUMP		11	
514	00401	LS	LS	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT, AS PER PLAN			LUMP		11	
514	00504	400	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			400			
514	10000	86	EACH	FINAL INSPECTION REPAIR			86			
519	11101	2592	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	604		1,988		11	
519	12304	1	SY	PATCHING CONCRETE BRIDGE DECK - TYPE C			1			
644	00104	0.32	MILE	EDGE LINE, 6"				0.32		
644	00204	0.16	MILE	LANE LINE, 6"				0.16		
844	20000	3216	EACH	GALVANIC ANODE PROTECTION	718	2498				

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-50-0376R (SFN: 3102548) (02/NHS FUNDING SPLIT)										
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET	
511	34410	3	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE			3			
512	73500	2983	SY	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN			2983			
514	00050	4157	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			4,157			
514	00056	4157	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			4,157			
514	00060	4157	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			4,157			
514	00066	4157	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			4,157			
514	00504	3	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			3			
514	10000	5	EACH	FINAL INSPECTION REPAIR			5			
517	76302	29	FT	RAILING, MISC.: 3.5" O.D. ALUMINUM TUBE WITH ANCHOR			29		11	
517	76302	897	FT	RAILING, MISC.: 4.5" O.D. ALUMINUM TUBE WITH ANCHOR			897		11	
519	11101	96	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN			96		11	
519	12304	25	SY	PATCHING CONCRETE BRIDGE DECK - TYPE C			25			
644	00104	0.32	MILE	EDGE LINE, 6"				0.32		
644	00204	0.16	MILE	LANE LINE, 6"				0.16		

ESTIMATED QUANTITIES - STRUCTURE No.: HAM-50-1903L (SFN: 3102807) (01/NHS FUNDING SPLIT)										
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SHEET	
512	10100	6149	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	189	2,019	3,941			
512	74000	6149	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	189	2,019	3,941			
514	00050	137916	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL		2,839	135,077			
514	00056	137916	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT		2,839	135,077			
514	00060	137916	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT		2,839	135,077			
514	00066	137916	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT		2,839	135,077			
514	00504	118	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL		3	115			
514	10000	27	EACH	FINAL INSPECTION REPAIR		2	25			
519	11101	467	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN			467		11	
844	20000	1145	EACH	GALVANIC ANODE PROTECTION	116	1029				





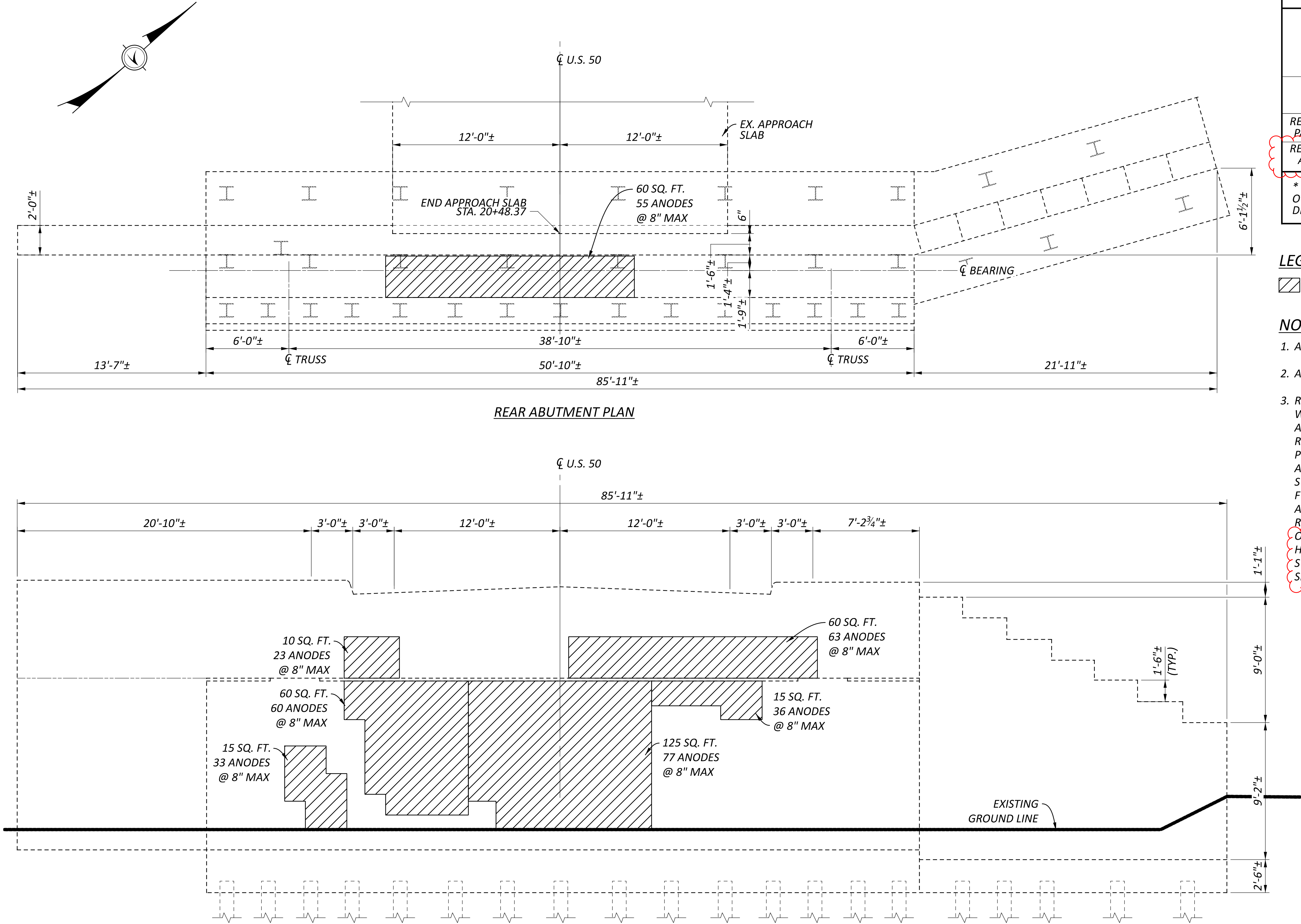
SUMMARY OF REPAIR AREAS			
PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST OF 2023. EXACT DIMENSIONS AND LOCATIONS OF REPAIRS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD FOR FINAL PAY QUANTITIES.			
TYPE	MEASURED QUANTITIES	ESTIMATING FACTOR*	ESTIMATED QUANTITIES
FWD. ABUT. PATCHING	57 SQ. FT.	1.5	86 SQ. FT.
FWD. ABUT. ANODES	139	1.5	209
* - ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ALLOW FOR ADDITIONAL DETERIORATION.			

LEGEND

 - AREA TO BE REPAIRED WITH ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

NOTES

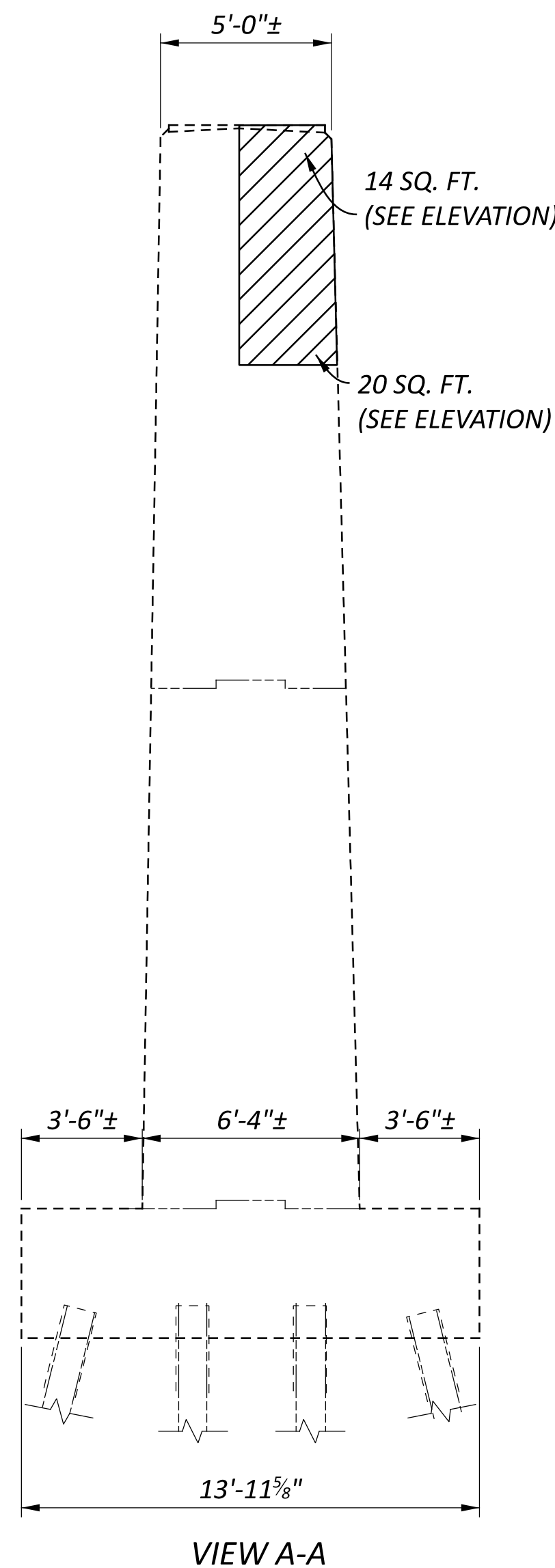
- ALL DIMENSIONS ARE ±.
- ALL ESTIMATED AREAS ARE GIVEN AS WIDTH x HEIGHT.
- REPAIR CONCRETE SHALL BE HYDRAULIC CEMENT-BASED MATERIAL WITH A ELECTRICAL RESISTIVITY LESS THAN 50,000 OHM-CM ACCORDING TO ASTM C 1760. DO NOT USE NON- CONDUCTIVE REPAIR MATERIALS SUCH AS MAGNESIUM AMMONIUM PHOSPHATE CONCRETE AND EPOXY MORTARS OR BONDING AGENTS. CONCRETE MIXES CONTAINING HIGH LEVELS OF SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME, GROUND-GRANULATED BLAST FURNACE SLAG, LATEX, FLY ASH OR METAKAOLIN MAY NOT MEET THE RESISTIVITY REQUIREMENT. THE GALVANIC ANODE SIZE AND SPACING IS BASED ON ACHIEVING A CURRENT DENSITY FOR THE EXTREMELY HIGH CORROSION RISK CATEGORY WITH A 30 YEAR INSTALLATION. SUPPLY ANODES WITH A MINIMUM CORE OF 210 GRAMS OF ZINC. SEE THIS SHEET FOR DISTRIBUTION.



SUMMARY OF REPAIR AREAS			
PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST OF 2023. EXACT DIMENSIONS AND LOCATIONS OF REPAIRS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD FOR FINAL PAY QUANTITIES.			
TYPE	MEASURED QUANTITIES	ESTIMATING FACTOR*	ESTIMATED QUANTITIES
REAR ABUT. PATCHING	345 SQ. FT.	1.5	518 SQ. FT.
REAR ABUT. ANODES	339	1.5	509

* - ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ALLOW FOR ADDITIONAL DETERIORATION.

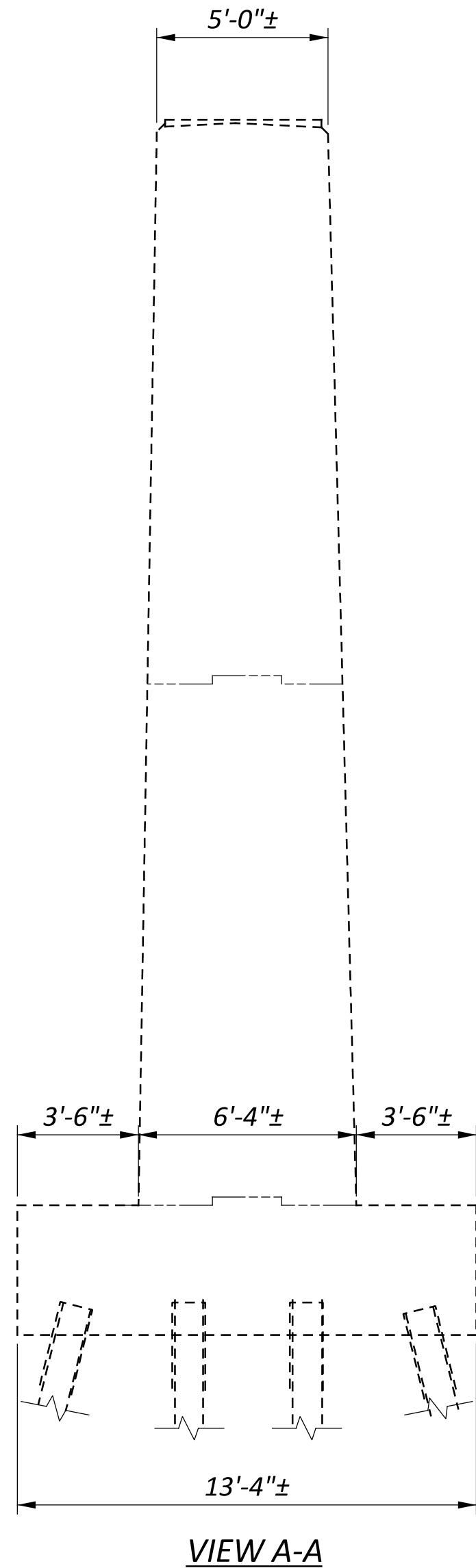
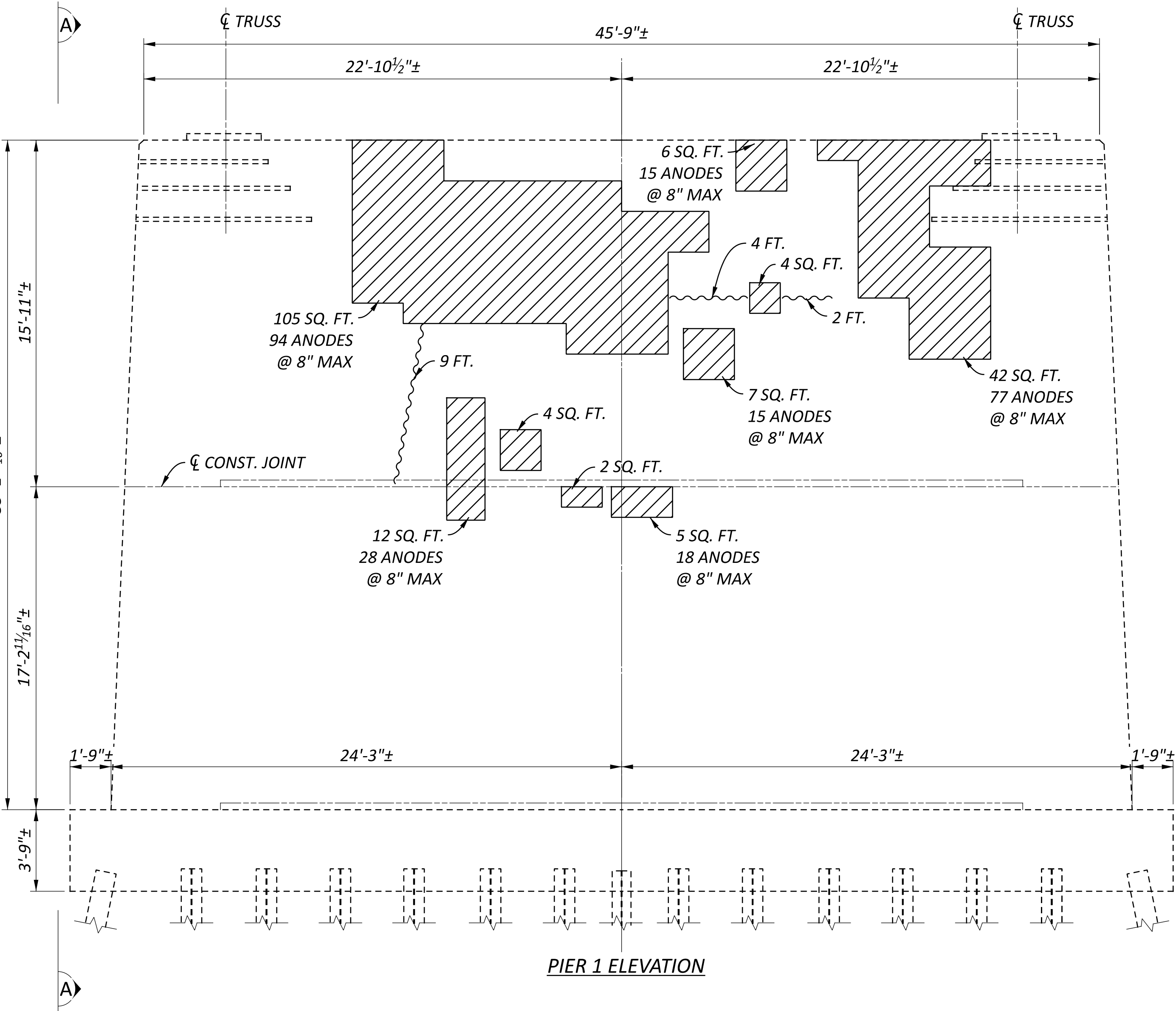
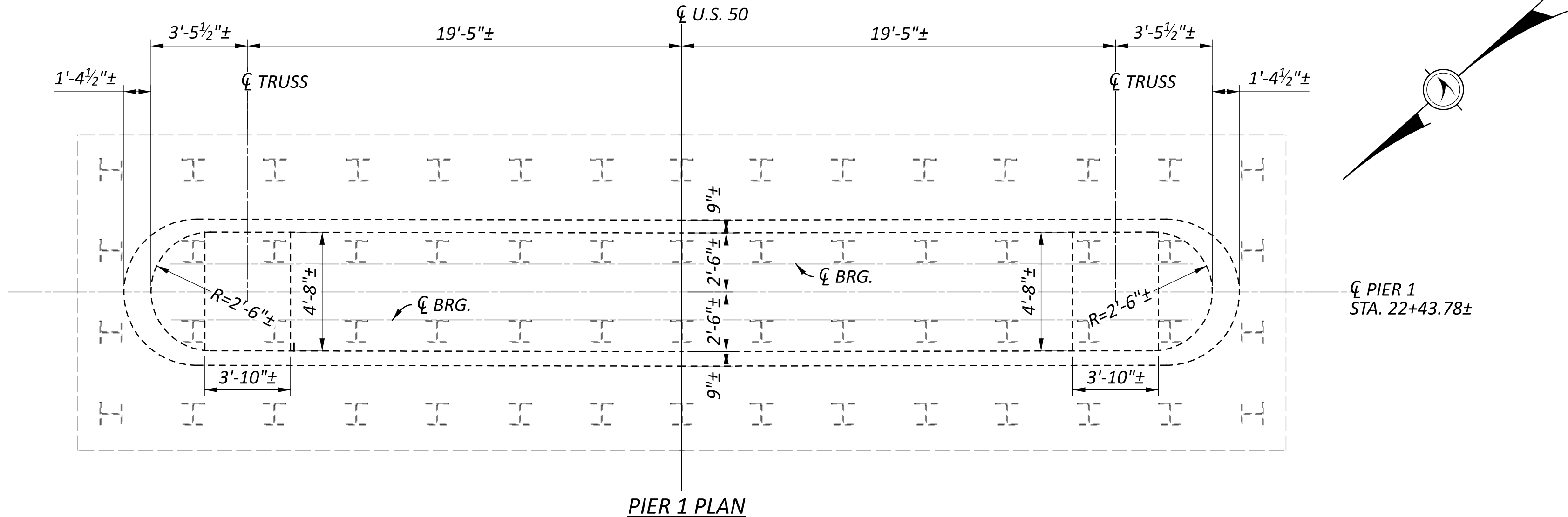
- LEGEND**
- AREA TO BE REPAIRED WITH ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN
- NOTES**
- ALL DIMENSIONS ARE ±.
 - ALL ESTIMATED AREAS ARE GIVEN AS WIDTH x HEIGHT.
 - REPAIR CONCRETE SHALL BE HYDRAULIC CEMENT-BASED MATERIAL WITH A ELECTRICAL RESISTIVITY LESS THAN 50,000 OHM-CM ACCORDING TO ASTM C 1760. DO NOT USE NON- CONDUCTIVE REPAIR MATERIALS SUCH AS MAGNESIUM AMMONIUM PHOSPHATE CONCRETE AND EPOXY MORTARS OR BONDING AGENTS. CONCRETE MIXES CONTAINING HIGH LEVELS OF SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME, GROUND-GRANULATED BLAST FURNACE SLAG, LATEX, FLY ASH OR METAKAOLIN MAY NOT MEET THE RESISTIVITY REQUIREMENT. THE GALVANIC ANODE SIZE AND SPACING IS BASED ON ACHIEVING A CURRENT DENSITY FOR THE EXTREMELY HIGH CORROSION RISK CATEGORY WITH A 30 YEAR INSTALLATION. SUPPLY ANODES WITH A MINIMUM CORE OF 210 GRAMS OF ZINC. SEE THIS SHEET FOR DISTRIBUTION.



SUMMARY OF REPAIR AREAS			
PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST OF 2023. EXACT DIMENSIONS AND LOCATIONS OF REPAIRS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD FOR FINAL PAY QUANTITIES.			
TYPE	MEASURED QUANTITIES	ESTIMATING FACTOR*	ESTIMATED QUANTITIES
PIER 1 PATCHING 	345 SQ. FT.	1.5	518 SQ. FT.
PIER 1 ANODES	341	1.5	512
* - ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ALLOW FOR ADDITIONAL DETERIORATION.			

 - AREA TO BE REPAIRED WITH ITEM 519 -
PATCHING CONCRETE STRUCTURE, AS PER PLAN

1. ALL DIMENSIONS ARE $\pm$.
2. ALL ESTIMATED AREAS ARE GIVEN AS WIDTH x HEIGHT.
3. REPAIR CONCRETE SHALL BE HYDRAULIC CEMENT-BASED MATERIAL WITH A ELECTRICAL RESISTIVITY LESS THAN 50,000 OHM-CM ACCORDING TO ASTM C 1760. DO NOT USE NON- CONDUCTIVE REPAIR MATERIALS SUCH AS MAGNESIUM AMMONIUM PHOSPHATE CONCRETE AND EPOXY MORTARS OR BONDING AGENTS. CONCRETE MIXES CONTAINING HIGH LEVELS OF SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME, GROUND-GRANULATED BLAST FURNACE SLAG, LATEX, FLY ASH OR METAKAOLIN MAY NOT MEET THE RESISTIVITY REQUIREMENT. THE GALVANIC ANODE SIZE AND SPACING IS BASED ON ACHIEVING A CURRENT DENSITY FOR THE EXTREMELY HIGH CORROSION RISK CATEGORY WITH A 30 YEAR INSTALLATION. SUPPLY ANODES WITH A MINIMUM CORE OF 210 GRAMS OF ZINC. SEE THIS SHEET FOR DISTRIBUTION.



SUMMARY OF REPAIR AREAS

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST OF 2023. EXACT DIMENSIONS AND LOCATIONS OF REPAIRS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD FOR FINAL PAY QUANTITIES.			
TYPE	MEASURED QUANTITIES	ESTIMATING FACTOR*	ESTIMATED QUANTITIES
PIER 1 PATCHING	187 SQ. FT.	1.5	280 SQ. FT.
PIER 1 EPOXY INJECTION	15 FT.	1.5	23 FT.
PIER 1 ANODES	257	1.5	386

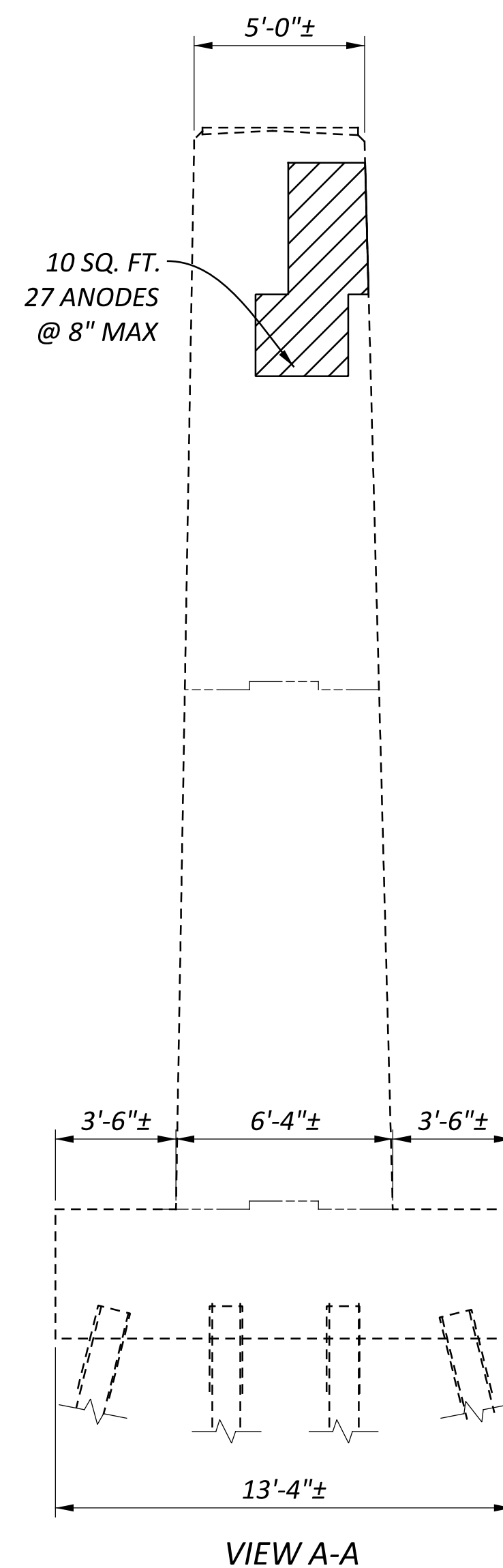
* - ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ALLOW FOR ADDITIONAL DETERIORATION.

LEGEND

- AREA TO BE REPAIRED WITH ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

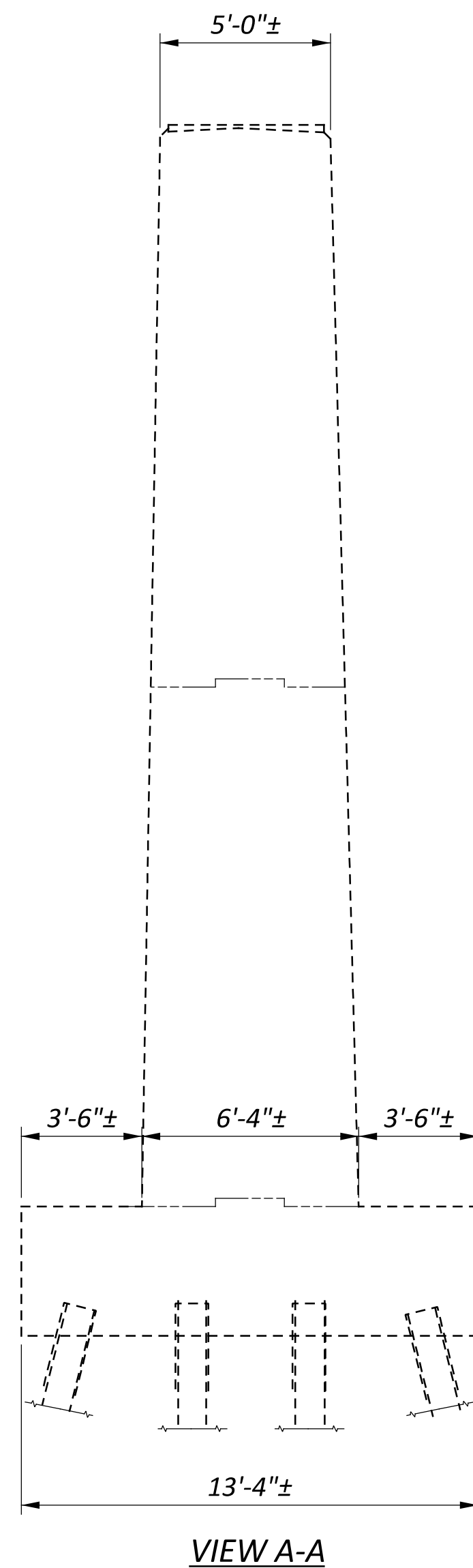
NOTES

- ALL DIMENSIONS ARE ±.
- ALL ESTIMATED AREAS ARE GIVEN AS WIDTH x HEIGHT.
- REPAIR CONCRETE SHALL BE HYDRAULIC CEMENT-BASED MATERIAL WITH A ELECTRICAL RESISTIVITY LESS THAN 50,000 OHM-CM ACCORDING TO ASTM C 1760. DO NOT USE NON- CONDUCTIVE REPAIR MATERIALS SUCH AS MAGNESIUM AMMONIUM PHOSPHATE CONCRETE AND EPOXY MORTARS OR BONDING AGENTS. CONCRETE MIXES CONTAINING HIGH LEVELS OF SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME, GROUND-GRANULATED BLAST FURNACE SLAG, LATEX, FLY ASH OR METAKAOLIN MAY NOT MEET THE RESISTIVITY REQUIREMENT. THE GALVANIC ANODE SIZE AND SPACING IS BASED ON ACHIEVING A CURRENT DENSITY FOR THE EXTREMELY HIGH CORROSION RISK CATEGORY WITH A 30 YEAR INSTALLATION. SUPPLY ANODES WITH A MINIMUM CORE OF 210 GRAMS OF ZINC. SEE THIS SHEET FOR DISTRIBUTION.



NOTES

1. ALL DIMENSIONS ARE $\pm$.
2. ALL ESTIMATED AREAS ARE GIVEN AS WIDTH x HEIGHT.
3. REPAIR CONCRETE SHALL BE HYDRAULIC CEMENT-BASED MATERIAL WITH A ELECTRICAL RESISTIVITY LESS THAN 50,000 OHM-CM ACCORDING TO ASTM C 1760. DO NOT USE NON- CONDUCTIVE REPAIR MATERIALS SUCH AS MAGNESIUM AMMONIUM PHOSPHATE CONCRETE AND EPOXY MORTARS OR BONDING AGENTS. CONCRETE MIXES CONTAINING HIGH LEVELS OF SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME, GROUND-GRANULATED BLAST FURNACE SLAG, LATEX, FLY ASH OR METAKAOLIN MAY NOT MEET THE RESISTIVITY REQUIREMENT. THE GALVANIC ANODE SIZE AND SPACING IS BASED ON ACHIEVING A CURRENT DENSITY FOR THE EXTREMELY HIGH CORROSION RISK CATEGORY WITH A 30 YEAR INSTALLATION. SUPPLY ANODES WITH A MINIMUM CORE OF 210 GRAMS OF ZINC. SEE THIS SHEET FOR DISTRIBUTION.

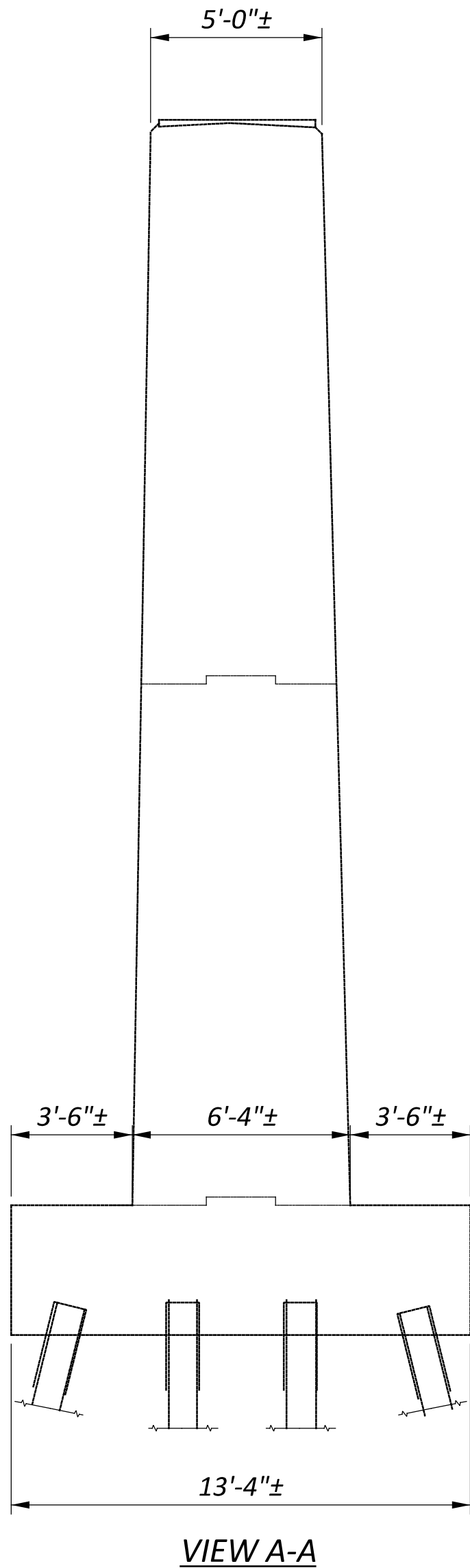
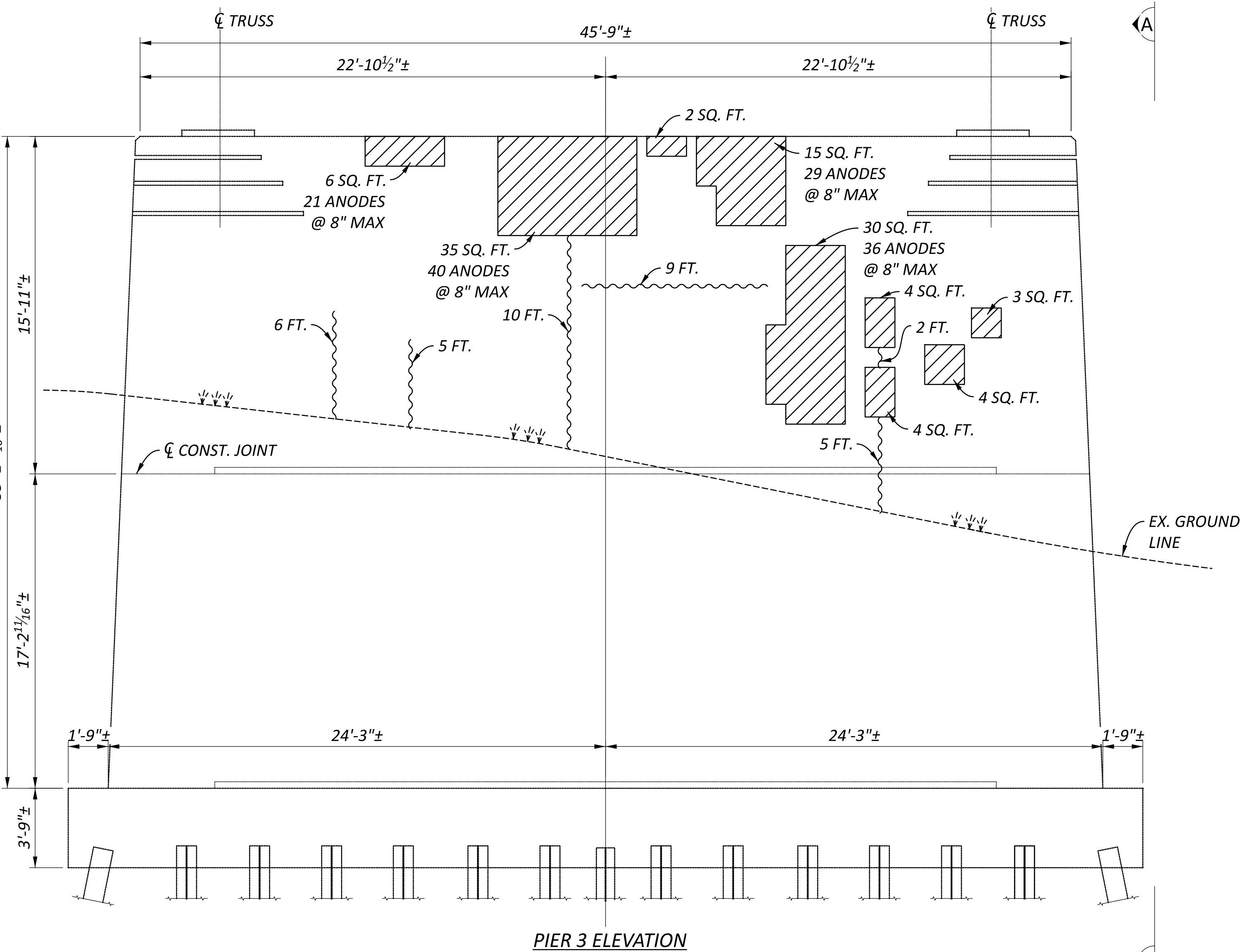
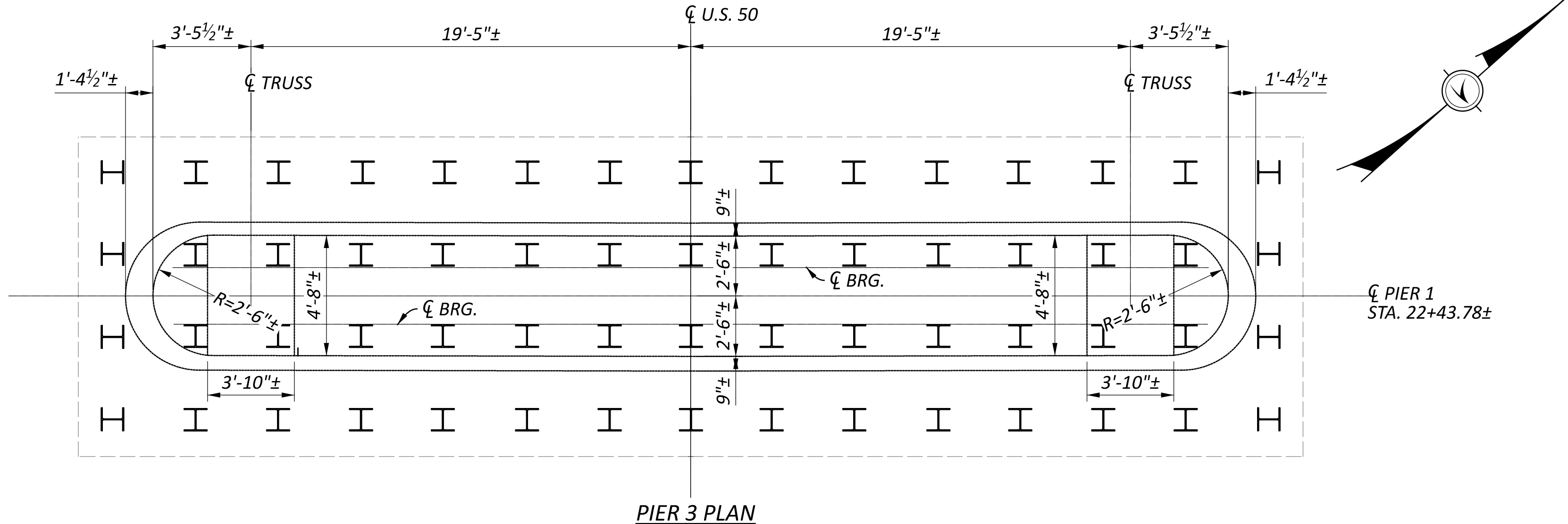


LEGEND

 - AREA TO BE REPAIRED WITH ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

NOTES

1. ALL DIMENSIONS ARE $\pm$.
2. ALL ESTIMATED AREAS ARE GIVEN AS WIDTH x HEIGHT.
3. REPAIR CONCRETE SHALL BE HYDRAULIC CEMENT-BASED MATERIAL WITH A ELECTRICAL RESISTIVITY LESS THAN 50,000 OHM-CM ACCORDING TO ASTM C 1760. DO NOT USE NON- CONDUCTIVE REPAIR MATERIALS SUCH AS MAGNESIUM AMMONIUM PHOSPHATE CONCRETE AND EPOXY MORTARS OR BONDING AGENTS. CONCRETE MIXES CONTAINING HIGH LEVELS OF SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME, GROUND-GRANULATED BLAST FURNACE SLAG, LATEX, FLY ASH OR METAKAOLIN MAY NOT MEET THE RESISTIVITY REQUIREMENT. THE GALVANIC ANODE SIZE AND SPACING IS BASED ON ACHIEVING A CURRENT DENSITY FOR THE EXTREMELY HIGH CORROSION RISK CATEGORY WITH A 30 YEAR INSTALLATION. SUPPLY ANODES WITH A MINIMUM CORE OF 210 GRAMS OF ZINC. SEE THIS SHEET FOR DISTRIBUTION.



SUMMARY OF REPAIR AREAS			
PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETEIORATION WAS PERFORMED IN AUGUST OF 2023. EXACT DIMENSIONS AND LOCATIONS OF REPAIRS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD FOR FINAL PAY QUANTITIES.			
TYPE	MEASURED QUANTITIES	ESTIMATING FACTOR*	ESTIMATED QUANTITIES
PIER 3 PATCHING	103 SQ. FT.	1.5	155 SQ. FT.
PIER 3 EPOXY INJECTION	37 FT.	1.5	56 FT.
PIER 3 ANODES	126	1.5	189

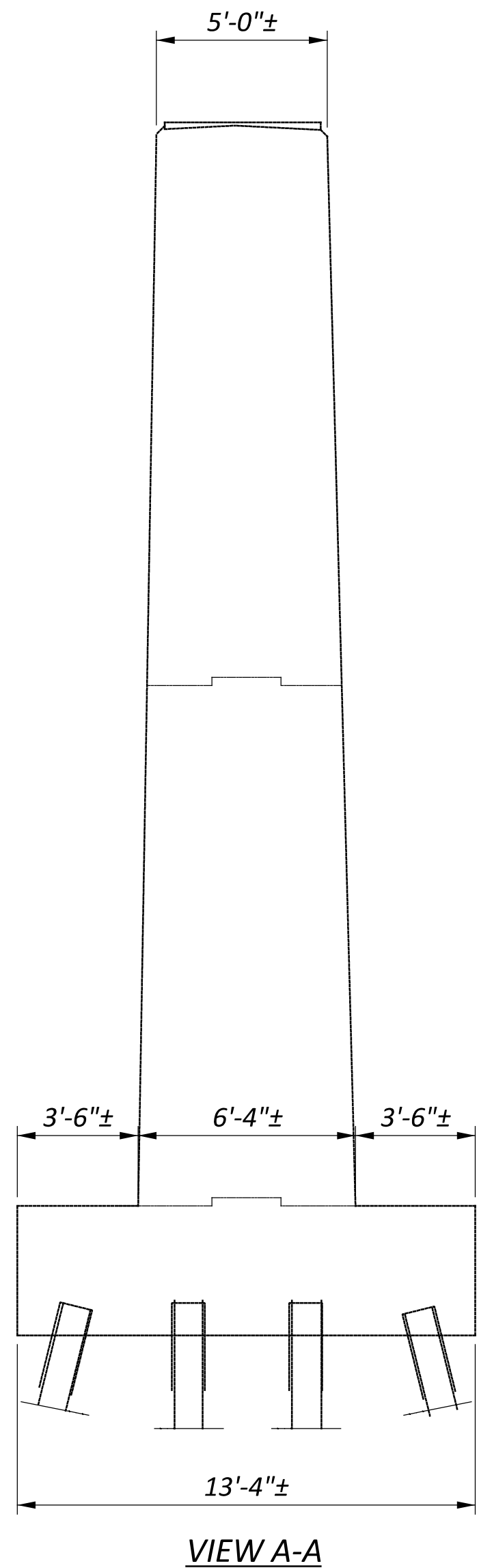
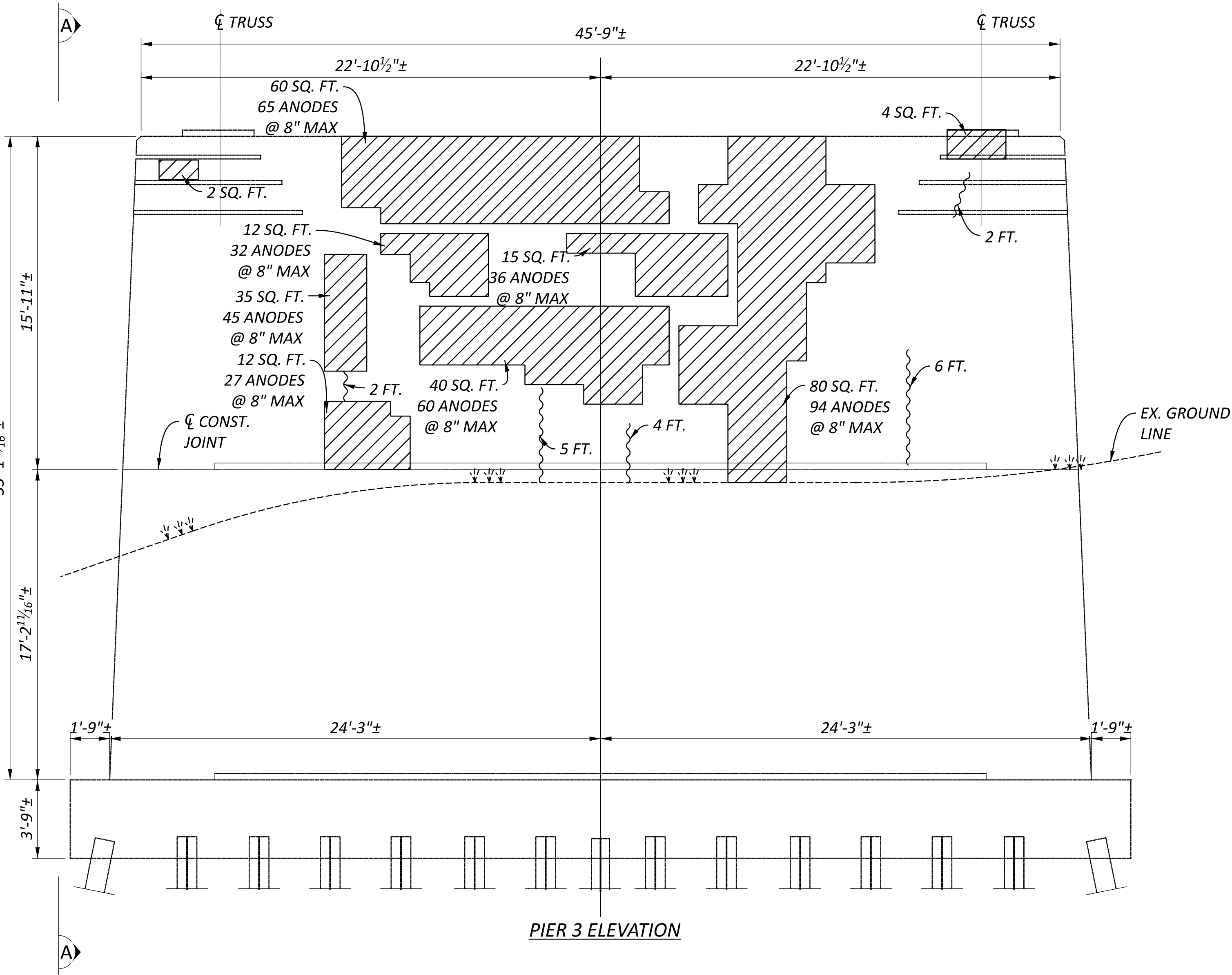
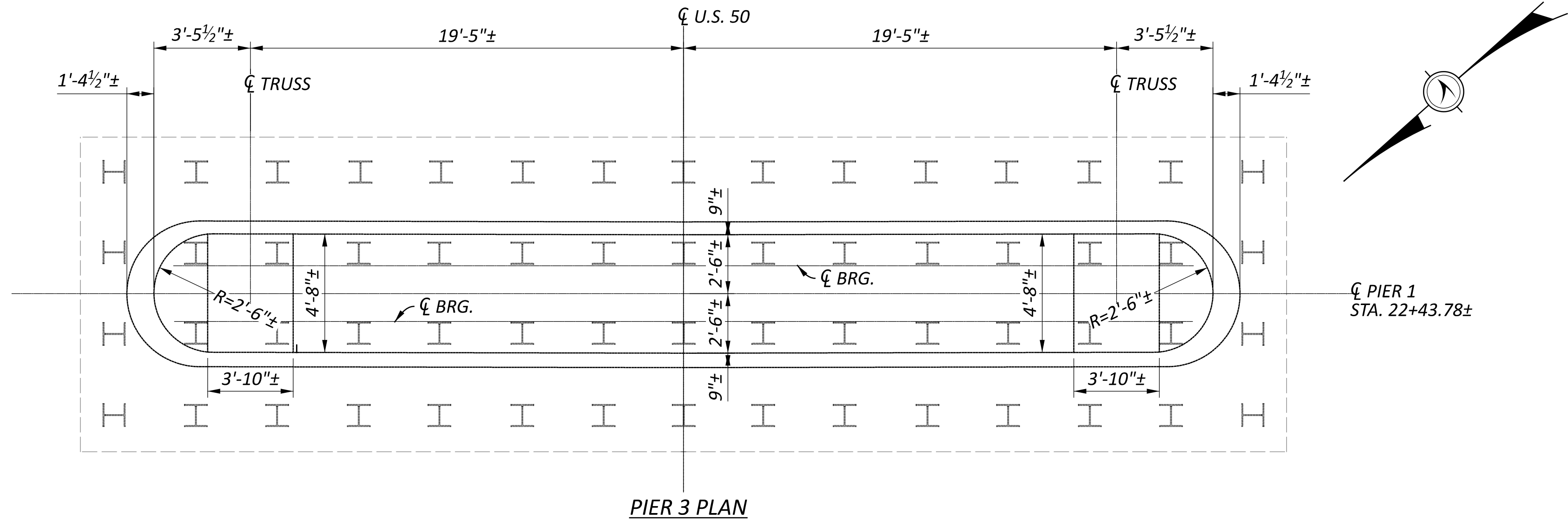
* - ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ALLOW FOR ADDITIONAL DETEIORATION.

LEGEND

- AREA TO BE REPAIRED WITH ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

NOTES

- ALL DIMENSIONS ARE ±.
- ALL ESTIMATED AREAS ARE GIVEN AS WIDTH x HEIGHT.
- REPAIR CONCRETE SHALL BE HYDRAULIC CEMENT-BASED MATERIAL WITH A ELECTRICAL RESISTIVITY LESS THAN 50,000 OHM-CM ACCORDING TO ASTM C 1760. DO NOT USE NON- CONDUCTIVE REPAIR MATERIALS SUCH AS MAGNESIUM AMMONIUM PHOSPHATE CONCRETE AND EPOXY MORTARS OR BONDING AGENTS. CONCRETE MIXES CONTAINING HIGH LEVELS OF SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME, GROUND-GRANULATED BLAST FURNACE SLAG, LATEX, FLY ASH OR METAKAOLIN MAY NOT MEET THE RESISTIVITY REQUIREMENT. THE GALVANIC ANODE SIZE AND SPACING IS BASED ON ACHIEVING A CURRENT DENSITY FOR THE EXTREMELY HIGH CORROSION RISK CATEGORY WITH A 30 YEAR INSTALLATION. SUPPLY ANODES WITH A MINIMUM CORE OF 210 GRAMS OF ZINC. SEE THIS SHEET FOR DISTRIBUTION.



SUMMARY OF REPAIR AREAS			
PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN AUGUST OF 2023. EXACT DIMENSIONS AND LOCATIONS OF REPAIRS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD FOR FINAL PAY QUANTITIES.			
TYPE	MEASURED QUANTITIES	ESTIMATING FACTOR*	ESTIMATED QUANTITIES
PIER 3 PATCHING	260 SQ. FT.	1.5	390 SQ. FT.
PIER 3 EPOXY INJECTION	19 FT.	1.5	29 FT.
PIER 3 ANODES	359	1.5	539
* - ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ALLOW FOR ADDITIONAL DETERIORATION.			

LEGEND

- AREA TO BE REPAIRED WITH ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

NOTES

- ALL DIMENSIONS ARE ±.
- ALL ESTIMATED AREAS ARE GIVEN AS WIDTH x HEIGHT.
- REPAIR CONCRETE SHALL BE HYDRAULIC CEMENT-BASED MATERIAL WITH A ELECTRICAL RESISTIVITY LESS THAN 50,000 OHM-CM ACCORDING TO ASTM C 1760. DO NOT USE NON- CONDUCTIVE REPAIR MATERIALS SUCH AS MAGNESIUM AMMONIUM PHOSPHATE CONCRETE AND EPOXY MORTARS OR BONDING AGENTS. CONCRETE MIXES CONTAINING HIGH LEVELS OF SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME, GROUND-GRANULATED BLAST FURNACE SLAG, LATEX, FLY ASH OR METAKAOLIN MAY NOT MEET THE RESISTIVITY REQUIREMENT. THE GALVANIC ANODE SIZE AND SPACING IS BASED ON ACHIEVING A CURRENT DENSITY FOR THE EXTREMELY HIGH CORROSION RISK CATEGORY WITH A 30 YEAR INSTALLATION. SUPPLY ANODES WITH A MINIMUM CORE OF 210 GRAMS OF ZINC. SEE THIS SHEET FOR DISTRIBUTION.

SWAY BRACING

Member	SIZE	QUANTITY	PERIMETER (FT)	LENGTH (FT)	SURFACE AREA (SQ FT)
HORIZONTAL	W8x28	2	3.4	37.0	251.6
DIAGONAL	W8x17	1	3.0	22.5	136.5
		2	3.0	11.5	
				TOTAL PER BRACE	388
				NO. OF BRACES (EA.)	24
				TOTAL + 10%	10246

PORTAL BRACING

Member	SIZE	QUANTITY	PERIMETER (FT)	LENGTH (FT)	SURFACE AREA (SQ FT)
HORIZONTAL	W8x28	2	3.4	37.0	251.6
DIAGONAL	W8x17	4	3.0	8.5	150.0
		2	3.0	8.0	
				TOTAL PER BRACE	402
				NO. OF BRACES (EA.)	8
				TOTAL + 10%	3534

LATERAL BRACING

Member	SIZE	QUANTITY	PERIMETER (FT)	LENGTH (FT)	SURFACE AREA (SQ FT)
DIAGONAL	ST8 x WF18	2	3.0	22.5	269.4
		1	3.0	44.9	
				TOTAL PER LATERAL	269
				NO. OF LATERAL (EA.)	28
				TOTAL + 10%	8298

TRUSS (SPAN 1 OR 4)

Member	SIZE	QUANTITY	PERIMETER (FT)	LENGTH (FT)	SURFACE AREA (SQ FT)
TOP CHORD	2 C15x50 1- PL 21 x 9/16 W/ LACING BARS	2	6.9	36.8	1528.6
		2	6.9	24.5	
		2	6.9	24.0	
		2	6.9	23.9	
TOP CHORD DIAPHRAGM @ PANEL PTS.	4 L-4 x 3 1/2 x 3/8 1/2 PL	7	3.1	-	
BOTTOM CHORD	PL 15 x 3/4	16	2.6	23.9	
BOT. CHORD INT. DIAPHRAGM	4 L-3 x 3 1/2 x 3/8 1/2 PL	48	2.9	-	1213.1
BOT. CHORD DIAPHRAGM @ SPLICE	4 L-3 x 3 1/2 x 3/8 1/2 PL	16	2.9	-	
BOT. CHORD DIAPHRAGM @ PANEL PTS.	4 L-4 x 3 1/2 x 3/8 1/2 PL	7	3.1	-	
HORIZONTAL	W12x36	4	4.2	12.0	198.6
VERTICAL	W12x36	3	4.2	35.0	1077.4
	W12x40	2	4.5	28.0	
	W12x65	2	5.9	33.3	
DIAGONAL	W12x36	2	4.2	42.4	1512.0
	W12x36	4	4.2	21.2	
	W12x53	2	5.2	41.0	
	W12x58	2	5.2	36.8	
				TOTAL PER TRUSS	5530
				NO. OF TRUSSES (EA.)	4
				TOTAL + 10%	24331

TRUSS (SPAN 2 OR 3)

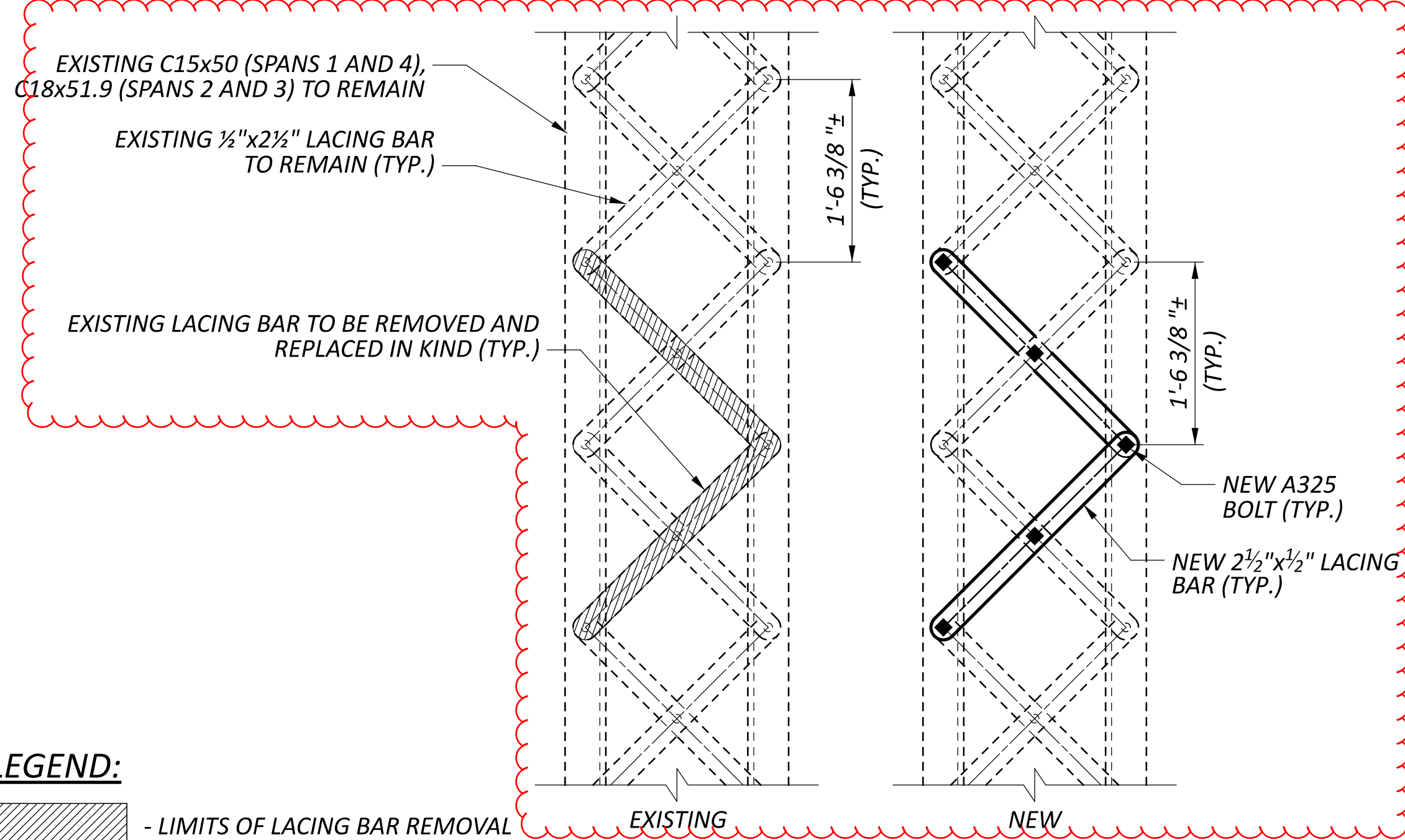
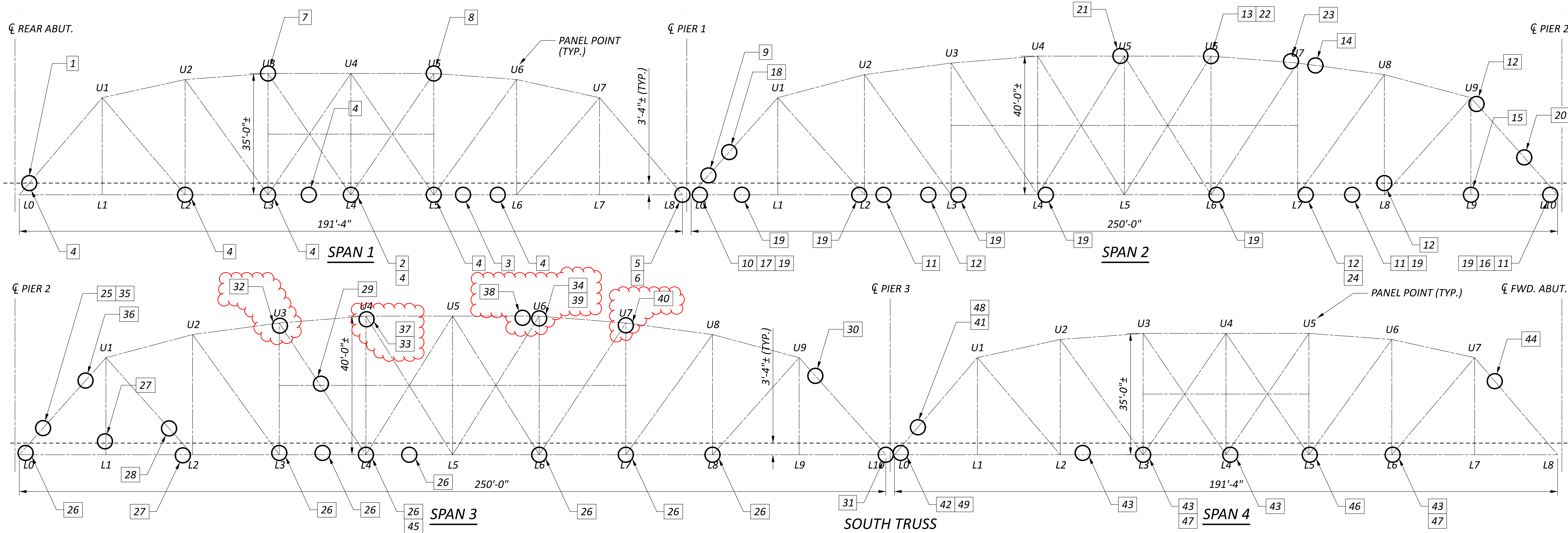
Member	SIZE	QUANTITY	PERIMETER (FT)	LENGTH (FT)	SURFACE AREA (SQ FT)
TOP CHORD	2 C18x51.9 1 PL 22 x 5/8 W/ LACING BARS	2	7.7	37.5	2157.5
		2	7.7	25.9	
		2	7.7	25.3	
		4	7.7	25.0	
TOP CHORD DIAPHRAGM @ PANEL PTS.	4 L-4 x 3 1/2 x 3/8 1/2 PL	9	3.1	-	
BOTTOM CHORD	2 PLY PL 18 x 3/4	20	3.3	25.0	1886.5
BOT. CHORD INT. DIAPHRAGM	4 L-3 x 3 1/2 x 3/8 1/2 PL	60	2.9	-	
BOT. CHORD DIAPHRAGM @ SPLICE	4 L-3 x 3 1/2 x 3/8 1/2 PL	20	2.9	-	
BOT. CHORD DIAPHRAGM @ PANEL PTS.	4 L-4 x 3 1/2 x 3/8 1/2 PL	9	3.1	-	
HORIZONTAL	W12x36	8	4.2	12.5	415.1
VERTICAL	W12x36	5	4.2	40.0	1488.4
	W12x40	2	4.5	28.0	
	W12x65	2	5.9	34.7	
DIAGONAL	W12x36	2	4.2	47.2	2084.2
	W12x36	4	4.2	23.6	
	W12x45	2	4.5	46.0	
	W12x53	2	5.2	42.7	
	W12x65	2	5.9	37.5	
				TOTAL PER TRUSS	8032
				NO. OF TRUSSES (EA.)	4
				TOTAL + 10%	35339

FLOOR (SPAN 1 OR 2)

Member	SIZE	QUANTITY	PERIMETER (FT)	LENGTH (FT)	SURFACE AREA (SQ FT)
FLOOR BEAM	W36x260	7	11.3	37.8	3837.6
	W36x280	2	11.3	37.8	
STRINGER	W21x62	40	6.1	23.9	5806.7
CROSSFRAME	L-3x3x15/16	7	1.0	21.2	143.5
				TOTAL PER SPAN	9788
				NO. OF SPAN (EA.)	2
				TOTAL + 10%	21533

FLOOR (SPAN 2 OR 3)

Member	SIZE	QUANTITY	PERIMETER (FT)	LENGTH (FT)	SURFACE AREA (SQ FT)
FLOOR BEAM	W36x280	9	11.3	37.8	4710.6
	W36x300	2	11.4	37.8	
STRINGER	W21x62	50	6.1	23.9	7258.3
CROSSFRAME	L-3x3x15/16	9	1.0	21.2	184.5
				TOTAL PER SPAN	12153
				NO. OF SPAN (EA.)	2
				TOTAL + 10%	26737



ITEM 513 - LACING BAR REPAIRS				
CALLOUT	SPAN	TRUSS	MEMBER	NO. OF REPAIRS
1	1	NORTH	L0-U1	5
9	2	NORTH	L0-U1	6
18	2	SOUTH	L0-U1	4
18	2	SOUTH	L0-U1	4
25	3	NORTH	L0-U1	3
25	3	SOUTH	L0-U1	6
41	4	NORTH	L0-U1	4
TOTAL				32

ITEM 513 - PLATE HOLE REPAIR				
CALLOUT	SPAN	TRUSS	MEMBER	NO. OF REPAIRS
6	1	SOUTH	L8	1
16	2	NORTH	L9-L10	1
TOTAL				2

ITEM 513 - RIVET REPLACEMENT				
CALLOUT	SPAN	TRUSS	MEMBER	NO. OF REPAIRS
5	1	SOUTH	L7-L8	1
7	1	SOUTH	U2-U3	8
8	1	SOUTH	U5-U6	3
10	2	NORTH	L0-L1	4
13	2	NORTH	U5-U6	1
15	2	NORTH	L8-L9	1
17	2	NORTH	L0-L1	4
21	2	SOUTH	U4-U5	1
22	2	SOUTH	U6-U7	1
23	2	SOUTH	U6-U7	1
31	3	NORTH	L9-L10	2
32	3	NORTH	U2-U3	3
33	3	NORTH	U4-U5	8
34	3	NORTH	U5-U6	4
37	3	SOUTH	U4-U5	1
38	3	SOUTH	U5-U6	1
39	3	SOUTH	U6-U7	8
40	3	SOUTH	U6-U7	2
45	3	SOUTH	FB-4	2
46	4	NORTH	L4-L5	6
49	4	SOUTH	L0-L1	4
TOTAL				66

ITEM 514 - PACKRUST REPAIR				
CALLOUT	SPAN	TRUSS	MEMBER	NO. OF REPAIRS
2	1	NORTH	L4	1
3	1	NORTH	L5-L6	1
4	1	SOUTH	LOWER CHORD	7
11	2	NORTH	LOWER CHORD	3
12	2	NORTH	GUSSET PLATE	4
14	2	NORTH	UPPER CHORD	7
19	2	SOUTH	LOWER CHORD	8
20	2	SOUTH	UPPER CHORD	1
24	2	SOUTH	GUSSET PLATE	1
26	3	NORTH	LOWER CHORD	8
27	3	NORTH	GUSSET PLATE	2
28	3	NORTH	L2-U1	1
29	3	NORTH	L4-U3	1
30	3	NORTH	U9-L10	1
36	3	SOUTH	L0-U1	1
42	4	NORTH	GUSSET PLATE	1
43	4	NORTH	LOWER CHORD	4
44	4	NORTH	L8-U7	1
47	4	SOUTH	LOWER CHORD	2
48	4	SOUTH	L0-U1	1
TOTAL				56

LEGEND:

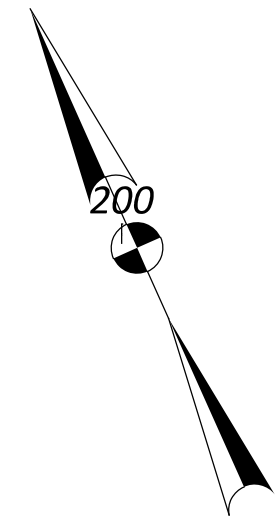
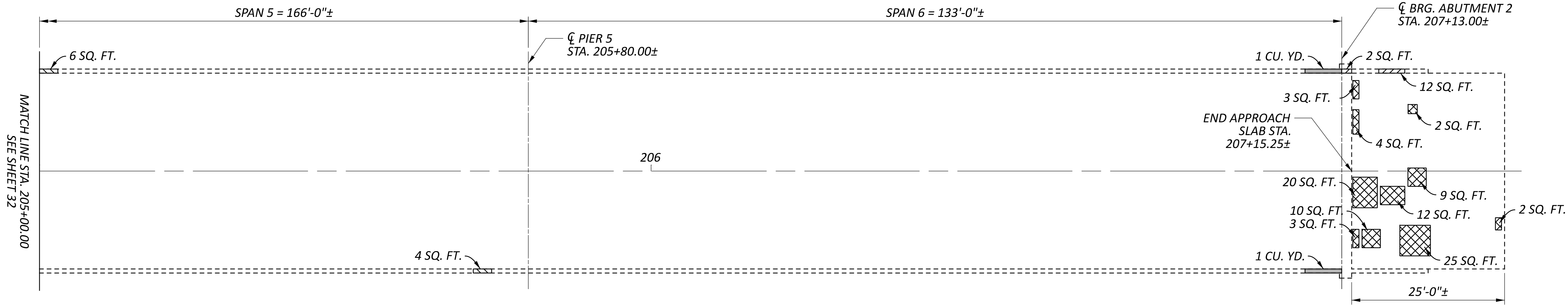
- LIMITS OF LACING BAR REMOVAL
- REMOVE EXISTING FASTENER AND REPLACE WITH NEW 7/8" Ø A325 BOLT
- EXISTING FASTENER TO REMAIN IN PLACE UNLESS NOTED OTHERWISE
- STEEL REPAIR LOCATION
- STEEL REPAIR CALLOUT

TYPICAL LACING BAR REPAIR

(UNDERSIDE OF END POST SHOWN)

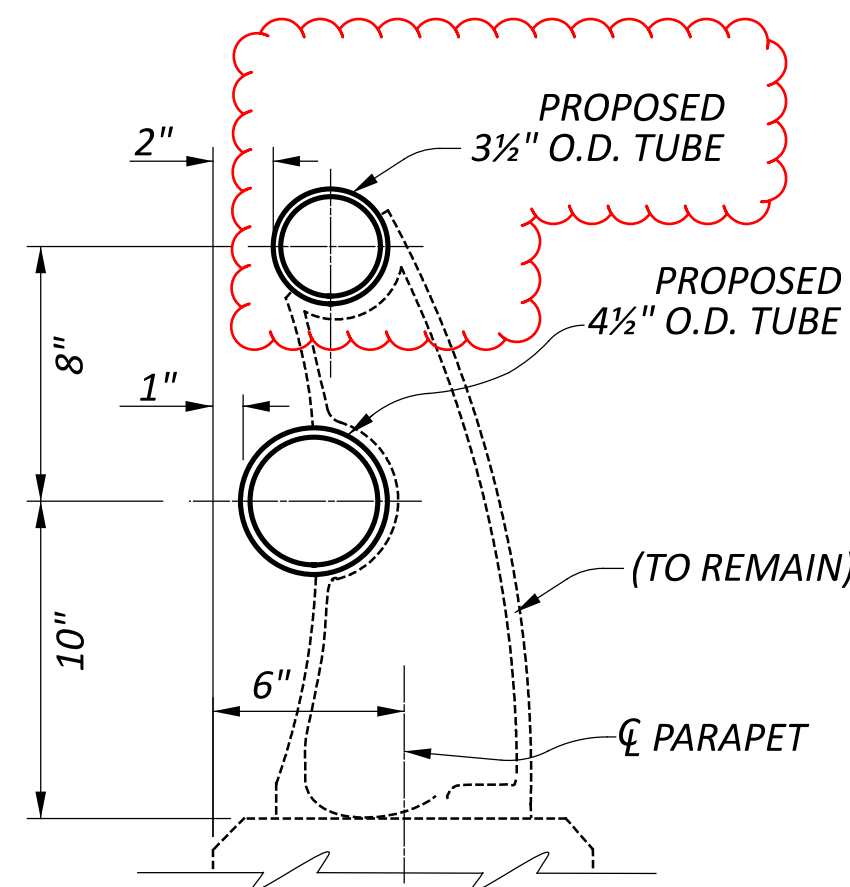
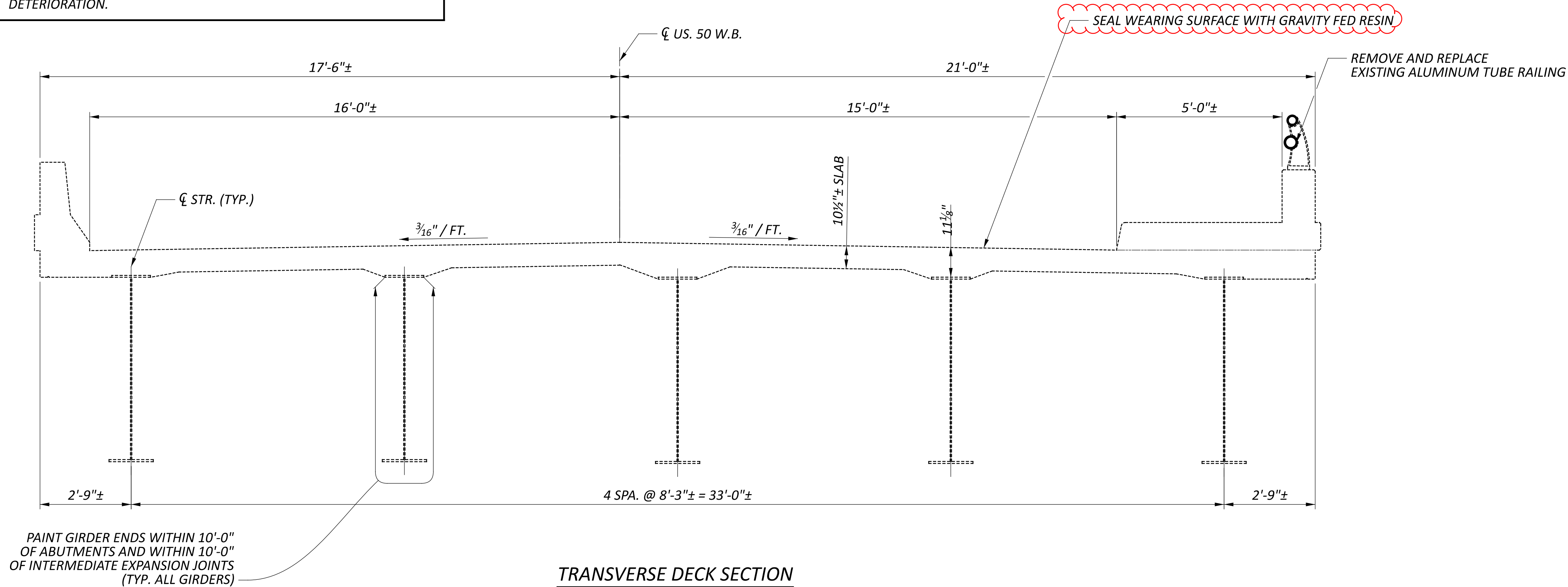
NOTES:

- CONTRACTOR SHALL FIELD VERIFY MEMBER DIMENSIONS AND CONTACT THE ENGINEER WITH ANY DISCREPANCIES PRIOR TO PERFORMING WORK.
- MATERIALS SHOWN ARE EXISTING AND TO REMAIN UNLESS OTHERWISE NOTED.
- THE REMOVAL OF EXISTING LACING BARS, NEW LACING BAR MATERIALS, AND ALL LABOR ASSOCIATED WITH THE LACING BAR REPAIRS SHALL BE INCLUDED FOR PAYMENT IN ITEM 513 - STRUCTURAL STEEL MISC.: END POST LACING BAR REPAIRS. FOR GENERAL REQUIREMENTS AND INSTALLATION INSTRUCTIONS, SEE SHEET 10/52. NO MORE THAN 3 FASTENERS (ONE LACING BAR) SHALL BE REMOVED AT ONE TIME.



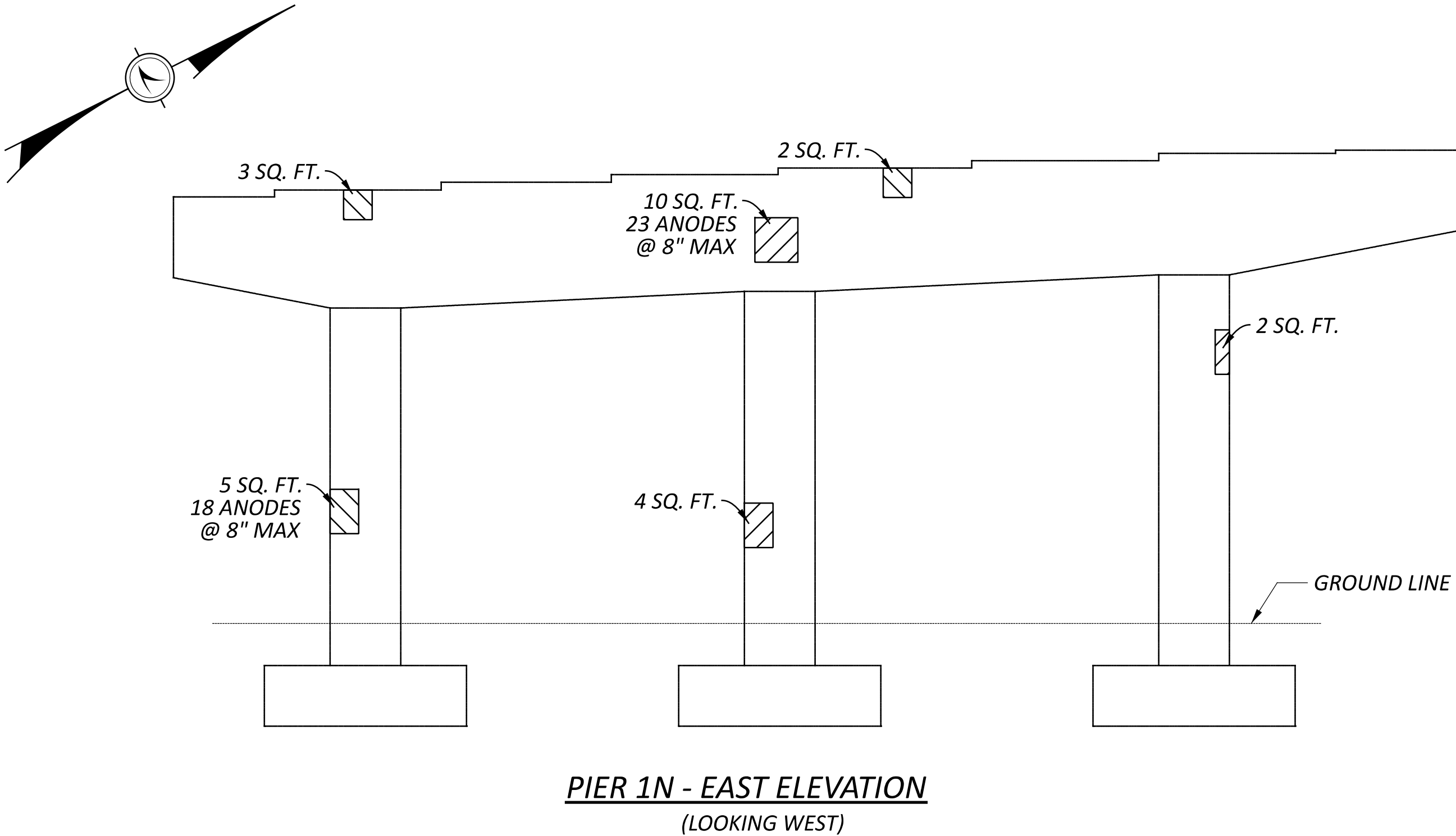
SUMMARY OF REPAIR AREAS				
PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN JUNE OF 2025.				
EXACT DIMENSIONS AND LOCATIONS OF REPAIRS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD FOR FINAL PAY QUANTITIES.				
TYPE		MEASURED QUANTITIES	ESTIMATING FACTOR*	ESTIMATED QUANTITIES
ITEM 519 PATCHING		22 SQ. FT.	1.5	33 SQ. FT.
PN 512 PATCHING		90 SQ. FT.	1.5	135 SQ. FT.
FULL DEPTH REPAIR		2 CU. YD.	1.5	3 CU. YD.
* - ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ALLOW FOR ADDITIONAL DETERIORATION.				

DECK PLAN



ALUMINUM RAIL DETAIL

ALUMINUM RAILING FOR STANDARD BRIDGE DRAWING BR-2-82 (RET.) WITH TYPE 2 POSTS



PIER 1N - EAST ELEVATION
(LOOKING WEST)

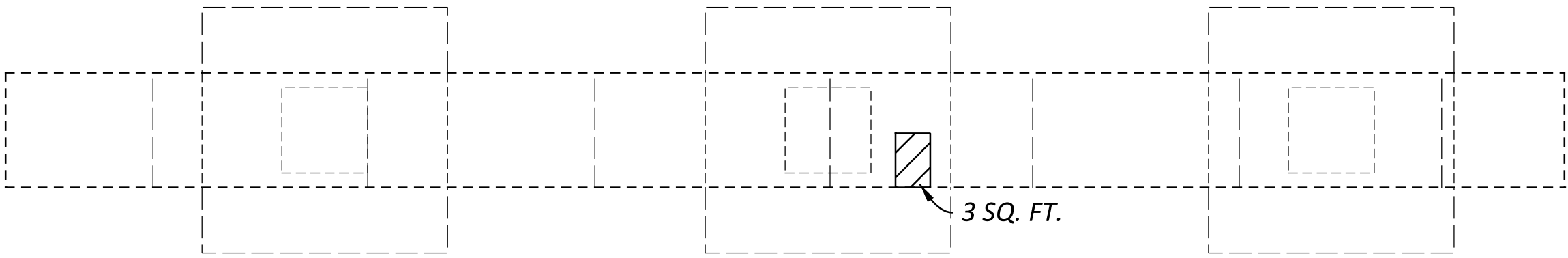
NOTES

- ALL DIMENSIONS ARE ±.
- ALL ESTIMATED AREAS ARE GIVEN AS WIDTH x HEIGHT.
- REPAIR CONCRETE SHALL BE HYDRAULIC CEMENT-BASED MATERIAL WITH A ELECTRICAL RESISTIVITY LESS THAN 50,000 OHM-CM ACCORDING TO ASTM C 1760. DO NOT USE NON- CONDUCTIVE REPAIR MATERIALS SUCH AS MAGNESIUM AMMONIUM PHOSPHATE CONCRETE AND EPOXY MORTARS OR BONDING AGENTS. CONCRETE MIXES CONTAINING HIGH LEVELS OF SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME, GROUND GRANULATED BLAST FURNACE SLAG, LATEX, FLY ASH OR METAKAOLIN MAY NOT MEET THE RESISTIVITY REQUIREMENT. THE GALVANIC ANODE SIZE AND SPACING IS BASED ON ACHIEVING A CURRENT DENSITY FOR THE EXTREMELY HIGH CORROSION RISK CATEGORY WITH A 30 YEAR INSTALLATION. SUPPLY ANODES WITH A MINIMUM CORE OF 210 GRAMS OF ZINC. SEE THIS SHEET FOR DISTRIBUTION.
- SEAL ENTIRE EXPOSED SURFACE AREA OF ABUTMENT AND WING WALLS, EXCEPT FOR TOP HORIZONTAL SURFACE OF CAP, WITH EPOXY-URETHANE. SEE TYPICAL SEALING DETAILS.

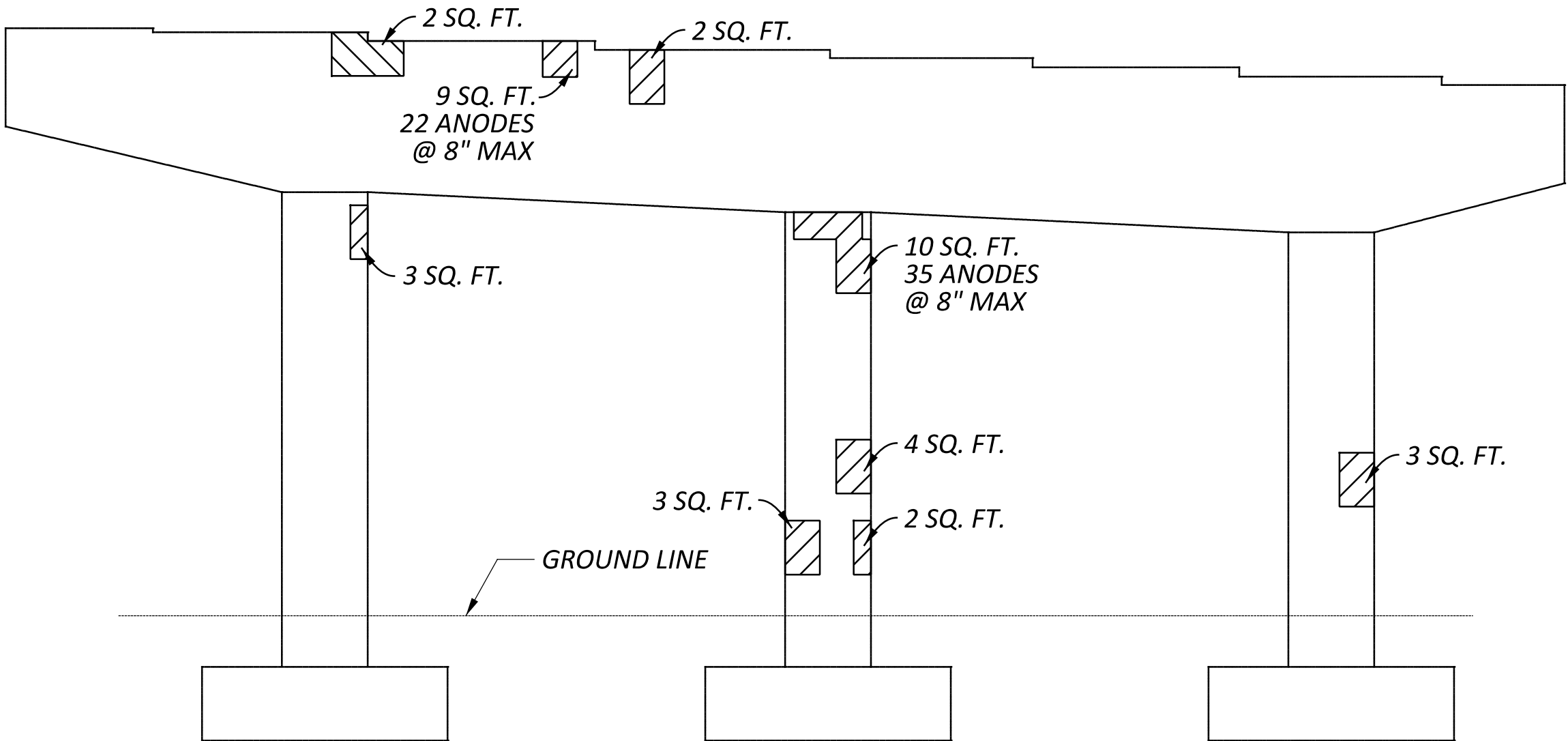
SUMMARY OF REPAIR AREAS			
PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN JUNE OF 2025. EXACT DIMENSIONS AND LOCATIONS OF REPAIRS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD FOR FINAL PAY QUANTITIES.			
TYPE	MEASURED QUANTITIES	ESTIMATING FACTOR*	ESTIMATED QUANTITIES
PIER 1N PATCHING	94 SQ. FT.	1.5	141 SQ. FT.
PIER 1N ANODES	155	1.5	233
* - ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ALLOW FOR ADDITIONAL DETERIORATION.			

LEGEND

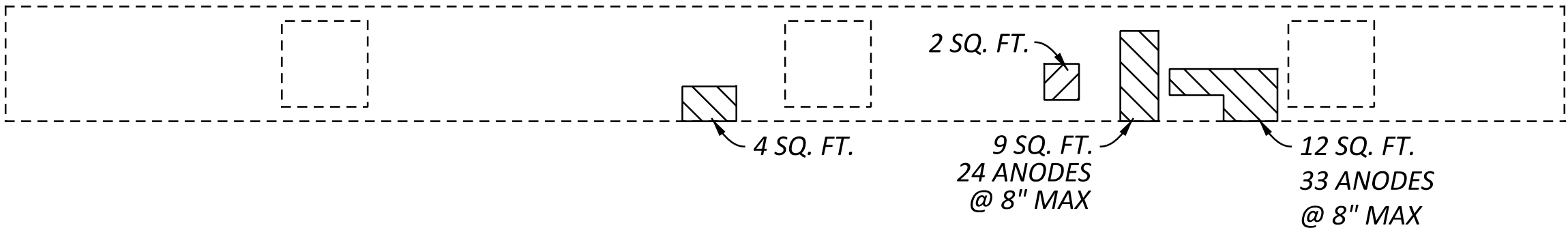
- AREA TO BE REPAIRED WITH ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN



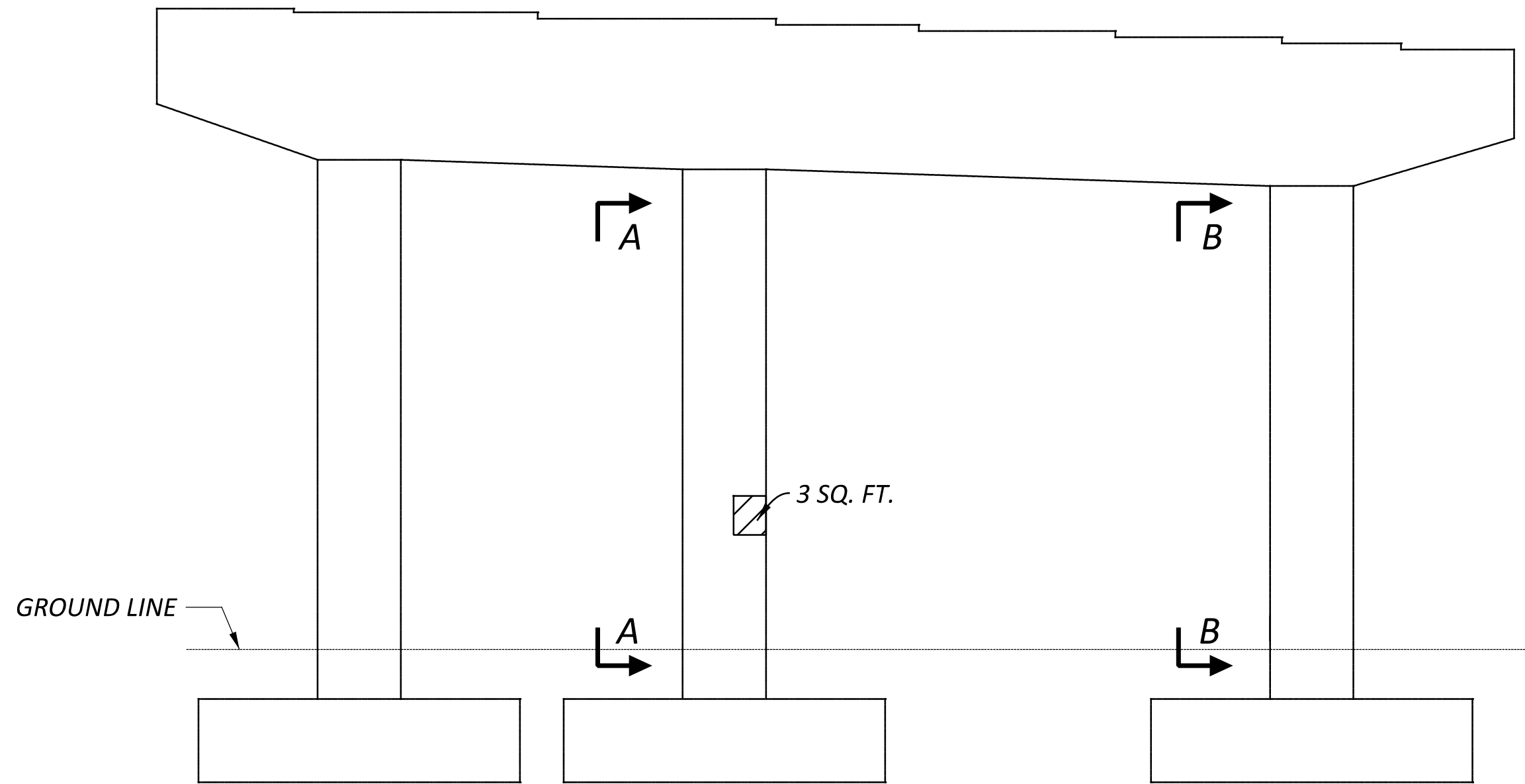
PIER 1N - PLAN
(TOP)



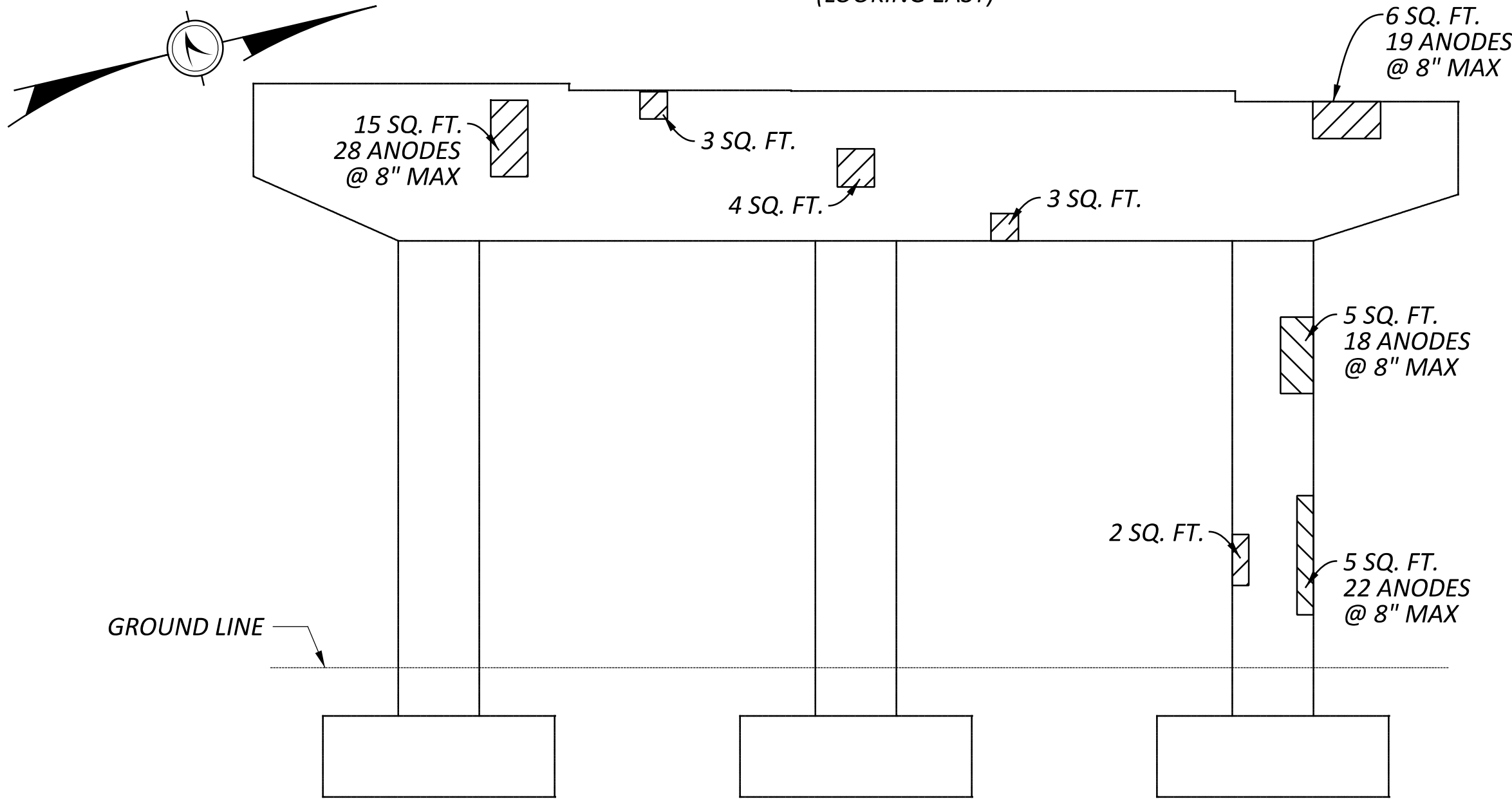
PIER 1N - WEST ELEVATION
(LOOKING EAST)



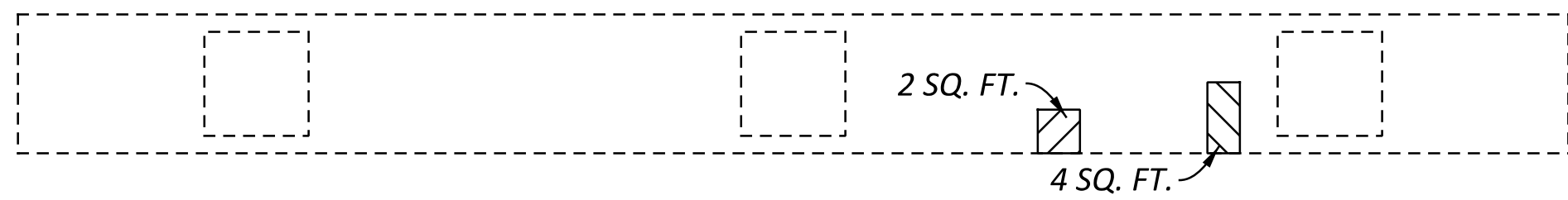
PIER 1N - PLAN
(BOTTOM)



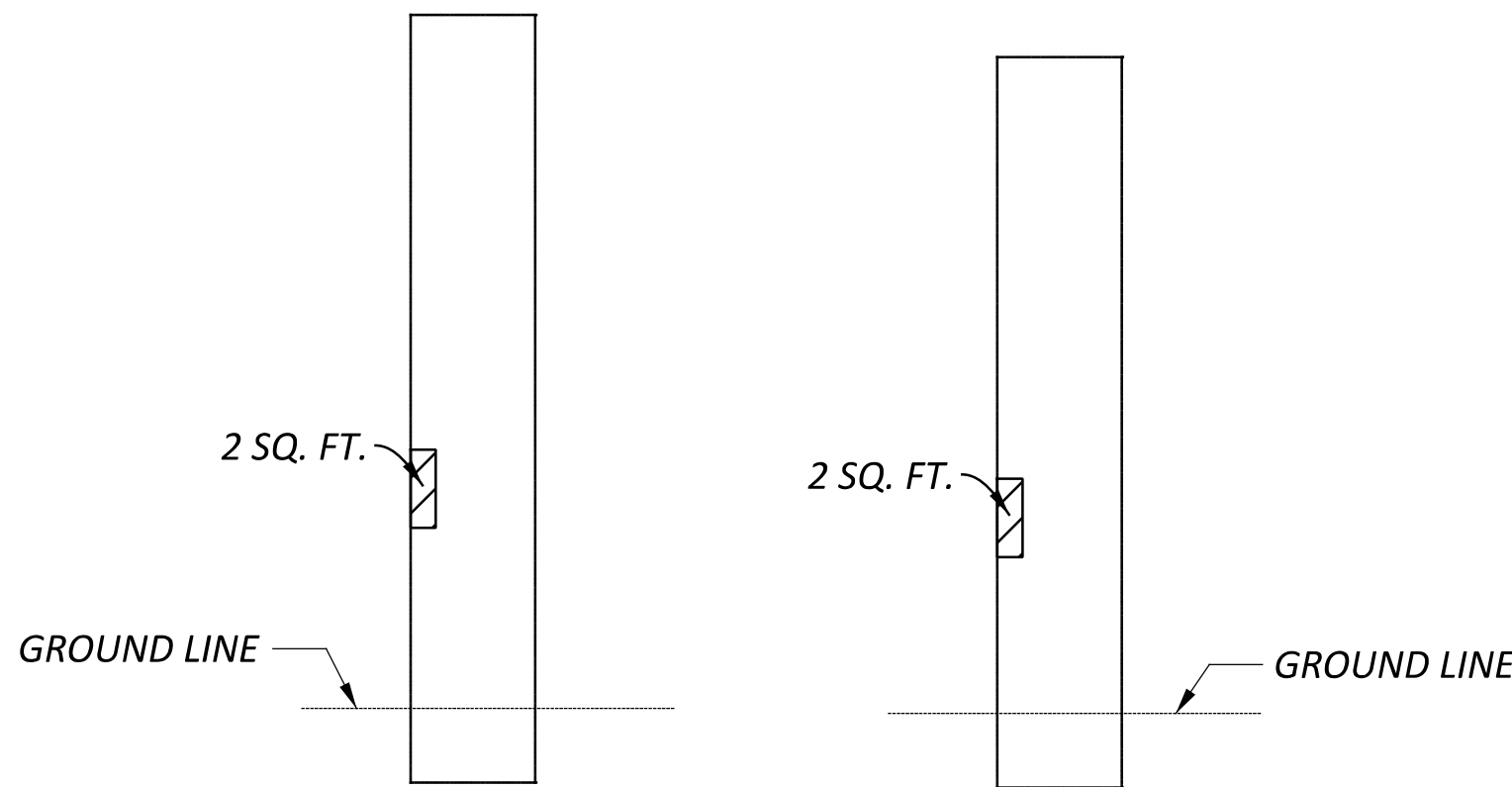
PIER 2N - WEST ELEVATION
(LOOKING EAST)



PIER 3N - WEST ELEVATION
(LOOKING EAST)

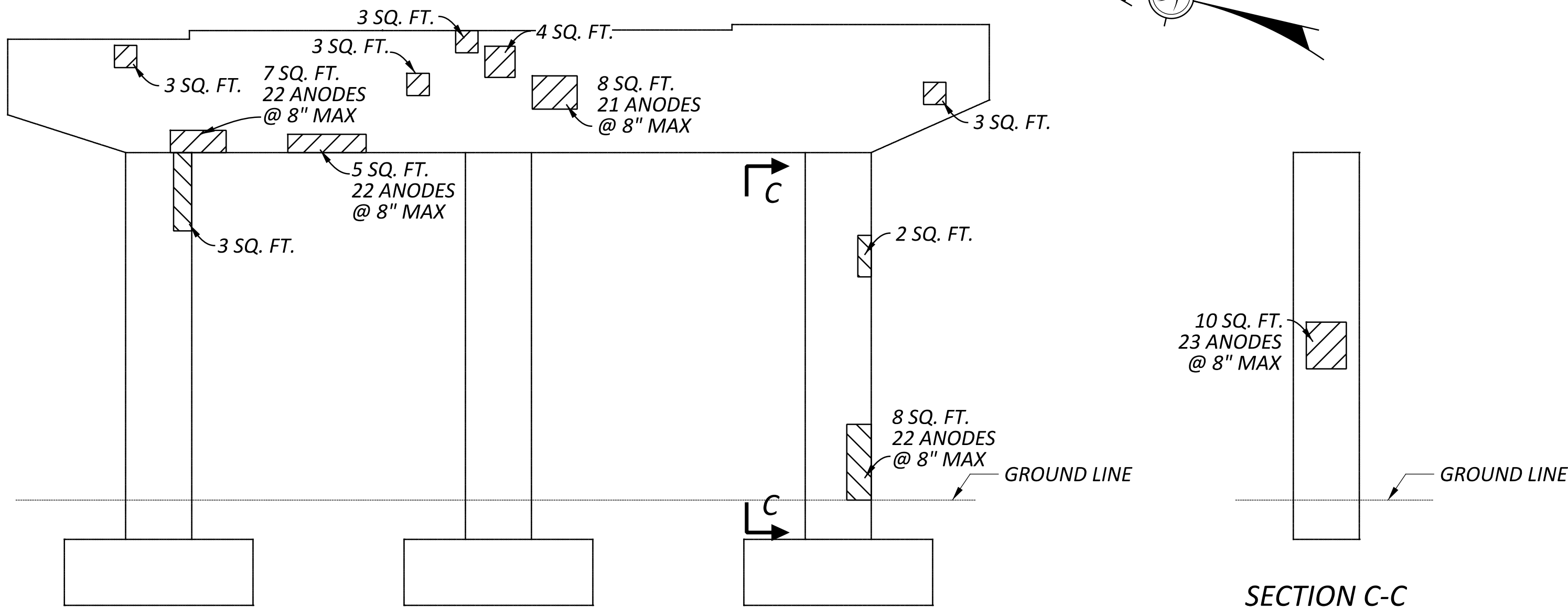


PIER 3N - PLAN
(BOTTOM)



SECTION A-A

SECTION B-B



PIER 3N - EAST ELEVATION
(LOOKING WEST)

SECTION C-C

NOTES

- ALL DIMENSIONS ARE ±.
- ALL ESTIMATED AREAS ARE GIVEN AS WIDTH x HEIGHT.
- REPAIR CONCRETE SHALL BE HYDRAULIC CEMENT-BASED MATERIAL WITH A ELECTRICAL RESISTIVITY LESS THAN 50,000 OHM-CM ACCORDING TO ASTM C 1760. DO NOT USE NON- CONDUCTIVE REPAIR MATERIALS SUCH AS MAGNESIUM AMMONIUM PHOSPHATE CONCRETE AND EPOXY MORTARS OR BONDING AGENTS. CONCRETE MIXES CONTAINING HIGH LEVELS OF SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME, GROUND GRANULATED BLAST FURNACE SLAG, LATEX, FLY ASH OR METAKAOLIN MAY NOT MEET THE RESISTIVITY REQUIREMENT. THE GALVANIC ANODE SIZE AND SPACING IS BASED ON ACHIEVING A CURRENT DENSITY FOR THE EXTREMELY HIGH CORROSION RISK CATEGORY WITH A 30 YEAR INSTALLATION. SUPPLY ANODES WITH A MINIMUM CORE OF 210 GRAMS OF ZINC. SEE THIS SHEET FOR DISTRIBUTION.
- SEAL ENTIRE EXPOSED SURFACE AREA OF ABUTMENT AND WING WALLS, EXCEPT FOR TOP HORIZONTAL SURFACE OF CAP, WITH EPOXY-URETHANE. SEE TYPICAL SEALING DETAILS.

SUMMARY OF REPAIR AREAS

PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN JUNE OF 2025.
EXACT DIMENSIONS AND LOCATIONS OF REPAIRS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD FOR FINAL PAY QUANTITIES.

TYPE	MEASURED QUANTITIES	ESTIMATING FACTOR*	ESTIMATED QUANTITIES
PIER 2N PATCHING	7 SQ. FT.	1.5	11 SQ. FT.
PIER 3N PATCHING	92 SQ. FT.	1.5	138 SQ. FT.
PIER 3N ANODES	197	1.5	296

* - ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ALLOW FOR ADDITIONAL DETERIORATION.

LEGEND

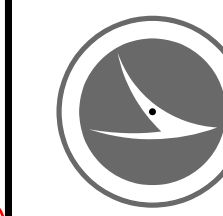
▨ - AREA TO BE REPAIRED WITH ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

PIER 1N & 2N REPAIR DETAILS

HAM-50-1903L

WESTBOUND US 50 OVER CIND RR, CSX RR, MILL CREEK & PRIVATE DRIVE

SFN
3102807
DESIGN AGENCY



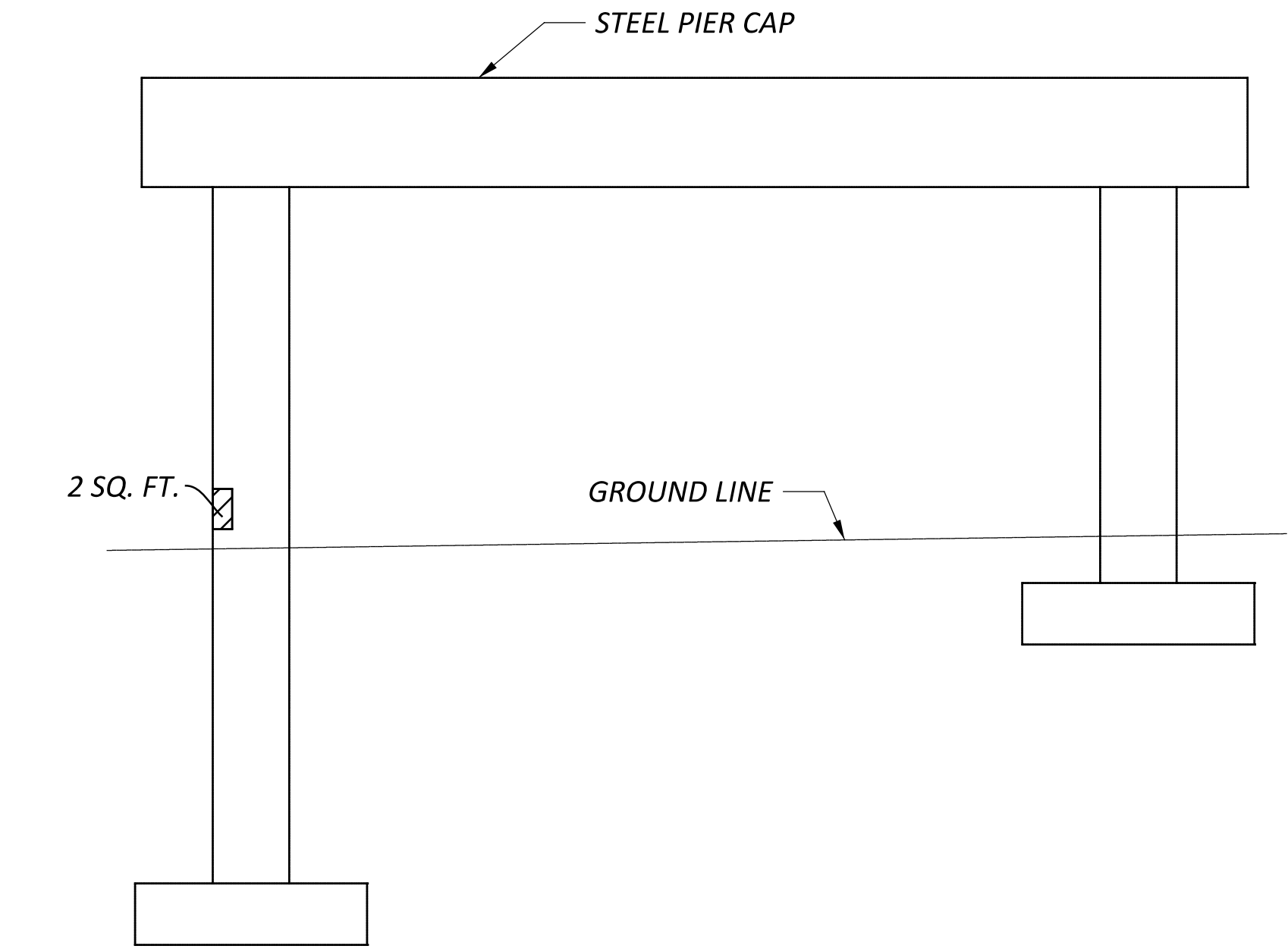
DESIGNER
GTF
CHECKER
JAB

REVIEWER
CAH 7-14-25

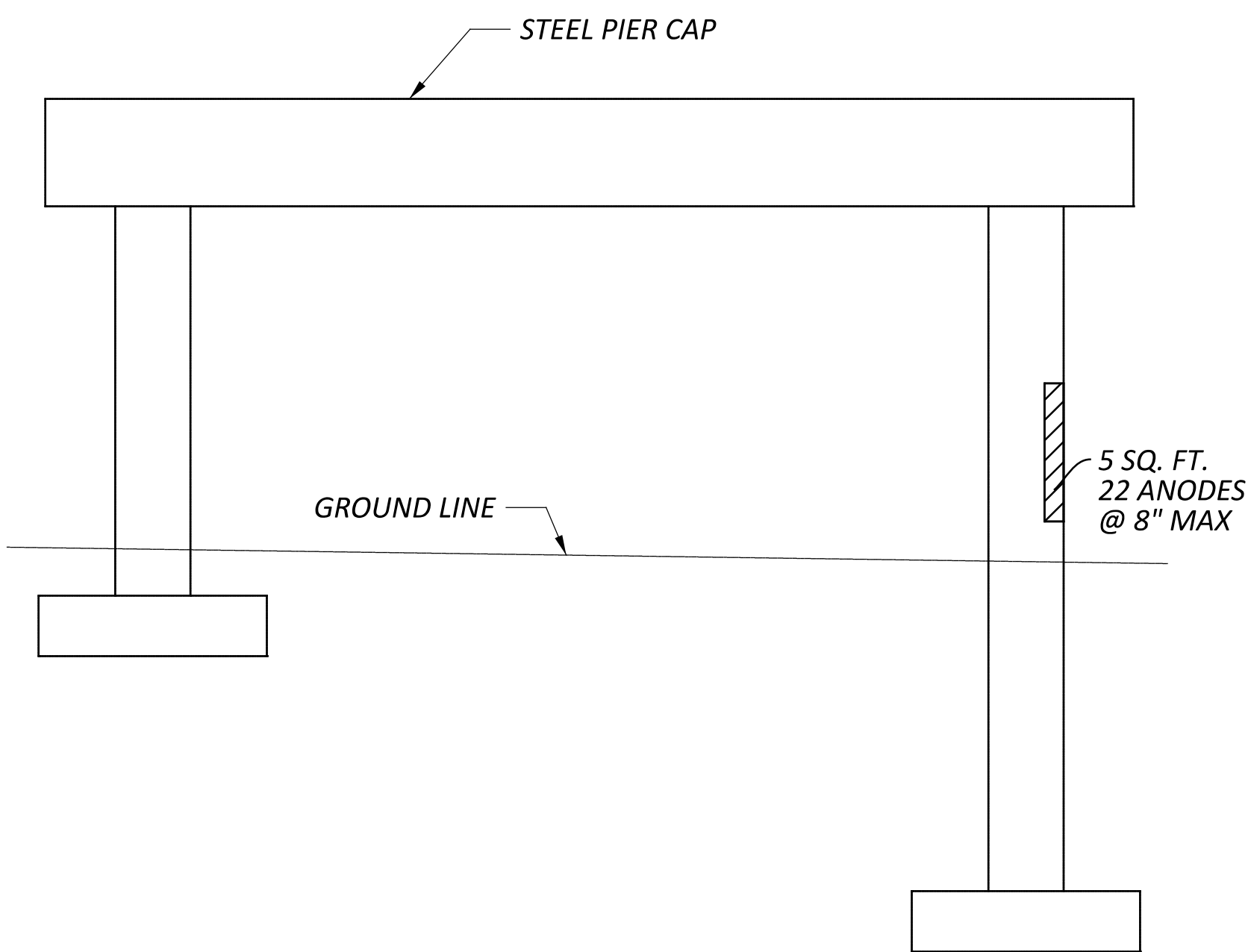
PROJECT ID
114515

SUBSET
14 TOTAL
17

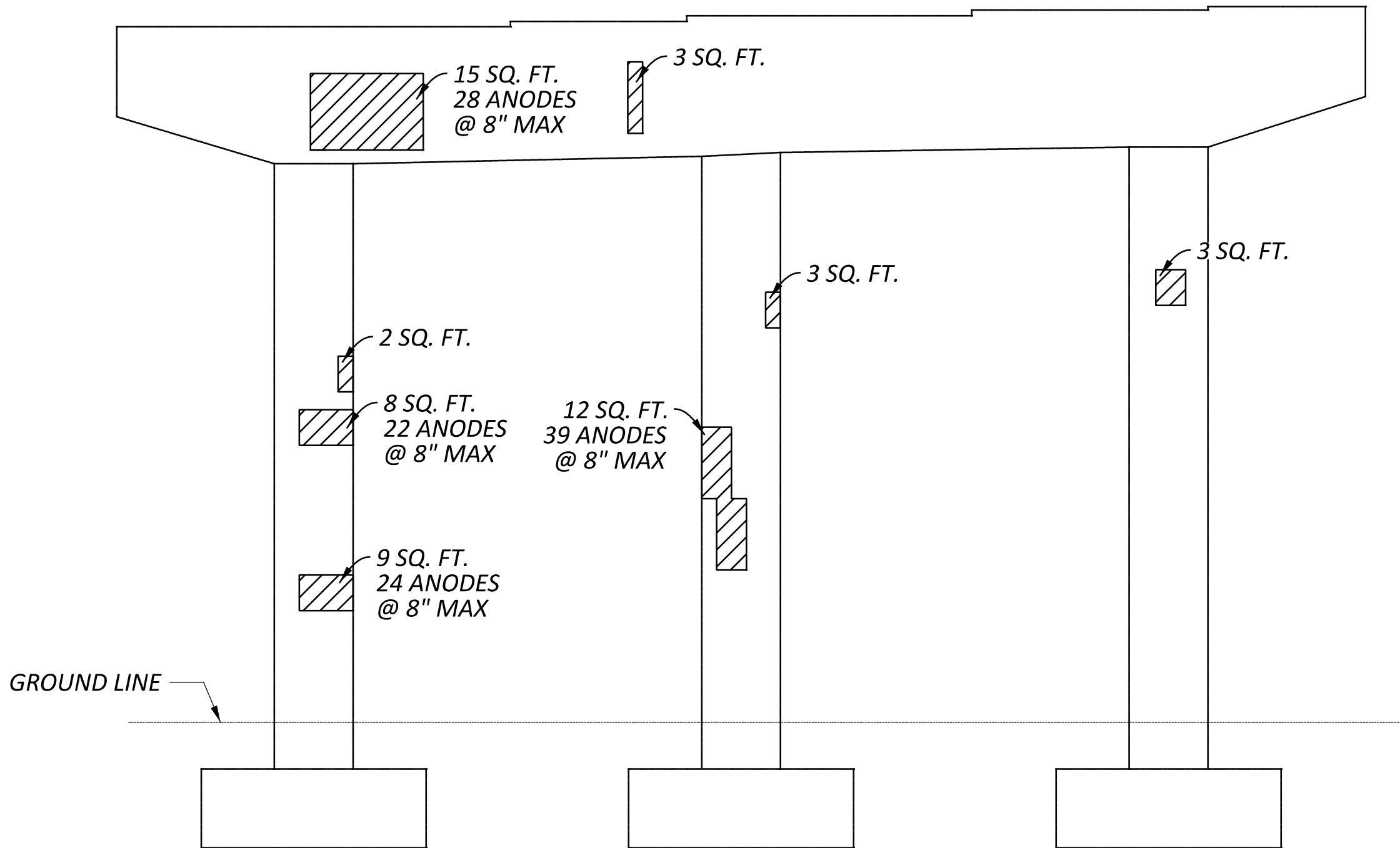
SHEET
49 TOTAL
52



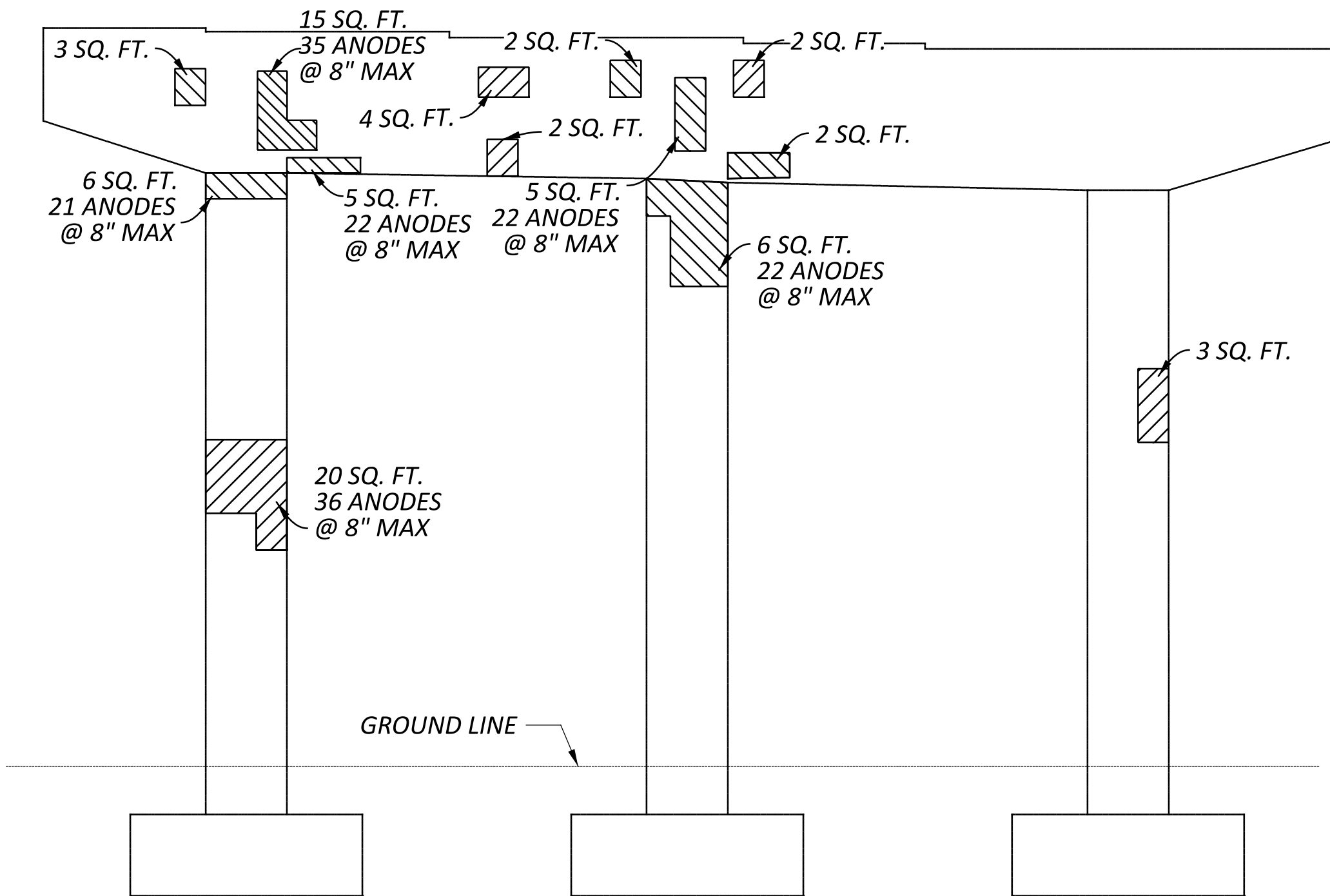
PIER 4N - WEST ELEVATION
(LOOKING EAST)



PIER 4N - EAST ELEVATION
(LOOKING WEST)



PIER 7N - WEST ELEVATION
(LOOKING EAST)



PIER 7N - EAST ELEVATION
(LOOKING WEST)

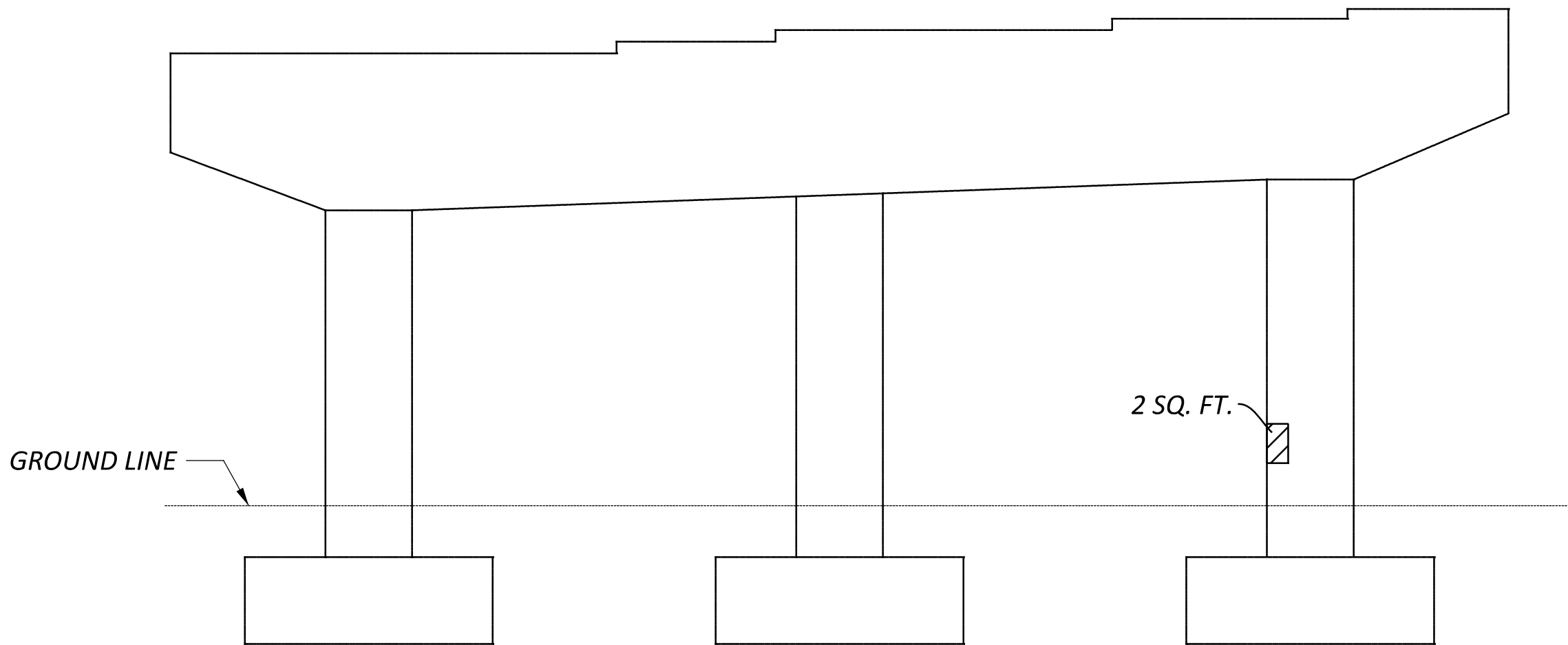
SUMMARY OF REPAIR AREAS				
PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN JUNE OF 2025. EXACT DIMENSIONS AND LOCATIONS OF REPAIRS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD FOR FINAL PAY QUANTITIES.				
TYPE		MEASURED QUANTITIES	ESTIMATING FACTOR*	ESTIMATED QUANTITIES
PIER 4N PATCHING		7 SQ. FT.	1.5	11 SQ. FT.
PIER 7N PATCHING		55 SQ. FT.	1.5	83 SQ. FT.
SS844 PATCHING			1.5	
PIER 7N ANODES		268	1.5	402
PIER 4N ANODES		22	1.5	33
* - ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ALLOW FOR ADDITIONAL DETERIORATION.				

LEGEND

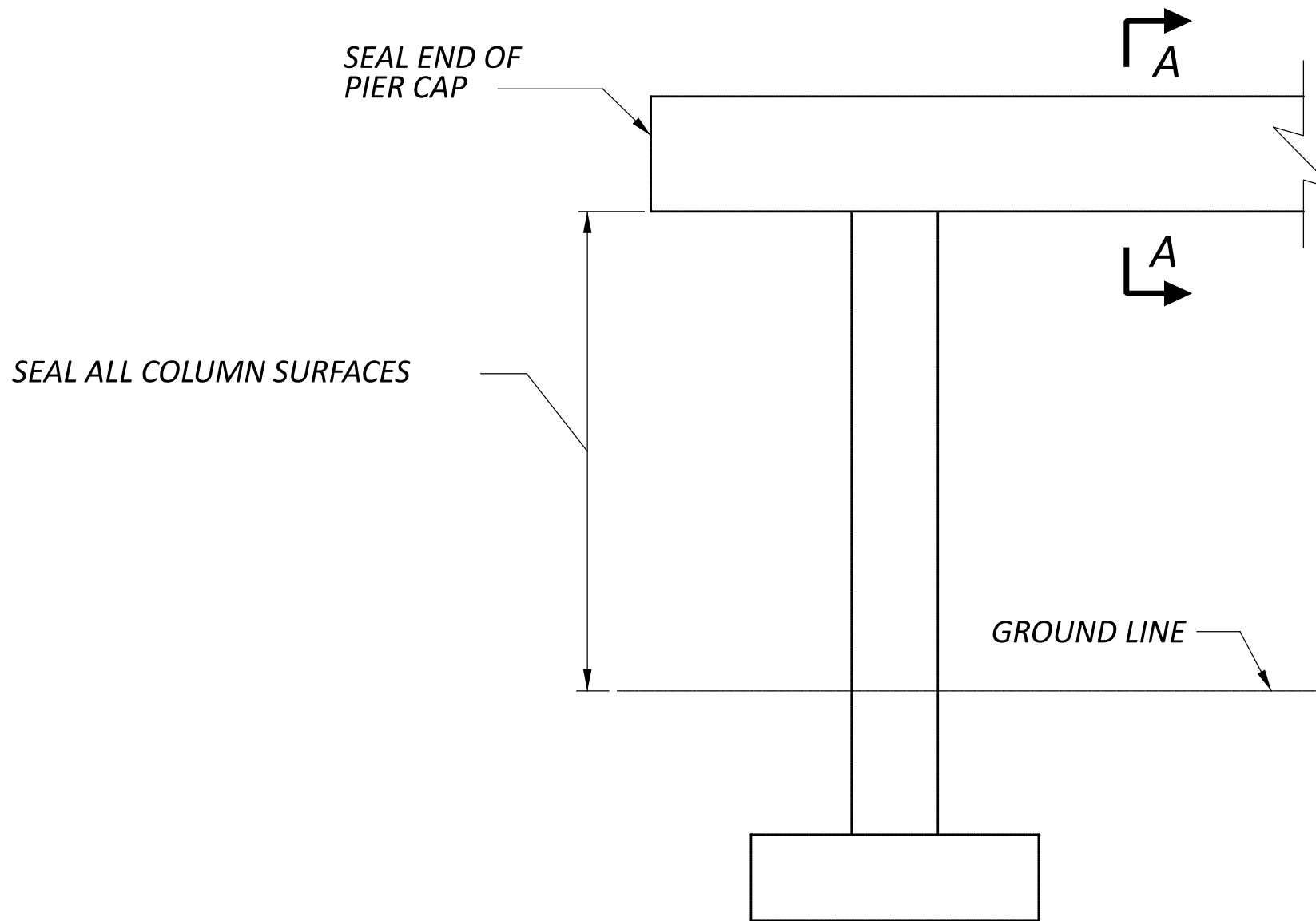
- AREA TO BE REPAIRED WITH ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

NOTES

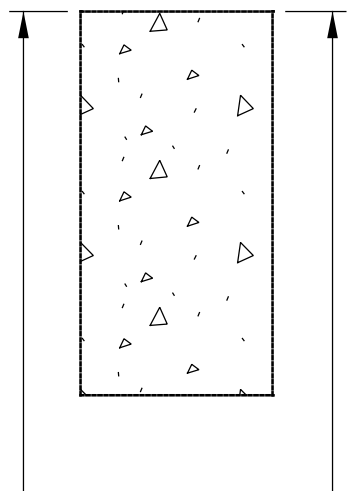
- ALL DIMENSIONS ARE ±.
- ALL ESTIMATED AREAS ARE GIVEN AS WIDTH x HEIGHT.
- REPAIR CONCRETE SHALL BE HYDRAULIC CEMENT-BASED MATERIAL WITH A ELECTRICAL RESISTIVITY LESS THAN 50,000 OHM-CM ACCORDING TO ASTM C 1760. DO NOT USE NON- CONDUCTIVE REPAIR MATERIALS SUCH AS MAGNESIUM AMMONIUM PHOSPHATE CONCRETE AND EPOXY MORTARS OR BONDING AGENTS. CONCRETE MIXES CONTAINING HIGH LEVELS OF SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME, GROUND GRANULATED BLAST FURNACE SLAG, LATEX, FLY ASH OR METAKAOLIN MAY NOT MEET THE RESISTIVITY REQUIREMENT. THE GALVANIC ANODE SIZE AND SPACING IS BASED ON ACHIEVING A CURRENT DENSITY FOR THE EXTREMELY HIGH CORROSION RISK CATEGORY WITH A 30 YEAR INSTALLATION. SUPPLY ANODES WITH A MINIMUM CORE OF 210 GRAMS OF ZINC. SEE THIS SHEET FOR DISTRIBUTION.
- SEAL ENTIRE EXPOSED SURFACE AREA OF ABUTMENT AND WING WALLS, EXCEPT FOR TOP HORIZONTAL SURFACE OF CAP, WITH EPOXY-URETHANE. SEE TYPICAL SEALING DETAILS.



PIER 8N - WEST ELEVATION
(LOOKING EAST)



LIMITS OF SEALING PIER CONCRETE
SURFACES (EPOXY-URETHANE)
(TYPICAL ALL PIERS EXCEPT PIER 4N CAP)



LIMITS OF SEALING
CONCRETE SURFACES
(EPOXY-URETHANE)

SECTION A-A



PIER 9N - WEST ELEVATION
(LOOKING EAST)

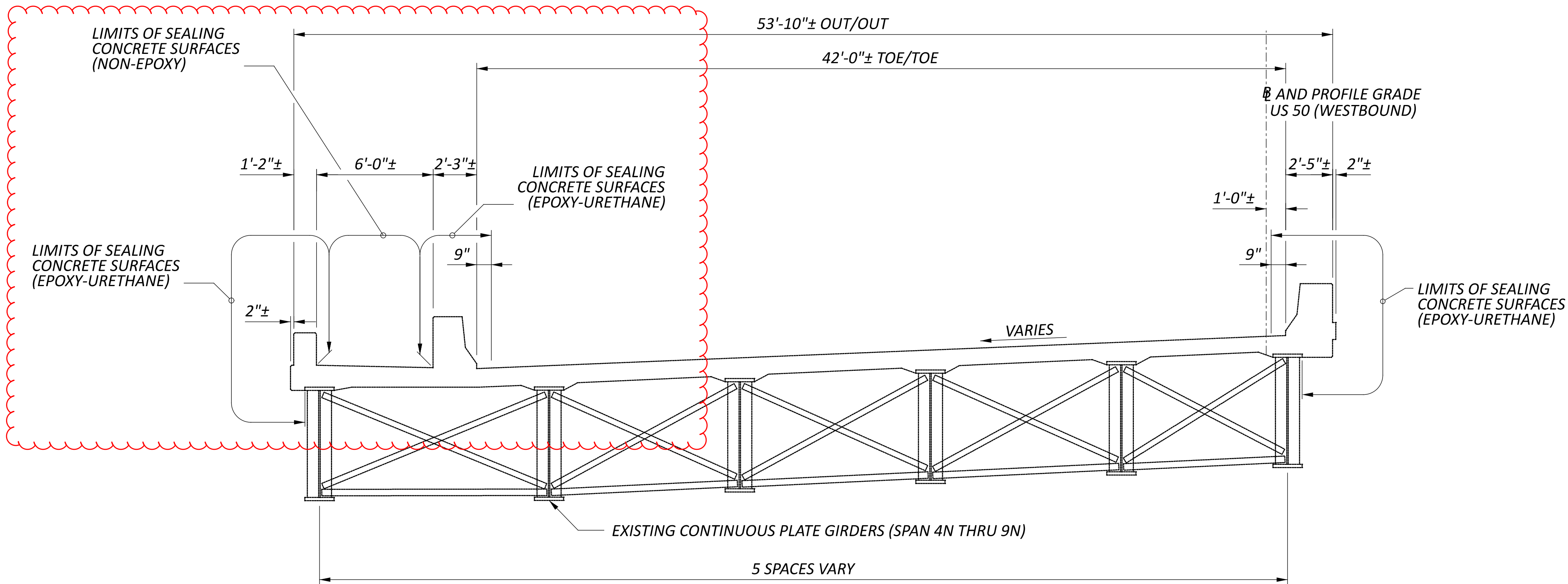
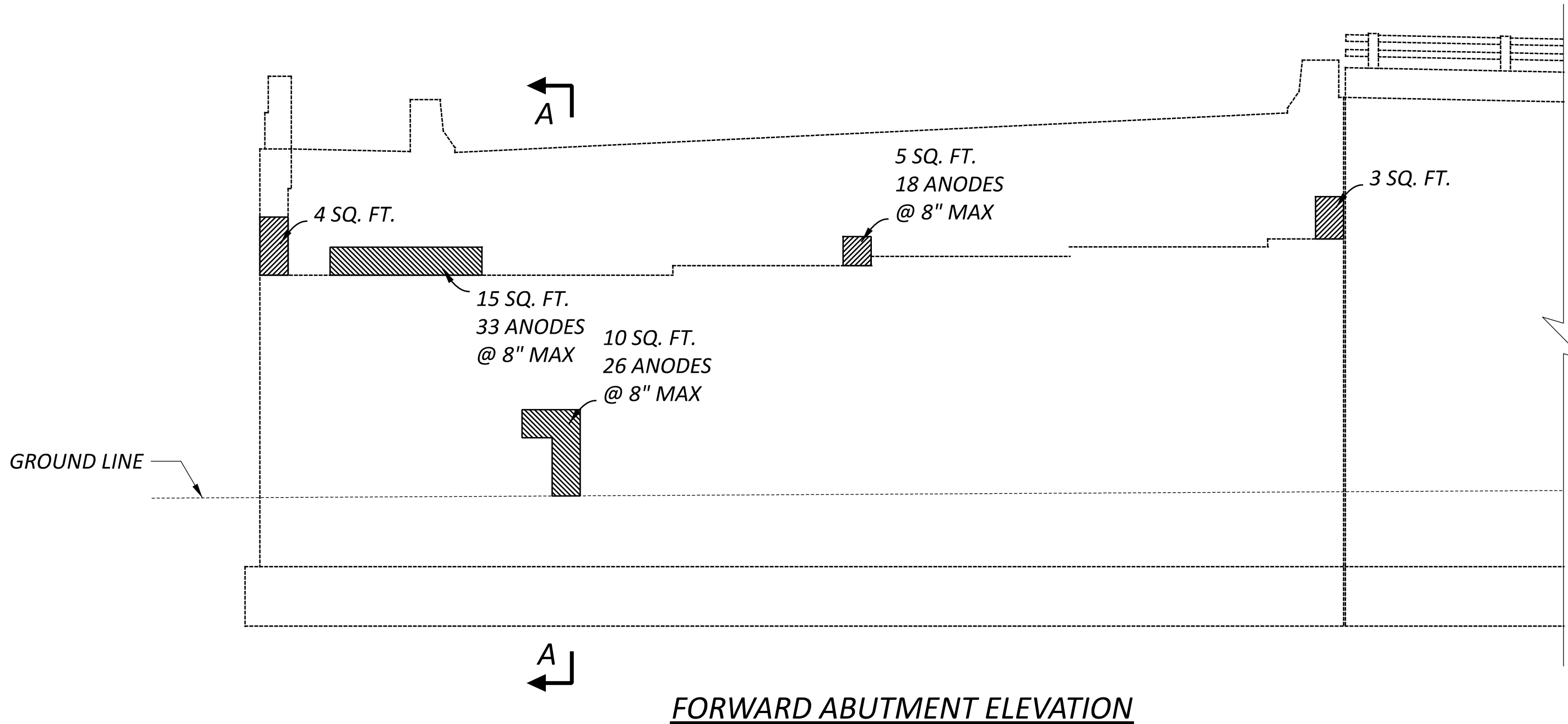
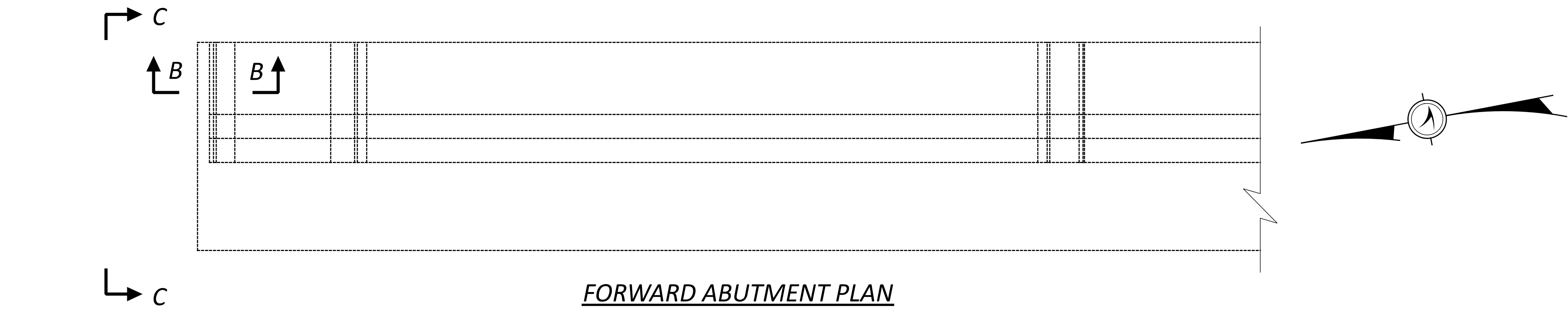
SUMMARY OF REPAIR AREAS				
PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN JUNE OF 2025. EXACT DIMENSIONS AND LOCATIONS OF REPAIRS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD FOR FINAL PAY QUANTITIES.				
TYPE		MEASURED QUANTITIES	ESTIMATING FACTOR*	ESTIMATED QUANTITIES
PIER 8N PATCHING		2 SQ. FT.	1.5	3 SQ. FT.
PIER 9N PATCHING		11 SQ. FT.	1.5	18 SQ. FT.
PIER 9N ANODES		43	1.5	65
* - ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ALLOW FOR ADDITIONAL DETERIORATION.				

LEGEND

- AREA TO BE REPAIRED WITH ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

NOTES

- ALL DIMENSIONS ARE ±.
- ALL ESTIMATED AREAS ARE GIVEN AS WIDTH x HEIGHT.
- REPAIR CONCRETE SHALL BE HYDRAULIC CEMENT-BASED MATERIAL WITH A ELECTRICAL RESISTIVITY LESS THAN 50,000 OHM-CM ACCORDING TO ASTM C 1760. DO NOT USE NON- CONDUCTIVE REPAIR MATERIALS SUCH AS MAGNESIUM AMMONIUM PHOSPHATE CONCRETE AND EPOXY MORTARS OR BONDING AGENTS. CONCRETE MIXES CONTAINING HIGH LEVELS OF SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME, GROUND GRANULATED BLAST FURNACE SLAG, LATEX, FLX ASH OR METAKAOLIN MAY NOT MEET THE RESISTIVITY REQUIREMENT. THE GALVANIC ANODE SIZE AND SPACING IS BASED ON ACHIEVING A CURRENT DENSITY FOR THE EXTREMELY HIGH CORROSION RISK CATEGORY WITH A 30 YEAR INSTALLATION. SUPPLY ANODES WITH A MINIMUM CORE OF 210 GRAMS OF ZINC. SEE THIS SHEET FOR DISTRIBUTION.
- SEAL ENTIRE EXPOSED SURFACE AREA OF ABUTMENT AND WING WALLS, EXCEPT FOR TOP HORIZONTAL SURFACE OF CAP, WITH EPOXY-URETHANE. SEE TYPICAL SEALING DETAILS.



PROPOSED TRANSVERSE SECTION
(WESTBOUND STA. 5+70± TO STA. 13+10±, LOOKING EAST)

SUMMARY OF REPAIR AREAS			
PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETEIORATION WAS PERFORMED IN JUNE OF 2025. EXACT DIMENSIONS AND LOCATIONS OF REPAIRS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD FOR FINAL PAY QUANTITIES.			
TYPE	MEASURED QUANTITIES	ESTIMATING FACTOR*	ESTIMATED QUANTITIES
FOR. ABUT. PATCHING	37 SQ. FT.	1.5	56 SQ. FT.
FOR. ABUT. ANODES	77	1.5	116

* - ESTIMATED QUANTITIES HAVE BEEN INCREASED BY 50% OVER MEASURED QUANTITIES TO ALLOW FOR ADDITIONAL DETEIORATION.

LEGEND

AREA TO BE REPAIRED WITH ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

NOTES

- ALL DIMENSIONS ARE ±.
- ALL ESTIMATED AREAS ARE GIVEN AS WIDTH x HEIGHT.
- REPAIR CONCRETE SHALL BE HYDRAULIC CEMENT-BASED MATERIAL WITH A ELECTRICAL RESISTIVITY LESS THAN 50,000 OHM-CM ACCORDING TO ASTM C 1760. DO NOT USE NON- CONDUCTIVE REPAIR MATERIALS SUCH AS MAGNESIUM AMMONIUM PHOSPHATE CONCRETE AND EPOXY MORTARS OR BONDING AGENTS. CONCRETE MIXES CONTAINING HIGH LEVELS OF SUPPLEMENTARY CEMENTITIOUS MATERIALS SUCH AS SILICA FUME, GROUND GRANULATED BLAST FURNACE SLAG, LATEX, FLY ASH OR METAKAOLIN MAY NOT MEET THE RESISTIVITY REQUIREMENT. THE GALVANIC ANODE SIZE AND SPACING IS BASED ON ACHIEVING A CURRENT DENSITY FOR THE EXTREMELY HIGH CORROSION RISK CATEGORY WITH A 30 YEAR INSTALLATION. SUPPLY ANODES WITH A MINIMUM CORE OF 210 GRAMS OF ZINC. SEE THIS SHEET FOR DISTRIBUTION.
- SEAL ENTIRE EXPOSED SURFACE AREA OF ABUTMENT AND WING WALLS, EXCEPT FOR TOP HORIZONTAL SURFACE OF CAP, WITH EPOXY-URETHANE. SEE TYPICAL SEALING DETAILS.