

April 4, 2023

PRE-INSPECTION REPORT

BRIDGE NO HAM-71-0197W

PID No. 105476



I-74/I-471 RAMP OVER RAMP FROM
GILBERT AVENUE TO I-71 NB

INSPECTION DETAILS:

Bridge Nos.:	HAM-71-0197W
Features intersected:	Ramp from Gilbert Avenue to I-71, Ramp from I-71 to I-471
Locations to Inspect:	HAM-71-0197W: 1 steel pier cap (Pier 1)
No. of Inspection Days:	Anticipated 1 day
No. of Caps to Inspect:	1
Anticipated Inspection Dates:	Week of June 26, 2023
Inspection Hours:	9 am – 3 pm
Inspection Access Equipment:	Bucket Truck, Ladders

FRACTURE CRITICAL INSPECTION REQUIREMENTS:

The inspection will consist of an In-Depth “Arms-Reach” inspection, performed in accordance with the guidelines of the current FHWA National Bridge Inspection Standards for Fracture Critical Members. To perform an effective Fracture Critical Inspection, the following tasks must be performed:

1. Determine Resource Requirements.
(Identify qualified inspection staff, use appropriate inspection access and inspection equipment).
2. Identify the Fracture Critical Members.
3. Develop the Inspection Procedure.
(Contained in this document)
4. Prepare Follow-up Procedure.
(Recommendations will be made as part of this current project)
5. Provide Quality Control/Quality Assurance for the inspection and report.
(Procedures outlined in this document)
6. Develop a Periodic Inspection Plan
(Already in place with the Ohio Department of Transportation, District 8)

BRIDGE DESCRIPTION:

The HAM-71-0197W Bridge is a three-span welded steel plate girder structure with a reinforced concrete deck that carries two single lanes of ramp traffic to southbound Interstate I-471. The west lane carries traffic from the intersection of Liberty Street and Reading Road, and the east lane carries traffic from southbound Interstate I-71. An on-ramp from Gilbert Avenue to northbound Interstate I-71 passes beneath the structure. The bridge numbering system follows the convention set in the design plans. Access to the structure will be from ladders and a bucket truck.

FRACTURE CRITICAL MEMBER LOCATIONS:

This structure has one fracture critical steel pier cap at Piers 1. The pier cap is a welded steel plate box girder that is simply supported on two circular reinforced concrete columns. Seven I-girders frame into the pier cap and are made continuous by bottom flange tie plates that pass through slots and are welded to the pier cap webs, and by top flange tie plates that bear on and are bolted to the top flange of the pier cap. The girder webs are connected to the pier cap webs by bolted connection plates. Knee

braces are welded to the bottom tie plates and pier cap webs for additional rigidity. Select fatigue prone details for the pier caps on this structure were retrofitted in 2009 & 2018 (See the Appendix for images of the fatigue prone details).



INSPECTION METHOD & PLAN:

The Collins Team will perform inspections on one fracture critical pier cap on HAM-71-0197W, as defined by the Scope of Services. The cap spans the ramp from Northbound Gilbert Avenue to Northbound I-71. The work will be performed during 1 day. The inspection will adhere to the Confined Space Entry Procedures defined herein, and with the project work plan. Traffic control will be provided by A&A Safety according to the drawings shown in the Appendix.

FIELD COORDINATION - The following entities will be involved in coordinating and performing all field work associated with the inspection of these structures.

COLLINS – Field Team Contacts:

Michael Seal, P.E., CBI: Team Leader, Project Manager (614) 849-2277 (C)
mseal@collinsengr.com

Matt Rogers, P.E., CBI: Team Leader (859) 630-2238 (C)
mrogers@collinsengr.com

Kevin Mitchell, CBI, Asst. Team Leader, (606) 344-3000 (C)
kmitchell@collinsengr.com

ODOT (Project and Permitting Contacts) – A right of entry permit is necessary through ODOT District 8. See Appendix A. The following ODOT personnel will be contacts.

Brandon Collett: Project Manager (513) 933-6643
Brandon.Collett@dot.state.oh.us

Jeff Meyer: Assistant Structures Engineer (513) 933-6630

Scott Kraus: District Work Zone Traffic Manager (513) 933-6519
Scott.Kraus@dot.state.oh.us

Chris Bass: Right-of-Way Use Permits (513) 933-6575
Christopher.Bass@dot.state.oh.us

CITY OF CINCINNATI (Permitting) – A right of entry permit is required through the City of Cincinnati. This permit will stipulate lane closure limitations and approve any proposed traffic control. Contacts are:

DOTE Permit and License Center (513) 352-3463

Anthony Bennett: ROW Permitting (513) 352-3405
Anthony.bennett@cincinnati-oh.gov

Tom Klumb: Real Estate (513) 352-1571
Tom.klumb@cincinnati-oh.gov

A&A Safety – A&A Safety will be the traffic control subcontractor for this inspection. Refer to Appendix A for proposed maintenance of traffic schemes. Contacts are:

Don Beagle/Keith Gilbert: A&A Safety (513) 276-2153
donb@asafetyinc.com

Approved right of entry permits from ODOT and City of Cincinnati will be kept on the job site throughout the inspection period.

TRAFFIC CONTROL – A&A Safety will be responsible for installation of traffic control devices to keep the ramp from Gilbert Avenue to I-71 Northbound open with part-width maintenance of traffic (MOT). A brief description of the anticipated closures is as follows. Refer to Appendix A.

Gilbert Avenue/I-71 Ramp – Portions of the ramp from Gilbert Avenue to I-71 will be shifted and kept open with part-width MOT. The daytime work will be from 9 am to 3 pm.

CONFINED SPACE ENTRY PROCEDURE: See below.

INSPECTION PLAN:

The condition inspection of the steel box girder pier caps on HAM-71-0197W will involve a 1-day field effort to completely inspect both the interior and exterior. The exterior will be inspected from 46'

bucket truck and ladders for access and the interior will be inspected by entering the box girder per the procedures outlined below. A 3-man inspection team will perform the confined space inspection. Gannett Fleming will open the pier caps 1 hr prior to entering to ventilate the piers. Prior to the start of the inspection, the inspection team shall meet at the site for a safety meeting and review the details of this inspection plan.

Entry will be performed in accordance with permit-required confined space entry procedures. This includes the use of an entry permit system, pre-entry and continuous air monitoring, and designating qualified entrants, attendants, and supervisor(s). The Project Work Plan will outline safety procedures for confined space work and contain contact information for local EMS services and for the local Hospital.

Prior to the inspection, initial air monitoring for O₂, %LEL, CO, and H₂S will be performed by one designated certified entrant climbing the length of the steel box girder pier caps and the certified attendant documenting the readings every 25 feet. Radios will be used for team communications during the inspection. At the conclusion of the initial entry and air monitoring, the confined space air readings will be evaluated and if no hazards exist, the space will be designated a non-permit required confined space. Members of the inspection team entering the confined space will continuously monitor the air, and the attendant will document readings in the box every 30 minutes for the duration of the work inside of the confined space.

If the monitor alarms go off during the initial entrance indicating that unsafe atmospheric conditions exist, the entrant will immediately exit the steel box girder (using a 10-minute escape pack if needed). If unsafe atmospheric conditions continue to exist, further ventilation will continue and the initial air monitoring performed again at a later time after proper ventilation. A blower and generator will be used to provide proper ventilation to the box girder, if necessary. If the atmospheric hazards cannot be removed from the confined space, the box girder will NOT be entered and the District's Project Manager will be contacted to notify and to receive further instructions.

FOLLOW-UP PROCEDURES FOR INSPECTION FINDINGS:

Fracture critical inspection findings shall be documented in the final inspection report.

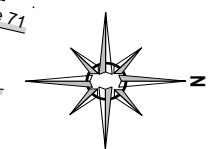
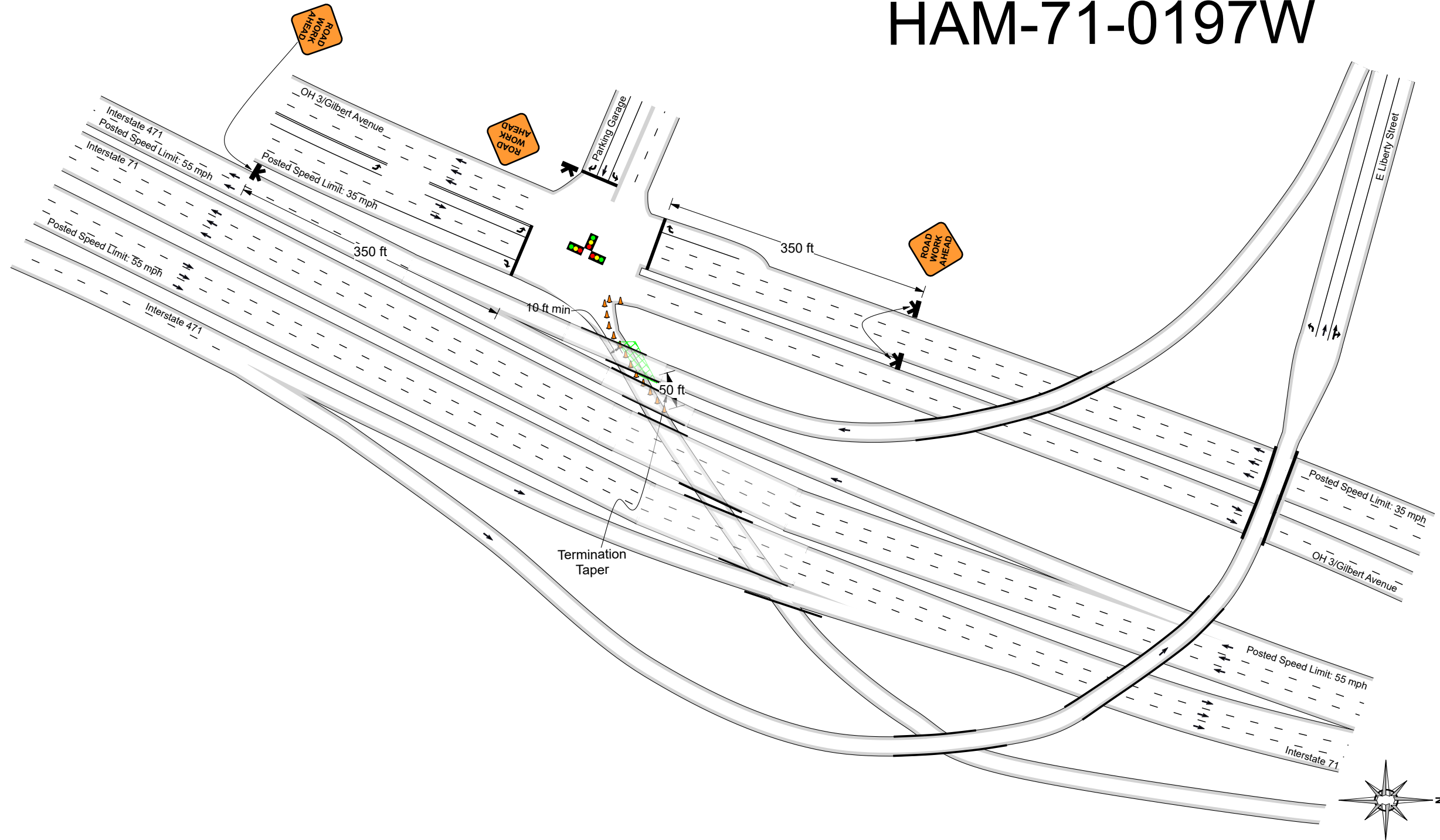
Quality Control/Quality Assurance

The standard Collins Quality Control Plan will be utilized. Such steps include: completion of field task checklist prior to leaving site, team leader review of all field notes and photographs before leaving the site, either the report originator or checker will be part of the field team, the report checker will be an NBI Team Leader, the report corrector cannot be the checker, the backchecker cannot be the corrector, and the field team leader will be involved for at least one phase of the reporting process.

APPENDIX A – RIGHT OF ENTRY PERMIT APPLICATIONS

APPENDIX B – TRAFFIC CONTROL DETAILS

HAM-71-0197W



Legend	
	Cone
	Portable Sign Stand
	Work Area

Notes:

- Sign spacing and buffer space may be adjusted to fit field conditions.
- "Road Work Ahead" signs shall be placed on all cross streets intersecting within the work area. The signs should be placed a minimum of 100 feet in advance of the intersection.

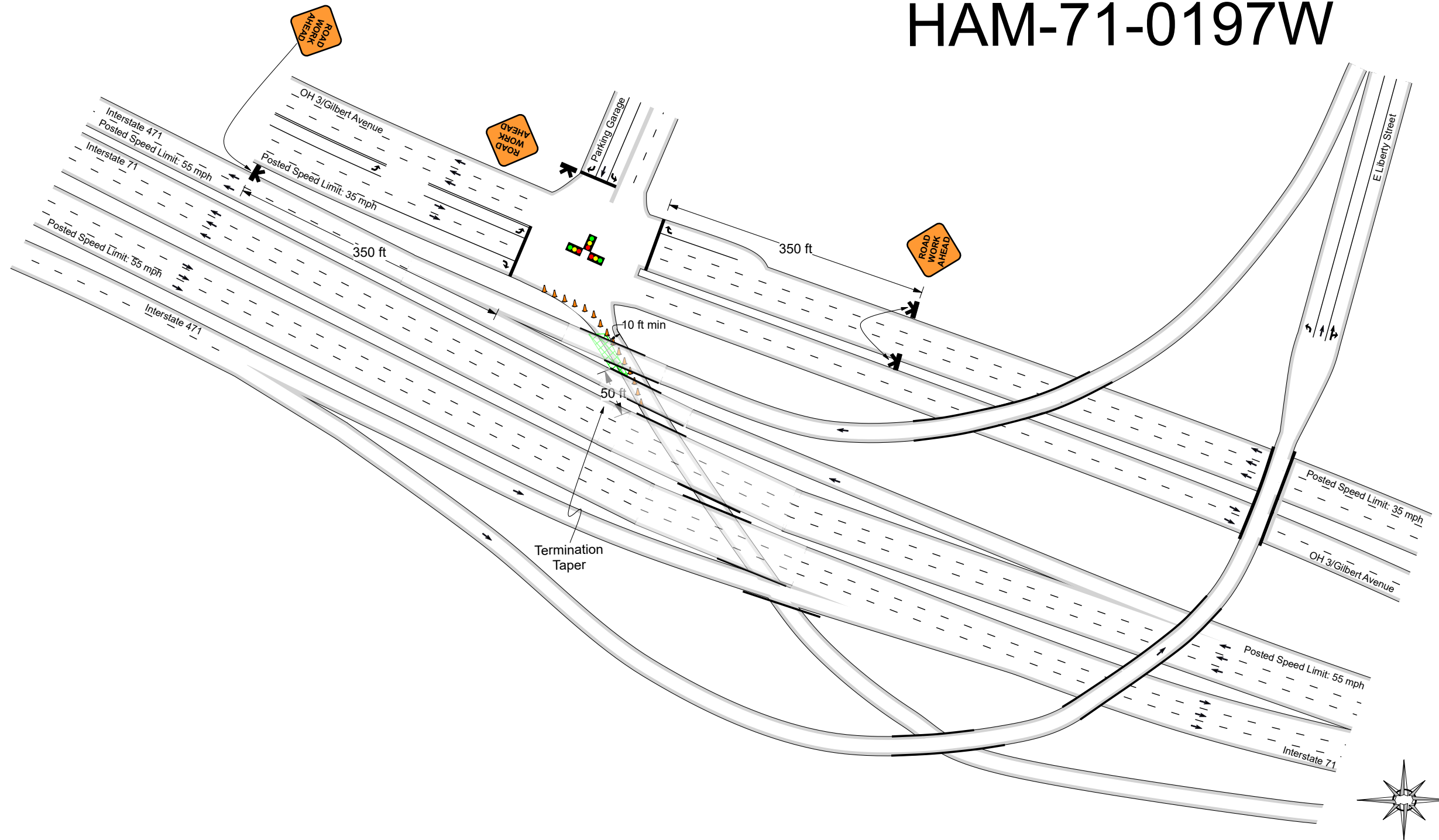
Date: 2/20/2023 **Author:** P. McCarty **Project:** D8 Steel Pier Caps - Cincinnati, OH **Customer:** Collins Engineers **Reviewer:** J. McCarty **BridgesNumber:** HAM-71-0197W

Comments:
 Type of Road: Urban Interstates, Ramps, and Commercial Routes
 Traffic Volume: Moderate to Heavy

All signs & devices shall be placed in accordance with the latest provisions of Ohio Manual for Uniform Traffic Control Devices (OMUTCD) with respect to any applicable provisions from the City of Cincinnati.

Access to residential and commercial driveways to be maintained at all times.
 Flaggers shall be trained in safe temporary traffic control practices.
 Flaggers shall remain in constant communications, via two-way radio, at all times.
 Parking ban shall be coordinated with the Cincinnati Police Department.

HAM-71-0197W



Legend	
	Cone
	Portable Sign Stand
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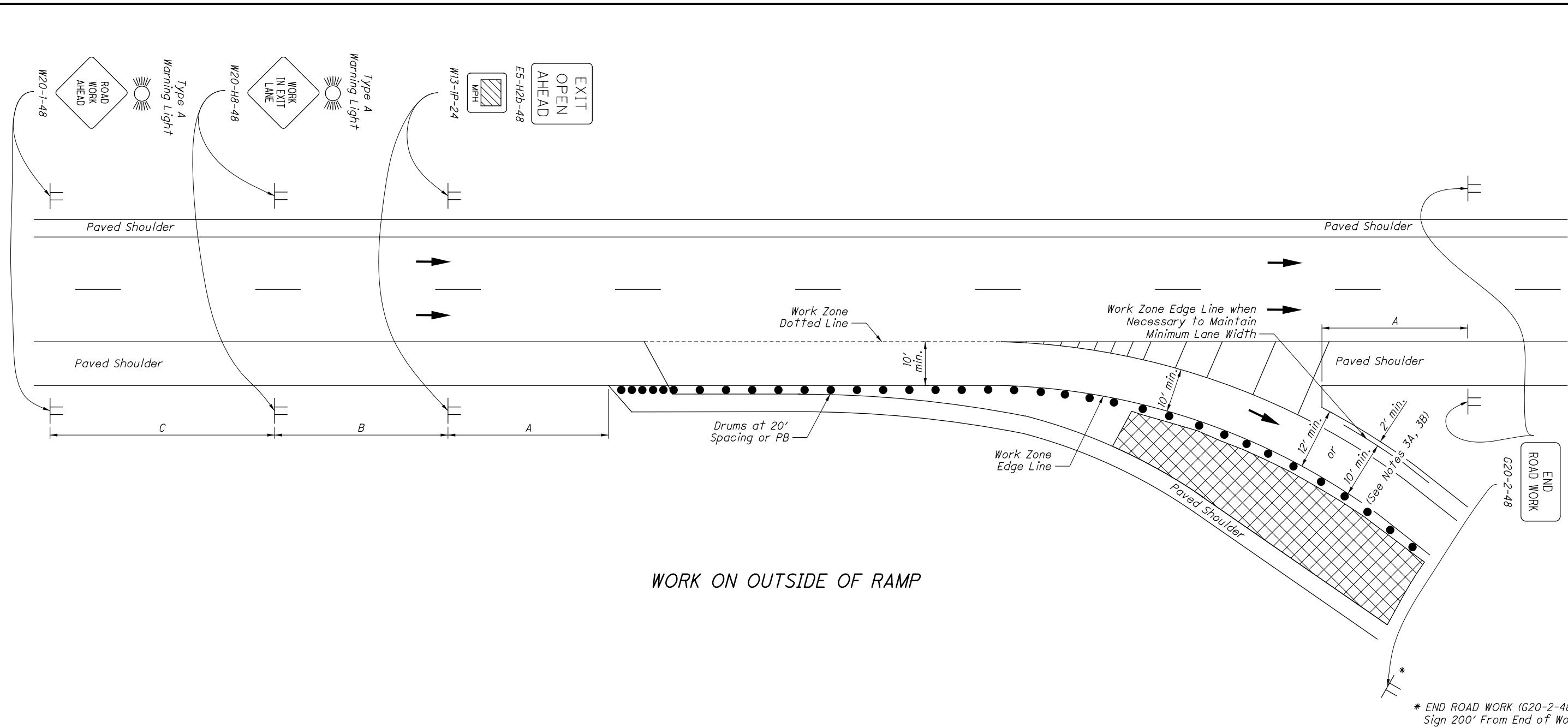
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PLANS ARE NOT TO SCALE

Sheet 2 of 2

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THIS DRAWING REPLACES MT-98.28 DATED 07-19-2013.



WORK ON OUTSIDE OF RAMP

TABLE I (SIGN SPACING)

ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
MAJOR CONVENTIONAL	500	500	500
FREEWAY & EXPRESSWAY	1000	1500	2640

TABLE II

SPEED LIMIT (MPH)	SHOULDER TAPER RATE MINIMUM	PB FLARE RATE MINIMUM	CLEAR ZONE WIDTH (E) (FT)
25	4:1	8:1	15
30	5:1	8:1	15
35	7:1	9:1	15
40	9:1	10:1	15
45	15:1	12:1	19
50	17:1	14:1	19
55	19:1	16:1	23
60	20:1	18:1	30
65	22:1	19:1	30
70	24:1	20:1	30

TABLE III (RAMP DESIGN SPEED)

MAINLINE DESIGN SPEED (MPH)	30	35	40	45	50	55	60	65	70	75
RAMP DESIGN SPEED (MPH)	25	30	35	40	45	48	50	55	60	65

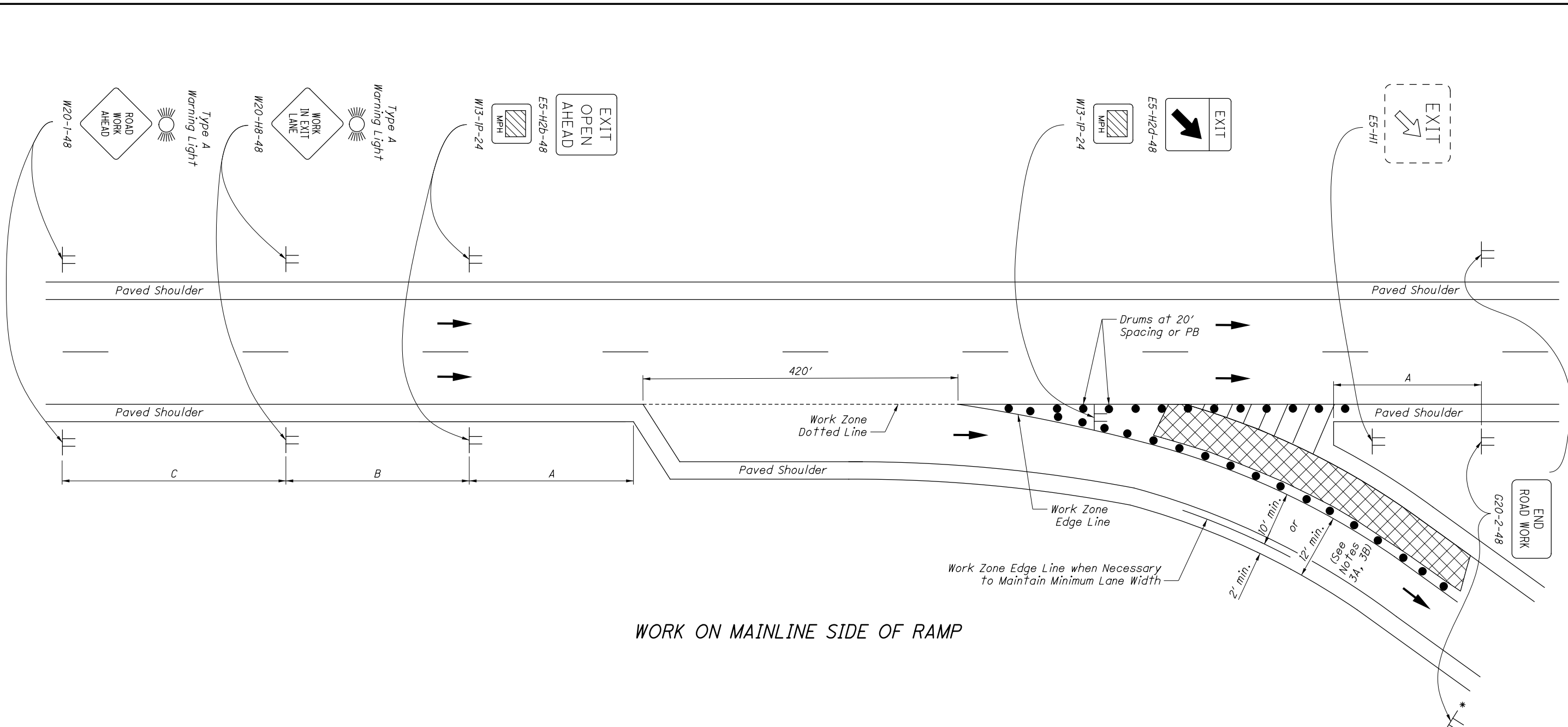
LEGEND

WORK AREA

DRUMS/CONES

DIRECTION OF TRAVEL

* END ROAD WORK (G20-2-48)
 Sign 200' From End of Work



WORK ON MAINLINE SIDE OF RAMP

TABLE I (SIGN SPACING)

ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
MAJOR CONVENTIONAL	500	500	500
FREEWAY & EXPRESSWAY	1000	1500	2640

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55	19:1	16:1	23
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* END ROAD WORK (G20-2-48) Sign 200' from End of Work

LEGEND

WORK AREA

DRUMS/CONES

DIRECTION OF TRAVEL

NOTES:

SIGNING

- 1A. The Advisory Speed (W13-1P) plaque shall be used when specified in the plan, or when it is necessary for the vehicle to reduce speed by more than 10 mph in order to safely exit from the mainline, as directed by the Engineer. The following additional criteria shall also apply:
 - a) Advisory speeds within 10 mph of the posted speed limit need not be displayed.
 - b) When provided at exit ramp openings (see Note 2A), the Advisory Speed plaque should typically be mounted below the EXIT (arrow) (E5-H2d) sign. The Advisory Speed plaque shall not be mounted below the permanent gore (E5-H1a) sign. As an alternative, the Advisory Speed plaque may be mounted below the EXIT OPEN (E5-2) sign.
 - c) The advisory speed displayed shall not be greater than would otherwise be required to accommodate the permanent ramp geometry at the exit.
- 1B. END ROAD WORK (G20-2) signs are only required for lane closures of more than 1 day. It is intended that these signs be placed on the mainline, on all exit ramps, and on roadways exiting the work limits. Any END ROAD WORK sign which would fall within the limits of another work zone may be omitted.
- 1C. The work zone sign spacings shown in Table I are minimums. Maximum spacing should not be greater than 1.5 times the distance shown in Table I.
- 1D. Sign spacing should be adjusted to avoid conflict with existing signs. Minimum spacing to existing signs shall be 200' for speeds of 45 mph or less and a minimum of 400' for speeds of 50 mph or greater.
- 1E. The existing gore sign, E5-H1 or E5-H1a, shall be covered or removed when the work zone EXIT (arrow) (E5-H2d) sign is in use.
- 1F. The location of advance warning signs should be adjusted to provide adequate sight distance for the existing horizontal and vertical roadway alignment.
- 1G. For traffic control procedures to be implemented approaching the subject location, see Standard Construction Drawings (SCDs) MT-95.30, MT-95.40, or the MT-102 series as may be appropriate.

RAMP OPENING

- 2A. The opening to the ramp should be 420' or more whenever possible. A lesser opening may be provided if no other alternative is available. When a lesser opening is provided, the advisory speed applicable to such condition shall be as follows:

Opening/Taper	Advisory Speed
390'	65 mph
360'	60 mph
330'	55 mph
300'	50 mph
270'	45 mph
240'	40 mph
210'	35 mph

- 2B. The opening shall never be less than 200'. If a 200' minimum dimension cannot be provided, the ramp should be closed when so determined by the Engineer.

RAMP WIDTH

- 3A. Normally a 10' minimum ramp width is to be maintained on existing ramp pavement.
- 3B. Where the condition in Note 3A is not possible, a minimum width of 12' to the outside edge of the paved shoulder may be used only if the shoulder pavement buildup is adequate to carry the load. Where an edge line is required to designate a shoulder, the edge line shall be placed such that the minimum lane width is 10' and the minimum shoulder width is 2'.

PAVEMENT MARKING

- 4A. If the construction operation requires a lane closure for more than 1 day, the existing conflicting reflectors from the raised pavement markers shall be removed.
- 4B. Additionally, if a lane closure of greater than 3 days is required, the appropriate color work zone edge lines shall be applied along the taper, and existing conflicting pavement markings shall be removed or covered as per CMS 614.116.
- 4C. Work zone pavement markings which would conflict with the final traffic lanes shall be removable tape (CMS 740.06, Type I) unless the area will be resurfaced prior to project completion.
- 4D. After completion of the work, pavement markings other than CMS 740.06, Type I shall be removed in accordance with CMS 614.111. The original markings and raised pavement marker reflectors shall be restored at no additional cost unless separately itemized in the plans.

(RESERVED FOR FUTURE USE)

- 5. (intentionally blank)

DRUMS / CONES

- 6A. Drums shall be spaced at 20' center-to-center. If shoulder work extends along the mainline beyond the physical gore, drum spacing along the shoulder shall be at 20' intervals for the first 500', and at 2 times the speed limit (mph), in feet, thereafter.
- 6B. Cones may be substituted for drums as follows:
 - a) Use of cones is permissible for either daytime operation or for nighttime operation, but shall not be used continuously, day and night. Upon completion of work within the work period, the cones shall be removed. They may again be placed on the highway in order to resume work in the following such work period.
 - b) Cones used for daytime traffic control shall have a minimum height of 28".
 - c) Cones used for nighttime traffic control shall have a minimum height of 42".
 - d) Use of cones at night shall be prohibited along tapers.
 - e) Cone spacing at night shall be at a maximum of 40' but shall never be greater than the drum spacing called for in Note 6A.
 - f) When cones are substituted for drums along tangents, intermixing of channelizing devices within the same run will not be permitted. Either cones shall be used for the entire length of the tangent section, or drums shall be used for the entire run.
- 6C. Provisions shall be made to stabilize cones and drums per the manufacturer's specifications to prevent them from blowing over.

FLASHING WARNING LIGHTS

- 7. Type A flashing warning lights shown on the ROAD WORK AHEAD (W20-1) sign and on the WORK IN EXIT LANE (W20-H8) sign are required at night.

PORTABLE BARRIER (PB)

- 8A. A tapered end section may be used in place of the impact attenuator at locations where the last full section of PB (steel or concrete) can be extended outside of the clear zone for approaching traffic. See Table II for clear zone widths.
- 8B. If it is necessary to provide the Contractor with access to the work area behind the PB flare, the PB end treatment shall include an impact attenuator. The maximum width of opening shall be 9' between the impact attenuator and the outside edge of the paved shoulder.
- 8C. When PB is provided at the gore, the impact attenuators shall be installed parallel to mainline traffic. Also, the last full section of PB adjacent to the impact attenuator, shall be located parallel to mainline traffic.
- 8D. The PB within the gore, along the left side of the exit ramp traffic, should be flared as per Table II, with the upstream end of the PB placed adjacent to the mainline PB.
- 8E. For installation procedures, refer to the manufacturer's installation instructions.
- 8F. For details on delineation of PB, see SCD MT-101.70.
- 8G. Where PB is located beyond the edge of the paved shoulder, the cross slope within the clear zone, including the surface on which the PB is placed, shall be graded at 10:1 or flatter. If the cross slope is steeper than 10:1, the PB shall be terminated on the paved shoulder. The PB shall be extended along the paved shoulder as necessary to satisfy the length of need, and then terminated using the impact attenuator.

THIS DRAWING REPLACES MT-98.28 DATED 07-19-2013.

STANDARD ROADWAY CONSTRUCTION DRAWING

LANE CLOSURE WITHIN EXIT RAMP

OFFICE OF ROADWAY ENGINEERING

STATE ENGINEER
Soisson

STATE OF OHIO DEPARTMENT OF TRANSPORTATION
ADMINISTRATOR
Raynaldo Sturgell
07-18-2014
DATE

SCD NUMBER
MT-98.28

Notes for Figure 6H-22—Typical Application 22
Right-Hand Lane Closure on the Far Side of an Intersection

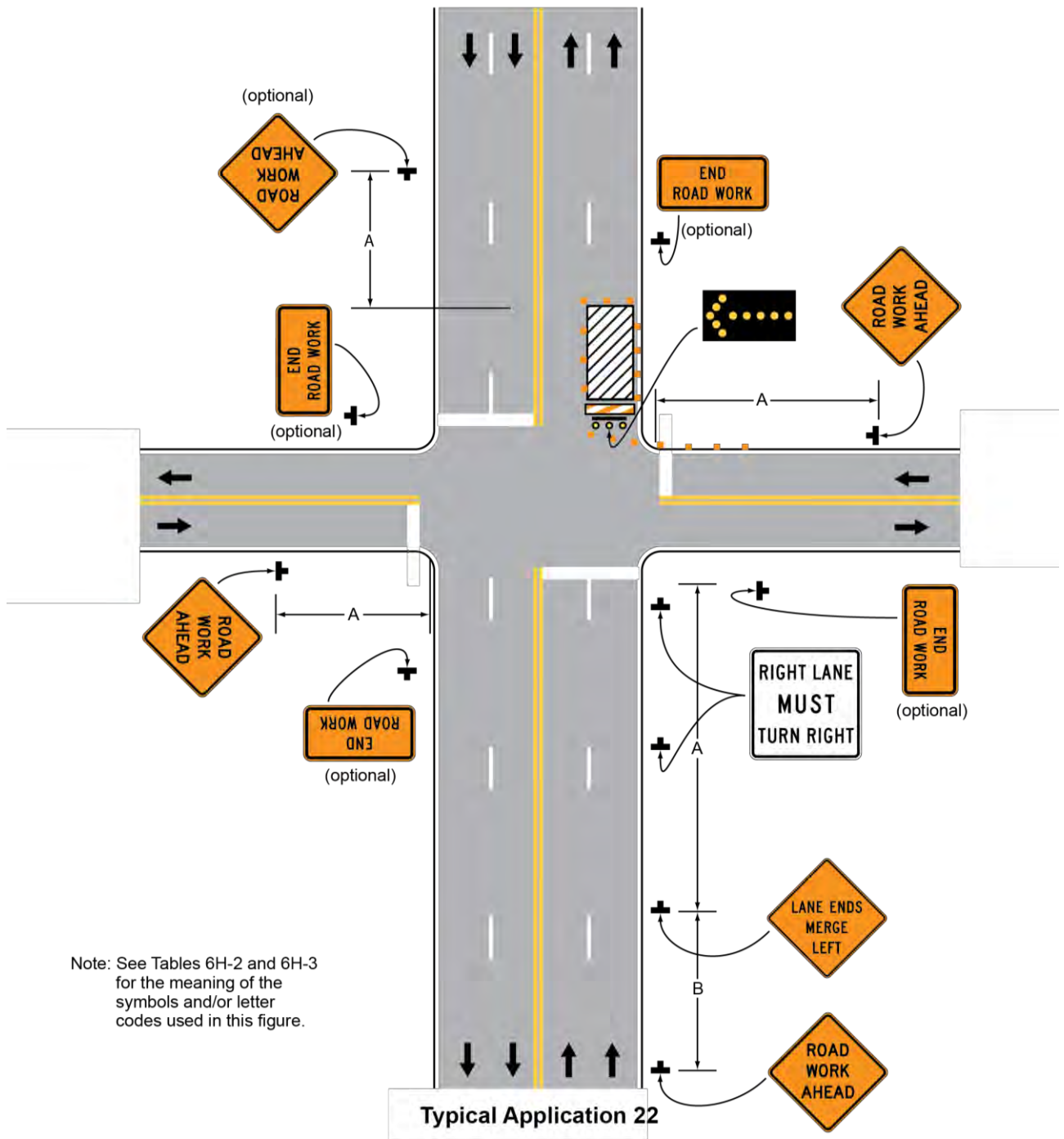
Guidance:

1. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure 6H-29.*

Option:

2. The normal procedure is to close on the near side of the intersection any lane that is not carried through the intersection. However, when this results in the closure of a right-hand lane having significant right turning movements, then the right-hand lane may be restricted to right turns only, as shown. This procedure increases the through capacity by eliminating right turns from the open through lane.
3. For intersection approaches reduced to a single lane, left-turning movements may be prohibited to maintain capacity for through vehicular traffic.
4. Flashing warning lights and/or flags may be used to call attention to the advance warning signs.
5. Where the turning radius is large, it may be possible to create a right-turn island using channelizing devices or pavement markings.

Figure 6H-22. Right-Hand Lane Closure on the Far Side of an Intersection (TA-22)



Notes for Figure 6H-29—Typical Application 29

Crosswalk Closures and Pedestrian Detours

Standard:

1. When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.
2. Curb parking shall be prohibited for at least 50 feet in advance of the midblock crosswalk.

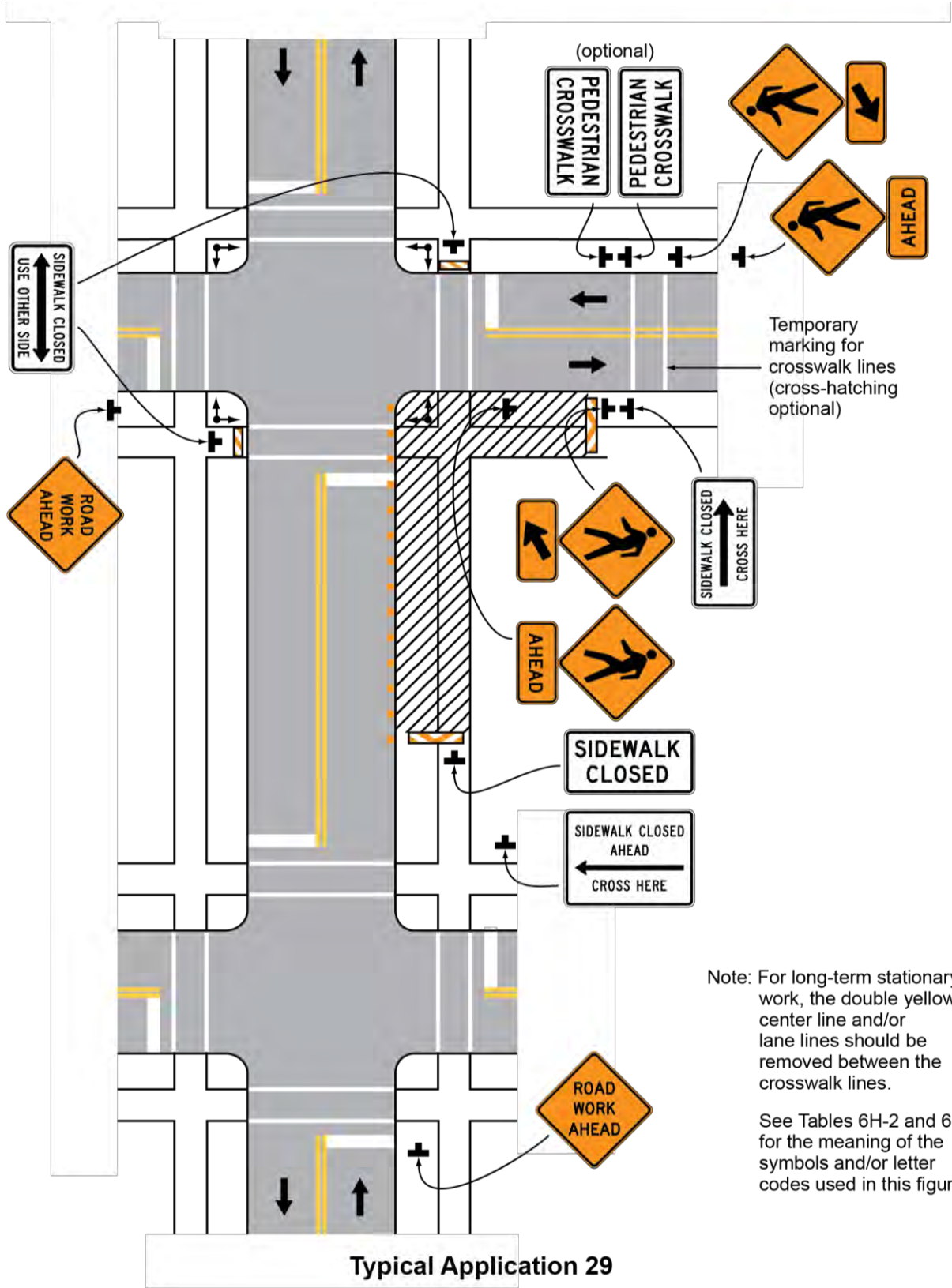
Guidance:

3. Audible information devices should be considered where midblock closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.
4. Pedestrian traffic signal displays controlling closed crosswalks should be covered or deactivated.

Option:

5. Street lighting may be considered.
6. Only the TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or ROAD NARROWS signs, may be used to control vehicular traffic.
7. For nighttime closures, Type A Flashing warning lights may be used on barricades supporting signs and closing sidewalks.
8. Type C Steady-Burn or Type D 360-degree Steady-Burn warning lights may be used on channelizing devices separating the work space from vehicular traffic.
9. In order to maintain the systematic use of the fluorescent yellow-green background for pedestrian, bicycle, and school warning signs in a jurisdiction, the fluorescent yellow-green background for pedestrian, bicycle, and school warning signs may be used in TTC zones.

Figure 6H-29. Crosswalk Closures and Pedestrian Detours (TA-29)



**APPENDIX C – FATIGUE PRONE DETAILS FOR
HAM-71-0197W**

Pier Cap 5N – Fatigue Prone Details

Fatigue Prone Detail 1

Fillet welds between diaphragms or stiffeners and web or flange plates.

Category: C

Location: All girder diaphragms and we stiffeners.

Fatigue Prone Detail 2

Full penetration groove weld of flange splice.

Category: B

Location: Two bottom flange splices.

Fatigue Prone Detail 8

Intersection of fillet welds.

Category: E

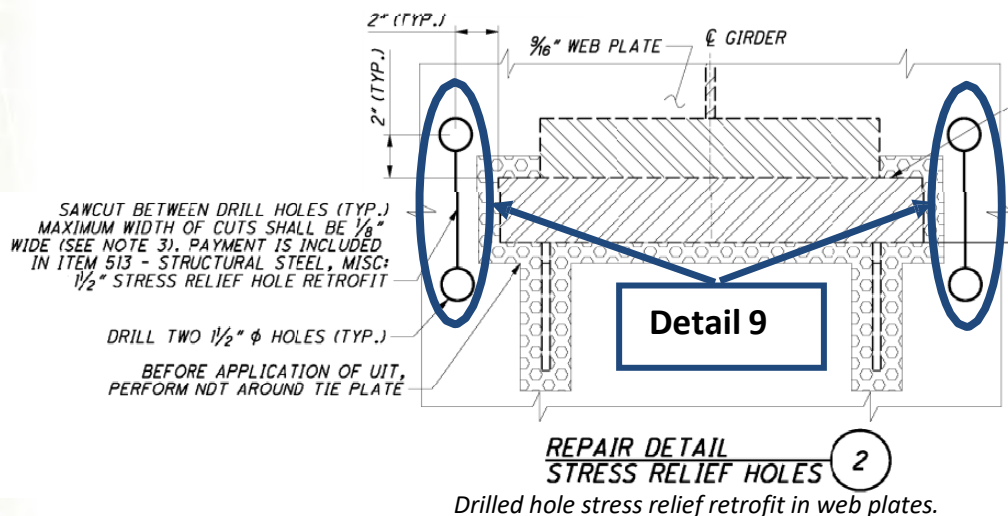
Location: Fillet weld between the west web and knee brace below girder Z intersecting the groove weld of the web and bottom flange.

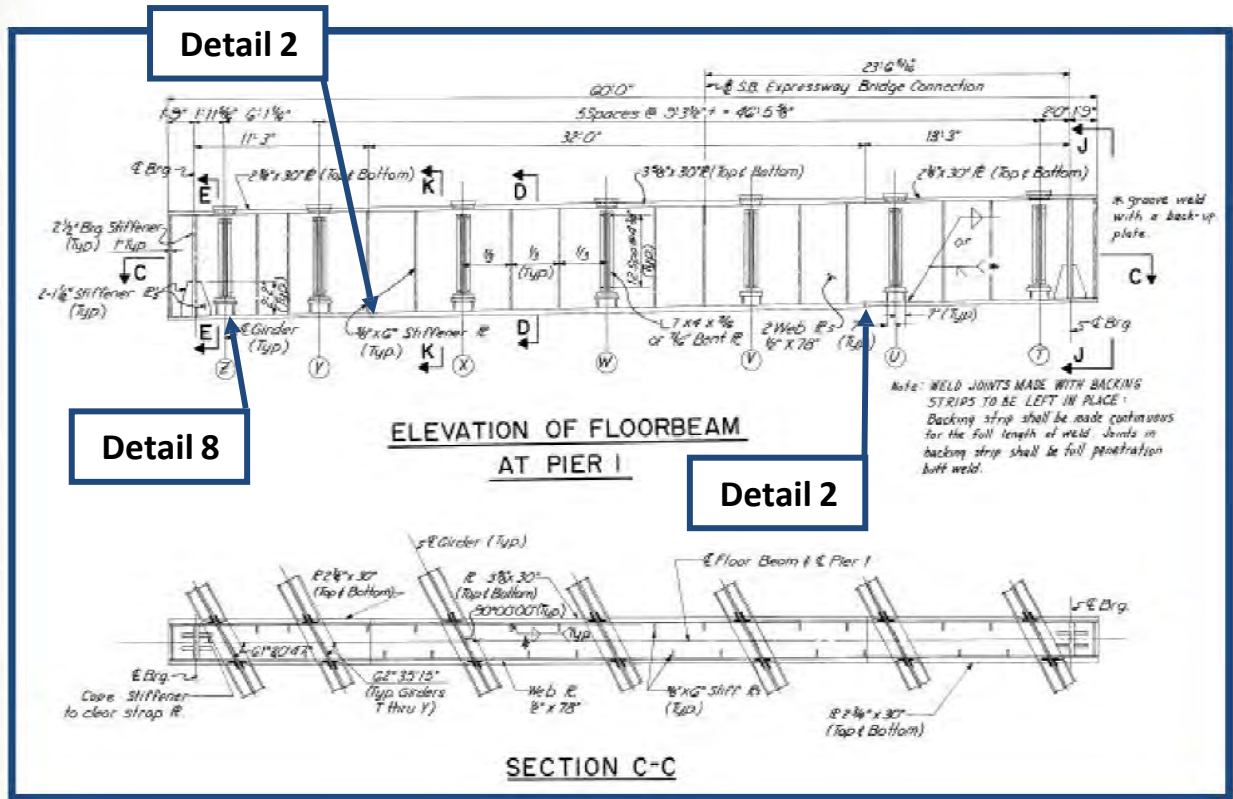
Fatigue Prone Detail 9

Drilled hole stress relief retrofit in web plates.

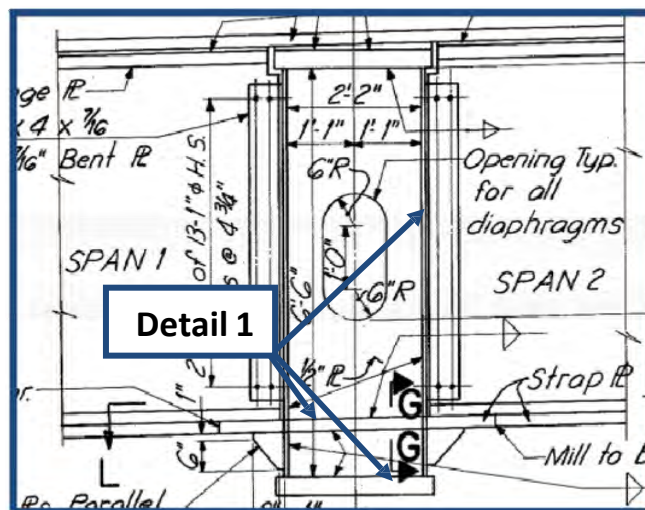
Category: B.

Location: Both web plates on each side of all interior girders, east web plate on each side of girder T, and west web plate on each side of girder Z.



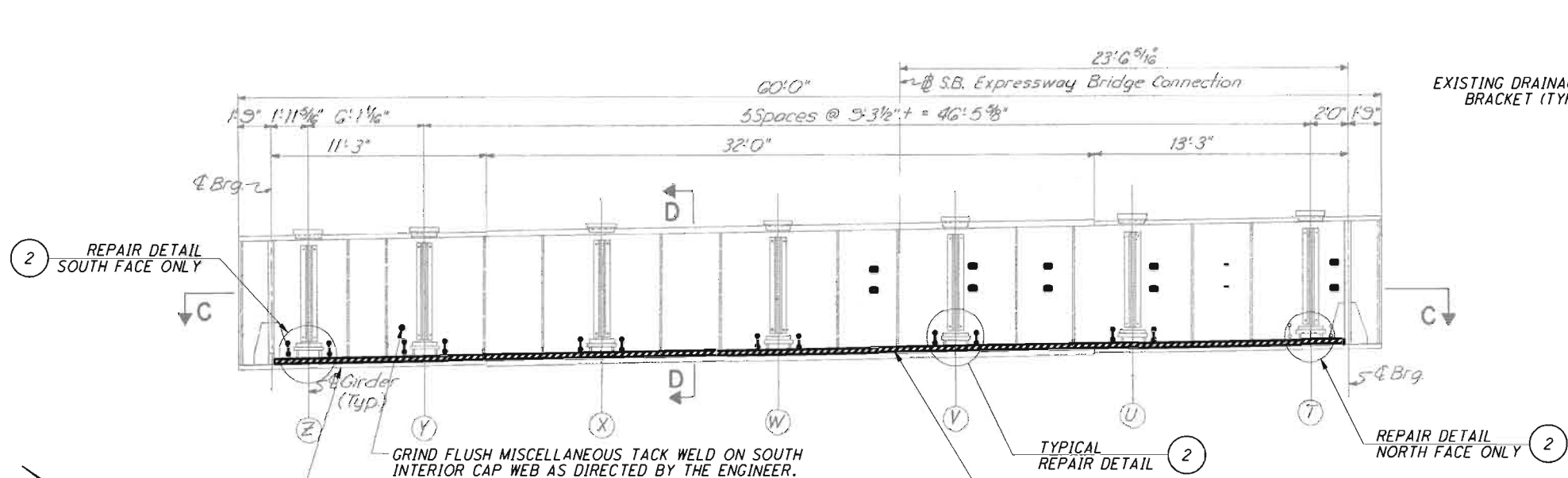


Plan and Elevation of Pier Cap 1 with Fatigue Prone Details.



Section through girder diaphragm.

4/17/2008
 P:\2426.03-ODOT 8 Pier Cap\2007 PID25374 DRAWINGS\ (R4) HAM-71-0197W\HAM-71-0197W P1.dgn



**ELEVATION OF FLOORBEAM
 AT PIER I
 (SOUTH ELEVATION SHOWN)**

2 REPAIR DETAIL
 SOUTH FACE ONLY

GRIND FLUSH MISCELLANEOUS TACK WELD ON SOUTH INTERIOR CAP WEB AS DIRECTED BY THE ENGINEER.

GRIND FLUSH MISCELLANEOUS TACK WELD ON THE EXTERIOR BOTTOM FLANGE AS DIRECTED BY THE ENGINEER.

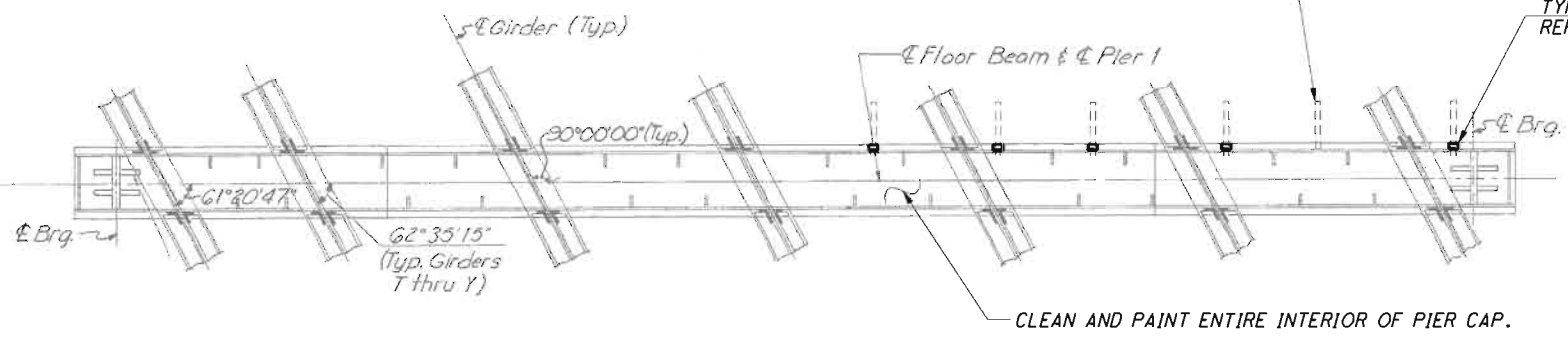
TYPICAL REPAIR DETAIL 2

TYPICAL REPAIR DETAIL 3

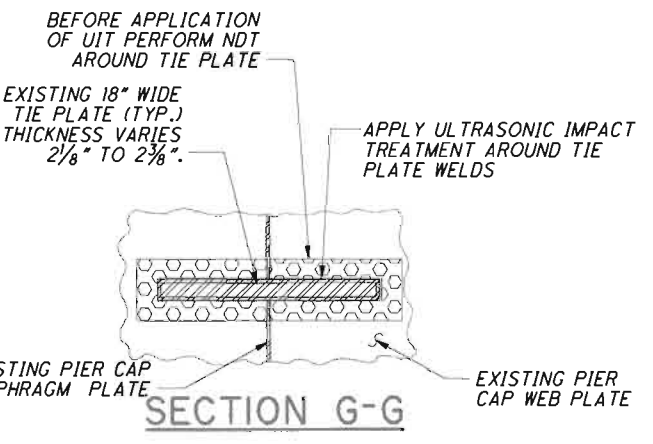
REMOVE 2 1/2" x 1/2" ABANDONED DRAIN BRACKET BY GRINDING

REPAIR DETAIL NORTH FACE ONLY 2

TYPICAL REPAIR DETAIL 4

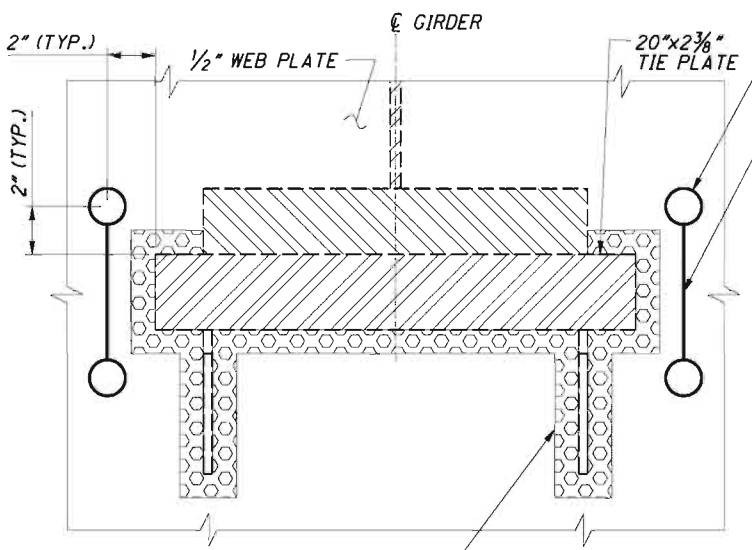


SECTION C-C



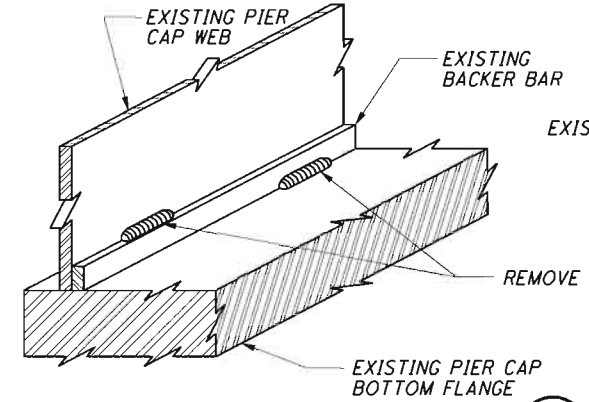
**REPAIR DETAIL
 INTERIOR TIE PLATE TREATMENT 1**

LIMITS OF 1/2" WIDE ULTRASONIC IMPACT TREATMENT (UIT)

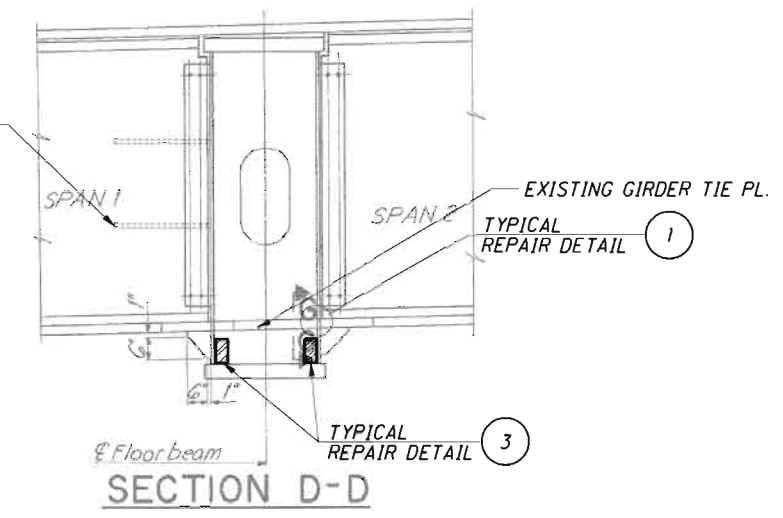


**REPAIR DETAIL
 STRESS RELIEF HOLES 2**

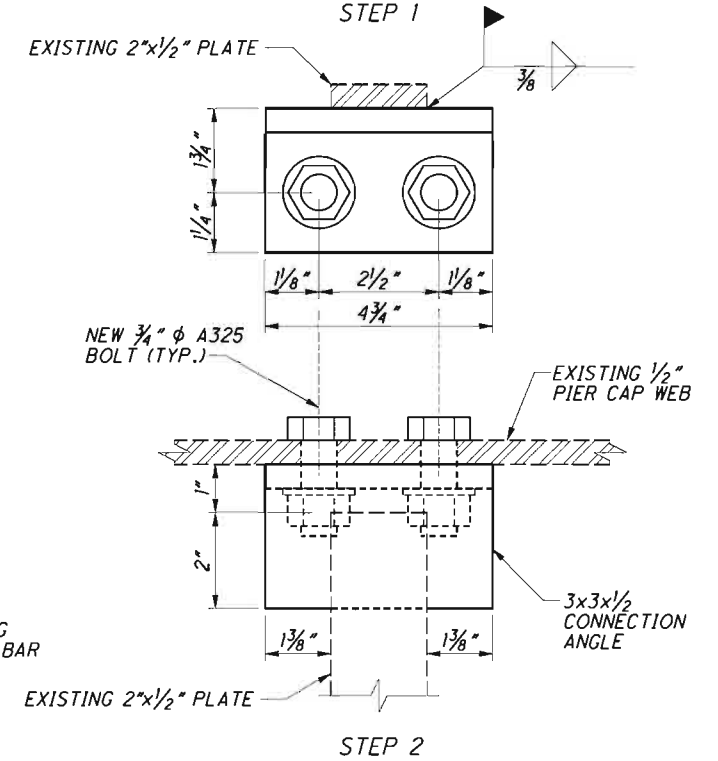
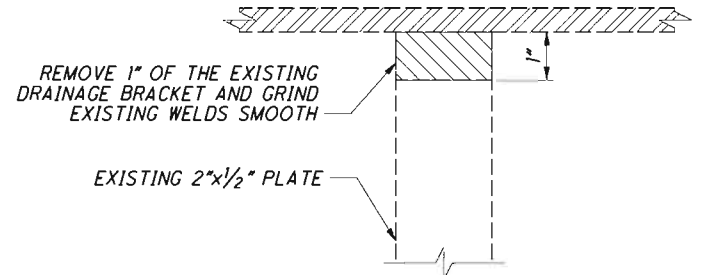
(FOR GIRDERS U, V, W, X, Y AT NORTH AND SOUTH WEB PLATES, Z AT SOUTH WEB PLATE, AND T AT NORTH WEB PLATE)



**REPAIR DETAIL
 BACKING BAR WELD REMOVAL DETAIL 3**



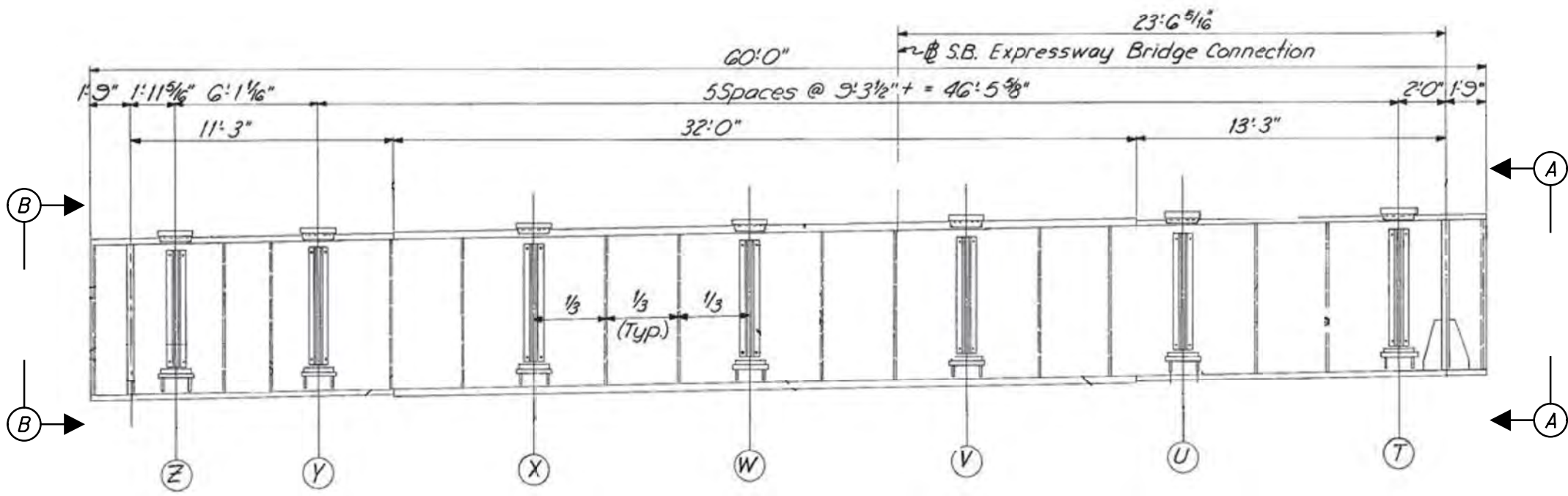
SECTION D-D



**REPAIR DETAIL
 DRAIN BRACKET RETROFIT 4**

- NOTES:**
1. PIER ELEVATION AND SECTIONS C-C, D-D, AND G-G ARE TAKEN FROM THE ORIGINAL PLANS.
 2. CLEAN AND PAINT REPAIR AREAS ON THE EXTERIOR OF THE PIER CAP.
 3. CARE SHALL BE TAKEN NOT TO OVERCUT SAWCUT BEYOND DRILLED HOLES. FLAME CUTTING IS NOT PERMITTED.

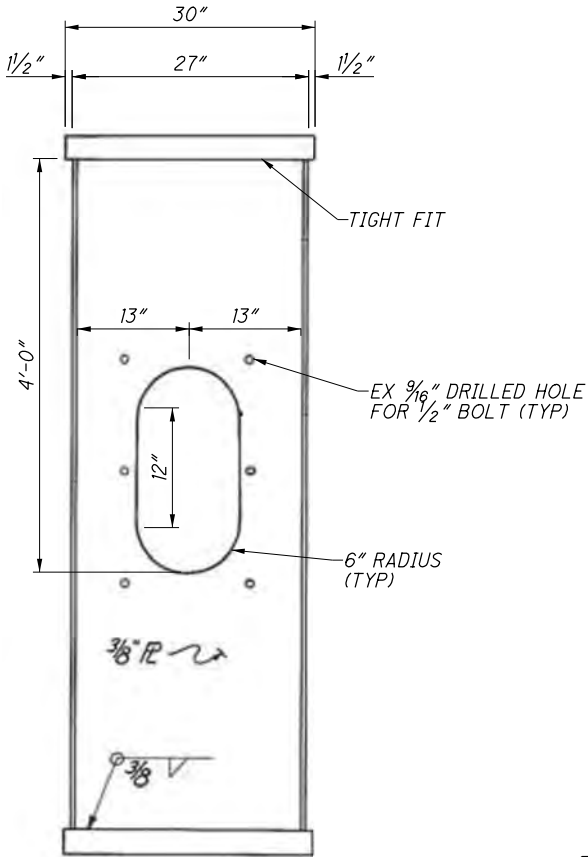
DESIGN AGENCY Trail Systems 55 PUBLIC SQUARE, SUITE 1800 CLEVELAND, OHIO 44113	
DATE 12-05-07	REVIEWED WRW
STRUCTURE FILE NUMBER 3106659	DESIGNED NBR
DRAWN NBR	CHECKED BKC
PIER 1 CAP RETROFIT DETAILS BRIDGE NO. HAM-71-0197W RAMP TO I-471 OVER GILBERT AVENUE RAMP TO I-71	
HAM-BH-VAR PID No. 25374	
29	38



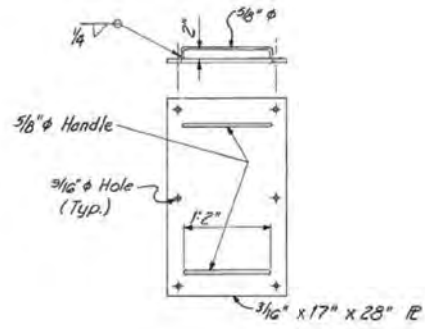
ELEVATION OF FLOEBEAM AT PIER 1

SCOOP OF WORK (UNLESS NOTED OTHERWISE):

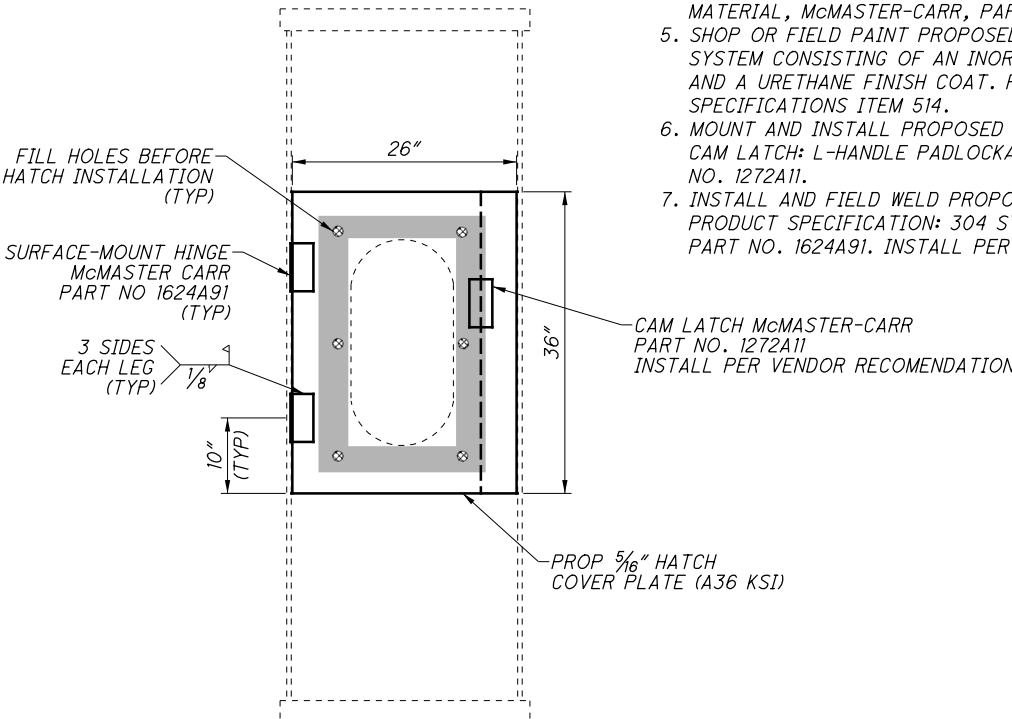
1. REMOVE AND DISPOSE EXISTING END COVER PLATES FROM STEEL PIER CAP AT EACH END.
2. CLEAN AND PAINT AREAS AFFECTED FOR PROPOSED ACCESS HATCH INSTALLATION. APPLY THREE-COAT PAINT SYSTEM CONSISTING OF AN ORGANIC ZINC PRIME COAT, AN EPOXY INTERMEDIATE COAT AND A URETHANE FINISH COAT. FOLLOW ODOT 2016 CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 514.
3. CAULK AND SEAL AREAS AFFECTED FOR PROPOSED ACCESS HATCH INSTALLATION. PRODUCT SPECIFICATION: STICKY SILICONE GEL GASKET MATERIAL, McMASTER-CARR, PART NO. 2750K47. FOLLOW VENDOR RECOMMENDATION.
4. FILL AND SEAL EXISTING 9/16" DRILLED HOLES WITH STICKY SILICONE GEL GASKET MATERIAL, McMASTER-CARR, PART NO. 2750K47.
5. SHOP OR FIELD PAINT PROPOSED HATCH COVER PLATE. APPLY A THREE-COAT PAINT SYSTEM CONSISTING OF AN INORGANIC ZINC PRIME COAT, AN EPOXY INTERMEDIATE COAT, AND A URETHANE FINISH COAT. FOLLOW ODOT 2016 CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 514.
6. MOUNT AND INSTALL PROPOSED ACCESS HATCH PLATE. PRODUCT SPECIFICATION FOR CAM LATCH: L-HANDLE PADLOCKABLE THREE-POINT CAM LATCHES, McMASTER-CARR, PART NO. 1272A11.
7. INSTALL AND FIELD WELD PROPOSED SURFACE-MOUNT HINGES (MINIMUM TWO REQUIRED). PRODUCT SPECIFICATION: 304 STAINLESS STEEL SURFACE-MOUNT HINGE, McMASTER-CARR, PART NO. 1624A91. INSTALL PER VENDOR RECOMMENDATION.



SECTION A-A (ACCESS HOLE)
 SECTION B-B SIMILAR



EXISTING COVER PLATE (FOR ACCESS HOLE)
 DIMENSIONS SUBJECT TO CHANGE, TO BE REMOVED



PROPOSED ACCESS HATCH DETAILS

LEGEND

- APPROXIMATE LIMITS OF CLEANING, PAINTING AND SEALING BEFORE HATCH COVER PLATE INSTALLATION
 SEALING MATERIAL PRODUCT SPECIFICATION: STICKY SILICONE GEL GASKET MATERIAL, McMASTER-CARR, PART NO. 2750K47.