# **D07-MEDIAN REPAIRS**

STATE OF OHIO **DEPARTMENT OF TRANSPORTATION** 

# **D07-MEDIAN REPAIRS**

**CLARK COUNTY** MIAMI COUNTY

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### FEDERAL PROJECT NUMBER

NON-FEDERAL

RAILROAD INVOLVEMENT

**PROJECT DESCRIPTION** 

REPAIR OF VARIOUS MEDIAN AND RIGHT SIDE PROTECTIVE CONCRETE WALLS.

### EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: N/A ACRES ESTIMATED CONTRACTOR EARTH DISTURBED AREA: N/A ACRES NOTICE OF INTENT EARTH DISTURBED AREA: N/A ACRES

### 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 THESE IMPROVEMENTS WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY FOR CLA-70 OR MIA-75, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

No W. Office hn W. O'Brien **District 07 Deputy Director** 

Pamela Boratyn Director, Department of Transportation

**DESIGN EXCEPTIONS** 

ADA DESIGN WAIVERS

UNDERGROUND UTILITIES Contact Two Working Days Before You Dig

FOR LOCATION MAPS AND DESIGN **DESIGNATION SEE SHEET 2.** 

> **☆** 0HI0811.org ✓ Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764 (Non members must be called directly)

> PLAN PREPARED BY: DISTRICT 7 ENGINEERING 1001 ST MARYS AVE. SIDNEY, OHIO 45365

		STANDARI	CONSTRUCTION		PLEMENTAL IFICATIONS	SPECIAL PROVISIONS		
					800	7/19/24		
DM-1.1	7/17/20							
		MT-99.30 1/17/20						
RM-4.2	4/17/20				821	4/20/12		ENGINEER'S SEAL
RM-4.3	1/21/22				832	7/19/24		
		MT-101.70 4/21/23						ROADWAY DESIGN ENGIN
TC-42.20	10/18/13	MT-101.90 7/19/24			921	7/19/24		SITE OF ON
		MT-101.75 7/21/23						BENJAMIN
		MT-102.10 7/21/23						BENJAMIN J.
MT-95.30	7/19/19	MT-102.30 10/16/15						ANKROM E-82850
MT-95.32	4/19/19	MT-103.10 1/21/22						E-82850
MT-95.40	7/21/23							SSONAL ENGINE
MT-95.45	7/21/23	MT-105.10 1/17/20						"Comment
MT-95.50	7/21/17							

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# UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES LISTED ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC. OHIO UTILITY PROTECTION SERVICE AT 1-800-362-2764.

THE UNDERGROUND UTILITY COMPANIES WITH BURIED SERVICES WITHIN THE PROJECT LIMITS ARE AS FOLLOWS:

> ODOT/ROADWAY SERVICES MANAGER 1001 ST. MARYS AVENUE SIDNEY, OHIO 45365-0969 PHONE: (937) 497-6890

### EXISTING STRUCTURE VERIFICATION

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

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 WHICH HAVE BEEN VERIFIED IN THE FIELD.

EXISTING PLANS ARE AVAILABLE FOR REVIEW, AS PER CMS 102.05 AT THE OFFICE OF DISTRICT 7.

### CONTRACTOR'S NOTE

THE CONTRACTOR IS HEREBY GIVEN NOTICE THAT ALL LENGTHS, WIDTHS, OFFSETS, ELEVATIONS AND LOCATIONS FOR THIS PROJECT ARE BASED OFF OF EXISTING PLANS AND DOCUMENTS. LOG POINTS AND CALCULATIONS ARE BASED OFF STRAIGHT LINE MILEAGE, OBTAINED FROM THOSE EXISTING PLANS. THEREFORE ALL THE REFERENCES FOR THIS PROJECT SHALL BE CONSIDERED (±) PLUS/MINUS. AND IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL REFERENCES SHOWN.

THIS IS A MEDIAN WALL AND RIGHT-SIDE PROTECTIVE CONCRETE WALLS PROJECT, FOR CLARK AND MIAMI COUNTITIES, ALONG INTERSTATES I-70 AND I-75.

THE INTENT OF THIS PROJECT IS TO REPAIR BARRIER WALL SECTIONS ONLY BY WAY OF PATCHING DETERIORATED AREAS WHEN PATCHING IS APPLICABLE, AND REMOVING AND REPLACING WALL SECTIONS ONLY WHERE THE DETERIORATION IS BEYOND A PATCHABLE REPAIR. AS DETERMINED BY THE ENGINEER. PATCHING OF THE MEDIAN WALL OR RIGHT-SIDE PROTECTIVE WALL SHALL BE LIMITED TO AREAS IDENTIFIED BY THE ENGINEER, ANY WORK BEYOND THOSE LIMITS MUST FIRST BE APPROVED BY THE ENGINEER. IF ANY WALL SECTION, WHETHER IT BE OVER AN EXISTING INLET OR AT A TYPICAL WALL SECTION, HAS BEEN MARKED FOR REMOVAL AND REPLACEMENT. THAT WORK SHALL BE LIMITED TO THE WALL SECTION ONLY, FROM THE TOP OF THE FOOTER TO THE TOP OF EXISTING BARRIER WALL. NO RACEWAYS ARE EXPECTED , BUT IF ENCOUNTERED ODOT WILL COMPENSATE THE CONTRACTOR FOR THEIR REMOVAL. WHEN ALL WORK IS COMPLETED IT SHALL MATCH THE EXISTING BARRIER IN HEIGHT, WIDTH, AND SHAPE.

THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND RECONSTRUCTION OF THE EXISTING WALL SECTION FOR EACH PROPOSED 20' INLET WALL SECTION, IN ACCORDANCE WITH THE 2023 CMS, AND AS DETAILED IN THESE PLANS. THE CONTRACTOR SHALL USE CARE WHEN REMOVING THE EXISTING SECTION OF WALL AS NOT TO DAMAGE THE SECTIONS OF WALL TO REMAIN IN PLACE, INCLUDING THE EXISTING FOOTING, AND THE EXISTING INLET BASIN BELOW THE WALL SECTION. NO RACEWAYS ARE EXPECTED, BUT IF ENCOUNTERED, ODOT WILL COMPENSATE THE CONTRACTOR FOR THEIR REMOVAL. THE REMOVAL AND DISPOSAL OF THE EXISTING WALL SECTION SHALL BE INCLUDED IN THIS PAY ITEM. ALL WORK, LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM OF WORK. SHALL BE PAID FOR UNDER THE UNIT PRICE BID PER EACH. FOR ITEM 611-CONCRETE BARRIER (TYPE D) INLET, AS PER PLAN. (SEE SHEET 18-20.)

### ITEM 622 - BARRIER, MISC.: PORTIONS OF CONCRETÉ BARRIER REBUILT

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND RECONSTRUCTING SECTIONS OF THE EXISTING MEDIAN BARRIER WALL AS INDICATED IN THESE PLANS. MEDIAN WALLS WITHIN THIS PROJECT VARY IN DESIGN (TYPE D AND SINGLE SLOPE). THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING THE PROPOSED SECTIONS OF BARRIER WALL TO MATCH THAT OF THE EXISTING. THE CONTRACTOR SHALL TAKE CARE DURING REMOVAL NOT TO DAMAGE THOSE SECTIONS TO REMAIN IN PLACE. NO RACEWAYS ARE EXPECTED, BUT IF ENCOUNTERED ODOT WILL COMPENSATE THE CONTRACTOR FOR THEIR REMOVAL. THE CONTRACTOR SHALL WORK CLOSELY WITH THE PROJECT ENGINEER TO IDENTIFY THE AREAS OF REMOVAL. THESE AREAS DO NOT CONTAIN REINFORCING STEEL, THEREFORE IT SHALL BE UP TO THE CONTRACTOR TO EITHER SET FORMS OR SLIP FORM THE PROPOSED SECTIONS. THE REMOVAL AND DISPOSAL OF THE EXISTING BARRIER SHALL BE INCLUDED IN THIS BID ITEM. ALL WORK, LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM OF WORK SHALL BE INCLUDED IN THE UNIT PRICE BID PER FOOT FOR ITEM 622 - BARRIER, MISC.: PORTIONS OF CONCRETE BARRIER REBUILT. (SEE SHEETS 18-20)

### INTERIM COMPLETION DATE

WALL PATCHING AND/OR REMOVAL AND REPLACEMENT. AND ALL RIGHT SIDE BARRIER PROTECION WALL PATCHING UNDER

COMPLETION DATE, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES OF \$600 PER EACH CALENDAR DAY.

### PROTECTION OF DRINKING WATER RESOURCES:

BEST CONSTRUCTION PRACTICES ARE TO BE IMPLEMENTED TO MINIMIZE WATER QUALITY IMPACTS. IDLE EQUIPMENT, PETROCHEMICALS, AND TOXIC/HAZARDOUS MATERIALS SHALL NOT BE STORED NEAR DRAINAGE WAYS, DITCHES OR STREAMS. REFUELING SHALL NOT BE UNDERTAKEN NEAR DRAINAGE WAYS, DITCHES OR STREAMS. A SPILL CONTAINMENT KIT IS TO BE MAINTAINED ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. SPILLS OF FUELS, OIL, CHEMICALS, OR OTHER MATERIALS WHICH COULD POSE A THREAT TO GROUNDWATER SHALL BE CLEANED UP IMMEDIATELY. IF THE SPILL IS A REPORTABLE AMOUNT, THE LOCAL FIRE DEPARTMENT (911), LOCAL EMERGENCY COORDINATOR (AUGLAIZE: 419-733-3857; CHAMPAIGN: 937-605-1786; CLARK: 937-324-7615; DARKE: 937-548-2020; LOGAN: 937-935-0221; MERCER: 419-586-6455; MIAMI: 937-339-6400; MONTGOMERY: 937-901-5112; SHE: 937-498-1111) AND THE OEPA (1-800-282-9378) MUST BE CONTACTED WITHIN 30 MINUTES OF KNOWLEDGE OF THE RELEASE.

### PROTECTION OF STREAMS:

NO INSTREAM WORK IS PERMITTED ON THE PROJECT. THE PROJECT WILL INCLUDE WORK OVER STREAMS THAT MAY HOST MUSSEL POPULATIONS. THE MAD RIVER IS A DESIGNATED WATER TRAIL AND PADDLERS MAY BE PRESENT.

DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL TAKE ALL APPROPRIATE PRECAUTIONS TO COLLECT & CONTAIN DEMOLITION DEBRIS AND OTHER MATERIALS, IN ORDER TO PREVENT SUCH MATERIALS FROM ENTERING THE CHANNEL. THE CONTRACTOR SHALL DISPOSE OF ALL WASTE MATERIALS OFF-SITE.

IF AT ANY TIME ANY MATERIALS ARE FOUND TO BE ENTERING THE CHANNEL, THE CONTRACTOR SHALL IMMEDIATELY STOP WORK IN PROXIMITY TO THE CHANNEL. THE CONTRACTOR SHALL NOT RESUME CONSTRUCTION UNTIL THE CONTRACTOR CAN VERIFY TO THE ODOT ENGINEER THE CORRECTIVE MEASURES HAVE BEEN IMPLEMENTED TO PREVENT FURTHER RELEASES OF MATERIALS TO THE CHANNEL.



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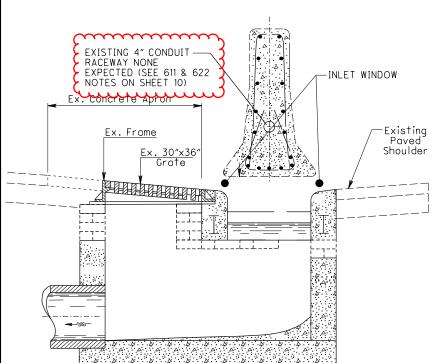
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ITEM 611 - CONCRETE BARRIER (TYPE D) INLET, AS PER PLAN

THE INTERIM COMPLETION DATE FOR ALL MEDIAN BARRIER THE CURRENT CONTRACT SHALL BE 7/1/2025.

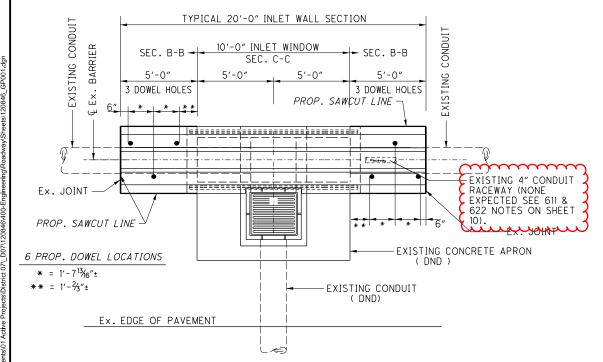
SHOULD THE CONTRACTOR FAIL TO MEET THE INTERIM



INLET SEC. C-C (SEE BELOW)

(PROP. WORK SEE SHT. 20 SEC. B-B AND C-C)

						E	STIM	ATE	D QL	JAN.	TITIES
REF. #	SHEET #	CO./RTE.	SLM. TO	SLM.	SIDE	TREATMENT	SEALING (512) SY.	PATCHING (519) SF.	INLET TYPE D (611) EA.	BARRIER (622) FT.	m GAMENIS m m m m m m m m m m m m m m m m m m m
LOC1	3	CLA70	0.146	0.246	EB/WB	A & C	1.3	6		20	MINOR PATCHING THRU LIMITS/REPLACE FIRST SECTION BEYOND STRUCTURE CLA-70-0.16.
LOC2	3	CLA70	0.646	0.746	EB/WB	A & C	1.2	5	1	10	MINOR PATCHING THRU LIMITS / REPLACE BARRIER WALL SECTION PRIOR TO AND OVER THE INLET. (WALL SECTION ONLY)
LOC3	3	CLA70	0.870	0.970	EB/WB	С	.5		1	20	REPLACE BARRIER WALL OVER INLET AND THE SECTION AFTER IT. (WALL ONLY)
LOC4	3	CLA70	1.516	1.629	EB/WB	А	.3	3			MINOR PATCHING THRU LIMITS .
LOC5	3	CLA70	1.714	1.837	EB/WB	А	6	55			MINOR PATCHING THRU LIMITS. (TOP OF WALL)
LOC6	4	CLA70	2.826	2.926	EB/WB	A & B	1.5	8			MINOR/MAJOR PATCHING THRU LIMITS / TOP OF WALL
LOC7	4	CLA70	5.746	5.846	EB/WB	A & B & C	.5	24		90	MINOR/MAJOR PATCHING THRU LIMITS, AND BARRIER WALL REPLACEMENT.
LOC8	4	CLA70	6.166	6.266	EB/WB	A & B & C	1.5	12		50	MINOR PATCHING THRU LIMITS, AND BARRIER WALL REPLACEMENT.
LOC9	5	MIA75	0.220	0.320	NB/SB	A & B	4.8	43			MINOR PATCHING THRU LIMITS, WITH ONE MAJOR PATCHING AREA.
LOC9A	5	MIA75	0.530	0.625	NB/SB	A & C	1.2	5		20	MINOR PATCHING THRU LIMITS, WITH ONE MAJOR PATCHING AREA.
LOC10	5	MIA75	1.840	1.940	NB/SB	A & C	2	20		10	MINOR PATCHING THRU LIMITS, AND BARRIER WALL SECTION REPLACEMENT.
LOC11	5	MIA75	2.380	2.480	NB/SB	A & B	5.5	50			MINOR PATCHING THRU LIMITS, WITH ONE MAJOR PATCHING AREA.
LOC12	5	MIA75	2.880	2.980	NB/SB	A & C	1.2	13	2		MINOR PATCHING THRU LIMITS/REPLACE TWO BARRIER SECTIONS OVER INLETS. (WALL ONLY)
LOC13	6	MIA75	4.130	4.230	NB/SB	A & B & C	3.4	31		10	MINOR PATCHING THRU LIMITS, WITH COMPLETE REPLACEMENT
LOC14	6	MIA75	4.780	4.880	NB/SB	A & C	1.1	10	1		MINOR PATCHING THRU LIMITS/REPLACE ONE SECTIONS OVER INLET. (WALL ONLY)
LOC15	6	MIA75	6.080	6.155	SB	А	.4	4			MINOR PATCHING THRU LIMITS. (AT BASE OF WALL)
LOC16	6	MIA75	9.905	10.644	SB	A & B	2	19			MINOR PATCHING THRU LIMITS, WITH TWO MAJOR PATCHING AREAS AT OVERHEAD SIGNS.
LOC17	7	MIA75	13.110	13.210	NB	А	2	20			MINOR PATCHING THRU LIMITS, (MIA-75-1315R) BOTH PARAPETS
			TOTALS	CARRIED	TO GENER	AL SUMMARY	36.4	328	5	230	



### 20' INLET SECTION OVERHEAD VIEW (TYP.)

TYPE D NEW JERSEY WALL SHOWN (MIA/CLA CO.) SINGLE SLOPE WALL NOT SHOWN (CLA CO.)

### TREATMENT LEGEND

### TREATMENT "A"

TREATMENT "A" AREAS INCLUDE THOSE WHERE PARTIAL DEPTH PATCHING ALONE IS A SUFFICIENT REPAIR. THIS INCLUDES FULL DEPTH REPAIRS LIMITED TO ONLY THE TOP 6" OF THE BARRIERS.

- 1). SET MOT PER THESE PLANS AND THE ODOT TEM.
- 2). REPAIR VISIBLY UNSOUND AND DAMAGED AREAS NOTED IN THE PLANS PER C&MS 519.
- 3). SEAL PATCH REPAIRED CONCRETE SURFACES PER ITEM 512.

### TREATMENT "B"

TREATMENT "B" AREAS INCLUDE PARTIAL FULL DEPTH REPLACEMENT OF BARRIERS.

- 1). SET MOT PER THESE PLANS AND THE ODOT TEM.
- 2). REMOVE VISIBLY UNSOUND AND DAMAGED AREAS NOTED IN THE PLANS PER C&MS 202. REMOVED AREAS SHALL BE SIMPLE RECTANGULAR SHAPES.
- 3). REPLACE PORTIONS OF MEDIAN BARRIER PER C&MS 622.
- 4). REPLACE PORTIONS OF REINFORCED BRIDGE PARAPETS PER C&MS 517.
- 5). SEAL PATCH REPAIRED CONCRETE SURFACES PER ITEM 512.

### TREATMENT "C"

TREATMENT "C" AREAS INCLUDE REMOVAL & REPLACEMENT OF CONCRETE BARRIER WALL SECTIONS AND BARRIER WALL SECTIONS OVER INLETS. THE EXISTING APRONS AND INLETS BASINS ARE TO REMAIN. SEE LIMITS ON

 $\overline{m}$ 

- 1). SET MOT PER THESE PLANS AND THE ODOT TEM.
- 2). REMOVE DAMAGED CONCRETE BARRIER OR BARRIER SECTION ONLY OVER THE INLET NOTED IN THE PLANS PER C&MS 202. SAW CUTS TO BE AT EXISTING CONTROL JOINTS.
- 3). REPLACE PORTIONS OF MEDIAN BARRIER PER C&MS 611.
- 4). SEAL PATCH REPAIRED CONCRETE SURFACES PER ITEM 512.

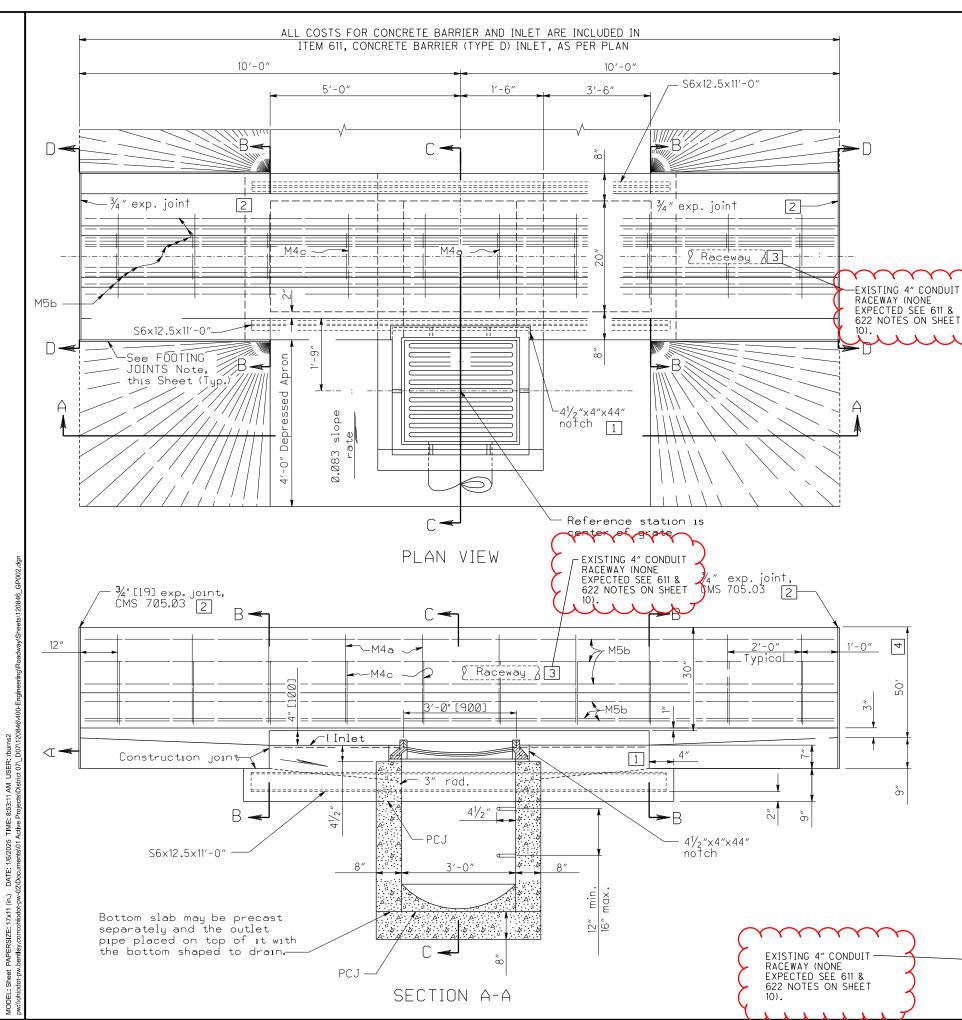


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**D07-MEDIAN REPAIRS** 

# NOTES

### GENERAL:

Not all notes listed here apply to the proposed work. Apply only the notes that pertain to the wall section only. There shall be no work below the toe of barrier wall, except for the creation of dowel holes and installation of dowel rods. The shape and height may slightly vary within these plans. The proposed finished barrier shall match that of the existing barrier. See sheet 20 for the different barrier shapes.

### WALLS: N/A

The walls between the bottom slab and the upper permissible construction joint may be built of brick, concrete, concrete block, or cast-in-place concrete, 8" normal thickness for depths of 12" or less. Precast walls have a minimum thickness of 6" and are reinforced sufficiently to permit shipping and handling without damage. The unit above the permissible construction joint may be precast or cast-in-place.

### CONCRETE:

Provide 4000 psi compressive strength concrete for cast-in-place structures. All precast concrete must meet the requirements of CMS 706.13. Mark the inlet number on the structure. Seal the exposed concrete surfaces of the barrier per item 512 when specified in the plans.

### REINFORCING STEEL:

Provide epoxy coated reinforcing steel in accordance with CMS 509.09.

### FOOTING JOINTS: N/A

Provide a sealed joint with the vertical walls between the barrier footing and a concrete pavement or concrete base as detailed on SCD RM-4.3.

### CASTINGS: N/A

The minimum weight of frame and cover is 540 lbs.

Lighter weight frames and grates that meet the requirements of CMS 711.14 may also be provided. Grate openings and dimensions may not differ from those shown, unless other wise shown in the plans.

### STEPS: N/A

Steps shall be in accordance with SCD MH-1.1.

### GRATE LOCATION: N/A

In superelevated curves or at other locations where there is unequal discharge from the directional roadways, locate the inlet grating in the roadway which discharges the major flow.

### INLETS OVER 12 FEET IN DEPTH: N/A

Provide precast or cast-in-place concrete for inlets over 12 feet in depth. Reinforced with #4 bars on 12" centers both vertically and horizontally with 2" clearance from the inside wall face.

### OPENINGS: N/A

Pipe openings may be no greater than the outside diameter of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per CMS 601.

### PCJ:

Permissible Construction Joint.

### PAYMENT:

Payment will be made at the unit price bid per Each for Item 611 - Concrete Barrier (TYPE D) Inlet, As Per Plan, and shall include all material, labor, reinforcing steel, and incidentals necessary to construct the Inlet Wall section as shown. Sealing of proposed barrier will be paid for under Item 512 when specified in the plans.

## LEGEND

- 1 After casting is placed, fill notch with 4000 psi Compressive Strength Concrete.
- $\fbox{2}$  A  $1/\!\!\!/_2$  ' minimum exp. joint shall be provided in concrete pavement or concrete shoulders.
- $\odot$  Align 4" with (if applicable) raceway in existing barrier.
- 4 Normal barrier height equals 50", however the proposed barrier height shall equal that of the existing barrier.

DESIGN AGENCY



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