

**DRAINAGE (CONTINUED)**

**ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN "A"**

ALL REQUIREMENTS OF SECTION 611 OF THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL APPLY WITH THE FOLLOWING MODIFICATION:

DO NOT RECONSTRUCT DOWN TO THE SPRING LINE OF DEEPEST CONDUIT. REMOVE THE EXISTING WALLS AT LEAST 3' BELOW THE EXISTING CASTINGS OR AS NECESSARY.

ALL LABOR, TOOLS, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE ABOVE DESCRIBED WORK SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN "A".

**ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN "B"**

THIS ITEM SHALL CONSIST OF RECONSTRUCTING THE EXISTING INLETS SHOWN IN THE DETAIL BELOW AS PROPOSED MANHOLES. RECONSTRUCTION PROCEDURE FOR THE STRUCTURES LABELED AS DJ-77A, DJ-78A, DJ-80A, DJ-81A SHALL BE AS FOLLOWS:

THE EXISTING INLET TOP SHALL BE REMOVED. DO NOT RECONSTRUCT DOWN TO THE SPRING LINE OF THE DEEPEST CONDUIT. REMOVE THE EXISTING WALLS AT LEAST 3' BELOW THE TOP OR AS NECESSARY. RECONSTRUCT THE WALLS AND PLACE A 12" THICK REINFORCED FLAT SLAB TOP AS PER SCD MH-3.

FOR DETAILS OF THE EXISTING STRUCTURE, SEE RECORD PLAN SHEET BELOW.

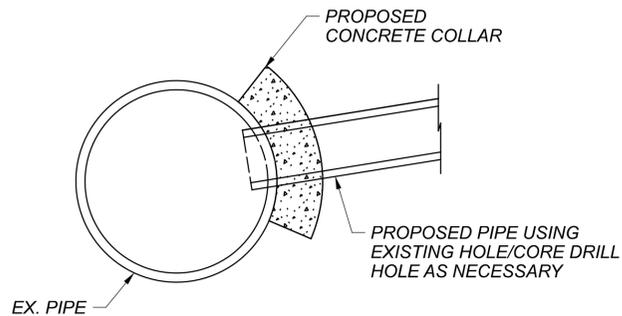
ALL LABOR, TOOLS, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE ABOVE DESCRIBED WORK SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR ITEM 611 - MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN "B".

**ITEM 611 - \_\_\_" CONDUIT, TYPE \_\_\_, AS PER PLAN**

ALL REQUIREMENTS OF SECTION 611 OF THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL APPLY WITH THE FOLLOWING MODIFICATION:

THE ELEVATION OF THE BLIND TAP CONNECTION OF THE NEW CONDUIT SHALL BE FIELD VERIFIED SO THAT THE CONDUIT REUSES THE EXISTING CONNECTION/HOLE OR CORE DRILL HOLE AS NECESSARY TO FIT THE NEW CONDUIT. ITEM 602 - CONCRETE MASONRY OR OTHER MATERIAL AS DETERMINED BY ENGINEER SHALL BE USED TO FORM A CONCRETE COLLAR AROUND THE NEW CONDUIT. THE COLLAR SHALL BE 2' THICK AND SPAN 2' ON EITHER SIDE OF THE NEW CONDUIT. SEE DETAIL BELOW FOR THE BLIND TAP CONNECTION.

ALL LABOR, TOOLS, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE ABOVE DESCRIBED WORK, INCLUDING THE CONCRETE COLLAR, SHALL BE INCLUDED IN THE CONTRACT PRICE BID FOR ITEM 611 - \_\_\_" CONDUIT, TYPE \_\_\_, AS PER PLAN.



**ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN**

DUE TO THE PART-WIDTH CONSTRUCTION OF THE PROPOSED STORM SEWER SYSTEM, EXCAVATION BRACING IS ANTICIPATED TO BE NEEDED IN ORDER TO MAINTAIN TRAFFIC NEXT TO THE EXCAVATED AREAS FOR PROPOSED STORM SEWER INSTALLATION. CONTRACTOR IS TO DESIGN, INSTALL, AND REMOVE EXCAVATION BRACINGS IN ORDER TO INSTALL THE PROPOSED DRAINAGE STRUCTURES AND PIPES AT THE FOLLOWING LOCATIONS:

STR. NO.	ALIGNMENT	STATION	OFFSET	SIDE
D-17	I-490	961+30.75	3.17'	LT
D-18	I-490	966+00.00	3.17'	LT
D-19	I-490	968+85.00	3.17'	LT
D-20	I-490	969+75.67	3.17'	LT
D-21	I-490	970+55.00	3.17'	LT
D-22	I-490	974+20.00	3.17'	RT
D-23	I-490	975+99.82	3.17'	RT
D-24	I-490	979+00.13	3.17'	RT
D-25	I-490	983+00.00	3.17'	RT
D-26	I-490	985+34.85	3.17'	RT
D-27	I-490	1020+99.53	3.17'	LT
D-28	I-490	1027+00.13	3.17'	LT
D-29	I-490	1031+00.12	3.17'	LT
D-31	I-490	1033+45.44	3.96'	LT
D-32	I-490	1034+85.00	4.00'	RT
D-34	WB I-490	3035+99.94	4.83'	RT
D-35	WB I-490	3039+00.00	4.75'	RT
D-38	WB I-490	3044+50.05	3.93'	RT
D-40	WB I-490	3047+74.87	2.00'	RT
D-149	EB I-490	2037+72.81	9.82'	LT

PIPE NO.	STATION		SIDE
	FROM	TO	
P-1	D-1	D-58	LT
P-1A	EX-1	D-1	RT
P-3	D-3	D-59	LT
P-11	D-11	D-63	LT
P-12	D-12	D-162	LT
P-14	D-14	D-164	LT
P-16	D-16	D-68	RT
P-17	D-17	D-140	RT
P-18	D-18	D-19	CENTER
P-19	D-19	D-20	CENTER
P-20	D-20	DJ-78A	RT
P-21	D-21	D-20	CENTER
P-22	D-22	D-23	CENTER
P-23	D-23	DJ-81A	RT
P-24	D-24	D-144	RT
P-25	D-25	D-146	LT
P-26	D-26	D-89	LT
P-27	D-27	D-148	RT
P-28	D-28	DJ-98	RT
P-29	D-29	DJ-99	RT
P-31	D-31	DJ-8	RT
P-32	D-32	DJ-110	LT
P-34	D-34	DJ-10	RT
P-35	D-35	D-36	RT
P-36	D-36	D-149	RT
P-37	D-37	DJ-13	RT
P-38	D-38	D-39	RT
P-40	D-40	D-41	RT
P-53	D-53	D-8	RT
P-55	D-55	D-12	RT
P-56	D-56	D-14	RT
P-69	D-69	EX-8	LT/RT
P-70	D-70	D-75	LT/RT
P-72	D-72	D-178	LT/RT
P-73	D-73	D-17	LT
P-74	D-74	D-141	LT/RT
P-87	D-87	D-23	LT
P-88	D-88	D-24	LT

PIPE NO.	STATION		SIDE
	FROM	TO	
P-107	D-107	D-28	LT
P-114	D-114	D-40	LT
P-115	D-115	DJ-106	LT/RT
P-116	D-116	EX-12	RT
P-119	D-119	DJ-98	LT/RT
P-121	D-121	D-124	LT/RT
P-122	D-122	DJ-20	LT/RT
P-123	D-123	DJ-113	LT/RT
P-124	D-124	D-150	LT/RT
P-125	D-125	D-128	LT/RT
P-127	D-127	DJ-14	LT/RT
P-130	D-130	D-3	RT
P-132	D-132	D-61	LT
P-137	D-137	D-138	LT/RT
P-143	D-143	D-20	LT
P-149	D-149	DJ-11	RT
P-150	D-150	D-149	LT
P-177	D-177	D-16	LT
P-189	D-189	D-11	RT
P-203	D-203	D-132	RT
P-206	DJ-20	DJ-12	LT/RT
P-300	D-300	D-301	RT

**PAVEMENT RESTORATION FOR PIPE INSTALLATIONS AND/OR REMOVALS**

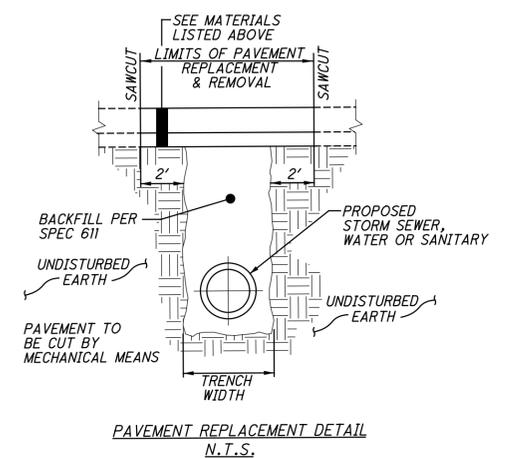
THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR RIGID PAVEMENT RESTORATION FOLLOWING INSTALLATION AND/OR REMOVAL OF PIPES.

**W. 7TH STREET**

- ITEM 202 - PAVEMENT REMOVED (CONCRETE) 7 SY
- ITEM 452 - 10.5" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1P WITH QC/QA 7 SY
- ITEM 304 - 6" AGGREGATE BASE 2 CY

THE ABOVE QUANTITIES ARE BASED ON A PAVEMENT RESTORATION WIDTH THAT INCLUDES THE TRENCH WIDTH PLUS TWO FEET ON EACH SIDE OF THE TRENCH.

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.



**STANDARD NO 2-A-6 TO 2-A-20 PAVED SHOULDER INLET MODIFIED AS PER PLAN**

The drawing shows a paved shoulder inlet with three main views: PLAN, SECTION A-A, and SECTION B-B. It includes a table for REINFORCING STEEL and various notes regarding construction details, materials, and standards. The drawing is titled 'STANDARD NO 2-A-6 TO 2-A-20 PAVED SHOULDER INLET MODIFIED AS PER PLAN' and includes a title block for CUYAHOGA COUNTY.

DESIGNS SHALL BE SUBMITTED AND APPROVED PER CMS 501.05. ALL EQUIPMENT, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE ITEM 503 SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN.

GENERAL NOTES

CUY-490-0.00 PART 1

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 4/9/2024 TIME: 1:36:05 PM USER: pflr  
 C:\Clients\ORD\2021\2021089\107408\Engineering\Roadway\Sheets\107408\_GN009.dgn

QUANTITIES CARRIED TO GENERAL NOTES SUBSUMMARY ON SHEET 159

DESIGN AGENCY



DESIGNER  
ATR

REVIEWER  
PJF 11-21-23

PROJECT ID  
107408

SHEET TOTAL  
57 1068

REVISIONS		
NO.	DATE	DESCRIPTION
6	04/09/24	PAVEMENT RESTORATION NOTE ADDED

SHEET NO.	201	202	203	203	204	204	204	503	204	601		605		611	611	611	611	611		SPECIAL	304	452	
	CLEARING AND GRUBBING LS	PAVEMENT REMOVED SY	EXCAVATION CY	EMBANKMENT CY	SUBGRADE COMPACTION SY	GRANULAR EMBANKMENT CY	PROOF ROLLING HOUR	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN LS	EXCAVATION OF SUBGRADE CY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT SY		6" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC FT		6" CONDUIT, TYPE B FT	6" CONDUIT, TYPE C FT	6" CONDUIT, TYPE E FT	6" CONDUIT, TYPE F FT	PRECAST REINFORCED CONCRETE OUTLET EACH		MISCELLANEOUS METAL LB	AGGREGATE BASE CY	NON-REINFORCED CONCRETE PAVEMENT, CLASS QC/QA SY	
50	LS				2111	1056	80		1056														
51																							
52																							
53																							
54										8		40		200	200	200	240	4		1000			
55																							
56																							
57		7	70616	2931			LS														2	7	
58																							
TOTALS CARRIED TO GENERAL SUMMARY	LS	7	70616	2931	2111	1056	80	LS	1056	8		40		200	200	200	240	4		1000	2	7	
SHEET NO.	618			623		638	638		659	659	659	659	659	659	659	659	659	659			SPECIAL	SPECIAL	
	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE), AS PER PLAN MILE			MONUMENT ASSEMBLY, TYPE C EACH		WATER WORK, MISC.: CLEVELAND WATER DEPARTMENT FEES AND CHARGES EACH	WATER WORK, MISC.: CLEVELAND WATER DEPARTMENT AS-BUILT DRAWINGS LS		SOIL ANALYSIS TEST EACH	TOPSOIL CY	SEEDING AND MULCHING, CLASS 3B SY	SEEDING AND MULCHING SY	REPAIR SEEDING AND MULCHING SY	INTER-SEEDING SY	COMMERCIAL FERTILIZER TON	LIME ACRE	WATER MGAL	MOWING MSF			SURVEY CONTROL VERIFICATION LS	PERMITS LS	
50				30																			
51																						LS	LS
52																							
53																							
54	5.58																						
55																							
56						20000	LS		2	7419	3490	63346	3342	3342	9.33	13.81	370	150					
57																							
58																							
TOTALS CARRIED TO GENERAL SUMMARY	5.58			30		20000	LS		2	7419	3490	63346	3342	3342	9.33	13.81	370	150			LS	LS	



REVISIONS		
NO.	DATE	DESCRIPTION
1	01/15/24	PERMITS QUANTITY ADDED
2	02/29/24	UPDATED EARTHWORK QUANTITIES
3	03/05/24	EXCAVATION OF SUBGRADE QUANTITY ADDED
4	04/04/24	UPDATED SUBGRADE QUANTITIES & WATER FEES QUANTITY
6	04/09/24	ADDED PAVEMENT RESTORATION QUANTITIES

DESIGN AGENCY

DESIGNER  
JAN

REVIEWER  
PJF 11-21-23

PROJECT ID  
107408

SHEET 59 TOTAL 1068

**NOTIFICATIONS AND CONTACTS**

THE CONTRACTOR SHALL NOTIFY THE FOLLOWING ENTITIES AT LEAST FOURTEEN (14) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION ACTIVITIES, INCLUDED IN THE NOTIFICATION SHALL BE THE PROJECTED DATES AND TIME FRAMES OF ANY ROAD CLOSURES OR DETOURS, INCLUDING DETOURS TO THE TOWPATH TRAIL AND IMPACTS TO PARCEL 10-T.

- 1. ODOT DISTRICT 12  
5500 TRANSPORTATION BLVD.  
GARFIELD HEIGHTS, OHIO 44125  
216-581-2100
- 2. CITY OF CLEVELAND DEPARTMENT OF PUBLIC WORKS  
500 LAKESIDE AVE.  
CLEVELAND, OHIO 44114  
216-664-2485
- 3. CITY OF CLEVELAND DIVISION OF FIRE  
1645 SUPERIOR AVE., EAST  
CLEVELAND, OHIO 44114  
216-664-6800
- 4. CITY OF CLEVELAND DIVISION OF POLICE  
1300 ONTARIO ST.  
CLEVELAND, OHIO 44113  
216-623-5000
- 5. CITY OF CLEVELAND METROPOLITAN SCHOOLS  
1111 SUPERIOR AVE. E, SUITE 1800  
CLEVELAND, OHIO 44114  
216-838-0000
- 6. CUYAHOGA COUNTY SHERIFF  
1215 W 3RD ST.  
CLEVELAND, OHIO 44113  
216-443-6000
- 7. GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY  
1240 WEST 6TH ST.  
CLEVELAND, OHIO 44113-1302  
216-356-3270
- 8. OHIO STATE HIGHWAY PATROL  
5225 W 140<sup>TH</sup> ST.  
BROOKPARK, OHIO 44142  
216-265-1677
- 9. CUYAHOGA METROPOLITAN HOUSING AUTHORITY  
8120 KINSMAN RD.  
CLEVELAND, OH 44104  
216-348-5000

THE FOLLOWING CONTACTS SHALL BE NOTIFIED 48 HOURS PRIOR TO THE TOWPATH TRAIL CLOSURE.

- 10. CANALWAY PARTNERS  
ATT: MERA CARDENAS  
PO BOX 609420  
CLEVELAND, OH 44109  
216-520-1825
- 11. JEREMY SKAGGS SR.  
PARK MANAGER, OHIO & ERIE CANAL RESERVATION  
4101 FULTON PARKWAY  
CLEVELAND, OHIO 44144  
OFFICE: 216-341-1706  
MOBILE: 440-523-1241  
EMAIL: JDS1@CLEVELANDMETROPARKS.COM

SHOULD ANY OF THE PROJECTED DATES AND TIME FRAMES OF THE START AND END OF THE ROAD CLOSURES CHANGE THROUGHOUT THE DURATION OF THE PROJECT, THE AGENCIES LISTED ABOVE MUST BE NOTIFIED IMMEDIATELY.

**SEQUENCE OF CONSTRUCTION**

**PRE-PHASE 1**

PRIOR TO COMMENCING PHASE 1 CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL CONSTRUCT TEMPORARY PAVEMENT REQUIRED FOR PHASE 1 AND REMOVE ALL EXISTING RUMBLE STRIPS THAT CONFLICT WITH THE TEMPORARY TRAFFIC PATTERNS. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH MT-95.30. ONLY ONE LANE, ADJACENT TO EITHER THE INSIDE OR OUTSIDE SHOULDER MAY BE CLOSED AT ANY ONE TIME IN ACCORDANCE WITH THE MOST UP TO DATE ODOT PERMITTED LANE CLOSURE CHART (SEE LANE VALUE CONTRACT TABLE ON SHEET 61 ). THIS WORK ZONE SHALL BE REMOVED BY 6 AM DAILY. ALL RAMPS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES.

**PHASE 1**

FROM THE BEGINNING OF THE PROJECT TO THE PEDESTRIAN BRIDGE/W. 11TH STREET THE CONTRACTOR SHALL SHIFT TWO EASTBOUND INTERSTATE 490 LANES TO THE OUTSIDE LANES AND SHOULDER AND ONE WESTBOUND INTERSTATE 490 LANE TO THE OUTSIDE LANE AND SHOULDER. THE CONTRACTOR SHALL CONSTRUCT ALL PROPOSED ROADWAY IMPROVEMENTS TO THE MEDIAN DRAINAGE, MEDIAN BARRIER, INSIDE SHOULDERS, AND INSIDE LANES.

**PHASE 1 (CONT.)**

BETWEEN THE PEDESTRIAN BRIDGE/W. 11TH STREET AND THE END OF THE CUYAHOGA RIVER BRIDGE THE CONTRACTOR SHALL SHIFT THREE EASTBOUND AND WESTBOUND LANES TO THE OUTSIDE LANES AND SHOULDER. BETWEEN THE END OF THE CUYAHOGA RIVER BRIDGE AND THE END OF THE PROJECT THE CONTRACTOR SHALL SHIFT TWO EASTBOUND AND WESTBOUND LANES TO THE OUTSIDE LANES AND SHOULDER. THE CONTRACTOR SHALL CONSTRUCT ALL PROPOSED ROADWAY IMPROVEMENTS TO THE MEDIAN DRAINAGE AND MEDIAN BARRIER.

THE CONTRACTOR SHALL SUSPEND CONSTRUCTION OF THE PROPOSED MEDIAN BARRIER JUST EAST OF THE PEDESTRIAN BRIDGE/W. 11TH STREET AND CONSTRUCT THE WEST END CROSSOVER AND ASSOCIATED TEMPORARY PAVEMENT. THE CONTRACTOR SHALL ALSO CONSTRUCT THE EAST END CROSSOVER AND ASSOCIATED TEMPORARY PAVEMENT JUST TO THE EAST OF THE NS RAILROAD BRIDGE. ALL RAMPS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES.

IN ORDER TO COMPLETE THE EAST CROSSOVER TEMPORARY PAVEMENT, EAST OF THE N-S RAILROAD BRIDGE. ONE WESTBOUND OPPORTUNITY CORRIDOR LANE SHALL BE CLOSED IN ACCORDANCE WITH THE MOST UP TO DATE ODOT PERMITTED LANE CLOSURE CHART AND PER MT-95.30.

**1ST WINTER OVER PHASE**

AFTER THE COMPLETION OF PHASE 1, THE CONTRACTOR SHALL WINTER OVER IN THE PHASE 1 TRAFFIC PATTERN.

**PRE-PHASE 2**

PRIOR TO COMMENCING PHASE 2 CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL CONSTRUCT TEMPORARY PAVEMENT REQUIRED FOR PHASE 2. DURING CONSTRUCTION OF THE TEMPORARY PAVEMENT, TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH MT-95.30. ONLY ONE LANE, ADJACENT TO EITHER THE INSIDE OR OUTSIDE SHOULDER MAY BE CLOSED AT ANY ONE TIME BETWEEN 8 PM – 6 AM OR IN ACCORDANCE WITH THE MOST UP TO DATE ODOT PERMITTED LANE CLOSURE CHART. THIS WORK ZONE SHALL BE REMOVED BY 6 AM DAILY. ALL RAMPS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES.

**PHASE 2**

FROM THE BEGINNING OF THE PROJECT TO THE PEDESTRIAN BRIDGE/W. 11TH STREET THE CONTRACTOR SHALL KEEP EASTBOUND TRAFFIC IN THE PHASE 1 TRAFFIC PATTERN AND SHIFT TWO WESTBOUND INTERSTATE 490 LANES TO THE INSIDE LANE AND SHOULDER. THE CONTRACTOR SHALL CONSTRUCT ALL PROPOSED ROADWAY IMPROVEMENTS TO THE WESTBOUND OUTSIDE SHOULDER, AND OUTSIDE LANES.

BETWEEN THE PEDESTRIAN BRIDGE/W. 11TH STREET AND THE END OF THE CUYAHOGA RIVER BRIDGE THE CONTRACTOR SHALL SHIFT THREE EASTBOUND LANES TO THE OUTSIDE LANES AND SHOULDER, SHIFT TWO WESTBOUND LANES TO THE OUTSIDE LANES AND SHOULDER, AND CROSSOVER ONE WESTBOUND LANE ONTO EASTBOUND PAVEMENT. THE CONTRACTOR SHALL CONSTRUCT ALL PROPOSED ROADWAY IMPROVEMENTS TO THE WESTBOUND INSIDE SHOULDER AND INSIDE LANES.

BETWEEN THE END OF THE CUYAHOGA RIVER BRIDGE AND THE END OF THE PROJECT THE CONTRACTOR SHALL SHIFT TWO EASTBOUND LANES TO THE OUTSIDE LANES AND SHOULDER AND CROSSOVER ONE WESTBOUND LANE. THE CONTRACTOR SHALL CONSTRUCT ALL PROPOSED ROADWAY IMPROVEMENTS TO THE FULL WIDTH WESTBOUND PAVEMENT.

ALL RAMPS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES EXCEPT FOR THE FOLLOWING RAMPS/MOVEMENTS WHICH MAY BE CLOSED AND DETOURED DURING RAMP/PAVEMENT RECONSTRUCTION ONLY:

WESTBOUND OPPORTUNITY CORRIDOR TRAFFIC TRYING TO ACCESS I-71 SOUTHBOUND.

THE CONTRACTOR SHALL CLOSE AND DETOUR THE TOWPATH TRAIL WHEN WORKING ON THE CUYAHOGA RIVER BRIDGE.

**PHASE 2A**

ALL TRAFFIC SHALL REMAIN IN THE PHASE 2 TRAFFIC PATTERN, EXCEPT FOR THE GORE AREAS BETWEEN RAMP N-W (I-77)/RAMP S-W (I-77) AND RAMP E-S (I-77)/RAMP E-S (I-77). THE CONTRACTOR SHALL SHIFT ONE LANE OF TRAFFIC TO THE OUTSIDE OF EACH RAMP AND CONSTRUCT THE CENTER GORE AREAS BETWEEN TRAFFIC. THE CONTRACTOR SHALL CLOSE AND DETOUR RAMP S-W (I-77 NB) DURING RAMP / PAVEMENT RECONSTRUCTION ONLY.

**PRE-PHASE 3**

PRIOR TO COMMENCING PHASE 3 CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL CONSTRUCT TEMPORARY PAVEMENT REQUIRED FOR PHASE 3. DURING CONSTRUCTION OF THE TEMPORARY PAVEMENT, TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH MT-95.30. ONLY ONE LANE, ADJACENT TO EITHER THE INSIDE OR OUTSIDE SHOULDER MAY BE CLOSED AT ANY ONE TIME BETWEEN 8 PM – 6 AM OR IN ACCORDANCE WITH THE MOST UP TO DATE ODOT PERMITTED LANE CLOSURE CHART. THIS WORK ZONE SHALL BE REMOVED BY 6 AM DAILY. ALL RAMPS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES.

**PHASE 3**

FROM THE BEGINNING OF THE PROJECT TO THE PEDESTRIAN BRIDGE/W. 11TH STREET THE CONTRACTOR SHALL KEEP EASTBOUND TRAFFIC IN THE PHASE 1 TRAFFIC PATTERN AND PLACE WESTBOUND TRAFFIC INTO THE PROPOSED TRAFFIC PATTERN. THE CONTRACTOR SHALL NOT CONSTRUCT ANY ROADWAY IMPROVEMENTS IN THIS SECTION OF PAVEMENT.

BETWEEN THE PEDESTRIAN BRIDGE/W. 11TH STREET AND THE END OF THE CUYAHOGA RIVER BRIDGE THE CONTRACTOR SHALL KEEP EASTBOUND TRAFFIC AND THE SINGLE WESTBOUND CROSSED OVER LANE IN THE PHASE 2 TRAFFIC PATTERN AND SHIFT TWO WESTBOUND LANES TO THE INSIDE LANES AND SHOULDER. THE CONTRACTOR SHALL CONSTRUCT ALL PROPOSED ROADWAY IMPROVEMENTS TO THE WESTBOUND OUTSIDE SHOULDER AND OUTSIDE LANES.

BETWEEN THE END OF THE CUYAHOGA RIVER BRIDGE AND THE END OF THE PROJECT THE CONTRACTOR SHALL KEEP BOTH EASTBOUND AND WESTBOUND TRAFFIC IN THE PHASE 2 TRAFFIC PATTERN. THE CONTRACTOR SHALL CONTINUE CONSTRUCTION OF ALL PROPOSED ROADWAY IMPROVEMENTS TO THE FULL WIDTH WESTBOUND PAVEMENT.

ALL RAMPS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES EXCEPT FOR THE FOLLOWING RAMPS/MOVEMENTS WHICH MAY BE CLOSED AND DETOURED DURING RAMP/PAVEMENT RECONSTRUCTION ONLY:

WESTBOUND EXIT RAMP C-7 TO W. 7TH STREET  
WESTBOUND ENTRANCE RAMP B-C FROM BROADWAY AVE./ROCKEFELLER AVE.  
WESTBOUND OPPORTUNITY CORRIDOR TRAFFIC TRYING TO ACCESS I-71 SOUTHBOUND



THE CONTRACTOR SHALL CLOSE AND DETOUR THE TOWPATH TRAIL WHEN WORKING ON THE CUYAHOGA RIVER BRIDGE.

**PHASE 3A**

ALL TRAFFIC SHALL REMAIN IN THE PHASE 3 TRAFFIC PATTERN, EXCEPT FOR THE GORE AREA BETWEEN RAMP E-S (I-71) AND I-490 WB. THE CONTRACTOR SHALL SHIFT ONE LANE OF TRAFFIC TO THE OUTSIDE OF RAMP E-S (I-71) AND ONE LANE OF TRAFFIC TO THE INSIDE OF I-490 WB. THE CONTRACTOR SHALL CONSTRUCT THE CENTER GORE AREA BETWEEN TRAFFIC.

**2ND WINTER OVER PHASE**

AFTER THE COMPLETION OF PHASE 3, THE CONTRACTOR SHALL WINTER OVER IN THE EXISTING/PROPOSED TRAFFIC PATTERN. SEE TRAFFIC CONTROL PLANS FOR PAVEMENT MARKING PLACEMENT.

**PRE-PHASE 4**

PRIOR TO COMMENCING PHASE 4 CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL CONSTRUCT TEMPORARY PAVEMENT REQUIRED FOR PHASE 4. DURING CONSTRUCTION OF THE TEMPORARY PAVEMENT, TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH MT-95.30. ONLY ONE LANE, ADJACENT TO EITHER THE INSIDE OR OUTSIDE SHOULDER MAY BE CLOSED AT ANY ONE TIME BETWEEN 8 PM – 6 AM OR IN ACCORDANCE WITH THE MOST UP TO DATE ODOT PERMITTED LANE CLOSURE CHART. THIS WORK ZONE SHALL BE REMOVED BY 6 AM DAILY. ALL RAMPS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES.

**PHASE 4**

FROM THE BEGINNING OF THE PROJECT TO THE PEDESTRIAN BRIDGE/W. 11TH STREET THE CONTRACTOR SHALL KEEP EASTBOUND TRAFFIC IN THE PHASE 1 TRAFFIC PATTERN AND KEEP WESTBOUND TRAFFIC INTO THE PROPOSED TRAFFIC PATTERN. THE CONTRACTOR SHALL NOT CONSTRUCT ANY ROADWAY IMPROVEMENTS IN THIS SECTION OF PAVEMENT.

BETWEEN THE PEDESTRIAN BRIDGE/W. 11TH STREET AND THE END OF THE CUYAHOGA RIVER BRIDGE THE CONTRACTOR SHALL SHIFT THREE WESTBOUND LANES TO THE OUTSIDE LANES AND SHOULDER, SHIFT TWO EASTBOUND LANES TO THE OUTSIDE LANES AND SHOULDER, AND CROSSOVER ONE EASTBOUND LANE ONTO WESTBOUND PAVEMENT. THE CONTRACTOR SHALL CONSTRUCT ALL PROPOSED ROADWAY IMPROVEMENTS TO THE EASTBOUND INSIDE SHOULDER AND INSIDE LANES.

**PHASE 4 (CONT.)**

BETWEEN THE END OF THE CUYAHOGA RIVER BRIDGE AND THE END OF THE PROJECT THE CONTRACTOR SHALL SHIFT TWO WESTBOUND LANES TO THE OUTSIDE LANES AND SHOULDER, SHIFT ONE EASTBOUND LANE TO THE OUTSIDE LANE AND SHOULDER, AND CROSSOVER ONE EASTBOUND LANE ONTO WESTBOUND PAVEMENT. THE CONTRACTOR SHALL CONSTRUCT ALL PROPOSED ROADWAY IMPROVEMENTS TO THE EASTBOUND INSIDE SHOULDER AND INSIDE LANES.

ALL RAMPS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES.

THE CONTRACTOR SHALL CLOSE AND DETOUR THE TOWPATH TRAIL WHEN WORKING ON THE CUYAHOGA RIVER BRIDGE.

**PRE-PHASE 5**

PRIOR TO COMMENCING PHASE 5 CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL CONSTRUCT TEMPORARY PAVEMENT REQUIRED FOR PHASE 5. DURING CONSTRUCTION OF THE TEMPORARY PAVEMENT, TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH MT-95.30. ONLY ONE LANE, ADJACENT TO EITHER THE INSIDE OR OUTSIDE SHOULDER MAY BE CLOSED AT ANY ONE TIME BETWEEN 8 PM – 6 AM OR IN ACCORDANCE WITH THE MOST UP TO DATE ODOT PERMITTED LANE CLOSURE CHART. THIS WORK ZONE SHALL BE REMOVED BY 6 AM DAILY. ALL RAMPS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES.

**PHASE 5**

FROM THE BEGINNING OF THE PROJECT TO THE PEDESTRIAN BRIDGE/W. 11TH STREET THE CONTRACTOR SHALL SHIFT TWO EASTBOUND INTERSTATE 490 LANES TO THE INSIDE LANES AND SHOULDER AND KEEP WESTBOUND TRAFFIC INTO THE PROPOSED TRAFFIC PATTERN. THE CONTRACTOR SHALL CONSTRUCT ALL PROPOSED ROADWAY IMPROVEMENTS TO THE EASTBOUND OUTSIDE SHOULDER AND OUTSIDE LANES.

BETWEEN THE PEDESTRIAN BRIDGE/W. 11TH STREET AND THE END OF THE CUYAHOGA RIVER BRIDGE THE CONTRACTOR SHALL KEEP WESTBOUND TRAFFIC AND THE SINGLE EASTBOUND CROSSED OVER LANE IN THE PHASE 4 TRAFFIC PATTERN AND SHIFT TWO EASTBOUND LANES TO THE OUTSIDE LANES AND SHOULDER. THE CONTRACTOR SHALL CONSTRUCT ALL PROPOSED ROADWAY IMPROVEMENTS TO THE EASTBOUND OUTSIDE SHOULDER AND OUTSIDE LANES.

ALL RAMPS SHALL REMAIN OPEN TO TRAFFIC AT ALL TIMES EXCEPT FOR THE FOLLOWING RAMPS/MOVEMENTS WHICH MAY BE CLOSED AND DETOURED DURING RAMP/PAVEMENT RECONSTRUCTION ONLY:

EASTBOUND ENTRANCE RAMP 7-C FROM W. 7TH STREET  
EASTBOUND EXIT RAMP C-B TO BROADWAY AVE.

THE CONTRACTOR SHALL CLOSE AND DETOUR THE TOWPATH TRAIL WHEN WORKING ON THE CUYAHOGA RIVER BRIDGE.

**PHASE 5A**

ALL TRAFFIC SHALL REMAIN IN THE PHASE 5 TRAFFIC PATTERN, EXCEPT FOR RAMP S-E (I-71) AND BETWEEN THE PEDESTRIAN BRIDGE/W. 11TH STREET AND I-490 EB BEFORE W. 7TH STREET. THE CONTRACTOR SHALL SHIFT ONE LANE OF TRAFFIC TO THE INSIDE OF RAMP S-E (I-71) AND ONE LANE OF TRAFFIC TO THE INSIDE OF I-490 EB. THE CONTRACTOR SHALL CONSTRUCT THE OUTSIDE OF RAMP S-E (I-71) AND THE REMAINING I-490 EB PAVEMENT BETWEEN THE PEDESTRIAN BRIDGE/W. 11TH STREET AND W. 7TH STREET.

**PHASE 6**

THE CONTRACTOR CLOSE THE INSIDE LANE IN BOTH DIRECTIONS AND THE CROSSOVERS SHALL BE REMOVED AND THE PREVIOUSLY SUSPENDED MEDIAN BARRIER SHALL BE CONSTRUCTED. ALL RAMPS SHALL BE OPEN TO TRAFFIC.

ALL TEMPORARY DRAINAGE ITEMS TO THE INSIDE OF I-490 SHALL BE REMOVED AND RESTORED TO THE PERMANENT CONDITION. TRAFFIC SHALL BE MAINTAINED PER MT-95.30 DURING OFF-PEAK HOURS AND IN ACCORDANCE WITH THE LATEST REVISION OF THE PERMITTED LANE CLOSURE SCHEDULE (PLCS).

**PHASE 7**

THE CONTRACTOR SHALL PERFORM PAVEMENT PLANING OPERATIONS, PLACE THE FINAL SURFACE COURSE, AND PLACE THE FINAL PAVEMENT MARKINGS THROUGHOUT THE PROJECT LIMITS. ALL WORK SHALL BE RESTRICTED TO NIGHTTIME HOURS BETWEEN 8 PM AND 6 AM. DURING PAVEMENT PLANING OPERATIONS AND PLACEMENT OF THE FINAL SURFACE COURSE, TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH MT-95.30. DURING PLACEMENT OF THE FINAL PAVEMENT MARKINGS, TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH MT-99.20.

REVISIONS		
NO.	DATE	DESCRIPTION
1	01/15/24	CANALWAY PARTNERS AND CLE. METROPARKS CONTACT INFO ADDED AND TOWPATH TRAIL CLOSURE ADDED TO SEQUENCE OF CONSTRUCTION PHASES
2	03/27/24	ADDED TO PHASE 1 AND 6 SEQUENCE OF CONSTRUCTION
3	04/11/24	REVISED RAMP B-3 TO RAMP B-C

DESIGN AGENCY	KRM
DESIGNER	KRM
REVIEWER	AKF 11-21-23
PROJECT ID	107408
SHEET	TOTAL
60	1068

DESIGN AGENCY



DESIGNER

REVIEWER

PROJECT ID

SHEET

TOTAL

**SCHEDULE OF THROUGH LANES TO BE MAINTAINED**

ALL LANE CLOSURES MAY ONLY BE IMPLEMENTED AT THE TIMES PERMITTED BY THE "DISTRICT 12 PERMITTED LANE CLOSURE TIMES" LIST, WHICH IS LOCATED ON THE ODOT WEBSITE:

http://www.dot.state.oh.us/districts/D12/HighwayManagement/Pages/PermittedLaneClosures.aspx

THE LATEST REVISION, AT 14 DAYS PRIOR TO THE BID, SHALL BE IN EFFECT FOR THIS PROJECT.

NO LANE OR SHOULDER CLOSURES SHALL BE IN PLACE WHEN NO WORK IS BEING PERFORMED, UNLESS DIRECTED BY THE ENGINEER. SHOULDER CLOSURES SHALL ONLY BE ALLOWED AT THE TIMES SPECIFIED FOR LANE CLOSURES.

ANY ROADWAY NOT LISTED SHALL NOT HAVE ANY CLOSURES ON WEEKDAYS FROM 6:00 AM TO 9:00 AM AND 3:00 PM TO 6:00 PM. CONTACT TROY ONESTI, DISTRICT 12 WORK ZONE TRAFFIC MANAGER, AT (216) 584-2204 IF THERE ARE ANY QUESTIONS.

ALL NOTES ON THE PERMITTED LANE CLOSURE TIMES SHALL BE PART OF THE PROJECT.

**ITEM 614 - MAINTAINING TRAFFIC**

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

- 1. A MINIMUM OF THREE (3) ELEVEN FOOT (11') LANES OF TRAFFIC ON I-490 (UNLESS OTHERWISE SPECIFIED IN THE PLANS) IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT OR ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, DURING CONSTRUCTION OF THE WORK.
2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (216) 584-2006 FOURTEEN (14) DAYS PRIOR TO THE BEGINNING OF WORK.
3. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.
4. WHEN DETOUR SIGNS ARE IN USE, ALL CONFLICTING SIGNS SHALL BE COVERED.
5. FOR ROUTES NOT ON THE PERMITTED LANE CLOSURE CHART, ONLY DURING ANY PERIOD OTHER THAN 6-9 AM AND 3-6 PM SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.
6. 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.
7. A MINIMUM OF ONE LANE OF TRAFFIC ON RAMPS SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED THE CONSECUTIVE CALENDAR DAYS LISTED ON THE LANE VALUE CONTRACT TABLE, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEETS 124 - 136. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT LISTED ON THE LANE VALUE CONTRACT TABLE PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.
8. IF THE CONTRACTOR FAILS TO COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AS SET FORTH IN THESE PLANS AND PROVISIONS OF THE ODOTCD AND THE FAILURE RESULTS IN A CONDITION AT THE WORK SITE WHICH IS UNSAFE FOR TRAFFIC, THE ENGINEER SHALL SUSPEND WORK UNTIL THE CONTRACTOR COMPLIES WITH THE NECESSARY REQUIREMENTS.
9. THE TEMPORARY TRAFFIC CONTROL SHALL BE MAINTAINED THROUGHOUT THIS PROJECT BY THE CONTRACTOR. PERMANENT TRAFFIC CONTROL MAY BE TEMPORARILY RELOCATED AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR MISSING, DAMAGED, AND IMPROPERLY PLACED SIGNS. ANY WORK DONE BY THE CITY OF CLEVELAND OR THE OHIO DEPARTMENT OF TRANSPORTATION, INCLUDING INSTALLATION, MODIFICATION, REMOVAL AND/OR REPLACEMENT OF PERMANENT TRAFFIC CONTROL DEVICES, AS A RESULT OF WORK DONE BY THE CONTRACTOR SHALL BE AT THE EXPENSE OF THE CONTRACTOR.

**ITEM 614 - MAINTAINING TRAFFIC (CONT.)**

10. NO WORK SHALL BE PERFORMED AND ALL EXISTING MAINLINE I-490 LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS NEW YEAR'S TOTAL SOLAR ECLIPSE (4/8/24) GENERAL/REGULAR ELECTION DAY (NOV.) FOURTH OF JULY LABOR DAY THANKSGIVING MEMORIAL DAY

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

Table with 2 columns: DAY OF HOLIDAY OR SPECIAL EVENT, TIME ALL MAINLINE I-490 LANES MUST BE OPEN TO TRAFFIC. Rows include SUNDAY, MONDAY, MONDAY (TOTAL SOLAR ECLIPSE), TUESDAY, TUESDAY (GEN./REG. ELECTION), WEDNESDAY, THURSDAY, THURSDAY (THANKSGIVING ONLY), FRIDAY, SATURDAY.

DURING THE SAME PERIOD, MAINTAIN PEDESTRIAN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

11. IN THE VICINITY OF THE TRAIL THE EXISTING TOWPATH TRAIL SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED EVENTS:

- TOWPATH MARATHON - FIRST WEEKEND OF OCTOBER 2024
- TOWPATH TRAIL LANTERN PARADE - FIRST WEEKEND OF MARCH 2025

12. PRIOR TO OPENING TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. UNEVEN LONGITUDINAL JOINTS SHALL BE TREATED IN ACCORDANCE WITH ODOT SCD MT-101.90. AT UNEVEN TRANSVERSE JOINTS, THE CONTRACTOR SHALL PROVIDE TEMPORARY ASPHALT RAMPING TO ENSURE A SMOOTH TRANSITION FOR THE TRAVELING PUBLIC. THE MINIMUM TAPER RATE FOR TEMPORARY RAMPING AT UNEVEN TRANSVERSE JOINTS IS 120:1. PRIOR TO PLACING THE SURFACE COURSE, ALL TEMPORARY RAMPING AND WEDGE MATERIAL SHALL BE REMOVED. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE MAINTENANCE OF TRAFFIC GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 250 CY

13. THE CONTRACTOR SHALL MILL 2 INCHES BY 2 FEET WIDE OF THE EXISTING ASPHALT SHOULDER IN ORDER TO REMOVE THE EXISTING RUMBLE STRIPS IN THE AREA WHERE TRAFFIC IS SHIFTED AS SHOWN IN THE PLANS. THE CONTRACTOR SHALL THEN COAT ALL MILLED SURFACES HORIZONTAL AND VERTICAL WITH APPROVED AC LIQUID. NEXT THE CONTRACTOR SHALL PLACE 2 INCHES OF ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449), AS PER PLAN, PG 76-22M. ALL COST ASSOCIATED WITH THE REMOVAL OF THE EXISTING PAVEMENT AND THE PLACEMENT OF THE SURFACE COURSE SHALL BE INCLUDED IN THE PRICE BID PER FOOT OF THE FOLLOWING ITEM:

ITEM 614, MAINTAINING TRAFFIC, MISC.: REMOVE RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE) 9450 FT

RUMBLE STRIPS LOCATED WITHIN A CONCRETE SHOULDER AREA WHICH IS USED TO MAINTAIN TRAFFIC SHALL BE PAVED OVER WITH ASPHALT FOR A SMOOTH SURFACE. IN AREAS OUTSIDE OF THE SHOULDER RECONSTRUCTION LIMITS, THE ASPHALT SHALL BE SUBSEQUENTLY REMOVED AND THE RUMBLE STRIPS EXPOSED TO ORIGINAL CONDITION.

ITEM 614, MAINTAINING TRAFFIC, MISC.: REMOVE RUMBLE STRIPS, SHOULDER (CONCRETE) 2160 FT

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, CURRENT EDITION, LATEST REVISION. 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.

**LANE VALUE CONTRACT (PN 127)**

THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES AS DESIGNATED IN THE LANE VALUE CONTRACT TABLE FOR EACH UNIT OF TIME THE DESCRIBED CRITICAL LANE/RAMP IS RESTRICTED FROM FULL USE BY THE TRAVELING PUBLIC WITHIN THE RESTRICTED TIME PERIOD. THE LANE VALUE CONTRACT TABLE IS LOCATED BELOW. THE DISINCENTIVES WILL BE ASSESSED FOR ALL RESTRICTIONS OF THE CRITICAL WORK.

CRITICAL WORK IS SHOWN IN THE LANE VALUE CONTRACT TABLE.

CRITICAL WORK IS DEFINED AS HAVING THE DESIGNATED SECTIONS OPEN TO UNRESTRICTED TRAFFIC AS SHOWN IN THE TABLE, OR THE ENTIRE PROJECT IF NOT OTHERWISE LISTED.

UNRESTRICTED TRAFFIC IS DEFINED AS ALL TRAFFIC LANES BEING AVAILABLE FOR USE WITH SPECIFIED STRIPING AND SAFETY FEATURES IN PLACE.

LANE VALUE CONTRACT TABLE with columns: DESCRIPTION OF CRITICAL LANE/RAMP TO BE MAINTAINED, RESTRICTED TIME PERIOD, TIME UNIT, DISINCENTIVE \$ PER TIME PERIOD. Rows include I-490 - BEGIN PROJECT TO SR-176 SPLIT (EB), I-490 - SR-176 SPLIT TO BROADWAY (EB), I-490 - BROADWAY TO END PROJECT (EB), I-490 - END PROJECT TO BROADWAY (WB), I-490 - BROADWAY TO I-71 SPLIT (WB), I-490 / I-71 SPLIT TO BEGIN PROJECT (WB).

**DRUM REQUIREMENTS**

IN ADDITION TO THE REQUIREMENTS OF THE PLANS, SPECIFICATION AND PROPOSAL, DRUMS FURNISHED BY THE CONTRACTOR SHALL BE NEW AND UNUSED AT THE TIME OF ARRIVAL ON THE PROJECT. ANY DRUMS BROUGHT ON THE PROJECT, WHICH HAVE PREVIOUSLY BEEN USED ELSEWHERE, WILL NOT BE ACCEPTED. PAYMENT FOR DRUMS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED.

**DUST CONTROL**

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES AND CARRIED TO THE MAINTENANCE OF TRAFFIC GENERAL SUMMARY:

ITEM 616, WATER 300 MGAL

**REPLACEMENT SIGN**

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

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

AN ESTIMATED QUANTITY OF 50 EACH HAS BEEN PROVIDED IN THE MAINTENANCE OF TRAFFIC GENERAL SUMMARY.

**ITEM 622 - PORTABLE BARRIER, 50", AS PER PLAN**

THIS WORK SHALL CONSIST OF FURNISHING, MAINTAINING, AND SUBSEQUENTLY REMOVING A 50-INCH PORTABLE BARRIER AT THE LOCATIONS SHOWN ON THE PLANS. FOR DETAILS, SEE SCD RM-4.1.

PORTABLE STEEL BARRIER IS AN APPROVED ALTERNATIVE TO PORTABLE CONCRETE BARRIER. FOR INFORMATION ON APPROVED VENDORS, SEE THE APPROVED PRODUCTS LIST MAINTAINED BY THE OFFICE OF ROADWAY ENGINEERING. PORTABLE BARRIER, 32 INCHES HIGH WITH AN 18-INCH MINIMUM HEIGHT GLARE SCREEN MAY BE USED AT THE OPTION OF THE CONTRACTOR. THE GLARE SCREEN SHALL BE CONSTRUCTED USING ONE OF THE SCREENS PROVIDED ON THE APPROVED LIST, AVAILABLE ON THE OFFICE OF ROADWAY ENGINEERING WEBSITE.

PADDLE OR INTERMITTENT TYPE GLARE SCREENS SHALL BE DESIGNED USING A 20 DEGREE CUT-OFF ANGLE BASED ON TANGENT ALIGNMENT. THAT SPACING SHALL BE USED THROUGHOUT THE BARRIER LENGTH WITHOUT REGARD TO BARRIER CURVATURE.

THE GLARE SCREEN SYSTEM SHALL BE SECURELY FASTENED TO THE 32-INCH PORTABLE BARRIER USING THE HARDWARE AND PROCEDURES SPECIFIED BY THE MANUFACTURER. FOR DIRECTIONS ON HOW TO INSTALL THE GLARE SCREEN AND THE BARRIER, SEE THE MANUFACTURER'S INSTRUCTIONS. PAYMENT SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR ITEM 622, PORTABLE BARRIER, 50", AS PER PLAN.

**APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION**

PORTIONS OF THE MOT PLANS AS DESCRIBED BELOW HAVE APPROVED MOT EXCEPTION PER TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

APPROVED MOT EXCEPTION(S) INCLUDE:

- I-77 SB TO I-490 EB (RAMP N-E)
I-77 NB TO I-490 WB (RAMP S-W)

A MAINTENANCE OF TRAFFIC MEETING SHALL BE HELD A MINIMUM OF 30 CALENDAR DAYS PRIOR TO IMPLEMENTATION OF EACH APPROVED MOT EXCEPTION. THIS MEETING SHALL INCLUDE THE DISTRICT WORK ZONE TRAFFIC MANAGER AND THE CITY OF CLEVELAND AS WELL AS THE CONTRACTOR, WORKSITE TRAFFIC SUPERVISOR (WTS) AND ANY SUBCONTRACTORS INVOLVED WITH TEMPORARY TRAFFIC CONTROL.

IN ADDITION TO ANY NOTIFICATIONS REQUIRED IN OTHER NOTES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AT LEAST 3 BUSINESS DAYS IN ADVANCE OF IMPLEMENTATION OF THE APPROVED MOT EXCEPTION REFERENCED ABOVE SO THAT THE PROJECT ENGINEER CAN SEND EMAIL NOTIFICATION TO THE OFFICE OF ROADWAY ENGINEERING, STATEWIDE TMC, DWZTM AND SPECIAL HAULING PERMITS AT LEAST 2 BUSINESS DAYS IN ADVANCE OF THE IMPLEMENTATION OF THE APPROVED MOT EXCEPTION REFERENCED ABOVE. REFERENCE "EXCEPTION REQUEST APPROVAL DATED 12 / 07 / 2023 FOR PID 107408" IN THE NOTIFICATION AND OTHER CORRESPONDENCE.

ANY CHANGES TO THE MOT THAT IMPACT THE PREVIOUSLY APPROVED MOT EXCEPTION LISTED ABOVE SHALL BE APPROVED IN WRITING BY THE MOT EXCEPTION COMMITTEE (MOTEC). IN THE EVENT THAT SUCH CHANGES ARE PROPOSED, THE REQUEST SHALL BE COORDINATED THROUGH THE DISTRICT WORK ZONE TRAFFIC MANAGER (DWZTM) A MINIMUM OF 30 CALENDAR DAYS PRIOR TO THE DESIRED IMPLEMENTATION DATE. IF THE DISTRICT AGREES WITH THE PROPOSED CHANGES THE DWZTM SHALL SEEK APPROVAL FROM THE MOTEC. IN THE EVENT THE PROPOSED CHANGES ARE APPROVED IN WRITING, THE CLOSURES ARE STILL SUBJECT TO NOTIFICATION REQUIREMENTS WITHIN THIS NOTE PRIOR TO IMPLEMENTATION.

**ITEM 614 - DETOUR SIGNING**

ALL REQUIRED SIGNS AND SUPPORTS SHALL BE FURNISHED, ERECTED, MAINTAINED AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. PAYMENT FOR ALL WORK ASSOCIATED WITH THE DETOUR SHALL BE INCLUDED UNDER THE LUMP SUM BID FOR ITEM 614 - DETOUR SIGNING.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE MAINTENANCE OF TRAFFIC GENERAL SUMMARY:

ITEM 614 - DETOUR SIGNING LS

Table with columns: NO., DATE, DESCRIPTION, REVISIONS. Rows include 01/15/24 ADDED #11 TO 614 - MOT NOTE AND MOVED PORTION OF THE LANE VALUE CONTRACT TO NEW NOTE ON NEW SHEET 65A, 03/27/24 ADDED #13 TO ITEM 614 MOT NOTE, 04/02/24 REMOVED ITEM 611 - 12" CONDUIT, TYPE B, AS PER PLAN, 04/12/24 REVISED ACCEPTANCE METHOD FROM 447 TO 449 FOR FILLING IN RUMBLE STRIPS.

DESIGN AGENCY: GPD GROUP
DESIGNER: KRM
REVIEWER: AKF
PROJECT ID: 107408
SHEET: 61 TOTAL: 1068

**WINTER OVER PHASE WORK ZONE PAVEMENT MARKINGS AND CROSSOVER CLOSURE**

THE CONTRACTOR SHALL INSTALL THE WINTER OVER WORK ZONE PAVEMENT MARKINGS AND CLOSE THE CROSSOVER WITH PORTABLE BARRIER PER THE TYPICAL SECTIONS FOR THE LAYOUT OF THE WINTER OVER ZONES. TEMPORARY PAVEMENT MARKINGS SHALL BE PER THE REQUIREMENTS OF C&MS 614.04 AND 614.11. THE PORTABLE BARRIER TO CLOSE THE CROSSOVER SHALL BE OVERLAPPED WITH THE MEDIAN BARRIER TO ELIMINATE THE BLUNT END OF THE MEDIAN BARRIER. THE 3RD WINTER OVER PHASE SHALL MATCH THE FINAL PAVEMENT MARKING PLANS.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE MAINTENANCE OF TRAFFIC GENERAL SUMMARY:

**1ST WINTER OVER PHASE QUANTITIES:**

ITEM 614 - WORK ZONE LANE LINE, CLASS I, 6"	<u>0.70</u> MILE
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6"	<u>7.79</u> MILE
ITEM 614 - WORK ZONE CHANNELIZING LINE, CLASS I, 12"	<u>12648</u> FT
ITEM 614 - WORK ZONE DOTTED LINE, CLASS I	<u>720</u> FT

**2ND WINTER OVER PHASE QUANTITIES:**

ITEM 614 - WORK ZONE LANE LINE, CLASS I, 6"	<u>6.47</u> MILE
ITEM 614 - WORK ZONE CENTER LINE, CLASS I	<u>0.05</u> MILE
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 4"	<u>0.17</u> MILE
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6"	<u>13.94</u> MILE
ITEM 614 - WORK ZONE CHANNELIZING LINE, CLASS I, 12"	<u>11247</u> FT
ITEM 614 - WORK ZONE DOTTED LINE, CLASS I	<u>4100</u> FT
ITEM 614 - BARRIER REFLECTOR, TYPE 1 (ONE-WAY)	<u>22</u> EACH
ITEM 614 - OBJECT MARKER, ONE-WAY	<u>11</u> EACH
ITEM 622 - PORTABLE BARRIER, 50", AS PER PLAN	<u>510</u> FT

**3RD WINTER OVER PHASE QUANTITIES:**

ITEM 614 - WORK ZONE LANE LINE, CLASS I, 6"	<u>10.79</u> MILE
ITEM 614 - WORK ZONE CENTER LINE, CLASS I	<u>0.11</u> MILE
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6"	<u>14.57</u> MILE
ITEM 614 - WORK ZONE CHANNELIZING LINE, CLASS I, 12"	<u>15868</u> FT
ITEM 614 - WORK ZONE DOTTED LINE, CLASS I	<u>8869</u> FT
ITEM 614 - WORK ZONE STOP LINE	<u>70</u> FT
ITEM 614 - WORK ZONE LANE ARROW	<u>24</u> EACH
ITEM 614 - MAINTAINING TRAFFIC, MISC.: LANE REDUCTION ARROW	<u>1</u> EACH

ITEM 614 - MAINTAINING TRAFFIC, MISC.: LANE REDUCTION ARROW SHALL BE PER THE PERMANENT DESIGN EXCEPT THE MATERIAL SHALL BE WORK ZONE PAVEMENT MARKING CLASS I, 642 PAINT.

**WORK ZONE SIGNING**

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE MAINTENANCE OF TRAFFIC GENERAL SUMMARY FOR THE WORK ZONE SIGNING AS SHOWN ON THE MAINTENANCE OF TRAFFIC ELEVATION DETAILS.

ITEM 630 - SIGN ATTACHMENT ASSEMBLY	<u>14</u> EACH
ITEM 630 - SIGN, OVERHEAD EXTRUSHEET	<u>824.3</u> SF

ALL MATERIAL, LABOR AND EQUIPMENT REQUIRED TO INSTALL AND SUBSEQUENTLY REMOVE SOLID WOOD POST SUPPORTS (OR APPROVED EQUAL) FOR WORK ZONE SIGNING SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.

ALL MATERIAL, LABOR AND EQUIPMENT TO REMOVE, ADJUST AND/OR RELOCATE EXISTING OVERHEAD MOUNTED SIGNS SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.

ALL REMAINING WORK ZONE SIGNING AND TEMPORARY SUPPORTS NOT SPECIFICALLY ITEMIZED SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.

**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 SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). 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 OF TRAFFIC RESTRICTION		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
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.

**NOTICE OF CLOSURE SIGN**

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIMETABLE BELOW. AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGNS SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE TIME TABLE		
ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	<= 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN GENERAL SWITCHBOARD NUMBER.

**CROSSOVER #1/3/4/6 - #2/5 CONSTRUCTION AND REMOVAL**

CROSSOVER CONSTRUCTION SHALL INCLUDE THE PLACEMENT OF A VARIABLE DEPTH ASPHALT PAVEMENT IN THE SHOULDER AREA. SLOTTED DRAINS AND TEMPORARY OUTLETS ARE INCLUDED IN ORDER TO PROMOTE DRAINAGE. THE REQUIREMENTS OF ITEM 611.04BCD SHALL BE WAVED FOR THE FOLLOWING AS PER PLAN TEMPORARY DRAINAGE ITEMS. IN ADDITION, ITEM 611 - 12" CONDUIT, TYPE B, AS PER PLAN SHALL ALSO BE BEDDED AND BACKFILLED SIMILAR TO SLOTTED DRAIN, TYPE 1 IN DM-1.3. THE FOLLOWING ITEMS ARE INCLUDED IN THE MAINTENANCE OF TRAFFIC GENERAL SUMMARY FOR THE CROSSOVER CONSTRUCTION:

ITEM 611 - 12" CONDUIT, TYPE B, AS PER PLAN	<u>452</u> FT
ITEM 611 - SLOTTED DRAIN, TYPE 1, 12", AS PER PLAN	<u>1150</u> FT

CROSSOVER REMOVAL SHALL INCLUDE REMOVING THE SLOTTED DRAINS, ALL ASSOCIATED PAVEMENT REPAIR, FILL AND PLUG SLOTTED DRAIN OUTLETS AND PAVEMENT PLANING TO RESTORE THE SURROUNDING PAVED SURFACES TO THEIR ORIGINAL CONDITION AND GRADE. THE FOLLOWING ITEMS ARE INCLUDED IN THE MAINTENANCE OF TRAFFIC GENERAL SUMMARY FOR THE CROSSOVER CONSTRUCTION:

ITEM 202 - PIPE REMOVED	<u>452</u> FT
ITEM 253 - PAVEMENT REPAIR	<u>1965</u> SY
ITEM 254 - PAVEMENT PLANING	<u>1170</u> SY

PAVEMENT REPAIR SHALL INCLUDE THE REMOVAL OF THE TEMPORARY SLOTTED DRAINS IN THE CROSSOVER AREAS. THE CONTRACTOR SHALL SAW CUT A NEAT EDGE ONE (1) FOOT FROM THE EDGE OF THE TEMPORARY SLOTTED DRAINS, REMOVE THE SLOTTED DRAINS, AND REMOVE EXCESS EXISTING PAVEMENT PER C&MS 253.02. THIS TRENCHED AREA SHALL BE REPLACED WITH ASPHALT PAVEMENT TO MATCH THE EXISTING ASPHALT PAVEMENT COMPOSITION, AS DIRECTED BY THE ENGINEER. AFTER BACKFILLING OF THE CAVITY PER C&MS 202.02, THE CONTRACTOR SHALL PROVIDE AN ASPHALT CONCRETE PAVED SURFACE IN THIS AREA BY MATCHING THE EXISTING ASPHALT PAVEMENT COMPOSITION, AS DIRECTED BY THE ENGINEER.

ANY ADDITIONAL ITEMS OF WORK NOT SPECIFICALLY LISTED WHICH ARE REQUIRED TO CONSTRUCT OR REMOVE THE CROSSOVERS SHALL BE CONSIDERED INCIDENTAL TO AND INCLUDED IN THE LUMP SUM BID FOR ITEM 615 - ROADS FOR MAINTAINING TRAFFIC.

**TEMPORARY TROUGHS**

TEMPORARY TROUGHS WILL BE ADDED THROUGHOUT THE CORRIDOR TO CONTROL THE SPREAD FOR THE TWO-YEAR STORM DURING CONSTRUCTION. THE LOCATION AND SIZE OF THESE TROUGHS ARE SHOWN IN THE MOT PLANS. WHERE THE TROUGHS ARE PLACED WITHIN EXISTING/PROPOSED PAVEMENT LIMITS, THE PLAN SPECIFIED DEPTH WILL BE MILLED FROM THE TROUGH AREA SHOWN IN THE PLANS. IN LOCATIONS WHERE THE TROUGHS ARE TO BE PLACED WITHIN THE PROPOSED PAVEMENT LIMITS, THE INTERMEDIATE COURSE WILL NOT BE PLACED WITHIN THE TROUGH AREAS UNTIL THE MOT PHASES FOR WHICH THEY ARE REQUIRED ARE COMPLETED.

TEMPORARY TROUGHS LABELED ON THE MAINTENANCE OF TRAFFIC PLAN ARE ITEMIZED ON THE MOT PLANS AND CARRIED TO THE GENERAL SUMMARY.

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (DEPTH 1.5")	<u>111</u> SY
--	---------------

**ITEM 411 - STABILIZED CRUSHED AGGREGATE**

ITEM 411 - STABILIZED CRUSHED AGGREGATE SHALL BE 2' WIDE AND 6" DEEP AND PLACED ADJACENT TO THE OUTSIDE OF ALL ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A PAVEMENT, EXCEPT WHEN THE PAVEMENT FOR MAINTAINING TRAFFIC HAS A TEMPORARY CURB. THE MAINTENANCE OF TRAFFIC SUB SUMMARIES QUANTITY ITEM 411 - STABILIZED CRUSHED AGGREGATE AND ACCURATELY DISPLAYS THE STATION RANGES WHERE THE ITEM IS REQUIRED.

**ITEM 615 - ROADS FOR MAINTAINING TRAFFIC**

ROADS FOR MAINTAINING TRAFFIC WILL BE REQUIRED AT VARIOUS LOCATIONS AS SHOWN IN THE PLANS, AND SHALL BE CONSTRUCTED ACCORDING TO C&MS 615 AND AS DETAILED IN THE PLANS.

FOLLOWING CONSTRUCTION OF PAVEMENTS AND ROADS FOR MAINTAINING TRAFFIC, TEMPORARY FACILITIES SHALL BE REMOVED AS PER C&MS 615.08, AND THE EXISTING TOPOGRAPHY SHALL BE RESTORED, UNLESS OTHERWISE SPECIFIED IN THE PLANS.

PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND OTHER INCIDENTALS FOR ROADS AND PAVEMENTS FOR MAINTAINING TRAFFIC SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 615 - ROADS FOR MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED IN THE PLANS.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE MAINTENANCE OF TRAFFIC GENERAL SUMMARY:

ITEM 615 - ROADS FOR MAINTAINING TRAFFIC	<u>LS</u>
--	-----------

**TEMPORARY DRAINAGE ITEMS**

THE REQUIREMENTS OF ITEM 611.04BCD SHALL BE WAVED FOR THE FOLLOWING AS PER PLAN AS PER PLAN "C" AND AS PER PLAN "D" TEMPORARY DRAINAGE ITEMS. IN ADDITION, ITEM 611 - 12" CONDUIT, TYPE B, AS PER PLAN SHALL ALSO BE BEDDED AND BACKFILLED SIMILAR TO SLOTTED DRAIN, TYPE 1 IN DM-1.3. TEMPORARY DRAINAGE ITEMS LABELED ON THE MAINTENANCE OF TRAFFIC PLAN ARE ITEMIZED ON THE MOT PLANS AND CARRIED TO THE MAINTENANCE OF TRAFFIC GENERAL SUMMARY.

ITEM 611 - CATCH BASIN, NO. 3A, AS PER PLAN "D"	<u>11</u> EACH
ITEM 611 - CATCH BASIN, NO. 2-2B, AS PER PLAN "C"	<u>7</u> EACH
ITEM 611 - 12" CONDUIT, TYPE B, AS PER PLAN	<u>3489</u> FT
ITEM 611 - 12" CONDUIT, TYPE C, AS PER PLAN	<u>416</u> FT
ITEM 611 - CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN	<u>1</u> EACH
ITEM 611 - SLOTTED DRAIN, TYPE 1, 12", AS PER PLAN	<u>5462</u> FT

TEMPORARY DRAINAGE REMOVAL SHALL INCLUDE REMOVING THE TEMPORARY SLOTTED DRAINS, TEMPORARY CATCH BASINS, ALL ASSOCIATED PAVEMENT REPAIR, FILL AND PLUG SLOTTED DRAIN OUTLETS AND ANYTHING ELSE NECESSARY TO RESTORE THE SURROUNDING AREA TO THE ORIGINAL OR FINAL CONDITION.

PAVEMENT REPAIR SHALL INCLUDE THE REMOVAL OF THE TEMPORARY SLOTTED DRAINS OUTSIDE THE CROSSOVER AREAS WHERE TEMPORARY DRAINAGE HAD BEEN INSTALLED. THE CONTRACTOR SHALL SAW CUT A NEAT EDGE ONE (1) FOOT FROM THE EDGE OF THE TEMPORARY SLOTTED DRAINS, REMOVE THE SLOTTED DRAINS, AND REMOVE EXCESS EXISTING PAVEMENT PER C&MS 253.02. THIS TRENCHED AREA SHALL BE REPLACED WITH ASPHALT PAVEMENT TO MATCH THE EXISTING OR PROPOSED ASPHALT PAVEMENT COMPOSITION, AS DIRECTED BY THE ENGINEER. AFTER BACKFILLING OF THE CAVITY PER C&MS 202.02, THE CONTRACTOR SHALL PROVIDE AN ASPHALT CONCRETE PAVED SURFACE IN THIS AREA BY MATCHING THE EXISTING OR PROPOSED ASPHALT PAVEMENT COMPOSITION, AS DIRECTED BY THE ENGINEER. THE FOLLOWING QUANTITY HAS BEEN PROVIDED AND CARRIED TO THE MAINTENANCE OF TRAFFIC GENERAL SUMMARY TO RESTORE AREAS WHERE TEMPORARY DRAINAGE ITEMS WILL BE REMOVED.

ITEM 253 - PAVEMENT REPAIR	<u>115</u> SY
----------------------------	---------------

ANY ADDITIONAL ITEMS OF WORK NOT SPECIFICALLY LISTED WHICH ARE REQUIRED TO CONSTRUCT OR REMOVE ANY TEMPORARY PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO AND INCLUDED IN THE LUMP SUM BID FOR ITEM 615 - ROADS FOR MAINTAINING TRAFFIC.

REVISIONS		
NO.	DATE	DESCRIPTION
<u>3</u>	03/14/24	MODIFIED 615 NOTE AND ADDED NOTES
<u>3</u>	03/20/24	MODIFIED WINTER OVER PHASE NOTE
<u>4</u>	03/27/24	ADDED TO TEMPORARY DRAINAGE ITEMS NOTE
<u>4</u>	04/02/24	ADDED 3RD WINTER OVER PHASE TO WINTER OVER NOTE
<u>4</u>	04/02/24	CARRIED CROSSOVER QUANTITIES TO GENERAL SUMMARY
<u>4</u>	04/02/24	MADE ALL TEMP. DRAINAGE ITEMS "AS PER PLAN" AND ADDED TO TEMP. DRAINAGE NOTE
<u>4</u>	04/02/24	MOVED SIGNAL/FLASHER NOTE TO SHEET 65A
<u>6</u>	04/12/24	MODIFIED ITEM 301 TO ITEM 411
<u>6</u>	04/12/24	CLARIFIED 12" CONDUIT, AS PER PLAN BEDDING AND BACKFILLING TO BE PER DM-1.3.

DESIGN AGENCY



DESIGNER  
**KRM**

REVIEWER  
**AKF 11-21-23**

PROJECT ID  
**107408**

SHEET TOTAL  
**65 1068**

MAINTENANCE OF TRAFFIC NOTES

**INCENTIVE/DISINCENTIVE CONTRACT (PN 121)**

THE CONTRACTOR SHALL COMPLETE ALL CRITICAL WORK AND SAFETY ITEMS ACCORDING TO THE INCENTIVE/DISINCENTIVE CONTRACT TABLE BELOW. IN THE EVENT THE CONTRACTOR IMPEDES THE FLOW OF TRAFFIC SUBSEQUENT TO THE OPENING TO UNRESTRICTED TRAFFIC, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE ACCORDING TO THE INCENTIVE/DISINCENTIVE CONTRACT TABLE.

CRITICAL WORK IS SHOWN BELOW IN THE INCENTIVE/DISINCENTIVE CONTRACT TABLE.

CRITICAL WORK IS DEFINED AS HAVING THE DESIGNATED SECTION OF WORK OPEN TO UNRESTRICTED TRAFFIC AS SHOWN IN THE TABLE, OR THE ENTIRE PROJECT IF NOT OTHERWISE LISTED.

UNRESTRICTED TRAFFIC IS DEFINED AS ALL TRAFFIC LANES BEING AVAILABLE FOR USE AT THEIR FINAL DESIGN WIDTH WITH ALL MARKINGS, AND SAFETY FEATURES INSTALLED, ALONG WITH NO RESTRICTIONS WITHIN 2 FEET OF THE EDGE LINE ON THE SHOULDER, EXCEPT AS REQUIRED BY THE WINTER OVER #2 TRAFFIC PATTERN.

INCENTIVE/DISINCENTIVE AMOUNT: THE CONTRACTOR WILL BE PAID AN INCENTIVE OR WILL BE ASSESSED A DISINCENTIVE ACCORDING TO THE INCENTIVE/DISINCENTIVE CONTRACT TABLE BELOW.

EXTENSIONS OF TIME WILL BE FOR CALENDAR DAYS AND CALCULATED IN ACCORDANCE WITH C&MS 108.06 EXCEPT AS FOLLOWS: NO EXTENSIONS OF TIME WILL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES (UNLESS SUCH DELAYS ARE INDUSTRY WIDE), AND LABOR STRIKES (UNLESS SUCH STRIKES ARE AREA WIDE).

INCENTIVE/DISINCENTIVE TABLE			
DESCRIPTION OF CRITICAL WORK	COMPLETION DATE	DISINCENTIVE \$ PER DAY	INCENTIVE \$ PER DAY
COMPLETION OF PHASE 1 (ASPHALT ITEMS ONLY) PRIOR TO WINTER SHUTDOWN	10-15-2024	ASSESSED PER CMS 108.07	\$ 0
COMPLETION OF PHASE 3A PRIOR TO WINTER SHUTDOWN	10-15-2025	ASSESSED PER CMS 108.07	\$ 0
COMPLETION OF PHASE 5 PRIOR TO WINTER SHUTDOWN	10-15-2026	ASSESSED PER CMS 108.07	\$ 0

**FLEXIBLE START WINDOW CONTRACT (PN 129)**

THE CONTRACTOR HAS THE NUMBER OF CALENDAR DAYS DESIGNATED IN THE WINDOW CONTRACT TABLE IN WHICH TO COMPLETE ALL ITEMS OF CRITICAL WORK. THE WINDOW CONTRACT TABLE IS LOCATED BELOW. THE CONTRACTOR MAY BEGIN ANY TIME AS IDENTIFIED IN THE WINDOW CONTRACT TABLE AND MUST COMPLETE THE CRITICAL WORK WITHIN THE CALENDAR DAYS DESIGNATED IN THE WINDOW CONTRACT TABLE OR BY THE COMPLETION DATE LISTED IN THE PROPOSAL, WHICHEVER COMES FIRST.

CRITICAL WORK IS SHOWN IN THE WINDOW CONTRACT TABLE.

COMPLETION OF CRITICAL WORK IS DEFINED AS HAVING THE DESIGNATED SECTION OF WORK OPEN TO UNRESTRICTED TRAFFIC AS SHOWN IN THE TABLE, OR THE ENTIRE PROJECT IF NOT OTHERWISE LISTED.

UNRESTRICTED TRAFFIC IS DEFINED AS ALL TRAFFIC LANES BEING AVAILABLE FOR USE AT THEIR FINAL DESIGN WIDTH WITH ALL MARKINGS, RPM'S, AND SAFETY FEATURES INSTALLED, ALONG WITH NO RESTRICTIONS WITHIN 2 FEET OF THE EDGE LINE ON THE SHOULDERS.

THE CONTRACTOR MUST SCHEDULE THE LATEST START DATE OF THE CRITICAL WORK PRIOR TO THE FOLLOWING CALCULATED DATE:

LATE CRITICAL WORK START DATE = [WORK WINDOW END DATE] - [(CALENDAR DAYS TO COMPLETE) X 1.25]

IF THE CRITICAL WORK IS NOT STARTED BY THE LATE CRITICAL WORK START DATE, THE CONTRACTOR WILL BE ASSESSED A DISINCENTIVE AS DEFINED IN THE WINDOW CONTRACT TABLE FOR EVERYDAY THE CONTRACTOR DOES NOT START THE CRITICAL WORK.

**FLEXIBLE START WINDOW CONTRACT (PN 129) (CONTINUED)**

IF THE WORK IS NOT COMPLETED WITHIN THE CALENDAR DAYS DESIGNATED IN THE WINDOW CONTRACT TABLE, THE CONTRACTOR WILL BE SUBJECT TO DISINCENTIVES AS IDENTIFIED IN THE CONTRACT CRITICAL WORK TABLE. IF THE WINDOW CONTRACT CRITICAL WORK TABLE DOES NOT DESIGNATE A DISINCENTIVE VALUE, THE CONTRACTOR WILL BE SUBJECT TO THE LIQUIDATED DAMAGES IN ACCORDANCE WITH THE SCHEDULE SET FORTH IN C&MS 108.07.

108.06 C SHALL BE MODIFIED TO THE FOLLOWING AND SHALL BE APPLICABLE ONLY TO THE CRITICAL WORK (AS DEFINED IN THE WINDOW CONTRACT TABLE):

108.06 C EXTENSION TO THE COMPLETION DATE FOR WEATHER OR SEASONAL CONDITIONS. A WEATHER DAY FOR CRITICAL WORK IS DEFINED AS A WORKDAY THAT WEATHER REDUCED PRODUCTION BY MORE THAN 50 PERCENT ON ITEMS OF WORK ON THE CRITICAL PATH FOR CRITICAL WORK. SUBMIT A REQUESTED FOR AN EXTENSION OF TIME FOR A LOST WORKDAY DUE TO WEATHER WITH 2 DAYS OF OCCURRENCE. THE ENGINEER WILL EXTEND THE CALENDAR DAYS TO COMPLETE BY CALENDAR DAYS. THE ENGINEER WILL CONVERT WORKDAYS TO CALENDAR DAYS FOR EACH LOST WORKDAY DUE TO WEATHER BY MULTIPLYING THE NUMBER OF LOST WORKDAYS BY 1.4 FOR A 5-DAY WORK WEEK OR LESS; 1.2 FOR A 6-DAY WORK WEEK; AND 1 FOR A 7-DAY WORK WEEK; AND EXTEND THE CALENDAR DAYS TO COMPLETE BY THE RESULTING NUMBER OF CALENDAR DAYS PLUS ANY HOLIDAYS THE CONTRACTOR DOES NOT NORMALLY WORK THAT OCCUR IN THE EXTENSION PERIOD. WHEN THE CONVERSION OF WORKDAYS TO CALENDAR DAYS RESULTS IN A DECIMAL OF 0.5 OR GREATER, THE ENGINEER WILL ROUND THE NUMBER OF CALENDAR DAYS TO THE NEXT HIGHEST WHOLE NUMBER. WHEN THE CONVERSION RESULTS IN A DECIMAL LESS THAN 0.5, THE ENGINEER WILL DELETE THE DECIMAL PORTION OF THE CALENDAR DAYS.

FLEXIBLE START WINDOW TABLE					
DESCRIPTION OF CRITICAL WORK	CALENDAR DAYS TO COMPLETE	DISINCENTIVE \$ PER DAY	WORK WINDOW		
			START	END	
1-490 - SR-10 WB TO I-71 SB (PHASE 2 & 3)	210 DAYS (PHASES 2 & 3)	\$ 3,000	BEGIN PHASE 2	END PHASE 3	WORK NEEDED TO REPLACE THE PAVEMENT FOR ALL RAMPS LISTED EXCEPT 1-490/SR-10 WB TO I-71 SB
RAMP N-E (I-77 SB)	60 DAYS (PHASE 5)	\$ 1,500	BEGIN PHASE 5	END PHASE 5	
RAMP S-W (I-77 NB)	45 DAYS (PHASE 2A)	\$ 8,000	BEGIN PHASE 2A	END PHASE 2A	

**MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL/FLASHER INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

- EXISTING SIGNAL/FLASHER INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.
- NEW OR REUSED SIGNAL/FLASHER INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

**MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION (CONTINUED)**

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE. THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE CRASH THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHERE THE CONTRACTOR HAS FAILED TO, OR CANNOT RESPOND TO, AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE, THE ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE STATE OR THE CITY OF CLEVELAND FOR POLICE SERVICES AND MAINTENANCE SERVICES BY CITY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICE ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A COOPERATIVE UNDERSTANDING WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE. THE CONTRACTOR SHALL INFORM THE ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM. WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED 4 HOURS AND SHALL NOT INCLUDE THE HOURS OF 6-8 AM TO 4-6 PM. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY THE CONTRACTOR, BY THE INSTALLATION OF TEMPORARY "STOP" SIGNS.

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

- TIME OF NOTIFICATION OF MALFUNCTION;
- TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION;
- ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED;
- A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE;
- TIME OF COMPLETION OF THE REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

**ITEM 614 - WORK ZONE MARKINGS (PHASE 7)**

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS PER THE REQUIREMENTS OF CMS 614.04 AND 614.11. PLACE TEMPORARY MARKINGS AT THE SAME LOCATIONS AS THE PROPOSED PERMANENT PAVEMENT MARKINGS.

WORK ZONE MARKINGS WIDTHS SHALL BE AS GIVEN IN CMS 614 OR 641.

AFTER THE SURFACE COURSE IS PLACED, USE THE FOLLOWING TEMPORARY MARKINGS:

ITEM 614 - WORK ZONE LANE LINE, CLASS I, 6"	10.79 MILE
ITEM 614 - WORK ZONE CENTER LINE, CLASS I	0.11 MILE
ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6"	14.57 MILE
ITEM 614 - WORK ZONE CHANNELIZING LINE, CLASS I, 12"	15868 FT
ITEM 614 - WORK ZONE DOTTED LINE, CLASS I	8869 FT
ITEM 614 - WORK ZONE STOP LINE	70 FT
ITEM 614 - WORK ZONE LANE ARROW	24 EACH
ITEM 614 - MAINTAINING TRAFFIC, MISC.: LANE REDUCTION ARROW	1 EACH

ITEM 614 - MAINTAINING TRAFFIC, MISC.: LANE REDUCTION ARROW SHALL BE PER THE PERMANENT DESIGN EXCEPT THE MATERIAL SHALL BE WORK ZONE PAVEMENT MARKING CLASS I, 642 PAINT.

**PERMANENT PAVEMENT MARKINGS**

AFTER PLACING THE SURFACE COURSE, THE CONTRACTOR MAY PLACE PERMANENT PAVEMENT MARKING INSTEAD OF PLACING WORK ZONE PAVEMENT MARKINGS, WHICH SHALL BE NON-PERFORMED.

REVISIONS		
NO.	DATE	DESCRIPTION
1	01/15/24	CREATED SHEET, ADDED PN 121, ADDED PN 129, UPDATED DISINCENTIVE \$ AMOUNTS AND ADDED WORK WIDOWS BASED ON ODOT COMMENTS
3	03/15/24	MODIFIED CALENDAR DAYS TO COMPLETE RAMP WORK
4	04/02/24	MOVED SIGNAL FLASHER NOTE FROM SHEET 65
4	04/02/24	MODIFIED FLEXIBLE START WINDOW TABLE
4	04/02/24	MODIFIED INCENTIVE/DISINCENTIVE NOTE ADDED
6	04/10/24	ADDED WORK ZONE MARKINGS (PHASE 7) NOTE

DESIGN AGENCY	
DESIGNER	KRM
REVIEWER	AKF 11-21-23
PROJECT ID	107408
SHEET	65A
TOTAL	1068





CUY-490-0.00 PART 1

MODEL: 107408\_MPD104D-1\_PAPER SIZE: 34x22 (in.) DATE: 4/12/2024 TIME: 11:10:32 AM USER: kmonas  
 O:\Clients\ORD\2021\107408\107408-Engineering\WOT\Sheets\107408\_MM104.dgn

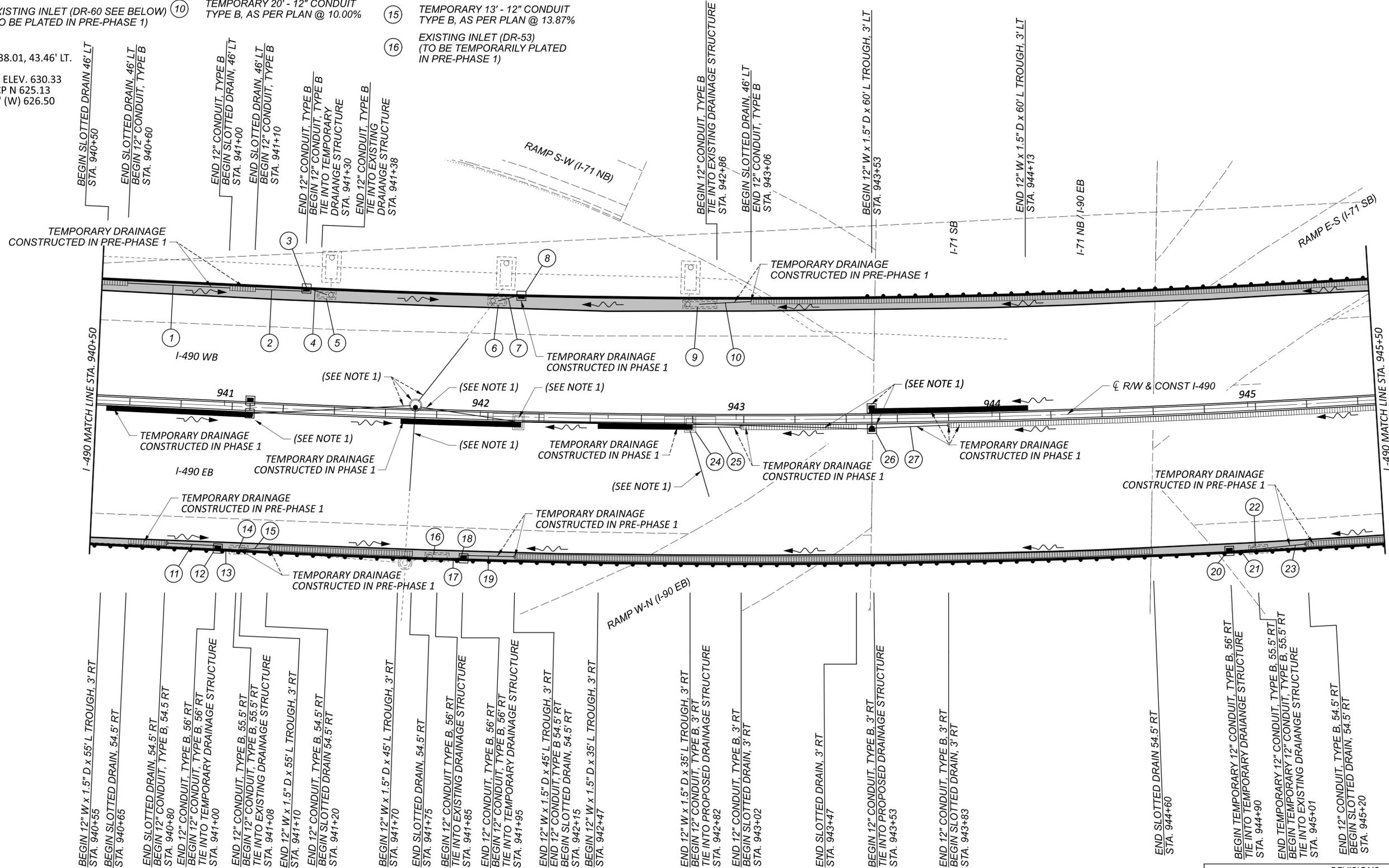
- 1 TEMPORARY 40' - 12" CONDUIT TYPE B, AS PER PLAN
- 2 TEMPORARY 20' - 12" CONDUIT TYPE B, AS PER PLAN @ 4.00%
- 3 TEMPORARY CB-3A STA. 941+30, 47.5' LT (℄ R/W & CONST. I-490)
- 4 TEMPORARY 7' - 12" CONDUIT TYPE B, AS PER PLAN @ 7.14%
- 5 EXISTING INLET (DR-60) (TO BE PLATED IN PRE-PHASE 1)
- 6 EXISTING INLET (DR-61) (TO BE PLATED IN PRE-PHASE 1)
- 7 TEMPORARY 8' - 12" CONDUIT TYPE B, AS PER PLAN @ 6.59%
- 8 TEMPORARY CB-3A STA. 942+15, 47.5' LT (℄ R/W & CONST I-490)
- 9 EXISTING INLET (DR-62) (TO BE PLATED IN PRE-PHASE 1)
- 10 TEMPORARY 20' - 12" CONDUIT TYPE B, AS PER PLAN @ 10.00%
- 11 TEMPORARY 20' - 12" CONDUIT TYPE B, AS PER PLAN @ 2.90%
- 12 TEMPORARY CB-3A STA. 941+00, 56' RT (℄ R/W & CONST I-490)
- 13 TEMPORARY 7' - 12" CONDUIT TYPE B, AS PER PLAN @ 3.00%
- 14 EXISTING INLET (DR-52) (TO BE TEMPORARILY PLATED IN PRE-PHASE 1)
- 15 TEMPORARY 13' - 12" CONDUIT TYPE B, AS PER PLAN @ 13.87%
- 16 EXISTING INLET (DR-53) (TO BE TEMPORARILY PLATED IN PRE-PHASE 1)
- 17 TEMPORARY 9' - 12" CONDUIT TYPE B, AS PER PLAN @ 6.07%
- 18 TEMPORARY CB-3A STA. 941+97, 57.5' RT (℄ R/W & CONST I-490)
- 19 TEMPORARY 20' - 12" CONDUIT TYPE B, AS PER PLAN @ 8.62%
- 20 TEMPORARY CB-3A STA. 944+90, 57.5' RT (℄ R/W & CONST I-490)
- 21 TEMPORARY 10' - 12" CONDUIT TYPE B, AS PER PLAN @ 10.70%
- 22 EXISTING INLET (DR-54) (TO BE TEMPORARILY PLATED IN PRE-PHASE 1)
- 23 TEMPORARY 19' - 12" CONDUIT TYPE B, AS PER PLAN @ 10.16%
- 24 PROPOSED INLET (D-8) (CONSTRUCTED IN PHASE 1)
- 25 TEMPORARY 20' - 12" CONDUIT TYPE B, AS PER PLAN @ 8.40%
- 26 PROPOSED INLET (D-10) (CONSTRUCTED IN PHASE 1)
- 27 TEMPORARY 30' - 12" CONDUIT TYPE B, AS PER PLAN @ 9.57%

MAINTENANCE OF TRAFFIC DRAINAGE NOTES:

1. PROPOSED DRAINAGE TO BE CONSTRUCTED IN PHASE 1.
2. FOR MAINTENANCE OF TRAFFIC DRAINAGE LEGEND, SEE SHEET 291.



DR-60  
 STA. 941+38.01, 43.46' LT.  
 EX. I-2-A6  
 EX. GRATE ELEV. 630.33  
 EX. 15" RCP N 625.13  
 TEMP. 12" (W) 626.50



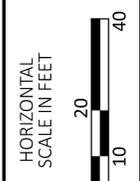
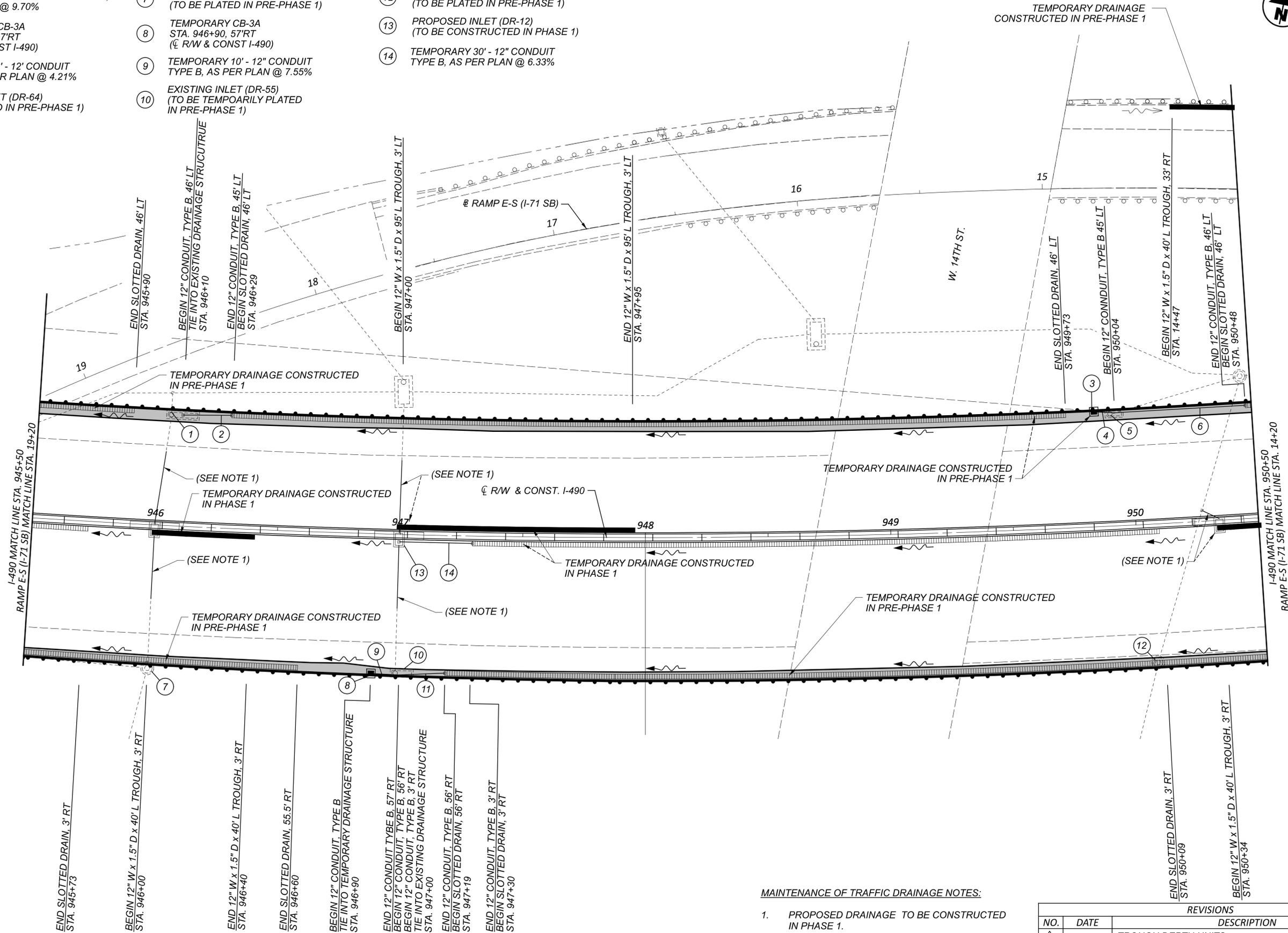
- BEGIN 12" W x 1.5" D x 55' L TROUGH, 3' RT STA. 940+55
- END SLOTTED DRAIN, 54.5' RT STA. 940+65
- BEGIN 12" CONDUIT, TYPE B, 54.5' RT STA. 940+80
- END 12" CONDUIT, TYPE B, 56' RT STA. 941+00
- BEGIN 12" CONDUIT, TYPE B, 55.5' RT STA. 941+08
- END 12" W x 1.5" D x 55' L TROUGH, 3' RT STA. 941+10
- BEGIN SLOTTED DRAIN, 54.5' RT STA. 941+20
- BEGIN 12" W x 1.5" D x 45' L TROUGH, 3' RT STA. 941+70
- END SLOTTED DRAIN, 54.5' RT STA. 941+75
- BEGIN 12" CONDUIT, TYPE B, 56' RT STA. 941+86
- END 12" CONDUIT, TYPE B, 56' RT STA. 941+95
- BEGIN 12" W x 1.5" D x 45' L TROUGH, 3' RT STA. 942+15
- BEGIN 12" W x 1.5" D x 35' L TROUGH, 3' RT STA. 942+47
- END 12" W x 1.5" D x 35' L TROUGH, 3' RT STA. 942+82
- BEGIN 12" CONDUIT, TYPE B, 3' RT STA. 943+02
- END SLOTTED DRAIN, 3' RT STA. 943+47
- BEGIN 12" CONDUIT, TYPE B, 3' RT STA. 943+53
- END 12" CONDUIT, TYPE B, 3' RT STA. 943+83
- END SLOTTED DRAIN 54.5' RT STA. 944+60
- BEGIN TEMPORARY 12" CONDUIT, TYPE B, 56' RT STA. 944+90
- END TEMPORARY 12" CONDUIT, TYPE B, 55.5' RT STA. 945+01
- END 12" CONDUIT, TYPE B, 54.5' RT STA. 945+20

REVISIONS		
NO.	DATE	DESCRIPTION
4	04/02/24	REPLACED TRENCH DRAIN WITH SLOTTED DRAIN AND MADE ALL TEMPORARY DRAINAGE ITEMS "AS PER PLAN"

MAINTENANCE OF TRAFFIC - TEMPORARY DRAINAGE - PRE-PHASE 1 & PHASE 1  
 I-490 STA. 940+50 TO STA. 945+50

DESIGN AGENCY  
  
 DESIGNER  
 KRM  
 REVIEWER  
 AKF 11-21-23  
 PROJECT ID  
 107408  
 SHEET  
 293 TOTAL  
 1068

- ① EXISTING INLET (DR-63)  
(TO BE PLATED IN PRE-PHASE 1)
- ② TEMPORARY 20'-12 CONDUIT TYPE B,  
AS PER PLAN @ 9.70%
- ③ TEMPORARY CB-3A  
STA. 949+85, 47'RT  
( $\bar{C}$  R/W & CONST I-490)
- ④ TEMPORARY 8' - 12' CONDUIT  
TYPE B, AS PER PLAN @ 4.21%
- ⑤ EXISTING INLET (DR-64)  
(TO BE PLATED IN PRE-PHASE 1)
- ⑥ TEMPORARY 53' - 12" CONDUIT TYPE B,  
AS PER PLAN @ 4.37%
- ⑦ EXISTING MANHOLE (DR-133)  
(TO BE PLATED IN PRE-PHASE 1)
- ⑧ TEMPORARY CB-3A  
STA. 946+90, 57'RT  
( $\bar{C}$  R/W & CONST I-490)
- ⑨ TEMPORARY 10' - 12" CONDUIT  
TYPE B, AS PER PLAN @ 7.55%
- ⑩ EXISTING INLET (DR-55)  
(TO BE TEMPORARILY PLATED  
IN PRE-PHASE 1)
- ⑪ TEMPORARY 19' - 12" CONDUIT TYPE B,  
AS PER PLAN @ 10.84%
- ⑫ EXISTING MANHOLE (DR-136)  
(TO BE PLATED IN PRE-PHASE 1)
- ⑬ PROPOSED INLET (DR-12)  
(TO BE CONSTRUCTED IN PHASE 1)
- ⑭ TEMPORARY 30' - 12" CONDUIT  
TYPE B, AS PER PLAN @ 6.33%



**MAINTENANCE OF TRAFFIC - TEMPORARY DRAINAGE - PRE-PHASE 1 & PHASE 1**  
**I-490 - STA. 945+50 TO STA. 950+50**

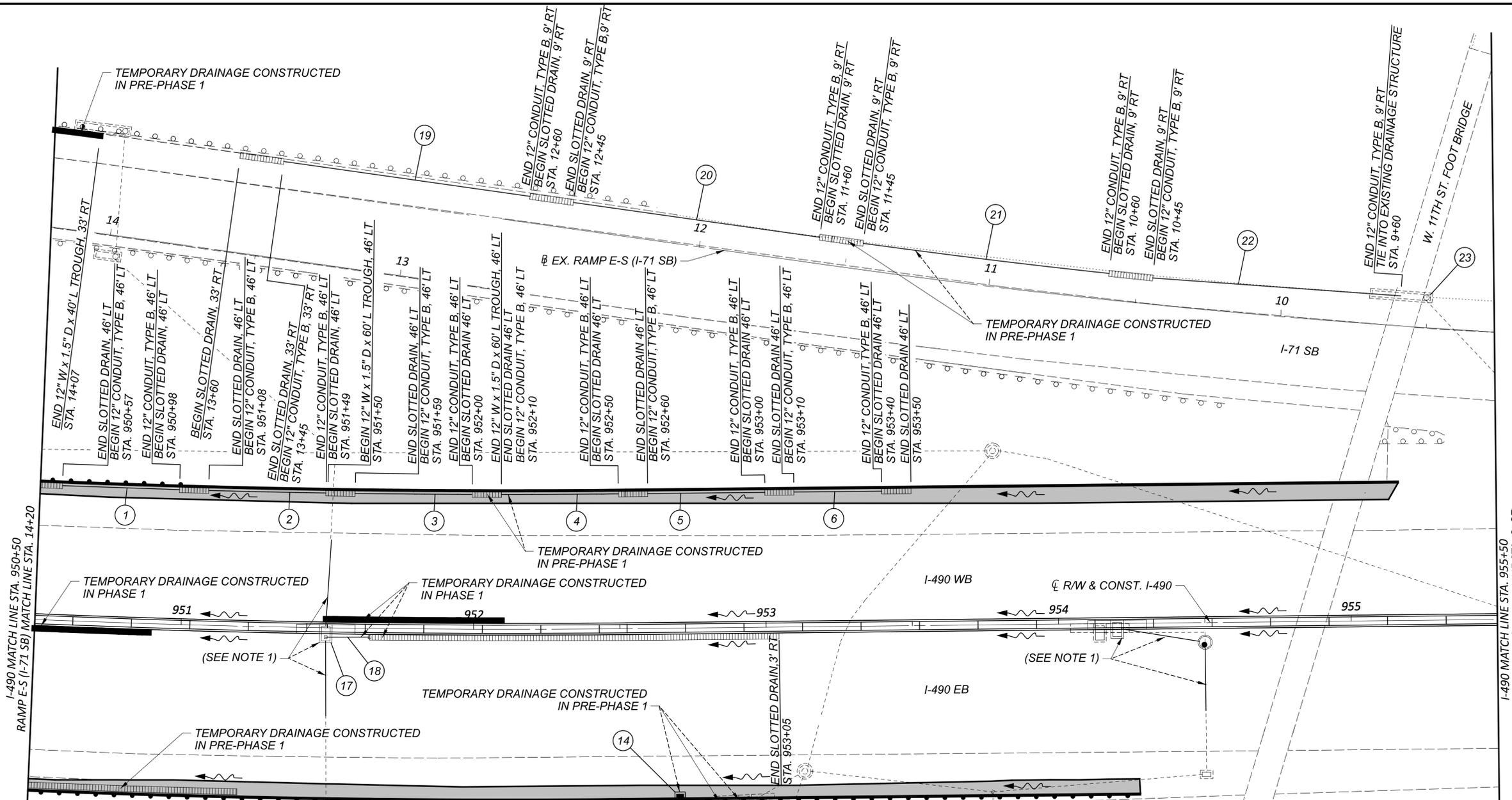
**MAINTENANCE OF TRAFFIC DRAINAGE NOTES:**

1. PROPOSED DRAINAGE TO BE CONSTRUCTED IN PHASE 1.
2. FOR MAINTENANCE OF TRAFFIC DRAINAGE LEGEND, SEE SHEET 291.

REVISIONS		DESCRIPTION
NO.	DATE	
3	03/14/24	TROUGH DEPTH UNITS (INCHES) ADDED
4	04/02/24	REPLACE TRENCH DRAIN WITH SLOTTED DRAIN AND MADE ALL TEMP. DRAINAGE ITEMS "AS PER PLAN"

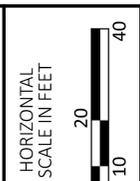
DESIGN AGENCY	
DESIGNER	
KRM	
REVIEWER	
AKF 11-21-23	
PROJECT ID	
107408	
SHEET	TOTAL
294	1068

- |   |  |  |
|---|--|--|
| ① TEMPORARY 40' - 12" CONDUIT TYPE B, AS PER PLAN         | ⑪ TEMPORARY 40' - 12" CONDUIT TYPE B, AS PER PLAN                  | ⑰ PROPOSED INLET (D-13) (TO BE CONSTRUCTED IN PRE-PHASE 1) |
| ② TEMPORARY 40' - 12" CONDUIT TYPE B, AS PER PLAN         | ⑫ TEMPORARY 40' - 12" CONDUIT TYPE B, AS PER PLAN                  | ⑱ TEMPORARY 85' - 12" CONDUIT TYPE B, AS PER PLAN          |
| ③ TEMPORARY 40' - 12" CONDUIT TYPE B, AS PER PLAN         | ⑬ TEMPORARY 40' - 12" CONDUIT TYPE B, AS PER PLAN                  | ⑳ TEMPORARY 85' - 12" CONDUIT TYPE B, AS PER PLAN          |
| ④ TEMPORARY 40' - 12" CONDUIT TYPE B, AS PER PLAN         | ⑭ TEMPORARY CB-3A STA. 952+70, 58' RT (CL R/W & CONST I-490)       | ㉑ TEMPORARY 85' - 12" CONDUIT TYPE B, AS PER PLAN          |
| ⑤ TEMPORARY 40' - 12" CONDUIT TYPE B, AS PER PLAN         | ⑮ TEMPORARY 22' - 12" CONDUIT TYPE B, AS PER PLAN @ 1.00%          | ㉒ TEMPORARY 85' - 12" CONDUIT TYPE B, AS PER PLAN @ 6.49%  |
| ⑥ TEMPORARY 30' - 12" CONDUIT TYPE B, AS PER PLAN         | ⑯ EXISTING INLET (DR-57) (TO BE TEMPORARILY PLATED IN PRE-PHASE 1) | ㉓ EXISTING INLET (DR-71) (TO REMAIN OPERATIONAL)           |
| ⑦ TEMPORARY 45' - 12" CONDUIT TYPE B, AS PER PLAN         |  |  |
| ⑧ TEMPORARY 45' - 12" CONDUIT TYPE B, AS PER PLAN         |  |  |
| ⑨ TEMPORARY 45' - 12" CONDUIT TYPE B, AS PER PLAN @ 6.42% |  |  |
| ⑩ EXISTING INLET (DR-10) (TO REMAIN OPERATIONAL)          |  |  |



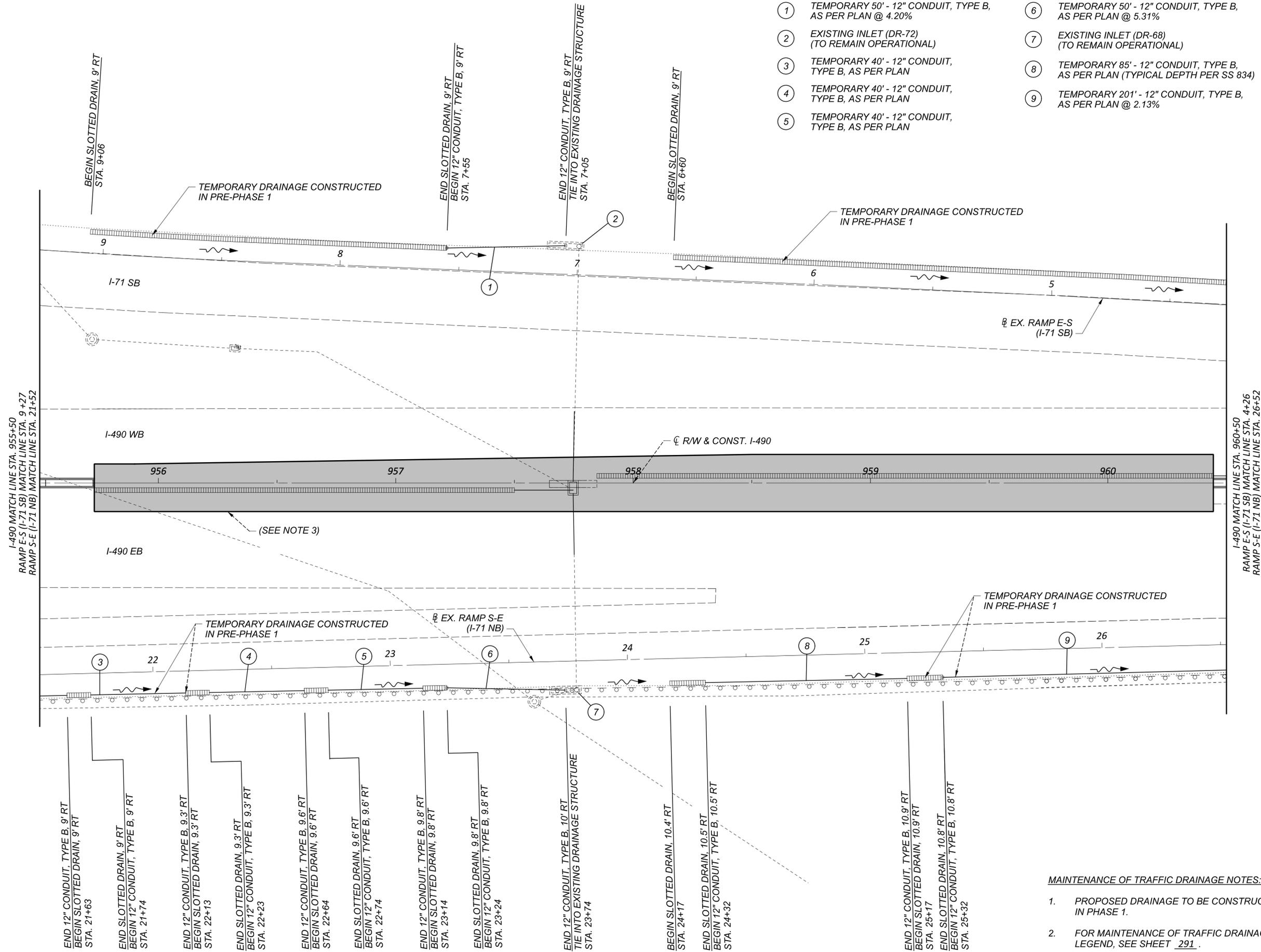
- MAINTENANCE OF TRAFFIC DRAINAGE NOTES:**
- PROPOSED DRAINAGE TO BE CONSTRUCTED IN PHASE 1.
  - FOR MAINTENANCE OF TRAFFIC DRAINAGE LEGEND, SEE SHEET 291.

NO.	DATE	DESCRIPTION
1	04/02/24	REPLACE TRENCH DRAIN WITH SLOTTED DRAIN AND MAKE-ALL-TEMP. DRAINAGE ITEMS "AS PER PLAN"

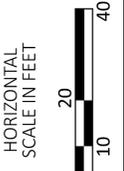


**MAINTENANCE OF TRAFFIC - TEMPORARY DRAINAGE - PRE-PHASE 1 & PHASE 1**  
 I-490 - STA. 950+50 TO STA. 955+50

DESIGN AGENCY	
DESIGNER	KRM
REVIEWER	AKF 11-21-23
PROJECT ID	107408
SHEET	295
TOTAL	1068



- ① TEMPORARY 50' - 12" CONDUIT, TYPE B, AS PER PLAN @ 4.20%
- ② EXISTING INLET (DR-72) (TO REMAIN OPERATIONAL)
- ③ TEMPORARY 40' - 12" CONDUIT, TYPE B, AS PER PLAN
- ④ TEMPORARY 40' - 12" CONDUIT, TYPE B, AS PER PLAN
- ⑤ TEMPORARY 40' - 12" CONDUIT, TYPE B, AS PER PLAN
- ⑥ TEMPORARY 50' - 12" CONDUIT, TYPE B, AS PER PLAN @ 5.31%
- ⑦ EXISTING INLET (DR-68) (TO REMAIN OPERATIONAL)
- ⑧ TEMPORARY 85' - 12" CONDUIT, TYPE B, AS PER PLAN (TYPICAL DEPTH PER SS 834)
- ⑨ TEMPORARY 201' - 12" CONDUIT, TYPE B, AS PER PLAN @ 2.13%



- END 12" CONDUIT, TYPE B, 9' RT  
BEGIN SLOTTED DRAIN, 9' RT  
STA. 21+63
- END SLOTTED DRAIN, 9' RT  
BEGIN 12" CONDUIT, TYPE B, 9' RT  
STA. 21+74
- END 12" CONDUIT, TYPE B, 9.3' RT  
BEGIN SLOTTED DRAIN, 9.3' RT  
STA. 22+13
- END SLOTTED DRAIN, 9.3' RT  
BEGIN 12" CONDUIT, TYPE B, 9.3' RT  
STA. 22+23
- END 12" CONDUIT, TYPE B, 9.6' RT  
BEGIN SLOTTED DRAIN, 9.6' RT  
STA. 22+64
- END SLOTTED DRAIN, 9.6' RT  
BEGIN 12" CONDUIT, TYPE B, 9.6' RT  
STA. 22+74
- END 12" CONDUIT, TYPE B, 9.8' RT  
BEGIN SLOTTED DRAIN, 9.8' RT  
STA. 23+14
- END SLOTTED DRAIN, 9.8' RT  
BEGIN 12" CONDUIT, TYPE B, 9.8' RT  
STA. 23+24
- END 12" CONDUIT, TYPE B, 10' RT  
TIE INTO EXISTING DRAINAGE STRUCTURE  
STA. 23+74
- BEGIN SLOTTED DRAIN, 10.4' RT  
STA. 24+17
- END SLOTTED DRAIN, 10.5' RT  
BEGIN 12" CONDUIT, TYPE B, 10.5' RT  
STA. 24+32
- END 12" CONDUIT, TYPE B, 10.9' RT  
BEGIN SLOTTED DRAIN, 10.9' RT  
STA. 25+17
- END SLOTTED DRAIN, 10.8' RT  
BEGIN 12" CONDUIT, TYPE B, 10.8' RT  
STA. 25+32

REVISIONS	
NO.	DESCRIPTION
4	REPLACE TRENCH DRAIN WITH SLOTTED DRAIN AND MADE ALL TEMP. DRAINAGE ITEMS "AS PER PLAN"

MAINTENANCE OF TRAFFIC DRAINAGE NOTES:

1. PROPOSED DRAINAGE TO BE CONSTRUCTED IN PHASE 1.
2. FOR MAINTENANCE OF TRAFFIC DRAINAGE LEGEND, SEE SHEET 291.
3. FOR CROSSOVER DETAILS, SEE SHEETS 287 - 288.

MAINTENANCE OF TRAFFIC - TEMPORARY DRAINAGE - PRE-PHASE 1 & PHASE 1  
 I-490 - STA. 955+50 TO STA. 960+50

DESIGN AGENCY



DESIGNER

KRM

REVIEWER

AKF 11-21-23

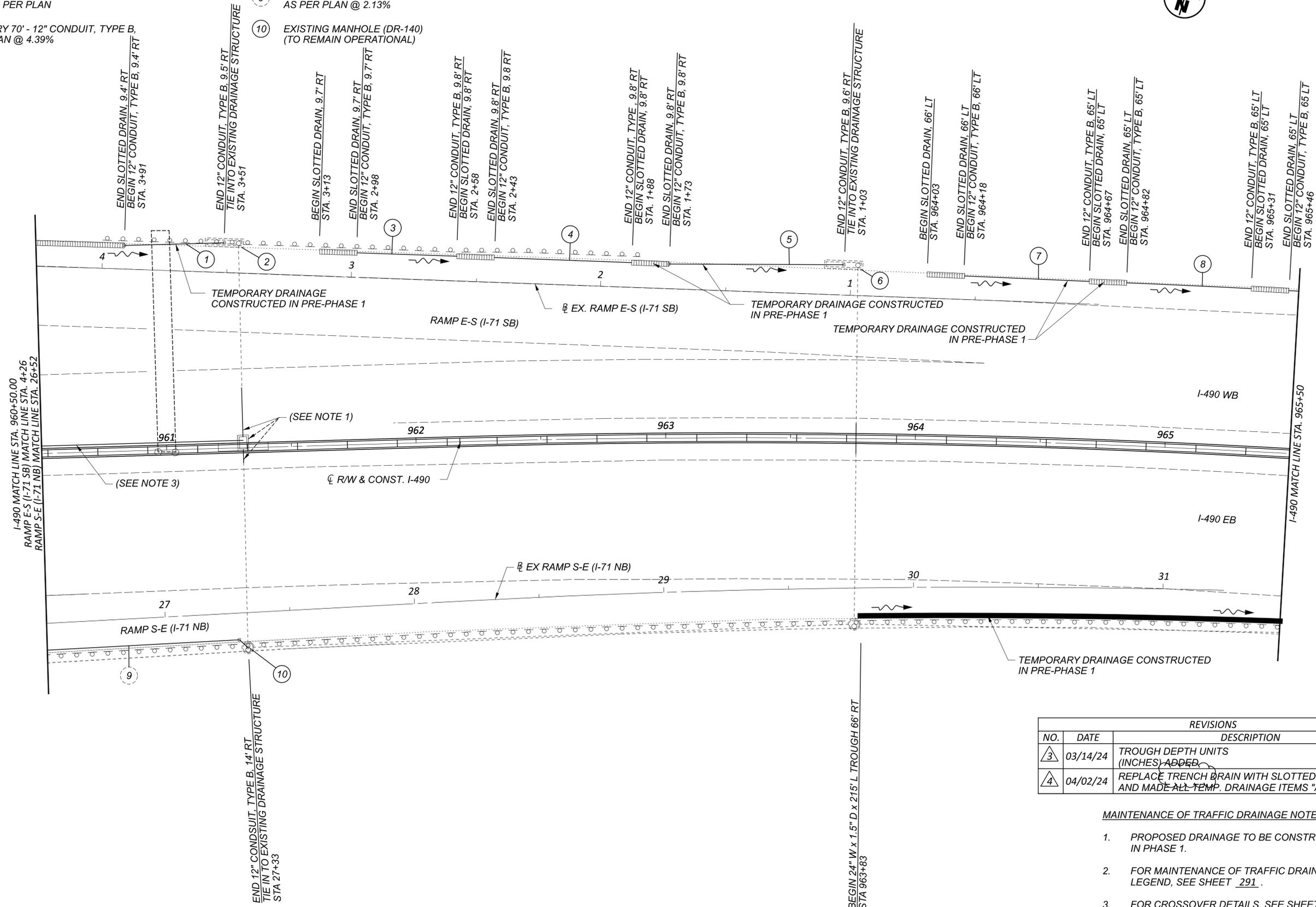
PROJECT ID

107408

SHEET TOTAL

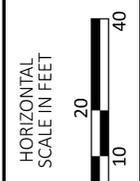
296 1068

- ① TEMPORARY 40' - 12" CONDUIT, TYPE B, AS PER PLAN @ 5.85%
- ② EXISTING INLET (DR-73) (TO REMAIN OPERATIONAL)
- ③ TEMPORARY 40' - 12" CONDUIT, TYPE B, AS PER PLAN
- ④ TEMPORARY 55' - 12" CONDUIT, TYPE B, AS PER PLAN
- ⑤ TEMPORARY 70' - 12" CONDUIT, TYPE B, AS PER PLAN @ 4.39%
- ⑥ EXISTING INLET (DR-74) (TO REMAIN OPERATIONAL)
- ⑦ TEMPORARY 50' - 12" CONDUIT, TYPE B, AS PER PLAN
- ⑧ TEMPORARY 50' - 12" CONDUIT, TYPE B, AS PER PLAN
- ⑨ TEMPORARY 201' - 12" CONDUIT, TYPE B, AS PER PLAN @ 2.13%
- ⑩ EXISTING MANHOLE (DR-140) (TO REMAIN OPERATIONAL)



REVISIONS		
NO.	DATE	DESCRIPTION
③	03/14/24	TROUGH DEPTH UNITS (INCHES) ADDED
④	04/02/24	REPLACE TRENCH DRAIN WITH SLOTTED DRAIN AND MADE ALL TEMP. DRAINAGE ITEMS "AS PER PLAN"

- MAINTENANCE OF TRAFFIC DRAINAGE NOTES:**
- PROPOSED DRAINAGE TO BE CONSTRUCTED IN PHASE 1.
  - FOR MAINTENANCE OF TRAFFIC DRAINAGE LEGEND, SEE SHEET 291.
  - FOR CROSSOVER DETAILS, SEE SHEETS 287 - 288.



**MAINTENANCE OF TRAFFIC - TEMPORARY DRAINAGE - PRE-PHASE 1 & PHASE 1**  
**I-490 - STA. 960+50 TO STA. 965+50**

DESIGN AGENCY	
DESIGNER	KRM
REVIEWER	AKF 11-21-23
PROJECT ID	107408
SHEET	297
TOTAL	1068

- ① TEMPORARY 50' - 12" CONDUIT, TYPE B, AS PER PLAN
- ② TEMPORARY 50' - 12" CONDUIT, TYPE B, AS PER PLAN
- ③ TEMPORARY 50' - 12" CONDUIT, TYPE B, AS PER PLAN
- ④ TEMPORARY 55' - 12" CONDUIT, TYPE B, AS PER PLAN @ 6.43%
- ⑤ EXISTING INLET (DR-200) (TO REMAIN OPERATIONAL)

END 24" W x 1.5" D x 215' L TROUGH 66' RT  
 STA 965+98

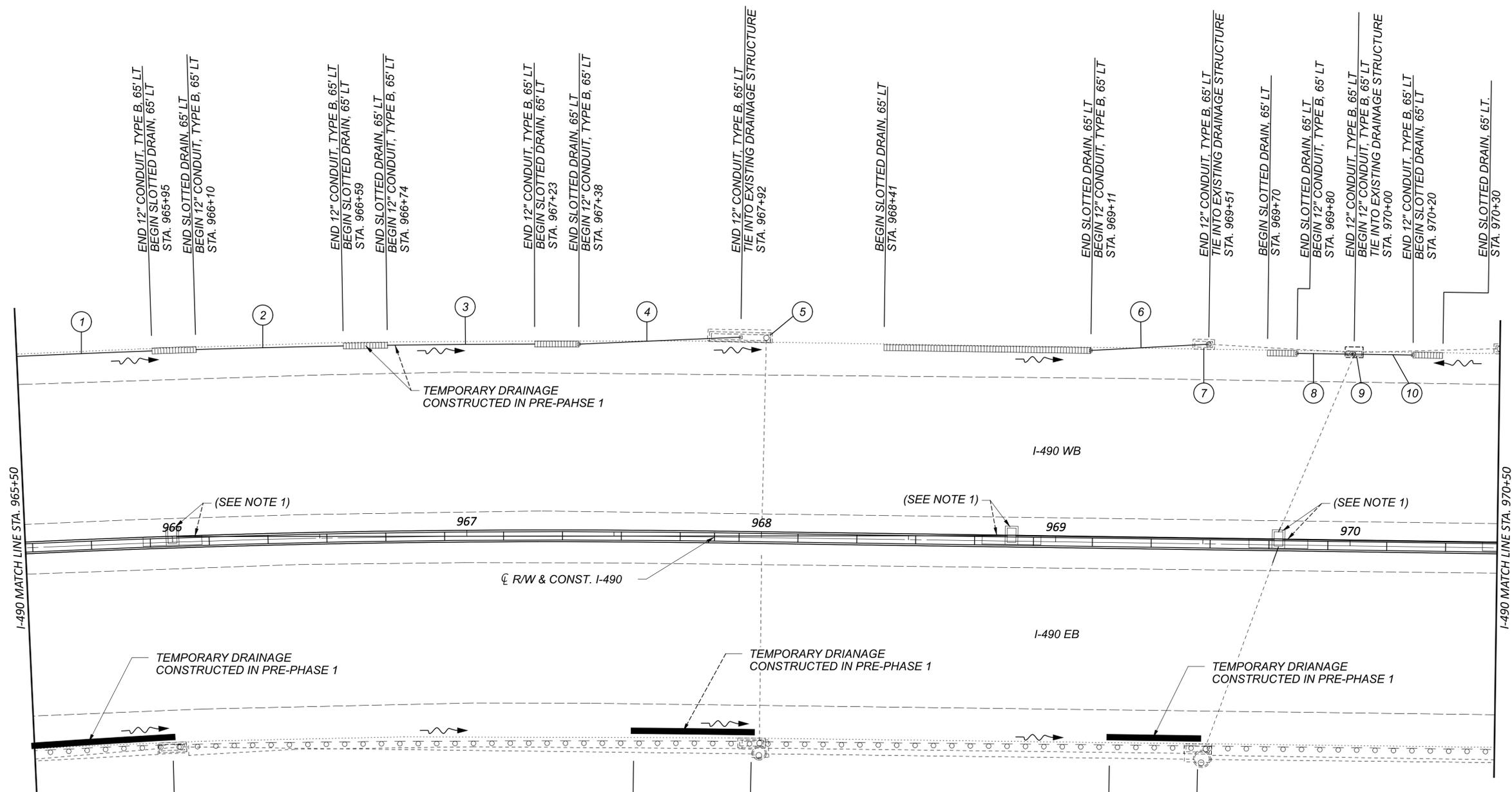
- ⑥ TEMPORARY 40' - 12" CONDUIT, TYPE B, AS PER PLAN @ 5.48%
- ⑦ EXISTING INLET (DR-83) (TO REMAIN OPERATIONAL)
- ⑧ TEMPORARY 20' - 12" CONDUIT, TYPE B, AS PER PLAN @ 12.08%
- ⑨ EXISTING INLET (DR-143) (TO REMAIN OPERATIONAL)
- ⑩ TEMPORARY 20' - 12" CONDUIT, TYPE B, AS PER PLAN @ 12.22%

BEGIN 24" W x 1.5" D x 40' L TROUGH 66' RT  
 STA 967+57

END 24" W x 1.5" D x 40' L TROUGH 66' RT  
 STA 967+97

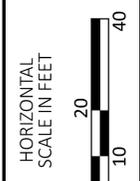
BEGIN 24" W x 1.5" D x 30' L TROUGH 66' RT  
 STA 969+19

END 24" W x 1.5" D x 30' L TROUGH 66' RT  
 STA 969+49



REVISIONS		
NO.	DATE	DESCRIPTION
③	03/14/24	TROUGH DEPTH UNITS (INCHES) ADDED
④	04/02/24	REPLACE TRENCH DRAIN WITH SLOTTED DRAIN AND MAKE ALL TEMP. DRAINAGE ITEMS "AS PER PLAN"

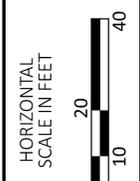
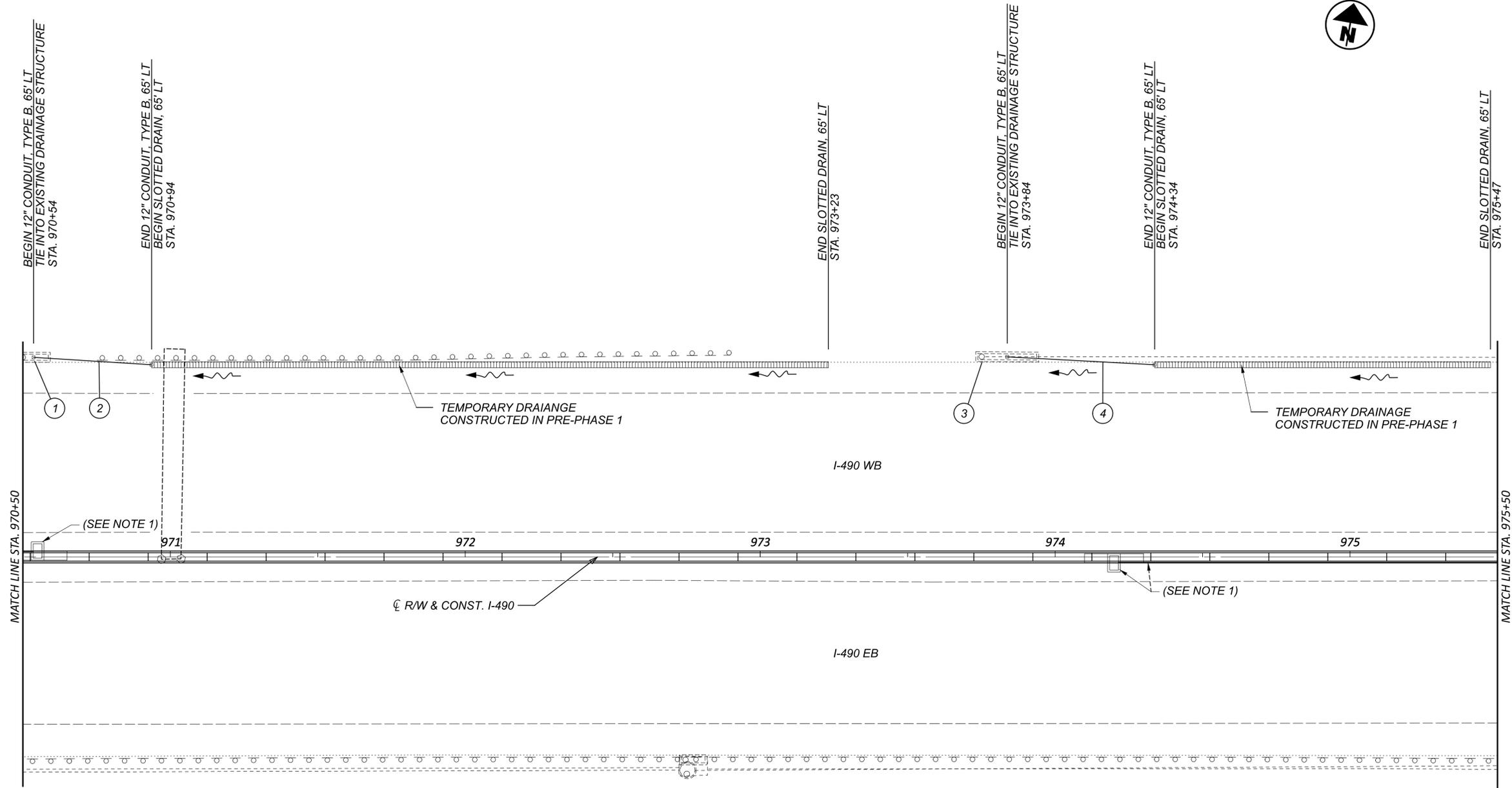
- MAINTENANCE OF TRAFFIC DRAINAGE NOTES:**
- PROPOSED DRAINAGE TO BE CONSTRUCTED IN PHASE 1.
  - FOR MAINTENANCE OF TRAFFIC DRAINAGE LEGEND, SEE SHEET 291.



MAINTENANCE OF TRAFFIC - TEMPORARY DRAINAGE - PRE-PHASE 1 & PHASE 1  
 I-490 - STA. 965+50 TO STA. 970+50

DESIGN AGENCY	
DESIGNER	KRM
REVIEWER	AKF 11-21-23
PROJECT ID	107408
SHEET	298
TOTAL	1068

- ① EXISTING INLET (DR-84)  
(TO REMAIN OPERATIONAL)
- ② TEMPORARY 40' - 12" CONDUIT, TYPE B,  
AS PER PLAN @ 5.50%
- ③ EXISTING INLET (DR- 86)  
(TO REMAIN OPERATIONAL)
- ④ TEMPORARY 50' 12" CONDUIT TYPE B,  
AS PER PLAN @ 5.77%



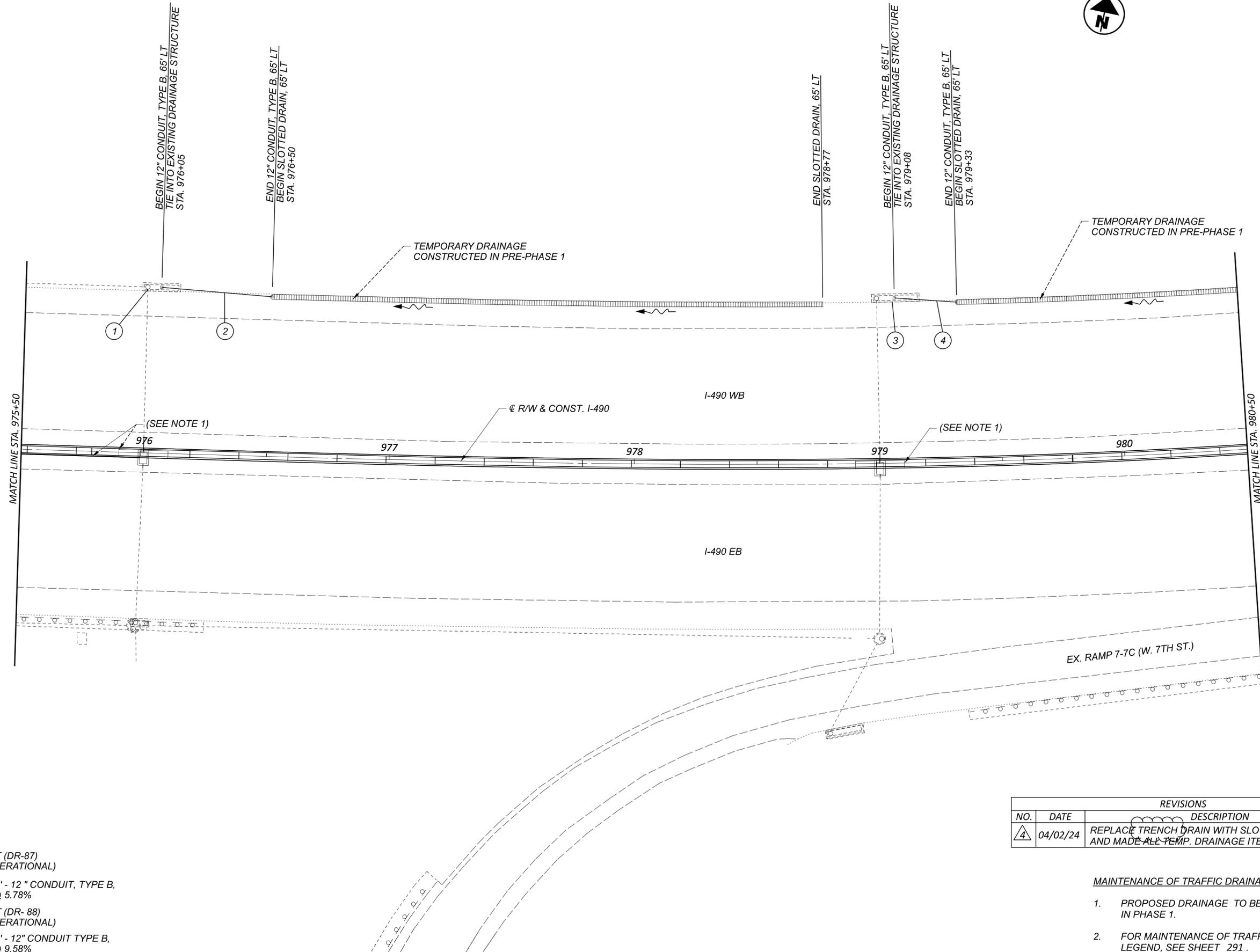
REVISIONS		
NO.	DATE	DESCRIPTION
4	04/02/24	REPLACE TRENCH DRAIN WITH SLOTTED DRAIN AND MADE ALL TEMP. DRAINAGE ITEMS "AS PER PLAN"

- MAINTENANCE OF TRAFFIC DRAINAGE NOTES:**
- PROPOSED DRAINAGE TO BE CONSTRUCTED IN PHASE 1.
  - FOR MAINTENANCE OF TRAFFIC DRAINAGE LEGEND, SEE SHEET 291.

**MAINTENANCE OF TRAFFIC - TEMPORARY DRAINAGE - PRE-PHASE 1 & PHASE 1**  
**I-490 - STA. 970+50 TO STA. 975+50**

DESIGN AGENCY	
DESIGNER	
KRM	
REVIEWER	
AKF 11-21-23	
PROJECT ID	
107408	
SHEET	TOTAL
299	1068

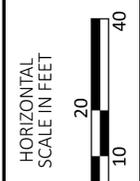
- ① EXISTING INLET (DR-87)  
(TO REMAIN OPERATIONAL)
- ② TEMPORARY 45' - 12" CONDUIT, TYPE B,  
AS PER PLAN @ 5.78%
- ③ EXISTING INLET (DR- 88)  
(TO REMAIN OPERATIONAL)
- ④ TEMPORARY 26' - 12" CONDUIT TYPE B,  
AS PER PLAN @ 9.58%



REVISIONS		
NO.	DATE	DESCRIPTION
4	04/02/24	REPLACE TRENCH DRAIN WITH SLOTTED DRAIN AND MADE ALL TEMP. DRAINAGE ITEMS "AS PER PLAN"

**MAINTENANCE OF TRAFFIC DRAINAGE NOTES:**

1. PROPOSED DRAINAGE TO BE CONSTRUCTED IN PHASE 1.
2. FOR MAINTENANCE OF TRAFFIC DRAINAGE LEGEND, SEE SHEET 291.



**MAINTENANCE OF TRAFFIC - TEMPORARY DRAINAGE - PRE-PHASE 1 & PHASE 1**  
 I-490 - STA. 975+50 TO STA. 980+50

DESIGN AGENCY

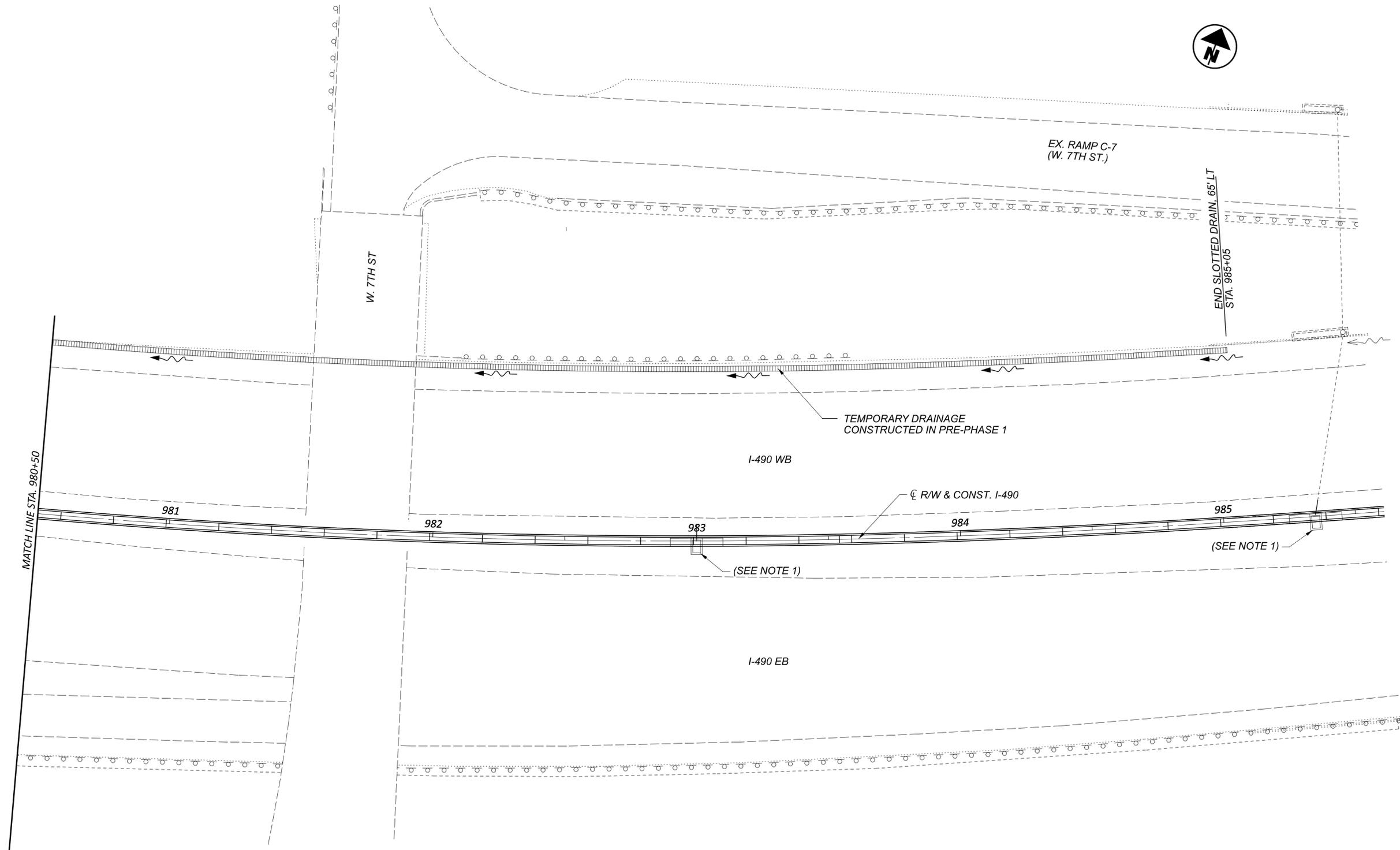


DESIGNER  
KRM

REVIEWER  
AKF 11-21-23

PROJECT ID  
107408

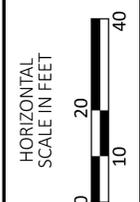
SHEET	TOTAL
300	1068



REVISIONS		
NO.	DATE	DESCRIPTION
4	04/02/24	REPLACE TRENCH DRAIN WITH SLOTTED DRAIN AND MAKE ALL TEMP. DRAINAGE ITEMS "AS PER PLAN"

**MAINTENANCE OF TRAFFIC DRAINAGE NOTES:**

1. PROPOSED DRAINAGE TO BE CONSTRUCTED IN PHASE 1.
2. FOR MAINTENANCE OF TRAFFIC DRAINAGE LEGEND, SEE SHEET 291.



**MAINTENANCE OF TRAFFIC - TEMPORARY DRAINAGE - PRE-PHASE 1 & PHASE 1  
 I-490 - STA. 980+50 TO STA. 985+50**

DESIGN AGENCY



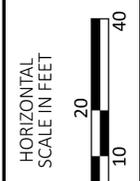
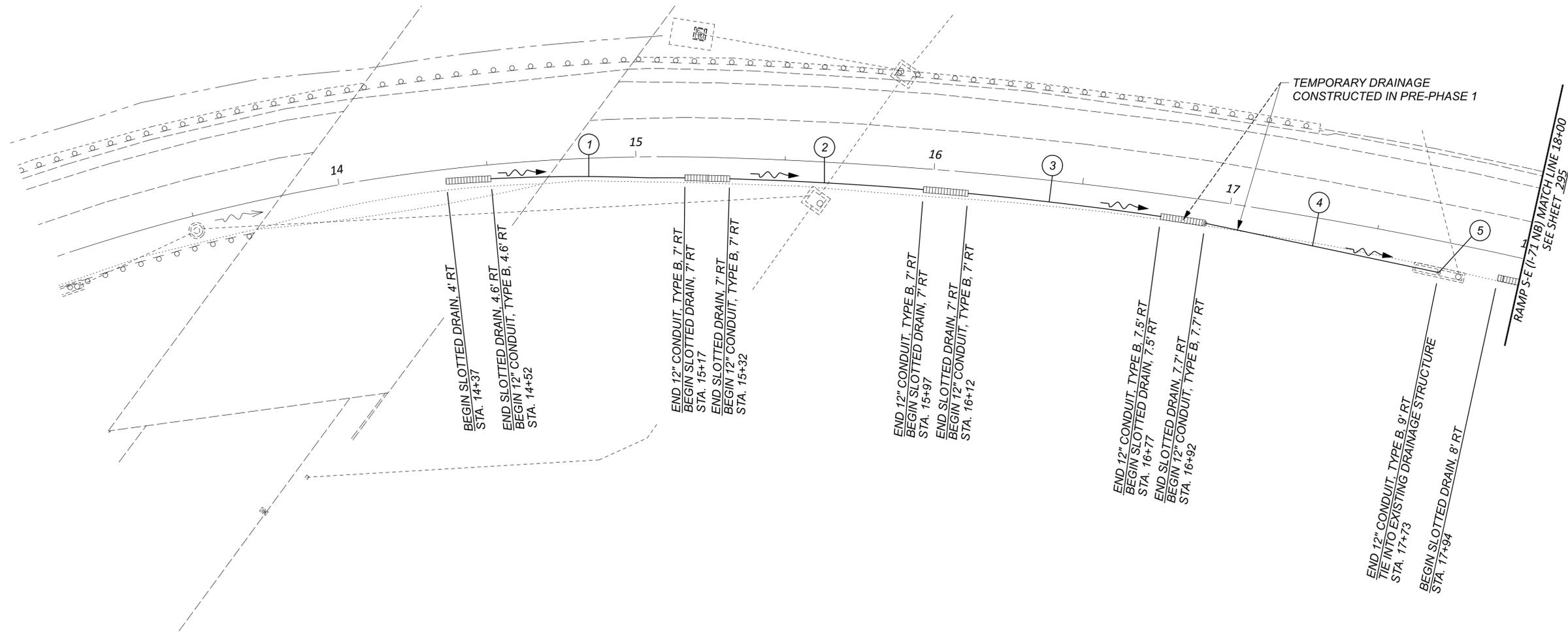
DESIGNER  
KRM

REVIEWER  
AKF 11-21-23

PROJECT ID  
107408

SHEET	TOTAL
301	1068

- ① TEMPORARY 65' -12" CONDUIT, TYPE B, AS PER PLAN
- ② TEMPORARY 65' -12" CONDUIT, TYPE B, AS PER PLAN
- ③ TEMPORARY 65' -12" CONDUIT, TYPE B, AS PER PLAN
- ④ TEMPORARY 80' -12" CONDUIT, TYPE B AS PER PLAN @ 5.43%
- ⑤ EXISTING INLET (DR-66) (TO REMAIN OPERATIONAL)



**MAINTENANCE OF TRAFFIC - TEMPORARY DRAINAGE - PRE-PHASE 1 & PHASE 1**  
**RAMP S-E (I-71 NB) - BEGIN TO STA. 18+00**

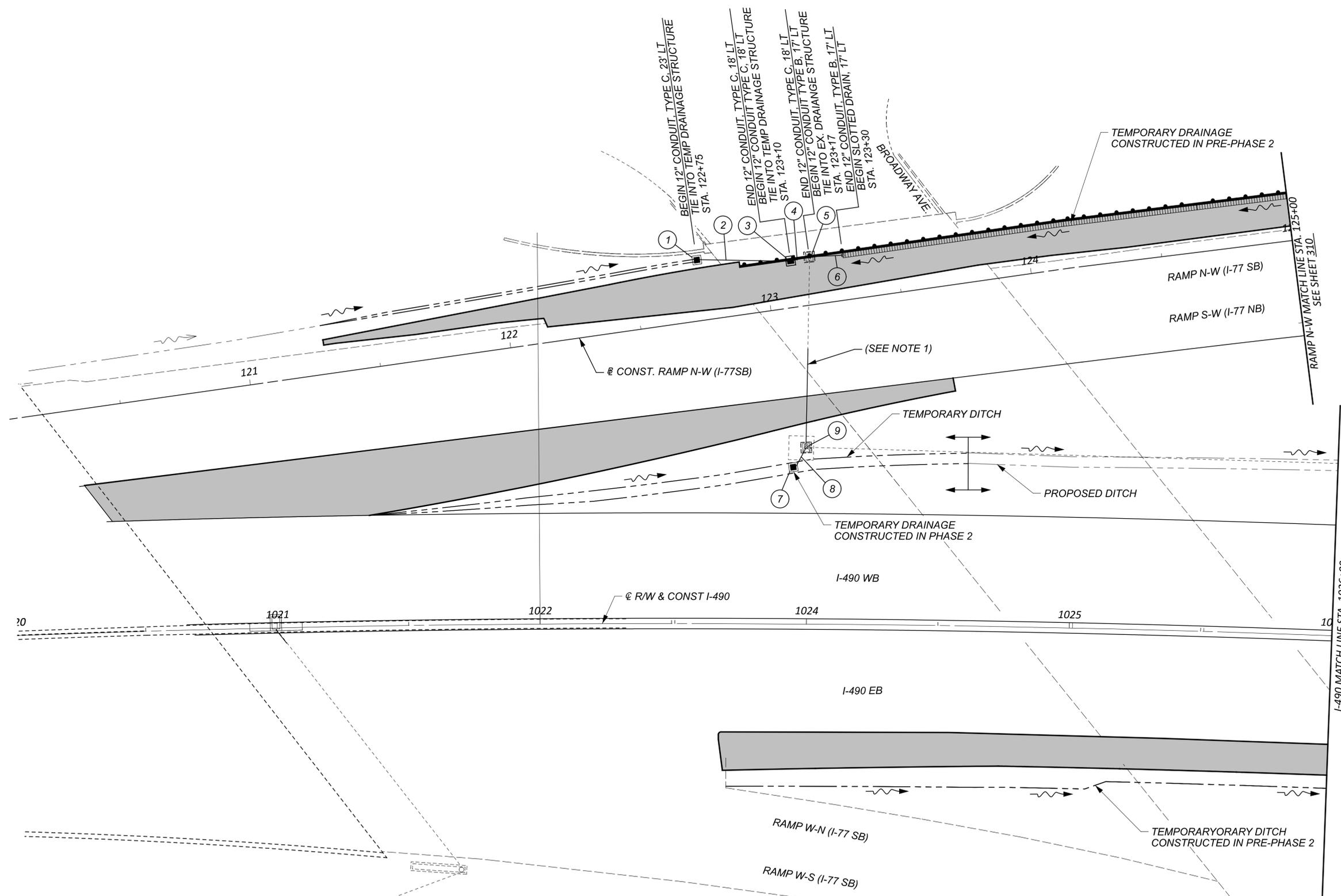
REVISIONS		
NO.	DATE	DESCRIPTION
④	04/02/24	REPLACE TRENCH DRAIN WITH SLOTTED DRAIN AND MAKE ALL TEMP. DRAINAGE ITEMS "AS PER PLAN"

- MAINTENANCE OF TRAFFIC DRAINAGE NOTES:**
- PROPOSED DRAINAGE TO BE CONSTRUCTED IN PHASE 1.
  - FOR MAINTENANCE OF TRAFFIC DRAINAGE LEGEND, SEE SHEET 291.

DESIGN AGENCY



DESIGNER  
**KRM**  
 REVIEWER  
**AKF 11-21-23**  
 PROJECT ID  
**107408**  
 SHEET TOTAL  
**302 1068**

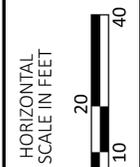


- ① TEMPORARY CB-2-2B STA. 122+75, 23' LT (@ CONST. RAMP N-W (I-77 SB))
- ② TEMPORARY 34' - 12" CONDUIT TYPE C, AS PER PLAN @ 4.11%
- ③ TEMPORARY CB-3A STA. 123+10, 18' LT (@ CONST. RAMP N-W (I-77 SB))
- ④ TEMPORARY 6' - 12" CONDUIT TYPE C, AS PER PLAN @ 2.00%
- ⑤ EXISTING INLET (DR-115) (TO BE PLATED IN PRE-PHASE 2)
- ⑥ TEMPORARY 13' - 12" CONDUIT, TYPE B AS PER PLAN @ 18.44%
- ⑦ TEMPORARY CB-2-2B STA. 123+00, 60' RT (@ CONST RAMP N-W (I-77 SB))
- ⑧ TEMPORARY 8' - 12" CONDUIT TYPE C, AS PER PLAN @ 6.16%
- ⑨ EXISTING INLET (DJ-106) (TO BE PLATED IN PHASE 2)

REVISIONS		
NO.	DATE	DESCRIPTION
4	04/02/24	REPLACE TRENCH DRAIN WITH SLOTTED DRAIN AND MAKE ALL TEMP. DRAINAGE ITEMS "AS PER PLAN"

**MAINTENANCE OF TRAFFIC DRAINAGE NOTES:**

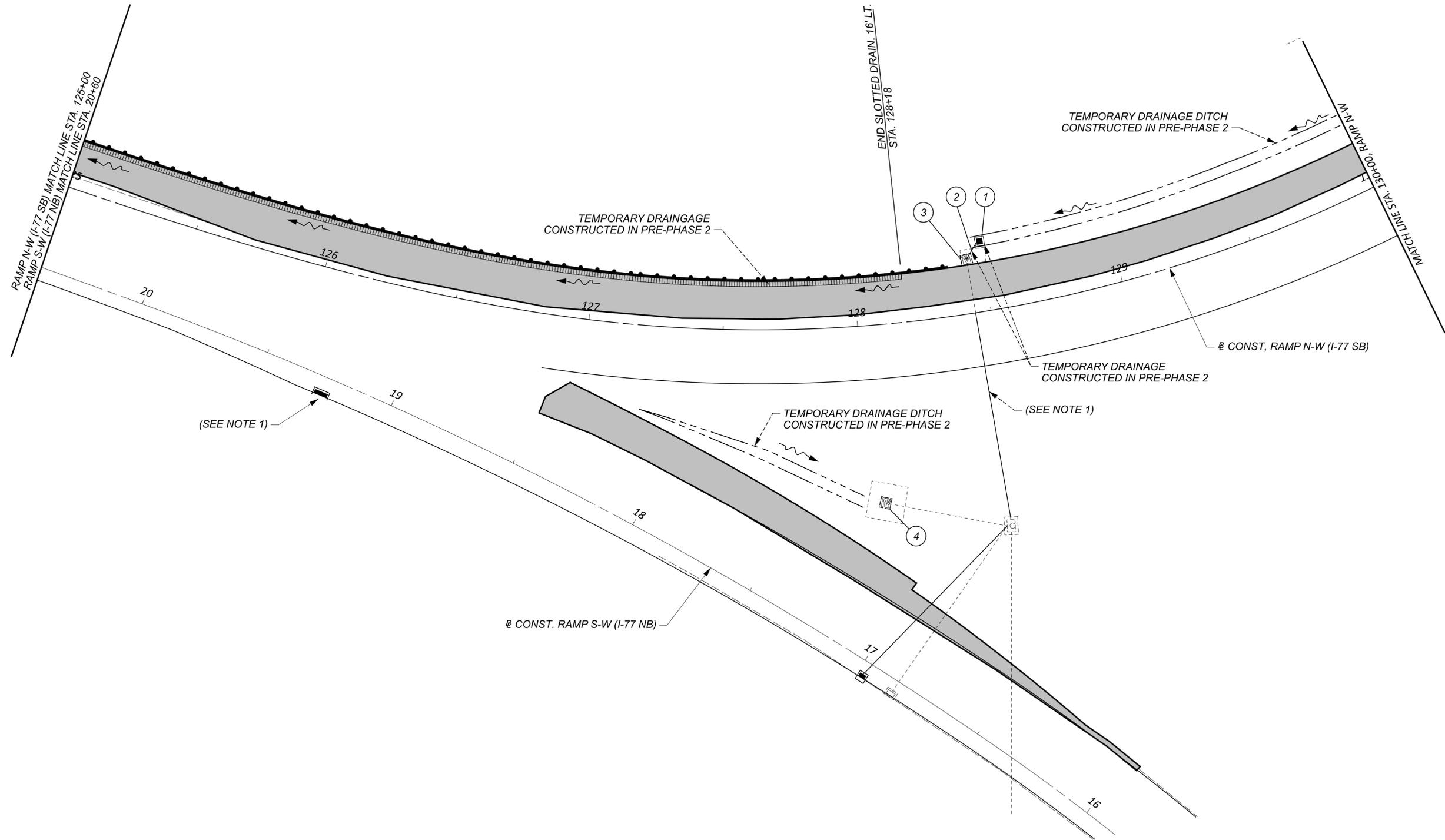
- PROPOSED DRAINAGE TO BE CONSTRUCTED PRIOR TO PHASE 2 AND PRE-PHASE 2.
- FOR MAINTENANCE OF TRAFFIC DRAINAGE LEGEND, SEE SHEET 291.



**MAINTENANCE OF TRAFFIC - TEMPORARY DRAINAGE - PRE-PHASE 2 & PHASE 2**  
**I-490 BEGIN TO 1026+00**

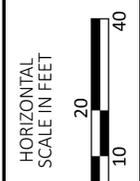
DESIGN AGENCY	
DESIGNER	
KRM	
REVIEWER	
AKF 11-21-23	
PROJECT ID	
107408	
SHEET	TOTAL
303	1068

- ① TEMPORARY CB-2-2B  
STA. 128+50, 26' LT  
(@ CONST. RAMP N-W (I-77SB))
- ② TEMPORARY 8' - 12" CONDUIT  
TYPE C, AS PER PLAN @ 6.35%
- ③ EXISTING INLET (DR-116)  
(TO BE PLATED IN PRE-PHASE 2)
- ④ EXISTING INLET (EX-11)  
(TO REMAIN OPERATIONAL)



REVISIONS		
NO.	DATE	DESCRIPTION
4	04/02/24	REPLACE TRENCH DRAIN WITH SLOTTED DRAIN AND MAKE ALL TEMP. DRAINAGE ITEMS "AS PER PLAN"

- MAINTENANCE OF TRAFFIC DRAINAGE NOTES:**
- PROPOSED DRAINAGE TO BE CONSTRUCTED PRIOR TO PHASE 2 AND PRE-PHASE 2.
  - FOR MAINTENANCE OF TRAFFIC DRAINAGE LEGEND, SEE SHEET 291.



MAINTENANCE OF TRAFFIC - TEMPORARY DRAINAGE - PRE-PHASE 2  
 RAMP N-W (I-77) STA. 125+00 TO STA. 130+00

DESIGN AGENCY



DESIGNER  
KRM

REVIEWER  
AKF 11-21-23

PROJECT ID  
107408

SHEET TOTAL  
310 1068

SHEET NUM.										PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE CALCS	59	457	459							01/IMS/04	EXT	TOTAL				
	LS									LS	201	11000	LS		CLEARING AND GRUBBING	50
		146,031								LS	202	23000	146,038	SY	PAVEMENT REMOVED	51
		1,225									202	30000	1,225	SF	WALK REMOVED	
		9									9	202	30600	SY	CONCRETE MEDIAN REMOVED	
		8,796									8,796	202	30700	FT	CONCRETE BARRIER REMOVED	
		140									140	202	30800	SY	TRAFFIC ISLAND REMOVED	
		17,483									17,483	202	32000	FT	CURB REMOVED	
		7,908									7,908	202	35100	FT	PIPE REMOVED, 24" AND UNDER	
		257									257	202	35200	FT	PIPE REMOVED, OVER 24"	
		13,152									13,152	202	38000	FT	GUARDRAIL REMOVED	
		2									2	202	47800	EACH	IMPACT ATTENUATOR REMOVED	
		13									13	202	58000	EACH	MANHOLE REMOVED	
		28									28	202	58100	EACH	CATCH BASIN REMOVED	
		61									61	202	58200	EACH	INLET REMOVED	
			163								163	SPECIAL	20270110	FT	PIPE CLEANOUT, 24" AND UNDER	55
			798								798	SPECIAL	20270120	FT	PIPE CLEANOUT, 27" TO 48"	55
		10,034									10,034	202	75000	FT	FENCE REMOVED	
	70,616										70,616	203	10000	CY	EXCAVATION	
	2,931										2,931	203	20000	CY	EMBANKMENT	
		750									750	203	35120	CY	GRANULAR MATERIAL, TYPE C	
	2,111	205									2,316	204	10000	SY	SUBGRADE COMPACTION	51
	1,056										1,056	204	21000	CY	GRANULAR EMBANKMENT	51
	80										80	204	45000	HOUR	PROOF ROLLING	51
	1,056										1,056	204	13000	CY	EXCAVATION OF SUBGRADE	51
4,356											4,356	206	10500	TON	CEMENT	
144,043											144,043	206	11000	SY	CURING COAT	
144,043											144,043	206	15020	SY	CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	
LS											LS	206	30000	LS	MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS	
145											145	209	15001	STA	RESHAPING UNDER GUARDRAIL, AS PER PLAN	52
		12,078									12,078	606	15050	FT	GUARDRAIL, TYPE MGS	
		125									125	606	15150	FT	GUARDRAIL, TYPE MGS HALF POST SPACING	
		2									2	606	26050	EACH	ANCHOR ASSEMBLY, MGS TYPE B	52
		23									23	606	26150	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	52
		16									16	606	26550	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
		26									26	606	35002	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
		11									11	606	35102	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
		1									1	606	60050	EACH	IMPACT ATTENUATOR, TYPE 3 (BIDIRECTIONAL) (72" WIDTH)	52
		11,119									11,119	607	23000	FT	FENCE, TYPE CLT	
		11,119									11,119	607	70000	FT	FENCELINE SEEDING AND MULCHING	
		1,152									1,152	608	10000	SF	4" CONCRETE WALK	
		687									687	608	52000	SF	CURB RAMP	
720											720	622	10100	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B1	
		640									640	622	10120	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C	
		31									31	622	10121	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C, AS PER PLAN	52
4,910											4,910	622	10140	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1	
												622	10141	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1, AS PER PLAN	52
		712									712	622	10160	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
		78									78	622	10161	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN	52
		3									1	622	10200	EACH	BARRIER TRANSITION	
											3	622	24840	EACH	CONCRETE BARRIER END SECTION, TYPE B	
											1	622	24850	EACH	CONCRETE BARRIER END SECTION, TYPE B1	
		14									14	622	25000	EACH	CONCRETE BARRIER END SECTION, TYPE D	
		2									2	622	25001	EACH	CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN	52
											6	622	25006	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B1	
		1									1	622	25009	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE C, AS PER PLAN	53

REVISIONS		
NO.	DATE	DESCRIPTION
2	02/29/24	UPDATED EARTHWORK QUANTITIES
3	03/18/24	EXCAVATION OF SUBGRADE QUANTITY ADDED. UPDATED QUANTITIES FOR PAVEMENT REMOVED; BARRIER REMOVED; CURB REMOVED; CONCRETE BARRIER, SINGLE SLOPE, TYPE C1; BARRIER TRANSITION; AND CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B1.
4	04/04/24	UPDATED SUBGRADE TREATMENT QUANTITIES
6	04/09/24	UPDATED PAVEMENT REMOVED, BARRIER TRANSITION, AND CONCRETE BARRIER, SINGLE SLOPE, TYPE C1 QUANTITIES. ADDED ITEM AND QUANTITY FOR MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS

GENERAL SUMMARY

DESIGN AGENCY  
  
 DESIGNER  
 JAN  
 REVIEWER  
 PJF 11-21-23  
 PROJECT ID  
 107408  
 SHEET TOTAL  
 452 1068

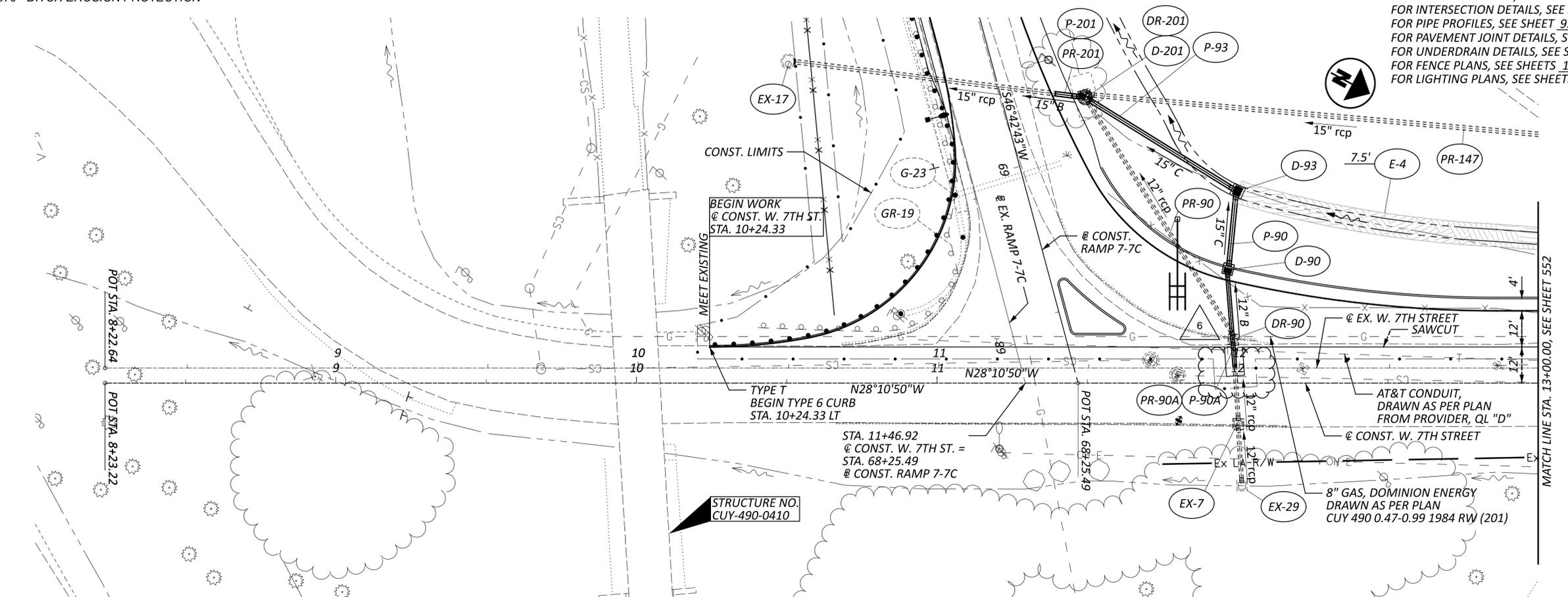
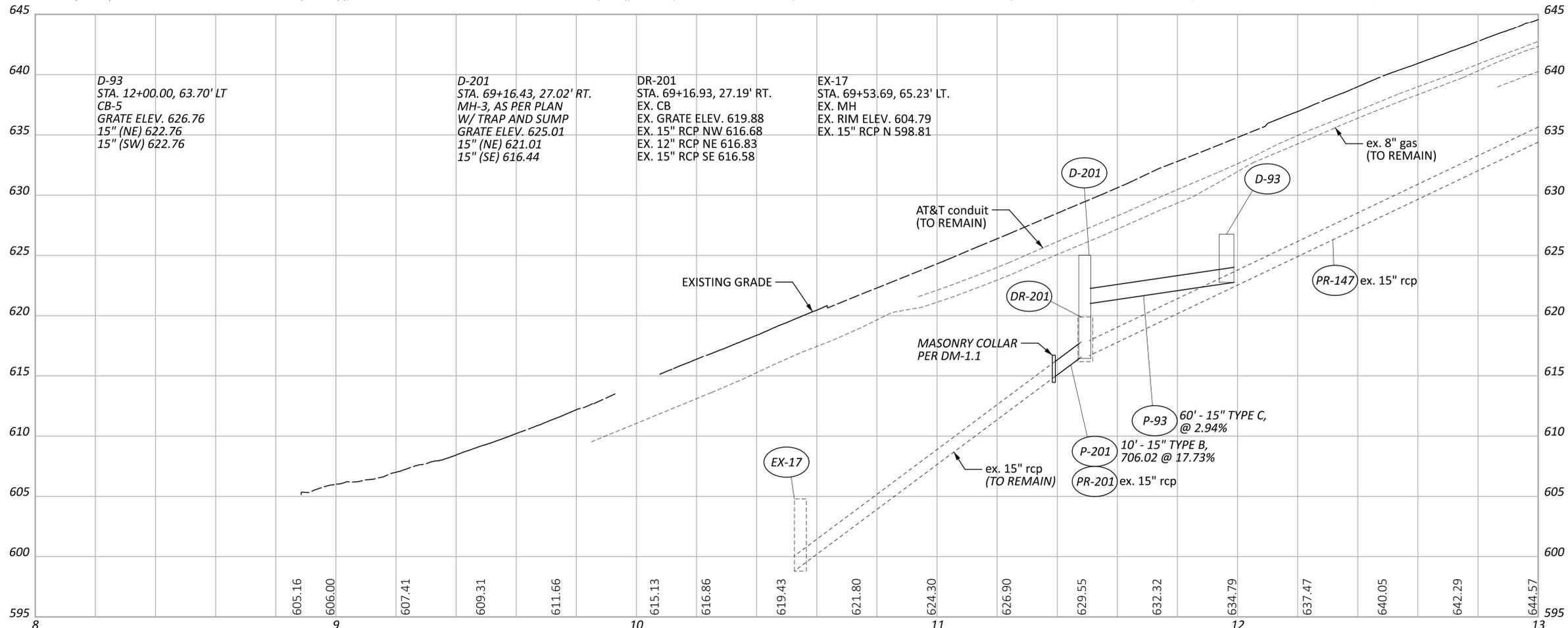


**CUY-490-0.00 PART 1**

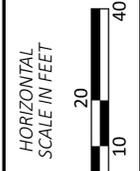
MODEL: CLP\_W7TH - Plan 20 PAPER SIZE: 34x22 (in.) DATE: 4/9/2024 TIME: 12:49:25 PM USER: pfr  
 O:\Clients\ORD\2021\107408\400-Engineering\Roadway\Sheets\107408\_GP201.dgn

REVISIONS	
NO.	DATE DESCRIPTION
6	04/09/24 CONSTRUCTION LIMITS UPDATED FOR PAVEMENT RESTORATION WORK

ITEM 670 - DITCH EROSION PROTECTION



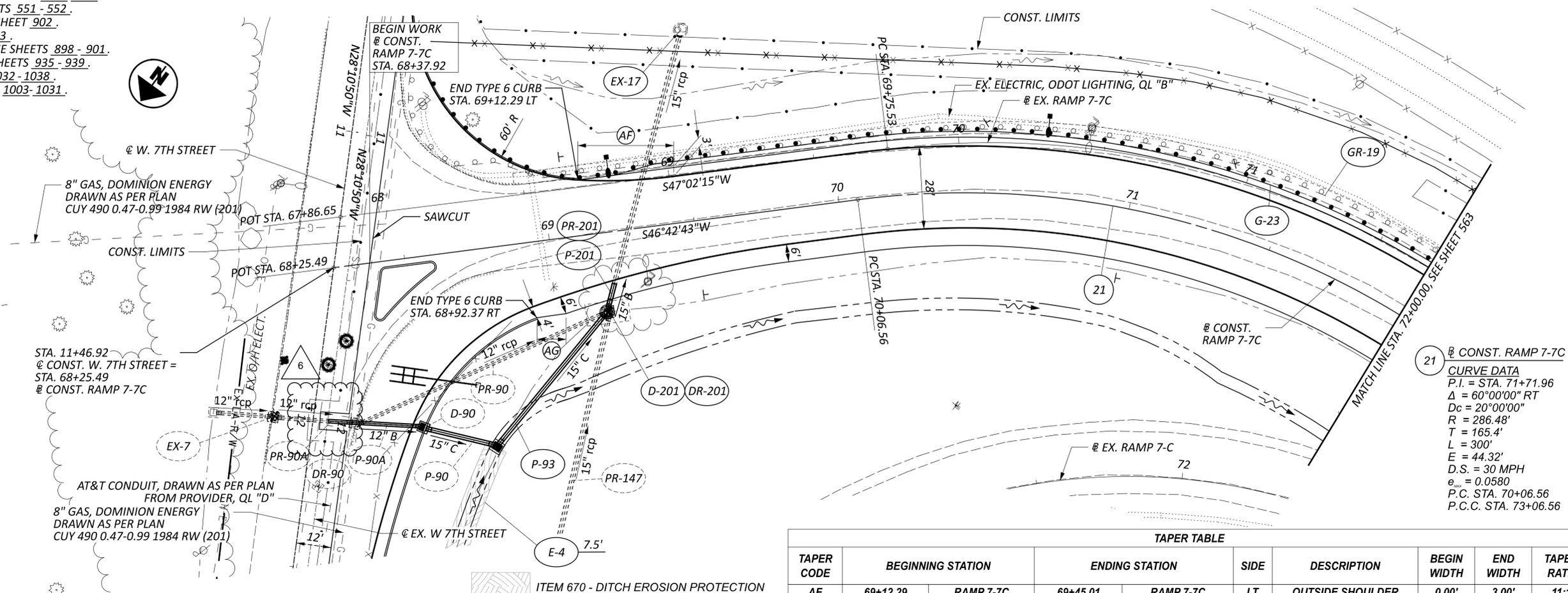
FOR ESTIMATED QUANTITIES, SEE SHEETS 461 - 488.  
 FOR RAMP 7-7C PLANS, SEE SHEET 528.  
 FOR INTERSECTION DETAILS, SEE SHEET 902.  
 FOR PIPE PROFILES, SEE SHEET 933.  
 FOR PAVEMENT JOINT DETAILS, SEE SHEETS 898 - 901.  
 FOR UNDERDRAIN DETAILS, SEE SHEETS 935 - 939.  
 FOR FENCE PLANS, SEE SHEETS 1032 - 1038.  
 FOR LIGHTING PLANS, SEE SHEETS 1003 - 1031



**PLAN & PROFILE - W. 7TH STREET  
 BEGIN TO STA. 13+00.00**

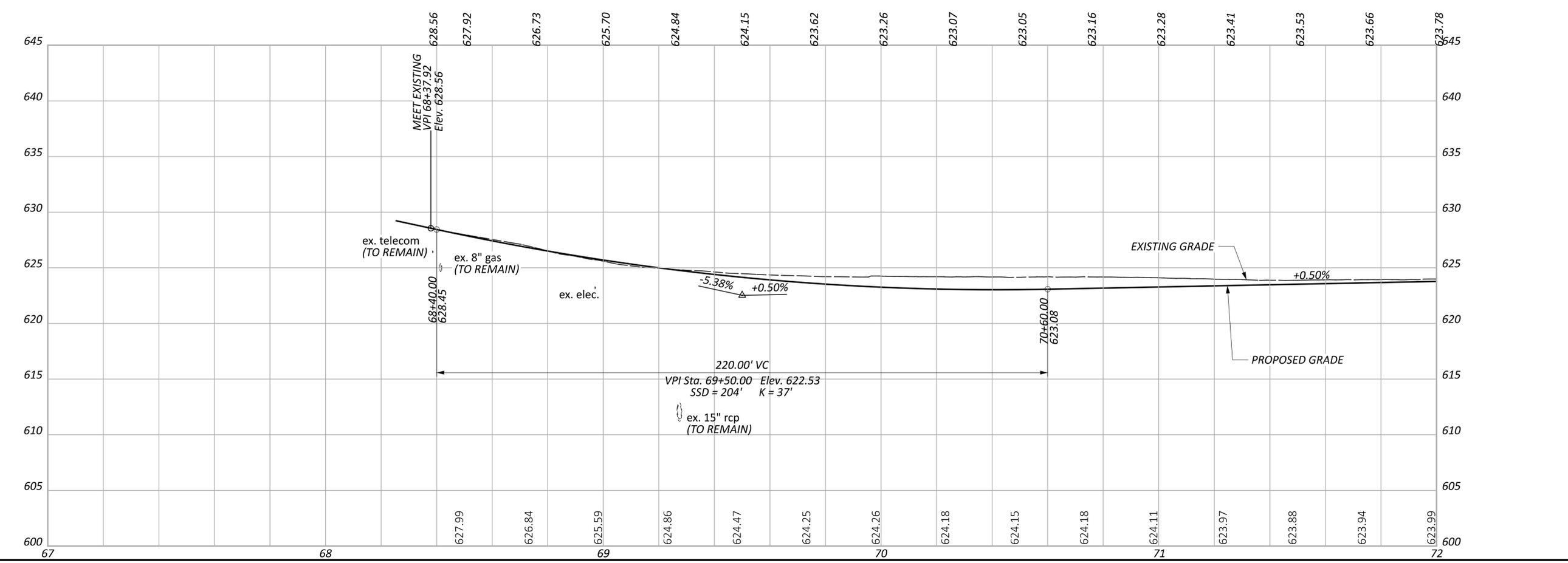
DESIGN AGENCY	NRB
DESIGNER	NRB
REVIEWER	PJF 11-21-23
PROJECT ID	107408
SHEET	551
TOTAL	1068

FOR ESTIMATED QUANTITIES, SEE SHEETS 461 - 488 .  
 FOR 7TH STREET PLANS, SEE SHEETS 551 - 552 .  
 FOR INTERSECTION DETAILS, SEE SHEET 902 .  
 FOR PIPE PROFILES, SEE SHEET 933 .  
 FOR PAVEMENT JOINT DETAILS, SEE SHEETS 898 - 901 .  
 FOR UNDERDRAIN DETAILS, SEE SHEETS 935 - 939 .  
 FOR FENCE PLANS, SEE SHEETS 1032 - 1038 .  
 FOR LIGHTING PLANS, SEE SHEETS 1003 - 1031 .



21 @ CONST. RAMP 7-7C  
**CURVE DATA**  
 P.I. = STA. 71+71.96  
 $\Delta = 60^{\circ}00'00''$  RT  
 $D_c = 20^{\circ}00'00''$   
 $R = 286.48'$   
 $T = 165.4'$   
 $L = 300'$   
 $E = 44.32'$   
 $D.S. = 30$  MPH  
 $e_{max} = 0.0580$   
 $P.C. STA. 70+06.56$   
 $P.C.C. STA. 73+06.56$

TAPER TABLE									
TAPER CODE	BEGINNING STATION		ENDING STATION		SIDE	DESCRIPTION	BEGIN WIDTH	END WIDTH	TAPER RATE
AF	69+12.29	RAMP 7-7C	69+45.01	RAMP 7-7C	LT	OUTSIDE SHOULDER	0.00'	3.00'	11:1
AG	68+92.37	RAMP 7-7C	69+02.45	RAMP 7-7C	RT	INSIDE SHOULDER	4.00'	6.00'	5:1

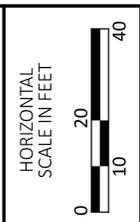


CUY-490-0.00 PART 1

MODEL: BLP\_RW777C - Plan 13 PAPER SIZE: 34x42 (in.) DATE: 4/9/2024 TIME: 12:36:14 PM USER: pfrj  
 O:\Clients\ORD\2021\2021089\107408\400-Engineering\Roadway\Sheets\107408\_GP111.dgn

REVISIONS	
NO.	DATE
6	04/09/24

DESCRIPTION  
 CONSTRUCTION LIMITS  
 UPDATED FOR PAVEMENT  
 RESTORATION WORK



PLAN & PROFILE - RAMP 7-7C  
 BEGIN TO STA. 72+00.00

DESIGN AGENCY

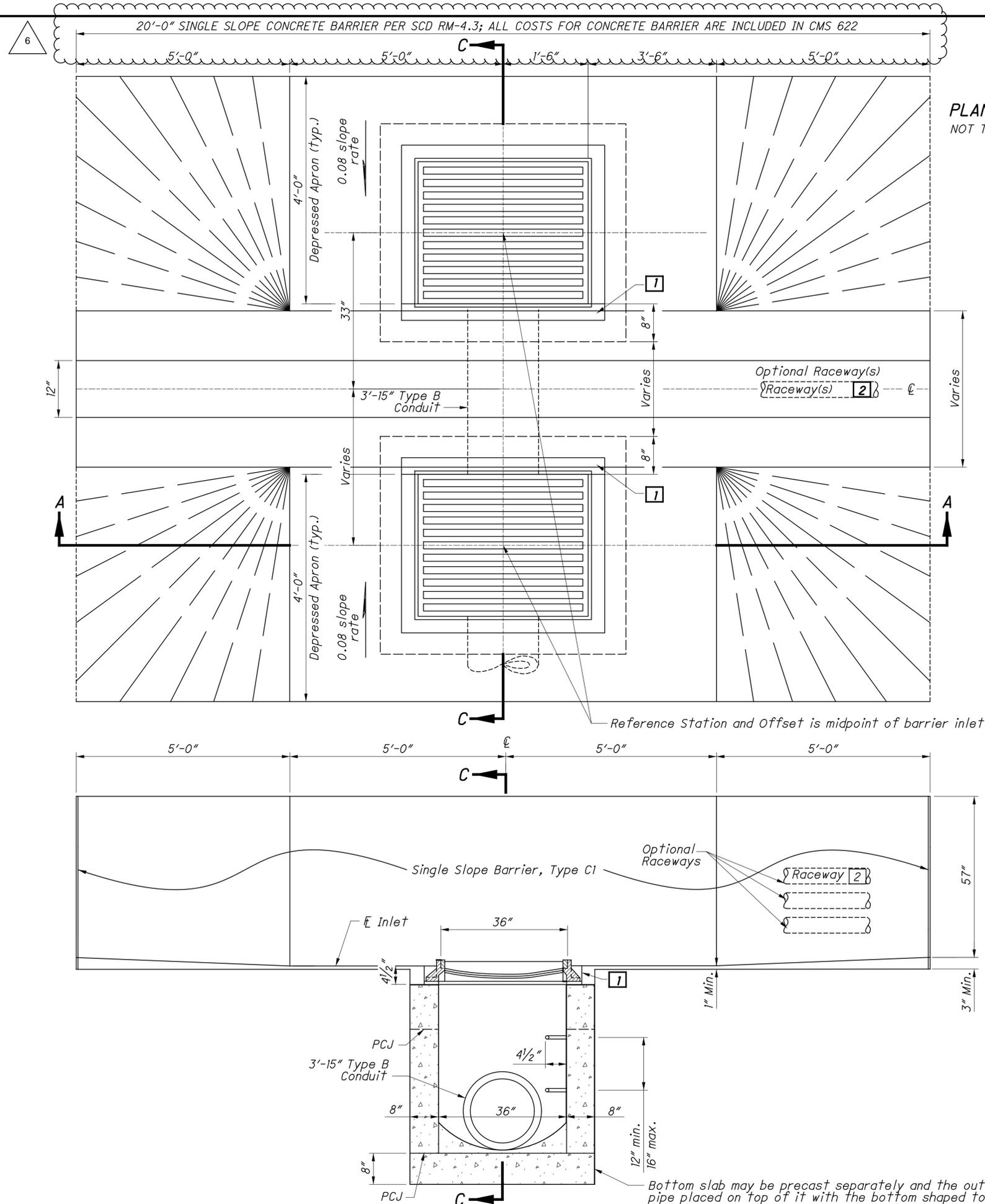


DESIGNER  
 NRB

REVIEWER  
 PJF 11-21-23

PROJECT ID  
 107408

SHEET TOTAL  
 562 1068



20'-0" SINGLE SLOPE CONCRETE BARRIER PER SCD RM-4.3; ALL COSTS FOR CONCRETE BARRIER ARE INCLUDED IN CMS 622

PLAN VIEW  
NOT TO SCALE

SECTION A-A  
NOT TO SCALE

NOTES

- GENERAL:** For details of Single Slope Concrete Barriers, see SCD RM-4.3.
- WALLS:** The walls between the bottom slab and the upper permissible construction joint may be built of brick, concrete block or cast-in-place concrete, 8" nominal 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 upper permissible construction joint may be precast or cast-in-place.
- CONCRETE:** Provide 4000 psi compressive strength concrete for cast-in-place structures. When precast, provide concrete that meets 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.
- CASTINGS:** Minimum weight of frame and cover is 540 lbs. See SCD I-3C, I-3C1 for CASTING DETAILS.
- 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.
- INLETS OVER 12 FEET IN DEPTH:** Provide precast or cast-in-place concrete for inlets over 12 feet in depth. Reinforce with #5 bars on 12" centers both vertically and horizontally with 2" clearance from the inside wall face.
- OPENINGS:** Pipe openings are the outside diameter of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.
- PCJ:** Permissible construction joint.
- STEPS:** Provide steps that conform to the material requirements of CMS 611 and have a depressed tread or a 1/2" minimum cleat height at the ends.
- Embed steps installed in fresh concrete at least 4" deep. Embed steps installed in mortar joints at least 7" deep.
- Friction-fit steps meeting the requirements of CMS 711.31 with rebar may be used in precast manholes. Do not allow the receiving holes for friction-fit steps to penetrate the manhole walls.
- The Engineer may require the contractor to test load a maximum of one step per manhole to a proof load of 400 lbs. in direct pull. Meet the approval of the Engineer with the equipment and method used. If the selected step fails the pull-out test, also test the remaining steps in that manhole. Remove all steps not passing the pull-out test, and install and test a new step to the satisfaction of the Engineer.
- See SCD MH-1 for Step Details

SEE SHEET 2 FOR OTHER SECTIONS

LEGEND

- 1 After casting is placed, fill void with 4000 psi compressive strength concrete.
- 2 4" electrical raceway. See Sheet 2 for Raceway Placement Details.

REVISIONS		
NO.	DATE	DESCRIPTION
6	04/09/24	REVISED DETAIL TO NOTE CONCRETE BARRIER NOT INCLUDED WITH INLETS

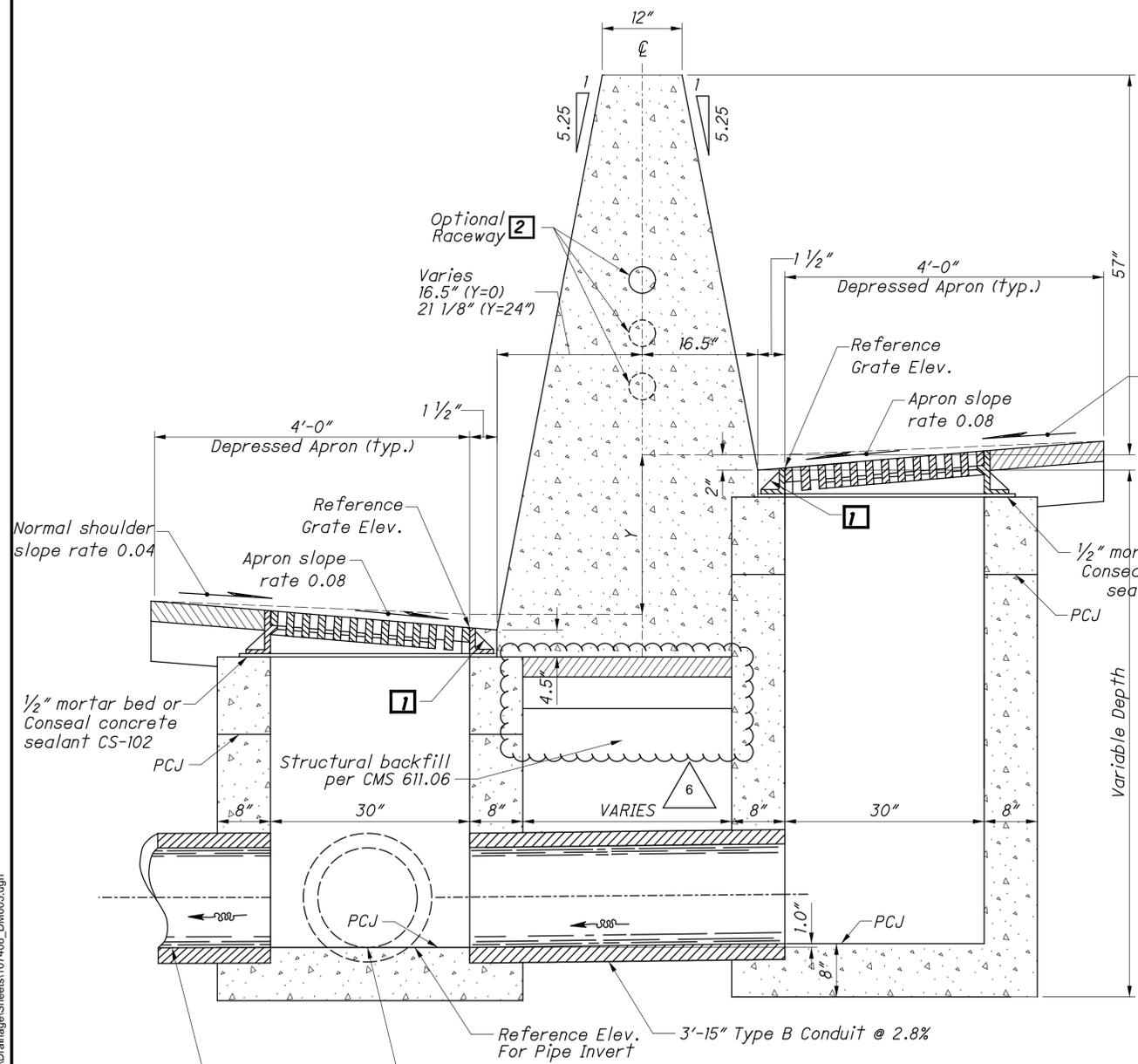
DRAINAGE DETAILS - INLET, NO. 6 FOR SINGLE SLOPE BARRIER, TYPE C1

DESIGN AGENCY  
  
 DESIGNER: LRK  
 REVIEWER: PJF  
 PROJECT ID: 107408  
 SHEET: 940 TOTAL: 1068

FOR NOTES, LEGEND, PLAN,  
AND SECTION A-A,  
SEE SHEET 1.

CUY-490-0.00 PART 1

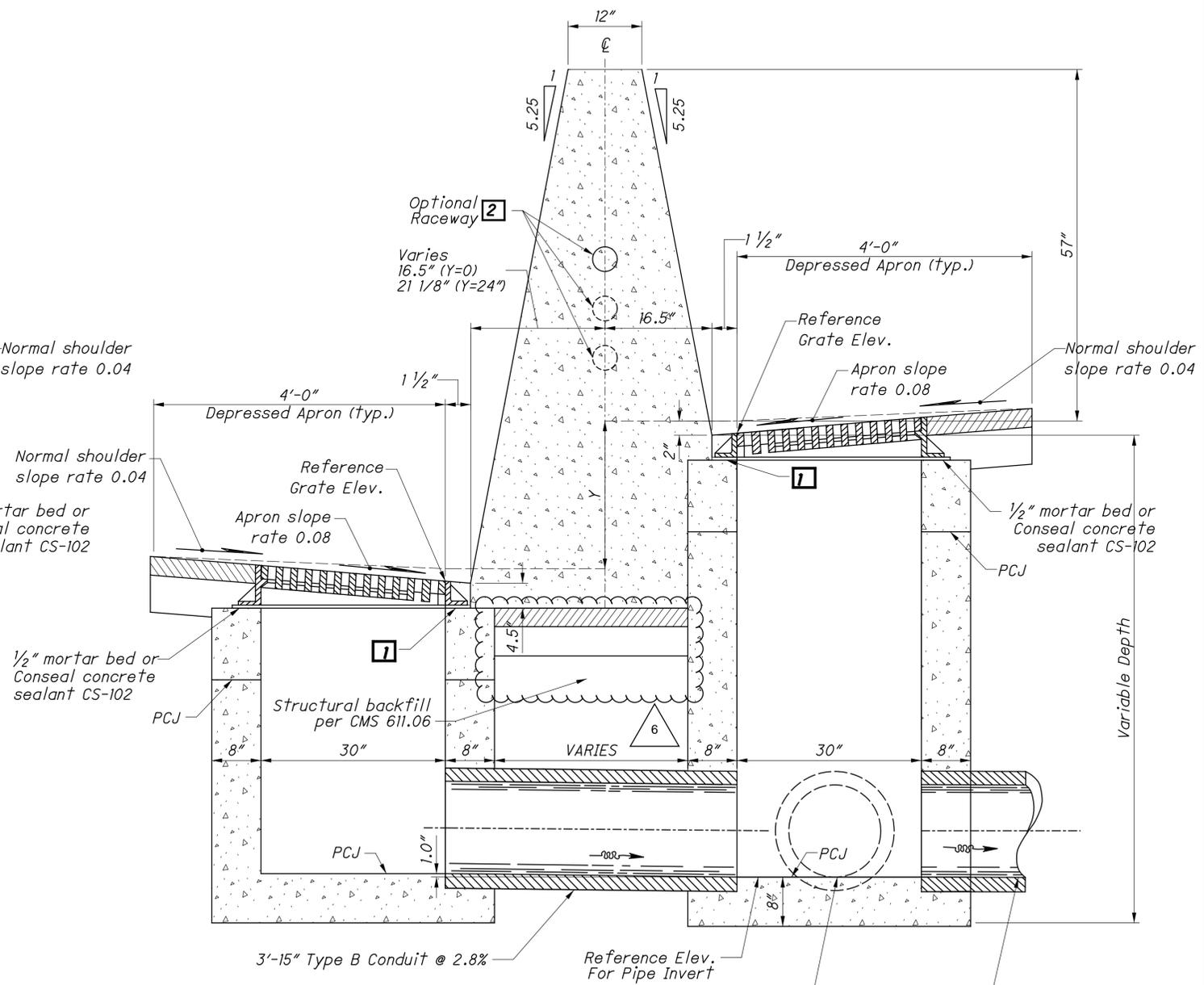
MODEL: Sheet PAPER: 34x22 (in.) DATE: 4/9/2024 TIME: 5:24:43 PM USER: pfrj  
C:\Clients\ORD\2021\2021089\107408\Engineering\Drainage\Sheets\107408\_DM003.dgn



**SECTION C-C**  
OUTLET TO LOW SIDE  
NOT TO SCALE

For longitudinal pipe installations, connect downstream end to drainage structure on the same side as the outlet pipe.

Outlet pipe, see plans for size and invert (reverse side as necessary, as shown on plan)



**SECTION C-C**  
OUTLET TO HIGH SIDE  
NOT TO SCALE

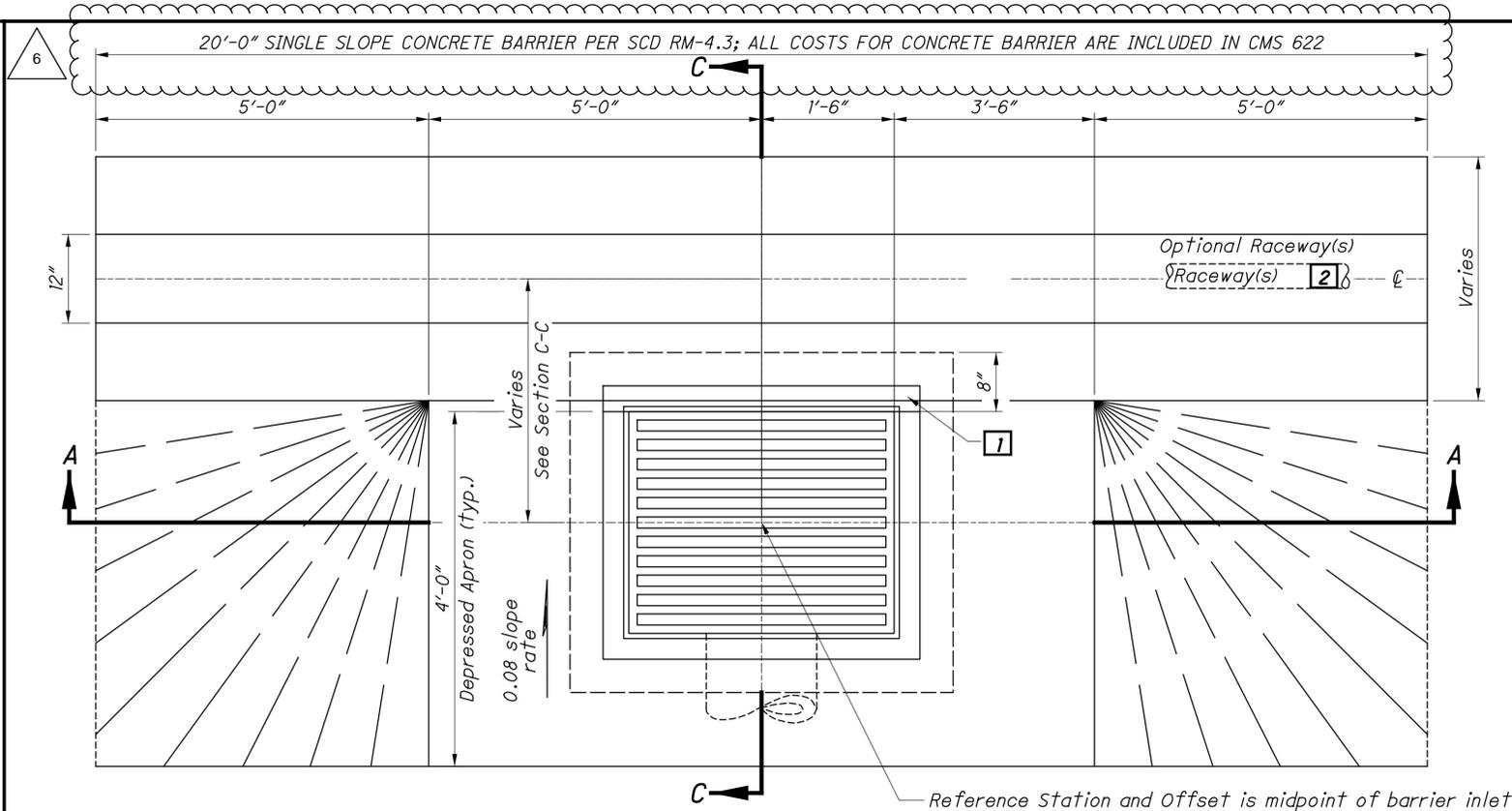
For longitudinal pipe installations, connect downstream end to drainage structure on the same side as the outlet pipe.

Outlet pipe, see plans for size and invert (reverse side as necessary, as shown on plan)

REVISIONS		
NO.	DATE	DESCRIPTION
6	04/09/24	REVISED DETAIL TO NOTE CONCRETE BARRIER NOT INCLUDED WITH INLETS

DESIGN AGENCY	GPD GROUP	
DESIGNER	LRK	
REVIEWER	PJF	
PROJECT ID	107408	
SHEET	941	TOTAL 1068

DRAINAGE DETAILS - INLET, NO. 6 FOR SINGLE SLOPE BARRIER, TYPE C1



PLAN VIEW  
NOT TO SCALE

NOTES

**GENERAL:** For details of Single Slope Concrete Barriers, see SCD RM-4.3.

**WALLS:** The walls between the bottom slab and the upper permissible construction joint may be built of brick, concrete block or cast-in-place concrete, 8" nominal 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 upper permissible construction joint may be precast or cast-in-place.

**CONCRETE:** Provide 4000 psi compressive strength concrete for cast-in-place structures. When precast, provide concrete that meets 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.

**CASTINGS:** Minimum weight of frame and cover is 540 lbs. See SCD I-3B, I-3B1; SCD I-3C, I-3C1; OR SCD I-3D for CASTING DETAILS.

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.

**INLETS OVER 12 FEET IN DEPTH:** Provide precast or cast-in-place concrete for inlets over 12 feet in depth. Reinforce with #5 bars on 12" centers both vertically and horizontally with 2" clearance from the inside wall face.

**OPENINGS:** Pipe openings are the outside diameter of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.

**PCJ:** Permissible construction joint.

**STEPS:** Provide steps that conform to the material requirements of CMS 611 and have a depressed tread or a 1/2" minimum cleat height at the ends.

Embed steps installed in fresh concrete at least 4" deep. Embed steps installed in mortar joints at least 7" deep.

Friction-fit steps meeting the requirements of CMS 711.31 with rebar may be used in precast manholes. Do not allow the receiving holes for friction-fit steps to penetrate the manhole walls.

The Engineer may require the contractor to test load a maximum of one step per manhole to a proof load of 400 lbs. in direct pull. Meet the approval of the Engineer with the equipment and method used. If the selected step fails the pull-out test, also test the remaining steps in that manhole. Remove all steps not passing the pull-out test, and install and test a new step to the satisfaction of the Engineer.

See SCD MH-1 for Step Details

**INLETS OVER 12 FEET IN DEPTH:** Provide precast or cast-in-place concrete for inlets over 12 feet in depth. Reinforce with #5 bars on 12" centers both vertically and horizontally with 2" clearance from the inside wall face.

**OPENINGS:** Pipe openings are the outside diameter of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.

**PCJ:** Permissible construction joint.

**STEPS:** Provide steps that conform to the material requirements of CMS 611 and have a depressed tread or a 1/2" minimum cleat height at the ends.

Embed steps installed in fresh concrete at least 4" deep. Embed steps installed in mortar joints at least 7" deep.

Friction-fit steps meeting the requirements of CMS 711.31 with rebar may be used in precast manholes. Do not allow the receiving holes for friction-fit steps to penetrate the manhole walls.

The Engineer may require the contractor to test load a maximum of one step per manhole to a proof load of 400 lbs. in direct pull. Meet the approval of the Engineer with the equipment and method used. If the selected step fails the pull-out test, also test the remaining steps in that manhole. Remove all steps not passing the pull-out test, and install and test a new step to the satisfaction of the Engineer.

See SCD MH-1 for Step Details

**INLETS OVER 12 FEET IN DEPTH:** Provide precast or cast-in-place concrete for inlets over 12 feet in depth. Reinforce with #5 bars on 12" centers both vertically and horizontally with 2" clearance from the inside wall face.

**OPENINGS:** Pipe openings are the outside diameter of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.

**PCJ:** Permissible construction joint.

**STEPS:** Provide steps that conform to the material requirements of CMS 611 and have a depressed tread or a 1/2" minimum cleat height at the ends.

Embed steps installed in fresh concrete at least 4" deep. Embed steps installed in mortar joints at least 7" deep.

Friction-fit steps meeting the requirements of CMS 711.31 with rebar may be used in precast manholes. Do not allow the receiving holes for friction-fit steps to penetrate the manhole walls.

The Engineer may require the contractor to test load a maximum of one step per manhole to a proof load of 400 lbs. in direct pull. Meet the approval of the Engineer with the equipment and method used. If the selected step fails the pull-out test, also test the remaining steps in that manhole. Remove all steps not passing the pull-out test, and install and test a new step to the satisfaction of the Engineer.

See SCD MH-1 for Step Details

**INLETS OVER 12 FEET IN DEPTH:** Provide precast or cast-in-place concrete for inlets over 12 feet in depth. Reinforce with #5 bars on 12" centers both vertically and horizontally with 2" clearance from the inside wall face.

**OPENINGS:** Pipe openings are the outside diameter of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.

**PCJ:** Permissible construction joint.

**STEPS:** Provide steps that conform to the material requirements of CMS 611 and have a depressed tread or a 1/2" minimum cleat height at the ends.

Embed steps installed in fresh concrete at least 4" deep. Embed steps installed in mortar joints at least 7" deep.

Friction-fit steps meeting the requirements of CMS 711.31 with rebar may be used in precast manholes. Do not allow the receiving holes for friction-fit steps to penetrate the manhole walls.

The Engineer may require the contractor to test load a maximum of one step per manhole to a proof load of 400 lbs. in direct pull. Meet the approval of the Engineer with the equipment and method used. If the selected step fails the pull-out test, also test the remaining steps in that manhole. Remove all steps not passing the pull-out test, and install and test a new step to the satisfaction of the Engineer.

See SCD MH-1 for Step Details

**INLETS OVER 12 FEET IN DEPTH:** Provide precast or cast-in-place concrete for inlets over 12 feet in depth. Reinforce with #5 bars on 12" centers both vertically and horizontally with 2" clearance from the inside wall face.

**OPENINGS:** Pipe openings are the outside diameter of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.

**PCJ:** Permissible construction joint.

**STEPS:** Provide steps that conform to the material requirements of CMS 611 and have a depressed tread or a 1/2" minimum cleat height at the ends.

Embed steps installed in fresh concrete at least 4" deep. Embed steps installed in mortar joints at least 7" deep.

Friction-fit steps meeting the requirements of CMS 711.31 with rebar may be used in precast manholes. Do not allow the receiving holes for friction-fit steps to penetrate the manhole walls.

The Engineer may require the contractor to test load a maximum of one step per manhole to a proof load of 400 lbs. in direct pull. Meet the approval of the Engineer with the equipment and method used. If the selected step fails the pull-out test, also test the remaining steps in that manhole. Remove all steps not passing the pull-out test, and install and test a new step to the satisfaction of the Engineer.

See SCD MH-1 for Step Details

**INLETS OVER 12 FEET IN DEPTH:** Provide precast or cast-in-place concrete for inlets over 12 feet in depth. Reinforce with #5 bars on 12" centers both vertically and horizontally with 2" clearance from the inside wall face.

**OPENINGS:** Pipe openings are the outside diameter of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.

**PCJ:** Permissible construction joint.

**STEPS:** Provide steps that conform to the material requirements of CMS 611 and have a depressed tread or a 1/2" minimum cleat height at the ends.

Embed steps installed in fresh concrete at least 4" deep. Embed steps installed in mortar joints at least 7" deep.

Friction-fit steps meeting the requirements of CMS 711.31 with rebar may be used in precast manholes. Do not allow the receiving holes for friction-fit steps to penetrate the manhole walls.

The Engineer may require the contractor to test load a maximum of one step per manhole to a proof load of 400 lbs. in direct pull. Meet the approval of the Engineer with the equipment and method used. If the selected step fails the pull-out test, also test the remaining steps in that manhole. Remove all steps not passing the pull-out test, and install and test a new step to the satisfaction of the Engineer.

See SCD MH-1 for Step Details

**INLETS OVER 12 FEET IN DEPTH:** Provide precast or cast-in-place concrete for inlets over 12 feet in depth. Reinforce with #5 bars on 12" centers both vertically and horizontally with 2" clearance from the inside wall face.

**OPENINGS:** Pipe openings are the outside diameter of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.

**PCJ:** Permissible construction joint.

**STEPS:** Provide steps that conform to the material requirements of CMS 611 and have a depressed tread or a 1/2" minimum cleat height at the ends.

Embed steps installed in fresh concrete at least 4" deep. Embed steps installed in mortar joints at least 7" deep.

Friction-fit steps meeting the requirements of CMS 711.31 with rebar may be used in precast manholes. Do not allow the receiving holes for friction-fit steps to penetrate the manhole walls.

The Engineer may require the contractor to test load a maximum of one step per manhole to a proof load of 400 lbs. in direct pull. Meet the approval of the Engineer with the equipment and method used. If the selected step fails the pull-out test, also test the remaining steps in that manhole. Remove all steps not passing the pull-out test, and install and test a new step to the satisfaction of the Engineer.

See SCD MH-1 for Step Details

**INLETS OVER 12 FEET IN DEPTH:** Provide precast or cast-in-place concrete for inlets over 12 feet in depth. Reinforce with #5 bars on 12" centers both vertically and horizontally with 2" clearance from the inside wall face.

**OPENINGS:** Pipe openings are the outside diameter of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.

**PCJ:** Permissible construction joint.

**STEPS:** Provide steps that conform to the material requirements of CMS 611 and have a depressed tread or a 1/2" minimum cleat height at the ends.

Embed steps installed in fresh concrete at least 4" deep. Embed steps installed in mortar joints at least 7" deep.

Friction-fit steps meeting the requirements of CMS 711.31 with rebar may be used in precast manholes. Do not allow the receiving holes for friction-fit steps to penetrate the manhole walls.

The Engineer may require the contractor to test load a maximum of one step per manhole to a proof load of 400 lbs. in direct pull. Meet the approval of the Engineer with the equipment and method used. If the selected step fails the pull-out test, also test the remaining steps in that manhole. Remove all steps not passing the pull-out test, and install and test a new step to the satisfaction of the Engineer.

See SCD MH-1 for Step Details

**INLETS OVER 12 FEET IN DEPTH:** Provide precast or cast-in-place concrete for inlets over 12 feet in depth. Reinforce with #5 bars on 12" centers both vertically and horizontally with 2" clearance from the inside wall face.

**OPENINGS:** Pipe openings are the outside diameter of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.

**PCJ:** Permissible construction joint.

**STEPS:** Provide steps that conform to the material requirements of CMS 611 and have a depressed tread or a 1/2" minimum cleat height at the ends.

Embed steps installed in fresh concrete at least 4" deep. Embed steps installed in mortar joints at least 7" deep.

Friction-fit steps meeting the requirements of CMS 711.31 with rebar may be used in precast manholes. Do not allow the receiving holes for friction-fit steps to penetrate the manhole walls.

The Engineer may require the contractor to test load a maximum of one step per manhole to a proof load of 400 lbs. in direct pull. Meet the approval of the Engineer with the equipment and method used. If the selected step fails the pull-out test, also test the remaining steps in that manhole. Remove all steps not passing the pull-out test, and install and test a new step to the satisfaction of the Engineer.

See SCD MH-1 for Step Details

**INLETS OVER 12 FEET IN DEPTH:** Provide precast or cast-in-place concrete for inlets over 12 feet in depth. Reinforce with #5 bars on 12" centers both vertically and horizontally with 2" clearance from the inside wall face.

**OPENINGS:** Pipe openings are the outside diameter of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.

**PCJ:** Permissible construction joint.

**STEPS:** Provide steps that conform to the material requirements of CMS 611 and have a depressed tread or a 1/2" minimum cleat height at the ends.

Embed steps installed in fresh concrete at least 4" deep. Embed steps installed in mortar joints at least 7" deep.

Friction-fit steps meeting the requirements of CMS 711.31 with rebar may be used in precast manholes. Do not allow the receiving holes for friction-fit steps to penetrate the manhole walls.

The Engineer may require the contractor to test load a maximum of one step per manhole to a proof load of 400 lbs. in direct pull. Meet the approval of the Engineer with the equipment and method used. If the selected step fails the pull-out test, also test the remaining steps in that manhole. Remove all steps not passing the pull-out test, and install and test a new step to the satisfaction of the Engineer.

See SCD MH-1 for Step Details

**INLETS OVER 12 FEET IN DEPTH:** Provide precast or cast-in-place concrete for inlets over 12 feet in depth. Reinforce with #5 bars on 12" centers both vertically and horizontally with 2" clearance from the inside wall face.

**OPENINGS:** Pipe openings are the outside diameter of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.

**PCJ:** Permissible construction joint.

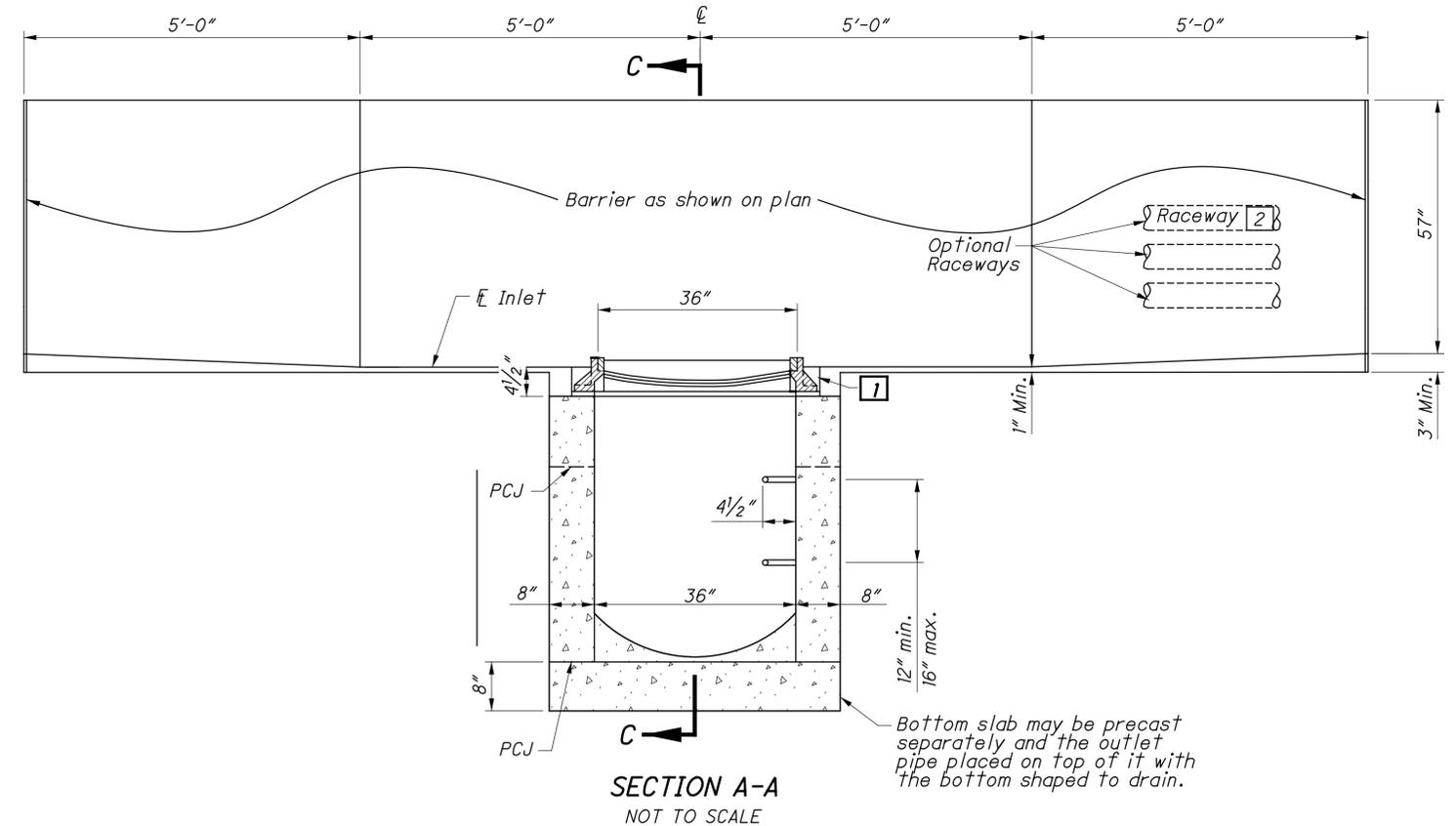
**STEPS:** Provide steps that conform to the material requirements of CMS 611 and have a depressed tread or a 1/2" minimum cleat height at the ends.

Embed steps installed in fresh concrete at least 4" deep. Embed steps installed in mortar joints at least 7" deep.

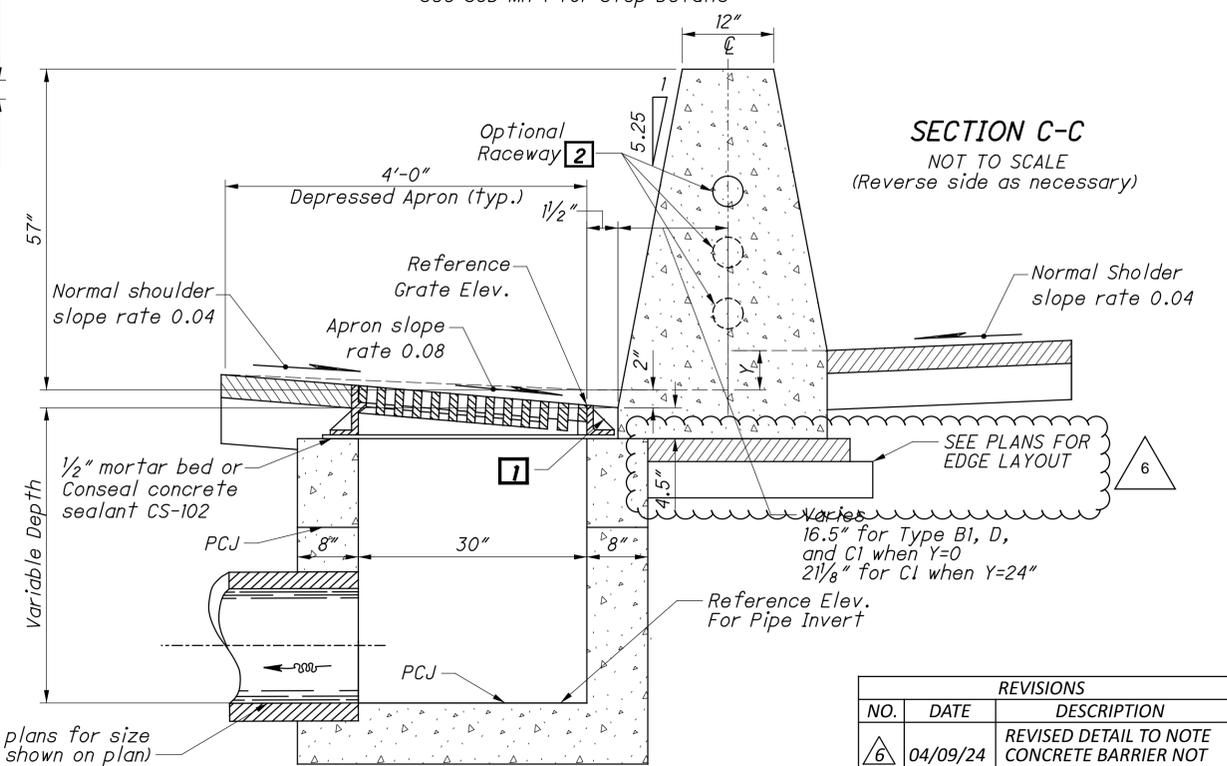
Friction-fit steps meeting the requirements of CMS 711.31 with rebar may be used in precast manholes. Do not allow the receiving holes for friction-fit steps to penetrate the manhole walls.

The Engineer may require the contractor to test load a maximum of one step per manhole to a proof load of 400 lbs. in direct pull. Meet the approval of the Engineer with the equipment and method used. If the selected step fails the pull-out test, also test the remaining steps in that manhole. Remove all steps not passing the pull-out test, and install and test a new step to the satisfaction of the Engineer.

See SCD MH-1 for Step Details



SECTION A-A  
NOT TO SCALE



SECTION C-C  
NOT TO SCALE  
(Reverse side as necessary)

- LEGEND**
- 1 After casting is placed, fill void with 4000 psi compressive strength concrete.
  - 2 4" electrical raceway. See Sheet 2 for RACEWAY PLACEMENT Details.

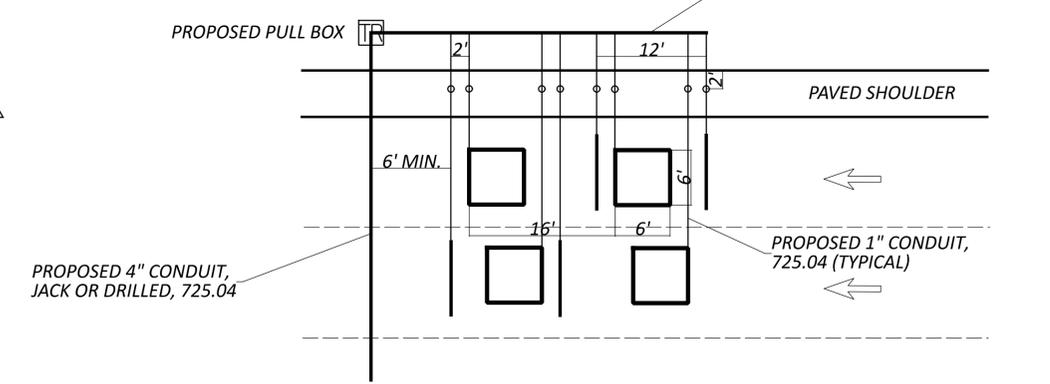
Outlet pipe, see plans for size (reverse side as necessary as shown on plan)

REVISIONS		
NO.	DATE	DESCRIPTION
6	04/09/24	REVISED DETAIL TO NOTE CONCRETE BARRIER NOT INCLUDED WITH INLET

**LEGEND**

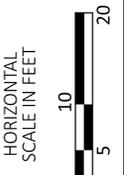
-  1" CONDUIT (UNLESS SHOWN OTHERWISE) WITH PIEZO SENSOR
-  PROPOSED DETECTION LOOP WITH 1" CONDUIT, 725.04 (LOOP INSTALLED BY OTHERS WITH FUTURE PROJECT)
-  EXISTING DETECTION LOOP AND CONDUIT
-  CONDUIT CHANGE IN DIRECTION
-  PROPOSED PULL BOX OR MEDIAN JUNCTION BOX, AS PER PLAN
-  EXISTING PULL BOX OR MEDIAN JUNCTION BOX

**SENSOR & LOOP PLACEMENT DETAILS**

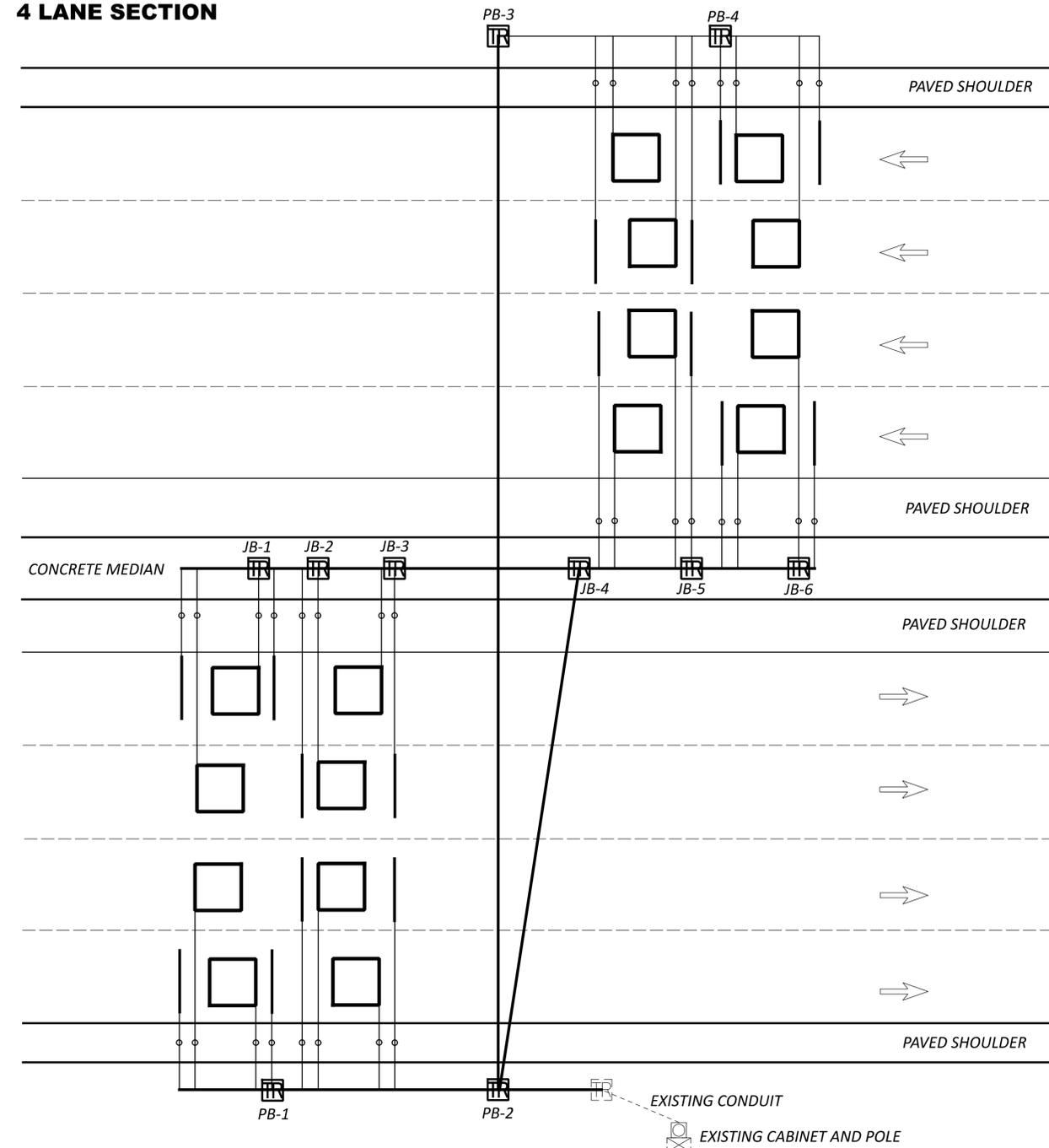


**EXISTING ITEMS TO REMAIN**

ITEM	STATION	SIDE	OFFSET
Ground Mounted Cabinet with Solar Panel	975+76	RT	76.5 FT



**4 LANE SECTION**



**PULL BOX AND MEDIAN JUNCTION BOX TABLE**

PULL BOX #	STATION	SIDE	OFFSET
PB-1	975+36.70	RT	76.5 FT
PB-2	975+61.00	RT	76.5 FT
PB-3	975+61.00	LT	66.5 FT
PB-4	975+89.83	LT	66.5 FT
MEDIAN JUNCTION BOX #	STATION	SIDE	OFFSET
JB-1	975+35.00	LT	Centerline Construction IR-490
JB-2	975+42.70	LT	Centerline Construction IR-490
JB-3	975+52.60	LT	Centerline Construction IR-490
JB-4	975+76.40	LT	Centerline Construction IR-490
JB-5	975+85.90	LT	Centerline Construction IR-490
JB-6	975+92.00	LT	Centerline Construction IR-490

**ATR STATION ITEMS**

ITEM	DESCRIPTION	UNIT	QUANTITY
625E25100	CONDUIT, 1", 725.04	FT	1264
625E25600	CONDUIT, 4", 725.04	FT	112
625E25902	CONDUIT, JACKED OR DRILLED, 725.04, 4"	FT	245
625E29002	TRENCH, 24"	FT	97
625E29931	MEDIAN JUNCTION BOX, AS PER PLAN	EACH	6
625E30706	PULL BOX, 725.08, 24"	EACH	2
625E31510	PULL BOX REMOVED	EACH	1
625E36010	UNDERGROUND WARNING/MARKING TAPE	FT	97

NOTE: QUANTITIES HAVE BEEN CARRIED TO THE TRAFFIC SURVEILLANCE GENERAL SUMMARY.

ATR STATION 93018  
D12 INSTALLATION DETAILS

CUY-490-0.00

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 4/12/2024 TIME: 9:09:01 AM USER: CMT031  
P:\ODT\MP10134\_CUY-490-0.00\107408\100-Engineering\Signals\Sheets\107408\_CW001.dgn

DESIGN AGENCY



DESIGNER  
AL

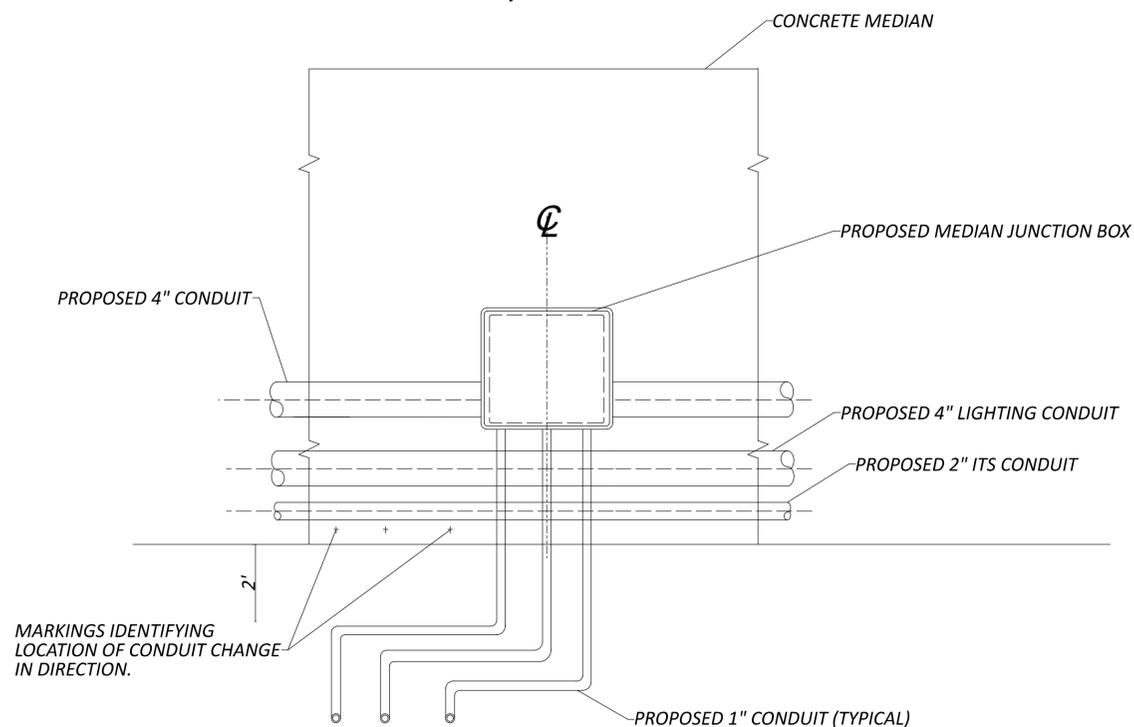
REVIEWER  
XXX MM-DD-YY

PROJECT ID  
107408

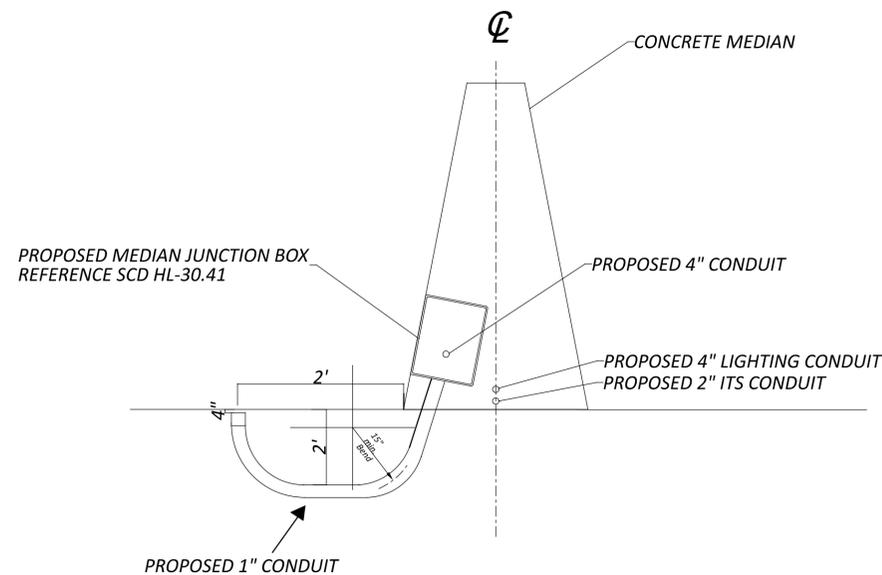
SHEET TOTAL  
1002A 1068

REVISIONS		
NO.	DATE	DESCRIPTION
6	04/12/24	LEGEND UPDATED

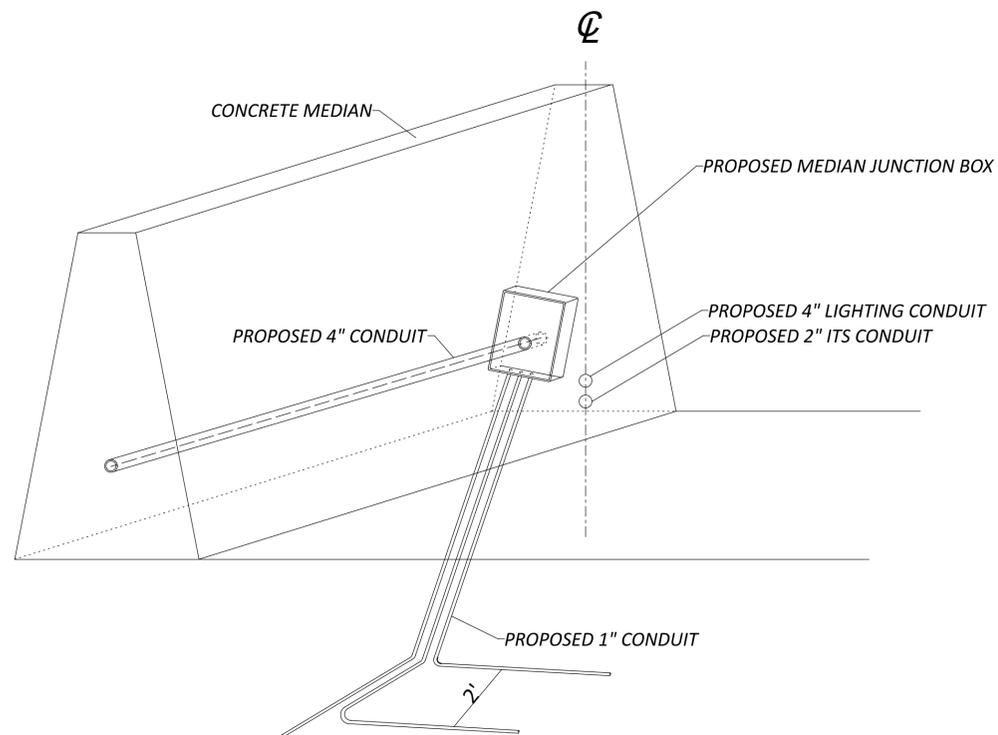
**MEDIAN CONDUIT DETAILS - NTS, PROFILE VIEW**



**MEDIAN CONDUIT DETAILS - NTS, SECTION VIEW**



**MEDIAN CONDUIT DETAILS - NTS, ISOMETRIC VIEW**



**NOTES:**

1. THE MEDIAN JUNCTION BOX, AS PER PLAN SHALL MEET THE SPECIFICATIONS AS DESCRIBED ON PLAN NOTE "ITEM 625 MEDIAN JUNCTION BOX, AS PER PLAN."
2. INSTALL A PROPOSED 4" CONDUIT TO CONNECT THE PROPOSED MEDIAN JUNCTION BOXES, AS PER PLAN.
3. NOT USED 
4. LOCATIONS FOR THE PROPOSED CONDUIT CHANGE IN DIRECTION SHALL BE MARKED ON THE MEDIAN BARRIER. MARKINGS SHALL BE MADE BY CHISELING A PLUS SIGN "+" AT ABOUT 6" ABOVE THE TOE OF THE BARRIER.
5. CONDUIT CHANGE IN DIRECTIONS SHALL BE SECURED WITH PLUMBERS DUCT SEAL (ONE POUND BLOCK PER RACEPIPE).
6. CONDUIT CHANGE IN DIRECTIONS ARE TO BE INSTALLED A MINIMUM OF 2' FROM THE EDGE OF THE MEDIAN WALL OR 2' FROM THE EDGE OF PAVEMENT.
7. CONDUIT CHANGE IN DIRECTIONS ARE TO BE INSTALLED AT A DEPTH OF 4" BELOW THE FINAL PAVEMENT GRADE.
8. LOCATE SENSORS AT LEAST 6' FROM THE PROPOSED 4" CONDUIT JACK OR BORED UNDER PAVEMENT.
9. SEE SCD HL-30.41 FOR MEDIAN JUNCTION BOX INSTALLATION DETAILS.
10. THE CONTRACTOR MUST SQUARE OFF REMOVAL LIMITS IN THE EXISTING PAVEMENT USING A FULL-DEPTH SAWCUT.
11. REFERENCE "ITEM 625 TRENCH IN PAVED AREA" NOTE AND SCD HL-30.22 FOR DETAILS ON INSTALLING CONDUIT UNDER PAVEMENT.

REVISIONS		
NO.	DATE	DESCRIPTION
	04/12/24	NOTE REMOVED

CUY-490-0.00

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 4/12/2024 TIME: 9:09:01 AM USER: CMT031  
 P:\ODT\MP\0134\_CUY-490-0.00\107408\100-Engineering\Signals\Sheets\107408\_CW002.dgn

ATR STATION 93018  
 D12 INSTALLATION DETAILS

DESIGN AGENCY



DESIGNER

AL

REVIEWER

XXX MM-DD-YY

PROJECT ID

107408

SHEET TOTAL

1002B | 1068

**REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:**

AS-1-15	REVISED	01-20-23
AS-2-15	REVISED	01-20-23
BR-1-13	REVISED	01-17-14
EXJ-4-87	REVISED	01-20-23
GSD-1-19	DATED	01-15-21
PCB-91	REVISED	07-17-20
RB-1-55	DATED	07-19-13
VPF-1-90	REVISED	01-20-23

**AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:**

800	DATED	04-21-23
844	DATED	04-20-18
848	DATED	01-15-21

**DESIGN SPECIFICATIONS:**

THE EXISTING STRUCTURE WAS DESIGNED IN CONFORMANCE WITH THE "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, DATED 1969, INCLUDING THE 1970 INTERIM SPECIFICATIONS AND THE OHIO "SUPPLEMENT" TO THESE SPECIFICATIONS.

**DESIGN LOADING:**

HS20-44 CASE I AND THE ALTERNATE MILITARY LOADING FUTURE WEARING SURFACE (FWS) OF 0.030 KIPS PER SQUARE FOOT

**DESIGN DATA:**

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)  
CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)

CONCRETE REINFORCEMENT - ASTM A615 OR A996, GRADE 60, MINIMUM YIELD STRENGTH 60,000 PSI

STRUCTURAL STEEL - ASTM A572 GRADE 50, YIELD STRENGTH 50 KSI (EXISTING)  
STRUCTURAL STEEL - ASTM A709 GRADE 50, YIELD STRENGTH 50 KSI (PROPOSED)

**MONOLITHIC WEARING SURFACE:**

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

**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 OWNER WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

**EXISTING STRUCTURE PLANS:**

PLANS MAY BE EXAMINED BY PROSPECTIVE BIDDERS AT THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 12, 5500 TRANSPORTATION BLVD., GARFIELD HEIGHTS, OH 44125-5396, TEL 216-581-2100. EXISTING PLANS MAY ALSO BE DOWNLOADED AT THE FOLLOWING LINK: <ftp://ftp.dot.state.oh.us/pub/Contracts/Attach>

**USCG ENVIRONMENTAL COMMITMENTS:**

1. SCAFFOLDING UNDER THE BRIDGE IS AUTHORIZED BUT MUST NOT EXTEND MORE THAN 4-FEET BELOW LOW STEEL.
2. LIGHTING OF THE BOTTOM AND FOUR-CORNERS OF THE SCAFFOLDING WITH STEADY BURNING YELLOW LIGHTS IS REQUIRED SO THAT APPROACHING VESSELS ARE WARNED OF THE TEMPORARY REDUCTION IN CLEARANCE.
3. SNOOPER VEHICLES OR OTHER MANLIFTS ARE AUTHORIZED AND WILL REQUIRE SPOTTERS TO WARN WORKERS OF APPROACHING VESSELS AND TO MOVE MANLIFTS TO ALLOW VESSELS TO PASS IS REQUIRED.
4. USE OF BARGES OR FALSEWORK MUST BE AUTHORIZED BY THE USCG WITH A MINIMUM OF 30 DAYS ADVANCED NOTICE OF DEPLOYMENT.

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

DESCRIPTION: WORK TO BE PAID FOR UNDER THIS ITEM SHALL INCLUDE THE REMOVAL OF EXISTING STRUCTURE COMPONENTS AS DETAILED IN THE PLANS AND AS DIRECTED BY THE ENGINEER. THE REMOVALS SHALL INCLUDE BUT NOT NECESSARILY BE LIMITED TO THE FOLLOWING:

1. PORTIONS OF EXISTING BRIDGE DECK SLAB AND CONCRETE PARAPETS AS SHOWN IN THE PLANS, INCLUDING SAW CUTTING.
2. PORTIONS OF EXISTING ABUTMENT BACKWALLS AND WINGWALLS AS SHOWN IN THE PLANS, INCLUDING SAW CUTTING.
3. EXISTING STEEL END CROSSFRAMES, STEEL END DAMS, AND SLIDING PLATE OR STRIP SEAL EXPANSION JOINTS AT ALL ABUTMENTS AND JOINT 6 AS SHOWN IN THE PLANS.
4. EXISTING NEOPRENE DRAINAGE TROUGHS AND STEEL ANGLES BELOW JOINTS 1 THRU 6, INCLUDING ALL DIRT AND DEBRIS CONTAINED WITHIN.
5. EXISTING STEEL PIPE COLLECTORS AND DOWNSPOUTS AS SHOWN IN THE PLANS, INCLUDING ALL DIRT AND DEBRIS CONTAINED WITHIN.
6. EXISTING PIER ACCESS LADDERS AND MANHOLES IN BRIDGE DECK AS SHOWN IN THE PLANS.
7. EXISTING ITEMS NOTED TO BE REMOVED FOR REPAIRS TO EXISTING FINGER JOINTS, EXISTING INSPECTION SAFETY CABLE SYSTEM, AND EXISTING SCUPPER GRATES AS SHOWN IN THE PLANS.
8. MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER.

THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

PROTECTION OF RAILWAY TRACK: A TEMPORARY SHIELD SHALL BE PROVIDED OVER THE RAILWAY TRACK AT AREAS OF FULL-DEPTH DEMOLITION. SEE SECTION "D" OF CSX TRANSPORTATION COORDINATION NOTE ON SHEET 8A OF 120 FOR DETAILS.

REMOVAL METHODS: THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNTED CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS (STEEL GIRDER, STEEL STRINGER, ETC.), THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS. DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS (E.G., FINISHING MACHINE, SCUPPER AND FORM SUPPORTS, ETC.) TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

**ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN (CON'T):**

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE. LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. OUTSIDE THE 18-INCH LIMIT, THE CONTRACTOR MAY USE HAMMERS NOT EXCEEDING 90 POUNDS UPON THE APPROVAL OF THE ENGINEER. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

**ITEM 509 - CONCRETE REINFORCEMENT, REPLACEMENT OF EXISTING REINFORCEMENT, AS PER PLAN:**

REPLACE ALL EXISTING REINFORCING STEEL BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE. REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

**ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE):**

APPLY AN EPOXY-URETHANE SEALER TO THE EXPOSED CONCRETE SURFACES OF THE FOLLOWING BRIDGE ELEMENTS:

1. ABUTMENTS: ALL FACES OF BACKWALLS, BRIDGE SEAT, BREASTWALLS, WINGWALLS, AND PARAPETS (REMOVE EXISTING SEALER).
2. PIERS 4L, 4R, 9L, 9R, 12L, 12R, 15L, 15R, 20L AND 20R: ALL FACES OF CAPS AND COLUMNS, INCLUDING TOP OF CAP (DO NOT REMOVE EXISTING SEALER).
3. PIERS 7L, 7R AND 8R: ALL FACES OF COLUMNS, GROUND LINE TO THE BOTTOM OF CAP (DO NOT REMOVE EXISTING SEALER).
4. PIERS 13L, 13R, 14L AND 14R: ALL FACES OF CAPS AND COLUMNS, EXCLUDING TOP OF CAP (NO EXISTING SEALER).
5. PIERS 6L, 6R, 10L, 10R, AND CAPS OF PIERS 7L AND 7R: AREAS OF CONCRETE PATCHING REPAIR ONLY (OVERLAP EXISTING SEALER SIX INCHES ON ALL SIDES OF REPAIR AREA PERIMETER).
6. SUPERSTRUCTURE: PARAPETS AND DECK EDGES, SEE SHEETS 11/120 AND 12/120 FOR LIMITS (REMOVE EXISTING SEALER).
7. APPROACH SLABS: PARAPETS (NEW WORK, NO EXISTING SEALER).

COMPLETE ALL CRACK REPAIR AND CONCRETE PATCHING ON A GIVEN STRUCTURE ELEMENT BEFORE SEALING. THE COLOR OF THE FINISH COAT FOR ALL SURFACES SHALL BE FEDERAL COLOR NUMBER 595B-27778 (LIGHT NEUTRAL, SEMIGLOSS).

X:\Projects\2020\2021\100100\_ODOT\_D12-CUY-490-010000\_010000\_Engineering\Structures\CUY490\_010000\_Sheets\025622\_SF181991\_S0001.dgn 4/11/2024 4:36:15 PM jagler



DATE	08/05/20
REVIEWED	MJL
DRAWN	PAT/VS
DESIGNED	PAT/VS
CHECKED	JAM/JCS
STRUCTURE FILE NUMBER	1811991

STRUCTURE GENERAL NOTES - 1  
BRIDGE NO. CUY-490-0100  
I-490 OVER CUYAHOGA RIVER

CUY-490-01.00  
PID No. 107408

5	120
16	131