

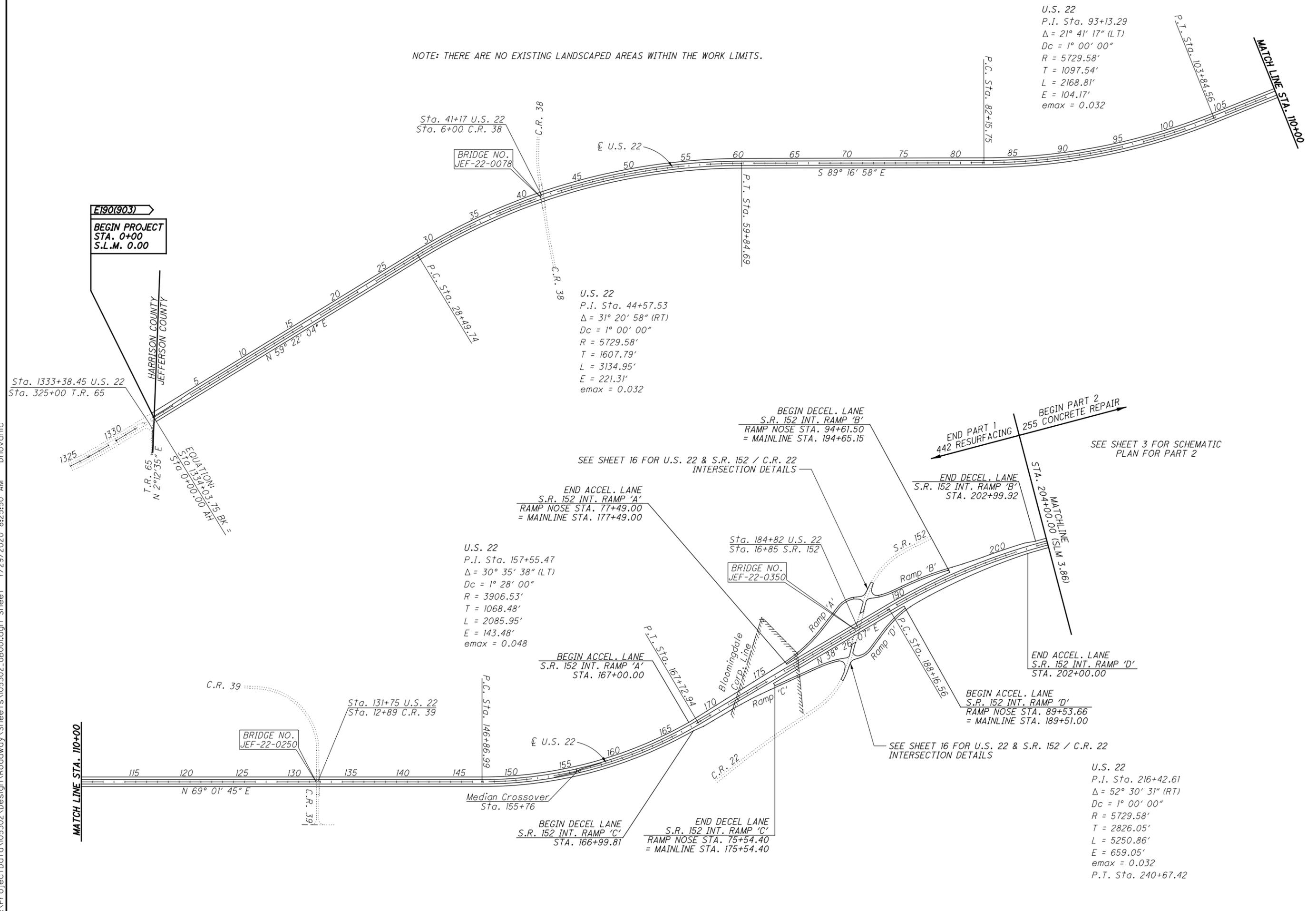
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NOTE: THERE ARE NO EXISTING LANDSCAPED AREAS WITHIN THE WORK LIMITS.

U.S. 22
P.I. Sta. 93+13.29
 $\Delta = 21^\circ 41' 17''$ (LT)
Dc = 1° 00' 00"
R = 5729.58'
T = 1097.54'
L = 2168.81'
E = 104.17'
emax = 0.032

CALCULATED
BSH
CHECKED
ANS

HORIZONTAL SCALE IN FEET



U.S. 22
P.I. Sta. 44+57.53
 $\Delta = 31^\circ 20' 58''$ (RT)
Dc = 1° 00' 00"
R = 5729.58'
T = 1607.79'
L = 3134.95'
E = 221.31'
emax = 0.032

U.S. 22
P.I. Sta. 157+55.47
 $\Delta = 30^\circ 35' 38''$ (LT)
Dc = 1° 28' 00"
R = 3906.53'
T = 1068.48'
L = 2085.95'
E = 143.48'
emax = 0.048

U.S. 22
P.I. Sta. 216+42.61
 $\Delta = 52^\circ 30' 31''$ (RT)
Dc = 1° 00' 00"
R = 5729.58'
T = 2826.05'
L = 5250.86'
E = 659.05'
emax = 0.032
P.T. Sta. 240+67.42

SCHEMATIC PLAN

JEF-22-00.00

NOTE:

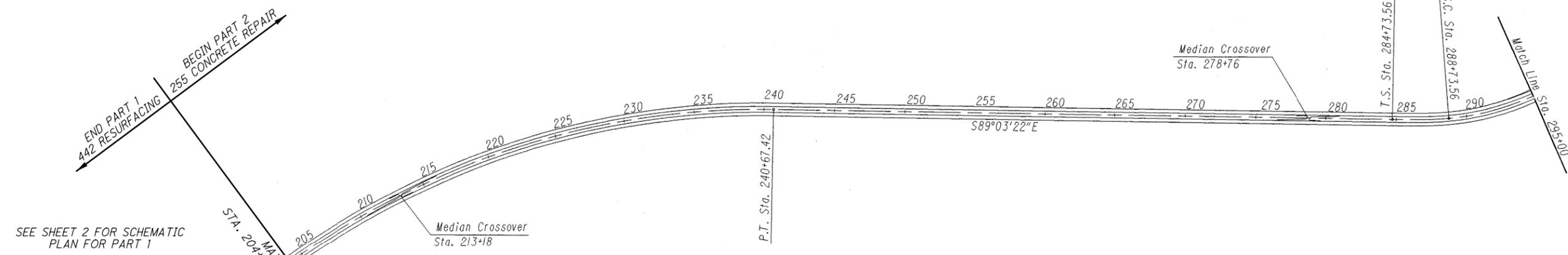
1) THERE ARE NO EXISTING LANDSCAPED AREAS WITHIN THE WORK LIMITS.



CALCULATED
BSH
CHECKED
ANS

SCHEMATIC PLAN

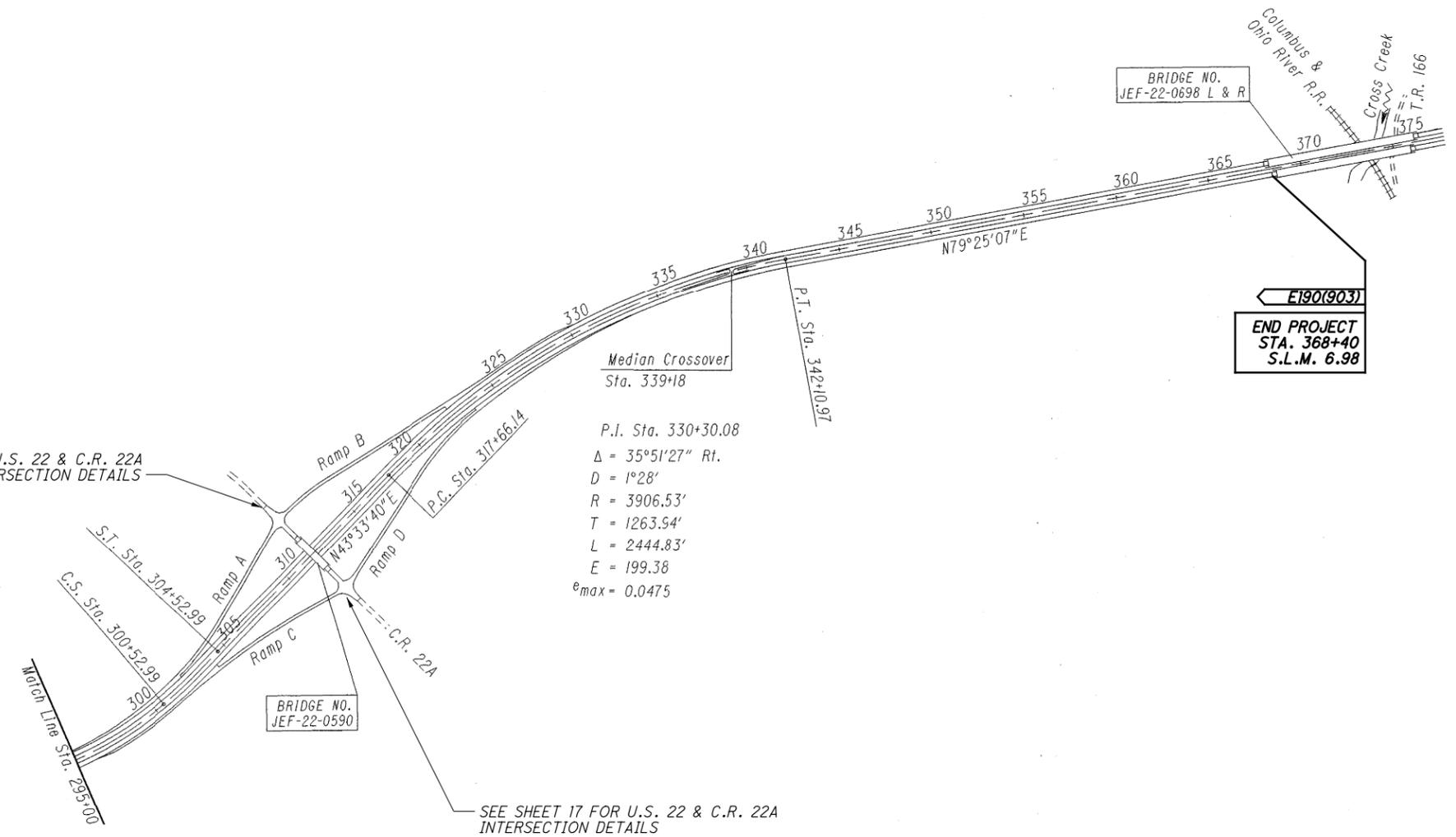
JEF-22-0.00



SEE SHEET 2 FOR SCHEMATIC PLAN FOR PART 1

P.I. Sta. 216+42.61
 $\Delta = 52^\circ 30' 31''$ Rt.
 $D = 1^\circ 00'$
 $R = 5729.58'$
 $T = 2826.05'$
 $L = 5250.86'$
 $E = 659.05'$
 $e_{max} = 0.032$

END PART 1
442 RESURFACING
255
BEGIN PART 2
CONCRETE REPAIR
255
MATCHLINE
STA. 204+00.00 (S.L.M. 3.86)



SEE SHEET 17 FOR U.S. 22 & C.R. 22A INTERSECTION DETAILS

P.I. Sta. 330+30.08
 $\Delta = 35^\circ 51' 27''$ Rt.
 $D = 1^\circ 28'$
 $R = 3906.53'$
 $T = 1263.94'$
 $L = 2444.83'$
 $E = 199.38$
 $e_{max} = 0.0475$

Match Line Sta. 295+00
 C.S. Sta. 300+52.99
 S.T. Sta. 304+52.99
 Ramp A
 Ramp B
 Ramp C
 Ramp D
 P.C. Sta. 317+66.14
 P.I. Sta. 330+30.08
 Median Crossover Sta. 339+18
 P.T. Sta. 342+10.97
 N79°25'07"E
 BRIDGE NO. JEF-22-0590
 SEE SHEET 17 FOR U.S. 22 & C.R. 22A INTERSECTION DETAILS

BRIDGE NO. JEF-22-0698 L & R

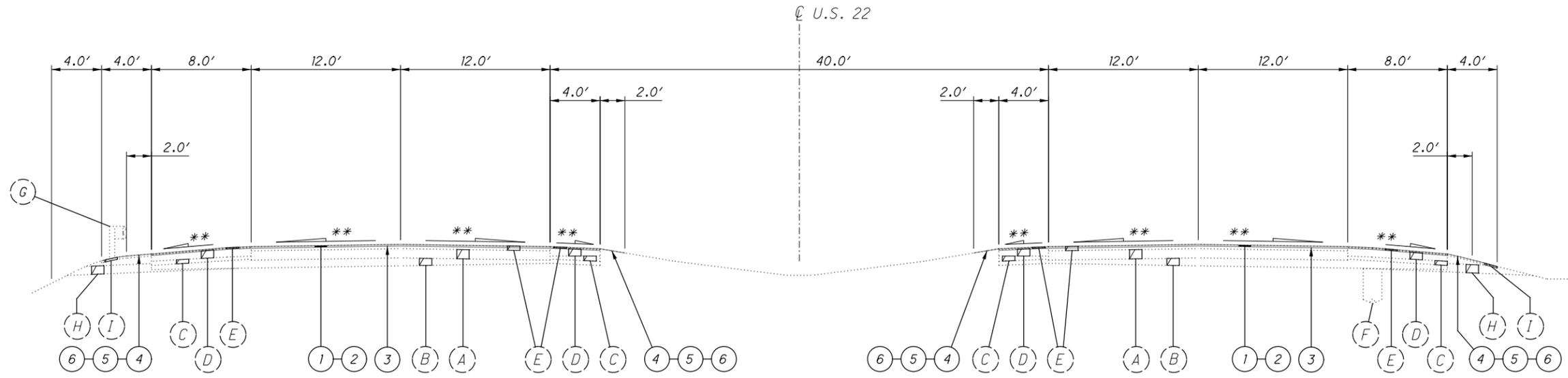
E190(903)
 END PROJECT STA. 368+40 S.L.M. 6.98

EXISTING CENTERLINE MONUMENTS	
P.O.C. Sta. 208+00	C.S. Sta. 300+52.99
P.O.C. Sta. 214+00	S.T. Sta. 304+52.99
P.O.C. Sta. 219+00	P.O.T. Sta. 309+00
P.O.C. Sta. 225+00	P.O.T. Sta. 313+00
P.O.C. Sta. 230+00	P.C. Sta. 317+66.14
P.O.C. Sta. 235+00	P.O.C. Sta. 324+00
P.T. Sta. 240+67.42	P.O.C. Sta. 330+00
P.O.T. Sta. 246+00	P.O.C. Sta. 336+00
P.O.T. Sta. 252+00	P.T. Sta. 342+10.97
P.O.T. Sta. 258+00	P.O.T. Sta. 348+00
P.O.T. Sta. 264+00	P.O.T. Sta. 345+00
P.O.T. Sta. 270+00	P.O.T. Sta. 357+00 (2)*
P.O.T. Sta. 275+00	P.O.T. Sta. 363+00 (2)*
P.O.T. Sta. 280+00	P.O.T. Sta. 368+40
T.S. Sta. 274+73.56	P.O.T. Sta. 376+15
S.C. Sta. 288+73.56	P.C. Sta. 382+35.09
P.O.C. Sta. 295+00	
TOTAL 35	

*Note: Monuments 10' Lt. & Rt. of C/L

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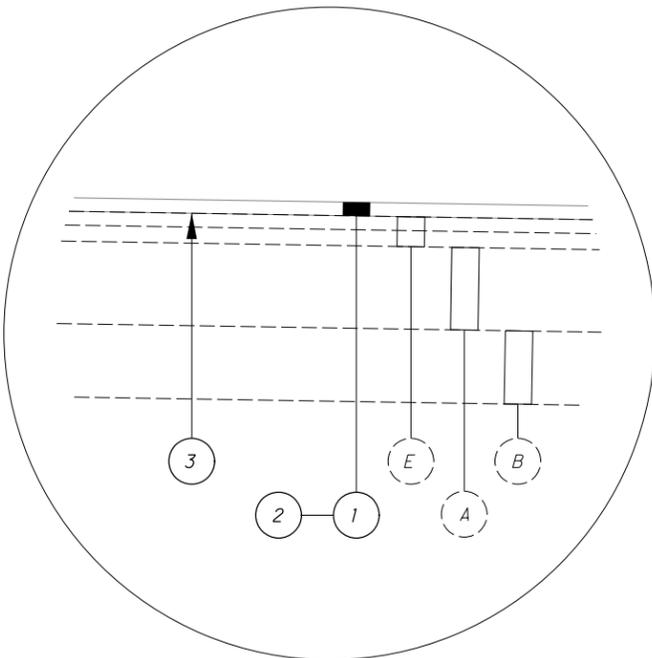


MAINLINE SECTION

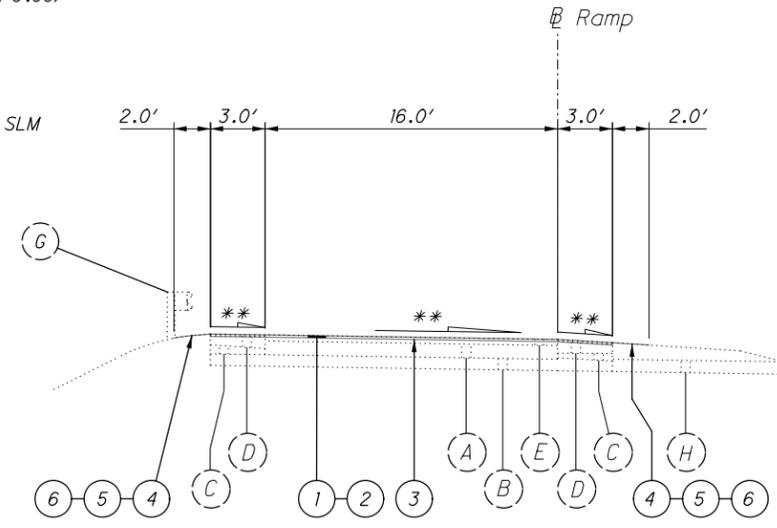
SECTION APPLIES:
 PART 1: STA. 0+00.00 TO STA. 204+00.00 (SLM 0.00 TO SLM 3.86)
 PART 2: SEE NOTE 1
 ** - MATCH EXISTING

NOTE:

1. FOR PART 2, STA. 204+00.00 TO 368+05.00 (SLM 3.86 TO SLM 6.98), SEE PAVEMENT REPAIR DETAILS, SHEETS 13-14.



(MAINLINE, SHOULDER & CROSSEOVERS)
 TYPICAL RESURFACING DETAIL



NORMAL SECTION - RAMPS

SECTION APPLIES:
 PART 1:
 RAMP 'A' - STA. 77+49.00 TO STA. 86+25.00
 RAMP 'B' - STA. 87+75.00 TO STA. 94+61.50
 RAMP 'C' - STA. 75+54.40 TO STA. 81+50.00
 RAMP 'D' - STA. 83+50.00 TO STA. 89+53.66

PART 2: SEE NOTE 1
 ** - MATCH EXISTING

PROPOSED LEGEND

- ① — ITEM 442 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B (447), AS PER PLAN
- ② — ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 1 1/2"
- ③ — ITEM 407 - TACK COAT, (APPLIED @ 0.085 GALS./SQ.YD.)
- ④ — ITEM 408 - PRIME COAT, AS PER PLAN @ 0.4 GAL/SQ.YD.)
- ⑤ — ITEM 209 - LINEAR GRADING
- ⑥ — ITEM 617 - 1/2" COMPACTED AGGREGATE

EXISTING LEGEND

- Ⓐ — EXISTING 9" REINFORCED CONCRETE PAVEMENT
- Ⓑ — EXISTING SUBBASE
- Ⓒ — EXISTING AGGREGATE BASE
- Ⓓ — EXISTING BITUMINOUS AGGREGATE BASE
- Ⓔ — EXISTING ASPHALT CONCRETE
- Ⓕ — EXISTING UNDERDRAIN
- Ⓖ — EXISTING GUARDRAIL
- Ⓗ — EXISTING AGGREGATE DRAIN
- Ⓘ — EXISTING COMPACTED AGGREGATE

UTILITIES

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA.

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY AS SHOWN ON THE TYPICAL SECTIONS AND PAVEMENT ESTIMATED QUANTITIES SHEETS.

PREVIOUS CONSTRUCTION PLANS

THE FOLLOWING PREVIOUS CONSTRUCTION PLANS, WHICH SHOW THE ORIGINAL ALIGNMENT AND PROFILE, ARE AVAILABLE FOR INSPECTION AT THE ODOT DISTRICT II OFFICE IN NEW PHILADELPHIA:

JEF-22-3.86 OVERLAY REINF. CONC. & BRIDGE REHAB (PID 12142)
JEF-22-0.00 ASPHALT RESURFACING (PID 77349)

THESE EXISTING PLANS CAN ALSO BE DOWNLOADED FROM THE FOLLOWING FTP SITE:
FTP://FTP.DOT.STATE.OH.US/PUB/CONTRACTS/ATTACH

SURFACE COURSE COMPLETION REQUIREMENTS

ANY GIVEN LENGTH OF WORK ON WHICH RESURFACING OPERATIONS HAVE BEEN STARTED IN A CONSTRUCTION SEASON SHALL HAVE THE SURFACE COURSE PLACED THAT SAME SEASON.

ITEM 201 - CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING.

ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE B (447), AS PER PLAN

THIS PROJECT INCORPORATES A RESEARCH TEST SECTION OF FIBER MODIFIED ASPHALT CONCRETE TO BE MONITORED BY THE DEPARTMENT. FIBERS WILL BE SUPPLIED BY FORTA CORPORATION AT NO COST TO THE CONTRACTOR.

USE FORTA-FI FIBERS SUPPLIED BY:

FORTA CORPORATION
ATTN: SCOTT NAZAR AT 724-458-5221
100 FORTA DRIVE
GROVE CITY, PA 16127
(800) 245-0306
WWW.FORTA-FI.COM

DESIGN THE FIBER TEST SECTION AND CONTROL SECTION MIXTURES USING THE SAME AGGREGATE SOURCES, AGGREGATE BLENDS, AND ASPHALT BINDER SOURCES FOR THE PROJECT. INCLUDE ALL INCIDENTAL WORK REQUIRED TO DESIGN, PRODUCE, AND CONSTRUCT THE FIBER MIXTURE TEST SECTION AND THE CONTROL SECTION WITH THIS ITEM, NO SEPARATE PAYMENT WILL BE MADE.

INCLUDE TYPE C FIBERS, SUPPLIED BY FORTA, IN THE FIBER TEST SECTION MIXTURE, ACCORDING TO SS826. CONSTRUCT THE FIBER TEST SECTION SURFACE COURSE BETWEEN STATIONS 100+00 AND 204+00 IN THE EASTBOUND LANES AND SHOULDERS AND BETWEEN STATIONS 204+00 AND 100+00 IN THE WESTBOUND LANES AND SHOULDERS. JOINT DENSITY LOT ACCEPTANCE PER CMS 447.06 WILL BE DETERMINED FOR THE FIBER TEST SECTION SEPARATELY FROM THE REST OF THE PROJECT. THE REMAINING MAINLINE LANES AND SHOULDERS WILL BE USED AS A CONTROL SECTION. ONLY INCLUDE FIBERS IN MIXTURES PLACED IN THE FIBER TEST SECTION.

NOTIFY ERIC BIEHL, ODOT OFFICE OF MATERIALS MANAGEMENT (OMM) AT (614) 275-1380 AT LEAST 7 DAYS BEFORE PRODUCTION OF ASPHALT WITH FIBERS.

DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

ITEM 408 - PRIME COAT, AS PER PLAN

THE CONTRACTOR WILL APPLY "MC-70" AT RATE OF 0.4 GALLONS PER SQUARE YARD, OR AS DIRECTED BY THE ENGINEER, TO THE COMPLETED COMPACTED AGGREGATE SHOULDER.

ITEM 617 - COMPACTED AGGREGATE

GRADED SHOULDERS SHALL BE RESHAPED AS PER THE REQUIREMENTS OF ITEM 617, COMPACTED AGGREGATE. GRINDINGS MAY BE USED IN LIEU OF ITEM 617, COMPACTED AGGREGATE. THE COST FOR STORING THE GRINDINGS ON THE PROJECT AND PLACING THE GRINDINGS SHALL ALSO BE INCLUDED IN THIS ITEM.

ITEM 442 - ANTI-SEGREGATION EQUIPMENT

PROVIDE A MATERIAL TRANSFER VEHICLE IN ACCORDANCE WITH CMS 401.12 WHEN PLACING ASPHALT SURFACE AND INTERMEDIATE COURSES ON MAINLINE LANES AND ACCELERATION AND DECELERATION LANES.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 442 - ANTI-SEGREGATION EQUIPMENT 4,831 CU.YD.

ITEM 621 - RAISED PAVEMENT MARKER REMOVED

EXISTING RAISED PAVEMENT MARKERS SHALL BECOME THE PROPERTY OF THE CONTRACTOR FOR DISPOSAL OFF THE PROJECT. THE REQUIREMENT TO FILL THE DEPRESSIONS SHALL BE WAIVED.

**ITEM 642 - TRAFFIC PAINT
ITEM 646 - EPOXY PAVEMENT MARKINGS**

THE CONTRACTOR SHALL REPLACE THE EXISTING PAVEMENT MARKINGS WITHIN THE PROJECT LIMITS WITH THE NEW PAVEMENT MARKINGS AS PER 641.06.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

PART 1: SEE SHEET 12

PART 2:

ITEM 642 - EDGE LINE, 6", TYPE 1 (USE 0.16 MILES)

FOR INFORMATION:
(WHITE) = 0.08 MILES
(YELLOW) = 0.08 MILES

ITEM 642 - LANE LINE, 6", TYPE 1 (USE 0.08 MILES)

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 401 FT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. NOTIFY THE ODOT OFFICE OF AVIATION WHEN SUBMITTING FAA FORM 7460-1.

NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND THE ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

EXPRESS PROCESSING CENTER
FEDERAL AVIATION ADMINISTRATION
SOUTHWEST REGIONAL OFFICE
OBSTRUCTION EVALUATION GROUP
10101 HILLWOOD PARKWAY
FORT WORTH, TX 76177
FAX: 817-222-5920
http://ceaaa.faa.gov

OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF AVIATION
2829 WEST DUBLIN-GRANVILLE ROAD
COLUMBUS, OHIO 43235
614-387-2346

SHIELD

THE CONTRACTOR SHALL PROVIDE A SHIELD TO PREVENT THE SPRAYING OR DRIFTING OF LIQUID BITUMINOUS MATERIAL ONTO THE EDGE OF PAVEMENT OR EDGELINE. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO 107.10 OF THE SPECIFICATIONS.

DESIGN DESIGNATION	SLM SECTIONS													
	FROM	TO	FROM	TO	FROM	TO	FROM	TO	FROM	TO	FROM	TO		
	0.00	3.25	3.25	3.31	3.31	3.65	3.65	3.86	3.86	5.72	5.72	6.13	6.13	6.98
CURRENT YEAR ADT (2021)	12000		12000		10500		10500		10500		10500		10500	
DESIGN YEAR ADT (2033)	15500		15000		11500		11500		12000		12500		12000	
DESIGN HOURLY VOLUME (2033)	1600		1500		1200		1200		1200		1600		1200	
DIRECTIONAL DISTRIBUTION	51%		50%		50%		58%		54%		55%		55%	
TRUCKS (24 HOUR B & C)	16%		14%		19%		19%		20%		16%		20%	
DESIGN SPEED	70 MPH		70 MPH		70 MPH		70 MPH		70 MPH		70 MPH		70 MPH	
LEGAL SPEED	70 MPH		70 MPH		70 MPH		70 MPH		70 MPH		70 MPH		70 MPH	
DESIGN FUNCTIONAL CLASSIFICATION:														
02 - OTHER FREEWAYS OR EXPRESSWAYS (RURAL)														
NHS PROJECT:	YES													

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CALCULATED
BSH
CHECKED
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GENERAL NOTES

JEF - 22 - 0.00

MAINTAINING TRAFFIC, AS PER PLAN

THE CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES IN ACCORDING WITH THE REQUIREMENTS OF CMS ITEM 614, THESE MAINTENANCE OF TRAFFIC NOTES AND DETAILS, THE STANDARD CONSTRUCTION DRAWINGS, AND THE TRAFFIC CONTROL DETAILS DESCRIBED IN THESE PLANS.

A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, AND ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC.

THE MINIMUM LANE WIDTH FOR TRAFFIC CONTROL SHALL BE 11 FEET AT ALL TIMES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ORGANIZE HIS WORK IN SUCH A MANNER TO PROVIDE THE MOST SAFETY WITH THE LEAST INCONVENIENCE TO THE TRAVELING PUBLIC. SHOULDERS SHOULD NOT BE USED TO MAINTAIN TRAFFIC.

THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING THE MAINTENANCE OF TRAFFIC SCHEME. THE CONTRACTOR SHALL SUBMIT, IN WRITING, THIS MAINTENANCE OF TRAFFIC SCHEME AND A SCHEDULE OF OPERATIONS TO THE ENGINEER AND RECEIVE APPROVAL BEFORE WORK IS STARTED ON THE PROJECT.

ANY OPEN PAVEMENT TRENCH OR DROPOFF SHALL BE ADEQUATELY MAINTAINED AND PROTECTED. THE PROTECTION USED SHALL MEET THE REQUIREMENTS OF STANDARD CONSTRUCTION DRAWING MT-101.90.

UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE WORK ZONES WHICH ALTERNATELY CLOSE BOTH THE PASSING AND TRAVEL LANE UNLESS THE DISTANCE BETWEEN THE LANE RESTRICTIONS EXCEEDS 2 MILES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SMOOTH AND ORDERLY FLOW OF TRAFFIC THROUGH THE PROJECT AREA 24 HOURS PER DAY FOR THE DURATION OF THE PROJECT. THIS CONSISTS OF NOTIFYING THE OHIO STATE PATROL AFTER ENCOUNTERING ANY ACCIDENTS OR DISABLED VEHICLES OR OBJECTS HINDERING THE FLOW OF TRAFFIC.

THE CONTRACTOR SHALL DESIGNATE TO THE ENGINEER A PERSON RESPONSIBLE FOR MAINTENANCE OF TRAFFIC CONTROL DURING NON-WORK HOURS WHO SHALL BE AVAILABLE WITHIN (30) MINUTES AFTER NOTIFICATION.

PAYMENT FOR PROVIDING WATCHMEN, FURNISHING, ERECTING, MAINTAINING AND REMOVING SIGNS, CONES, MARKERS, SPECIAL LIGHTING, FLOODLIGHTING WORK ZONE PAVEMENT MARKINGS, WORK ZONE RAISED PAVEMENT MARKERS, ETC., SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC, AS PER PLAN.

UNLESS THE ENGINEER DEEMS IT PHYSICALLY IMPOSSIBLE, ALL CONSTRUCTION EQUIPMENT SHALL EXIT ALL WORK ZONES FROM THE DOWNSTREAM END OF THE WORK ZONE OR BY INTERCHANGE RAMPS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO DIRECTLY TRANSPORT OR OPERATE ANY EQUIPMENT ACROSS THE OPEN LANES OF THE ROADWAY.

MAINTAINING TRAFFIC, AS PER PLAN CONT.

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.

THE PLANING AND RESURFACING WILL PROCEED CONTINUOUSLY A MINIMUM OF FIVE (5) DAYS PER WEEK, WEATHER PERMITTING, EXCEPTING HOLIDAYS AND EVENTS LISTED BELOW:

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

CHRISTMAS	NEW YEARS
FOURTH OF JULY	THANKSGIVING
LABOR DAY	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:

DAY OF HOLIDAY	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	
	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$2,700 FOR EACH HOUR THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

WHEN RAISED PAVEMENT MARKERS ARE TO BE INSTALLED, THE REQUIRED LANE CLOSURE SHALL REMAIN IN EFFECT UNTIL THE EPOXY IS DRY AND ALL FOREIGN MATTER OR DEBRIS CREATED BY THE INSTALLATION OF THE RPM CASTING IS REMOVED FROM THE ROADWAY.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 50 CU. YD.

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

CONTRACTOR'S EQUIPMENT - OPERATION AND STORAGE

IN ADDITION TO THE REQUIREMENTS OF SECTION 614.03 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS THE FOLLOWING SHALL APPLY. THE CONTRACTOR'S EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAFFIC WHERE PRACTICAL. A FLAGGER SHALL BE USED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S VEHICLES AND EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE AMBER FLASHING LIGHT.

EQUIPMENT MAY BE PARKED IN AREAS ALONG THE HIGHWAY, THIRTY FEET (30') FROM THE EDGE OF TRAVELED HIGHWAY UNLESS BEHIND GUARDRAIL, WHEN VARIOUS OPERATIONS ARE SCHEDULED TO CONTINUE THE NEXT WORKDAY. ON WEEKENDS OR AT OTHER TIMES OF SUSPENSION OF WORK, THE EQUIPMENT SHALL BE STORED AT A STORAGE AREA REMOVED FROM THE STATE ROUTE RIGHT OF WAY. NO EQUIPMENT SHALL BE PARKED IN THE MEDIAN OF THE HIGHWAY. ADEQUATE BARRICADES AND LIGHT SHALL BE PLACED ON THE PAVEMENT SIDE OF THE EQUIPMENT TO IDENTIFY THE LIMITS OF THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT THE APPROVED CONTRACTOR'S STORAGE AREA.

MOVEMENT OF DRUMS

THE ROW OF DRUMS ALONG A CLOSED LANE SHALL BE MOVED OUT OF THE OPEN LANE ONTO THE NEW PAVEMENT AS SOON AS PAVING OPERATIONS PERMIT.

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHT TIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGHOUT THE WORKSITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN.

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

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

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MAINTENANCE OF TRAFFIC GENERAL NOTES

JEF-22-0.00

WORK ZONE PAVEMENT MARKINGS AND SIGNS

THE CONTRACTOR SHALL BE REQUIRED TO INSTALL WORK ZONE MARKINGS AND SIGNS AT LOCATIONS IDENTIFIED BY THE ENGINEER PER THE REQUIREMENTS OF CMS 614.04 AND 614.11.

WORK ZONE PAVEMENT MARKINGS SHALL BE 642 PAINT.

PRIOR TO PLACEMENT OF ANY WORK ZONE PAVEMENT MARKINGS, THE CONTRACTOR SHALL COMPLETELY OBLITERATE, AS PER 641.10, ALL EXISTING PAVEMENT MARKINGS THAT WOULD CREATE CONFUSION OR CONFLICT WITH THE WORK ZONE PAVEMENT MARKINGS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614 - WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT

PART 1:

N.B.	3.86 MILES X 2 APP. =	7.72 MILES
S.B.	3.86 MILES X 2 APP. =	7.72 MILES
		<u>15.44 MILES TOTAL</u>

ITEM 614 - WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT

PART 1:

N.B.	3.86 MILES X 2 LINES X 2 APP. =	15.44 MILES
S.B.	3.86 MILES X 2 LINES X 2 APP. =	15.44 MILES
RAMPS	0.53 MILES X 2 LINES X 2 APP. =	2.12 MILES
		<u>33.00 MILES TOTAL</u>

ITEM 614 - WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT

PART 2 - USE 0.08 MILES

ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT

PART 2 - USE 0.16 MILES

ITEM 614 - WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT

PART 1:

GORE	1628 FT. X 2 APP. =	3256 FT.
TURN LANE	186 FT. X 2 APP. =	372 FT.
		<u>3628 FT TOTAL</u>

WORK ZONE RAISED PAVEMENT MARKERS CANNOT BE USED TO SIMULATE (REPLACE) ANY TYPE OF WORK ZONE PAVEMENT MARKING.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR WORK ZONE SIGNS:

ITEM 614 - WORK ZONE MARKING SIGN (W8-11-36) 8 EACH

WORK ZONE INCREASED PENALTIES SIGN (R11-H5A)

R11-H5A-48 SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

THE SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE CONSECUTIVE CALENDAR DAYS, SUCH AS DURING WINTER SHUTDOWNS.

THE SIGNS ON THE MAINLINE SHALL BE DUAL MOUNTED UNLESS NOT PHYSICALLY POSSIBLE. THE FIRST SIGN SHALL BE PLACED BETWEEN THE ROAD WORK AHEAD (W20-11) SIGN AND THE NEXT SIGN IN THE SEQUENCE. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP AND EVERY 2 MILES THROUGH THE CONSTRUCTION WORK LIMITS. SIGNS ON THE MAINLINE SHALL BE R11-H5A-48. SIGNS USED ON THE RAMPS SHALL BE R11-H5A-24. R11-H5A-24 SIGNS MAY BE USED IN THE MEDIAN IN LIEU OF R11-H5A-48 SIGNS IF IT IS NOT PHYSICALLY POSSIBLE TO PROVIDE R11-H5A-48 SIGNS IN THE MEDIAN.

THE R11-H5A-48 SIGNS SHALL BE MOUNTED ON 2 NO. 3 POSTS. WHEN LOCATED WITHIN THE CLEAR ZONE.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS. SIGN FACES SHALL BE RETROREFLECTORIZED WITH TYPE G SHEETING COMPLYING WITH THE REQUIREMENTS OF C&MS 730.19.

WORK ZONE INCREASED PENALTIES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND RE-ERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATIONS FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVAL OF THE SIGN AND SUPPORT.

ITEM 614 - WORK ZONE INCREASED PENALTIES SIGN 24 EACH

ITEM 614 - WORK ZONE SPEED ZONES (WZSZS)

THE FOLLOWING WORK ZONE SPEED ZONE (WZSZ) SPEED LIMIT REVISIONS HAVE BEEN APPROVED FOR USE ON THIS PROJECT WHEN WORK ZONE CONDITIONS AND FACTORS ARE MET AS DESCRIBED BELOW:

REVISION NUMBER	COUNTY & ROUTE	DIRECTION
60591	JEF-22	EB & WB

POTENTIAL WZSZ LOCATIONS SHALL HAVE AN ORIGINAL (PRE-CONSTRUCTION) POSTED SPEED LIMIT OF 55 MPH OR GREATER, A QUALIFYING WORK ZONE CONDITION OF AT LEAST 0.5 MILE IN LENGTH, AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS, AND A WORK ZONE CONDITION IN PLACE THAT REDUCES THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS (I.E., LANE CLOSURES, LANE SHIFT, CROSSOVER, CONTRAFLOW AND/OR SHOULDER CLOSURE). THE LENGTH OF THE WORK ZONE CONDITION IS MEASURED FROM THE BEGINNING OF THE TAPER FOR THE SUBJECT WORK ZONE CONDITION IMPACTING THE TRAVEL LANES AND/OR SHOULDER TO THE END OF THE DOWNSTREAM TAPER, WHERE DRIVERS ARE RETURNED TO TYPICAL ALIGNMENT. AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS IS REQUIRED TO BALANCE THE ADDITIONAL EXPOSURE CREATED BY INSTALLING AND REMOVING WZSZ SIGNING WITH THE TIME NEEDED TO COMPLETE THE WORK.

IF THE WORK ZONE MEETS THESE MINIMUM CRITERIA, IT SHALL BE ANALYZED FURTHER USING TABLE 1 BELOW TO DETERMINE IF AND WHEN IT QUALIFIES FOR A SPEED LIMIT REDUCTION. DEPENDING ON THE ORIGINAL POSTED SPEED LIMIT, THE TYPE OF TEMPORARY TRAFFIC CONTROL USED, AND WHETHER ON NOT WORKERS ARE PRESENT, A WARRANTED WZSZ WILL VARY IN THE APPROVED SPEED LIMIT TO BE POSTED OVER TIME.

C&MS ITEM 614, PARAGRAPH 614.02(B), INDICATES THAT TWO DIRECTIONS OF A DIVIDED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, A SPEED LIMIT REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE A SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION. EACH DIRECTION SHALL BE ANALYZED INDEPENDENTLY FROM EACH OTHER.

ALL WZSZS FLUCTUATE BETWEEN TWO APPROVED REDUCED SPEED LIMITS OR BETWEEN AN APPROVED REDUCED SPEED LIMIT AND THE ORIGINAL POSTED SPEED LIMIT. ONLY ONE OF TWO SIGNING STRATEGIES SHALL BE USED TO IMPLEMENT A WZSZ.

WZSZS USING DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS NOTE, APPROVED LIST SUPPLEMENTAL SPECIFICATIONS (SS) 808 AND 908, AND TRAFFIC SCD MT-104.10.

ONLY ONE WARRANTED SPEED LIMIT APPLIES AT ANY ONE TIME; SPEED LIMIT REDUCTIONS ARE NOT CUMULATIVE. WZSZS SHALL NOT BE USED FOR MOVING/MOBILE ACTIVITIES, AS DEFINED IN ODOTCD PART 6.

ITEM 614 - WORK ZONE SPEED ZONES (WZSZS) (CONT'D)

WHEN LOOKING UP THE WARRANTED WORK ZONE SPEED LIMITS, ALWAYS USE THE ORIGINAL, PRE-CONSTRUCTION, POSTED SPEED LIMIT. DO NOT USE A PRIOR OR CURRENT WORK ZONE SPEED LIMIT AS A LOOK UP VALUE IN THE TABLE. POSITIVE PROTECTION IS GENERALLY REGARDED AS PORTABLE BARRIER OR OTHER RIGID BARRIER IN USE ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WITHOUT POSITIVE PROTECTION IS GENERALLY REGARDED AS USING DRUMS, CONES, SHADOW VEHICLE, ETC., ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WORKERS ARE CONSIDERED AS BEING PRESENT WHEN ON-SITE, WORKING WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WHEN THE WORK ZONE CONDITION REDUCING THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS IS REMOVED, THE SPEED LIMIT DISPLAYED SHALL RETURN TO THE ORIGINAL POSTED SPEED LIMIT.

TABLE 1: WARRANTED WORK ZONE SPEED LIMITS (MPH) FOR WORK ZONES ON HIGH-SPEED (55 MPH OR GREATER) MULTI-LANE HIGHWAYS

ORIGINAL POSTED SPEED LIMIT	WITH POSITIVE PROTECTION		WITHOUT POSITIVE PROTECTION	
	WORKERS PRESENT	WORKERS NOT PRESENT	WORKERS PRESENT	WORKERS NOT PRESENT
70	60	65	55	65
65	55	60	50	60
60	55	60	50	60
55	50	55	45	55

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 808, DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY [ASSUMING 12 DSL SIGN ASSEMBLIES PER MONTH FOR 6 MONTHS]

TOTAL 72 SIGN MONTH

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

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

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

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

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

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURE/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

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

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

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

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

**ITEM 614 - LAW ENFORCEMENT OFFICER
(WITH PATROL CAR) FOR ASSISTANCE
DURING CONSTRUCTION OPERATIONS (CONT'D)**

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACT AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

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

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

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

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SHEET NUM.												PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
5	6	7	8	11	12	13	14	15	16	17		01/NHS/P V	EXT	TOTAL				
ROADWAY																		
LS												LS	201	11000	LS	CLEARING AND GRUBBING		
				876					17	10		903	209	60200	903	STA LINEAR GRADING		
EROSION CONTROL																		
												1,000	832	30000	1,000	EACH EROSION CONTROL		
DRAINAGE																		
					200							200	605	31100	200	FT AGGREGATE DRAINS		
PAVEMENT																		
							100					100	251	01010	100	CY PARTIAL DEPTH PAVEMENT REPAIR (441)		
				177,395				1,151	3,924	1,773		184,243	254	01000	184,243	SY PAVEMENT PLANING, ASPHALT CONCRETE (1.5')		
				3,546					79	36		3,661	254	01600	3,661	SY PATCHING PLANED SURFACE		
						1,900						1,900	255	10011	1,900	SY FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC1, AS PER PLAN (A)		
						2,000						2,000	255	10011	2,000	SY FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC1, AS PER PLAN (B)		
						14,640						14,640	255	20000	14,640	FT FULL DEPTH PAVEMENT SAWING		
				15,077				98	334	151		15,660	407	10000	15,660	GAL TACK COAT		
				7,778					147	88		8,013	408	10001	8,013	GAL PRIME COAT, AS PER PLAN		
4,831												4,831	442	00100	4,831	CY ANTI-SEGREGATION EQUIPMENT		
				7,394				48	164	74		7,680	442	10351	7,680	CY ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE B (447), AS PER PLAN		
				812					16	9		837	617	10100	837	CY COMPACTED AGGREGATE		
				81,600								81,600	618	40100	81,600	FT RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)		
TRAFFIC CONTROL																		
				433								433	621	00100	433	EACH RPM		
				433								433	621	54000	433	EACH RAISED PAVEMENT MARKER REMOVED		
0.16				16.58					0.31	0.19		17.24	642	00104	17.24	MILE EDGE LINE, 6", TYPE 1		
0.08				7.72								7.8	642	00204	7.8	MILE LANE LINE, 6", TYPE 1		
				2,836								2,836	642	00404	2,836	FT CHANNELIZING LINE, 12", TYPE 1		
				951								951	642	01510	951	FT DOTTED LINE, 6", TYPE 1		
									169	105		274	646	10400	274	FT STOP LINE		
									4			4	646	20320	4	EACH WRONG WAY ARROW		
MAINTENANCE OF TRAFFIC																		
			200									200	614	11110	200	HOUR LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE		
		8										8	614	12460	8	EACH WORK ZONE MARKING SIGN		
		24										24	614	12484	24	EACH WORK ZONE INCREASED PENALTIES SIGN		
50												50	614	13000	50	CY ASPHALT CONCRETE FOR MAINTAINING TRAFFIC		
		0.08										0.08	614	20110	0.08	MILE WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT		
		15.44										15.44	614	20560	15.44	MILE WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT		
		0.16										0.16	614	22110	0.16	MILE WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT		
		33										33	614	22360	33	MILE WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT		
		3,628										3,628	614	23690	3,628	FT WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT		
		72										72	808	18700	72	SNMT DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY		

GENERAL SUMMARY

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SHEET NUM.													PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE
													01/NHS/P V		EXT	TOTAL			SHEET
6																			
LS													LS	614	11001	LS		INCIDENTALS	6
													6	619	16010	6	MNTH	MAINTAINING TRAFFIC, AS PER PLAN	
													LS	623	10000	LS		FIELD OFFICE, TYPE B	
													LS	624	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
																		MOBILIZATION	

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GENERAL SUMMARY			
JEF - 22 - 0.00			
10		17	

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LOCATION PART 1 (SLM 0.00 TP SLM 3.86)	STATION		LENGTH FT	WIDTH FT	PAVEMENT AREA * Denotes CADD Area	254		254		407		442		617			209		408		618		REMARKS
						THICKNESS	PAVEMENT PLANING, ASPHALT CONCRETE	PATCHING PLANED SURFACE (2% OF PLANED AREA)	TACK COAT (0.085 GAL./S.Y.)	THICKNESS	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B (447), AS PER PLAN	COMPACTED AGGREGATE WIDTH	THICKNESS	COMPACTED AGGREGATE	LINEAR GRADING	PRIME COAT, AS PER PLAN (0.40 GAL./S.Y.)	RUMBLE STRIPS, ASPHALT CONCRETE						
																		SQ YD	IN.	SQ YD	GAL	IN.	
MAINLINE - EASTBOUND																							
U.S. 22	0+00.00	204+00.00	20,400.00	24	54,400	1 1/2	54,400	1,088	4,624	1 1/2	2267												
DECEL. LANE - RAMP 'C'	166+99.81	175+54.40	854.59	VARIABLE	1,587.46 *	1 1/2	1,587	32	135	1 1/2	66											S.R. 152 INTERCHANGE	
ACCEL. LANE - RAMP 'D'	189+51.00	202+00.00	1,249.00	VARIABLE	2,183.30 *	1 1/2	2,183	44	186	1 1/2	91											S.R. 152 INTERCHANGE	
MAINLINE SHOULDERS E.B.																							
INSIDE SHOULDER	0+00.00	204+00.00	20,400.00	4	9,067	1 1/2	9,067	181	771	1 1/2	378	2	1 1/2	189	204	1813	20,400						
OUTSIDE SHOULDER	0+00.00	204+00.00	20,400.00	8	18,133	1 1/2	18,133	363	1,541	1 1/2	756	2	1 1/2	189	204	1813	20,400						
RAMP 'C'																							
MAINLINE	75+54.40	81+50.00	595.60	16	1,059	1 1/2	1,059	21	90	1 1/2	44											S.R. 152 INTERCHANGE	
LEFT SHOULDER	75+54.40	81+50.00	595.60	3	199	1 1/2	199	4	17	1 1/2	8	2	1 1/2	6	6	53							
RIGHT SHOULDER	74+98.13	76+98.13	200.00	5.5	122	1 1/2	122	2	10	1 1/2	5	2	1 1/2	2	2	18							
RIGHT SHOULDER	76+98.13	81+50.00	451.87	3	151	1 1/2	151	3	13	1 1/2	6	2	1 1/2	4	5	40							
RAMP 'D'																							
MAINLINE	83+50.00	89+53.66	603.66	16	1,073	1 1/2	1,073	21	91	1 1/2	45											S.R. 152 INTERCHANGE	
LEFT SHOULDER	83+50.00	89+53.66	603.66	3	201	1 1/2	201	4	17	1 1/2	8	2	1 1/2	6	6	54							
RIGHT SHOULDER	83+50.00	90+00.00	650.00	3	217	1 1/2	217	4	18	1 1/2	9	2	1 1/2	6	7	58							
RIGHT SHOULDER	90+00.00	92+00.00	200.00	5.5	122	1 1/2	122	2	10	1 1/2	5	2	1 1/2	2	2	18							
MAINLINE - WESTBOUND																							
U.S. 22	0+00.00	204+00.00	20,400.00	24	54,400	1 1/2	54,400	1,088	4,624	1 1/2	2267												
LEFT TURN LANE	0+00.00	1+44.70	144.70	12.0	193 *	1 1/2	193	4	16	1 1/2	8												
LEFT TURN LANE	1+44.70	3+94.70	250.00	6	167 *	1 1/2	167	3	14	1 1/2	7												
ACCEL. LANE - RAMP 'A'	167+00.00	177+49.00	1,049.00	VARIABLE	1,529.28 *	1 1/2	1,529	31	130	1 1/2	64											S.R. 152 INTERCHANGE	
DECEL. LANE - RAMP 'B'	194+65.15	202+99.92	834.77	VARIABLE	1,461.57 *	1 1/2	1,462	29	124	1 1/2	61											S.R. 152 INTERCHANGE	
MAINLINE SHOULDERS W.B.																							
INSIDE SHOULDER	0+00.00	204+00.00	20,400.00	4	9,067	1 1/2	9,067	181	771	1 1/2	378	2	1 1/2	189	204	1813	20,400						
OUTSIDE SHOULDER	0+00.00	204+00.00	20,400.00	8	18,133	1 1/2	18,133	363	1,541	1 1/2	756	2	1 1/2	189	204	1813	20,400						
RAMP 'A'																							
MAINLINE	77+49.00	86+25.00	876.00	16	1,557	1 1/2	1,557	31	132	1 1/2	65											S.R. 152 INTERCHANGE	
LEFT SHOULDER	77+00.00	79+00.00	200.00	5.5	122	1 1/2	122	2	10	1 1/2	5	2	1 1/2	2	2	18							
LEFT SHOULDER	79+00.00	86+25.00	725.00	3	242	1 1/2	242	5	21	1 1/2	10	2	1 1/2	7	7	64							
RIGHT SHOULDER	77+49.00	86+25.00	876.00	3	292	1 1/2	292	6	25	1 1/2	12	2	1 1/2	8	9	78							
RAMP 'B'																							
MAINLINE	87+75.00	94+61.50	686.50	16	1,220	1 1/2	1,220	24	104	1 1/2	51											S.R. 152 INTERCHANGE	
LEFT SHOULDER	87+75.00	93+97.14	622.14	3	207	1 1/2	207	4	18	1 1/2	9	2	1 1/2	6	6	55							
RIGHT SHOULDER	93+97.14	94+97.14	100.00	5.5	61	1 1/2	61	1	5	1 1/2	3	2	1 1/2	1	1	9							
RIGHT SHOULDER	87+75.00	94+61.50	686.50	3	229	1 1/2	229	5	19	1 1/2	10	2	1 1/2	6	7	61							
TOTALS CARRIED TO GENERAL SUMMARY						FUNDING (01/ NHS/ PV)						177.395	3.546	15.077	7.394	812	876	7.778	81.600				

CALCULATED BSH CHECKED ANS
ESTIMATED QUANTITIES
JEF - 22 - 0.00
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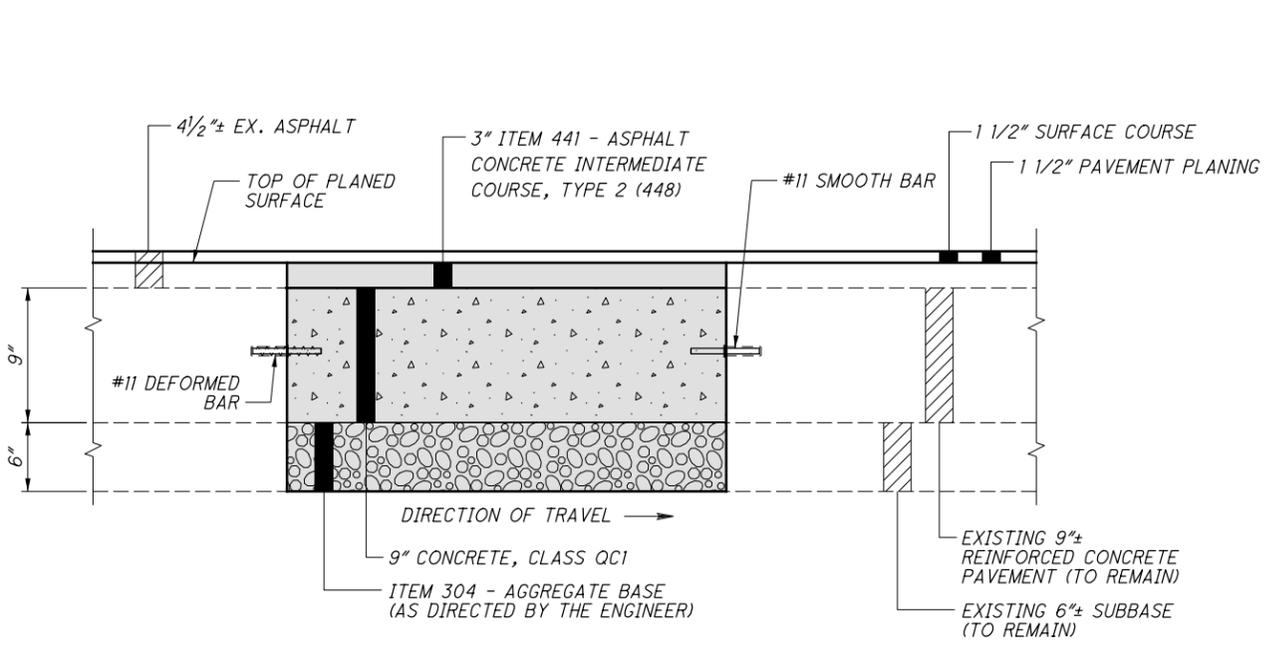
LOCATION PART 1 (SLM 0.00 TP SLM 3.86)	STATION TO STATION		SIDE DIRECTION OF TRAVEL	SPACING FT.	621 RPM			RAISED PAVEMENT MARKER REMOVED EACH	EDGE LINE, 6", TYPE 1 (WHITE) MILE	EDGE LINE, 6", TYPE 1 (YELLOW) MILE	LANE LINE, 6", TYPE 1 MILE	CHANNELIZING LINE, 12", TYPE 1 FT	DOTTED LINE, 6", TYPE 1 FT	REMARKS
	FROM	TO			1 - WAY, WHITE EACH	2 - WAY, WHITE/RED EACH	2 - WAY, YELLOW/RED EACH							
MAINLINE - EASTBOUND														
	0+00.00	204+00.00	CTR.	120	171		171			3.86				
	0+00.00	204+00.00	LT.						3.86					
	0+00.00	175+54.40	RT.					3.32						
	175+54.40	193+20.00	RT.					0.33						
	189+51.00	204+00.00	RT.					0.27						
MAINLINE - WESTBOUND														
	0+00.00	204+00.00	CTR.	120	171		171			3.86				
	0+00.00	204+00.00	LT.						3.86					
	0+00.00	177+49.00	RT.					3.36						
	175+80.21	194+65.15	RT.					0.36						
	194+65.15	204+00.00	RT.					0.18						
	1333+63.00	1334+03.75 Bk	LT.	40	2		2				41			
	0+00 AH.	1+44.70	LT.	40	5		5				145			
S.R. 152 INT. - RAMP 'A'														
ACCEL. LANE	73+39.72	75+79.77	LT.									240		
ACCEL. LANE	75+79.77	77+49.00	LT.	40	5		5				660		642 - CADD GENERATED QTY	
	77+49.00	86+25.00	LT.	80		12	12		0.17					
	77+49.00	86+25.00	RT.						0.17					
S.R. 152 INT. - RAMP 'B'														
	87+75.00	94+61.50	RT.						0.13					
	87+75.00	94+61.50	LT.	80		10	10		0.13					
DECEL. LANE	94+61.50	97+08.59	LT.	40	14		14				610		642 - CADD GENERATED QTY	
DECEL. LANE	97+08.59	99+55.55	LT.									247		
S.R. 152 INT. - RAMP 'C'														
DECEL. LANE	70+27.51	72+54.54	LT.									227		
DECEL. LANE	72+54.54	75+54.40	LT.	40	16		16				660		642 - CADD GENERATED QTY	
	75+54.40	81+50.00	LT.	80		8	8		0.11	0.11				
	75+54.40	81+50.00	RT.						0.11					
S.R. 152 INT. - RAMP 'D'														
	83+50.00	89+53.66	RT.						0.11					
	83+50.00	89+53.66	LT.	80		9	9		0.11					
ACCEL. LANE	89+53.66	93+19.03	LT.	40	10		10				720		642 - CADD GENERATED QTY	
ACCEL. LANE	93+19.03	95+56.42	LT.									237		
SUBTOTALS					342	52	39		8.34	8.24				
TOTALS (CARRIED TO GENERAL SUMMARY)						433		433		16.58	7.72	2836	951	
NOTE: FOR PART 2 TRAFFIC CONTROL QUANTITIES, SEE SHEET 5														

TRAFFIC CONTROL ESTIMATED QUANTITIES

JEF - 22 - 0.00

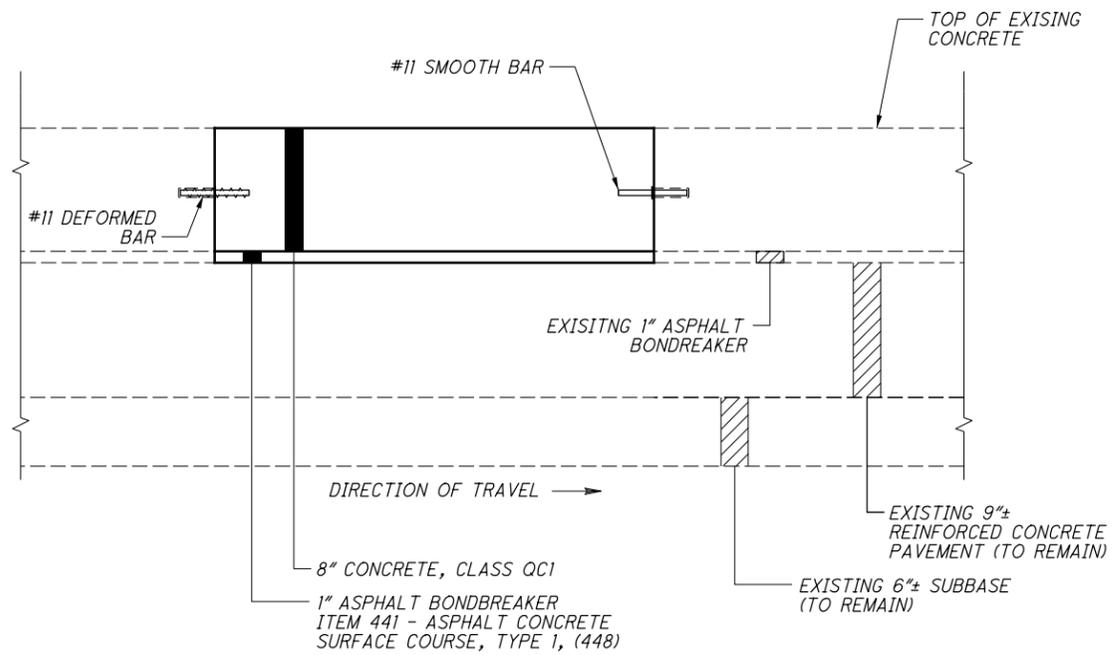
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**MAINLINE PAVEMENT REPAIR TYPICAL (CONCRETE)
PART 1 - SLM 0.00 TO 3.86**

FOR DETAILS NOT SHOWN SEE STANDARD CONSTRUCTION DRAWING BP-2.5
FOR TRANSVERSE JOINT REPAIR DETAILS AND BP-2.1 FOR LONGITUDINAL JOINT DETAILS



**MAINLINE PAVEMENT REPAIR TYPICAL (CONCRETE)
PART 2 - SLM 3.86 TO 6.98**

FOR DETAILS NOT SHOWN SEE STANDARD CONSTRUCTION DRAWING BP-2.5
FOR TRANSVERSE JOINT REPAIR DETAILS AND BP-2.1 FOR LONGITUDINAL JOINT DETAILS

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC1, AS PER PLAN (A)

THE ESTIMATED QUANTITIES ARE TO BE CONSIDERED APPROXIMATE. A FINAL FIELD REVIEW WILL BE PERFORMED BY ODOT PRIOR TO CONSTRUCTION AND FINAL LOCATIONS WILL BE GIVEN TO THE CONTRACTOR PRIOR TO CONSTRUCTION.

THIS WORK CONSISTS OF REMOVING THE EXISTING ASPHALT CONCRETE, REINFORCED CONCRETE, AND THE AGGREGATE BASE COURSES; SHAPING AND COMPACTING THE EXPOSED MATERIAL; PLACING ITEM 304 AGGREGATE BASE; THEN INSTALLING DOWEL RODS FOLLOWED BY CONCRETE PAVEMENT, CLASS QC1. FINALLY, PLACE ITEM 441, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (448) (WITH A MAXIMUM LIFT THICKNESS OF 3 INCHES) UP TO THE LEVEL OF THE EXISTING ASPHALT CONCRETE SURFACE.

THIS WORK SHALL BE COMPLETED BEFORE MILLING AND RESURFACING BEGINS.

ALL OTHER PROVISIONS OF STANDARD CONSTRUCTION DRAWINGS BP-2.1 AND BP-2.5 APPLY.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN PROVIDED FOR INFORMATION ONLY.

9" CONCRETE, CLASS QC1	475 CU. YD.
ITEM 304 - AGGREGATE BASE	317 CU. YD.
ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2 (448)	158 CU. YD.
ITEM 509 - EPOXY COATED REINFORCING	22,067 POUNDS
ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	3,560 EACH

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER. FINAL PAYMENT FOR THESE ITEMS SHALL BE FOR THE ACCEPTED QUANTITY COMPLETED IN PLACE.

PART 1
ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC1, AS PER PLAN (A) - 1,900 SQ. YD.

PART 1
ITEM 255 - FULL DEPTH PAVEMENT SAWING ----- 7,120 FT.

PART 1
ITEM 605 - AGGREGATE DRAINS ----- 200 FT.

ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC1, AS PER PLAN (B)

THE ESTIMATED QUANTITIES ARE TO BE CONSIDERED APPROXIMATE. A FINAL FIELD REVIEW WILL BE PERFORMED BY ODOT PRIOR TO CONSTRUCTION AND FINAL LOCATIONS WILL BE GIVEN TO THE CONTRACTOR PRIOR TO CONSTRUCTION.

THIS WORK CONSISTS OF REMOVING THE EXISTING REINFORCED CONCRETE AND THE ASPHALT BONDBREAKER; PLACING 1" ASPHALT BONDBREAKER; THEN INSTALLING DOWEL RODS FOLLOWED BY CONCRETE PAVEMENT, CLASS QC1.

IN ADDITION TO THE REQUIREMENTS OF ITEM 255.06 PLACEMENT OF PORTLAND CEMENT CONCRETE, THE CONTRACTOR SHALL CHECK ALL COMPLETED PATCH AREAS WITH A 10 FOOT STRAIGHT EDGE IN THE PRESENCE OF THE ENGINEER TO VERIFY THAT THE 1/8" IN 10 FEET TOLERANCE HAS BEEN MET. IF THE FINISHED SURFACE DOES NOT MEET THE SPECIFIED TOLERANCE, PROFILE CORRECTIONS MUST BE ACCOMPLISHED BY DIAMOND GRINDING AS PER ITEM 257 DIAMOND GRINDING PORTLAND CEMENT CONCRETE PAVEMENT. WHERE DIAMOND GRINDING IS NECESSARY ALL COST FOR MATERIAL, LABOR AND EQUIPMENT SHALL BE INCLUDED WITH THE APPROPRIATE ITEM 255, FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, BY CLASS, AS PER PLAN QUANTITY.

ALL OTHER PROVISIONS OF STANDARD CONSTRUCTION DRAWINGS BP-2.1 AND BP-2.5 APPLY.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN PROVIDED FOR INFORMATION ONLY.

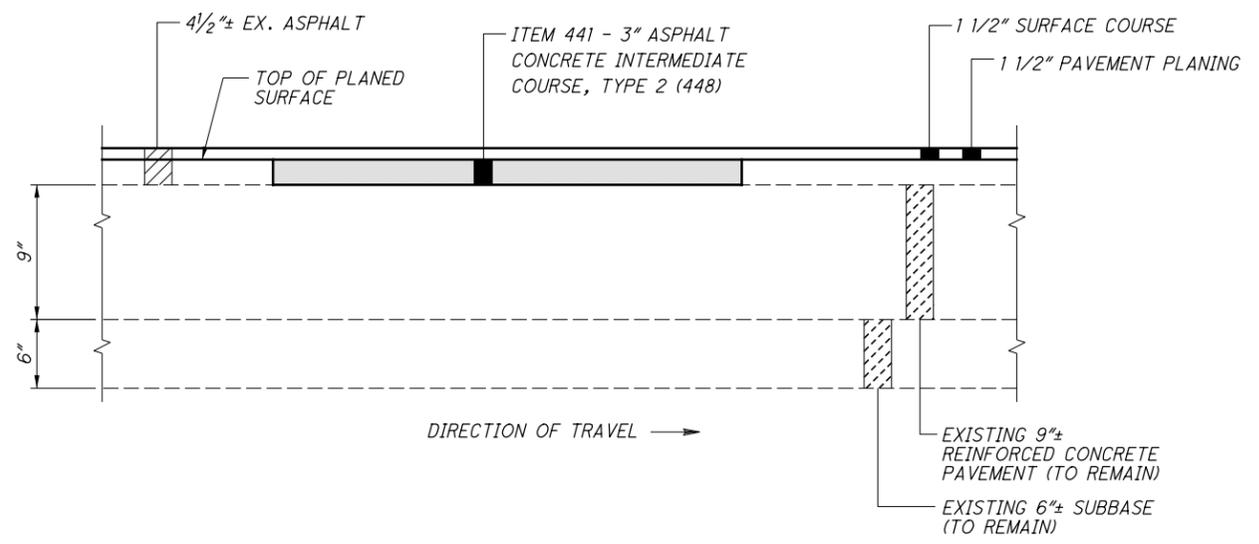
8" CONCRETE, CLASS QC1	444 CU. YD.
ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448)	56 CU. YD.
ITEM 509 - EPOXY COATED REINFORCING	23,306 POUNDS
ITEM 510 - DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	3,760 EACH

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER. FINAL PAYMENT FOR THESE ITEMS SHALL BE FOR THE ACCEPTED QUANTITY COMPLETED IN PLACE.

PART 2
ITEM 255 - FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC1, AS PER PLAN (B) - 2,000 SQ. YD.

PART 2
ITEM 255 - FULL DEPTH PAVEMENT SAWING ----- 7,520 FT.

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PARTIAL DEPTH PAVEMENT REPAIR TYPICAL

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441)

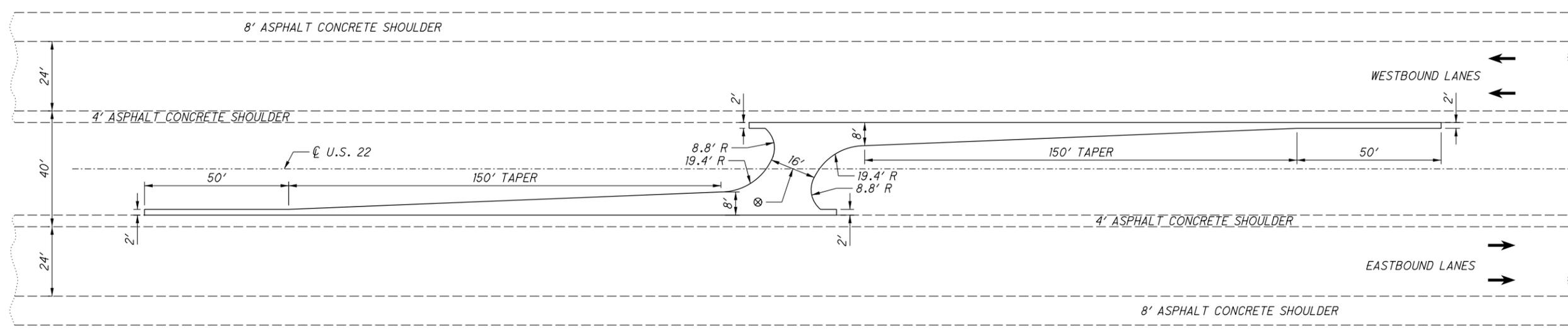
PARTIAL DEPTH PAVEMENT REPAIRS SHALL BE 3" INCHES DEEP AND FILLED WITH ITEM 441, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448). THE ESTIMATED QUANTITY IS TO BE CONSIDERED APPROXIMATE. A FINAL FIELD REVIEW WILL BE PERFORMED BY ODOT AND FINAL LOCATIONS WILL BE GIVEN TO THE CONTRACTOR PRIOR TO CONSTRUCTION.

ALL PARTIAL DEPTH REPAIRS ARE TO BE COMPLETED PRIOR TO THE SURFACE COURSE PAVING.

THE ESTIMATED QUANTITY IS TO BE USED AS DIRECTED BY THE ENGINEER. THE ENGINEER WILL DETERMINE THE SIZE AND LOCATION OF EACH PAVEMENT REPAIR. FINAL PAYMENT FOR THE ABOVE ITEMS SHALL BE FOR THE ACCEPTED QUANTITY COMPLETED IN PLACE.

PART 1
ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441) - 100 CU. YD.

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40' MEDIAN CROSSOVER

- ⊗ - STA. 155+76
- STA. 213+18
- STA. 278+76
- STA. 339+18

CALCULATIONS

CADD AREA PER CROSSOVER = 2589 SQ. FT.

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)

$2589 \text{ SQ. FT.} \div 9 \times 4 = 1150.67 \text{ SQ. YD. (USE 1151 SQ. YD.)}$

ITEM 407 - TACK COAT (APPLIED AT 0.085 GAL./SQ. YD.)

$2589 \text{ SQ. FT.} \div 9 \times 0.085 \text{ GAL./SQ. YD.} \times 4 = 97.81 \text{ GAL. (USE 98 GAL.)}$

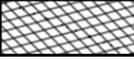
ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B (447), AS PER PLAN

$2589 \text{ SQ. FT.} \times 1.5" \div 12 \div 27 \times 4 = 47.94 \text{ CU. YD. (USE 48 CU. YD.)}$

(QUANTITIES CARRIED TO GENERAL SUMMARY)

NOTE: FOR PAVEMENT BUILDUP, SEE SHEET 4.

LEGEND:

-  - DIRECTION OF TRAVEL
-  - PROPOSED RAMP RESURFACING AREA (INCLUDES RAMP SHOULDERS)
-  - PROPOSED C.R. 22 / S.R. 152 RESURFACING AREA (INCLUDES SHOULDERS)
-  - SEE SHEET 11 FOR THE REMAINDER OF PAVEMENT QUANTITIES AND CALCULATIONS

CALCULATIONS & QUANTITIES

CADD AREA RAMP 'A' =	4,151.12 SQ. FT.	CADD AREA S.R. 152 =	7,268.09 SQ. FT.
CADD AREA RAMP 'B' =	5,444.13 SQ. FT.	CADD AREA C.R. 22 =	8,926.45 SQ. FT.
CADD AREA RAMP 'C' =	5,468.20 SQ. FT.		
CADD AREA RAMP 'D' =	4,057.14 SQ. FT.		
RAMP SUBTOTAL =	19,120.59 SQ. FT.	S.R. 152 & C.R. 22 SUBTOTAL =	16,194.54 SQ. FT.
	= 2,124.51 SQ. YD.		= 1,799.39 SQ. YD.
		TOTAL =	3,923.90 SQ. YD.

SHOULDER SIDES BASED ON LOOKING UPSTATION:

CADD LENGTH RAMP 'A' SHOULDER LT. =	160 FT.
CADD LENGTH RAMP 'A' SHOULDER RT. =	93 FT.
CADD LENGTH RAMP 'B' SHOULDER LT. =	155 FT.
CADD LENGTH RAMP 'B' SHOULDER RT. =	127 FT.
CADD LENGTH RAMP 'C' SHOULDER LT. =	137 FT.
CADD LENGTH RAMP 'C' SHOULDER RT. =	175 FT.
CADD LENGTH RAMP 'D' SHOULDER LT. =	77 FT.
CADD LENGTH RAMP 'D' SHOULDER RT. =	157 FT.
S.R. 152 SHOULDERS = 81'+73'+73' =	227 FT.
C.R. 22 SHOULDERS = 54'+118'+90'+76' =	338 FT.
TOTAL =	1,646 FT.

ITEM 642 - EDGE LINE, 6", TYPE 1
(CADD SHOULDER LENGTHS ABOVE)

ITEM 642 - EDGE LINE, 6", TYPE 1 (WHITE)	
RAMP 'A' =	160 FT.
RAMP 'B' =	155 FT.
RAMP 'C' =	175 FT.
RAMP 'D' =	157 FT.
S.R. 152 =	227 FT.
C.R. 22 =	338 FT.

ITEM 646 - STOP LINE
(LENGTHS ARE CADD GENERATED)

RAMP 'B' =	89 FT.
RAMP 'C' =	80 FT.
TOTAL =	169 FT.

ITEM 642 - EDGE LINE 6", TYPE 1 (YELLOW)

RAMP 'A' =	93 FT.
RAMP 'B' =	127 FT.
RAMP 'C' =	137 FT.
RAMP 'D' =	77 FT.

ITEM 646 - WRONG WAY ARROW
(REPLACE IN SAME LOCATIONS AS EXISTING AND PER SCD TC-73.20)

RAMP 'B' =	2 EACH
RAMP 'C' =	2 EACH
TOTAL =	4 EACH

TOTAL =	1646 FT.
=	0.312 MILE
	(USE 0.31 MILE)

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)

3923.87 SQ. YD. (USE 3924 SQ. YD.)

ITEM 617 - COMPACTED AGGREGATE (2' WIDTH & 1.5" DEPTH)

(1646' X 2' X (1.5"/12)) ÷ 27 = 15.24 CU. YD. (USE 16 CU. YD.)

ITEM 254 - PATCHING PLANED SURFACE

2.0% X 3924 SQ. YD. = 78.48 SQ. YD. (USE 79 SQ. YD.)

ITEM 209 - LINEAR GRADING

1646' ÷ 100 = 16.46 STA. (USE 17 STA.)

ITEM 407 - TACK COAT (APPLIED AT 0.085 GAL./SQ. YD.)

3924 SQ. YD. X 0.085 GAL./SQ. YD. = 333.54 GAL. (USE 334 GAL.)

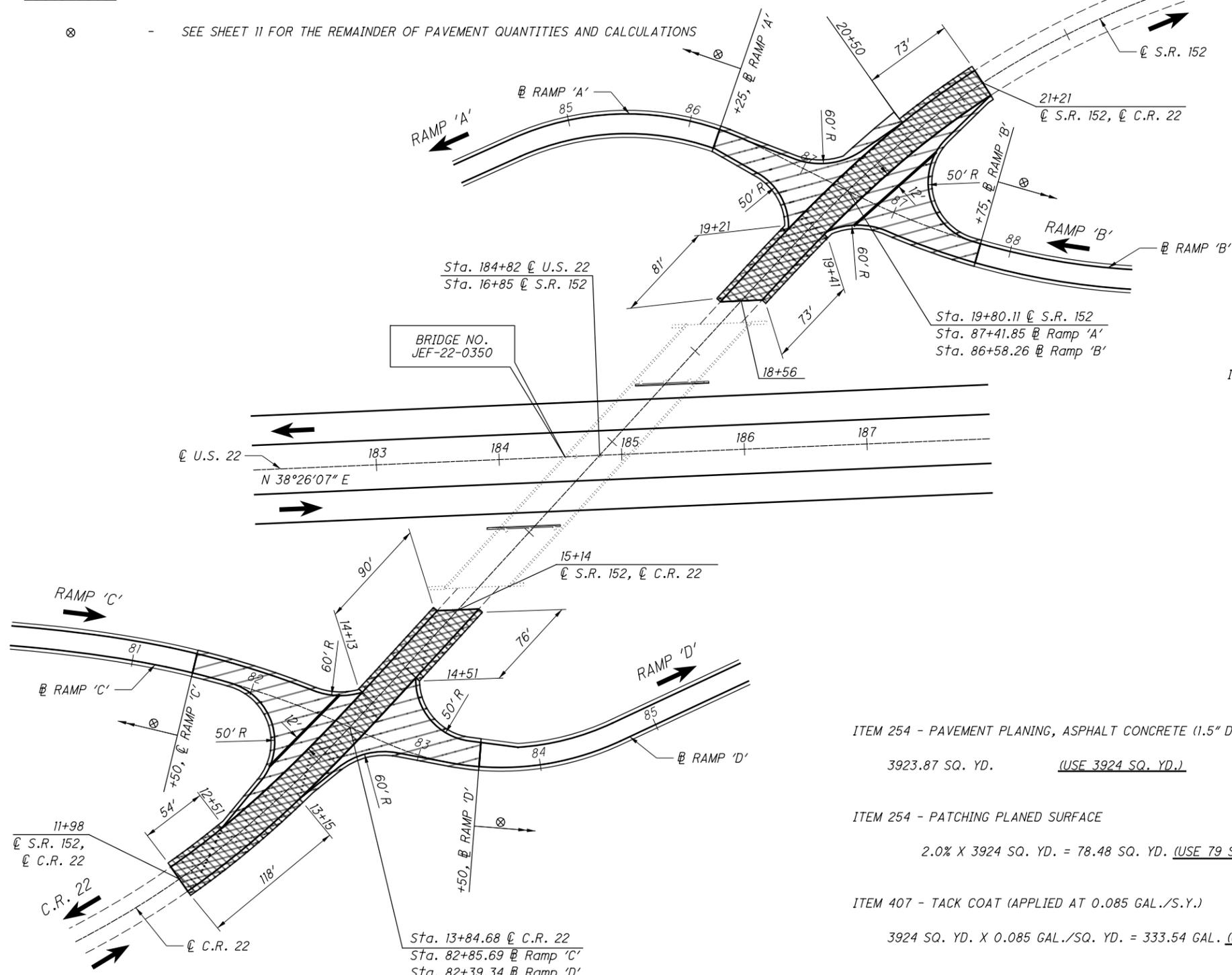
ITEM 407 - PRIME COAT, AS PER PLAN (APPLIED AT 0.4 GAL./SQ. YD.)

1646' X 2' ÷ 9 X 0.4 GAL./SQ. YD. = 146.31 GAL. (USE 147 GAL.)

ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B (447), AS PER PLAN

3924 SQ. YD. X (1.5" ÷ 12 ÷ 3) = 163.50 CU. YD. (USE 164 CU. YD.)

QUANTITY TOTALS CARRIED TO THE GENERAL SUMMARY



NOTE:

FOR PAVEMENT BUILDUP AND TYPICAL SECTIONS, SEE SHEET 4



U.S. 22 RAMPS
S.R. 152 & C.R. 22 INTERSECTION DETAILS

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10
HORIZONTAL
SCALE IN FEET

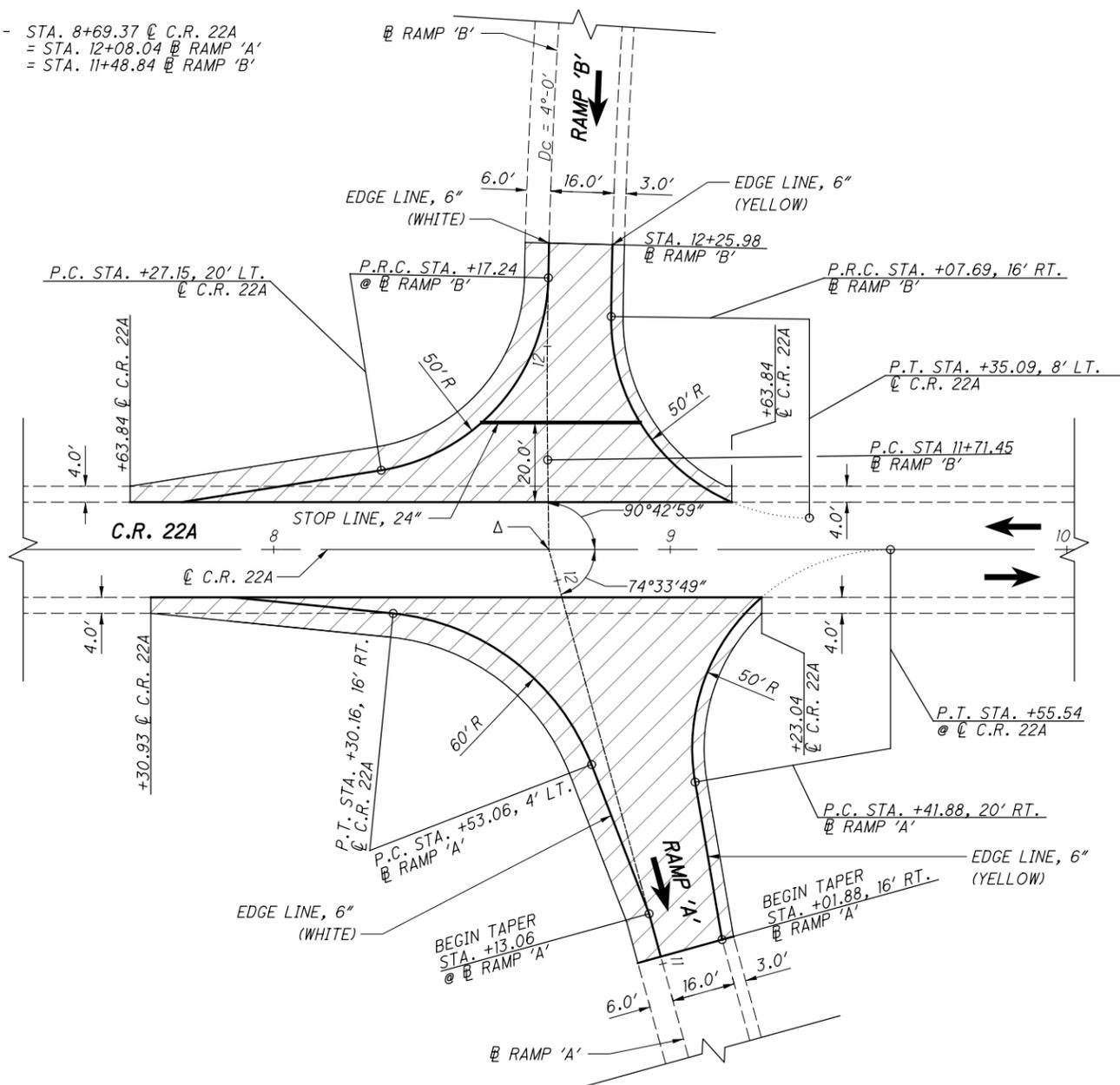
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U.S. 22 RAMPS
C.R. 22A INTERSECTION DETAILS

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Δ - STA. 8+69.37 @ C.R. 22A
= STA. 12+08.04 @ RAMP 'A'
= STA. 11+48.84 @ RAMP 'B'



C.R. 22A AND RAMPS 'A' & 'B'

CALCULATIONS & QUANTITIES

CADD AREA RAMP 'A' = 4,369.23 SQ. FT.
CADD AREA RAMP 'B' = 3,503.65 SQ. FT.
CADD AREA RAMP 'C' = 3,820.31 SQ. FT.
CADD AREA RAMP 'D' = 4,257.40 SQ. FT.

TOTAL = 15,950.56 SQ. FT.
= 1772.29 SQ. YD.

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)

1772.29 SQ. YD. (USE 1773 SQ. YD.)

ITEM 254 - PATCHING PLANED SURFACE

2.0% X 1773 SQ. YD. = 35.46 SQ. YD. (USE 36 SQ. YD.)

ITEM 407 - TACK COAT (APPLIED AT 0.085 GAL./S.Y.)

1772.29 SQ. YD. X 0.085 GAL./SQ. YD. = 150.64 GAL. (USE 151 GAL.)

ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE B (447), AS PER PLAN

1772.29 SQ. YD. X (1.5" ÷ 12 ÷ 3) = 73.85 CU. YD. (USE 74 CU. YD.)

ITEM 617 - COMPACTED AGGREGATE (2' WIDTH & 1.5" DEPTH)

(981' X 2' X (1.5" ÷ 12)) ÷ 27 = 9.08 CU. YD. (USE 9 CU. YD.)

ITEM 209 - LINEAR GRADING

981' ÷ 100 = 9.81 STA. (USE 10 STA.)

ITEM 407 - PRIME COAT, AS PER PLAN (APPLIED AT 0.4 GAL./S.Y.)

981' X 2' ÷ 9 X 0.4 GAL./SQ. YD. = 87.2 GAL. (USE 88 GAL.)

ITEM 642 - EDGE LINE, 6", TYPE 1 (LENGTHS ARE CADD GENERATED)

ITEM 642 - EDGE LINE, 6", TYPE 1 (WHITE)
RAMP 'A' = 179 FT.
RAMP 'B' = 142 FT.
RAMP 'C' = 150 FT.
RAMP 'D' = 174 FT.

ITEM 642 - EDGE LINE, 6", TYPE 1 (YELLOW)
RAMP 'A' = 92 FT.
RAMP 'B' = 77 FT.
RAMP 'C' = 78 FT.
RAMP 'D' = 89 FT.

TOTAL = 981 FT.
= 0.186 MILE
(USE 0.19 MILE)

LEGEND:

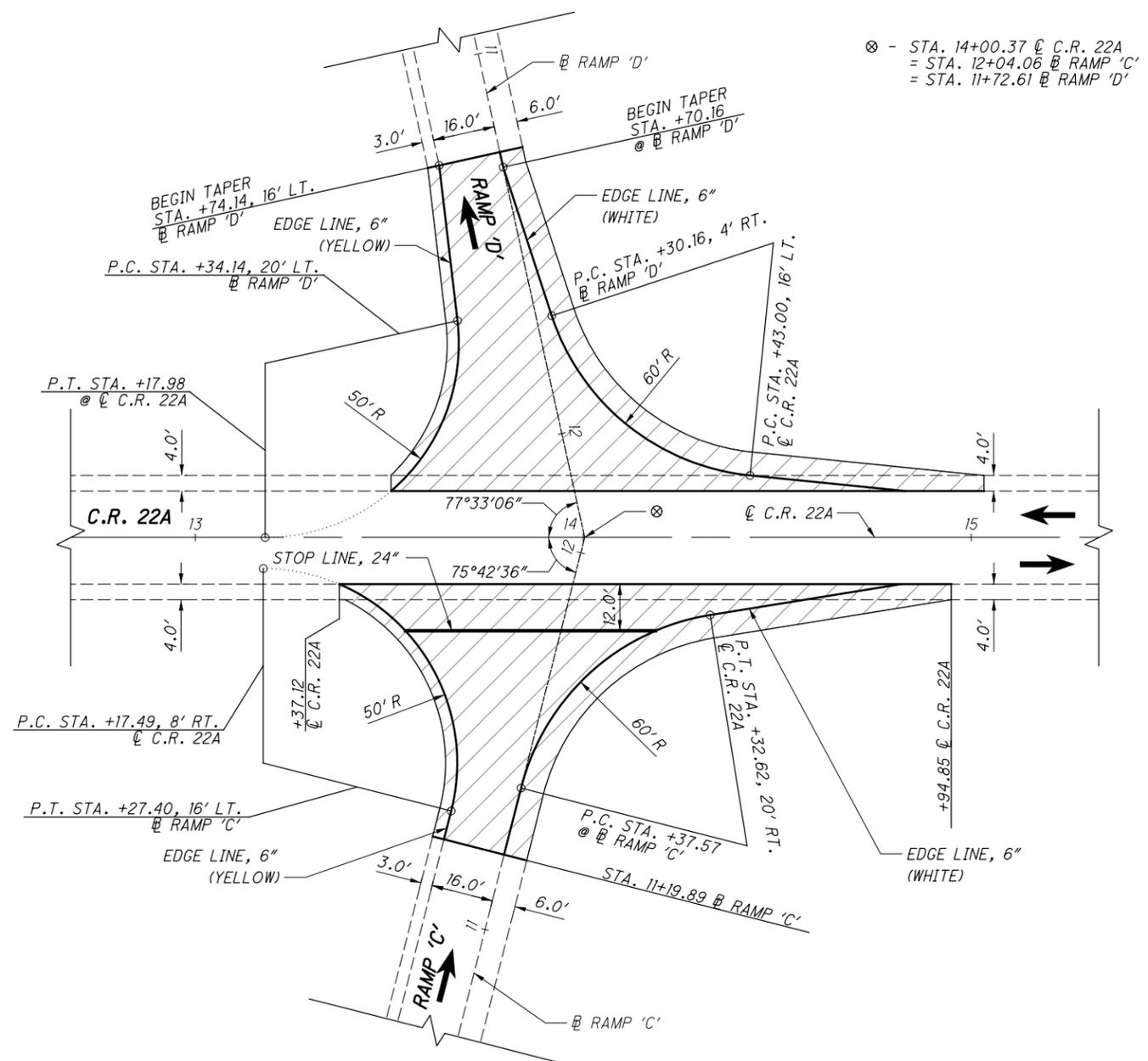
- DIRECTION OF TRAVEL
- PROPOSED RESURFACING AREA (INCLUDES SHOULDERS)

NOTE:
FOR PAVEMENT BUILDUP AND TYPICAL SECTIONS, SEE SHEET 4.

ITEM 646 - STOP LINE (LENGTHS ARE CADD GENERATED)

RAMP 'C' = 65 FT.
RAMP 'B' = 40 FT.

TOTAL = 105 FT.



C.R. 22A AND RAMPS 'C' & 'D'

QUANTITY TOTALS CARRIED TO THE GENERAL SUMMARY

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