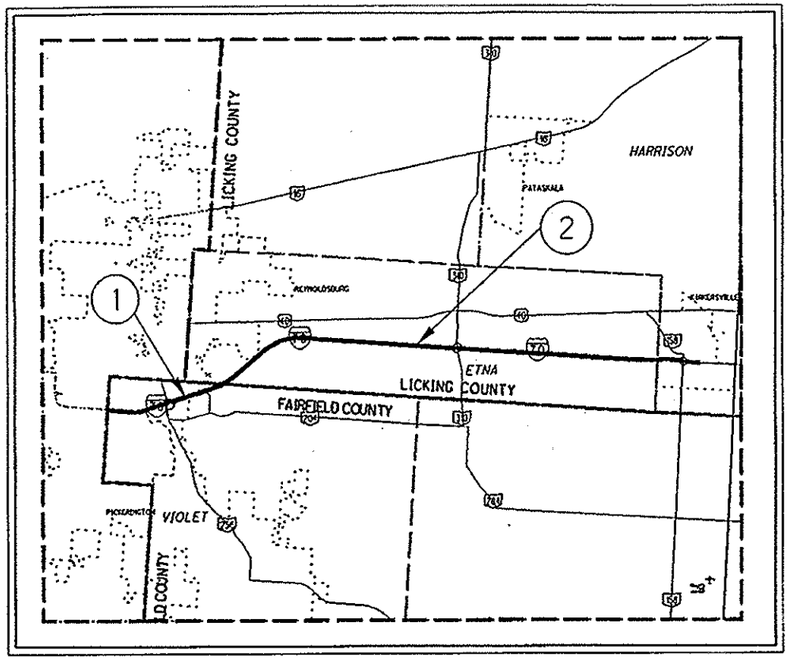


LOCATION MAP

LAT/LON: 39° 57' 03" / 82° 42' 56"

PORTION TO BE IMPROVED

DESIGN DESIGNATION	FAI-70	LIC-70
	0.00-2.38	0.00-8.80
Functional Classification	Interstate	Interstate
Opening Year ADT (2011)	97,100	62,200
Design Year ADT (2023)	119,400	76,200
Design Hourly Volume (2023)	10,746	6,858
Directional Distribution	55%	55%
Trucks (24 Hour B&C)	17%	26%
Design Speed	75mph	75mph
Legal Speed	65mph	65mph

DESIGN EXCEPTIONS: NONE

UNDERGROUND UTILITIES
CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG
CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY
OIL & GAS PRODUCERS PROTECTIVE
SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:
OHIO DEPARTMENT OF TRANSPORTAION
DISTRICT 5 PRODUCTION OFFICE

ENGINEER'S SEAL
STATE OF OHIO
DOUGLAS N. MORGAN
E-63839
REGISTERED PROFESSIONAL ENGINEER
SIGNED: Douglas N. Morgan
DATE: 3-01-2011

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

FAI-70-0.00 (LIC)

CITY OF COLUMBUS
CITY OF PICKERINGTON
VILLAGE OF KIRKERSVILLE

VIOLET, ETNA AND HARRISON TOWNSHIPS

FAIRFIELD COUNTY
LICKING COUNTY

PROJECT DESCRIPTION:

4 LANE DIVIDED ASPHALT CONCRETE RESURFACING, AND RELATED WORK, ON I.R. 70 IN FAIRFIELD AND LICKING COUNTY,

Project Earth Disturbed Area = N/A (Maintenance Project)
Estimated Contractor Earth Disturbed Area = N/A (Maintenance Project)
Notice of Intent Earth Disturbed Area = N/A (Maintenance Project)

LOCATION	COUNTY	ROUTE	BEGIN SLM	END SLM	LENGTH MILES	VILLAGE
1	FAI	IR 70	0.00	2.38	2.38	CITY OF COLUMBUS CITY OF PICKERINGTON
2	LIC	IR 70	0.00	8.80	8.80	KIRKERSVILLE

INDEX OF SHEETS:

2010 SPECIFICATIONS

THE STANDARD 2010 SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND THE PROPOSAL SHALL GOVERN THESE IMPROVEMENTS.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THESE IMPROVEMENTS WILL NOT REQUIRE THE CLOSING OF THE HIGHWAY AND PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS INDICATED IN THE PROPOSAL.

APPROVED _____
DATE 3/2/11 DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE 3-30-11 DIRECTOR, DEPARTMENT OF TRANSPORTATION

STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	10-19-07	MT-101.90	1-16-09	800	4-15-11
BP-9.1	4-15-05	MT-105.10	1-16-09	832	5-5-09
				817	7-16-10
MT-35.10	4-20-01	TC-65.10	1-21-05		
MT-95.30	7-17-09	TC-65.11	1-21-05		
MT-98.10	7-17-09	TC-71.10	1-21-11		
MT-98.11	7-17-09	TC-72.20	10-16-09		
MT-98.20	7-17-09	TC-73.10	1-19-01	SPECIAL PROVISIONS	
MT-98.22	7-17-09	TC-82.10	1-21-11		
MT-98.28	7-17-09				
MT-98.29	7-17-09				
MT-99.20	1-16-09				

FEDERAL PROJECT NO. E070 (265)
PID NO. 82144
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
FAI-70-0.00
LIC-70-0.00
1/20

FAI - IR-70-0.00 (LIC)
110386 PID - 82144
Dist 5 6/16/2011

F070_MTS_00

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.

NOTIFICATION OF ROAD CLOSURE OR RESTRICTION

IN ORDER FOR ODOT TO PROPERLY PERMIT OVERSIZE LOADS, PREPARE PROPER SIGNING WHEN REQUIRED AND FURTHER TO NOTIFY THE GENERAL MOTORING PUBLIC, THE CONTRACTOR SHALL NOTIFY (IN WRITING THE DISTRICT 5 HIGHWAY MANAGEMENT ADMINISTRATOR WITH COPIES FOR THE DISTRICT 5 ROADWAY SERVICES MANAGER AND PROJECT ENGINEER NOT LESS THAN 21 DAYS BEFORE SUCH CLOSURE OR LANE RESTRICTIONS.

SEND NOTIFICATION TO:
DISTRICT 5 HIGHWAY MANAGEMENT ADMINISTRATOR
P.O. BOX 306
JACKSONSTOWN, OH 43030
PHONE: (740) 323-4400 EXT. 5241

ITEM 617, COMPACTED AGGREGATE, AS PER PLAN

ALL AGGREGATE SHALL BE 100% CRUSHED LIMESTONE. ALL QUALITY REQUIREMENTS EXCEPT SHALE SHALL BE WAIVED. OTHER GRADATION REQUIREMENTS SHALL BE AS SPECIFIED EXCEPT THE INDEX SHALL BE WAIVED. IF SO PERMITTED, THE CONTRACTOR MAY USE ASPHALT CONCRETE PAVEMENT (RACP MEETING REQUIREMENTS OF 617.02) IN LIEU OF CRUSHED LIMESTONE.

ITEM 407, TACK COAT

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.075 GALLONS PER SQUARE YARD FOR ESTIMATING PURPOSES ONLY.

ITEM 407, TACK COAT FOR INTERMEDIATE COURSE

THE RATE OF APPLICATION OF THE 407 TACK COAT FOR INTERMEDIATE COURSE SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.05 GALLONS PER SQUARE YARD FOR ESTIMATING PURPOSES ONLY.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

ITEM 516 2" DEEP JOINT SEALER, AS PER PLAN

THE CONTRACTOR SHALL PLACE A 1" X 2.0" DEEP BEAD OF JOINT SEALER (AS PER 705.04) AT THE LOCATIONS SHOWN IN PLANS. THE CONTRACTOR SHALL SAW CUT A CHANNEL FOR THE JOINT SEALER. THE COST FOR SAW CUTTING THE CHANNEL FOR THE JOINT SEALER SHALL BE INCLUDED FOR PAYMENT WITH ITEM 516, 2" DEEP JOINT SEALER, AS PER PLAN.

PAVEMENT MARKING

STOP LINES, CROSSWALK LINES, CHANNELIZING LINES, ETC., SHOWN IN THE PLANS ARE TAKEN FROM EXISTING MARKINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DOCUMENT EXISTING MARKING LOCATIONS (i.e. BY USE OF VIDEO, PICTURES) AND PLACE NEW PAVEMENT MARKINGS AS NEAR AS POSSIBLE TO THE EXISTING LOCATIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. DOCUMENTATION OF PAVEMENT MARKING SHALL BE SUPPLIED TO THE ENGINEER BEFORE COMMENCEMENT OF ANY OPERATION WHICH WILL REMOVE/OBLITERATE MARKINGS.

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE

DEPTH OF PLANING SHALL BE 3.25" FULL WIDTH OF PAVEMENT FOR MAINLINE AND 1.5" FULL WIDTH FOR RAMPS, INCLUDING PAVED SHOULDERS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER

THE ROADWAY SHALL BE PLANED SUCH THAT POSITIVE DRAINAGE IS CREATED FROM THE LANE LINE TO THE EDGE OF PAVEMENT IN TANGENT SECTIONS AND SHALL FOLLOW EXISTING SUPERELEVATIONS WHERE APPLICABLE. ALL REQUIREMENTS OF ITEM 254 SHALL APPLY.

ITEM 209 LINEAR GRADING

IN ORDER TO PROVIDE POSITIVE DRAINAGE FROM THE ROADWAY SURFACE TO THE SHOULDER BREAK, THE EXISTING ROADWAY SHOULDERS SHALL BE GRADED AND SHAPED USING A GRADER OF ADEQUATE SIZE TO PERFORM THE WORK TO THE SATISFACTION OF THE ENGINEER.
ALL EXCESS MATERIAL REMAINING AROUND GUARDRAIL AND OTHER AREAS AFTER THE GRADER WORK IS COMPLETED AND NOT DISPOSED OF ON THE SITE, SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. ALL EQUIPMENT, LABOR, OR INCIDENTALS REQUIRED TO COMPLETE THIS ITEM SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICE BID FOR ITEM 209 LINEAR GRADING.

THIS WORK MAY BE INTERMITTENT AND SPREAD THROUGHOUT THE PROJECT LIMITS, AS DIRECTED BY THE ENGINEER. THE CONTRACTOR WILL ONLY BE PAID FOR INTERSECTIONS AND GAPS IF THEY ARE WITHIN THE LIMITS OF A SECTION MARKED BY THE ENGINEER FOR GRADING.

ALL LINEAR GRADING WORK SHALL BE DONE BEFORE PLACING THE ASPHALT SURFACE COURSE

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE **SUB-SUMMARIES** FOR THE ABOVE PURPOSES.

ITEM 209, LINEAR GRADING
LOCATION 1 - 1 MILE
LOCATION 2 - 4 MILE

ITEM 253 PAVEMENT REPAIR

AN ESTIMATED QUANTITY FOR PAVEMENT REPAIR HAS BEEN INCLUDED IN THE PLAN TO BE USED AS DIRECTED BY THE ENGINEER TO REPAIR ASPHALT SHOULDERS ALONG RAMPS AND SPOT LOCATIONS ON MAINLINE I.R. 70. REPAIRS SHALL TAKE PLACE PRIOR TO THE PLANING AND PAVING OPERATIONS. THE INTENT OF THIS OPERATION IS TO REPAIR THOSE AREAS OF PAVEMENT WHICH HAVE COMPLETELY FAILED (PUMPING OF SUB-BASE MATERIAL) AND NOT TO CORRECT SURFACE IRREGULARITIES. DEPTH OF EXCAVATION SHALL BE APPROXIMATELY 7" ON RAMP SHOULDERS AND 11" ON MAINLINE. AFTER EXCAVATION HAS BEEN COMPLETED, THE FACE OF THE REPAIR SHALL BE COATED WITH 407 TACK COAT. REPLACEMENT MATERIAL FOR RAMP SHOULDERS SHALL BE 7" OF ITEM 301 ASPHALT CONCRETE BASE, PG64-22 (PLACED AND COMPACTED IN 2 LIFTS AS DIRECTED). REPLACEMENT MATERIAL FOR MAINLINE SHALL BE 11" OF ITEM 301 ASPHALT CONCRETE BASE, PG64-22 (PLACED AND COMPACTED IN 3 LIFTS AS DIRECTED). ALL EXCAVATION, MATERIALS, LABOR, EQUIPMENT, TOOLS, TRAFFIC CONTROL AND INCIDENTALS NEEDED TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE PAID FOR UNDER ITEM 253 PAVEMENT REPAIR.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE **SUB-SUMMARIES** FOR THE ABOVE DESCRIBED PURPOSE.

ITEM 253, PAVEMENT REPAIR
LOCATION 1 - 250 CU.YD.
LOCATION 2 - 250 CU.YD.

DROPOFFS IN WORK ZONES

DROPOFFS THAT DEVELOP DURING CONSTRUCTION OPERATIONS AND THAT ARE NOT OTHERWISE PROVIDED FOR IN THE PLANS SHALL BE TREATED AS SHOWN ON STANDARD DRAWING MT-101.90. WHERE THE PLANS DO NOT PROVIDE SPECIFIC ITEMS FOR LABOR, EQUIPMENT, OR MATERIALS TO IMPLEMENT THE DROP-OFF TREATMENTS SPECIFIED, THEY SHALL BE INCLUDED FOR PAYMENT IN THE LUMP SUM BID FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 621, RAISED PAVEMENT MARKER REMOVED

RPM REMOVAL SHALL NOT OCCUR SOONER THAN 10 DAYS PRIOR TO RESURFACING OF THE ROADWAY. ALL RPM'S REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CALCULATED LME
CHECKED DNM

GENERAL NOTES

FAI-70-0.00
LIC-70-0.00

BUTT JOINT

A BUTT JOINT WILL BE REQUIRED AT LOCATIONS SPECIFIED BELOW AND AT THE EXTRA AREAS WITH WEARING COURSE REMOVED.

BUTT JOINTS SHALL BE AS PER STANDARD CONSTRUCTION DRAWING BP-3.1 UNLESS OTHERWISE SHOWN IN THE PLANS.

MINIMUM BUTT JOINT LENGTHS SHALL BE 35' ON THE MAINLINE AND 10' ON THE EXTRA AREAS.

LOCATION	ROUTE	DESCRIPTION	S.L.M.	ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC CU. YD.
1	I.R. 70	BEGIN WORK	0.00	3.0
1	I.R. 70	FAI-70-0084 LT & RT	0.84	6.0
1	I.R. 70	FAI-70-0119 LT & RT	1.19	6.0
1	I.R. 70	S.W. OFF RAMP TO S.R. 256 SOUTH		0.8
1	I.R. 70	N.W. RAMP TO I.R. 70 W.		2.0
1	I.R. 70	S.E. OFF RAMP TO S.R. 256 NORTH		1.6
1	I.R. 70	N.E. OFF RAMP TO S.R. 256		1.8
1		**TOTAL**		**21.2**
2	I.R. 70	LIC-70-0074 LT & RT	0.74	6.0
2	I.R. 70	S.W. OFF RAMP TO S.R. 310		1.5
2	I.R. 70	N.W. ON RAMP TO I.R. 70 WEST		1.5
2	I.R. 70	N.E. OFF RAMP TO S.R. 310		1.5
2	I.R. 70	S.E. ON RAMP TO I.R. 70 EAST		1.5
2	I.R. 70	END WORK	8.80	2.4
2	**I.R. 70**	**TOTAL**		**14.4**

ITEM 614 REPLACEMENT DRUM

DRUMS 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 DRUMS SHALL BE NEW.

PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT PRICE PER EACH FOR ITEM 614, REPLACEMENT DRUM, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

LOCATION 1 – 10 EACH
LOCATION 2 – 40 EACH

ITEM 632 DETECTOR LOOP, AS PER PLAN

ALL STOP LINE INDUCTANCE DETECTOR LOOPS SHALL BE THE POWER HEAD CONFIGURATION SHOWN ON TC-82.10. THE WIDTH SHALL BE AS SPECIFIED ON TC-82.10 AND THE LENGTH SHALL BE AS CURRENTLY CALLED FOR IN THE PLANS. THE STOP LINE DETECTOR LOOPS SHALL NOT BE WIRED TO ANY OTHER LOOPS AND SHALL HAVE ITS OWN DETECTOR CHANNEL.

ALL DILEMMA ZONE INDUCTANCE DETECTOR LOOPS CALLED FOR IN THE PLANS SHALL BE THE ANGULAR DESIGN DETECTION (ADD) LOOP AS SHOWN ON TC-82.10. DIMENSIONS SHALL BE AS SPECIFIED ON TC-82.10.

SYSTEM LOOPS SHALL BE AS DEPICTED IN THE PLANS.

ALL STOP LINE DETECTION SHALL BE TESTED FOR A BICYCLE TARGET AND ALL DILEMMA DETECTION ZONES SHALL BE TESTED FOR A MOTORCYCLE TARGET.

ALL DETECTOR LOOPS SHALL BE CUT INTO THE PLANED SURFACE OR THE PROPOSED INTERMEDIATE COURSE AT A DEPTH OF 4" FROM THE PROPOSED SURFACE ELEVATION. IF THE CONTRACTOR SO CHOOSES, THEY MAY CUT THE DETECTOR LOOPS INTO THE EXISTING ASPHALT BEFORE PLANING BUT SHALL MAKE SURE THE MATERIAL USED TO FILL THE SAW CUT IS LEFT FAR ENOUGH BELOW THE SURFACE COURSE THAT IT WILL NOT BE DISTURBED DURING THE PLANING OPERATION. THE CONTRACTOR SHALL TEST ALL LEAD-IN CABLES PRIOR TO MAKING THE FINAL SPLICE. PLACEMENT SHALL BE AS PER SPECIFICATION 632.10. FINAL LOCATIONS, SIZE AND ORIENTATION SHALL BE PROVIDED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING. ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, TRAFFIC CONTROL AND INCIDENTALS NECESSARY TO PERFORM THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 632, DETECTOR LOOP, AS PER PLAN.

LOCATION 1 - 7 EACH
W.B. OFF RAMP TO S.R. 256 – 3 EACH
E.B. OFF RAMP TO S.R. 256 NORTH – 4 EACH

LOCATION 2 - 6 EACH
W.B. OFF RAMP TO S.R. 310 – 3 EACH
E.B. OFF RAMP TO S.R. 310 – 3 EACH

ITEM 614 WORK ZONE PAVEMENT MARKINGS

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED TO BE USED AS DIRECTED BY THE ENGINEER TO MAINTAIN TRAFFIC DURING CONSTRUCTION.

ITEM 614 WORK ZONE STOP LINE, CLASS III, 642 PAINT

LOCATION 1 - 80 FT.
LOCATION 2 - 170 FT.

ITEM 614 WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT

LOCATION 1 - 3,694 FT.
LOCATION 2 - 4,548 FT.

ITEM 614 WORK ZONE LANE LINE, CLASS III, 642 PAINT

LOCATION 1 - 9.52 MILE
LOCATION 2 - 38.60 MILE

ITEM 614 WORK ZONE MARKING SIGNS

IN ACCORDANCE WITH CMS SECTION 614.04, A QUANTITY OF WORK ZONE MARKING SIGNS HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL ERECT A "GROOVED PAVEMENT" SIGN 250 FEET (75M) IN ADVANCE OF ANY SECTION OF ROADWAY WHERE TRAFFIC MUST TRAVEL ON A PLANED SURFACE. ENSURE THESE SIGNS ARE IN PLACE BEFORE OPENING THE ROADWAY TO TRAFFIC. ERECT THESE SIGNS ON EACH ENTRANCE RAMP AND AT INTERSECTIONS OF THROUGH ROUTES TO WARN TRAFFIC OF THIS SURFACE CONDITION. A QUANTITY OF WORK ZONE MARKING SIGNS HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

W8-H12a (NO EDGE LINES): LOCATION 1 – 8 EACH, LOCATION 2 – 22 EACH
W8-H15 (GROOVED PAVEMENT) – LOCATION 1 – 4 EACH, LOCATION 2 – 5 EACH

ITEM 614 WORK ZONE MARKING SIGNS

LOCATION 1 - 12 EACH
LOCATION 2 – 27 EACH

ITEM 254 PAVEMENT PLANING, PORTLAND CEMENT CONCRETE, AS PER PLAN

DEPTH OF PLANING SHALL BE AS SHOWN IN THE PLAN ON SHEET 13 OR AS DIRECTED BY THE ENGINEER. IT IS THE INTENT TO PLANE 1.75" OFF OF THE APPROACH SLABS AT BRIDGES FAI-70-0084L AND FAI-70-0119L. CARE SHALL BE TAKEN NOT TO EXPOSE THE REINFORCING MATERIAL IN THE APPROACH SLABS WHEN PLANING THE EXISTING SURFACE OFF OF THE APPROACH SLABS. ALL REQUIREMENTS OF ITEM 254 SHALL APPLY.

CALCULATED LME CHECKED DNM

GENERAL NOTES

FAI-70-0.00
LIC-70-0.00

ITEM 614 MAINTAINING TRAFFIC

TWO LANES OF TRAFFIC IN EACH DIRECTION WILL BE MAINTAINED ON I.R. 70 AT ALL TIMES, EXCEPT AS NOTED BELOW:

LANE CLOSURES FOR THE PURPOSE OF PLACING DRUMS IN ORDER FOR THE CONTRACTOR TO COMPLETE THE WORK AS DESCRIBED IN THE PLANS WILL BE PERMIITED AS FOLLOWS:

LANE CLOSURES WILL ONLY BE IMPLEMENTED AT THE TIMES LISTED ON THE OHIO DEPARTMENT OF TRANSPORTATION'S WEB SITE, "PERMITTED LANE CLOSURE TIMES" SECTION, LOCATED AT THE ADDRESS SHOWN BELOW:

http://plcm.dot.state.oh.us//plcm/plcm_web.jsp

THE PERMITTED CLOSURE TIMES LISTED ON THE WEBSITE, 14 CALENDAR DAYS PRIOR TO THE BID LETTING DATE WILL BE IN EFFECT FOR THIS PROJECT.

NO WORK WITHIN ACTIVE TRAVEL LANES OR WHICH WILL SLOW TRAFFIC IS PERMITTED AT ANY OTHER TIMES.

THE WORK ZONE CLOSURES SHALL BE NO LONGER THAN 2 MILES OR AS DIRECTED BY THE ENGINEER IN CONSIDERATION OF THE TRAFFIC FLOW.

WHEN NECESSARY, LANE CLOSURES WILL BE ACCOMPLISHED IN ACCORDANCE WITH THE STANDARD DRAWINGS.

IT IS THE INTENT TO RESTRICT LANE CLOSURES TO THE MINIMUM AMOUNT OF TIME NECESSARY TO PERFORM THE WORK AS DESCRIBED IN THE PLANS. THE CONTRACTOR WILL NOT COMMENCE ANY LANE CLOSURE BEFORE THE HOURS AS SPECIFIED OR COMMENCE ANY CLOSURE AT A TIME WHICH WILL NOT ALLOW COMPLETION OF THE WORK PRIOR TO THE HOURS SPECIFIED. SHOULD THE CONTRACTOR CLOSE THE LANES BEFORE THE ALLOWABLE TIME AND/OR FAIL TO RE-OPEN ALL LANES TO TRAFFIC BY THE ALLOWABLE TIME A DISINCENTIVE OF $50.00 PER MINUTE SHALL BE ASSESSED FOR EACH MINUTE OUTSIDE THE PERMITTED LANE CLOSURE.

THE CONTRACTOR WILL HAVE ON SITE AND IN WORKING AND OR SUITABLE CONDITION; ALL EQUIPMENT, TOOLS, LABORERS, LEO'S, TRAFFIC CONTROL DEVICES AND INCIDENTALS NECESSARY TO EFFICIENTLY PERFORM THE CLOSURE BEFORE INITIALIZING THE LANE CLOSURE.

THERE SHALL BE NO LANE CLOSURES ON HOLIDAYS OR HOLIDAY WEEKENDS. THE FOLLOWING ARE CONSIDERED HOLIDAYS:

MEMORIAL DAY, FOURTH OF JULY, LABOR DAY, THANKSGIVING, CHRISTMAS , NEW YEARS, EASTER.

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

DAY OF THE WEEK	TIMES ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 12:00N TUESDAY
MONDAY	12:00N FRIDAY THROUGH 12:00N TUESDAY
TUESDAY	12:00N MONDAY THROUGH 12:00N WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 12:00N THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 12:00N FRIDAY
FRIDAY	12:00N THURSDAY THROUGH 12:00N MONDAY
SATURDAY	12:00N FRIDAY THROUGH 12:00N MONDAY

ITEM 614 MAINTAINING TRAFFIC(cont'd)

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY-WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $75 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

AREAS THAT ARE PLANED SHALL NOT BE OPENED TO TRAFFIC. ALL PLANED AREAS MUST BE INLAID WITH A PROPOSED COURSE OF ITEM 442 ASPHALT CONCRETE PRIOR TO BEING OPENED TO TRAFFIC. OVERNIGHT CLOSURES MUST MEET SPECIFICATIONS AS OUTLINED IN THE CONSTRUCTION AND MAINTENANCE OPERATIONS SECTION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. ROADWAY SHALL NOT BE OPENED TO TRAFFIC WITHOUT EITHER THE PERMANENT OR WORK ZONE MARKINGS IN PLACE.

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

ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN, ON SITE, FOR THE DURATION OF THE PROJECT. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS MAINTAINED BY THE DIRECTOR (OFFICE OF MATERIALS MANAGEMENT). THE APPROVED LIST OF PORTABLE CHANGEABLE MESSAGE SIGNS CAN BE FOUND ON THE ODOT WEBSITE BY CLICKING ON THE SERVICES MENU, THEN LICKING ON MATERIALS MANAGEMENT. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 650 FT. AND 475 FT., RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. PCMS TRAILERS SHOULD BE DELINEATED ON A PERMANENT BASIS BY AFFIXING RETROREFLECTIVE MATERIAL, IN A CONTINUOUS LINE ON THE FACE OF THE TRAILER AS SEEN BY ONCOMING ROAD USERS.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON SHEET(S) OF THE PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED,

FACING AWAY FROM ALL TRAFFIC, AND SHALL DISPLAY ONE OR MORE TYPE G YELLOW RETROREFLECTIVE SHEETING SURFACES OF 9-INCH BY 15-INCH MINIMUM SIZE FACING TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN (cont'd)

(THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 2 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.)

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE

PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

(THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.)

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF CMS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR_S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

A TOTAL OF 2 PCMS SHALL BE REQUIRED FOR THIS PROJECT.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE LOCATION SUB-SUMMARIES.

ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
LOCATION 1 – 60 DAY
LOCATION 2 – 140 DAY

CALCULATED LME CHECKED DNM

GENERAL NOTES

FAI-70-0.00
LIC-70-0.00

ITEM 614 LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED IN THIS NOTE WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) INTENDS THAT FLAGGERS BE USED.

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

- *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. IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.*

- *WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC. IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.*

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 AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHOULD REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT 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. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHOULD NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF THE SHIFT.

LAW ENFORCEMENT OFFICERS (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 SUB-SUMMARIES.

ITEM 614 LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE:
LOCATION 1 – 100 HOURS
LOCATION 2 – 200 HOURS

THE HOURS PAID SHALL INCLUDE 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.

ITEM 690 SPECIAL- MISC.: REMOVAL AND STORAGE OF ROADWAY SENSOR
ITEM 690 SPECIAL-MISC.: ROAD WEATHER INFORMATION SYSTEM [RWIS] SENSOR

THE CONTRACTOR WILL CONTACT THE SENSOR MANUFACTURER'S REPRESENTATIVE, WHO WILL BE PRESENT WHILE THE EXISTING SENSORS ARE BEING REMOVED AND NEW SENSORS INSTALLED.

SENSOR MANUFACTURER'S REPRESENTATIVE:

M.H. CORBIN, INC.
9042 HERITAGE DRIVE
PLAIN CITY, OH 43064
PHONE: 614-873-5216

THE EXISTING SENSORS AND CANISTERS SHALL BE REMOVED PRIOR TO THE PLANING OF THE PAVEMENT. THE FIVE [5] SENSORS ARE LOCATED ON IR 70, [ONE SENSOR IN EACH LANE], AT THE FOLLOWING APPROXIMATE SLM:

IR 70 EB SLM 112.0 [3 SENSORS, LOCATED IN THE PAVEMENT WEST OF STRUCTURE NO. FAI-70-0119R]
IR 70 WB SLM 112.0 [2 SENSORS, LOCATED IN THE DECK OF STRUCTURE NO. FAI-70-0119L]

THE REMOVAL AND STORAGE OF THE SENSORS WILL BE PAID FOR UNDER ITEM 690 – SPECIAL-MISC.; REMOVAL AND STORAGE OF ROADWAY SENSOR, EACH. THE CONTRACTOR SHALL CONTACT MR. BILL CORBIN, INC., AT 614-873-5216 TO ARRANGE FOR THE USED SENSORS TO BE PICKED UP.

THE ABOVE SLM'S ARE NOT EXACT LOCATIONS FOR THE NEW INSTALLATIONS. THE EXISTING LOCATIONS SHALL BE REUSED UNLESS THEY NEED ADJUSTED TO AVOID PLACING THE SENSORS DIRECTLY BENEATH HIGH POWER ELECTRICAL LINES, TO PROVIDE FOR INSTALLATION IN SOUND PAVEMENT, OR TO MAINTAIN LINE OF SIGHT COMMUNICATION FROM THE SENSOR TO THE EQUIPMENT ENCLOSURE CABINET LOCATED ON THE WEST SIDE OF STRUCTURE NO. FAI-70-0119 L & R IN THE MEDIAN.

THE CONTRACTOR SHALL REPLACE THE EXISTING SENSORS AND CANISTERS. THE NEW SENSORS SHALL BE A GROUNDHOG WIRELESS PAVEMENT/TRAFFIC SENSOR, MODEL G10-ETP, AS MANUFACTURED BY VAISALA INC. THE NEW CANISTERS WILL BE INSTALLED USING THE PROPER CANISTER INSTALLATION TOOLS PER THE MANUFACUTUERS INSTRUCTIONS (SHEETS 5A-5D).

THE NEW SENSORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACUTUERS INSTRUCTIONS USING EPOXY AS RECOMMENED BY THE SENSOR MANUFACTURER. THE PAVEMENT TEMPERATURE SHALL NOT BE LESS THEN FORTY [40] DEGREES FAHRENHEIT DURING SEALING AND THE CONTRACTOR SHALL ENSURE THAT THE COMPLETE CURING OF THE SEALANT TAKES PLACE PRIOR TO OPENING THE LANE TO TRAFFIC.

THE ODOT DISTRICT 5 CONSTRUCTION ENGINEER [KEITH GEIGER, 740-323-5241] SHALL BE NOTIFIED WHEN THE SENSORS ARE REMOVED FROM THE PAVEMENT AND WHEN THE NEW INSTALLATION IS COMPLETE. THE DISTRICT WILL MONITOR THE SENSORS PERFORMANCE FOR A MINIMUM OF FIVE WORKING DAYS TO VERIFY PROPER OPERATION. IF THE SENSORS DO NOT PERFORM PROPERLY WITHIN THIS TEST PERIOD, THE CONTRACTOR SHALL VERIFY THAT THE INSTALLATION IS CORRECT.

PAYMENT FOR THE ABOVE DESCRIBED ITEMS SHALL BE AT THE CONTRACT UNIT PRICE FOR EACH. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO COMPLETE THE WORK DESCRIBED ABOVE.

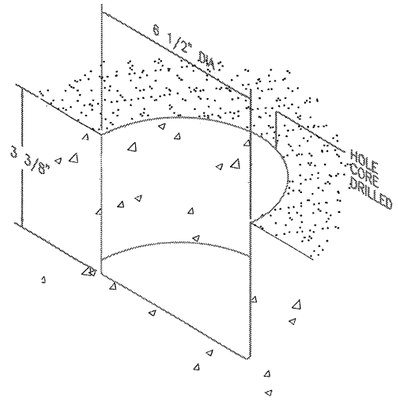
ITEM 690 SPECIAL- MISC.: REMOVAL AND STORAGE OF ROADWAY SENSOR – 5 EACH.

ITEM 690 SPECIAL-MISC.: ROAD WEATHER INFORMATION SYSTEM [RWIS] SENSOR - 5 EACH.

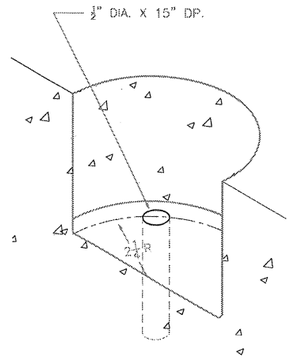
CALCULATED LME
CHECKED DNM

GENERAL NOTES

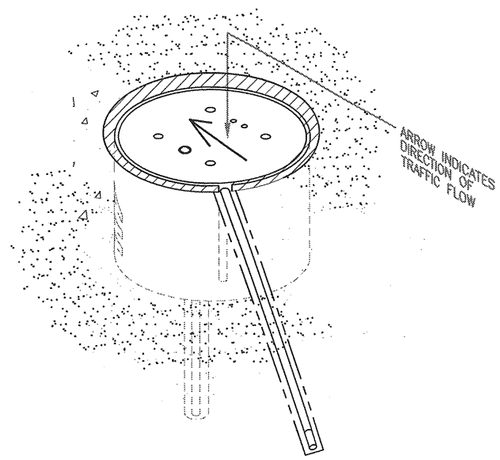
FAI-70-0.00
LIC-70-0.00



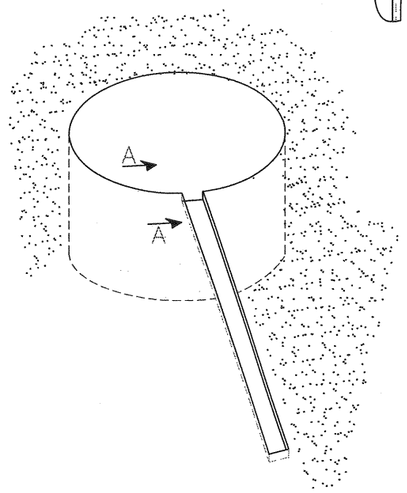
STEP 1. DRILL 6 1/2" DIA. HOLE TO A DEPTH OF 3 3/8"



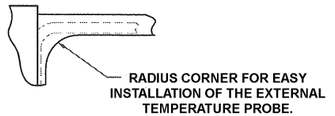
STEP 2. POINT ARROW ON LID OF CANISTER IN DIRECTION OF TRAFFIC AND MARK WHERE THE PROBE HITS THE GROUND THEN DRILL 1/2" DIA. HOLE TO A DEPTH OF 15" ON RADIUS SHOWN.



STEP 3. PLACE CANISTER IN HOLE, LABEL ON CANISTER OR ARROW ON LID SHOULD BE POINTING IN DIRECTION OF TRAFFIC FLOW. PLACE PROBE ON GROUND AND MARK OUTLINE FOR GROOVE.

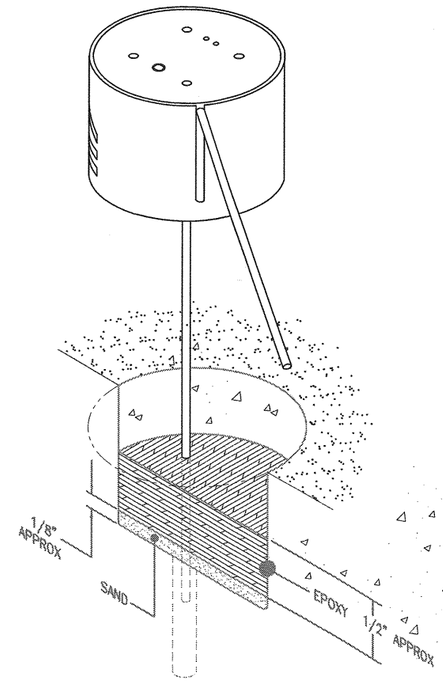


STEP 4. REMOVE CANISTER FROM HOLE AND CUT OUT GROOVE FOR PROBE. (1/4" WIDE X 1" DP X 13" LG) CLEAN OUT HOLE AND GROOVE OF ALL DEBRIS. CLEAN AND DRY AREA AROUND HOLE USING SHOP-VAC OR EQ.



RADIUS CORNER FOR EASY INSTALLATION OF THE EXTERNAL TEMPERATURE PROBE.

VIEW A-A



STEP 5. TAKE RUBBER ELECTRIC TAPE AND WRAP TWICE AROUND PROBE AT LOCATIONS SHOWN IN STEP 8 DWG. DOC222558 (2 OF 4). DO NOT USE BACKAROD.

STEP 6. HOLDING G10-ETP ASSEMBLY PLACE BOTTOM EXTERNAL TEMPERATURE PROBE INTO 1/2" HOLE. PLACE SAND IN BOTTOM OF HOLE TO LEVEL THE CANISTER. PLACE ENOUGH SAND IN THE BOTTOM OF THE HOLE SO THAT THE TOP OF THE CANISTER IS AT LEAST 1/16" (NO MORE THAN 1/8") BELOW THE ROAD SURFACE. (SEE FIG. 2)

STEP 7. FILL BOTTOM OF HOLE APPROXIMATELY 1/2" OF LORD EPOXY ENCAPSULATING COMPOUND 975-1154 A/B. MIX AT ROOM TEMPERATURE (70 DEG. +/- 5 DEG. F) ACCORDING TO "ENCAPSULATING EPOXY 20 OZ. MIXING INSTRUCTIONS". IT TAKES APPROXIMATELY 2 TUBES TO DO ONE G10-ETP.

REV	DESCRIPTION	DATE	APP'D.

"IT IS A VIOLATION OF THE PROFESSIONAL LICENCE LAW FOR ANY PERSON TO ALTER THIS DRAWING IN ANY WAY, UNLESS ACING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER/ARCHITECT AS APPLICABLE. THE ALTERING ENGINEER/ARCHITECT SHALL AFFIX HIS/HER SEAL AND THE NOTATION 'ALTERED BY' FOLLOWED BY HIS/HER SIGNATURE AND DATE OF ALTERATION."

DRAWN BY: AGL
DESIGNER: –
CHECKED BY: –
APP'D BY: –
SCALE: NTS

VAISALA

G10
VAISALA PERMANENT
TRAFFIC ANALYZER

DRAWING TITLE
G10 ETP
ROAD SENSOR INSTALLATION

CONTRACT NO. –
DRAWING NO. DOC222558 (10F4)
SHEET 3 OF 5
DATE 10/28/2010
REVISION A

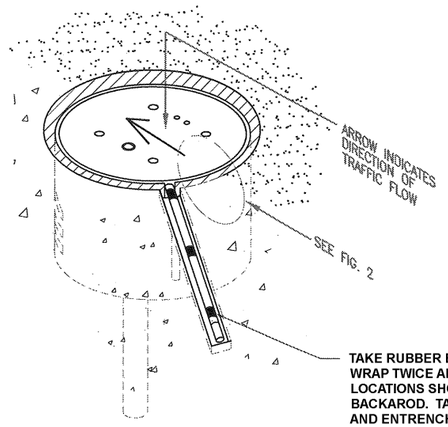
CALCULATED LME
CHECKED DNM

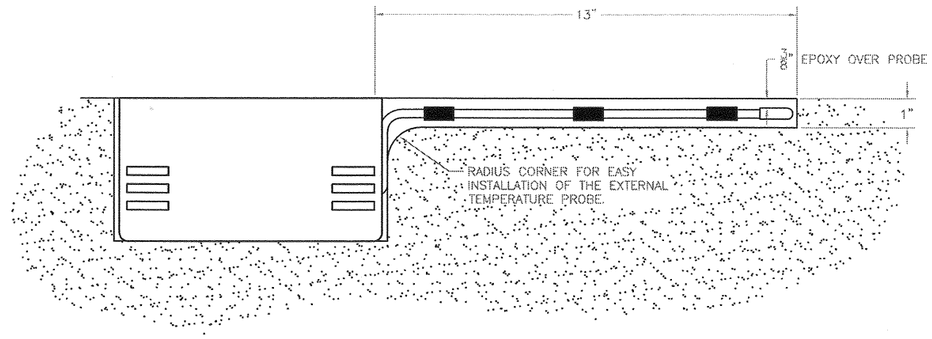
GENERAL NOTES

FAI-70-0.00
LIC-70-0.00

5A
20

M070_MGN_004A.DGN 3/24/2011





VIEW B-B

STEP 8. PLACE THE G10 ETP CANISTER (FIG. 1) IN THE EPOXY FILLED HOLE AND PROBE IN THESLOT WITH ARROW POINTED IN DIRECTION OF TRAFFIC FLOW AND AT DEPTH SHOWN (FIG. 2).

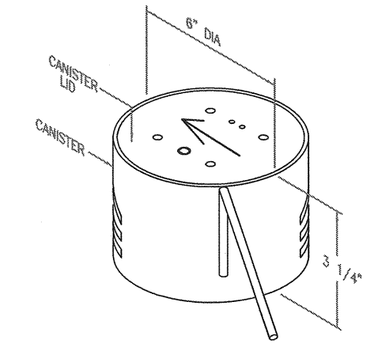
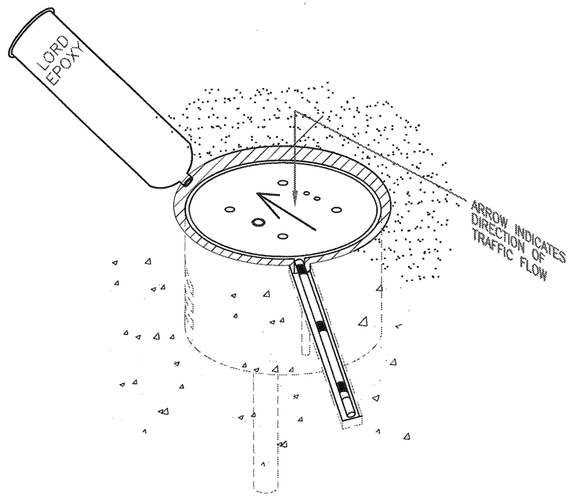
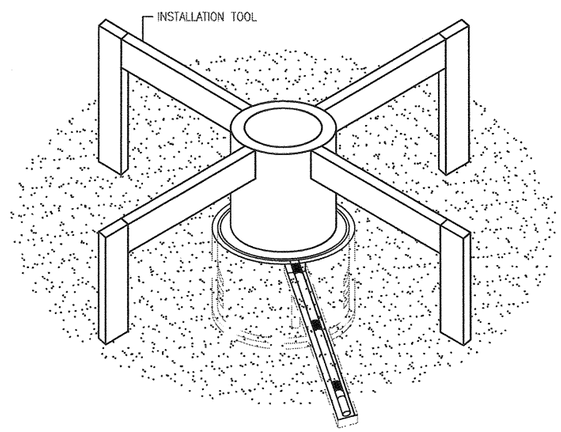


FIG. 1
GROUNDHOG G10 ETP





STEP 9. USING THE CANISTER INSTALLATION TOOL AS SHOWN IN STEP 10. TAKE THE LORD EPOXY ENCAPSULATING COMPOUND 975-1154 A/B ALREADY MIXED AT ROOM TEMPERATURE (70 DEGREES +/- 5 DEGREES F) ACCORDING TO "ENCAPSULATING EPOXY 20 OZ. MIXING INSTRUCTIONS". FILL AROUND THE CANISTER AND OVER THE PROBE, MAKING SURE THAT THE EPOXY FLOWS COMPLETELY AROUND THE CANISTER AND PROBE SO THAT THERE ARE NO AIR GAPS. THIS IS PARTICULARLY NECESSARY FOR THE AREA WHERE THE PROBE ENTERS THE CANISTER. NO PART OF THE PROBE OR ELECTRICAL TAPE SHOWN BE EXPOSED. SEE VIEW B-B.

STEP 10. USE CANISTER INSTALLATION TOOL TO APPLY PRESSURE AS NEEDED TO POSITION THE CANISTER AT DEPTH SHOWN (FIG 2.). IF NECESSARY, ADD ADDITIONAL EPOXY SO THAT THE PERIMETER AROUND CANISTER HAS NO SINK MARKS.

NOTE: DO NOT ATTEMPT TO REMOVE LID UNTIL EPOXY HAS HARDENED

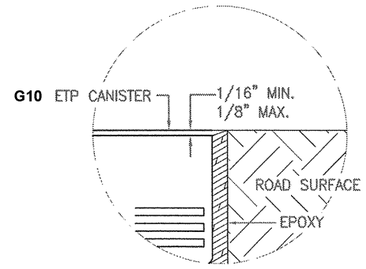


FIG. 2
GROUNDHOG G10 ETP

REV	DESCRIPTION	DATE	APP'D.

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DRAWN BY:	AGL
DESIGNER:	–
CHECKED BY:	–
APP'D BY:	–
SCALE:	NTS

VAISALA

G10
VAISALA PERMANENT
TRAFFIC ANALYZER

DRAWING TITLE
G10 ETP
ROAD SENSOR INSTALLATION

CONTRACT NO.	–
DRAWING NO.	DOC222558 (20F4)
SHEET	3 OF 5
DATE	10/28/2010
REVISION	A

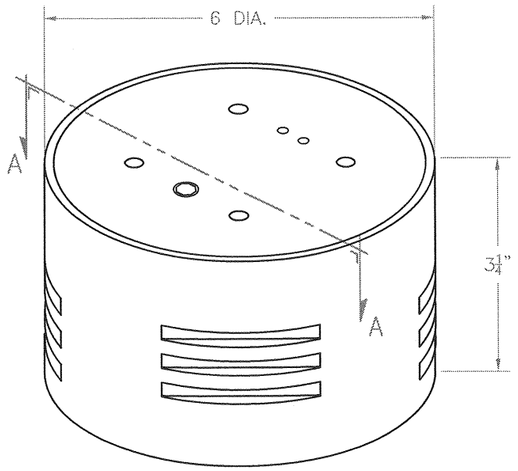
CALCULATED LME
CHECKED DNM

GENERAL NOTES

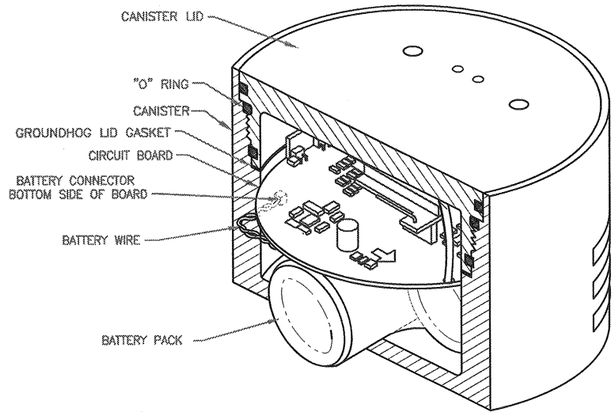
FAI-70-0.00
LIC-70-0.00

5B
20

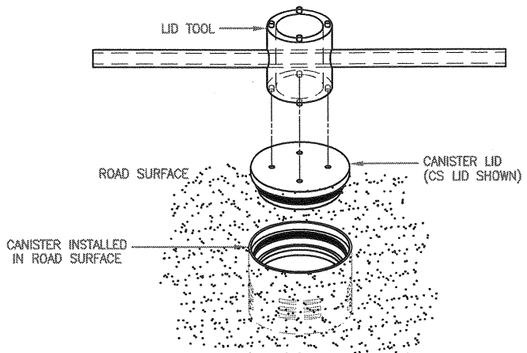
M070_MGN_004B.DGN 3/24/2011



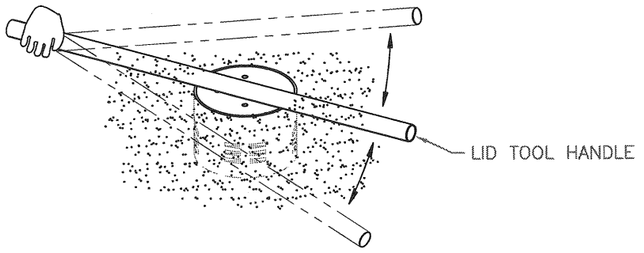
G10 GROUND HOG
SHOWN WITH WX LID



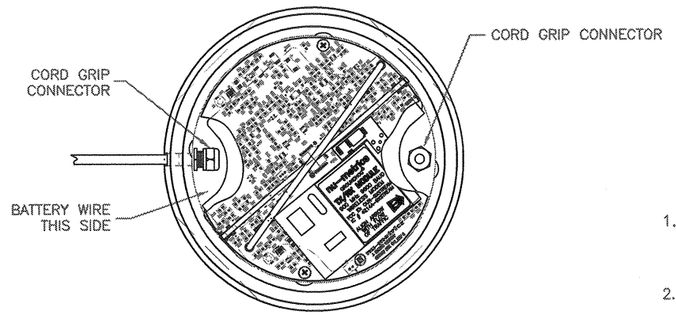
SECTION A–A



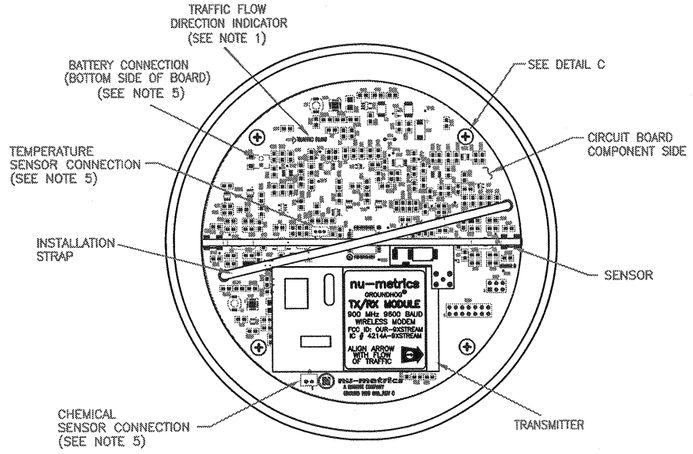
LID AND CANISTER ASSEMBLY



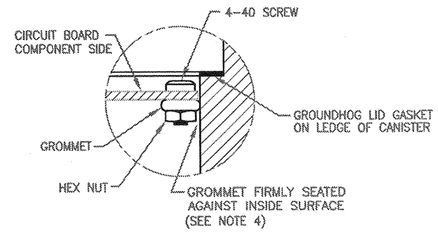
CANISTER ASSEMBLY IN GROUND
DETAIL D



VIEW B
SHOWN WITH EXTERNAL
TEMPERATURE PROBES



VIEW OF CIRCUIT BOARD INSIDE CANISTER
(LID REMOVED)



DETAIL C
2X SCALE

NOTES:

1. PRIOR TO INSTALLATION, LOCATE THE "TRAFFIC FLOW DIRECTION INDICATOR" THAT IS PRINTED ON THE CIRCUIT BOARD, AND ALIGN THE INDICATOR WITH THE ACTUAL DIRECTION OF TRAFFIC FLOW.
2. REMOVE THE LID FROM THE INSTALLED CANISTER AND REMOVE ANY DIRT OR DEBRIS FROM CANISTER AND LID THREADS.
3. BEFORE INSTALLING CIRCUIT BOARD AND BATTERY PACK CONNECT THE BATTERY TO THE BOARD AND EXTERNAL TEMPERATURE PROBES (IF APPLICABLE).
4. USING THE INSTALLATION STRAP, PLACE THE CIRCUIT BOARD AND BATTERY PACK ASSEMBLY INTO THE CANISTER WITH THE "TRAFFIC FLOW DIRECTION INDICATOR" POINTED IN THE APPROPRIATE DIRECTION.
5. IF INSTALLING BOARD WITH EXTERNAL TEMPERATURE PROBES, MAKE SURE UNIT GOES INTO CANISTER AS SHOWN IN VIEW B.
6. PRESS THE CIRCUIT BOARD FIRMLY INTO THE CANISTER TO SECURE RUBBER GROMMETS AGAINST INSIDE SURFACE OF CANISTER (DETAIL C).
7. PLACE GROUNDHOG LID GASKET ON LEDGE OF CANISTER AS SHOWN IN DETAIL C AND SECTION A–A.
8. CONNECT TOP SENSORS WIRES (FROM LID IF APPLICABLE) TO APPROPRIATE CONNECTORS ON CIRCUIT BOARD
9. PLACE LID IN CANISTER AND HAND TIGHTEN.
10. SECURE LID BY TURNING WITH LID TOOL UNTIL LID SEATS FIRMLY WITH CANISTER.
11. AFTER INSTALLATING THE G10, TAKE THE LID TOOL HANDLE FROM THE TOOL LID, WAVE IT OVER G10 UNIT SEVERAL TIMES AS SHOWN IN DETAIL D. THEN VERIFY IF THE UNIT IS COUNTING AT THE SITE.

REV	DESCRIPTION	DATE	APP'D.

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DRAWN BY:	AGL
DESIGNER:	–
CHECKED BY:	–
APP'D BY:	–
SCALE:	NTS

VAISALA

G10
VAISALA PERMANENT
TRAFFIC ANALYZER

DRAWING TITLE
TYPICAL
G10 ROAD SENSOR
PCB AND CANISTER LID
INSTALLATION

CONTRACT NO.	–
DRAWING NO.	DOC222558
SHEET	4 OF 5
DATE	10/28/2010
REVISION	A

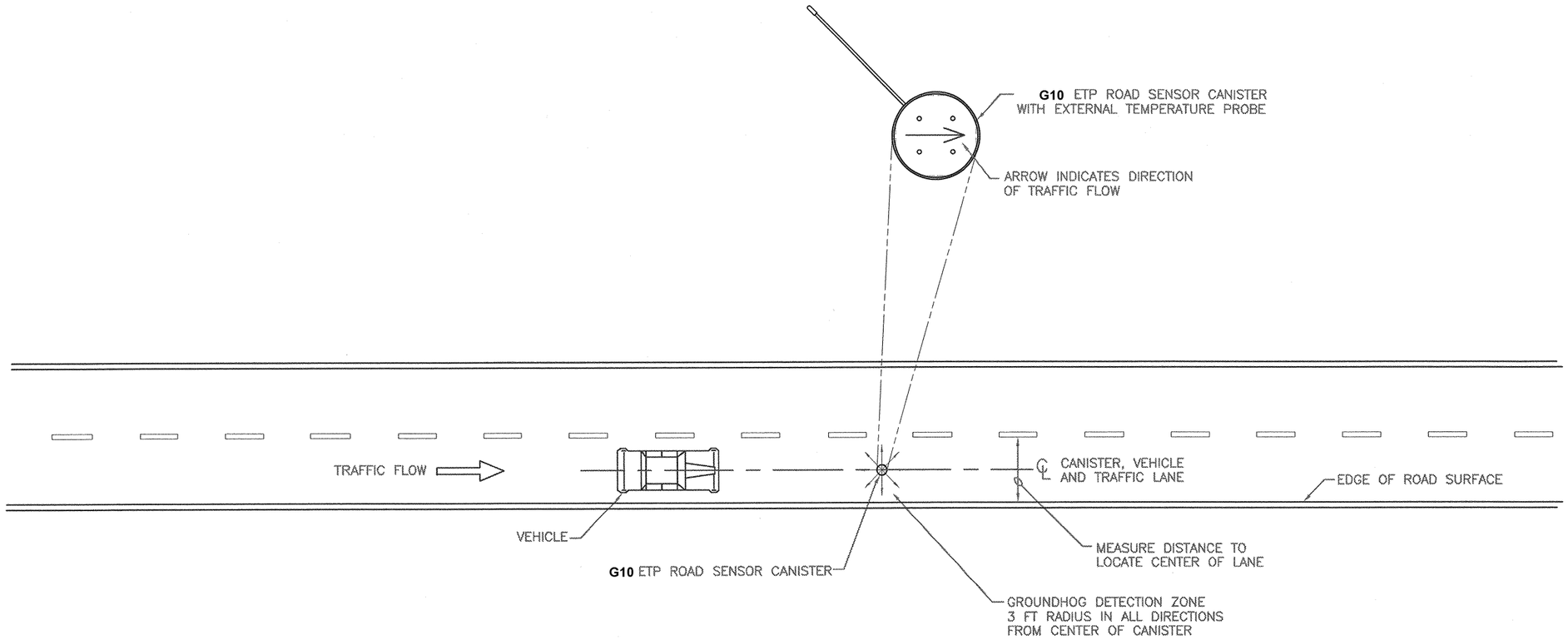
CALCULATED LME
CHECKED DNM

GENERAL NOTES

FAI-70-0.00
LIC-70-0.00

5C
20

M070_MGN_004C.DGN 3/24/2011



NOTE:

1. DO NOT PLACE CANISTER DIRECTLY UNDER HIGH POWER LINES.
2. DO NOT PLACE CANISTER NEAR UNDERGROUND CABLES OR POWER RUNS.

REV	DESCRIPTION	DATE	APP'D.

"IT IS A VIOLATION OF THE PROFESSIONAL LICENCE LAW FOR ANY PERSON TO ALTER THIS DRAWING IN ANY WAY, UNLESS ACING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER/ARCHETEET AS APPLICABLE. THE ALTERING ENGINEER/ARCHITECT SHALL AFFIX HIS/HER SEAL AND THE NOTATION 'ALTERED BY' FOLLOWED BY HIS/HER SIGNATURE AND DATE OF ALTERATION."

DRAWN BY: AGL
DESIGNER: –
CHECKED BY: –
APP'D BY: –
SCALE: NTS

VAISALA

G10
VAISALA PERMANENT
TRAFFIC ANALYZER

DRAWING TITLE
G10 ETP ROAD SENSOR
CANISTER PLACEMENT

CONTRACT NO. –
DRAWING NO. DOC222558
SHEET 5 OF 5
DATE 10/28/2010
REVISION A

CALCULATED LWE
CHECKED DNM

GENERAL NOTES

FAI-70-0.00
LIC-70-0.00

5D
20

M070_MGN_004D.DGN 3/24/2011

SEQUENCE OF OPERATIONS:

PHASE 1: BEGIN PROJECT TO END PROJECT

(1) INSTALL NECESSARY TRAFFIC CONTROL DEVICES, CLOSE OUTSIDE LANE AND MAINTAIN TRAFFIC BY USE OF THE INSIDE LANE AND PAVED SHOULDER.
(2) FILL IN RUMBLE STRIPS ON OUTSIDE SHOULDER WITH ITEM 448 INTERMEDIATE COURSE TO ALLOW FOR MAINTAINING TRAFFIC ON SHOULDER.
(3) REMOVE TRAFFIC CONTROL DEVICES FOR CLOSING OUTSIDE LANE.

PHASE 2: BEGIN PROJECT TO END PROJECT

(1) INSTALL NECESSARY TRAFFIC CONTROL DEVICES, CLOSE INSIDE LANE AND MAINTAIN TRAFFIC BY USE OF THE OUTSIDE LANE AND PAVED SHOULDER.
(2) PERFORM PAVEMENT REPAIR OPERATION
(3) PLANE INSIDE LANE AND SHOULDER, 3.25" DEEP AS DETAILED.
(4) IMMEDIATELY PLACE 1.75" OF ITEM 442 ASPHALT CONCRETE INTERMEDIATE COURSE FOR INSIDE LANE AND SHOULDER. COMPLETE ALL OTHER RELATED WORK AS PER TYPICAL SECTION.
(5) REMOVE TRAFFIC CONTROL DEVICES FOR CLOSING INSIDE LANE.

PHASE 3: BEGIN PROJECT TO END PROJECT

(1) INSTALL NECESSARY TRAFFIC CONTROL DEVICES, CLOSE OUTSIDE LANE, AND MAINTAIN TRAFFIC BY USE OF THE INSIDE LANE AND PAVED SHOULDER.
(2) PERFORM PAVEMENT REPAIR OPERATION
(3) PLANE OUTSIDE LANE AND SHOULDER, RAMP AREAS WHERE APPLICABLE, 3.25" DEEP OR AS DETAILED.
(4) IMMEDIATELY PLACE 1.75" OF ITEM 442 INTERMEDIATE COURSE FOR OUTSIDE LANE AND SHOULDER, PLACE 1.5" OF ITEM 442 SURFACE COURSE FOR RAMP AREAS WHERE APPLICABLE, COMPLETE ALL OTHER RELATED WORK AS PER TYPICAL SECTION.
(5) REMOVE TRAFFIC CONTROL DEVICES FOR CLOSING OUTSIDE LANE.

PHASE 4: BEGIN PROJECT TO END PROJECT

(1) INSTALL NECESSARY TRAFFIC CONTROL DEVICES, CLOSE INSIDE LANE, AND MAINTAIN TRAFFIC BY USE OF THE OUTSIDE LANE AND PAVED SHOULDER.
(2) PLACE 1.5" OF ITEM 442 ASPHALT CONCRETE SURFACE COURSE ON INSIDE LANE AND SHOULDER AS PER TYPICAL SECTION.
(3) REMOVE TRAFFIC CONTROL DEVICES FOR CLOSING INSIDE LANE.

PHASE 5: BEGIN PROJECT TO END PROJECT

(1) INSTALL NECESSARY TRAFFIC CONTROL DEVICES, CLOSE OUTSIDE LANE, AND MAINTAIN TRAFFIC BY USE OF THE INSIDE LANE AND PAVED SHOULDER.
(2) PLACE 1.5" OF ITEM 442 ASPHALT CONCRETE SURFACE COURSE ON OUTSIDE LANE, 10.0' WIDE PAVED SHOULDER, AS PER TYPICAL SECTION.
(3) REMOVE TRAFFIC CONTROL DEVICES FOR CLOSING OUTSIDE LANE.

PHASE 6: BEGIN PROJECT TO END PROJECT

(1) INSTALL RUMBLE STRIPS, PLACE ALL PERMANENT PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS. OPEN ROADWAY TO UNRESTRICTED TRAFFIC.

GENERAL:

IT IS THE INTENT OF THIS SEQUENCE OF OPERATIONS TO PROVIDE A WORK AREA FOR THE CONTRACTOR WHILE ALSO MAINTAINING TRAFFIC IN A MANNER WHICH IS SAFE FOR THE TRAVELING PUBLIC (SEE WORK RESTRICTIONS AND LANE CLOSURES SHEET 4). IT WILL BE NECESSARY FOR THE CONTRACTOR TO ALTERNATE BETWEEN PHASES 4 AND 5 TO MEET WORK RESTRICTIONS.

IF THE CONTRACTOR SO ELECTS, HE/SHE MAY SUBMIT ALTERNATE METHOD FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS ARE FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE ENGINEER.

ALL TEMPORARY OR PERMANENT PAVEMENT MARKINGS SHALL BE IN PLACE BEFORE ANY PAVEMENT IS OPENED TO TRAFFIC.

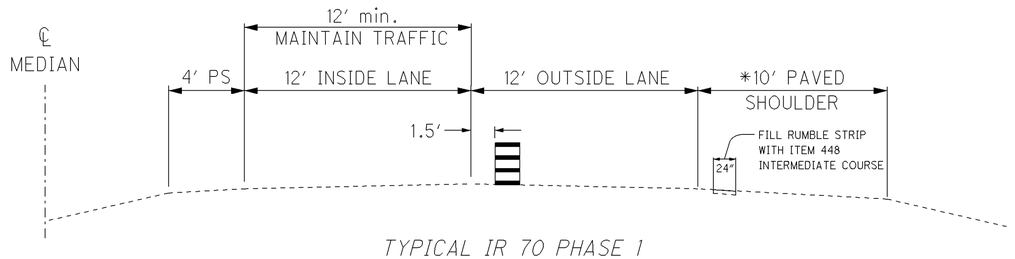
ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG 64-22

THIS ITEM SHALL BE USED TO FILL IN RUMBLE STRIPS FOR MAINTAINING TRAFFIC AS DESCRIBED IN PHASE 1 ABOVE. AVERAGE THICKNESS FOR CALCULATION PURPOSES IS 0.75". THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE SUB-SUMMARIES.

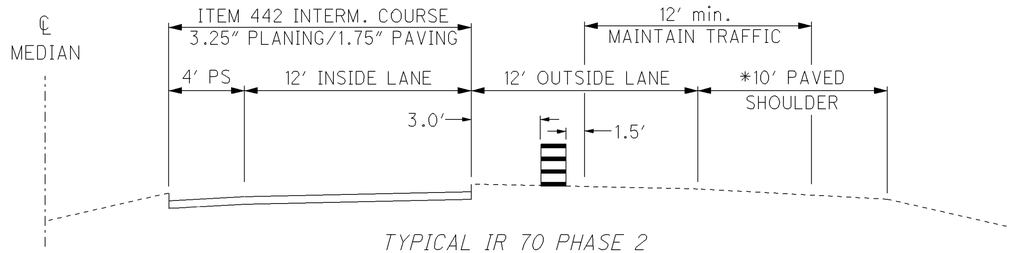
ITEM 448 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG 64-22

LOCATION 1: 116.4 CU. YD.
2.38 X 5280 = 12566.4 FT :
(2(12566.4' X 2.0' X (0.75"/12)))/27 = 116.4 CU.YD.

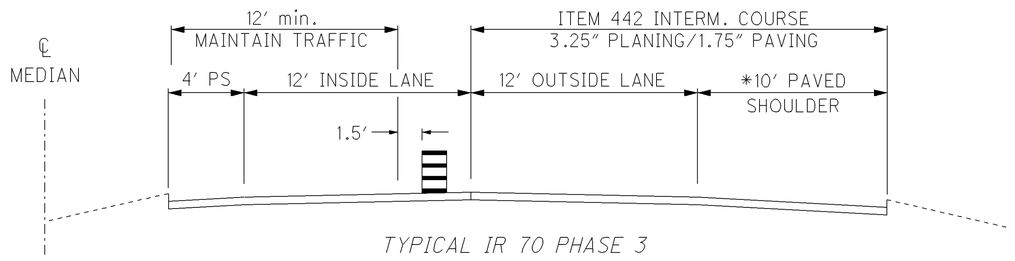
LOCATION 2: 426.8 CU. YD.
8.80 X 5280 = 46464 FT :
(2(46464' X 2.0' X (0.75"/12)))/27 = 430.2 CU.YD.



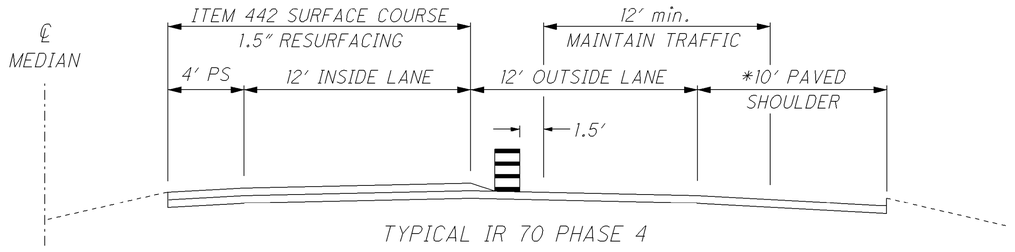
TYPICAL IR 70 PHASE 1



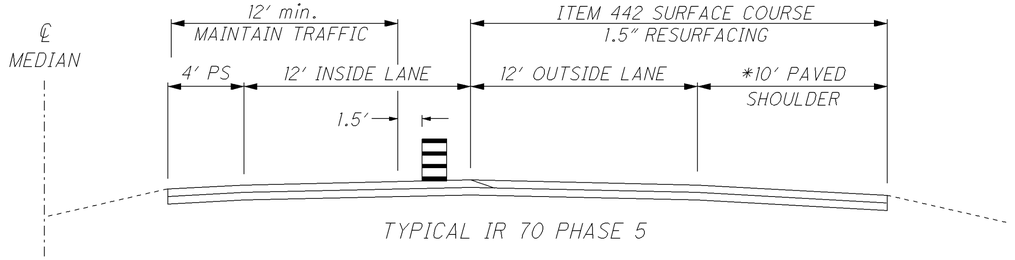
TYPICAL IR 70 PHASE 2



TYPICAL IR 70 PHASE 3



TYPICAL IR 70 PHASE 4



TYPICAL IR 70 PHASE 5

* SHOULDER WIDTH VARIES IN RAMP AREAS

CALCULATED LME
CHECKED DNM

GENERAL NOTES

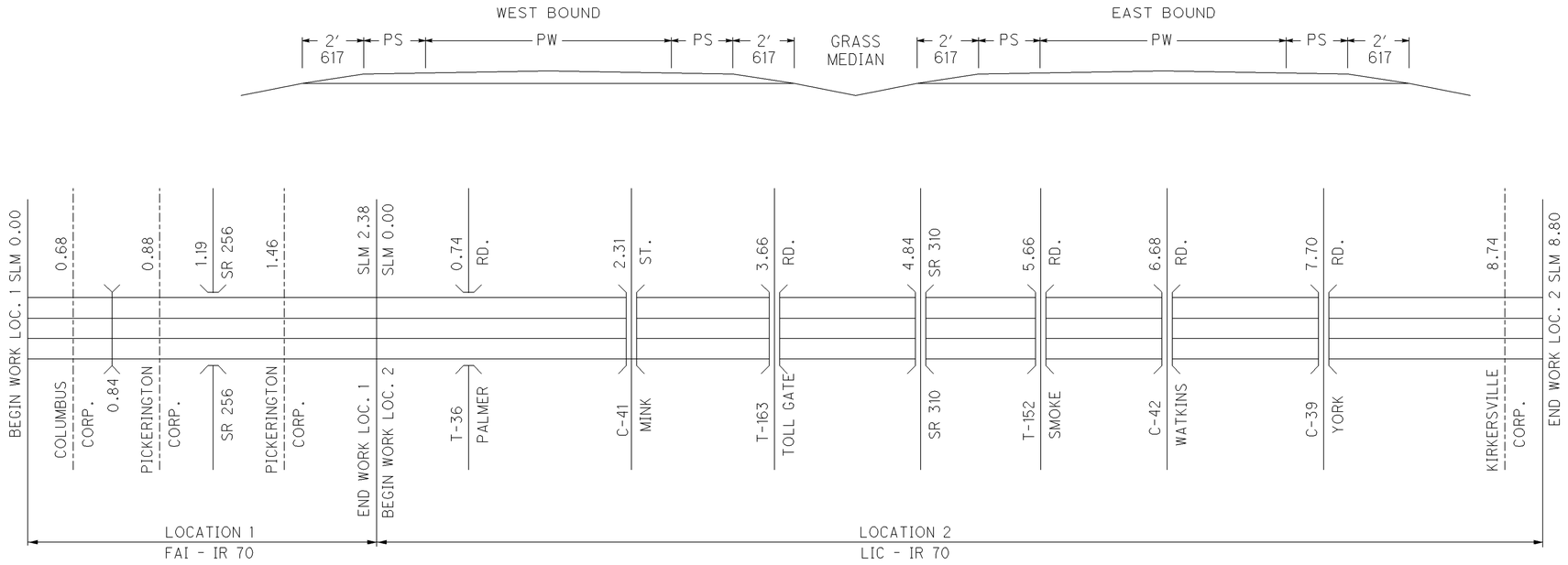
FAI-70-0.00
LIC-70-0.00

PW=PAVEMENT WIDTH
PS=PAVED SHOULDER

CALCULATED LME
CHECKED DNM

ASPHALT CONCRETE DATA

TYPICAL 1



PAVEMENT DATA

LOCATION	COUNTY	ROUTE	BEGIN LOG POINT SLM	END LOG POINT SLM	LENGTH		PAVEMENT WIDTH (FEET)	TYPICAL	EXISTING PAVEMENT TYPE	PAVEMENT AREA	254	407		442 ASPHALT CONCRETE			
					MILES	LIN. FT.					PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN	TACK COAT @ 0.075 GAL./S.Y.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y.	THICKNESS	INTERMEDIATE COURSE, 19 MM, TYPE A (448)	THICKNESS	SURFACE COURSE, 12.5 MM, TYPE A (446)
										SQ. YD.	SQ. YD.	GAL.	GAL.	INCHES	CU. YD.	INCHES	CU. YD.
1	FAI	I.R. 70 E.B.	0.00	1.58	1.58	8,342.40	36.0	1	442	33,369.6	33,369.6	2,502.8	1,668.5	1.75	1,622.2	1.50	1,390.4
1	FAI	I.R. 70 E.B.	1.58	1.96	0.38	2,006.40	48.0	1	442	10,700.8	10,700.8	802.6	535.1	1.75	520.2	1.50	445.9
1	FAI	I.R. 70 E.B.	1.96	2.38	0.42	2,217.60	36.0	1	442	8,870.4	8,870.4	665.3	443.6	1.75	431.2	1.50	369.6
1	FAI	I.R. 70 W.B.	0.00	1.09	1.09	5,755.20	36.0	1	442	23,020.8	23,020.8	1,726.6	1,151.1	1.75	1,119.1	1.50	959.2
1	FAI	I.R. 70 W.B.	1.09	2.38	1.29	6,811.20	24.0	1	442	18,163.2	18,163.2	1,362.3	908.2	1.75	883.0	1.50	756.8
	BRIDGE DEDUCTIONS (FROM SHEET 12)									(2,481.3)	(2,481.3)	(186.1)	(124.1)	1.75	(120.7)	1.50	(103.4)
LOCATION 1 (TOTALS CARRIED TO SUB-SUMMARY)											**91,643.5**	**6,873.5**	**4,582.4**		**4,455.0**		**3,818.5**
2	LIC	I.R. 70 E.B.	0.00	8.80	8.80	46,464.00	24.0	1	442	123,904.0	123,904.0	9,292.8	6,195.2	1.75	6,023.2	1.50	5,162.7
2	LIC	I.R. 70 W.B.	0.00	8.80	8.80	46,464.00	24.0	1	442	123,904.0	123,904.0	9,292.8	6,195.2	1.75	6,023.2	1.50	5,162.7
	BRIDGE DEDUCTIONS (FROM SHEET 12)									(1,114.7)	(1,114.7)	(83.7)	(55.8)	1.75	(54.2)	1.50	(46.5)
LOCATION 2 (TOTALS CARRIED TO SUB-SUMMARY)											**246,693.3**	**18,501.9**	**12,334.6**		**11,992.2**		**10,278.9**

FAI-70-0.00
LIC-70-0.00

M070_MAC_001.DGN 3/1/2011

PW = PAVEMENT WIDTH
PS = PAVED SHOULDER

TYPICAL 1
4-LANE

SHOULDER DATA

LOCATION	COUNTY	ROUTE	BEGIN LOG POINT SLM	END LOG POINT SLM	LENGTH		TYPICAL	PROPOSED WIDTH (FT.)				SHOULDER AREA	254	407		442 ASPHALT CONCRETE				617		618
					MILES	LIN. FT.		A	B	C	D		PAVEMENT PLANING, ASPHALT CONCRETE	TACK COAT @ 0.075 GAL./S.Y.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./S.Y.	THICKNESS	INTERMEDIATE COURSE, 19 MM, TYPE A (448)	THICKNESS	SURFACE COURSE, 12.5 MM, TYPE A (446)	THICKNESS	COMPACTED AGGREGATE, AS PER PLAN (2' WIDTH)	RUMBLE STRIPS (ASPHALT CONCRETE)
												SQ. YD.	SQ. YD.	GAL.	GAL.	INCHES	CU. YD.	INCHES	CU. YD.	INCHES	CU. YD.	MILE
1	FAI	I.R. 70 E.B.	0.00	2.38	2.38	12,566.4	1			4	10	19,547.7	19,547.7	1,466.1	977.4	1.75	950.3	1.50	814.5	1.5	232.7	4.76
1	FAI	I.R. 70 W.B.	0.00	2.38	2.38	12,566.4	1	10	4			19,547.7	19,547.7	1,466.1	977.4	1.75	950.3	1.50	814.5	1.5	232.7	4.76
DEDUCT FOR BRIDGES (FROM SHEET 12)												(1,222.6)	(1222.6)	(91.7)	(61.2)	1.75	(59.5)	1.50	(51.0)	1.5	(16.4)	(0.30)
LOCATION 1 (TOTALS CARRIED TO SUB-SUMMARY)													**37,872.8**	**2,840.5**	**1,893.6**		**1,841.1**		**1,578.0**		**449.0**	**9.22**
2	LIC	I.R. 70 E.B.	0.00	8.80	8.80	46,464.0	1			4	10	72,277.3	72,277.3	5,420.8	3,613.9	1.75	3,513.5	1.50	3,011.6	1.5	860.4	17.60
2	LIC	I.R. 70 W.B.	0.00	8.80	8.80	46,464.0	1	10	4			72,277.3	72,277.3	5,420.8	3,613.9	1.75	3,513.5	1.50	3,011.6	1.5	860.4	17.60
DEDUCT FOR BRIDGES (FROM SHEET 12)												(650.2)	(650.2)	(48.8)	(32.6)	1.75	(31.7)	1.50	(27.1)	1.5	(7.7)	(1.21)
LOCATION 2 (TOTALS CARRIED TO SUB-SUMMARY)													**143,904.4**	**10,792.8**	**7,195.2**		**6,995.3**		**5,996.1**		**1,713.1**	**33.99**

CALCULATED LME
CHECKED DNM

PAVED SHOULDER DATA

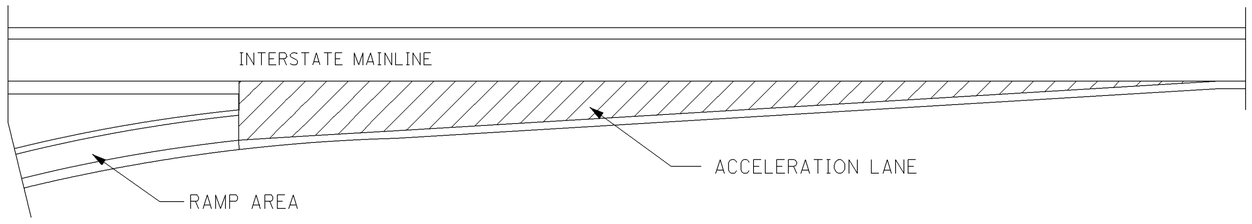
FAI-70-0.00
LIC-70-0.00

M070_MPS_001.DGN 3/1/2011

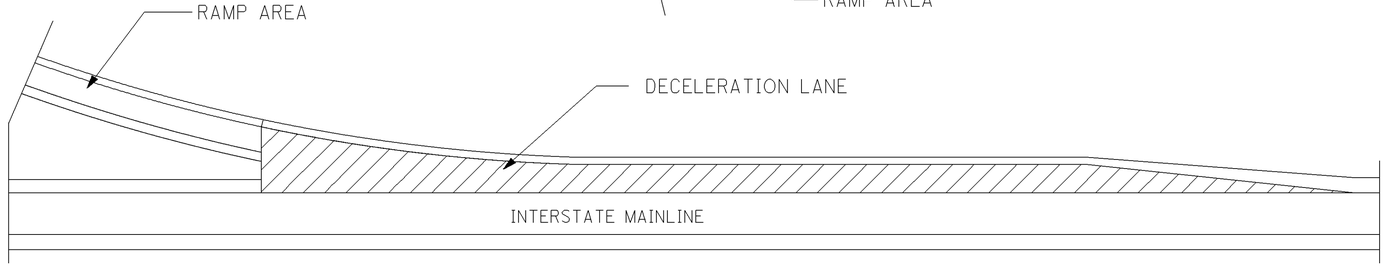
DECELERATION / ACCELERATION LANE DATA

LOCATION	COUNTY	ROUTE	DESCRIPTION	RAMP LENGTH	RAMP WIDTH	AREA	254	407		442 ASPHALT CONCRETE			
							PAVEMENT PLANING, ASPHALT CONCRETE	TACK COAT @ 0.075 GAL./SQ.YD.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./SQ.YD.	THICKNESS	INTERMEDIATE COURSE, 19 MM, TYPE A (448)	THICKNESS	SURFACE COURSE, 12.5 MM, TYPE A (446)
				FEET	FEET	SQ.YD.	SQ.YD.	GAL.	GAL.	INCH	CU.YD.	INCH	CU.YD.
1	FAI	I.R. 7O E.B.	DECELERATION LANE TO S.R. 256 SOUTH *			1,677.0	1,677.0	125.8	83.9	1.75	81.6	1.50	69.9
1	FAI	I.R. 7O E.B.	DECELERATION LANE TO S.R. 256 NORTH *			1,139.0	1,139.0	85.5	57.0	1.75	55.4	1.50	47.5
1	FAI	I.R. 7O E.B.	ACCELERATION LANE FROM S.R. 256 *			3,337.0	3,337.0	250.3	166.9	1.75	162.3	1.50	139.1
1	FAI	I.R. 70 W.B.	ACCELERATION LANE FROM S.R. 256 *			3,244.0	3,244.0	243.3	162.2	1.75	157.7	1.50	135.2
1	FAI	I.R. 70 W.B.	DECELERATION LANE TO S.R. 256 *			1,684.0	1,684.0	126.3	84.2	1.75	81.9	1.50	70.2
LOCATION 1 (TOTALS CARRIED TO SUB-SUMMARY)							**11,081.0**	**831.2**	**554.2**		**538.9**		**461.9**
2	LIC	I.R. 7O E.B.	DECELERATION LANE TO S.R. 310 *			1,677.0	1,677.0	125.8	83.9	1.75	81.6	1.50	69.9
2	LIC	I.R. 7O E.B.	ACCELERATION LANE FROM S.R. 310 *			3,310.0	3,310.0	248.3	165.5	1.75	161.0	1.50	138.0
2	LIC	I.R. 70 W.B.	ACCELERATION LANE FROM S.R. 310 *			3,308.0	3,308.0	248.1	165.4	1.75	160.9	1.50	137.9
2	LIC	I.R. 70 W.B.	DECELERATION LANE TO S.R. 310 *			1,677.0	1,677.0	125.8	83.9	1.75	81.6	1.50	69.9
LOCATION 2 (TOTALS CARRIED TO SUB-SUMMARY)							**9,972.0**	**748.0**	**498.7**		**485.1**		**415.7**

* PAVED SHOULDER QUANTITIES ARE INCLUDED WITH MAINLINE FOR ACCEL/DECEL LANES



I70 EB & WB ENTRANCE RAMPS
@ SR 256 AND SR 310.



I70 EB & WB EXIT RAMPS
@ SR 256 AND SR 310.

CALCULATED LME
CHECKED DNM

RAMP AND GORE DATA

FAI-70-0.00
LIC-70-0.00

M070_MEA_002.DGN 3/1/2011

NOTE: ALL TOTALS INCLUDE SHOULDER AREAS

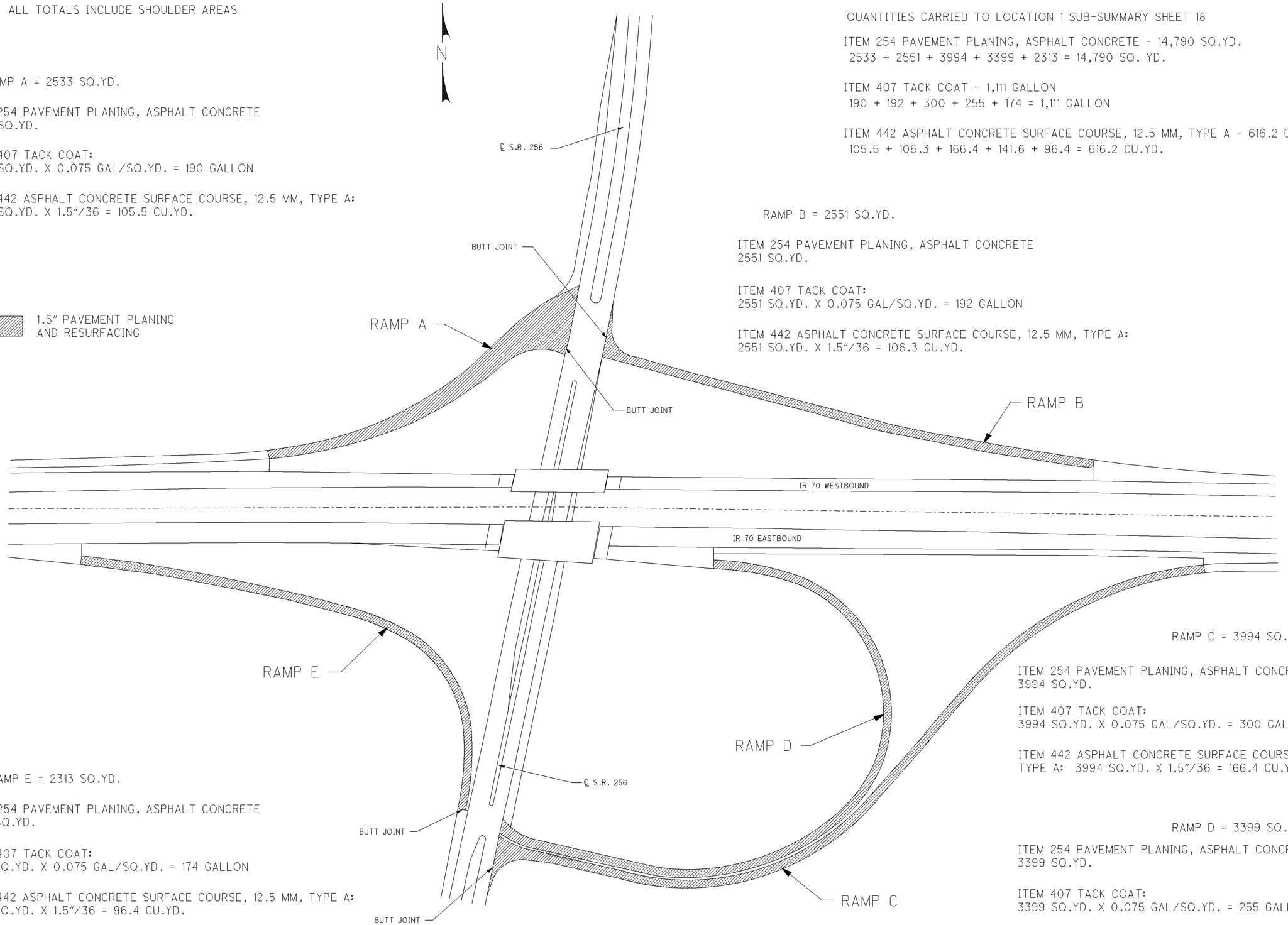
RAMP A = 2533 SQ.YD.

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
2533 SQ.YD.

ITEM 407 TACK COAT:
2533 SQ.YD. X 0.075 GAL/SQ.YD. = 190 GALLON

ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A:
2533 SQ.YD. X 1.5"/36 = 105.5 CU.YD.

1.5" PAVEMENT PLANING
AND RESURFACING



RAMP E = 2313 SQ.YD.

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
2313 SQ.YD.

ITEM 407 TACK COAT:
2313 SQ.YD. X 0.075 GAL/SQ.YD. = 174 GALLON

ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A:
2313 SQ.YD. X 1.5"/36 = 96.4 CU.YD.

QUANTITIES CARRIED TO LOCATION 1 SUB-SUMMARY SHEET 18

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE - 14,790 SQ.YD.
2533 + 2551 + 3994 + 3399 + 2313 = 14,790 SQ. YD.

ITEM 407 TACK COAT - 1,111 GALLON
190 + 192 + 300 + 255 + 174 = 1,111 GALLON

ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A - 616.2 CU. YD.
105.5 + 106.3 + 166.4 + 141.6 + 96.4 = 616.2 CU.YD.

RAMP B = 2551 SQ.YD.

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
2551 SQ.YD.

ITEM 407 TACK COAT:
2551 SQ.YD. X 0.075 GAL/SQ.YD. = 192 GALLON

ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A:
2551 SQ.YD. X 1.5"/36 = 106.3 CU.YD.

RAMP C = 3994 SQ.YD.

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
3994 SQ.YD.

ITEM 407 TACK COAT:
3994 SQ.YD. X 0.075 GAL/SQ.YD. = 300 GALLON

ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM,
TYPE A: 3994 SQ.YD. X 1.5"/36 = 166.4 CU.YD.

RAMP D = 3399 SQ.YD.

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
3399 SQ.YD.

ITEM 407 TACK COAT:
3399 SQ.YD. X 0.075 GAL/SQ.YD. = 255 GALLON

ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM,
TYPE A: 3399 SQ.YD. X 1.5"/36 = 141.6 CU.YD.

CALCULATED LME
CHECKED DNM

RAMP DATA - I.R. 70 & S.R. 256 INTERCHANGE

LOCATION 1 RAMP

FAI-70-0.00
LIC-70-0.00

F070_IDT_001.DGN 3/1/2011

NOTE: ALL TOTALS INCLUDE SHOULDER AREAS

QUANTITIES CARRIED TO LOCATION 2 SUB-SUMMARY SHEET 19

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, - 10,474 SQ.YD.
2810 + 2653 + 2101 + 2910 = 10,474 SQ. YD.

ITEM 407 TACK COAT - 787 GALLON
211 + 199 + 158 + 219 = 787 GALLON

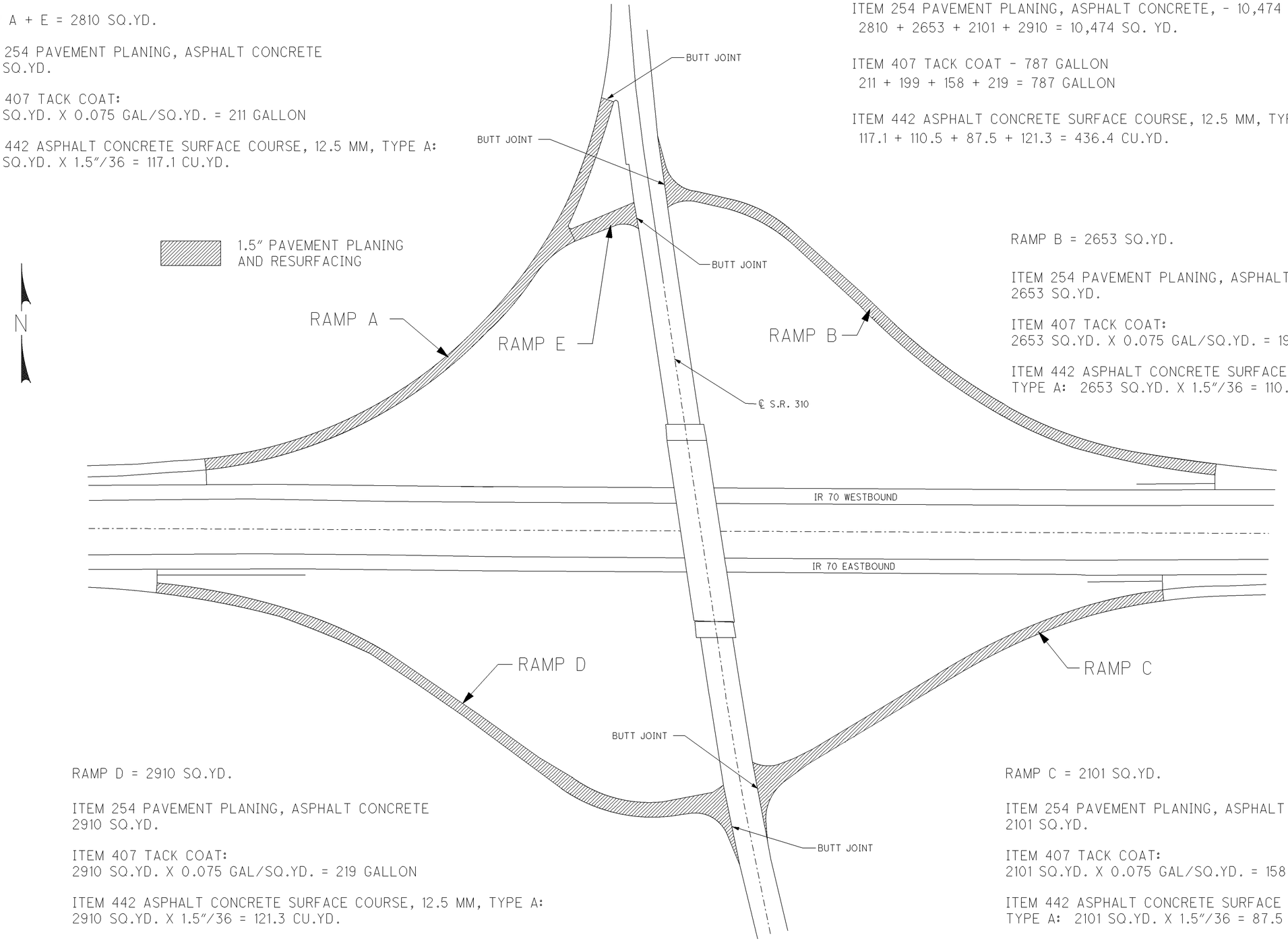
ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A - 436.4 CU. YD.
117.1 + 110.5 + 87.5 + 121.3 = 436.4 CU.YD.

RAMP A + E = 2810 SQ.YD.

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
2810 SQ.YD.

ITEM 407 TACK COAT:
2810 SQ.YD. X 0.075 GAL/SQ.YD. = 211 GALLON

ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A:
2810 SQ.YD. X 1.5"/36 = 117.1 CU.YD.



RAMP B = 2653 SQ.YD.

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
2653 SQ.YD.

ITEM 407 TACK COAT:
2653 SQ.YD. X 0.075 GAL/SQ.YD. = 199 GALLON

ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM,
TYPE A: 2653 SQ.YD. X 1.5"/36 = 110.5 CU.YD.

RAMP D = 2910 SQ.YD.

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
2910 SQ.YD.

ITEM 407 TACK COAT:
2910 SQ.YD. X 0.075 GAL/SQ.YD. = 219 GALLON

ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A:
2910 SQ.YD. X 1.5"/36 = 121.3 CU.YD.

RAMP C = 2101 SQ.YD.

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
2101 SQ.YD.

ITEM 407 TACK COAT:
2101 SQ.YD. X 0.075 GAL/SQ.YD. = 158 GALLON

ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM,
TYPE A: 2101 SQ.YD. X 1.5"/36 = 87.5 CU.YD.

CALCULATED LME
CHECKED LME

LOCATION 2 RAMP DATA - I.R. 70 & S.R. 310 INTERCHANGE

FAI-70-0.00
LIC-70-0.00

M070_IDT_002.DGN 3/1/2011

BRIDGE TREATMENT

LOCATION 1:

FAI-70-0084R: BUTT JOINT @ BRIDGE DECK
FAI-70-0084L: BUTT JOINT @ BRIDGE DECK
FAI-70-0119R: BUTT JOINT @ BRIDGE DECK
FAI-70-0119L: BUTT JOINT @ BRIDGE DECK

LOCATION 2:

LIC-70-0074R: BUTT JOINT @ BRIDGE DECK
LIC-70-0074L: BUTT JOINT @ BRIDGE DECK
LIC-70-0226: OVERHEAD (MILL & FILL MAINLINE)
LIC-70-0231: OVERHEAD (MILL & FILL MAINLINE)
LIC-70-0366: OVERHEAD (MILL & FILL MAINLINE)
LIC-70-0484: OVERHEAD (MILL & FILL MAINLINE)
LIC-70-0566: OVERHEAD (MILL & FILL MAINLINE)
LIC-70-0668: OVERHEAD (MILL & FILL MAINLINE)
LIC-70-0770: OVERHEAD (MILL & FILL MAINLINE)

DEDUCT FOR BRIDGES
(MAINLINE PAVEMENT)

LOCATION 1:

FAI-70-0084R: (164' X 36') / 9 = 656.0 SQ.YD.
FAI-70-0084L: (164' X 36') / 9 = 656.0 SQ.YD.
FAI-70-0119R: (231' X 36') / 9 = 924.0 SQ.YD.
FAI-70-0119L: (227' X 24') / 9 = 605.3 SQ.YD.

QUANTITY CARRIED TO SHEET 7 = 2481.3 SQ.YD.

LOCATION 2:

LIC-70-0074R: (204' X 24') / 9 = 544.0 SQ.YD.
LIC-70-0074L: (214' X 24') / 9 = 570.7 SQ.YD.

QUANTITY CARRIED TO SHEET 7 = 1114.7 SQ.YD.

DEDUCT FOR BRIDGES
(PAVED SHOULDERS)

LOCATION 1:

FAI-70-0084R: (164' X 14') / 9 = 255.1 SQ.YD.
FAI-70-0084L: (164' X 14') / 9 = 255.1 SQ.YD.
FAI-70-0119R: (231' X 14') / 9 = 359.3 SQ.YD.
FAI-70-0119L: (227' X 14') / 9 = 353.1 SQ.YD.

QUANTITY CARRIED TO SHEET 8 = 1222.6 SQ.YD.

LOCATION 2:

LIC-70-0074R: (204' X 14') / 9 = 317.3 SQ.YD.
LIC-70-0074L: (214' X 14') / 9 = 332.9 SQ.YD.

QUANTITY CARRIED TO SHEET 8 = 650.2 SQ.YD.

DEDUCTIONS INCLUDE APPROACH SLAB LENGTHS

BRIDGE DATA

LOCATION NO.	COUNTY, ROUTE, BRIDGE NO.	LENGTH (BRIDGE LIMITS)	WIDTH	AREA	APPROACH SLAB LENGTH	APPROACH SLAB WIDTH	APPROACH SLAB AREA (INCLUDES BOTH APPROACH SLABS)	DETAILS (SEE SHEETS 13 & 14)	253 WEARING COURSE REMOVED	253 PAVEMENT REPAIR (9" DEPTH)	254 PAVEMENT PLANING, PORTLAND CEMENT CONCRETE, AS PER PLAN	407 TACK COAT, 702.13 @ 0.075 GAL./S.Y.	407 TACK COAT @ 0.075 GAL./S.Y.	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM TYPE A (448) MAX. DEPTH	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM TYPE A (448)	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446) MAX. DEPTH	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)	516 2" DEEP JOINT SEALER, AS PER PLAN
		LIN. FT.	LIN. FT.	SQ. YD.	LIN. FT.	LIN. FT.	SQ. YD.		SQ. YD.	CU.YD.	SQ. YD.	GAL.	GAL.	INCHES	CU. YD.	INCHES	CU. YD.	FEET
1	FAI-70-0084R	114	51	646.0	25	51.0	283.4	1	283.4			21.3				1.5	11.8	102
1	FAI-70-0084L	114	56	709.4	25	56.0	311.2	1	311.2		311.2	23.3	15.6	1.75	34.5	1.5	13.0	112
1	FAI-70-0119R	181	61	1,226.8	25	61.0	338.9	1	338.9			25.4				1.5	14.1	122
1	FAI-70-0119L	177	39	767.0	25	39.0	216.7	1	216.7		216.7	16.3	10.8	1.75	37.3	1.5	9.0	78
LOCATION 1 (TOTALS CARRIED TO SUB-SUMMARY)									**1,150.2**		**527.9**	**86.3**	**26.4**		**71.8**		**47.9**	**414**
2	LIC-70-0074R	154	42	718.7	25	42.0	233.4	2	233.4	33.3		17.5				1.5	9.7	84
2	LIC-70-0074L	164	42	765.4	25	42.0	233.4	2	233.4	33.3		17.5				1.5	9.7	84
2	LIC-70-0226	OVERHEAD - MILL AND FILL ROADWAY 3 1/4"																
2	LIC-70-0231	OVERHEAD - MILL AND FILL ROADWAY 3 1/4"																
2	LIC-70-0366	OVERHEAD - MILL AND FILL ROADWAY 3 1/4"																
2	LIC-70-0484	OVERHEAD - MILL AND FILL ROADWAY 3 1/4"																
2	LIC-70-0566	OVERHEAD - MILL AND FILL ROADWAY 3 1/4"																
2	LIC-70-0668	OVERHEAD - MILL AND FILL ROADWAY 3 1/4"																
2	LIC-70-0770	OVERHEAD - MILL AND FILL ROADWAY 3 1/4"																
LOCATION 2 (TOTALS CARRIED TO SUB-SUMMARY)									**466.8**	**66.6**		**35.0**					**19.4**	**168**

CALCULATED LME | CHECKED DNM

BRIDGE TREATMENT DATA

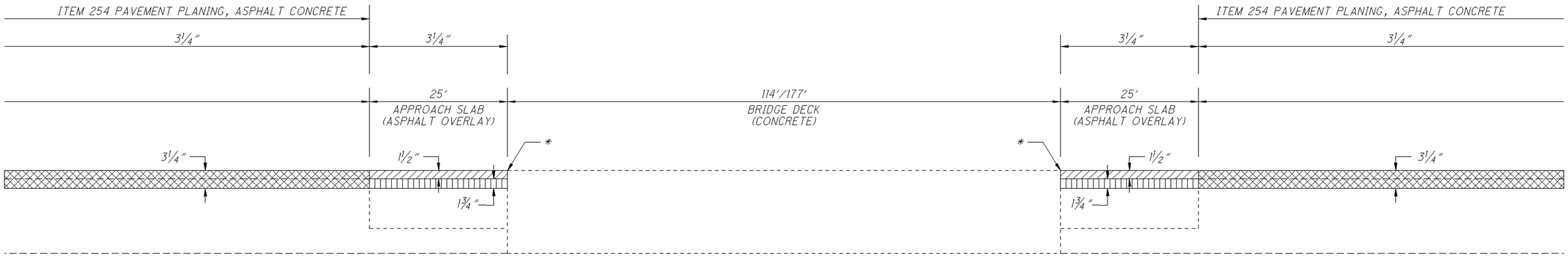
FAI-70-0.00
LIC-70-0.00

M070_MBT_001.DGN 3/23/2011

CALCULATED JLS
CHECKED DNM

BRIDGE DECK DETAIL SHEET

FAI-70-0084L/0119L



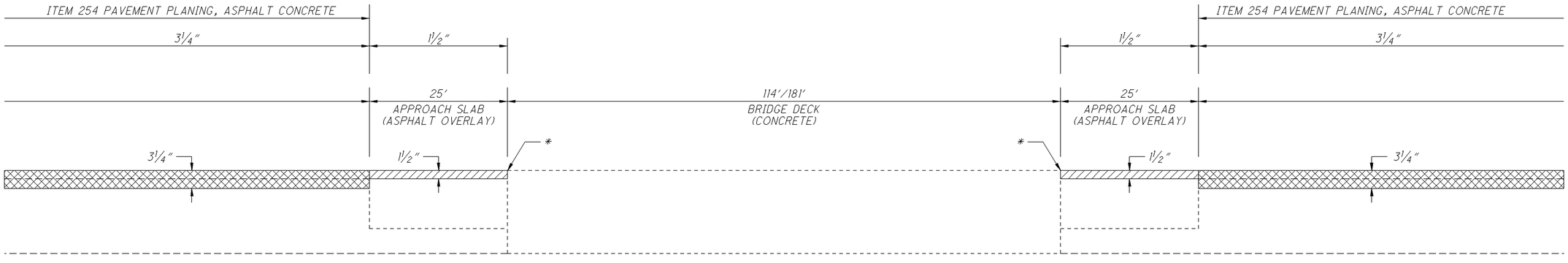
- ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE

- ITEM 202 WEARING COURSE REMOVED

- ITEM 254 PAVEMENT PLANING, PORTLAND CEMENT CONCRETE, AS PER PLAN

* - ITEM 516, 2" DEEP JOINT SEALER, AS PER PLAN

FAI-70-0084R/0119R



- ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE

- ITEM 202 WEARING COURSE REMOVED

* - ITEM 516, 2" DEEP JOINT SEALER, AS PER PLAN

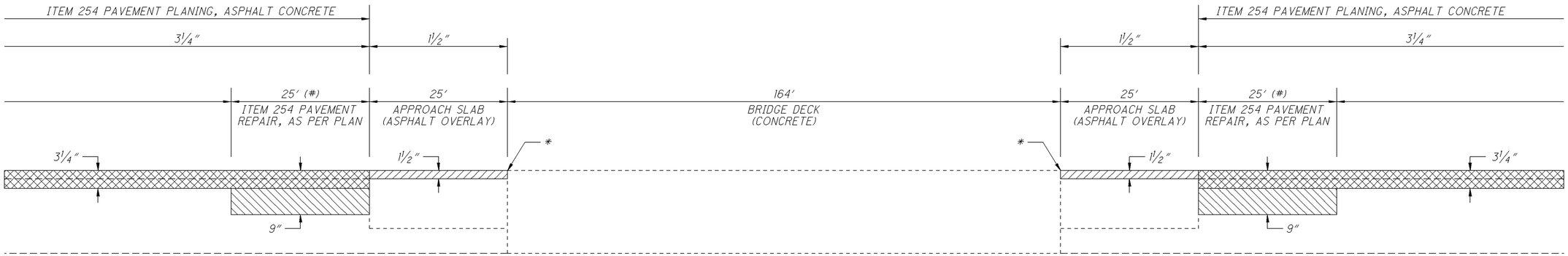
FAI-70-0.00
LIC-70-0.00

F070_WBT_002.DGN 3/23/11

CALCULATED LME
CHECKED DNM

BRIDGE DECK DETAIL SHEET

LIC-70-0074L

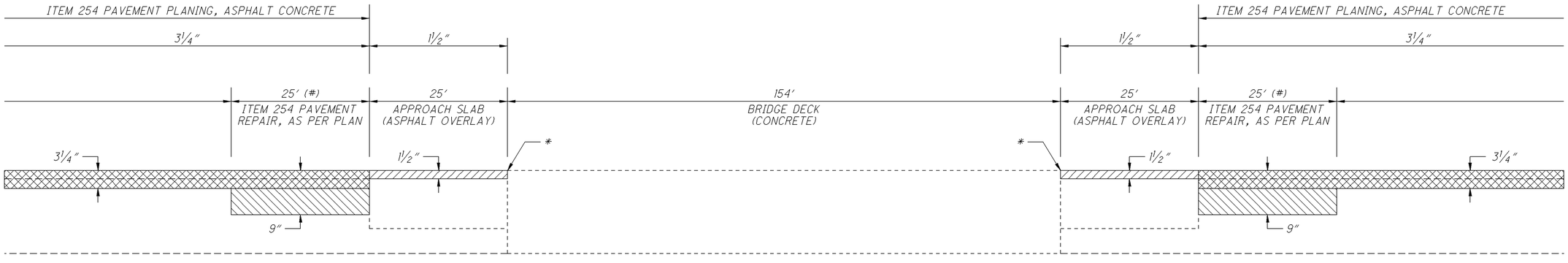


- ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ITEM 202 WEARING COURSE REMOVED
- ITEM 253 PAVEMENT REPAIR

(#) - PAVEMENT REPAIR AREA 24′(width) x 25′(length)
NO ADDITIONAL PAVEMENT REPAIR OVER 24′(width).

* - ITEM 516, 2″ DEEP JOINT SEALER, AS PER PLAN

LIC-70-0074R



- ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE
- ITEM 202 WEARING COURSE REMOVED
- ITEM 253 PAVEMENT REPAIR

(#) - PAVEMENT REPAIR AREA 24′(width) x 25′(length)
NO ADDITIONAL PAVEMENT REPAIR OVER 24′(width).

* - ITEM 516, 2″ DEEP JOINT SEALER, AS PER PLAN

FAI-70-0.00
LIC-70-0.00

F070_MBT_003.DGN 3/23/11

ITEM 817 EDGE LINE SUB-SUMMARY

LOCATION	COUNTY	ROUTE	S.L.M. FROM	S.L.M. TO	TOTAL LENGTH (MILES)	INFORMATION ONLY: WHITE EDGE LINE QUANTITIES TOTAL MILES	WHITE EDGE LINE QUANTITIES HIGHWAY MILES	WHITE EDGE LINE QUANTITIES RAMP MILES	INFORMATION ONLY: YELLOW EDGE LINE QUANTITIES TOTAL MILES	YELLOW EDGE LINE QUANTITIES HIGHWAY MILES	YELLOW EDGE LINE QUANTITIES RAMP MILES	TOTAL EDGE LINE MILES	REMARKS
1	FAI	I.R. 70 E.B.	0.00	2.38	2.38	2.38	2.38		2.38	2.38		4.76	4-LANE DIVIDED
	S.W. RAMP TO SR 256 SOUTH					0.19		0.19	0.19		0.19	0.38	
	S.W. RAMP TO SR 256 NORTH					0.25		0.25	0.25		0.25	0.50	
	S.E. RAMP FROM SR 256					0.30		0.30	0.30		0.30	0.60	
1	FAI	I.R. 70 W.B.	0.00	2.38	2.38	2.38	2.38		2.38	2.38		4.76	4-LANE DIVIDED
	N.W. RAMP FROM SR 256					0.11		0.11	0.11		0.11	0.22	
	N.E. RAMP TO SR 256					0.18		0.18	0.18		0.18	0.36	
LOCATION 1 (TOTALS CARRIED TO SUB-SUMMARY)						**5.79**			**5.79**			**11.58**	
2	LIC	I.R. 70 E.B.	0.00	8.80	8.80	8.80	8.80		8.80	8.80		17.60	4-LANE DIVIDED
	S.W. RAMP TO SR 310					0.19		0.19	0.19		0.19	0.38	
	S.E. RAMP FROM SR 310					0.13		0.13	0.13		0.13	0.26	
2	LIC	I.R. 70 W.B.	0.00	8.80	8.80	8.80	8.80		8.80	8.80		17.60	4-LANE DIVIDED
	N.W. RAMP FROM SR 310					0.18		0.18	0.18		0.18	0.36	
	N.E. RAMP TO SR 310					0.18		0.18	0.18		0.18	0.36	
LOCATION 2 (TOTALS CARRIED TO SUB-SUMMARY)						**18.28**			**18.28**			**36.56**	

CALCULATED LME
CHECKED DNM

PAVEMENT MARKING DATA

FAI-70-0.00
LIC-70-0.00

M070_TEL_001.DGN 3/1/2011

LANE LINE / AUXILARY SUB-SUMMARY

LOCATION	COUNTY	ROUTE	S.L.M. FROM	S.L.M. TO	ITEM 817 LANE LINE QUANTITIES: TOTAL LANE LINE	DASHED	SOLID	ITEM 644 AUXILARY MARKING QUANTITIES: CHANNELIZING LINE	WORD ON PAVEMENT, 72", "ONLY"	TRANSVERSE/ DIAGONAL LINE (YELLOW)	STOP LINE	LANE ARROW: LT/THRU	LT	RT	THRU	REMARKS
					MILE	MILE	MILE	FEET	EACH	FEET	FEET	EACH	EACH	EACH	EACH	
1	FAI	I.R. 70 E.B.	0.00	2.33	2.33	2.33										4-LANE DIVIDED
1	FAI	I.R. 70 E.B.	2.33	2.38	0.05	0.05				35						4-LANE DIVIDED
		S.W. RAMP TO S.R. 256 SOUTH			0.05	0.05		500								DECELERATION LANE
		S.W. RAMP TO S.R. 256 NORTH			0.05	0.05		1,134	2		40			6		DECELERATION LANE/RAMP=620' CHANNEL
		S.E. RAMP FROM S.R. 256			0.05	0.05		620								ACCELERATION LANE
1	FAI	I.R. 70 W.B.	0.00	2.38	2.38	2.38										4-LANE DIVIDED
		N.W. RAMP FROM S.R. 256			0.16	0.16		840								ACCELERATION LANE
		N.E. RAMP TO S.R. 256			0.04	0.04		600			40	1		1		DECELERATION LANE
LOCATION 1 (TOTALS CARRIED TO SUB-SUMMARY)					**5.11**			**3,694**	**2**	**35**	**80**	**8**				
2	LIC	I.R. 70 E.B.	0.00	0.20	0.20	0.20				217						4-LANE DIVIDED
2	LIC	I.R. 70 E.B.	0.20	8.80	8.60	8.60										4-LANE DIVIDED
		S.W. RAMP TO S.R. 310			0.05	0.05		410			50				1	DECELERATION LANE
		S.E. RAMP FROM S.R. 310			0.05	0.05		614								ACCELERATION LANE
2	LIC	I.R. 70 W.B.	0.00	8.80	8.80	8.80										4-LANE DIVIDED
		N.W. RAMP FROM S.R. 310			0.04	0.04		610								ACCELERATION LANE
		N.E. RAMP TO S.R. 310			0.04	0.04		570			40				1	DECELERATION LANE
LOCATION 2 (TOTALS CARRIED TO SUB-SUMMARY)					**17.78**			**2,204**		**217**	**90**	**4**				

CALCULATED LME
CHECKED DNM

PAVEMENT MARKING DATA

FAI-70-0.00
LIC-70-0.00

M070_TLL_001.DGN 3/1/2011

DETAIL	SEE STD. DWG. TC-65.11
1	TAPERED ACCELERATION LANE
2	DECELERATION LANE
3	MULTILANE DIVIDED/ CONTROLLED ACCESS

DETAIL	SEE STD. DWG. TC-65.11
4	4 LANE DIVIDED TO 2 LANE TRANSITION
5	4 LANE UNDIVIDED TO 2 LANE TRANSITION
6	ONE LANE BRIDGE
7	STOP APPROACH
8	THRU APPROACH
9	TWO WAY LEFT TURN LANE

DETAIL	SEE STD. DWG. TC-65.11
10	APPROACH W/LT. TURN LANE
11	HORIZONTAL CURVE 40'
12	HORIZONTAL CURVE ALT.
GAP	CENTERLINE AT 80' TYP.

ITEM 621 RPM SUB-SUMMARY

LOCATION	COUNTY	ROUTE	BEGIN LOG POINT SLM	END LOG POINT SLM	LENGTH		DETAIL	621		PRISMATIC RETRO-REFLECTOR COLORS					REMARKS
										INFORMATION ONLY					
								RAISED PAVEMENT MARKER REMOVED	RPM	ONE-WAY		TWO-WAY			
					MILES	LIN.FT.				WHITE	YELLOW	YELLOW/ YELLOW	WHITE/RED	YELLOW/RED	
								EACH	EACH						
1	FAI	I.R. 70 E.B.	0.00	2.38	2.38	12,566	3	105	105	105					120' SPACING ON LANE LINE
	S.W. RAMP TO S.R. 256 SOUTH						2	22	38	16			13	9	GORE AREA AND RAMP
	S.W. RAMP TO S.R. 256 NORTH						2	22	38	16			13	9	GORE AREA AND RAMP
	S.E. RAMP FROM S.R. 256						1	29	29				15	14	GORE AREA AND RAMP
1	FAI	I.R. 70 W.B.	0.00	2.38	2.38	12,566	3	105	105	105					120' SPACING ON LANE LINE
	N.W. RAMP FROM S.R. 256						1	28	28				17	11	GORE AREA AND RAMP
	N.E. RAMP TO S.R. 256						2	26	42	16			15	11	GORE AREA AND RAMP
LOCATION 1 (TOTALS CARRIED TO SUB-SUMMARY)								**337**	**385**	**258**			**73**	**54**	
2	LIC	I.R. 70 E.B.	0.00	8.80	8.80	46,464	3	388	388	388					120' SPACING ON LANE LINE
	S.W. RAMP TO S.R. 310						2	22	38	16			13	9	GORE AREA AND RAMP
	S.E. RAMP FROM S.R. 310						1	29	29				15	14	GORE AREA AND RAMP
2	LIC	I.R. 70 W.B.	0.00	8.80	8.80	46,464	3	388	388	388					120' SPACING ON LANE LINE
	N.W. RAMP FROM S.R. 310						1	28	28				17	11	GORE AREA AND RAMP
	N.E. RAMP TO S.R. 310						2	26	42	16			15	11	GORE AREA AND RAMP
LOCATION 2 (TOTALS CARRIED TO SUB-SUMMARY)								**881**	**913**	**808**			**60**	**45**	

CALCULATED LME
CHECKED DNM

RAISED PAVEMENT MARKER DATA

FAI-70-0.00
LIC-70-0.00

F070_TRM_001.DGN 3/1/2011

LOCATION 1													ITEM	ITEM EXT.	LOCATION 1 TOTAL	UNIT	DESCRIPTION
Sht. 2	Sht. 3	Sht. 4	Sht. 5	Sht. 6	Sht. 7	Sht. 8	Sht. 9	Sht. 10	Sht. 12	Sht. 15	Sht. 16	Sht. 17					
									1,151				202.00	23500	1,151	SQ YD	WEARING COURSE REMOVED
1													209	60500	1	MILE	LINEAR GRADING
250													253	02000	250	CU YD	PAVEMENT REPAIR
					91,644	37,873	11,081	14,790					254	01000	155,388	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE
									528				254	01011	528	SQ YD	PAVEMENT PLANING, PORTLAND CEMENT CONCRETE, AS PER PLAN
					6,874	2,841	832	1,111					407	10000	11,658	GALLON	TACK COAT
									87				407	13900	87	GALLON	TACK COAT, 702.13
					4,583	1,894	555		27				407	14000	7,059	GALLON	TACK COAT FOR INTERMEDIATE COURSE
					3,819	1,578	462	617	48				442	10000	6,524	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)
					4,455	1,842	539		72				442	20200	6,908	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)
				117									448	46020	117	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22
									414				516	31011	414	FT	2" DEEP JOINT SEALER, AS PER PLAN
			100										614	11110	100	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE
	12												614	12460	12	EACH	WORK ZONE MARKING SIGN
	10												614	12600	10	EACH	REPLACEMENT DRUM
	22												614	13000	22	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
		60											614	18401	60	DAY	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
	9.52												614	20550	9.52	MILE	WORK ZONE LANE LINE, CLASS III, 642 PAINT
	3,694												614	23680	3,694	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT
	80												614	26610	80	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT
						449							617	10101	449	CU YD	COMPACTED AGGREGATE, AS PER PLAN
						9.22							618	40600	9.22	MILE	RUMBLE STRIPS, (ASPHALT CONCRETE)
												385	621	00100	385	EACH	RPM
												337	621	54000	337	EACH	RAISED PAVEMENT MARKER REMOVED
	7												632	26501	7	EACH	DETECTOR LOOP, AS PER PLAN
											3,694		644	00400	3,694	FT	CHANNELIZING LINE
											80		644	00500	80	FT	STOP LINE
											35		644	00700	35	FT	TRANSVERSE/DIAGONAL LINE
											8		644	01300	8	EACH	LANE ARROW
											2		644	01400	2	EACH	WORD ON PAVEMENT, 72"
			5										690	98000	5	EACH	SPECIAL - MISC.: REMOVAL AND STORAGE OF ROADWAY SENSOR
			5										690	98000	5	EACH	SPECIAL - MISC.: ROAD WEATHER INFORMATION SYSTEM (RWIS) SENSOR
										11.58			817	00100	11.58	MILE	EDGE LINE
											5.11		817	00200	5.11	MILE	LANE LINE

CALCULATED LME CHECKED DNM

LOCATION 1 SUB-SUMMARY

FAI-70-0.00
LIC-70-0.00

F070_MLS_001.DGN 3/23/2011

LOCATION 2													ITEM	ITEM EXT.	LOCATION 2 TOTAL	UNIT	DESCRIPTION
Sht. 2	Sht. 3	Sht. 4	Sht. 5	Sht. 6	Sht. 7	Sht. 8	Sht. 9	Sht. 11	Sht. 12	Sht. 15	Sht. 16	Sht. 17					
									467				202.00	23500	467	SQ YD	WEARING COURSE REMOVED
4													209	60500	4	MILE	LINEAR GRADING
250									67				253	02000	317	CU YD	PAVEMENT REPAIR
					246,694	143,905	9,972	10,474					254	01000	411,045	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE
					18.502	10,793	748	787					407	10000	30,830	GALLON	TACK COAT
									35				407	13900	35	GALLON	TACK COAT, 702.13
					12.335	7.196	499						407	14000	20,030	GALLON	TACK COAT FOR INTERMEDIATE COURSE
					10,279	5,997	416	437	20				442	10000	17,149	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)
					11,993	6,996	486						442	20200	19.475	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)
				431									448	46020	431	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22
									168				516	31011	168	FT	2" DEEP JOINT SEALER, AS PER PLAN
			200										614	11110	200	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE
	27												614	12460	27	EACH	WORK ZONE MARKING SIGN
	40												614	12600	40	EACH	REPLACEMENT DRUM
	15												614	13000	15	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC
		140											614	18401	140	DAY	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN
	38.60												614	20550	38.60	MILE	WORK ZONE LANE LINE, CLASS III, 642 PAINT
	4,548												614	23680	4,548	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT
	170												614	26610	170	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT
						1,714							617	10101	1,714	CU YD	COMPACTED AGGREGATE, AS PER PLAN
						33.99							618	40600	33.99	MILE	RUMBLE STRIPS, (ASPHALT CONCRETE)
												913	621	00100	913	EACH	RPM
												881	621	54000	881	EACH	RAISED PAVEMENT MARKER REMOVED
	6												632	26501	6	EACH	DETECTOR LOOP, AS PER PLAN
											2,204		644	00400	2,204	FT	CHANNELIZING LINE
											90		644	00500	90	FT	STOP LINE
											217		644	00700	217	FT	TRANSVERSE/DIAGONAL LINE
											4		644	01300	4	EACH	LANE ARROW
										36.56			817	00100	36.56	MILE	EDGE LINE
											17.78		817	00200	17.78	MILE	LANE LINE

CALCULATED LME
CHECKED DNM

LOCATION 2 SUB-SUMMARY

FAI-70-0.00
LIC-70-0.00

LOCATION 1	LOCATION 2				ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET
1,151	467				202	23500	1,618	SQ YD	WEARING COURSE REMOVED	
1	4				209	60500	5	MILE	LINEAR GRADING	
250	317				253	02000	567	CU YD	PAVEMENT REPAIR	
155,388	411,045				254	01000	566,433	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE	2
528					254	01011	528	SQ YD	PAVEMENT PLANING, PORTLAND CEMENT CONCRETE, AS PER PLAN	3
11,658	30,830				407	10000	42,488	GALLON	TACK COAT	
87	35				407	13900	122	GALLON	TACK COAT, 702.13	
7,059	20,030				407	14000	27,089	GALLON	TACK COAT FOR INTERMEDIATE COURSE	
6,524	17,149				442	10000	23,673	CU YD	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (446)	
6,908	19,475				442	20200	26,383	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)	
117	431				448	46020	548	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, PG64-22	
414	168				516	31011	582	FT	2" DEEP JOINT SEALER, AS PER PLAN	2
100	200				614	11110	300	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
12	27				614	12460	39	EACH	WORK ZONE MARKING SIGN	
10	40				614	12600	50	EACH	REPLACEMENT DRUM	
22	15				614	13000	37	CU YD	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
60	140				614	18401	200	DAY	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	4
9.52	38.60				614	20550	48.12	MILE	WORK ZONE LANE LINE, CLASS III, 642 PAINT	
3,694.00	4,548.00				614	23680	8,242.00	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 642 PAINT	
80	170				614	26610	250	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
449	1,714				617	10101	2,163	CU YD	COMPACTED AGGREGATE, AS PER PLAN	2
9.22	33.99				618	40600	43.21	MILE	RUMBLE STRIPS, (ASPHALT CONCRETE)	
385	913				621	00100	1,298	EACH	RPM	
337	881				621	54000	1,218	EACH	RAISED PAVEMENT MARKER REMOVED	
7	6				632	26501	13	EACH	DETECTOR LOOP, AS PER PLAN	3
3,694	2,204				644	00400	5,898	FT	CHANNELIZING LINE	
80	90				644	00500	170	FT	STOP LINE	
35	217				644	00700	252	FT	TRANSVERSE/DIAGONAL LINE	
8	4				644	01300	12	EACH	LANE ARROW	
2					644	01400	2	EACH	WORD ON PAVEMENT, 72"	
5					690	98000	5	EACH	SPECIAL - MISC.: REMOVAL AND STORAGE OF ROADWAY SENSOR	
5					690	98000	5	EACH	SPECIAL - MISC.: ROAD WEATHER INFORMATION SYSTEM (RWIS) SENSOR	
11.58	36.56				817	00100	48.14	MILE	EDGE LINE	
5.11	17.78				817	00200	22.89	MILE	LANE LINE	
					103	05000	LUMP		PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND	
					614	11000	LUMP		MAINTAINING TRAFFIC	
					619	16000	3	MONTH	FIELD OFFICE, TYPE A	
					623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
					624	10000	LUMP		MOBILIZATION	

CALCULATED LME
CHECKED DNM

GENERAL SUMMARY

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