

433

OHIO DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

FWSA Region:	State	Project
5	Ohio	

1
14

PLAN NO. 140

PART	COUNTY	ROUTE	SECTIONS	PROJECT TERMINI		NET LENGTH MILES	TOWNSHIP	CITY	VILLAGE
				BEGIN	END				
1	MED	303	9.35	9.35	9.86	0.51		Brunswick	
2	MED	303	(9.86-11.51)(12.97)	9.86	15.12	4.24			
3	MED	94	(18.38-19.17)	18.38	19.37	0.99			

The Standard 1979 Specifications of the State of Ohio, Department of Transportation, including changes and Supplemental Specifications listed in the plans and proposal shall govern these improvements.

I hereby approve these plans and declare that the making of these improvements will require the closing of the highways to traffic on Parts No. _____ and that detours will be provided by State forces. The closing to traffic of the highways will not be required on Parts No. 1, 2 and 3 and provisions for the maintenance and safety of traffic will be as indicated in the proposal.

Approved Date 3-24-80

D. J. Packer
District Deputy Director of Transportation

Approved Date 6-19-80

Robert B. Pfeiffer
Engineer of Bridges

Approved Date _____

Engineer of Maintenance

Approved Date 7-11-80

Gerald E. Hann
Chief Engineer, Operations

Approved Date _____

Assistant Deputy Director, Program Development

Approved Date _____

Chief Engineer, Construction

Approved Date _____

Chief Engineer, Design

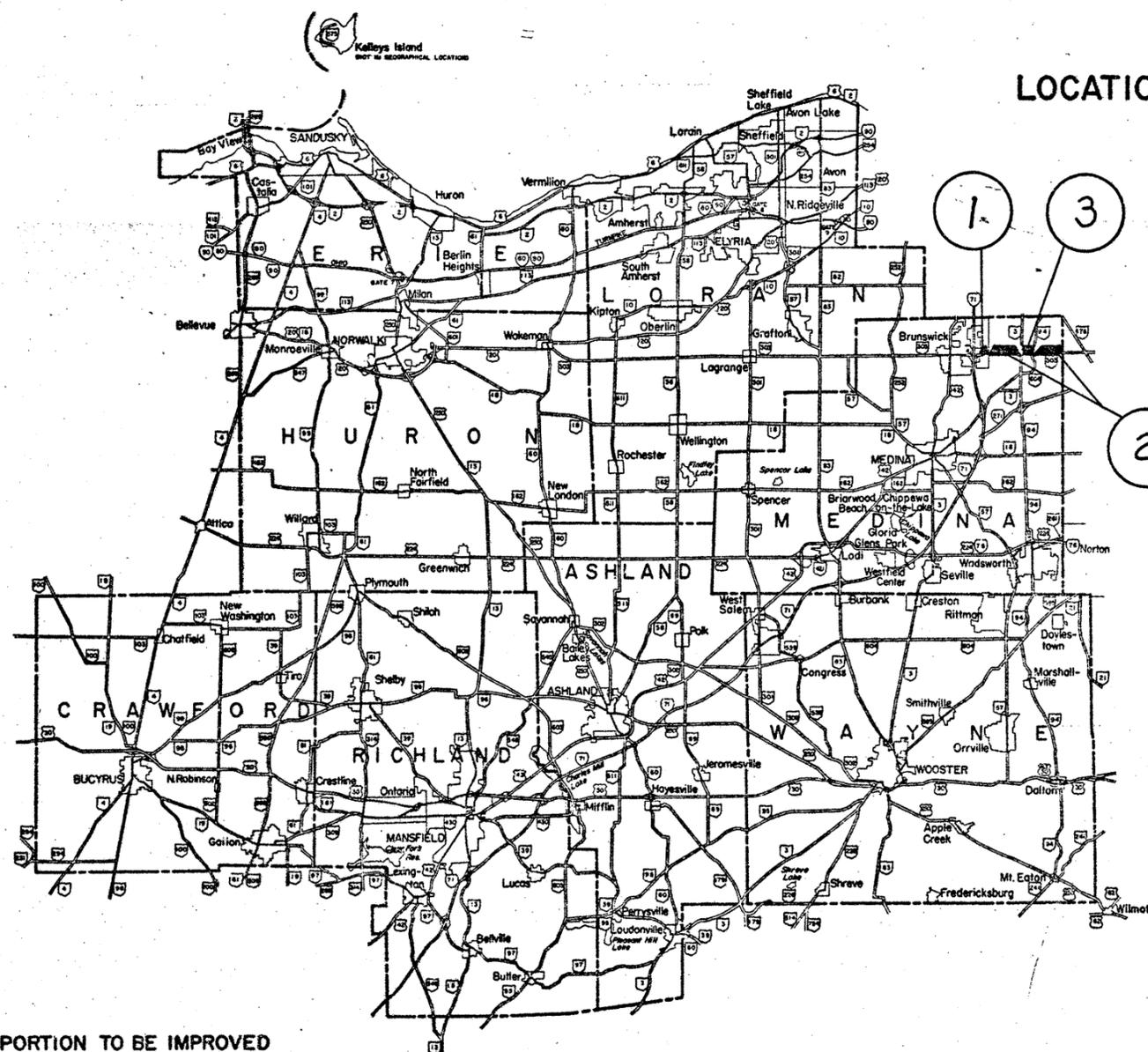
Approved Date _____

Assistant Director, Department of Transportation

Approved Date 7-11-80

David L. Weir
Director, Department of Transportation

LOCATION MAP



DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

Approved _____ Date _____
Division Administrator

STANDARD DRAWINGS		SUPPLEMENTAL SPECIFICATIONS	
BP-5	4-16-79	SS-845	6-27-77
MC-3	6-1-73	SS-959	12-19-78
		SS-859	12-19-78
		SS-843	10-23-75
		SS-953	3-8-79

9-9-80

FILE # 62 M.

BAJ

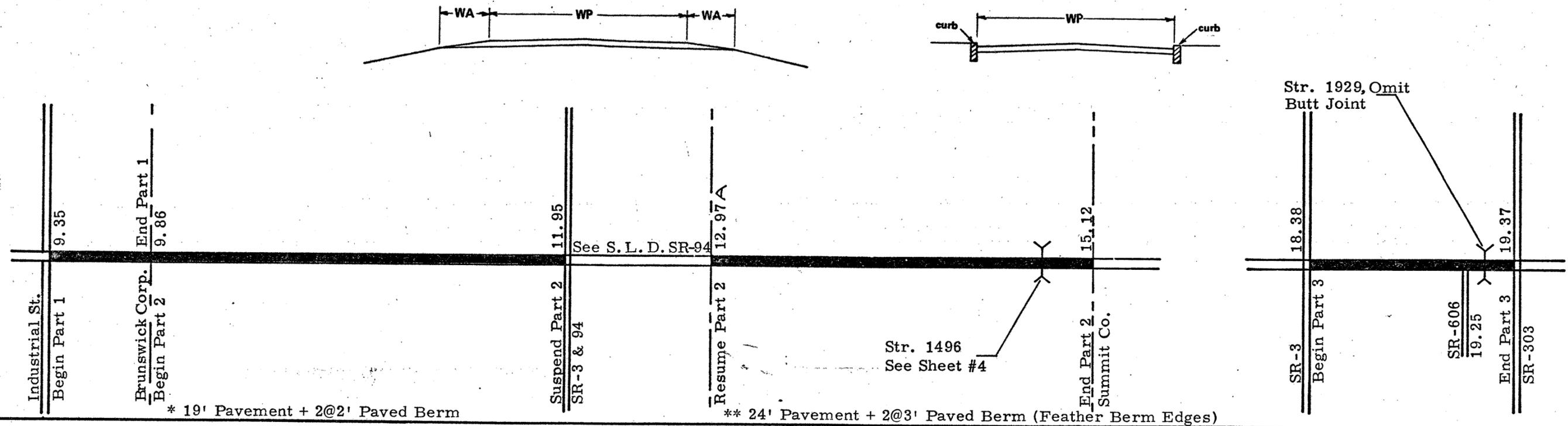
ASPHALT CONCRETE

PLAN NO.
140

2
14

TYPICAL 1

TYPICAL 2



* 19' Pavement + 2@2' Paved Berm

** 24' Pavement + 2@3' Paved Berm (Feather Berm Edges)

PAVEMENT DATA

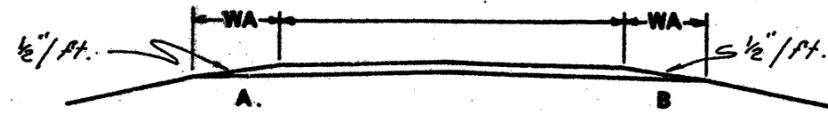
PART	ROUTE	LOG POINT TO LOG POINT	LENGTH		WP FEET	TYPICAL	EXISTING TYPE PAVEMENT	PAVEMENT AREA SQ. YDS.	PROPOSED PAVEMENT						202 Wearing Course Removed Sq. Yds.	604 Water Valve Boxes Adjusted to Grade Each
			MILES	LIN. FT.					407		ASPHALT CONCRETE					
									TACK COAT @ .0.10 gal./s.y. GALS.	COVER AGGR. @ .7.... lbs./s.y. TONS	ITEM 403 THICK INCHES Min.	CU. YDS.	ITEM 404 THICK INCHES Av.	CU. YDS.		
1	303	9.35 to 9.86	0.51	2693	23*	1	404	6881								
							EA for Intr.	119								
		Total Part 1	0.51	2693				7000	700	25	0	146	3/4	146		50
2	303	9.86 to 11.51	1.65	8712	23*	1	404	22264								
		11.51 to 11.95	0.44	2323	30**	1	404	7743								
		12.97A to 15.12	2.15	11352	20	1	404	25227								
							EA for Intr.	766								
		Total Part 2	4.24	22387				56000	5600	196	0	1167	3/4	1167		100
3	94	18.38 to 19.17	0.79	4171	19	1	404	8805								
		19.17 to 19.37	0.20	1056	20	1	404	2347								
							EA for Intr.	848								
		Total Part 3	0.99	5227				12,000	1,200	42	0	250	3/4	250		50

7. SHIELD: The Contractor shall provide a shield to prevent the spraying or drifting of liquid bituminous material onto the edge of the pavement or edgelines. The attention of the Contractor is directed to 107.12 of the Specifications. **TYPICAL 1**

PAVED SHOULDERS

*NOTES

PLAN NO. 140



6. Trench excavation for berm construction shall be performed only on one side of the pavement at a time and the open trench shall be adequately maintained and protected.

Placement of proposed base material shall follow as closely as possible behind the excavation operations. The length of berm trench open at any one time shall be held to a minimum and shall at all times be subject to the approval of the Engineer.

For all parts where berm construction is specified the quantities are calculated through all inter-sections. However this portion may be non-performed by the Engineer.

ITEM 411 - STABILIZED CRUSHED AGGREGATE: Whenever 411 stabilized crushed aggregate is stipulated, the first paragraph of 411.03 is waived and subgrade compaction shall be to the satisfaction of the Engineer.

** One station equals 100 lin. ft. Stations shall be measured along each edge of pavement.

1. **ITEM 203 LINEAR GRADING:** This work shall consist of preparing a subgrade for the shoulder paving by excavating the existing shoulder material to the depth shown in the plan, or as directed by the Engineer to remove any unstable material and by shaping and compacting the subgrade. The unsound or broken edge of bituminous pavements shall first be trimmed to a line established by the Engineer. The existing shoulder then shall be excavated and the subgrade shaped and compacted. Compaction shall be carried out to the satisfaction of the Engineer by means of a trench roller, 401.11. Areas graded in excess of depths specified or directed by the Engineer shall be backfilled to desired grade using 617 Compacted Aggregate at the contractor's expense. Excavated material shall be disposed of as indicated in the plan.

- a. Used to back up shoulders where required; the balance to be disposed of as directed by the Engineer.
- b. Disposed of by the Contractor at his own responsibility outside the limits of the right-of-way.
- c. Wasted adjacent to the pavement and within the right-of-way as directed by the Engineer.

2. **ITEM 301 BIT. AGGR. BASE:** Prior to placing a bituminous mixture for shoulder paving, the edge of the existing pavement, for the full depth of the trench, shall be coated with bituminous material in accordance with 401.12.

3. **ITEM 301 BITUMINOUS AGGREGATE BASE** may be used in lieu of Item 402 Asphalt Concrete.

4. **ITEM 617 COMPACTED AGGREGATE:** A quantity of Item 617 Compacted Aggregate has been provided for areas where the shoulders were low prior to grading and/or low areas caused by removal of unsuitable material.

5. **ITEM 408 BITUMINOUS PRIME COAT:** After application of the Prime Coat, no further treatment shall be performed until so directed by the Engineer.

PAVED SHOULDER DATA

PART	ROUTE	LOG POINT TO LOG POINT	LENGTH		TYPICAL	PROPOSED WIDTH (FT.)				SHOULDER AREA SQ. YDS.	203		301		411		408	409		617	605	NOTES	
			MILES	LIN. FT.		LINEAR GRADING		BITUMINOUS AGGREGATE BASE			STABILIZED CRUSHED AGGREGATE		PRIME	SEAL		COMPACTED AGGREGATE	AGGREGATE DRAINS						
			DEPTH INCHES	**STA.		AVG. THICK INCHES	CU. YDS.	AVG. THICK INCHES	CU. YDS.		Bit. Matl.	Bit. Matl.	Aggr.	CU. YDS.	LIN. FT.								
1	303	9.35 to 9.86	0.51	2693	1	2	2		1197									359	9				
2	303	9.86 to 11.51	1.65	8712	1	2	2		3872														
		11.51 to 11.95	0.44	2323	1	3	3		1549														
		12.97A to 15.12	2.15	11352	1	2	2		5045	4	227	4	561										267
	Sub-Total Part 2		4.24	22387					10466		227		561						3140	78			
3	94	18.38 to 19.37	0.99	5227	1	2	2		2323	4	105	4	258						697	17			267

CONCRETE OVERLAY

PLACEMENT OF THE OVERLAY SHALL BE COMPLETE DURING THE NIGHT BETWEEN OFFICIAL SUNSET AND SUNRISE. THE CONTRACTOR SHALL SUBMIT A PLAN FOR PROVIDING ADEQUATE LIGHTING FOR THE WORK AREA AT LEAST 15 CALENDAR DAYS IN ADVANCE, AND RECEIVE WRITTEN APPROVAL FROM THE DIRECTOR, BEFORE PLACING THE CONCRETE. THE LIGHTS SHALL BE SO DIRECTED THAT THEY DO NOT AFFECT OR DISTRACT APPROACHING TRAFFIC. IN EARLY SPRING OR FALL THE OVERLAYS MAY BE PLACED DURING DAYLIGHT HOURS BY PERMISSION OF THE ENGINEER, IF ALL THE FOLLOWING CONDITIONS ARE MET AND DOCUMENTED BY THE PROJECT ENGINEER ON THE SITE:

- WIND SPEED 10 MPH OR LESS
- RELATIVE HUMIDITY 40% OR GREATER
- CONCRETE TEMPERATURE 70°F OR LESS
- AIR TEMPERATURE 70°F OR LESS

ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY FOR THE LIGHTING SHALL BE INCLUDED IN ITEM 845, LATEX MODIFIED CONCRETE OVERLAY (1 1/4" THICK). PROGRESSIVE SOUNDINGS MAY BE REQUIRED TO ASSURE ALL DETERIORATED CONCRETE AND UNSOUND AGGREGATE HAS BEEN REMOVED. FINAL SOUNDING OF THE DECK SHALL NOT BE PERFORMED UNTIL 24 HOURS AFTER A RAIN, WHICH SHALL INCLUDE EIGHT HOURS OF GOOD WEATHER. IN NO CASE SHALL THE FINAL SOUNDING BE MADE WHEN THE DECK IS DAMP. FINAL SOUNDING MAY INCLUDE ONE OR MORE ATTEMPTS TO ASSURE ALL DETERIORATED CONCRETE HAS BEEN REMOVED.

A CONTINGENT QUANTITY OF 2 CUBIC YARDS FULL DEPTH REPAIR IS PROVIDED FOR EACH STRUCTURE. IF THIS ITEM IS NOT REQUIRED IT SHALL BE NON PERFORMED.

ONE INCH METAL REINFORCING SUPPORTS PER 509.09 WITH PLASTIC LEG CAPS REMOVED SHALL BE PLACED IN THE GUTTER IF REQUIRED AS SHOWN IN THE DETAILS. ALL LABOR, EQUIPMENT AND MATERIAL NECESSARY TO PLACE THE ONE INCH SUPPORTS SHALL BE INCLUDED IN ITEM 845, LATEX MODIFIED CONCRETE OVERLAY (1 1/4" THICK).

THE CONCRETE OVERLAY SHALL BE FEATHERED FROM EXPANSION JOINTS DOWN TO THE REQUIRED HEIGHT WHERE REQUIRED AT THE RATE OF ONE INCH PER 25 FOOT, THE ADDITIONAL QUANTITIES REQUIRED ARE INCLUDED IN ITEM 845 LATEX MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS). IN ALL CASES THE FEATHERS SHALL BE GRADED SO THAT THEY DO NOT CREATE WATER POCKETS.

SPALLED TOPS OF BACKWALLS SHALL BE REPAIRED WITH ITEM 845 LATEX MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS).

LONGITUDINAL JOINTS ARE PERMITTED BUT ONLY TO THE EXTENT NECESSARY TO ACCOMODATE THE WIDTH OF THE FINISHING MACHINE, TO FACILITATE CHANGES IN ROADWAY CROWN, AND TO PERMIT MAINTENANCE OR VEHICULAR TRAFFIC, EXCEPT AS APPROVED BY THE DIRECTOR. JOINTS SHALL NOT BE USED ADJACENT TO RAISED CURBS, BARRIERS, OR EDGES OF DECKS.

WATER BLAST CLEANING SHALL NOT BE USED.

ALL REQUIRED CHARACTERISTICS (AIR, SLUMP, ETC.) OF THE MIX SHALL BE ADJUSTED BEFORE PLACEMENT ON THE DECK STARTS.

PRIOR TO THE SCARIFICATION OF THE DECK SURFACE THE CONTRACTOR SHALL ESTABLISH PERIODIC BENCH MARKS FOR THE EXISTING SURFACE ON THE CURBS, PARAPETS OR RAILINGS. SUPPORT RAILS FOR THE FINISHING SHALL BE SET WITH REFERENCE TO THESE BENCH MARKS SO THAT THE FINISHED CONCRETE OVERLAY SURFACE GENERALLY WILL BE $1\frac{1}{4}$ " ABOVE THE ORIGINAL DECK SURFACE EXCEPT WHERE LOW SPOTS OCCUR. A TOLERANCE OF 0" TO $+1/8$ " SHALL BE PERMITTED. THE FINISHING MACHINE SHALL RIDE ON ADJUSTABLE RAILS INSTALLED ON BOTH SIDES OF THE OVERLAY. IN THE EVENT AN OVERLAY IS MADE IN TWO OR MORE PASSES AN ADJUSTABLE RAIL WILL NOT BE REQUIRED ON THE PREVIOUSLY PLACED OVERLAY. ALL RAILS SHALL BE CHECKED FOR STRAIGHTNESS ($1/16$ " IN 10"). IN NO CASE SHALL BENT OR TWISTED RAILS BE USED.

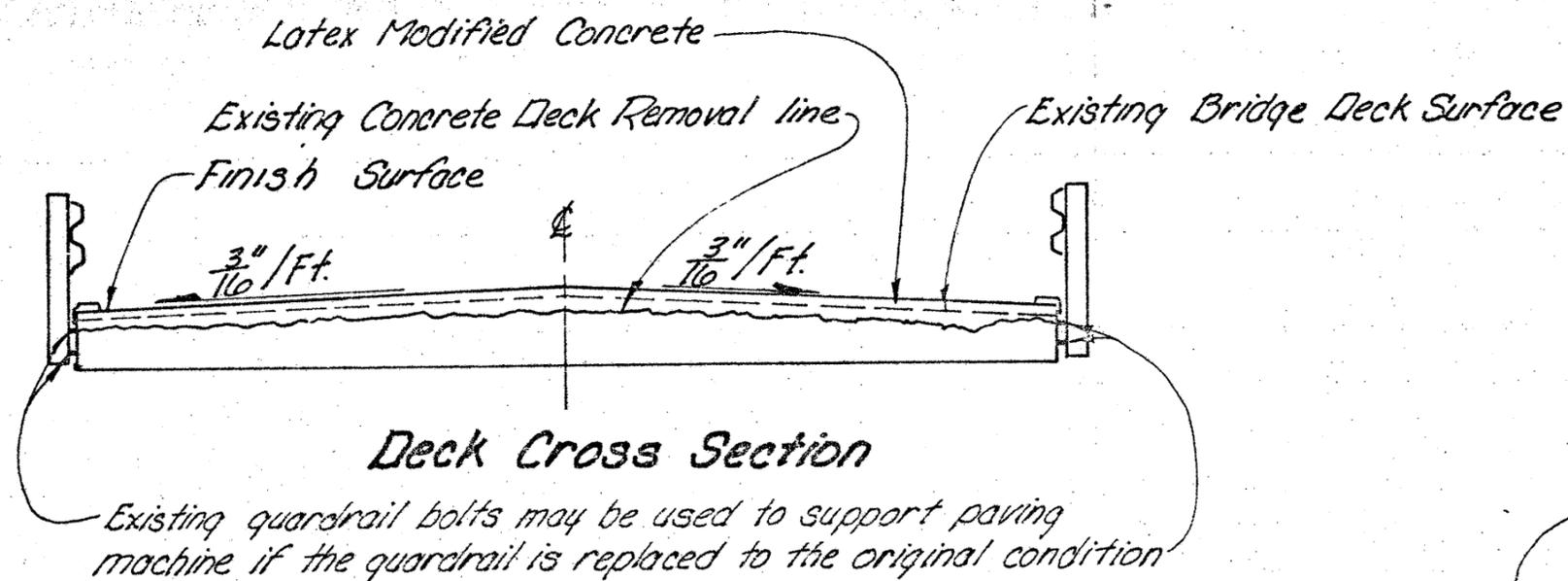
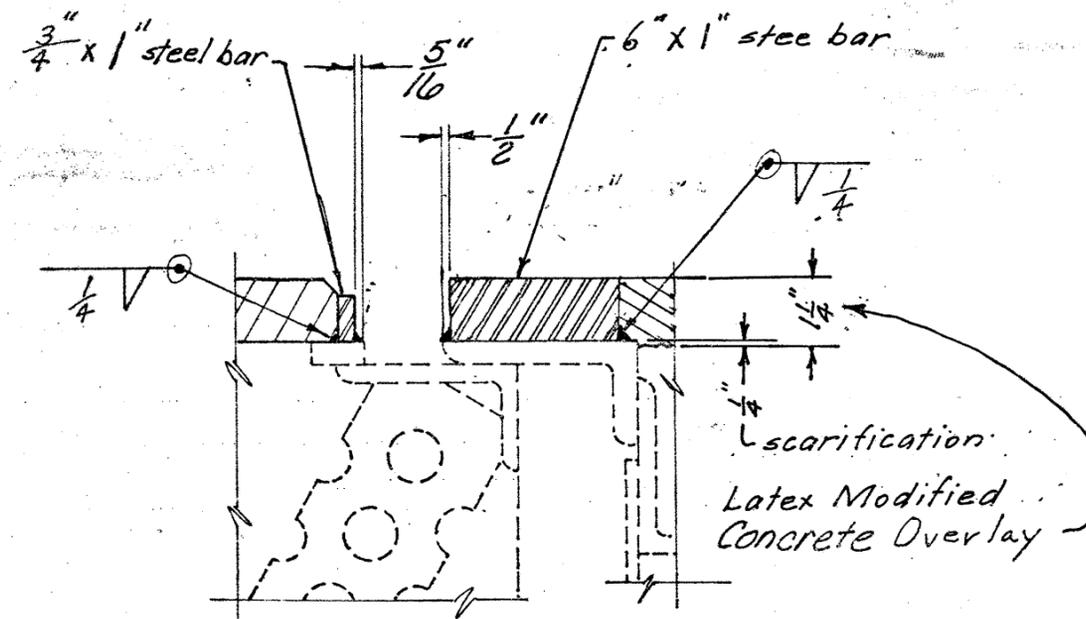
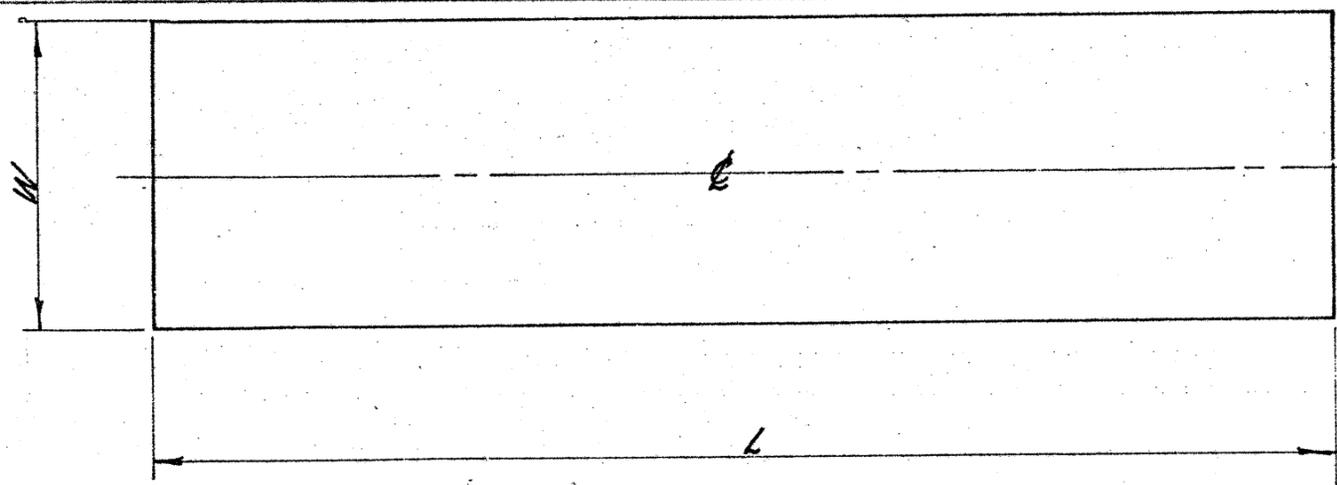
AFTER THE SCREED RAILS HAVE BEEN SET TO PROPER PROFILE AND PRIOR TO PLACING THE OVERLAY, THE FINISHING MACHINE WITH $1\frac{1}{4}$ " THICK FILLER BLOCKS ATTACHED TO THE BOTTOM OF THE SCREED SHALL BE PASSED OVER THE ENTIRE AREA OF THE DECK TO BE OVERLAID, EXCEPT WHERE SURFACE PROFILE ADJUSTMENTS HAVE BEEN MADE, THE FILLER BLOCKS SHOULD GENERALLY CLEAR THE SCARIFIED DECK SURFACE BY NOT MORE THAN $1/8$ ". CONCRETE WHICH DOES NOT CLEAR THE FILLER BLOCK SHALL BE REMOVED.

NO CONCRETE DECK PREPARATIONS SHALL BE STARTED AFTER OCTOBER 15. ANY CONCRETE DECK OVERLAYS STARTED BEFORE OCTOBER 15 SHALL BE COMPLETED BEFORE OCTOBER 20. NO CONCRETE DECK OVERLAYS SHALL BE PLACED BEFORE APRIL 15.

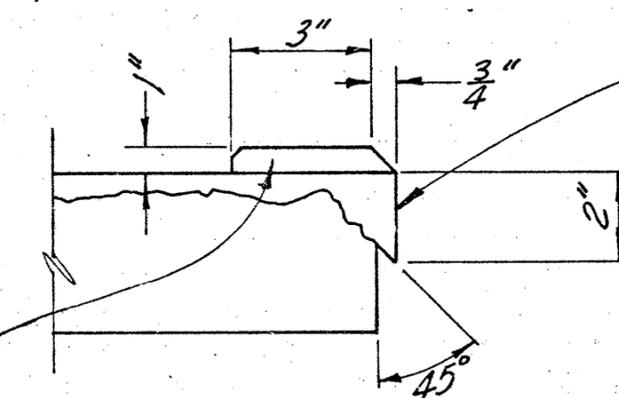
ALL PROVISIONS OF ITEM 511 OF CONSTRUCTION AND MATERIALS SPECIFICATIONS SHALL APPLY EXCEPT WHEN IN CONFLICT WITH SUPPLEMENTAL SPECIFICATIONS 845. OR WHEN IN CONFLICT WITH THESE NOTES.

ITEM 614 MAINTENANCE OF TRAFFIC

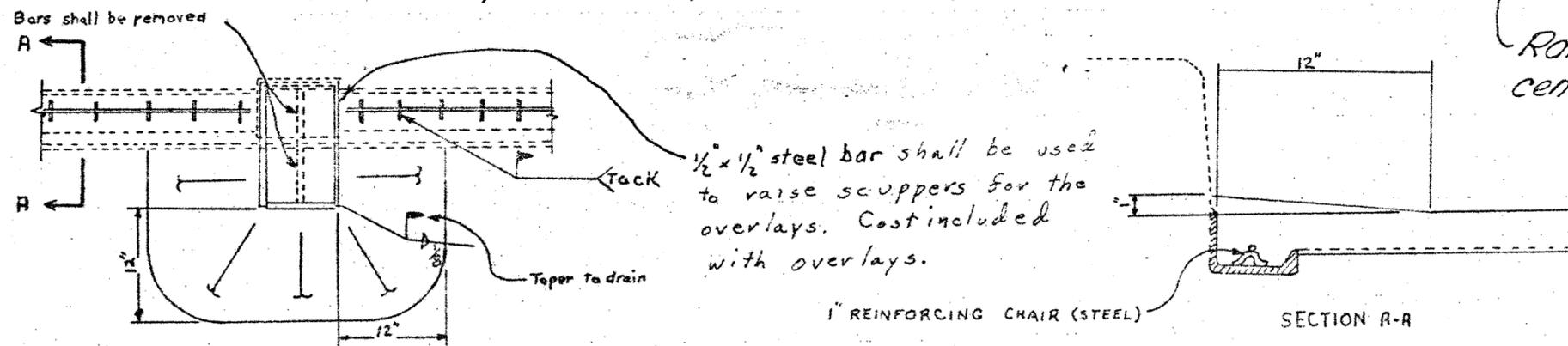
ONE LANE TRAFFIC SHALL BE MAINTAINED FOR WORK ON STRUCTURE NO. MEI-303-1496 AS SHOWN ON SHEET NO. 9. SHOULDER APPROACH WORK SHALL BE DONE BEFORE ONE LANE TRAFFIC IS SET UP.

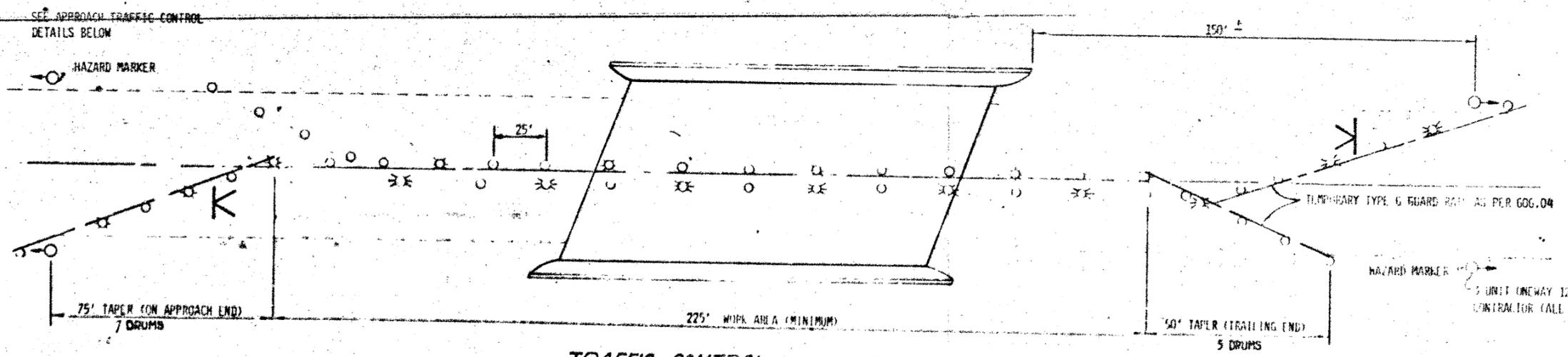


$\frac{3}{4}$ " overhang to extend full length of fascia



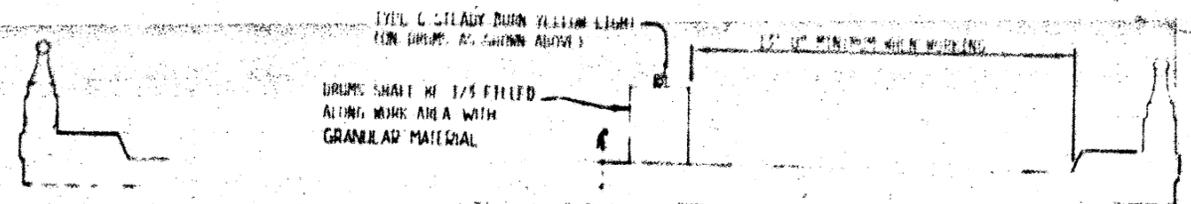
Raised portion shall be 18" long and be centered in front of each guardrail post.





TRAFFIC CONTROL (Not to scale)

LEGEND
 ☉ DRUM WITH TYPE C GUARD RAIL

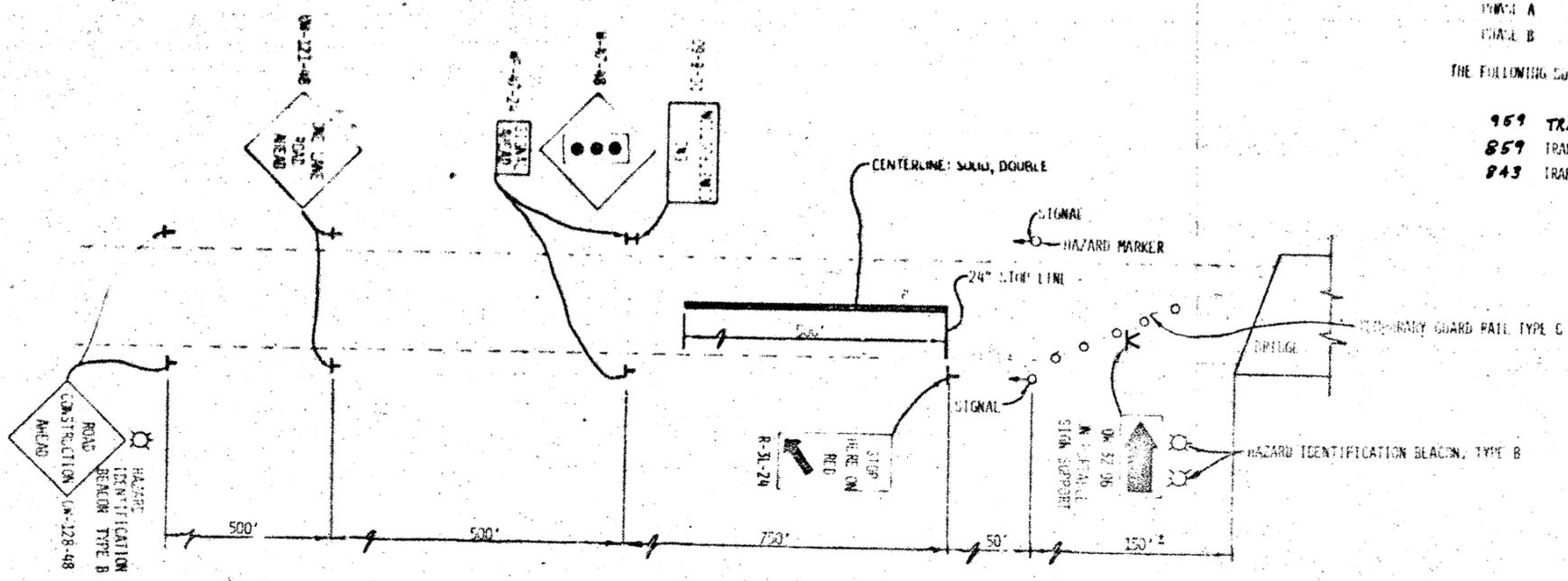


NOTES:
 ALL SIGNS, SIGNALS, LIGHTS, PAVEMENT MARKINGS, ETC. ON OPPOSITE APPROACH SHALL BE THE SAME AS SHOWN IN THIS APPROACH.
 THE LOCATION OF THE ADVANCE WARNING SIGNS MAY BE ADJUSTED IN THE FIELD TO SUIT CONDITIONS.
 A TIMED END FRAME CONTROLLER WITH CABINET SHALL BE USED WITH THE FOLLOWING CYCLE:

	CYCLE LENGTH IN SECONDS		
	GREEN	AMBER	ALL RED
PHASE A	30	3	
PHASE B	30	3	

THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS SHALL APPLY:

- 959 TRAFFIC SIGNAL MATERIAL
- 859 TRAFFIC SIGNAL EQUIPMENT
- 843 TRAFFIC SIGNAL CONTROLLERS



Ohio Department of Transportation					
TRAFFIC CONTROL					
Checked	Drawn	Traced	Design Reviewer	Date	Version

614 Temporary Pavement Markings

The contractor shall furnish, install, maintain, and, when necessary, remove temporary retro-reflective pavement markings on reconstructed, resurfaced or temporary roads within the work limits, in accordance with the following requirements.

The temporary markings shall be complete on all pavement courses exposed to traffic at the end of each day's operation. Where permanent markings are called for in these plans, the contractor shall furnish and place the permanent markings within 30 calendar days, following completion of all surface courses in a single roadway or prior to the end of the construction season, whichever comes first.

Temporary markings shall be placed in accordance with the following requirements, unless otherwise specified in the plans:

Center lines and lane lines shall consist of 12"x4" segments spaced at a maximum 40' center to center; channelizing lines shall be 12"x4" segments spaced at maximum 20' center to center. Freeway and expressway gore markings shall be two continuous lines, 50' long, 4" wide.

The material furnished shall be flexible retroreflective preformed pressure sensitive tape for pavement lines. It shall be free of cracks with straight edges and consist of pigment and fillers, but have sufficient binder and plasticizer to retain glass beads having an appropriate refractive index to meet minimum reflective intensity standards outlined in the manufacturers information. Material shall be Flexolite "Wet Reflective", 3M "Scotchlane," or approved equal.

Glass beads shall be mixed uniformly throughout the marking material with sufficient surface beads to provide optimum reflectorization at all times.

The material shall have a precoated adhesive layer for pavement application without the use of heat, solvents or additional adhesives. The adhesive shall be sufficient to retain complete markings on the pavement surface throughout the useful life of the markings.

White marking material shall be free of tint. Yellow material shall conform to Color No. 33538 of Federal Standard 595.

In addition, all applicable manufacturers material and application instructions, in force at the time of placement, shall be adhered to. The contractor shall furnish to the engineer certification that the material supplied meets the properties specified herein.

Markings shall be accurately laid out in conformance with 621.051 and shall be located in a true line on the center line, lane line, or channelizing line where normal permanent marking would lie, unless otherwise specified in the plans. The temporary tape shall be placed by rolling the material into the surface.

As an alternate material to pavement marking tape, the contractor may furnish and apply painted retroreflective pavement markings conforming to 621. The width and length of painted segment shall be the same as required for temporary tape material. The paint application rate shall be not less than 16 gallons per mile for a solid line nor less than 0.4 gallons per mile for the 12"x4" dashed line.

The contractor shall provide complete pavement markings for all temporary roads constructed for this project, in accordance with material and performance requirements described herein and in the Ohio Manual as defined in 614.03.

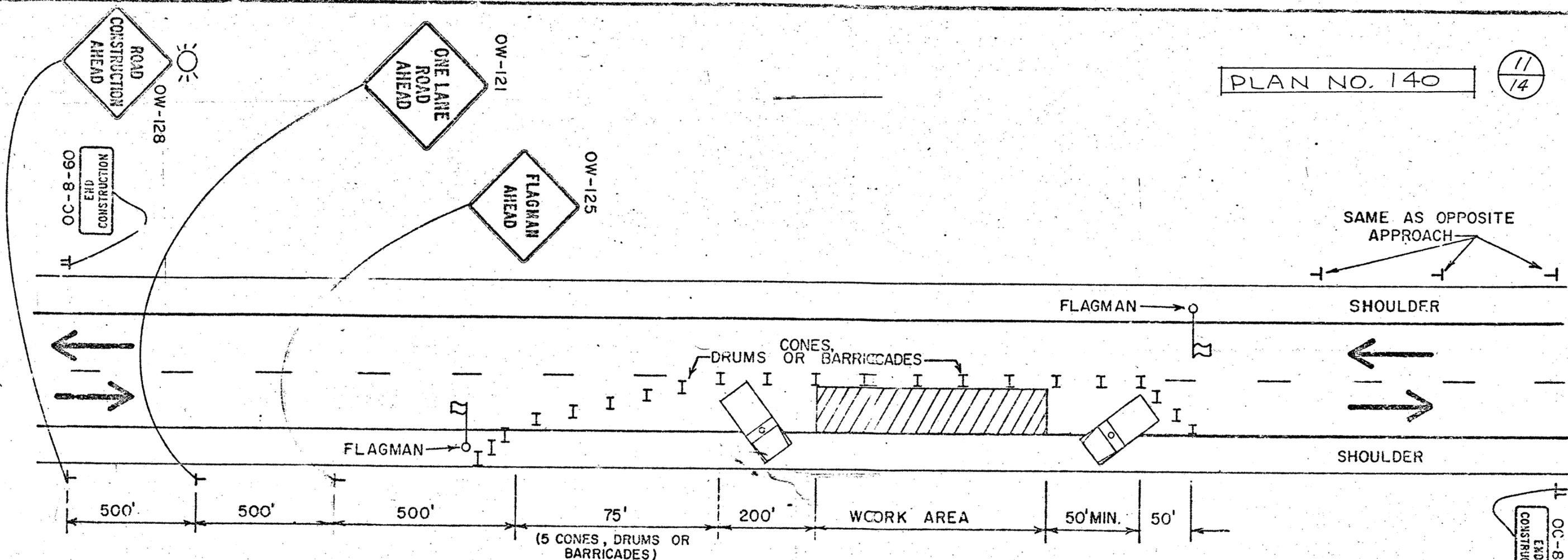
In addition to the requirement of 614.03, the contractor shall, prior to placing temporary markings, remove all existing conflicting markings that are visible to the traveling public during daylight or nighttime hours. When temporary markings are no longer needed, any conflicting markings visible to the traveling public shall be removed by the contractor before the flow of traffic is diverted to the next phases. Removal of existing or temporary markings shall be performed in accordance with 621.134. The cost for removal of conflicting markings shall be incidental to the various pay items unless specifically paid for as a separate item.

Method of measurement and basis of payment shall be in conformance with 621.15 and 621.16 respectively for:

Item	Unit	Description
614	Miles	Temporary Lane Lines
614	Miles	Temporary Center Lines
614	Miles/Lin. Ft.	Temporary Channelizing Lines
614	Lin. Ft.	Temporary Gore Marking
614	Lin. Ft.	Removal of Temporary Marking

PLAN NO.
140

Item	County	Route	From	To	Temporary Centerlines		Total Miles Temporary Centerlines
					Miles for 403 Course	Miles for 404 Course	
614	MED	303	9.35	9.86	0.51	0.51	1.02
614	MED	303	9.86 12.97	11.95 15.12	4.24	4.24	8.48
614	MED	94	18.38	19.37	0.99	0.99	1.98



GENERAL NOTES

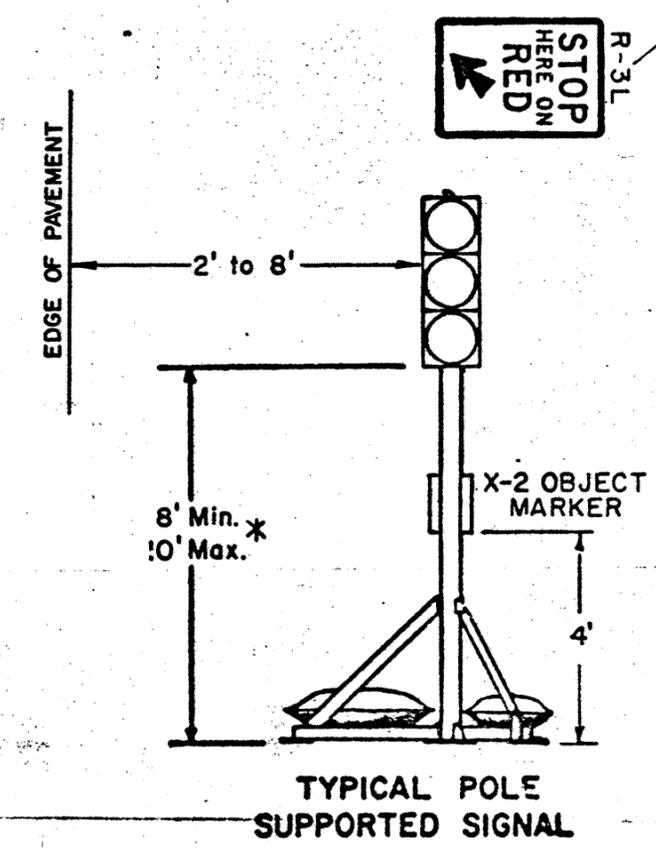
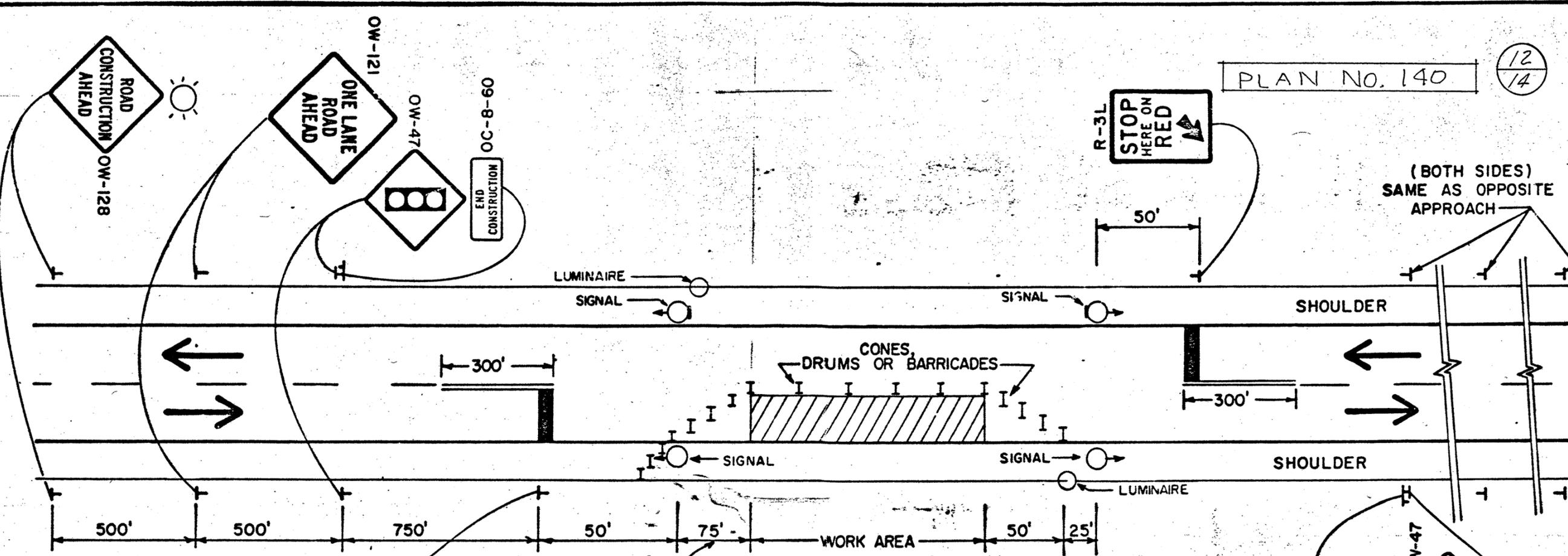
1. FLAGMEN SHALL BE USED TO CONTROL TRAFFIC CONTINUOUSLY FOR AS LONG AS ONE LANE OPERATION IS IN EFFECT. FLAGMAN SHALL COMMUNICATE WITH EACH OTHER AT ALL TIMES AS DESCRIBED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES IN THE SECTION "FLAGMAN CONTROL". FLAGMEN STATIONS SHALL BE ADEQUATELY ILLUMINATED FOR NIGHT-TIME OPERATIONS BY USE OF A 175 WATT MINIMUM LUMINAIRE.
2. CONES, DRUMS, OR BARRICADES SHALL BE SPACED AT 50 FOOT CENTERS FOR THE FIRST 1000 FEET OF THE WORK AREA AND AT A MAXIMUM OF 100 FEET FOR THE BALANCE OF THE WORK AREA. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS FOR THE LANE CLOSURES DURING DAYLIGHT HOURS ONLY.
3. SEVERAL SMALL WORK SITES CLOSE TOGETHER SHALL BE COMBINED INTO ONE WORK AREA TO MAKE A CLOSURE NOT MORE THAN 2000 FEET LONG INCLUDING TAPERS. CLOSURES MORE THAN 2000 FEET MAY BE APPROVED BY THE ENGINEER. THE MINIMUM LENGTH BETWEEN CLOSURES SHALL BE 2000 FEET. ONLY ONE SIDE OF THE ROAD SHALL BE CLOSED IN ANY ONE WORK AREA.
4. THE WORK TRUCKS SHOWN AT EACH END OF THE WORK AREA SHALL BE IN PLACE AND UNOCCUPIED WHENEVER MEN ARE WORKING WITHIN THE WORK AREA. THESE TRUCKS SHALL BE MOVED FROM THE PAVEMENT WHENEVER WORKMEN ARE NOT IN THE WORK AREA. OTHER PROTECTIVE DEVICES MAY BE USED IN LIEU OF THE WORK TRUCKS SHOWN WHEN APPROVED BY THE ENGINEER.
5. THE TYPE B HIGH INTENSITY BARRICADE WARNING LIGHT SHOWN ON THE ROAD CONSTRUCTION AHEAD SIGN, IS REQUIRED WHENEVER NIGHT LANE CLOSURE IS NECESSARY.
6. TYPE C STEADY BURNING BARRICADE WARNING LIGHTS SHALL BE ERECTED ON DRUMS OR BARRICADES FOR NIGHT LANE CLOSURES. MAXIMUM SPACING SHALL BE 50' CENTER TO CENTER IN ADVANCE OF THE WORK AREA AND 200' CENTER TO CENTER WITHIN THE WORK AREA.

SAME AS OPPOSITE APPROACH

OC-8-60
END
CONSTRUCTION

PAVEMENT PLANING.
WEARING COURSE
REMOVED.
BRIDGE DECK
TREATMENT

OHIO DEPARTMENT OF TRANSPORTATION	
FLAGMEN CLOSING 1 LANE OF A 2 LANE HIGHWAY	DATE 4/77
DR GBD JCK RLB	

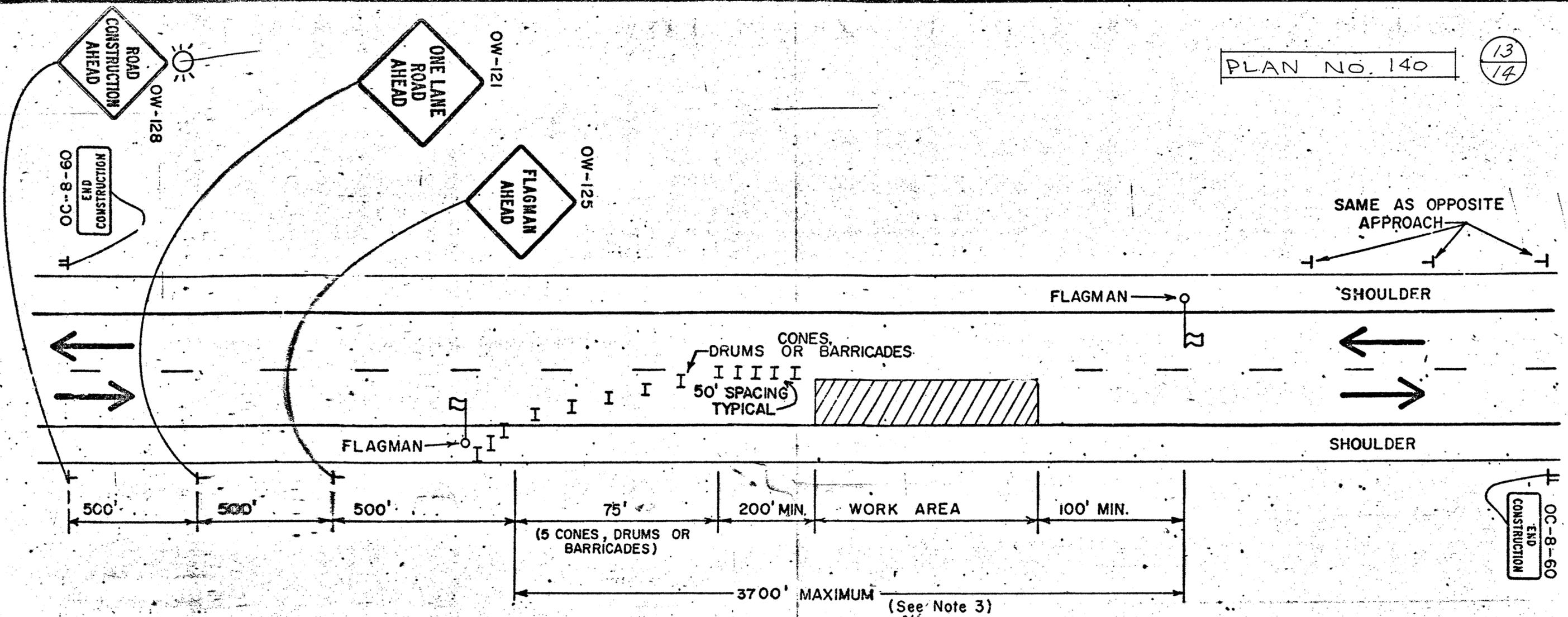


* Above grade of roadway centerline

GENERAL NOTES

1. THE MAXIMUM LENGTH OF WORK AREA FOR ONE WAY TRAFFIC SIGNAL CONTROL IS DETERMINED BY THE CAPACITY REQUIRED TO HANDLE THE PEAK HOUR DEMAND. PRACTICAL MAXIMUM LENGTH IS 400 FEET. SIGNAL TIMING SHALL BE APPROVED BY THE ENGINEER.
2. SIGNALS SHALL BE INSTALLED AND OPERATED IN ACCORDANCE WITH THE REQUIREMENTS OF PART 6 OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
3. CONES, DRUMS, OR BARRICADES SHALL BE SPACED AT 50 FOOT CENTERS WITHIN THE WORK AREA. CONES MAY BE SUBSTITUTED FOR BARRICADES OR ~~DRUMS~~ DRUMS FOR THE LANE CLOSURES DURING DAYLIGHT HOURS ONLY.
4. ADEQUATE AREA ILLUMINATION TO CLEARLY IDENTIFY THE BEGINNING OF THE TRANSITION AT NIGHT SHALL BE PROVIDED BY USE OF A 175 WATT MINIMUM LUMINAIRE LOCATED ADJACENT TO ONE SIGNAL FOR EACH DIRECTION OF TRAFFIC AS SHOWN ABOVE.
5. TEMPORARY NO PASSING LINES AND STOP LINES SHALL BE INSTALLED. EXISTING PAVEMENT MARKING BETWEEN THE WORK AREA AND THE STOP LINES SHALL BE REMOVED OR COVERED.
6. THE TYPE B HIGH INTENSITY BARRICADE WARNING LIGHT SHOWN ON THE "ROAD CONSTRUCTION AHEAD" SIGN IS REQUIRED WHENEVER NIGHT LANE CLOSURE IS NECESSARY.
7. TYPE C STEADY BURNING BARRICADE WARNING LIGHTS SHALL BE ERECTED ON DRUMS OR BARRICADES FOR NIGHT LANE CLOSURES. MAXIMUM SPACING SHALL BE 50' CENTER TO CENTER IN ADVANCE OF THE WORK AREA AND 100' CENTER TO CENTER WITHIN THE WORK AREA.

OHIO DEPARTMENT OF TRANSPORTATION	
SIGNALIZED CLOSING 1 LANE OF A 2 LANE HIGHWAY	DATE 4/77
DR.GBD	CK.RLB



GENERAL NOTES

1. FLAGMEN SHALL BE USED TO CONTROL TRAFFIC CONTINUOUSLY FOR AS LONG AS ONE LANE OPERATION IS IN EFFECT. FLAGMEN SHALL BE ABLE TO COMMUNICATE WITH EACH OTHER AT ALL TIMES EITHER VERBALLY OR BY MEANS OF RADIO OR FIELD TELEPHONES. FLAGMEN STATIONS SHALL BE ADEQUATELY ILLUMINATED FOR NIGHT TIME OPERATIONS BY USE OF A 175 WATT MINIMUM LUMINAIRE.
2. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS FOR THE LANE CLOSURES DURING DAYLIGHT HOURS ONLY.
3. ALL TRAFFIC CONTROL SIGNS, CHANNELIZING DEVICES, AND FLAGMEN FOR PAVING OPERATIONS SHALL BE MOVED FORWARD WHEN THE LENGTH OF CLOSURE EXCEEDS 3700 FEET. ONLY ONE SIDE OF THE ROAD SHALL BE CLOSED IN ANY ONE WORK AREA AT A TIME.
4. THE TYPE B HIGH INTENSITY BARRICADE WARNING LIGHT SHOWN ON THE ROAD CONSTRUCTION AHEAD SIGN IS REQUIRED WHENEVER NIGHT LANE CLOSURE IS NECESSARY.
5. TYPE C STEADY BURNING BARRICADE WARNING LIGHTS SHALL BE ERECTED ON DRUMS OR BARRICADES FOR NIGHT LANE CLOSURES.
6. THE ADVANCE WARNING SIGNS "OW-128", "OW-121" AND "OW-125" SHALL BE MOVED BACK AS REQUIRED BY THE QUEUING OF STOPPED VEHICLES.

(See Note 3)

OHIO DEPARTMENT OF TRANSPORTATION	
FLAGMEN CLOSING 1 LANE OF A 2 LANE HIGHWAY FOR	DATE
RESURFACING	
DR	CK.

OC-8-60
END
CONSTRUCTION

ROUTINE MAINTENANCE: Between the time that bids are taken and the start of construction, the maintaining agency may enter upon the project and perform routine maintenance such as crack sealing, patching, and berm and shoulder repair. The effects, if any, of the performance of routine maintenance shall be considered as inherent in work of the character provided for in the contract and the resulting conditions shall not be considered as differing materially from those existing at the time bids were taken.

GENERAL SUMMARY

Calc'd. By _____ Date _____
Chk'd. By _____ Date _____

ITEM	PART 1	PART 2	TOTAL PARTS 1 & 2	PART 3	GRAND TOTAL Pts. 1,2&3	UNIT	DESCRIPTION
407	700	5600	6300	1,200	7,500	Gals.	Tack Coat, SS-1, SS-1H, MS-2 ^{OR} RS-1
407	25	196	221	42	263	Tons	Cover Aggregate
403	146	1167	1313	250	1,563	Cu. Yds.	Asphalt Concrete AC-20
404	146	1167	1313	250	1,563	Cu. Yds.	Asphalt Concrete AC-20
301		641	641	258	899	Cu. Yds.	Bituminous Aggregate Base, (AC-20) or (RT-11 or 12)
202	50	100	150	50	200	Sq. Yds.	Wearing Course Removed
604				3	3	Each	Water Valve Boxes Adjusted to Grade
203		231	231	105	336	Sta.	Linear Grading
409	359	3140	3499	697	4196	Gals.	Seal Coat Bituminous Material, RS-2 ^{OR} CRS-2, CEAE-900, (MC-900 or 3000) or (RT-9 or 10) for Shoulders
409	9	78	87	17	104	Cu. Yds.	Seal Coat Cover Aggregate #8, for Shoulders
845		344	344		344	Sq. Yds.	Latex Modified Concrete, Overlay (1 1/4" inches thick)
845		19.5	19.5		19.5	Cu. Yds.	Latex Modified Concrete, Overlay (variable thickness)
845		2	2		2	Cu. Yds.	Latex Modified Concrete, Full Depth Repair
614	1.02	8.48	9.50	1.98	11.48	Miles	Temporary Centerline Marking
624	Lump	Lump	Lump	Lump	Lump	Lump	Mobilization
Spec.		333	333		333	Sq. Yds.	Shoulder Preparation Pavement Planing, Bituminous without Heat
617						Cu. Yds.	Compacted Aggregate
614	Lump	Lump	Lump	Lump	Lump	Lump	Maintaining Traffic

GENERAL NOTES

TRAFFIC:

Traffic shall be maintained at all times. The length of restricted traffic zones shall be kept to a minimum consistent with the specification requirements for protection of completed courses.

RAILROAD CROSSINGS:

The new surface course shall be feathered or butt jointed to meet the rail grades as specified.

INTERMEDIATE COURSE AND/OR SPOT LEVELING OR PATCHING:

This material shall be placed in a separate operation where and as directed by the engineer.

ALIGNMENT AND PROFILE:

The work proposed by this project is for the resurfacing of the existing pavement. The alignment of the existing pavement will not be changed, and the profile of the proposed surface will be similar to that of the existing pavement except that it will be raised an amount equal to the thickness of the resurfacing course or courses specified in these plans.

TACK COAT:

The tack coat operation shall be as determined at a pre-construction conference as per 407.05, and application rates shall not exceed 0.10 gal. per sq. yd.

ITEM 202, Existing Wearing Course Removed and Disposed of: Surface removal is to be performed as directed and in areas designated by the Engineer. Removal of existing pavement surface may be required to eliminate adverse surface distortion which in the judgement of the Engineer cannot be satisfactorily corrected in the paving courses.

These areas may include material displaced by rutting or shoving, surface patches and transverse bumps at joints with structures, adjoining pavements or railroads.

ITEM 403: Item 403 shall be placed prior to any berming operation.

Intersections: Rural - Intersections shall be paved to end of radii or as directed by the Engineer. Urban - Intersections shall be paved to back of crosswalks or as directed by the Engineer. Drives - Paved drives shall be resurfaced as directed by the Engineer. Care shall be taken to eliminate water pockets in curbed sections.

604 Castings Adjusted to Grade: Any unit of this item may be nonperformed if so directed by the Engineer and the surface shall be feathered to meet the existing casting or inlet in a manner acceptable to the Engineer.