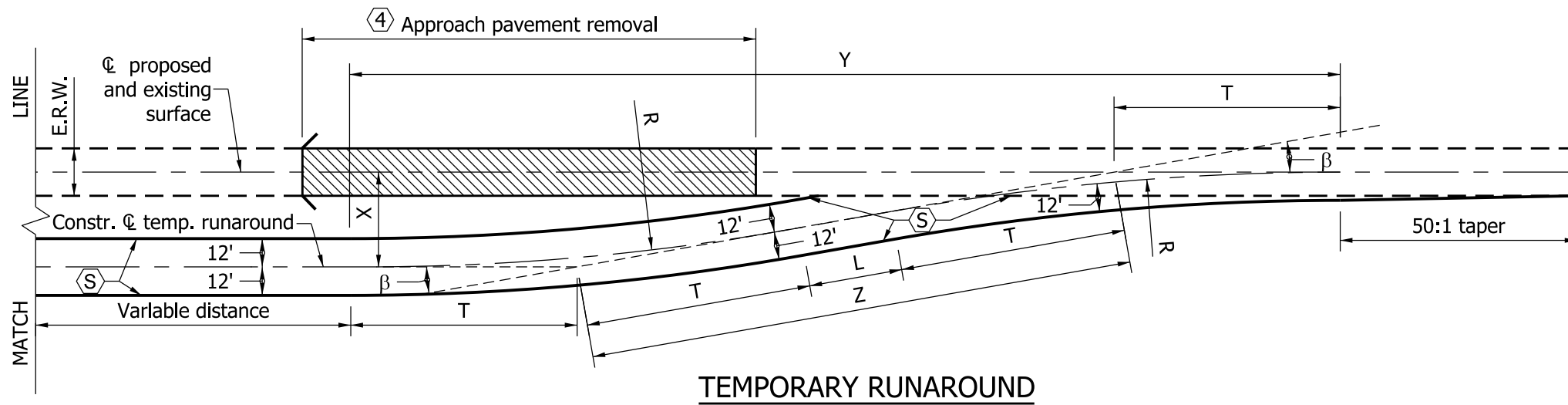
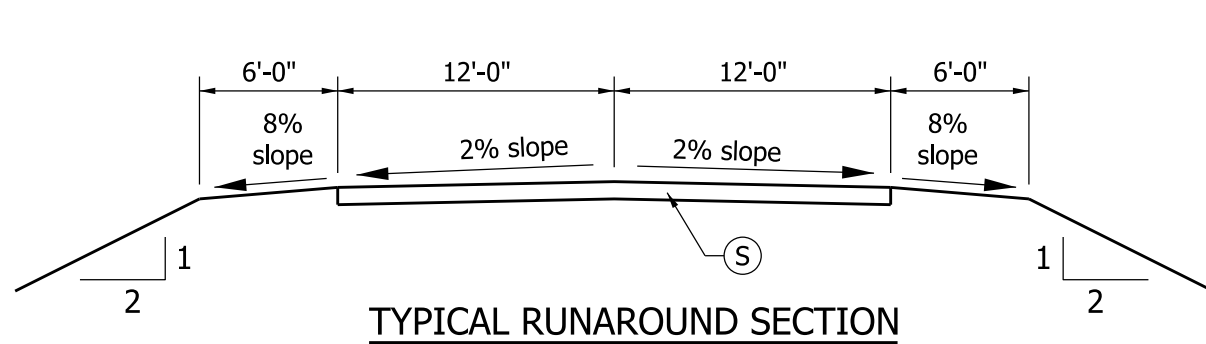


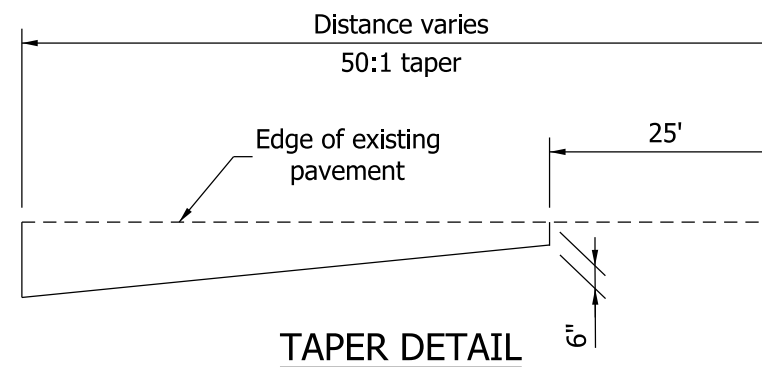
**TEMPORARY RUNAROUND**



**TEMPORARY RUNAROUND**



**TYPICAL RUNAROUND SECTION**



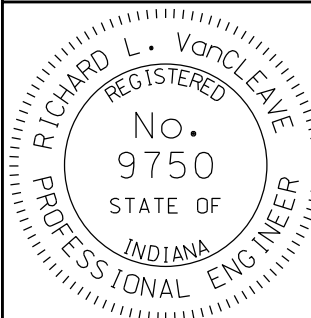
**TAPER DETAIL**

**NOTES:**

1. See Standard Drawing E 713-TCTR-04 for general notes with numbered hexagon frame that apply to this sheet.
2. See Standard Drawings E 713-TCTR-02 for runaround geometrics and -02A for surface areas.
3. See Standard Drawing E 801-TCLG-01 for standard notes and legend.

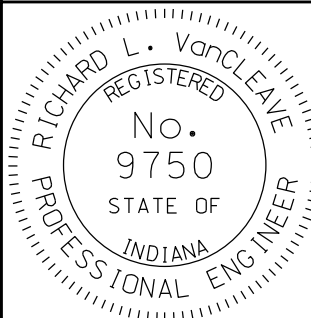
**LEGEND:**

 Work Area

INDIANA DEPARTMENT OF TRANSPORTATION	
TEMPORARY RUNAROUND GEOMETRICS	
SEPTEMBER 2011	
STANDARD DRAWING NO.	E 713-TCTR-01
DETAILS PLACED IN THIS FORMAT 9/1/2011	
	/s/ <i>Richard L. VanCleave</i> 09/01/11 DESIGN STANDARDS ENGINEER DATE
	/s/ <i>Mark A. Miller</i> 09/01/11 CHIEF HIGHWAY ENGINEER DATE
DESIGN STANDARDS ENGINEER	ORIGINALLY APPROVAL ON SEPTEMBER 9/1/06

RUNAROUND GEOMETRICS AND SURFACE AREAS													
TYPE A, ≥ 50 MPH							TYPE B, ≤ 45 MPH						
X (ft)	40	45	50	55	60	65	40	45	50	55	60	65	
β	10°	10°	10°	10°	10°	10°	13°	13°	13°	13°	13°	13°	
Z (ft)	230.35	259.14	287.94	316.73	345.53	374.32	177.82	200.04	222.27	244.50	266.72	288.95	
R (ft)	1070	1070	1070	1070	1070	1070	720	720	720	720	720	720	
T (ft)	93.61	93.61	93.61	93.61	93.61	93.61	82.03	82.03	82.03	82.03	82.03	82.03	
L (ft)	43.13	71.92	100.72	129.51	158.31	187.10	13.76	35.98	58.21	80.44	102.66	124.89	
Y (ft)	414.07	442.42	470.79	499.14	527.50	555.85	337.32	358.97	380.63	402.29	423.94	445.60	
E.R.W. (ft)	SURFACE AREA OF RUNAROUND IN SYS. (VARIABLE DISTANCE NOT INCLUDED)												
18	1555	1751	1950	2148	2347	2545	1280	1433	1586	1739	1892	2045	
20	1493	1691	1890	2088	2287	2585	1225	1378	1531	1684	1837	1990	
22	1428	1627	1825	2024	2222	2420	1170	1323	1476	1629	1783	1935	
24	1375	1574	1773	1971	2170	2368	1127	1280	1432	1586	1739	1892	

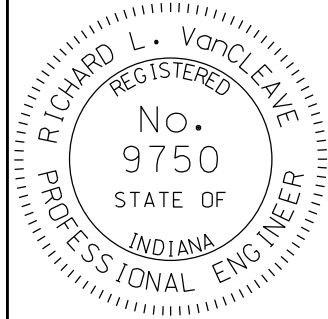
ERW - Existing Roadway Width

INDIANA DEPARTMENT OF TRANSPORTATION	
TEMPORARY RUNAROUND GEOMETRICS	
SEPTEMBER 2011	
STANDARD DRAWING NO.	E 713-TCTR-02
DETAILS PLACED IN THIS FORMAT 9/1/2011	
	/s/ <i>Richard L. VanCleave</i> 09/01/11
	DESIGN STANDARDS ENGINEER      DATE
	/s/ <i>Mark A. Miller</i> 09/01/11
	CHIEF HIGHWAY ENGINEER      DATE
DESIGN STANDARDS ENGINEER	ORIGINALLY APPROVAL ON SEPTEMBER 9/1/06

RUNAROUND GEOMETRICS AND SURFACE AREAS						
TYPE C						
X (ft)	40	45	50	55	60	65
$\beta$	20°	20°	20°	20°	20°	20°
Z (ft)	116.95	131.57	146.19	160.81	175.43	190.05
R (ft)	280	280	280	280	280	280
T (ft)	49.37	49.37	49.37	49.37	49.37	49.37
L (ft)	18.21	32.83	47.45	62.07	76.69	91.31
Y (ft)	208.64	222.38	236.11	249.85	263.59	277.33
E.R.W. (ft)	RUNAROUND AREA, SYS.					
18	816	916	1017	1117	1218	1320
20	775	875	976	1076	1177	1277
22	734	835	935	1036	1136	1237
24	703	806	907	1007	1108	1208

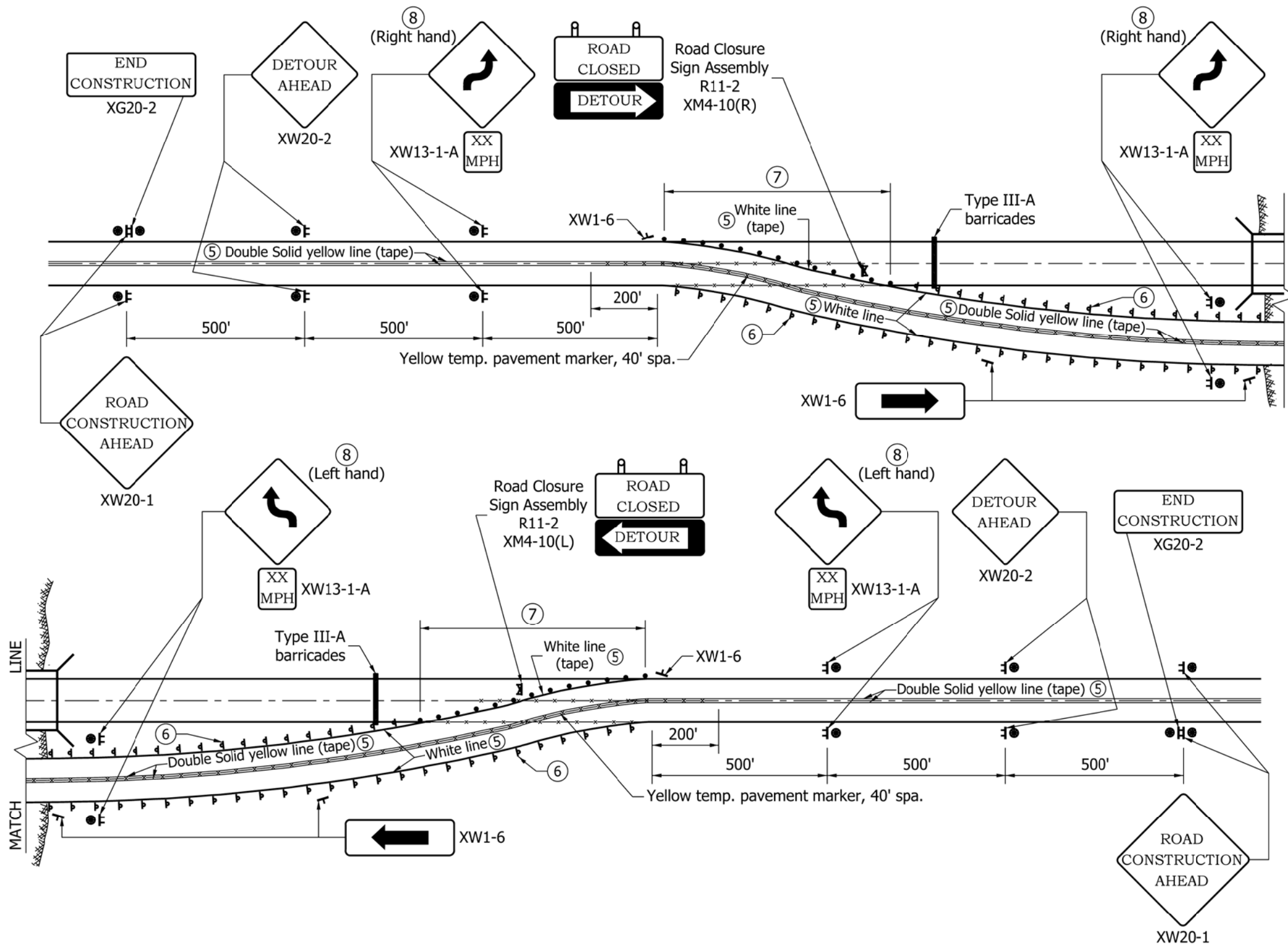
ERW - Existing Roadway Width

ALLOWABLE RUNAROUND TYPE VS. POSTED SPEED																			
EXISTING POSTED SPEED (mph)	55		50		45		40		35			30			25			20	
	A	A	A	B	A	B	A	B	C	A	B	C	A	B	C	A	B	C	
RUNAROUND POSTED SPEED (mph)	45	45	45	35	40	35	35	35	25	30	30	25	25	25	25	20	20	20	

INDIANA DEPARTMENT OF TRANSPORTATION	
TEMPORARY RUNAROUND GEOMETRICS	
SEPTEMBER 2011	
STANDARD DRAWING NO.	E 713-TCTR-02A
DETAILS PLACED IN THIS FORMAT 9/1/2011	
	/s/ <i>Richard L. VanCleave</i> 09/01/11
	DESIGN STANDARDS ENGINEER      DATE
	/s/ <i>Mark A. Miller</i> 09/01/11
	CHIEF HIGHWAY ENGINEER      DATE
DESIGN STANDARDS ENGINEER	ORIGINALLY APPROVAL ON SEPTEMBER 9/1/06

**NOTES:**

1. See Standard Drawing E 713-TCTR-04 for notes that apply to this sheet.
2. See Standard Drawing E 801-TCLG-01 for standard notes and legend.



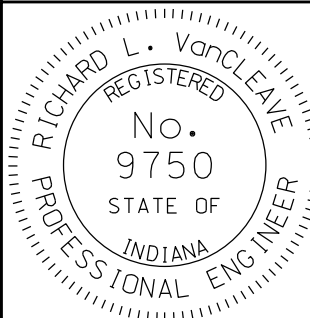
INDIANA DEPARTMENT OF TRANSPORTATION	
TEMPORARY RUNAROUND SIGNING AND MARKING	
SEPTEMBER 2011	
STANDARD DRAWING NO.	E 713-TCTR-03
DETAILS PLACED IN THIS FORMAT 9/1/2011	
	/s/ <i>Richard L. VanCleave</i> 9/01/11 DESIGN STANDARDS ENGINEER      DATE
DESIGN STANDARDS ENGINEER	/s/ <i>Mark A. Miller</i> 9/01/11 CHIEF HIGHWAY ENGINEER      DATE
ORIGINALLY APPROVAL ON SEPTEMBER 9/1/97	

**GENERAL NOTES:**

1. The pavement section for trucks count exceeding the values shown in (S) in the Legend shall be as shown elsewhere in the plans.
3. A temporary bridge or temporary pipe shall be used as specified. A 28'-0" clear roadway width shall be provided on a temporary bridge.
- ④ The connection of the temporary runaround to the existing pavement shall be outside the limits of the approach pavement removal.
- ⑤ Temporary pavement markings will be required as shown. The contractor shall have the option of using temporary tape or paint for all temporary pavement markings except where otherwise specified.
- ⑥ Delineators type D-2 (white) shall be placed at 30 ft maximum spacing on both sides throughout the length of the temporary runaround, including across the temporary structure. If a temporary bridge is used, type 3 object markers shall be placed at all four corners in accordance with the MUTCD.
- ⑦ Spacing of drums at this location shall be 20 ft.
- ⑧ If the runaround posted speed limit is greater than 30 mph the reverse curve sign, XW1-4 (36" x 36"), shall be used at this location. If the runaround posted advisory speed limit is 30 mph or less, the reverse turn sign, XW1-3 (36" x 36") shall be used.

**LEGEND:**

- Delineator type D-2 (white)
- ⑤ Pavement section for truck count, AADTT < 500, shall be:  
 165 #/yd<sup>2</sup> HMA Surface, Type A, on  
 275 #/yd<sup>2</sup> HMA Intermediate, Type A, on  
 6 in. compacted aggregate, size No. 53, Base, on  
 Type III Subgrade Treatment  
 (See General Note #1)

INDIANA DEPARTMENT OF TRANSPORTATION									
TEMPORARY RUNAROUND GENERAL NOTES									
SEPTEMBER 2010									
STANDARD DRAWING NO. E 713-TCTR-04									
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border-bottom: 1px solid black; width: 80%;"><i>/s/ Richard L. VanCleave</i></td> <td style="border-bottom: 1px solid black; width: 20%; text-align: right;"><i>09/01/10</i></td> </tr> <tr> <td>DESIGN STANDARDS ENGINEER</td> <td style="text-align: right;">DATE</td> </tr> <tr> <td style="border-bottom: 1px solid black;"><i>/s/ Mark A. Miller</i></td> <td style="border-bottom: 1px solid black; text-align: right;"><i>09/01/10</i></td> </tr> <tr> <td>CHIEF HIGHWAY ENGINEER</td> <td style="text-align: right;">DATE</td> </tr> </table>	<i>/s/ Richard L. VanCleave</i>	<i>09/01/10</i>	DESIGN STANDARDS ENGINEER	DATE	<i>/s/ Mark A. Miller</i>	<i>09/01/10</i>	CHIEF HIGHWAY ENGINEER	DATE
<i>/s/ Richard L. VanCleave</i>	<i>09/01/10</i>								
DESIGN STANDARDS ENGINEER	DATE								
<i>/s/ Mark A. Miller</i>	<i>09/01/10</i>								
CHIEF HIGHWAY ENGINEER	DATE								
DESIGN STANDARDS ENGINEER									