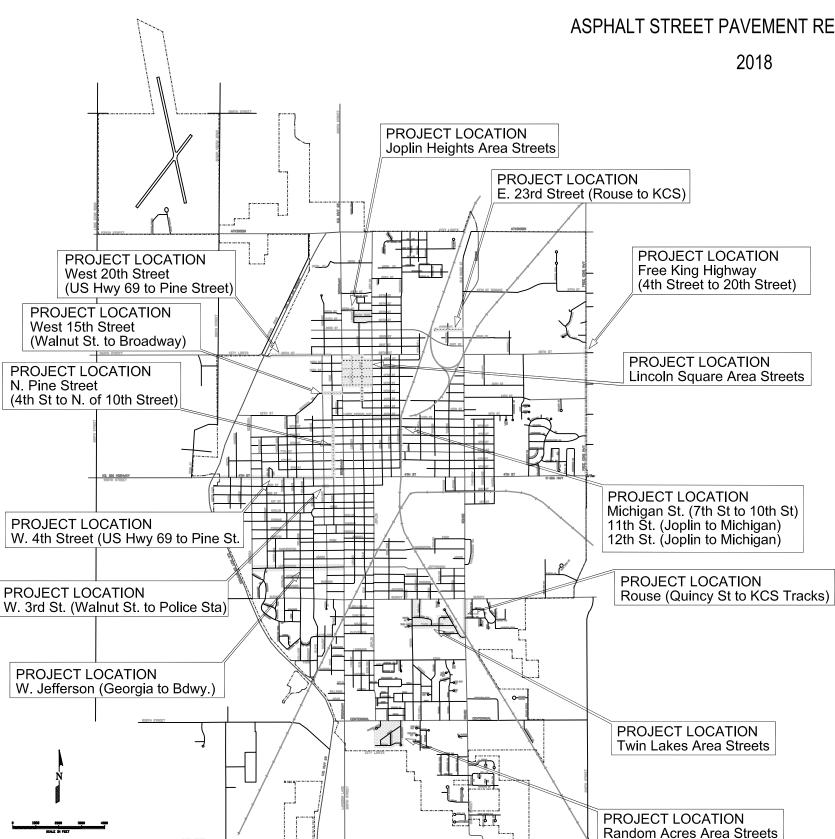
CITY OF PITTSBURG

STREET IMPROVEMENTS

ASPHALT STREET PAVEMENT REJUVENATION

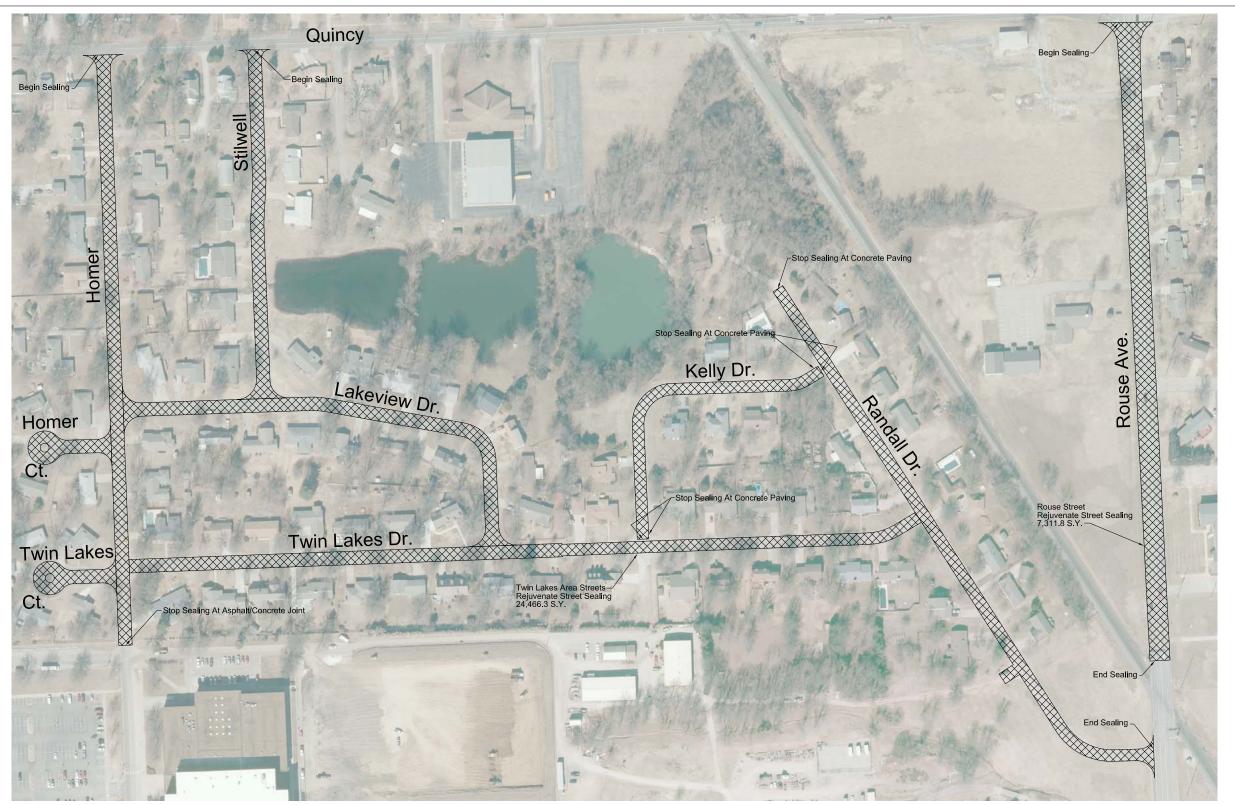


INDEX OF SHEETS

NO.	TITLE
1.	Title Sheet
2.	Plan View & Quantities (Twin Lakes Area Streets)
	" " (Rouse - Quincy to KCS Tracks)
3.	Plan View & Quantities (Random Acres Area Streets)
4.	Plan View & Quantities (W. Jefferson - Broadway to Georgia Street)
5.	Plan View & Quantities (Joplin Heights Area Streets)
6.	Plan View & Quantities (W. 20th Street - US 69 Bypass to Pine Street)
7.	Plan View & Quantities (W. 4th Street - US 69 Bypass to Pine Street)
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8.	Plan View & Quantities (N. Michigan Street - 7th Street to 10th Street)
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9.	Plan View & Quantities (Free King Highway - 4th Street to 20th Street)
10.	Plan View & Quantities (N. Pine Street - 4th Street to Alley Between 10th & 11th Streets)
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13.	General Traffic Control
14.	Channelizing Devices
15.	Road Closures
16.	Traffic Control Access
17.	Traffic Control Signs
	PUBLIC OFFICIALS
	MAYOR Jeremy Johnson

CITY COUNSEL MEMBERS Patrick O'Bryan Sarah Chenoweth Chuck Munsell CITY MANAGER CITY CLERK Tammy Nagel CITY ATTORNEY Henry Menghini DIRECTOR OF PUBLIC WORKS Cameron Alden







Twin Lakes Are	a		
FROM	TO	AREA (SF)	AREA (S
Kel			
Twin Lakes	Randall	18,723	2,080
R			
End	Rouse	37,905	4,211
Tw			
Homer	Michigan	50,135	5,570
Lake '			
Homer	Twin Lakes Drive	33,113	3,679
s			
Quincy	Lake View Drive	24,403	2,711
H	lomer		
Quincy	McPherson	40,070	4,452
Ho			
Cul-de-sac	Homer	7,933	881
Twin	Lakes Ct.		
Cul-de-sac	Homer	7,915	879
		220,197	24,466

Rouse			
FROM	TO	AREA (SF)	AREA (SY
Quincy	KCS Tracks	65,806	7,311.7
		65,806	7,311.7

Asphalt Rejuvenate



No.	Revision	Ву	Date

TWIN LAKES AREA STREETS (HOMER, HOMER CT., TWIN LAKES CT., STILWELL, LAKEVIEW DR., TWIN LAKES DR., KELLY DR., RANDALL DR.) & ROUSE

Designed by	-	Job No.		Sht.	2	o f	17
Drawn by	GAH	Date	Feb 2018	Siit.	_	ot	//



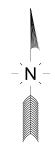


Random Acres Area

AREA (SF) AREA (SY)

2,307.11

7,371 819.00 80,627 8,958.56



LEGEND

Asphalt Rejuvenate

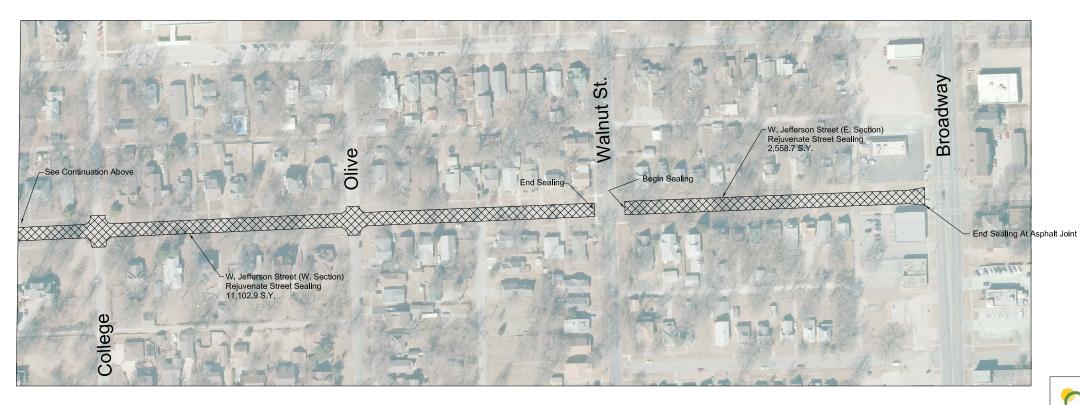


RANDOM ACRES AREA STREETS
(RANDOM ACRES CT., OMAHA, THOMAS,
CALIFORNIA & KNOLLVIEW)

Designed by	-	Job No.		Sht. 3 of	17
Drawn by	GAH	Date	Feb 2018	3111. 3 01	//









Pittsburg
Forward Together.

vest Jenerson			
FROM	TO	AREA (SF)	AREA (SY)
Je	fferson		
Georgia	Walnut	99,926	11,102.89
Je	fferson		
Walnut	Broadway	20,328	2,258.67
		120,254	13,361.56

LEGEND

Asphalt Rejuvenate

io. Revision By Date

WEST JEFFERSON (GEORGIA TO BROADWAY)

2018 ASPHALT STREET REJUVENATION CITY OF PITTSBURG, KANSAS





Joplin Heights Ar	rea		
FROM	TO	AREA (SF)	AREA (SY)
24th 9			
Locust	Joplin	19,094	2,121.56
24th Stree	et Terrace		
Locust	Joplin	20,347	2,260.78
25th		-	
Broadway	Joplin	33,512	3,723.50
Locust	Street		-
N. of 23rd Street	24th Street	6,385	709.44
24th Street	25th Street	14,461	1,606.78
		93,799	10,422.06

Asphalt Rejuvenate



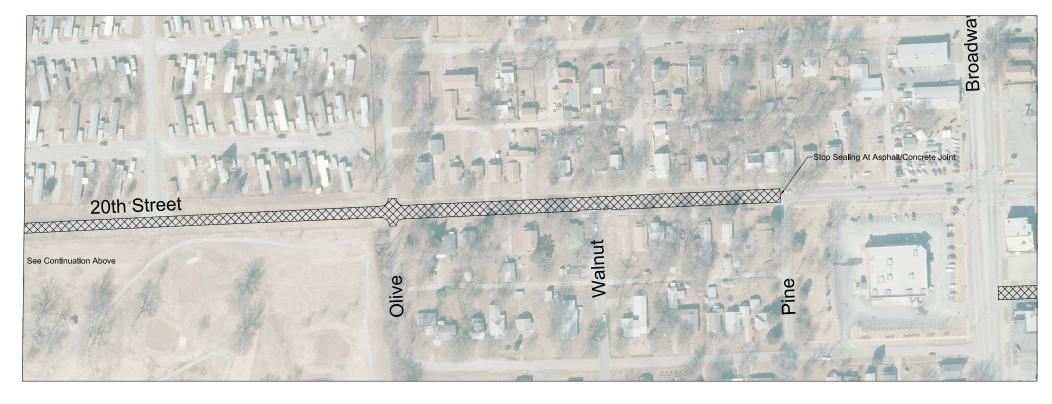
No.	Revision	By	Date
No.	Revision	Ву	Date

JOPLIN HEIGHTS AREA STREETS 24TH STREET, 24TH STREET TERR., 25TH STREET AND LOCUST STREET

2018	A2PHAI	TI ZIKEFI	REJUVENA	IIU
C	ITY OF	PITTSBUR	G, KANSAS	

Designed by -		Job No.		Sht. 5 of <i>17</i>
Drawn by	GAH	Date	Feb 2018	3111. 3 01 //







Pittsburg
Forward Together.

West 20th Stree	t		
FROM	TO	AREA (SF)	AREA (SY)
69 Bypass	Pine	71,054	7,894.89
		71,054	7,894.89

LEGEND

Asphalt Rejuvenate

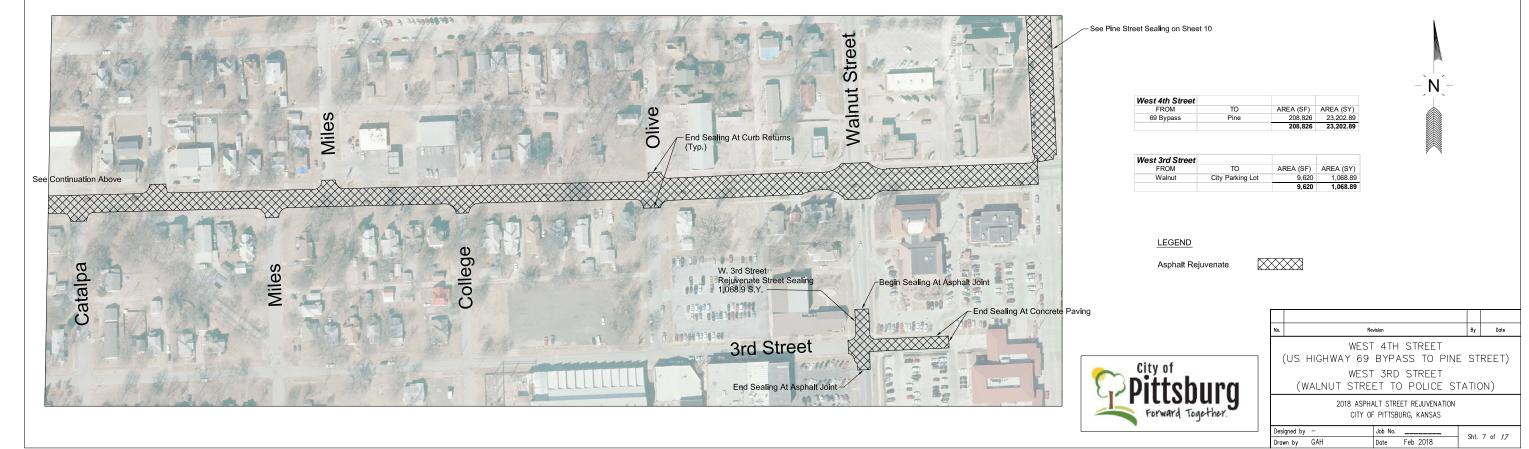
No.	Revision	Ву	Date

WEST 20TH STREET (US HIGHWAY 69 BYPASS TO PINE STREET)

2018 ASPHALT STREET REJUVENATION CITY OF PITTSBURG, KANSAS

| Designed by - | Job No. | Sht. 6 of 17









North Michigan			
FROM	TO	AREA (SF)	AREA (SY)
7th street	10th Street	31,462	3,495.78
		31,462	3,495,78

East 11th Street			
FROM	TO	AREA (SF)	AREA (SY)
Joplin	Michigan	22,988	2,554.22
		22,988	2,554.22
East 12th Street			
FROM	TO	AREA (SF)	AREA (SY)
Joplin	Michigan	18,871	2,096.78
		18,871	2,096.78

Asphalt Rejuvenate

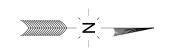




No.	Revision	Ву	Date

N. MICHIGAN STREET, E. 11th STREET & E. 12th STREET

Designed by -	Job No.		Sht. 8 of <i>17</i>
Drawn by GAH	Date	Feb 2018	3111. 6 01 //



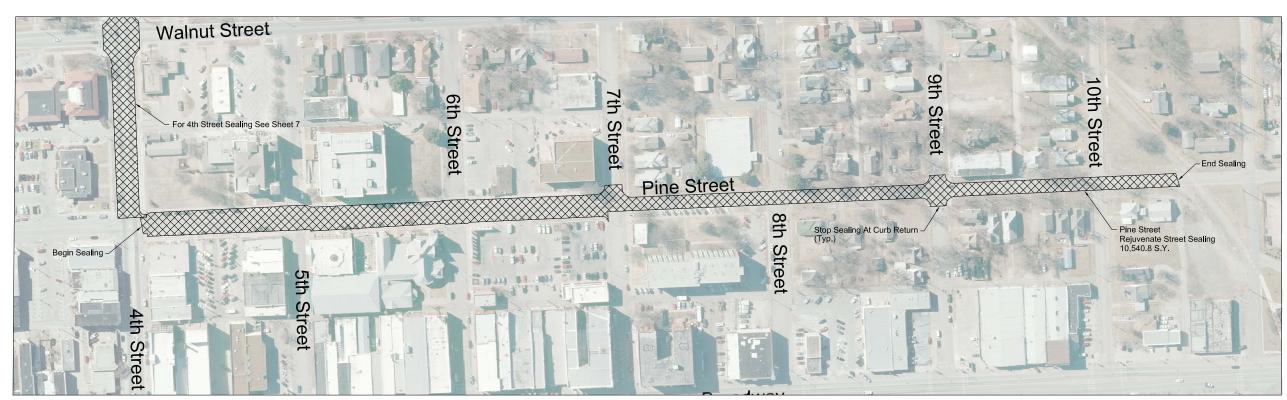
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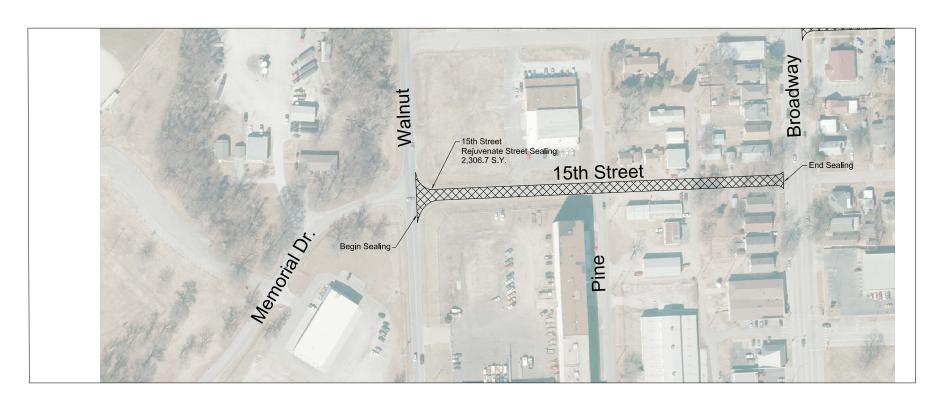




Asphalt Rejuvenate









15th Street			
FROM	TO	AREA (SF)	AREA (SY)
Walnut	Broadway	20,760	2,306.67
		20,760	2,306.67



Asphalt Rejuvenate





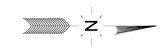
э.	Revision	Ву	Date	

N. PINE STREET (4TH ST. TO 10TH ST.) & 15TH STREET (WALNUT TO BROADWAY)

2018	ASPHAI	_T STREET	REJUVENAT	10N
(CITY OF	PITTSBUR	G, KANSAS	

Designed by	-	Job No.		Sht. 10 of 17
Drawn by	GAH	Date	Feb 2018	SIII. 1001 //





Lincoln Square A	Area Streets		
FROM	TO	AREA (SF)	AREA (SY)
16th	Street		
Broadway	Joplin	29,317	3,257.44
17th	Street		
Broadway	Joplin	28,240	3,137.78
18th		-	
Broadway	Joplin	28,094	3,121.56
19th	Street		-
Broadway	Joplin	26,177	2,908.56
Lo	ocust		-
16th Street	20th Street	31,122	3,458.00
l	Elm		-
14th Street	20th Street	61,987	6,887.44
		204,937	22,770.78

Asphalt Rejuvenate



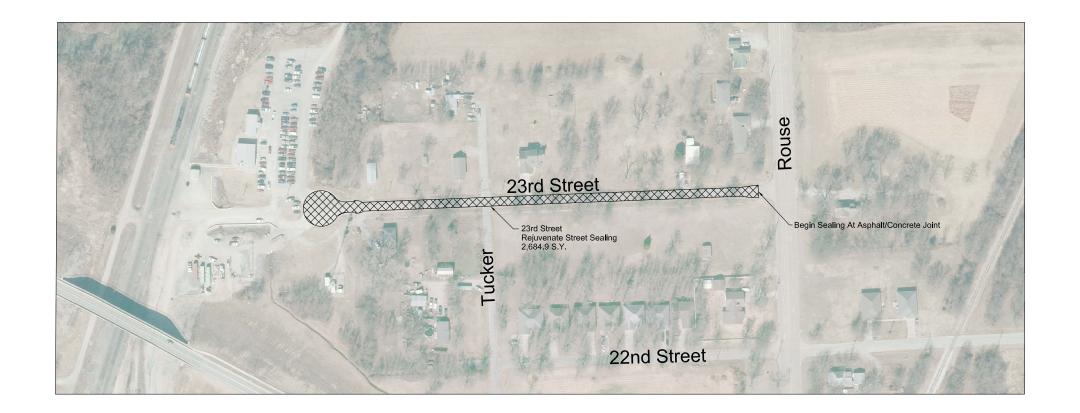
No.	Revision	Ву	Date

LINCOLN SQUARE AREA STREETS, 16TH STREET, 17TH STREET, 18TH STREET, 19TH STREET, LOCUST STREET & ELM STREET

Designed by -	Job No.		Sht. 10 of	17
Drawn by GAH	Date	Feb 2018	3111. 1001	17







23rd Street			
FROM	TO	AREA (SF)	AREA (SY)
Rouse	KCS Tracks	24,164	2,684.89
		24,164	2,684.89

Asphalt Rejuvenate

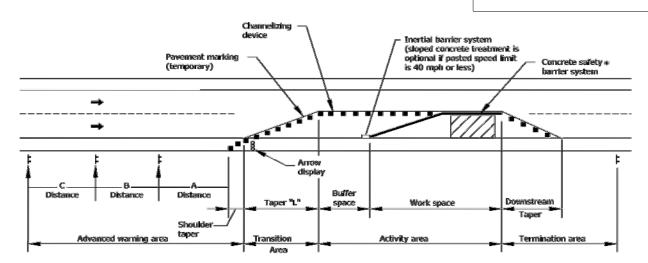


No.	Revision	Ву	Date

E. 23RD STREET (ROUSE TO KCS TRACKS)

J	Designed by -	Job No.		Sht. 12 of	17
	Drawn by GAH	Date	Feb 2018	3111. 1201	17

- 1) Design Speed: Those items delegated to temporary traffic control should be designed and installed using the posted/legal speed of the roadway prior to work starting.
- 2) Minimum lane width: Lane widths shall be a minimum of 11' (measured between centerlines of pavement markings) or as shown on the plans, or as directed by the engineer. A lane width less than 11' may require restricted roadway width signing.
- 3) Consideration should be made to seperate pedestrian and, if needed, bicycle movements from both work site activity and vehicular traffic. Unless a reasonable safe route that does not involve crossing the roadway can be provided, pedestrians should be appropriately directed with advance signing that encourages them to cross to the opposite side of the roadway. In urban and suburban areas with high vehicular traffic volumes, these signs should be placed at intersections (rather than midblock locations) so that pedestrians are not confronted with midblock work sites that will induce them to attempt skirting the work site or making a midblock crossing.
- 4) When existing pedestrian facilities are disrupted, closed, or relocated, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian
- 5) When the driving surface open to traffic is milled, is a temporary surface made of loose material, or when directed by the engineer use the W8-15 (Grooved Pavement) or W8-7(Loose Gravel) a "C" distance after the W20-1 (Road Work Ahead) on mainline approaches. Signs may be used with the W8-15p motorcycle plaque as directed by the engineer. Display signs in advance of the condition as long as the condition is present.
- 6) Alternative temporary rumble strip options may be available. Please contact the Temporary Traffic Control Unit for more information at 785-296-0355 or 785-296-1183.



TYPICAL WORK ZONE COMPONENTS

* When concrete barrier system is used, portable channelizing devices are not needed along the tangent barrier section.

Minimum advance warning sign spacing (in feet):

SPEED (MPH) *	A	В	С
URBAN (40 MPH OR LOWER)	100	100	100
URBAN (45 MPH OR HIGHER)	350	350	350
RURAL (55 MPH OR LOWER)	500	500	500
RURAL (60 MPH OR HIGHER)	750	750	750
EXPRESSWAY/FREEWAY	1000	1500	2640

* Posted speed prior to work starting

The minimum spacing between signs shall be no less than 100', unless directed by the engineer.

The spacing between any signs may be increased beyond the minimum values in the table above as approved by the engineer in order to maximize visibility.

Taper Formulas:

L = WS for speeds of 45 MPH or more

 $L = WS^2/60$ for speeds of 40 MPH or less

Where: L = Minimum length of taper in feet S = Numericial value of posted speed prior to work starting in MPH W = Width in offset feet

Shifting taper=1/2 L Shoulder taper=1/3 L

Channelizer placement:

- (1) The spacing between devices in transition area (taper) should not exceed a distance in feet equal to 1/2 the posted speed limit in mph prior to work starting.
- (2) The spacing between devices in the advanced warning area and the activity area should not exceed a distance in feet equal to two times the posted speed limit in mph prior to work starting.
- (3) Channelizing devices shall be placed for optimum visibility, normally at right angles to the traffic flow.
- (4) Place directional indicator barricades in series to direct traffic onto the new path. The arrow sign should not be visible to opposing traffic.
- (5) Alternating diagonal orange and white striping must slope downward in the direction traffic is expected to pass.

Buffer Space

SPEED (MPH) *												
LENGTH (ft)	115	155	200	250	305	360	425	495	570	645	730	820

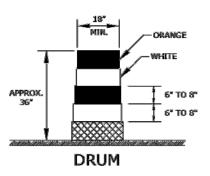
* Posted speed prior to work starting

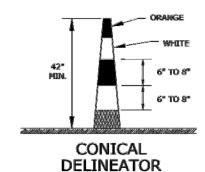
Neither work activity nor storage of equipment, vehicles, or material should occur in the buffer space. When a protection vehicle is placed in advance of the work space, only the space upstream of the vehicle constitutes the buffer space.

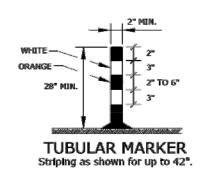
If temporary concrete safety barrier system is used to seperate approaching traffic from the work space, the barrier system shall be considered part of the activity area. A full lane width should be available throughout the length of the buffer space. See typical work zone components above.

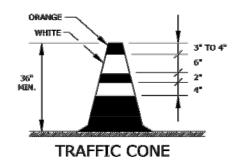
3									
2							1		
	CB/18/15	Char	anerlizer epschag	linfo	R.W.B.	K.E.			
MS.	DATE		REMSKINS		84	APD.			
TRAFFIC CONTROL GENERAL NOTES TE700 Building appears and analysis appears and appears and appears and appears and appears and appears appear									
10000		DETALES	s.x.s quartities		nacco		Ю		
BESIGN	0%	DETAIL 1%	ELDIN CK.		TRANSE IDS.		B		
KDO	T Graphics	S Certified	08-18-2015		Sh. Mr	13 o	f 1		

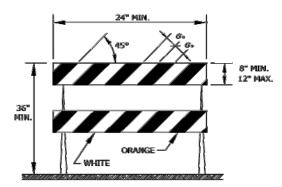
otted: 18-AUG-2015 14:02



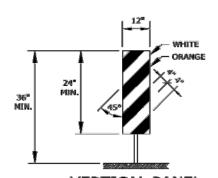




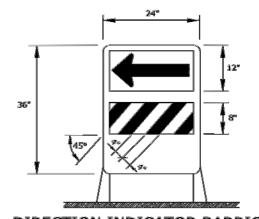




TYPE 2 BARRICADE For rails less than 36" long, 4" wide stripes may be used. All stripes shall slope downward to the traffic side for channelization.

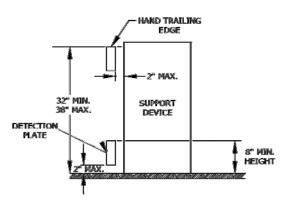


VERTICAL PANEL The stripes shall slope downward to the traffic side for channelization.



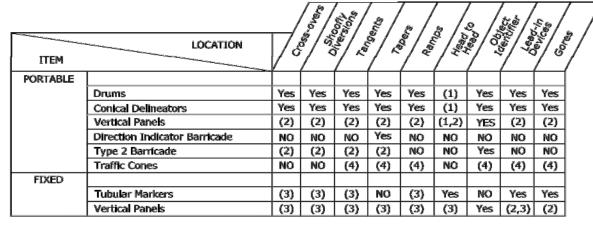
DIRECTION INDICATOR BARRICADE

The stripes shall slope downward in the direction traffic is to pass. The direction indicator barricade shall be used in series to direct the motorist into the intended lane of travel.

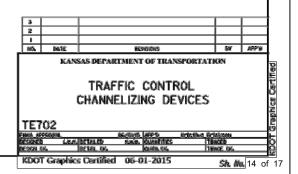


PEDESTRIAN CHANNELIZER

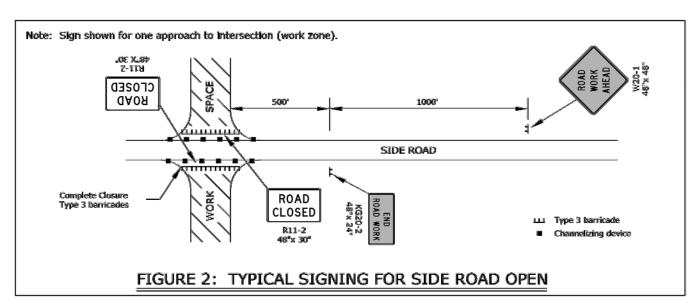
- 1. Support device shall not project beyond the detection plate into the pathway.
- 2. Hand trailing edges and detection plates are optional for continuous walls.
- 3. Interconnect pedestrian channelizers to prevent displacement and to provide continuous guidance through or around work.
- 4. Alternate pathways shall be firm, stable, and slip resistant.
- 5. Treat height differentials > 1/2" in the surfaces of alternate paths with a firm, stable, and slip resistant temporary ramp having a slope of 12:1 or flatter and having a width equal to the alternate path.
- 6. Use alternating orange/white on interconnected devices.

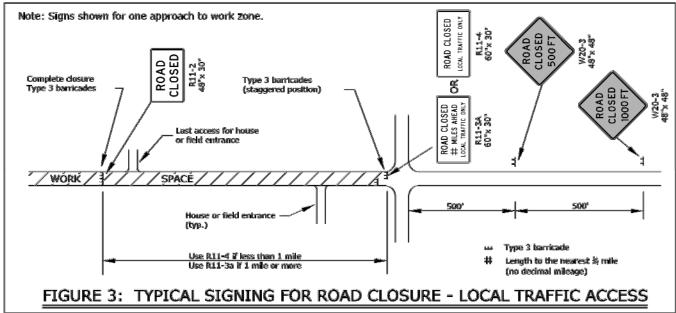


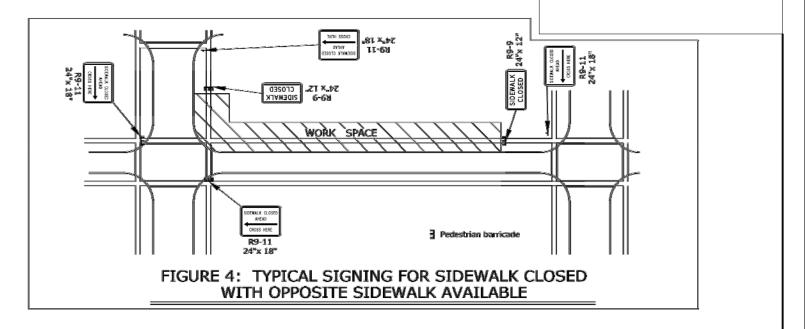
- (1) Not allowed on centerline delineation along freeways or expressways.
- (2) The stripes shall slope downward to the traffic side for channelization.
- (3) May be used upon the approval of the engineer.
- (4) Daytime operations only.

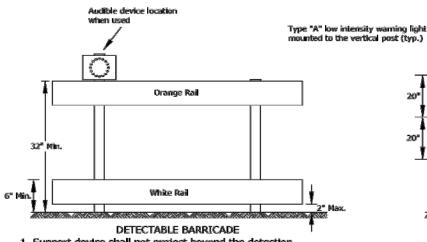


Plotted: 01-JUN-2015 13:54





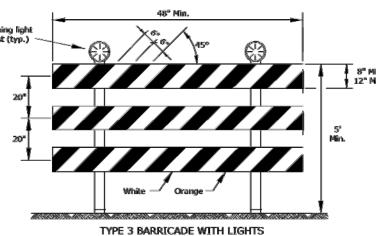




Support device shall not project beyond the detection plate into the pathway.

- 2. Barricades shall be used to close the entire width of the pathway.
- 3. Do not use warning lights on pedestrian barricades.

4. Do not use warning lights on audible devices.



Approved signs mounted on Type 3 barricades should not cover more than 50% of the top two ralls or 33% of the total area of the three rails.

When barricades are placed end-to-end or staggered, a Type "A" low intensity warning light shall be mounted to the vertical post near each outside corner of the end barricades.

ROAD CLOSED GENERAL NOTES

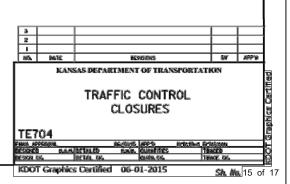
As shown in Figure 1, at the point where thru traffic must detour and local traffic can proceed to the location where the roadway is completely closed, the R11-3a (ROAD CLOSED # MILES AHEAD LOCAL TRAFFIC ONLY) or R11-4 (ROAD CLOSED LOCAL TRAFFIC ONLY or ROAD CLOSED TO THRU TRAFFIC) sign shall be used with Type 3 barricades (winged position), placed on the shoulders of roadway.

As shown in Figure 3, when local traffic must be allowed access into the work zone, Type 3 barricades shall be longitudinally staggered to maintain the appearance of a closed roadway. A second line of end-to-end Type 3 barricades shall be placed just beyond the last access point in the work zone, to completely close the roadway.

The R11-4 (ROAD CLOSED TO THRU TRAFFIC or ROAD CLOSED LOCAL TRAFFIC ONLY) sign shall be used when the distance to the point of complete closure of the roadway is less than 1 mile.

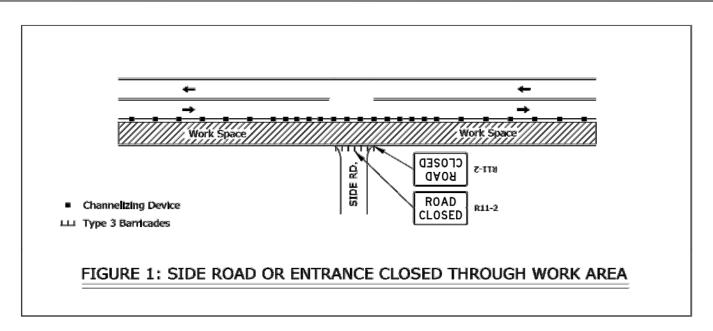
The R11-3a (ROAD CLOSED # MILES AHEAD LOCAL TRAFFIC ONLY) sign shall be used when the distance to the point of complete closure of the roadway is 1 mile or greater.

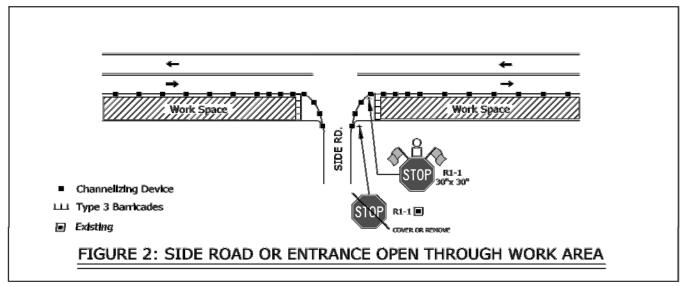
The words "BRIDGE OUT" (or BRIDGE CLOSED) may be substituted for the words "ROAD CLOSED" on the R11-3a or R11-4 sign where applicable.

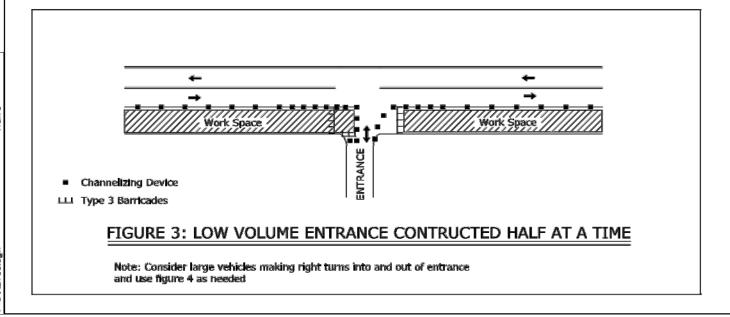


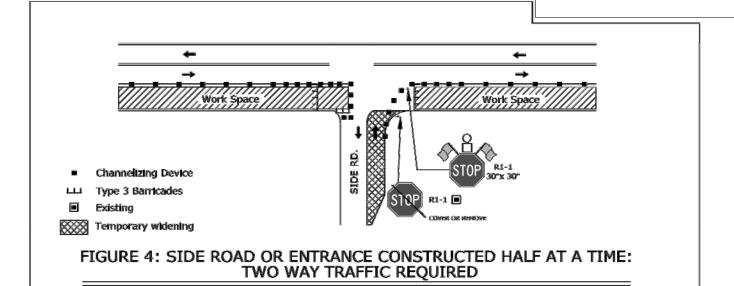
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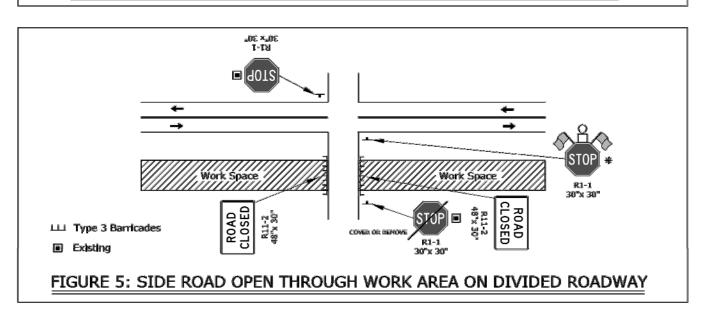
Staven By : mushock Plotted

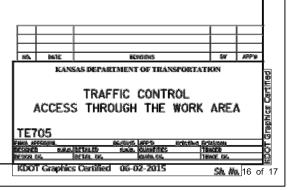






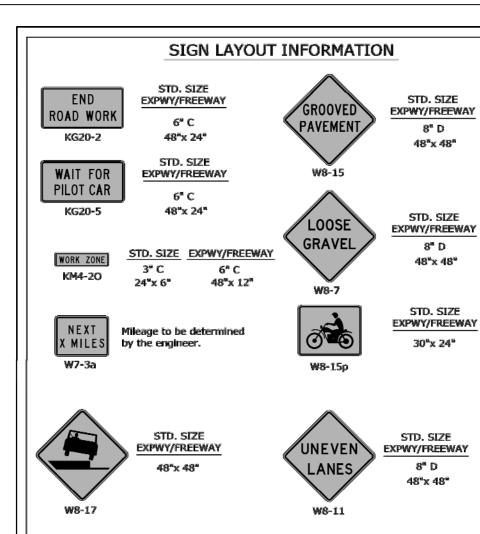






Plotted : 02-JUN-2015 06:43

Maken by : musnock ■: te705.dan



STD. SIZE

EXPWY/FREEWAY

30"x 24"

STD. SIZE

STD. SIZE

LOWERCASE: 4.5" C

ALL CITY NAMES AND STREET NAMES ON SPECIAL SIGNS AND DESTINATION SIGNS

MUST HAVE UPPER AND LOWER CASE LETTERS.

UPPERCASE: 6" C

6" C

EXPWY/FREEWAY

10" D

EXPWY/FREEWAY

UPPERCASE: 10" D

LOWERCASE: 8" D

SHOULDER

DROP-OFF

W8-17P (OPTIONAL)

NB US-75 CLOSED

FOLLOW DETOUR

SP-01

(SPECIAL SIGN)

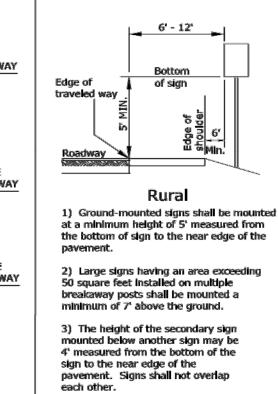
US-75 CLOSED

NORTH OF Topeka

FOLLOW DETOUR

SP-02

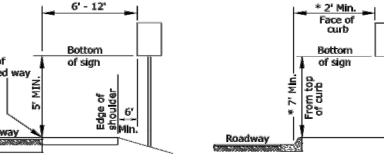
(SPECIAL SIGN)



Rural

8" D

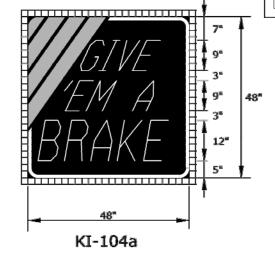
8" D

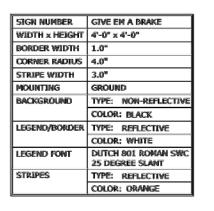


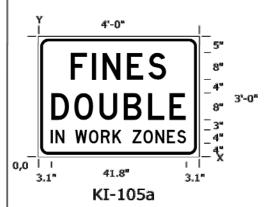
1) Signs shall be mounted at a minimum height of 7' measured from the bottom of sign to the near edge of the pavement.

Urban

- 2) Neither portable nor permanent sign supports should be located on sidewalks or areas designated for pedestrian or bicycle traffic.
- 3) Signs mounted lower than 7' should not project more than 4" into pedestrian facilities.
- 4) The height from of the secondary sign mounted below another sign may be 6' measured from the bottom of sign to the near edge of the pavement. Signs shall not overlap each other.
- Large signs having an area exceeding
 square feet installed on multiple breakaway posts shall be mounted a minimum of 7' above the ground.
- #6) Pedestrian detour signing shall be a minimum of 2' measured from the top of the pedestrian pathway to the bottom of the sign and shall not protrude into the walkway nor shall it project beyond the back of curb.







SIGN NUMBER	FINES DOUBLE
WIDTH x HEIGHT	4'-0" x 3'-0"
BORDER WIDTH	0.9"
CORNER RADIUS	3.0"
MOUNTING	GROUND
BACKGROUND	TYPE: REFLECTIVE
	COLOR: WHITE
LEGEND/BORDER	TYPE: NON-REFLECTIVE
	COLOR: BLACK

DIMENSIONS IN INCHES

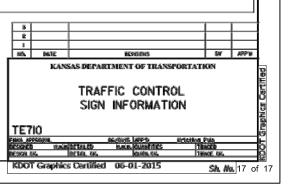
SPACINGS ARE TO START OF NEXT LETTER

FONT	FONT LETTER SPACINGS													HT LEN			
23.0	\times	F	I	N	E	S	\times										8.0
D	9.7	6.4	3.2	7.3	6.4	5.4	9.7										28.6
11.0	\bowtie	D	0	U	В	L	E	> <									8.0
D	3.9	6.9	7.5	7.3	7.3	6.4	4.9	3.9									40.3
4.0	\times	I	N	\times	W	0	R	K	\times	Z	0	N	E	S	\times		4.0
D	3.1	1.6	2.7	3.2	4.3	3.8	3.6	2.8	3.2	3.4	3.8	3.6	3.2	2.7	3.1		41.8

Typically, there are two sets of informational signs installed per project; one for each direction of traffic.

Install signs a minimum of 500' in advance of the road work ahead sign. The engineer may designate a more appropriate location if conditions dictate.

The informational signs are not to interfere with the traffic control signs for the project.



With the engineer's approval, use acceptable alternative sign stands.

Type "A" low intensity warning light mounted to action warning FLAG STAFF

When the sign width is equal to or greater than 9', three or more wood posts may be used with a minimum of 4' between the centerline of each post. All signs less than 9' in width shall use a maximum of two wood

In the case of hitting rock when driving posts

1. Shift the sign location. Do not violate minimum sign spacing.

Plotted: 01-JUN-2015 13:54