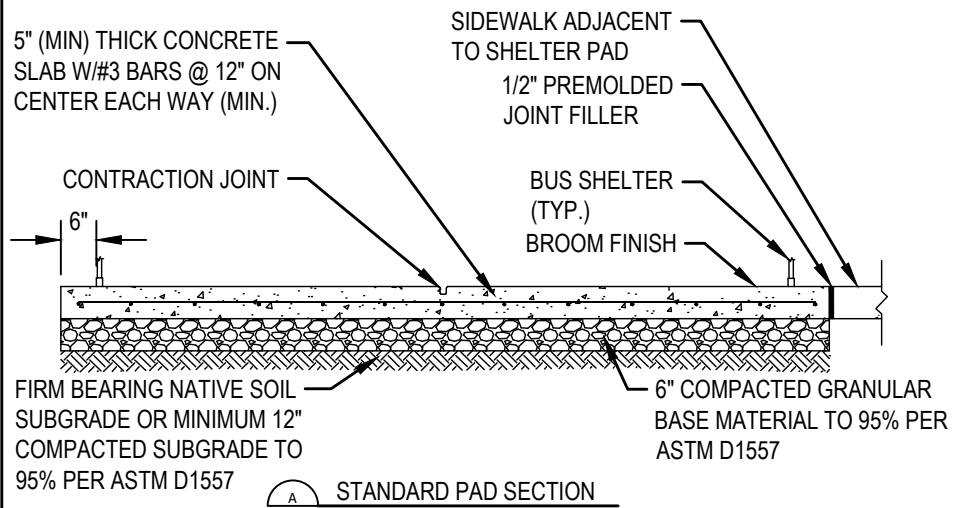


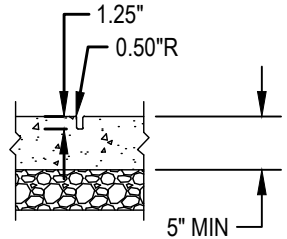
STANDARD PAD PLAN



STANDARD PAD SECTION

- NOTES:
1. CONCRETE SLAB SHALL BE CONSTRUCTED USING AIR-ENTRAINED (4-6%), 6 SACK, COMMERCIAL CONCRETE HAVING A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI.
  2. AFTER FLOAT FINISHING, SLIGHTLY ROUGHEN CONCRETE SURFACE BY BROOMING PERPENDICULAR TO THE MAIN TRAFFIC ROUTE AND PROVIDE FINISH EDGE AROUND THE SLAB AND ANY JOINTS.
  3. PROTECT CONCRETE FROM PHYSICAL DAMAGE DUE TO WEATHER EXTREMES DURING PLACEMENT AND CURING.
  4. MATCH ELEVATIONS AND GRADE(S) OF ADJACENT SIDEWALK CONCRETE. GRADES OF PAD SHALL NOT EXCEED 2.0% IN ANY DIRECTION.
  5. EXPANSION JOINTS SHALL BE INSTALLED AT BUS SHELTER SIDES ADJACENT TO CONCRETE. EXPANSION JOINTS SHALL EXTEND TO THE DEPTH OF THE SHELTER PAD OR THE ADJACENT CONCRETE, WHICHEVER IS GREATER.
  6. SHELTER PAD DIMENSIONS "Y" VARY BASED ON DIMENSIONS OF SHELTER TO BE PLACED.
  7. SHELTER PAD GRADES VARY WITH PLACEMENT OF SHELTER AND LOCATION OF ROOF DRAINS. COORDINATE DRAIN LOCATIONS AND PAD GRADES WITH STA.

8. SHELTERS MAY BE PLACED AT BUS STOPS IN THE FOLLOWING CONDITIONS:
  1. BUS STOP HAS 25 OR MORE WEEKDAY BOARDINGS.
  2. BUS STOP SERVES AS A TRANSFER POINT BETWEEN TWO OR MORE ROUTES.
  3. BUS STOP IS ADJACENT TO A RIDERSHIP GENERATOR WITH A HIGH PROPORTION OF RIDERS WITH LIMITED MOBILITY.
 COORDINATE BUS SHELTER REQUIREMENTS WITH STA STANDARDS AND STA PERSONNEL.



CONTRACTION JOINT

**STANDARD PAD FOUNDATION**

PREPARED BY: **COFFMAN ENGINEERS**



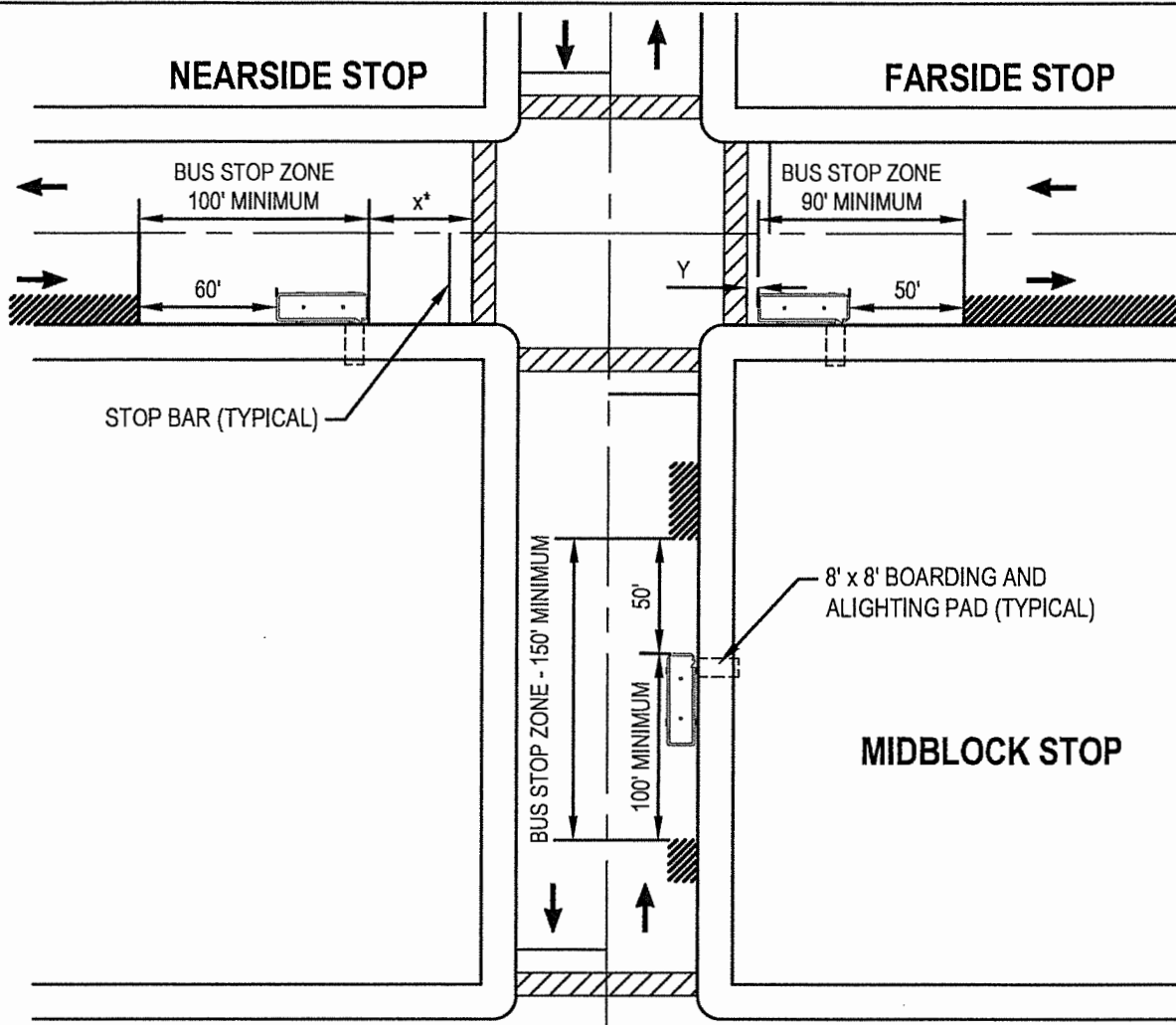
Spokane Transit Authority

REV #	DATE	DESCRIPTION

**BUS STOP SHELTER CONCRETE FOUNDATION DETAIL**

BY	DLS
DATE	02/02/16
CHECKED	CBM
DATE	02/02/16

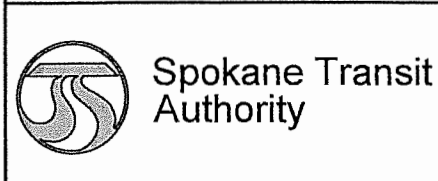
**C1**



**NOTES:**

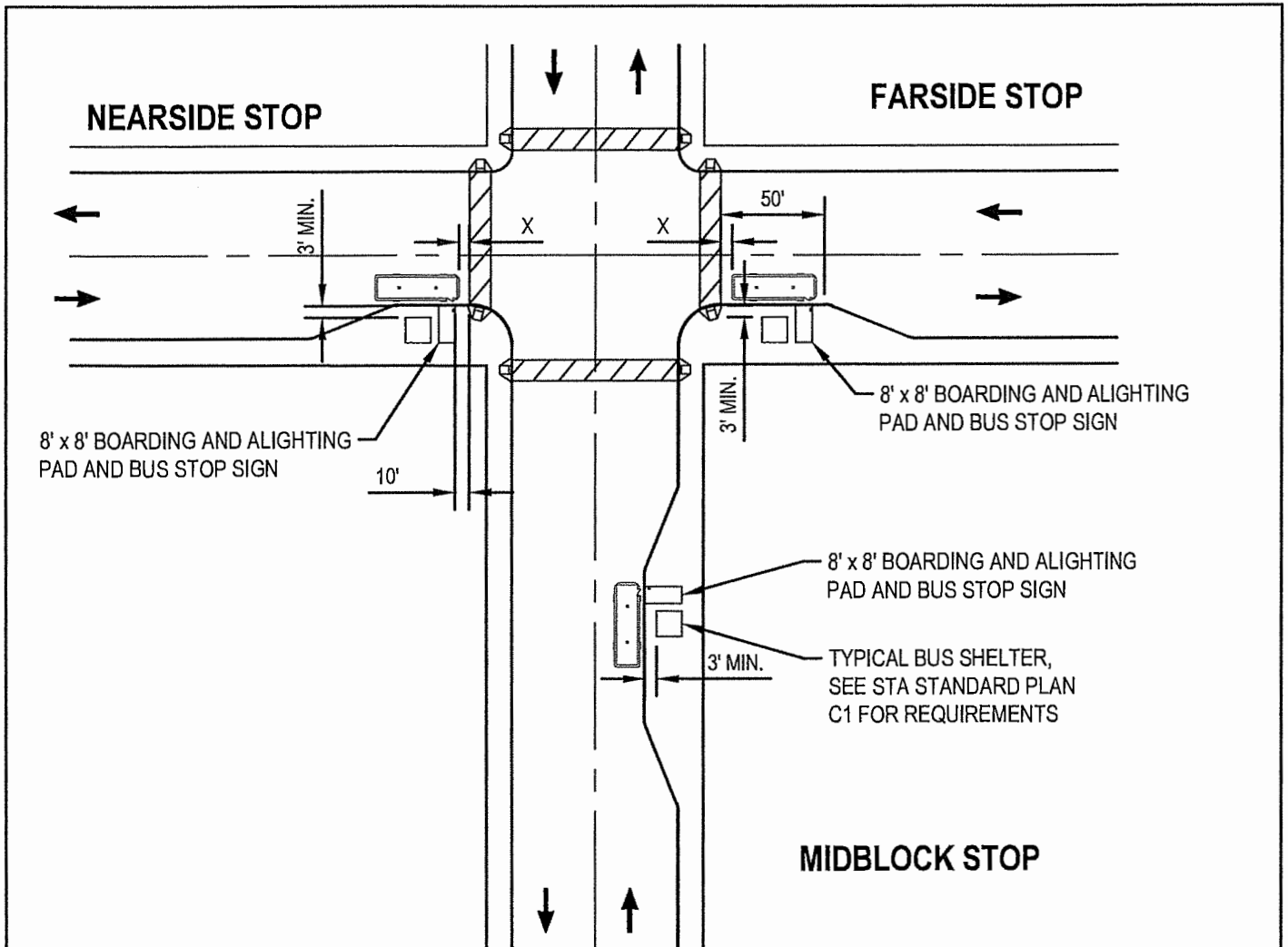
1. STA TO PROVIDE INFORMATION REGARDING BUS TYPE, LENGTH, AND QUANTITY OF BUSES TO BE SERVICED BY BUS STOP.
2. X = 15 FEET (MINIMUM) FROM EDGE OF CROSSWALK OR END OF CURB RADIUS, WHICHEVER IS FURTHER FROM THE INTERSECTION. Y = 5 FEET (MINIMUM) FROM EDGE OF CROSSWALK OR END OF CURB RADIUS, WHICHEVER IS FURTHER FROM THE INTERSECTION.  
\* X=30 FEET FOR BUS STOPS LOCATED IN THE CITY OF SPOKANE.
3. ADD 20 FEET TO BUS STOP ZONE FOR AN ARTICULATED BUS.
4. FOR MULTIPLE BUSES BEING SERVED AT ONE STOP:
  - ADD 50 FEET FOR EACH ADDITIONAL STANDARD 40-FOOT BUS
  - ADD 70 FEET FOR EACH ADDITIONAL 60-FOOT ARTICULATED BUS
5. BUS STOP ZONE SHALL BE SIGNED AS A NO PARKING ZONE PER STANDARDS OF LOCAL JURISDICTION.
6. REFER TO STA STANDARD PLAN C3 FOR BUS BUMPOUT DETAILS. REFER TO STA STANDARD PLANS C4 AND C5 FOR 8' x 8' BOARDING AND ALIGHTING PAD DETAILS AT ADJACENT AND SEPARATED SIDEWALKS, RESPECTIVELY. REFER TO STA STANDARD PLAN C5 FOR ADDITIONAL HARDSCAPE CLEAR ZONE AT SEPARATED SIDEWALKS. REFER TO STA STANDARD PLAN C6 FOR HORIZONTAL BUS STOP SIGN PLACEMENT DETAILS. REFER TO STA STANDARD PLAN C7 FOR STREET TREE PLACEMENT DETAILS.

PREPARED BY: **COFFMAN ENGINEERS**



REV #	DATE	DESCRIPTION	BY	DLS
BUS STOP LOCATIONS			CHECKED	CBM
			DATE	02/02/16

**C2**



**NOTES:**

1. X = 5 FEET (MINIMUM) FROM EDGE OF CROSSWALK OR END OF CURB RADIUS, WHICHEVER IS FURTHER FROM THE INTERSECTION.
2. STA TO PROVIDE INFORMATION REGARDING BUS TYPE, LENGTH, AND QUANTITY OF BUSES TO BE SERVICED BY BUS STOP.
3. BUS STOP ZONE SHALL BE SIGNED AS A NO PARKING ZONE PER STANDARDS OF LOCAL JURISDICTION.
4. REFER TO STA AND LOCAL JURISDICTION STANDARDS FOR ADDITIONAL REQUIREMENTS REGARDING BUS STOP SHELTER DESIGN, BUS STOP SIGNS AND POSTS, CURBS, SIDEWALKS, STREET LIGHTING, SIGNAGE, AND LANDSCAPING. COORDINATE WITH STA AND LOCAL JURISDICTIONS.

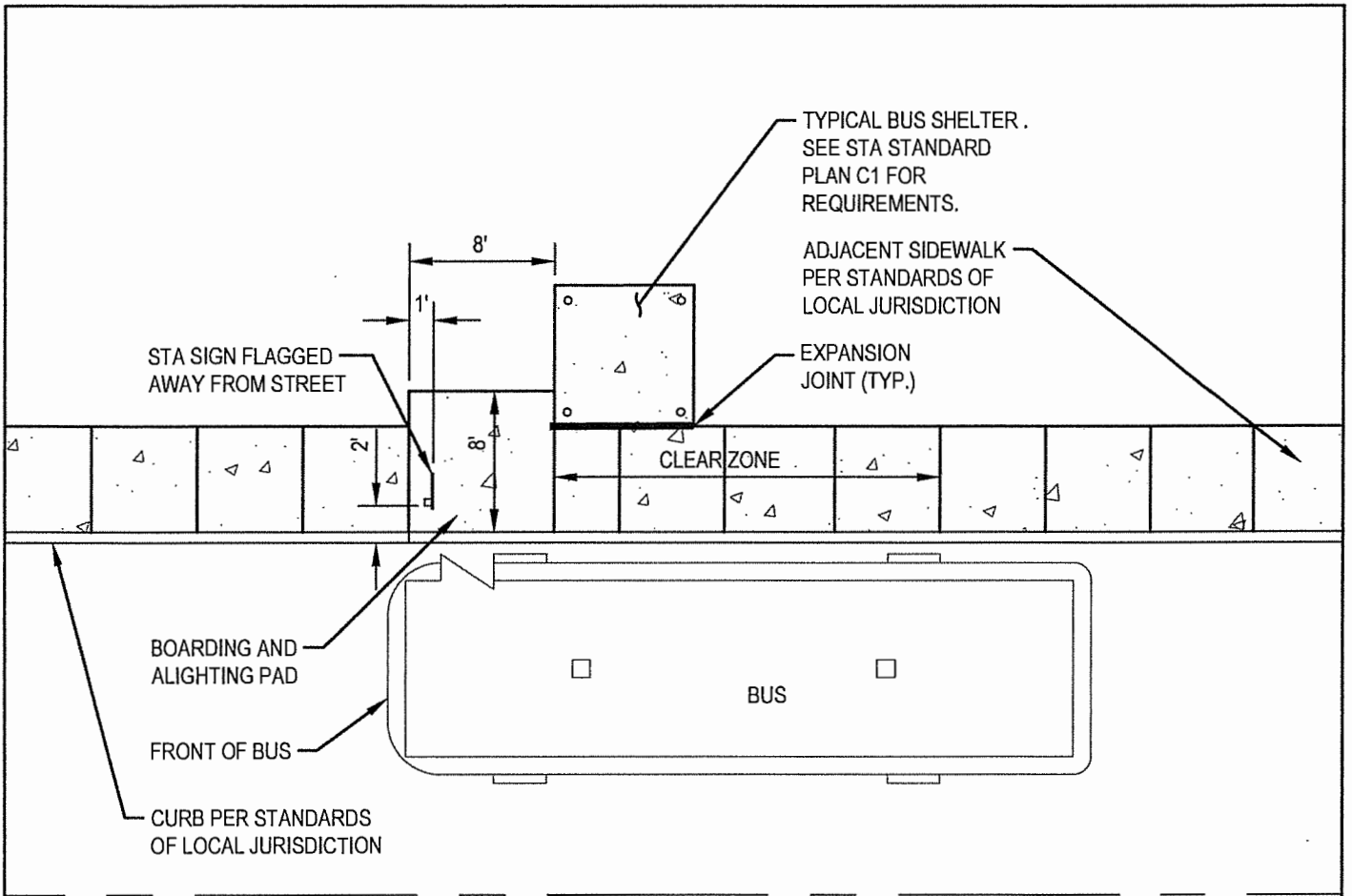
PREPARED BY: **COFFMAN ENGINEERS**



**Spokane Transit Authority**

REV #	DATE	DESCRIPTION	BY	DLS
<b>BUS STOP LOCATIONS AT BUMPOUTS</b>			DATE	02/02/16
			CHECKED	CBM
			DATE	02/02/16

**C3**



**NOTES:**

1. BOARDING AND ALIGHTING PAD CONCRETE SECTION SHALL MATCH SIDEWALK SECTION PER LOCAL JURISDICTION STANDARDS.
2. FRONT OF BUS ZONE MARKED BY BUS STOP SIGN.
3. COORDINATE WITH STA TO DETERMINE IF BUS SHELTER WILL BE CONSTRUCTED. REFER TO STA STANDARD PLAN C1 FOR BUS SHELTER FOUNDATION DETAIL.
4. EXPANSION JOINTS SHALL BE 1/2" PREMOLDED JOINT FILLER AND SHALL EXTEND THE FULL DEPTH OF CONCRETE.
5. REFER TO STA STANDARD PLAN C2 FOR BUS STOP LOCATIONS. REFER TO STA STANDARD PLAN C3 FOR BUS STOP LOCATION AT BUMPOUTS. REFER TO STA STANDARD PLAN C6 FOR BUS STOP SIGN PLACEMENT DETAILS. REFER TO STA STANDARD PLAN C7 FOR STREET TREE PLACEMENT DETAILS.

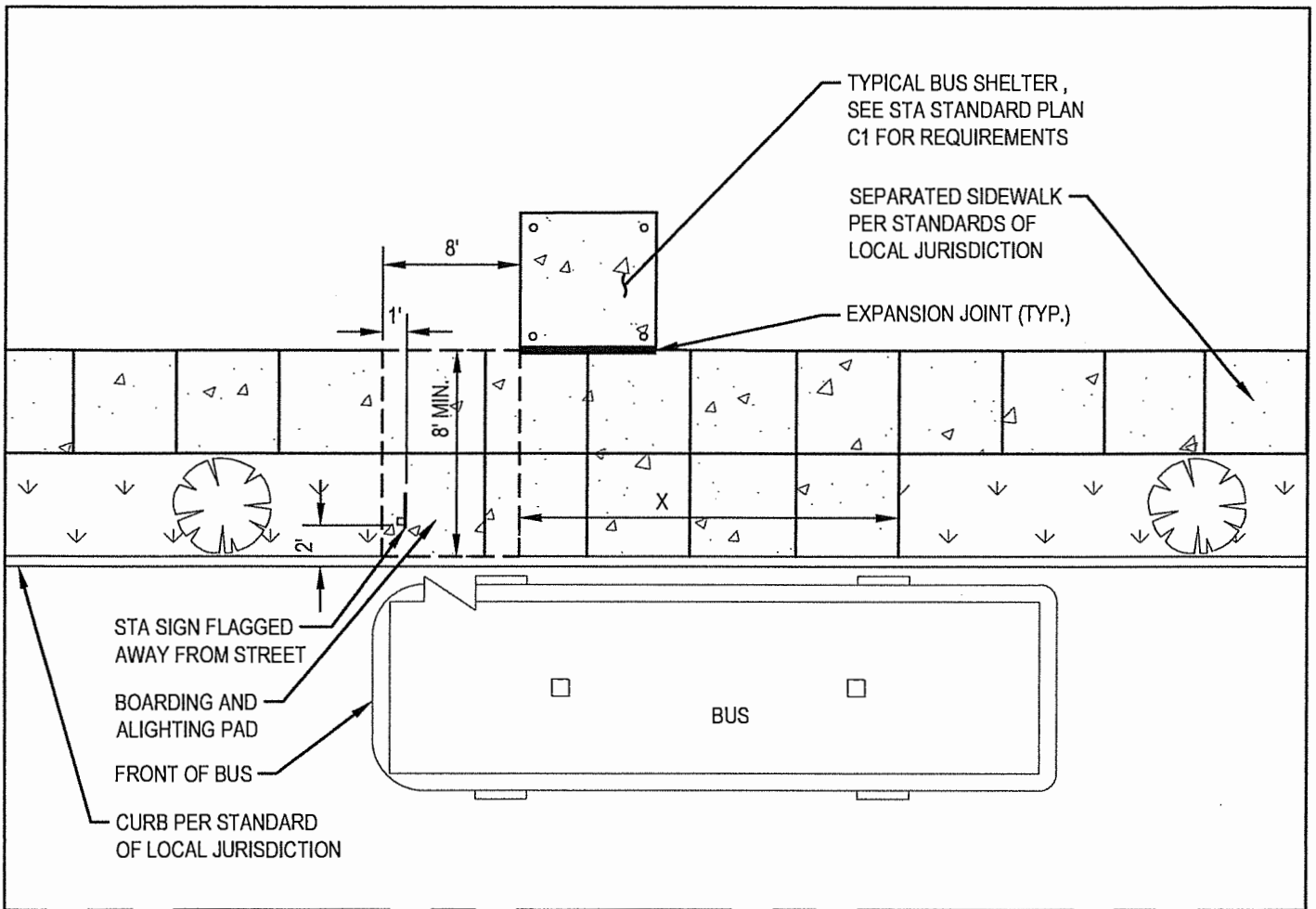
PREPARED BY: **COFFMAN ENGINEERS**



**Spokane Transit Authority**

REV #	DATE	DESCRIPTION	BY	DLS
<b>BOARDING AND ALIGHTING PAD AT ADJACENT SIDEWALK</b>			DATE	02/02/16
			CHECKED	CBM
			DATE	02/02/16

**C4**



NOTES:

1. X=DISTANCE BETWEEN PADS, STA TO PROVIDE DISTANCE BASED ON BUS TYPE.
2. BOARDING AND ALIGHTING PAD CONCRETE SECTION SHALL MATCH SIDEWALK SECTION PER LOCAL JURISDICTION STANDARDS.
3. FRONT OF BUS ZONE MARKED BY BUS STOP SIGN.
4. WHERE FEASIBLE, EXTEND HARDSCAPE TO ESTABLISH CLEAR ZONE FOR BUS AND TO ALLOW FOR REAR DOOR ALIGHTING. COORDINATE WITH STA TO DETERMINE WIDTH (X) OF HARDSCAPE.
5. COORDINATE WITH STA TO DETERMINE IF BUS SHELTER WILL BE CONSTRUCTED. REFER TO STA STANDARD PLAN C1 FOR BUS SHELTER FOUNDATION DETAIL.
6. EXPANSION JOINTS SHALL BE 1/2" PREMOLDED JOINT FILLER AND SHALL EXTEND THE FULL DEPTH OF CONCRETE.
7. REFER TO STA STANDARD PLAN C2 FOR BUS STOP LOCATION DETAILS. REFER TO STA STANDARD PLAN C3 FOR BUS BUMPOUT DETAILS. REFER TO STA STANDARD PLAN C6 FOR HORIZONTAL BUS STOP SIGN PLACEMENT DETAILS. REFER TO STA STANDARD PLAN C7 FOR STREET TREE PLACEMENT DETAILS.

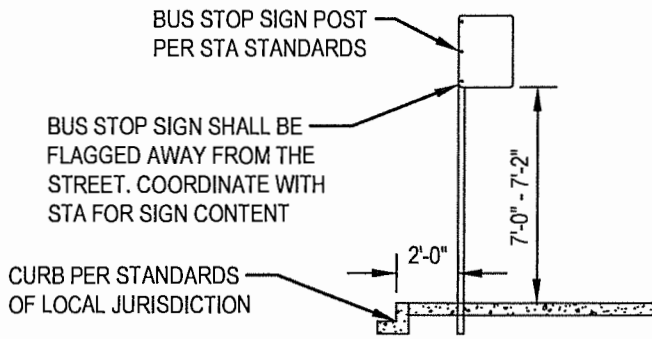
PREPARED BY: **COFFMAN ENGINEERS**



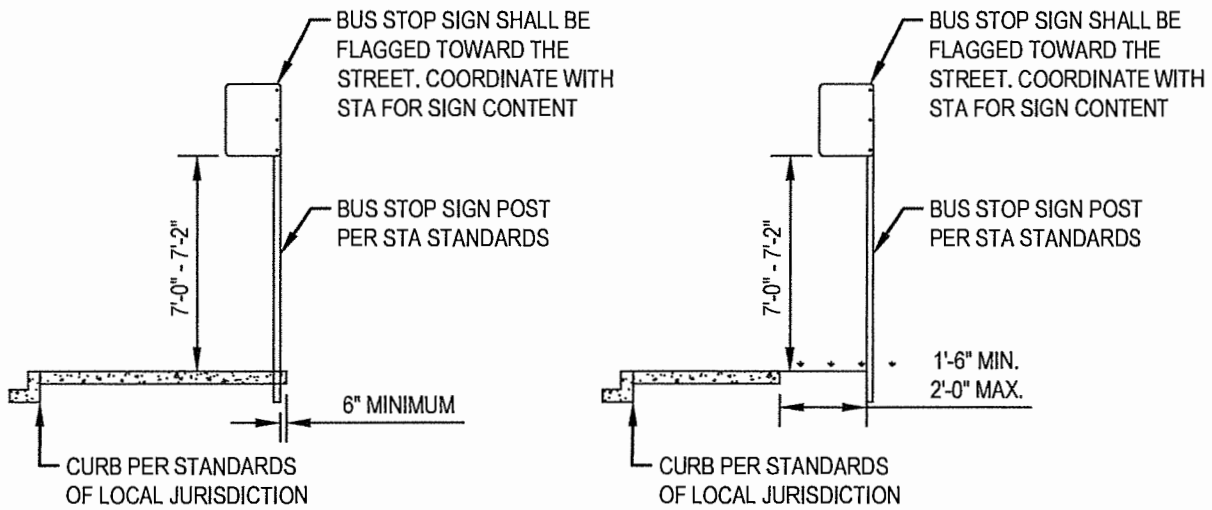
Spokane Transit Authority

REV #	DATE	DESCRIPTION	BY	DLS
BOARDING AND ALIGHTING PAD AT SEPARATED SIDEWALK			DATE	02/02/16
			CHECKED	CBM
			DATE	02/02/16

**C5**



## SIDEWALKS 5'-6" TO 8'-0"+ AND AT BUS STOPS WITH SHELTERS



## SIDEWALKS 0'-0" UP TO 5'-6" AND SPECIAL CONDITIONS ONLY

### NOTES:

1. VERIFY EXISTING UTILITIES ARE NOT IN CONFLICT WITH POLE PLACEMENT PRIOR TO CONSTRUCTION.
2. DO NOT AFFIX STA SIGN TO A POLE WITH OTHER (NON-STA) SIGNS. DO NOT AFFIX NON-STA SIGNS TO BUS STOP SIGN POST. SIGNAGE SHALL BE INSTALLED ACCORDING TO THE STANDARDS OF THE AUTHORITY HAVING JURISDICTION.
3. REFER TO STA STANDARD PLANS C4 AND C5 FOR HORIZONTAL LOCATION OF BUS STOP SIGN AT AN ADJACENT SIDEWALK, AND SEPARATED SIDEWALK, RESPECTIVELY.
4. COORDINATE WITH STA TO ENSURE TREES, POLES, BUILDINGS, AWNINGS, AND OTHER SIGNS DO NOT OBSCURE PEDESTRIANS' OR BUS DRIVERS' VIEW OF THE BUS STOP SIGN.
5. COORDINATE WITH STA WHERE SIDEWALK IS LESS THAN 5' WIDE.

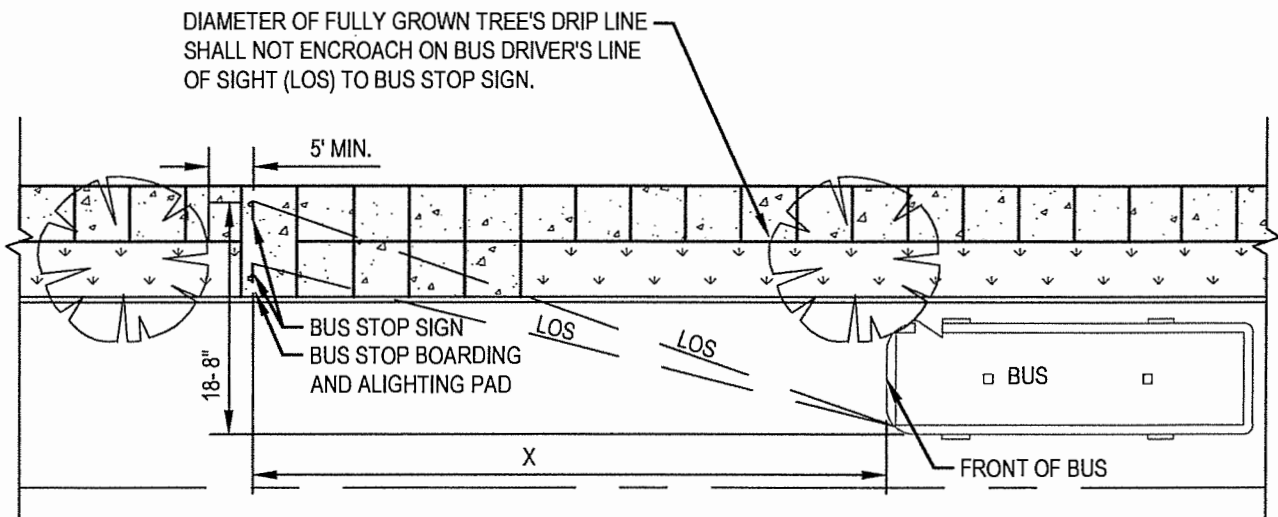
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ENGINEERS



Spokane Transit  
Authority

REV #	DATE	DESCRIPTION	BY	DLS
BUS STOP SIGN PLACEMENT IN SIDEWALK			CHECKED	CBM
			DATE	02/02/16

**C6**



NOTES:

1. WHERE FEASIBLE, PLACE STREET TREES BEHIND THE SIDEWALK IN THE APPROACH ZONE. AT A MINIMUM, DO NOT PLACE STREET TREES (OR OTHER OBSTRUCTIONS) INSIDE THE LINE OF SIGHT (LOS) TRIANGLE. DO NOT ALLOW MATURE TREES TO GROW INTO THE LINE OF SIGHT TRIANGLE.
2. 12' CLEAR VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN THE ROAD AND THE BOTTOM OF TREE DRIP LINES TO ALLOW BUS TO PASS UNDER MATURE TREES.

"X" (STOPPING SIGHT DISTANCE)				
SPEED LIMIT (MPH)	(MAX.) ROAD GRADE			
	0%	3%	6%	9%
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593

REF:

- WSDOT DESIGN MANUAL 2014, EXHIBIT 1260-1 AND 1260-2.
- AASHTO GEOMETRIC DESIGN OF HIGHWAYS AND STREETS "GREEN BOOK" 2011 TABLE 3-1 AND 3-2.

PREPARED BY: **COFFMAN ENGINEERS**



Spokane Transit Authority

REV #	DATE	DESCRIPTION	BY	DLS	
<b>STREET TREE LOCATION NEAR BUS STOPS</b>				CHECKED	CBM
				DATE	02/02/16

**C7**