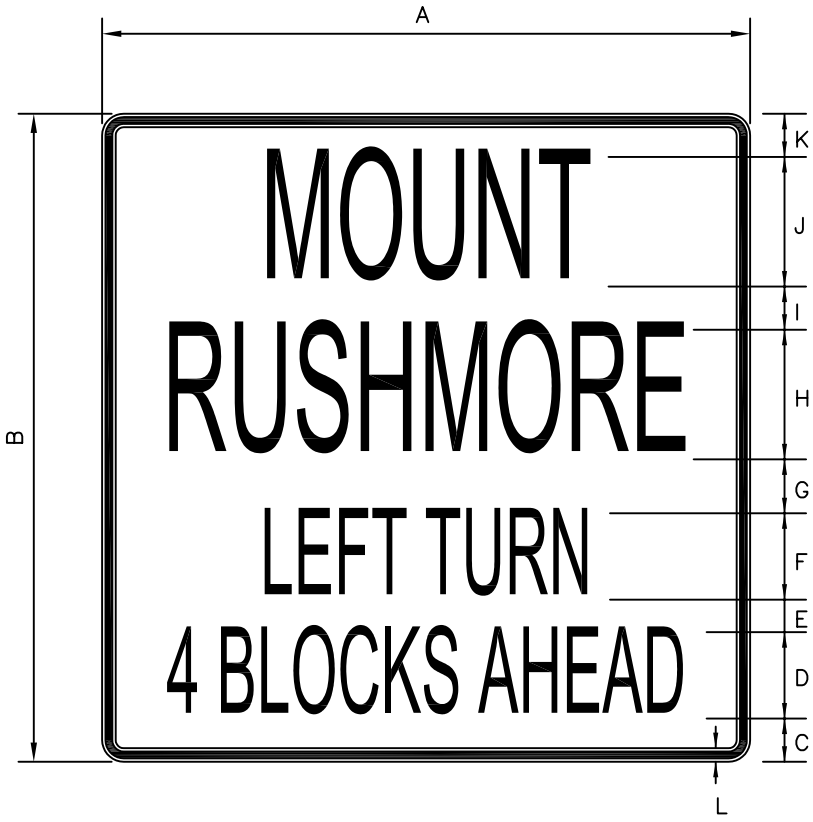
RAPID CITY TRAFFIC ENGINEERING & OPERATIONS
SIGN DETAIL SHEET



OR
RIGHT TURN
2 BLOCKS AHEAD

	A	B	C	D	E	F	G	H	I	J	K	L
MIN.												
STD.	30	30	2	4C	1.5	4C	2.5	6C	2	6C	2	5/8

LEGEND – WHITE (REFLECTIVE)
BACKGROUND – GREEN (REFLECTIVE)

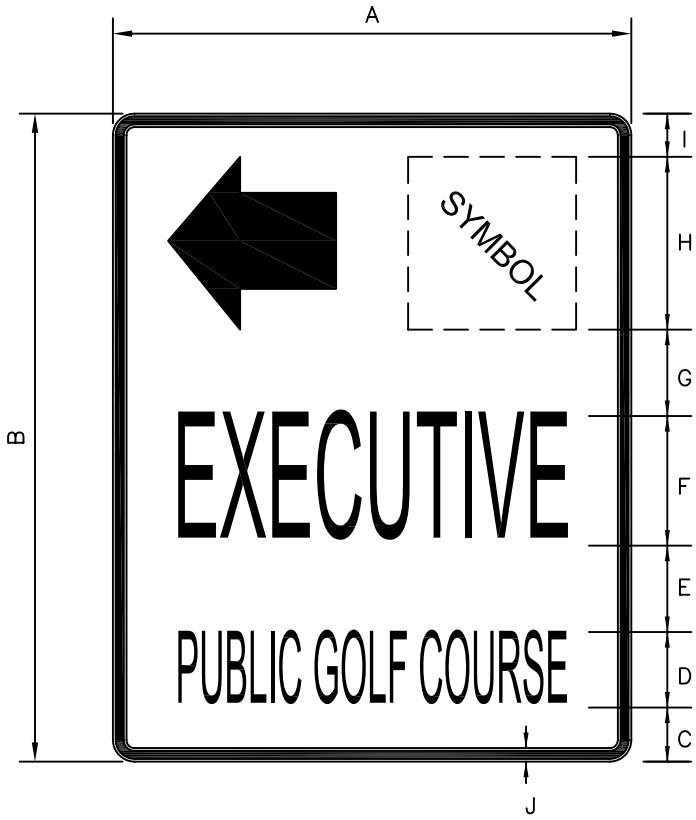
CITY OF RAPID CITY — PUBLIC WORKS DEPARTMENT

TRAFFIC CONTROL DEVICES
SIGNS

DATE: 5–1–07

SEC. 91 — SHT. 1

RAPID CITY TRAFFIC ENGINEERING & OPERATIONS
SIGN DETAIL SHEET



OR
RIGHT TURN
2 BLOCKS AHEAD

	A	B	C	D	E	F	G	H	I	J
MIN.										
STD.	24	30	2.5	3.5B	4	6C	4	8	2	5/8

LEGEND – WHITE (REFLECTIVE)
BACKGROUND – GREEN (REFLECTIVE)

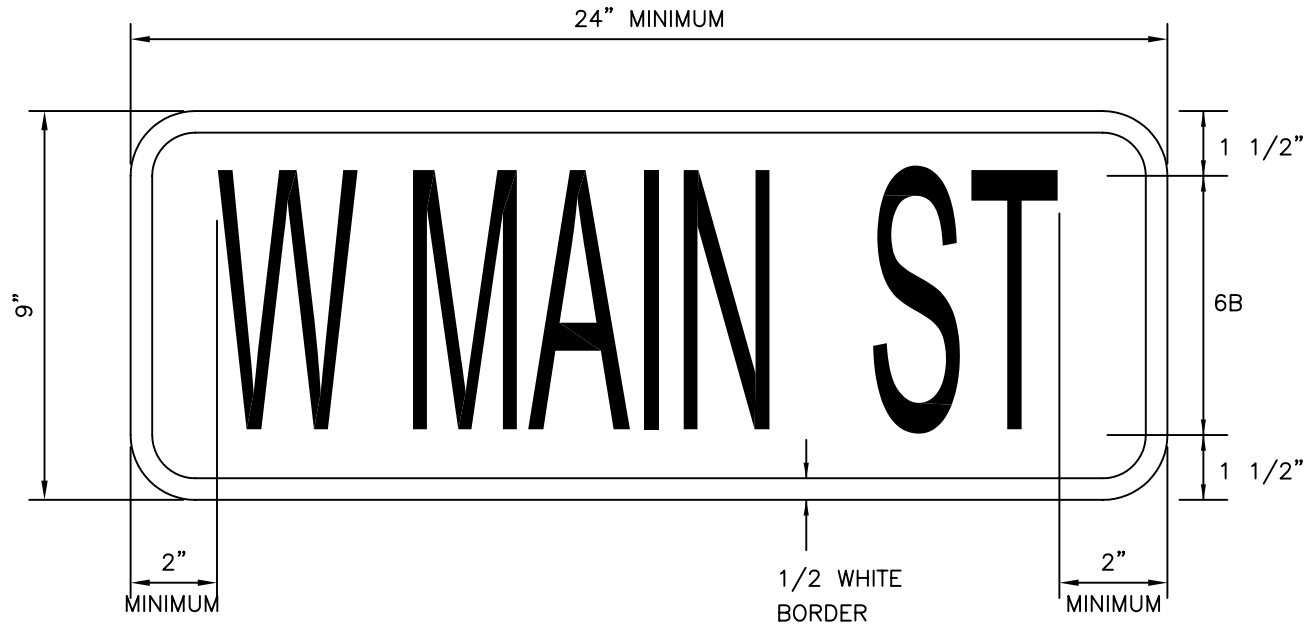
CITY OF RAPID CITY — PUBLIC WORKS DEPARTMENT

TRAFFIC CONTROL DEVICES
SIGNS

DATE: 5–1–07

SEC. 91 — SHT. 1a

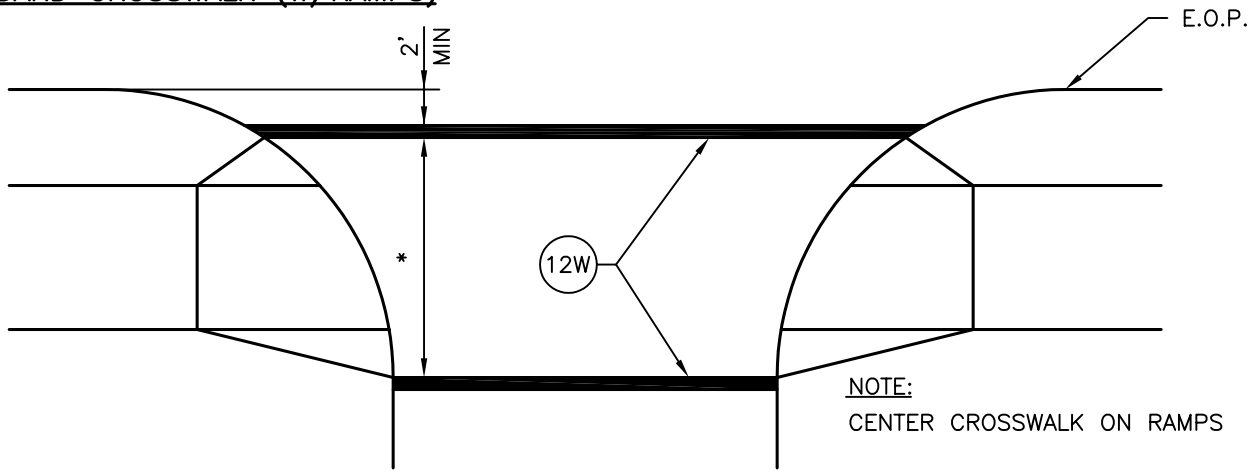
RAPID CITY TRAFFIC ENGINEERING & OPERATIONS
SIGN DETAIL SHEET



LEGEND – WHITE (DIAMOND GRADE (VIP)
BACKGROUND – GREEN (DIAMOND GRADE (VIP) OR OVERLAY)

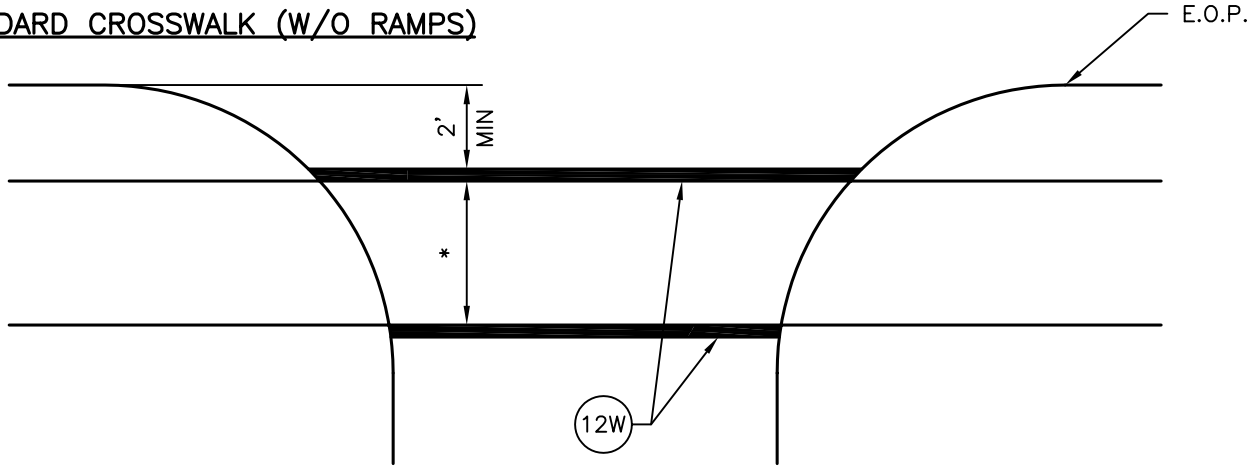
CITY OF RAPID CITY	PUBLIC WORKS DEPARTMENT
TRAFFIC CONTROL DEVICES SIGNS	DATE: 5–1–07 SEC. 91–1b SHT.

STANDARD CROSSWALK (W/RAMPS)

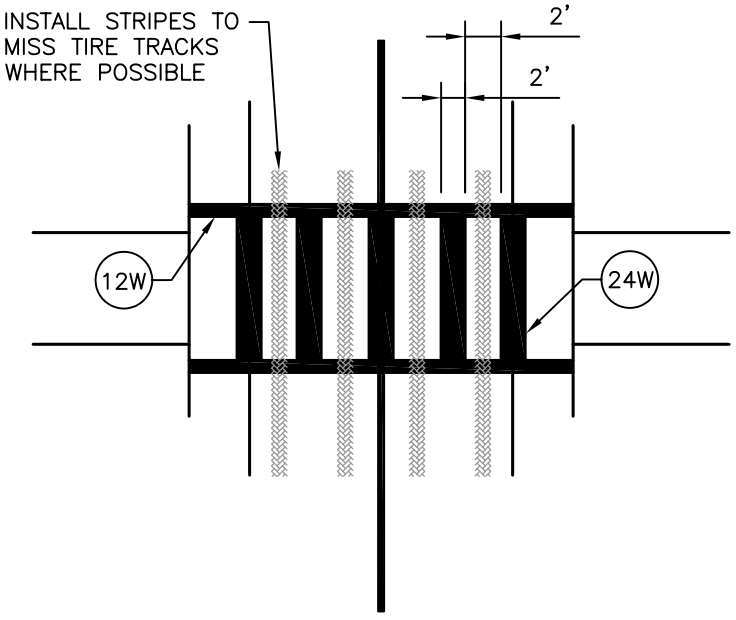


NOTE:
CENTER CROSSWALK ON RAMPS

STANDARD CROSSWALK (W/O RAMPS)



HIGH VISIBILITY CROSSWALK



* CROSSWALK WIDTH TO MATCH ADJACENT SIDEWALK OR PATH WIDTH BUT NOT LESS THAN 6' MEASURED BETWEEN LINES

HIGH VISIBILITY CROSSWALK:
LOCATION AND WIDTH:
SEE STANDARD CROSSWALK DETAIL

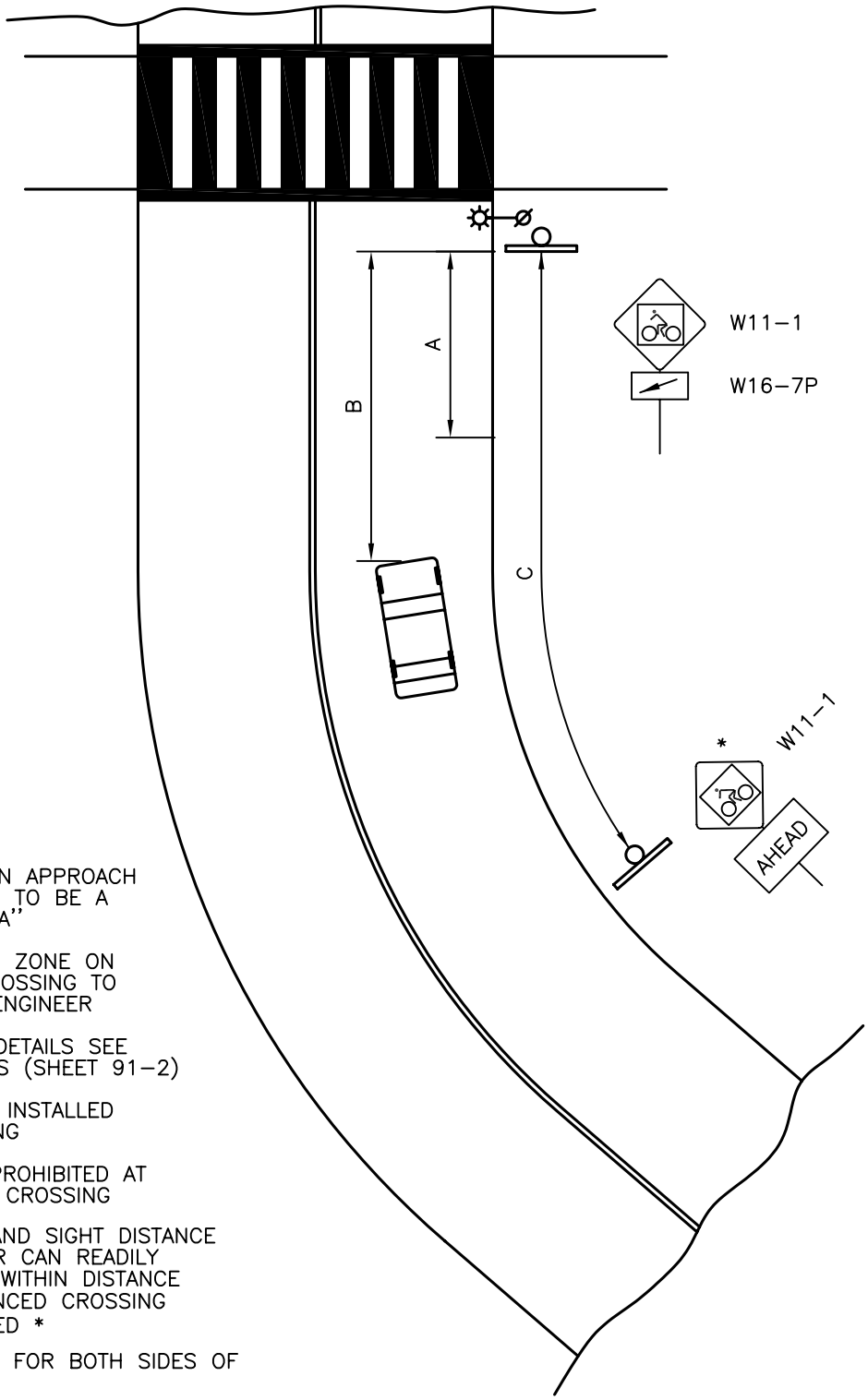
USE:
SCHOOL, PATHWAY AND OTHER CROSSING LOCATIONS WITH HIGH PEDESTRIAN VOLUMES

CITY OF RAPID CITY — PUBLIC WORKS DEPARTMENT

TRAFFIC DESIGN STANDARDS
PATHWAY STREET CROSSING – PM1

DATE: 5–1–07

SEC. 91 — SHT. 2



NOTES:

1. NO PASSING ZONE ON APPROACH TOWARD CROSSWALKS TO BE A MINIMUM DISTANCE "A"
2. PASSING/NO PASSING ZONE ON DEPARTURE FROM CROSSING TO BE DETERMINED BY ENGINEER
3. CROSSWALK DESIGN DETAILS SEE CROSSWALK MARKINGS (SHEET 91-2)
4. STREET LIGHT TO BE INSTALLED AT OR NEAR CROSSING
5. PARKING SHALL BE PROHIBITED AT DISTANCE "A" FROM CROSSING
6. IF ROAD GEOMETRY AND SIGHT DISTANCE IS SUCH THAT DRIVER CAN READILY SEE CROSSING SIGN WITHIN DISTANCE "B", THEN THE ADVANCED CROSSING SIGN IS NOT REQUIRED *
7. THIS LAYOUT APPLIES FOR BOTH SIDES OF CROSSWALK

APPROACH SPEED (MPH)	DISTANCE A (FEET)	DISTANCE B (FEET)	DISTANCE C (FEET)
UNDER 30	50	170	200
30	100	220	250
35	150	275	300

CHART IS NOT APPLICABLE FOR GRADES OVER 6% OR SPEEDS OVER 35 MPH

CITY OF RAPID CITY — PUBLIC WORKS DEPARTMENT

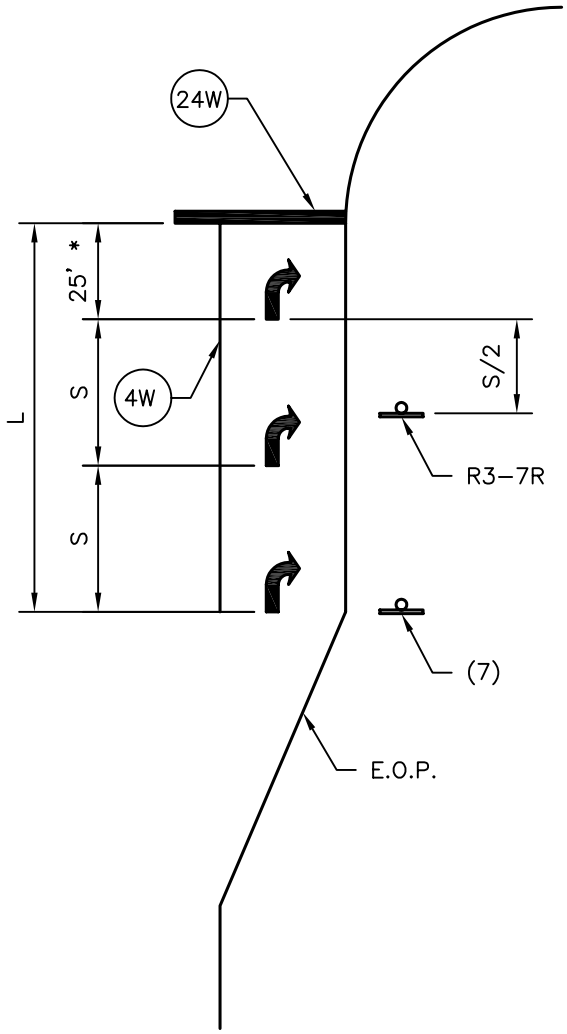
TRAFFIC DESIGN STANDARDS
PATHWAY STREET CROSSING – PM2

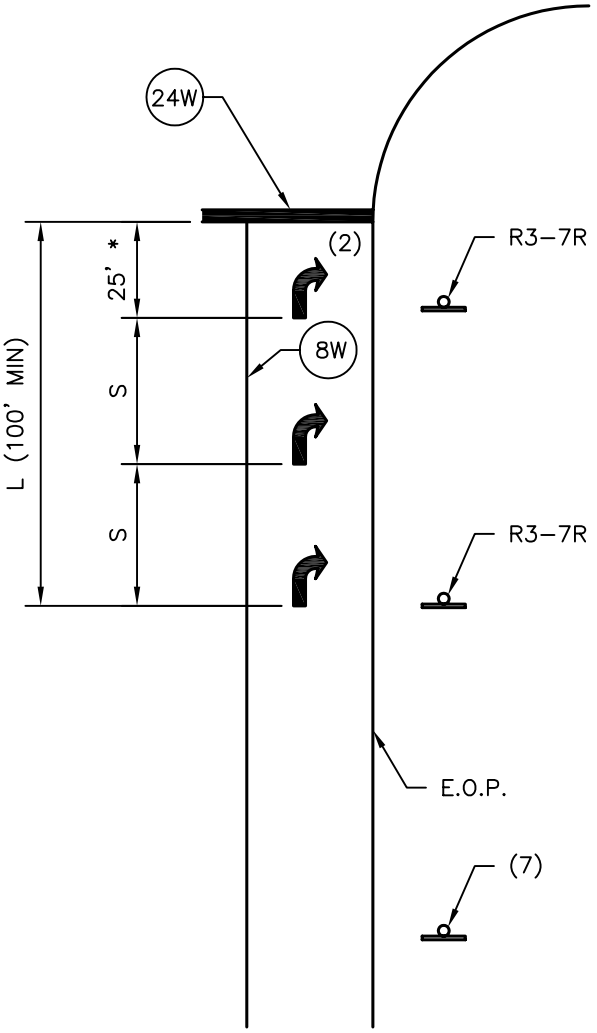
DATE: 5-1-07

SEC. 91 — SHT. 2a

TURN LANE – LANE USED SOLELY FOR TURNING VEHICLES

DROP LANE – THRU LANE THAT DIRECTLY BECOMES AN EXCLUSIVE TURN LANE





NOTES:

1. ALL SIGNS AND PAVEMENT MARKINGS ARE TO BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE M.U.T.C.D.
2. ARROW SPACING (S) MEASURED FROM BASE TO BASE: $32' \leq S \leq 80'$.
3. FOR TURN LANE LENGTH $L \geq 89'$, USE THREE ARROW SYMBOLS.
4. RIGHT TURN LANES SHOWN. LEFT TURN LANES SHALL BE REVERSED.
5. TURN LANE LENGTH (L) IS TO BE DESIGNED BASED ON ESTIMATED QUEUE LENGTHS IN TURN LANE AND IN THE ADJACENT THRU LANE.
6. FOR $L > 185'$, THE 25' DIMENSION MAY BE INCREASED. *
7. ADVANCED INTERSECTION LANE CONTROL SIGNS (R3–8 SERIES) MAY BE REQUIRED.

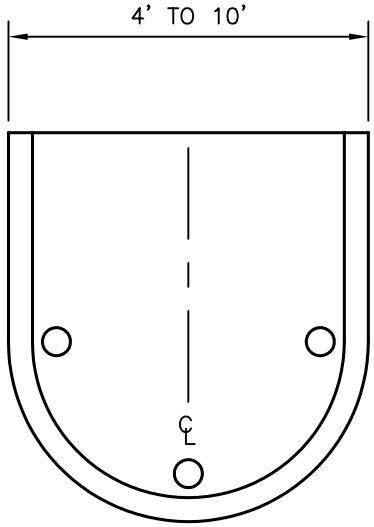
CITY OF RAPID CITY — PUBLIC WORKS DEPARTMENT

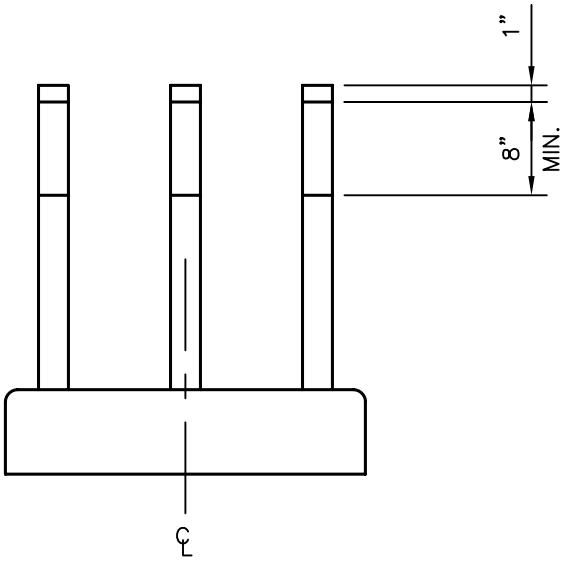
TRAFFIC DESIGN STANDARDS

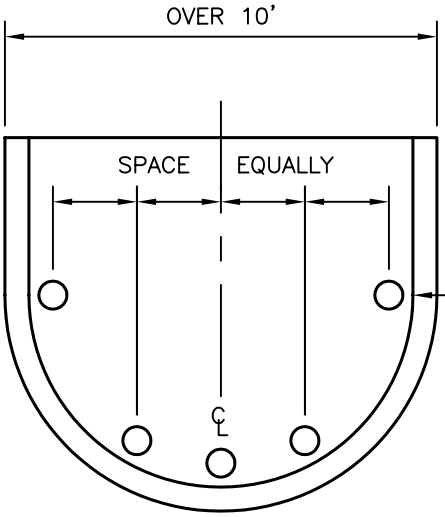
TURN LANE SIGNING & MARKINGS – PM3

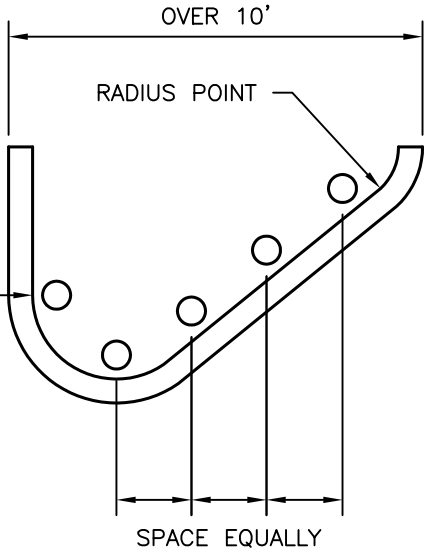
DATE: 5–1–07

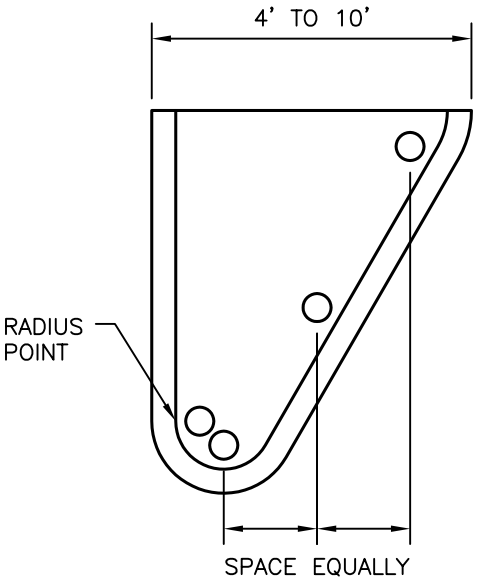
SEC. 91 — SHT. 2b

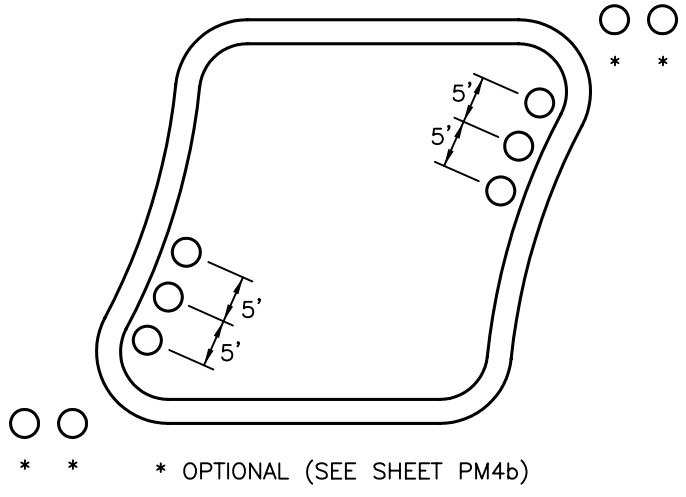












CITY OF RAPID CITY | PUBLIC WORKS DEPARTMENT

TRAFFIC DESIGN STANDARDS
FLEXIBLE DELINEATOR POSTS – PM4

DATE: 5–1–07

SEC. 91–2c | SHT.

IN GENERAL, BOTH THE REGULATORY R4-7 (KEEP RIGHT) SIGN AND /OR FLEXIBLE DELINEATOR POSTS (FDP) SHOULD BE USED AT THE FOLLOWING LOCATIONS:

* THE FIRST MEDIAN OF A DIVIDED SECTION
* SIGNALIZED INTERSECTIONS
* OTHER MAJOR INTERSECTIONS
* LOCATIONS WHERE NEED HAS BEEN DETERMINED BY AN ENGINEERING STUDY

ALL TRAFFIC CONTROLS ARE TO CONFORM TO MUTCD REQUIREMENTS

NOTES:

1. IT IS RECOMMENDED THAT BOTH THE KEEP RIGHT SIGN AND FDP'S BE USED ONLY WHERE THE NEED HAS BEEN DETERMINED BY AN ENGINEERING STUDY.

2. ON MEDIANS UNDER 4 FEET IN WIDTH, INSTALL ONE (1) FDP AT A LOCATION ONE (1) FOOT BACK FROM THE MEDIAN NOSE.

3. FDP'S SHOULD MATCH THE ADJACENT PAVEMENT MARKING STRIPE COLOR IF USED TO REINFORCE SUCH MARKINGS. HIGH INTENSITY SHEETING SHALL MATCH THE ADJACENT PAVEMENT MARKING STRIPE.

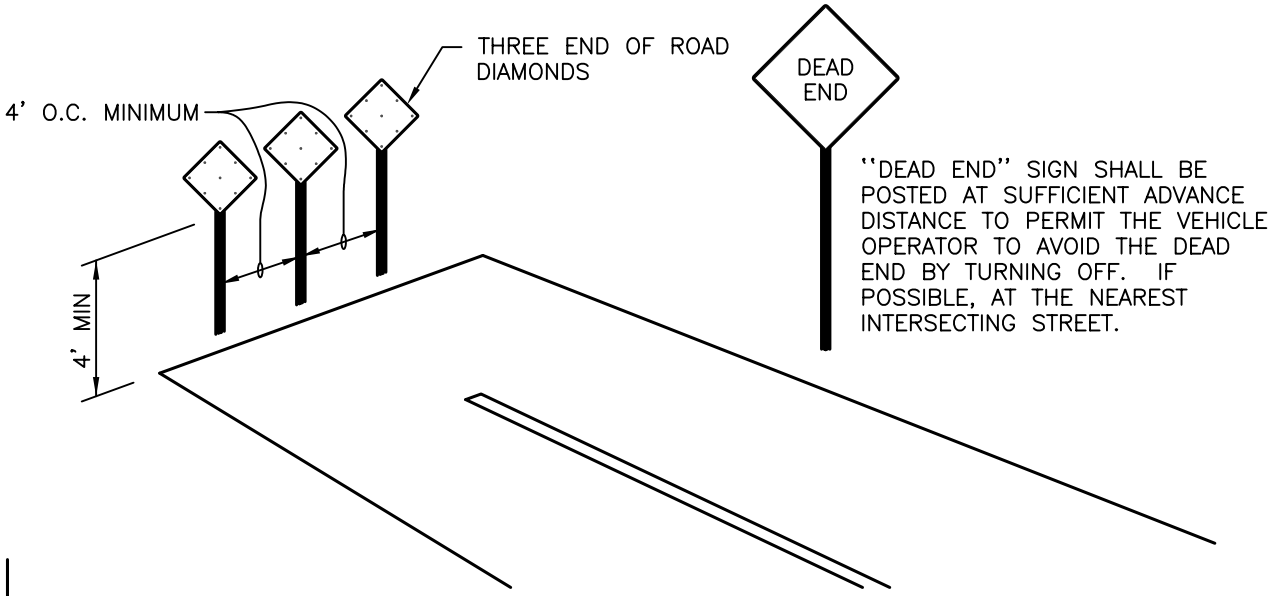
4. FDP'S SHOULD BE 42 INCHES HIGH, OR, SUCH A HEIGHT SO AS TO BE VISIBLE TO THE DRIVER.

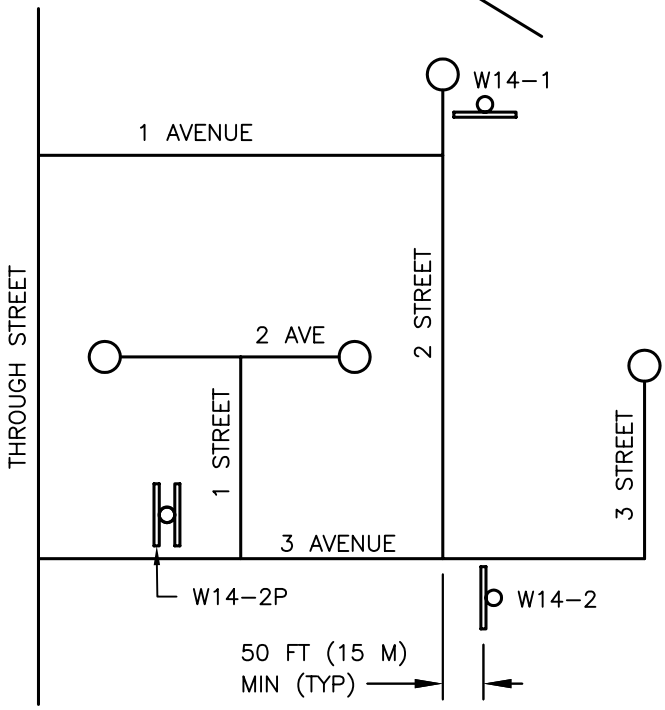
5. LAYOUT SHOULD FOLLOW SHEET PM4a OF THE RAPID CITY TRAFFIC DESIGN STANDARDS, OR AS DIRECTED BY THE TRAFFIC ENGINEER.

6. WHEN SHOWN ON CONSTRUCTION PLANS, FDP'S SHALL BE IDENTIFIED IN A MANNER SIMILAR TO THAT SHOWN ON SHEET PM4a (SOLID DONUT SHAPE). COLOR, NUMBER AND BASE TYPE (SURFACE OR GROUND MOUNT) MUST BE SPECIFIED ON ALL QUANTITY SHEETS. COLOR AND BASE TYPE ARE TO BE SPECIFIED FOR EACH FDP GROUP ON THE PLAN SHEET.

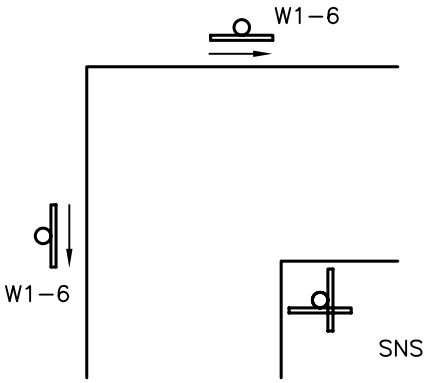
7. FDP TYPE AND INSTALLATION METHODS MUST BE APPROVED BY THE TRAFFIC ENGINEER PRIOR TO USE.

8. ON DIRECTIONAL MEDIANS, THE OPTIONAL FDP'S ARE TO SUPPLEMENT OTHER SIGNING AND MARKINGS TO DETER WRONG WAY MANEUVERS.





DEAD END



STREET TURN

TYPICAL USE OF ''DEAD END'' AND ''NO OUTLET'' SIGNS
(W14-1) (W14-2)

NOTES:

1. THIS SHEET APPLICABLE TO RESIDENTIAL AND MINOR STREETS ONLY. MAJOR STREETS ARE TO BE EVALUATED INDIVIDUALLY.
2. END OF ROAD DIAMOND IS A RED 18" REFLECTIVE SIGN WITH HIGH INTENSITY SIGN SHEETING.
3. ''DEAD END'' SIGNS ARE NOT REQUIRED WHERE CONDITION IS READILY EVIDENT FROM THE THROUGH STREET
4. USE W14-1P AND W14-2P SIGNS WHEN APPLICABLE ON THE STEM OF "T" INTERSECTIONS. MOUNT ON SAME POST AS STOP AND STREET NAME SIGNS.

CITY OF RAPID CITY | PUBLIC WORKS DEPARTMENT

TRAFFIC DESIGN STANDARDS
STREET TERMINATIONS

DATE: 5-1-07

SEC. 91 SHT. 3

STREET NAME SIGNS – LEGENDS:

STREET NAME SIGNS ARE REQUIRED AT ALL STREET INTERSECTIONS, OR LOCATIONS WHERE THE NAME OF THE STREET CHANGES. UNIFORMITY IN THEIR DESIGN IS IMPORTANT IN THE UNDERSTANDING OF THESE SIGNS BY MOTORISTS.

THE FOLLOWING SET OF GUIDELINES SHALL BE USED WHEN DESIGNING THE LEGEND OF STREET NAME SIGNS:

1. THE NAME OF THE STREET SHALL BE USED IN FULL, WHILE ALL PREFIXES AND SUFFIXES SHALL BE ABBREVIATED.

2. ALL CAPITAL LETTERS SHALL BE USED.

3. DIRECTIONS (NORTH, NORTHEAST, EAST, ETC.) SHALL BE ABBREVIATED, UNLESS SUCH DIRECTION IS THE STREET NAME (ie: EAST BOULEVARD).

4. SUFFIXES (STREET, PLACE, COURT, AVENUE, ETC.) SHALL BE ABBREVIATED USING THE ABBREVIATIONS BELOW.

5. NUMBERED STREETS SHALL BE IDENTIFIED WITH NUMBERS (ie 5TH ST, NOT FIFTH ST)

6. ALL PARTS OF THE STREET NAME MUST APPEAR ON THE STREET NAME SIGN

7. STREET NAME SIGNS SHALL BE 9 INCHES HIGH WITH 6 INCH LETTERS (EXCEPT AS OUTLINED IN NO. 8 BELOW).

8. MINIMUM SIGN LENGTH IS 24 INCHES.

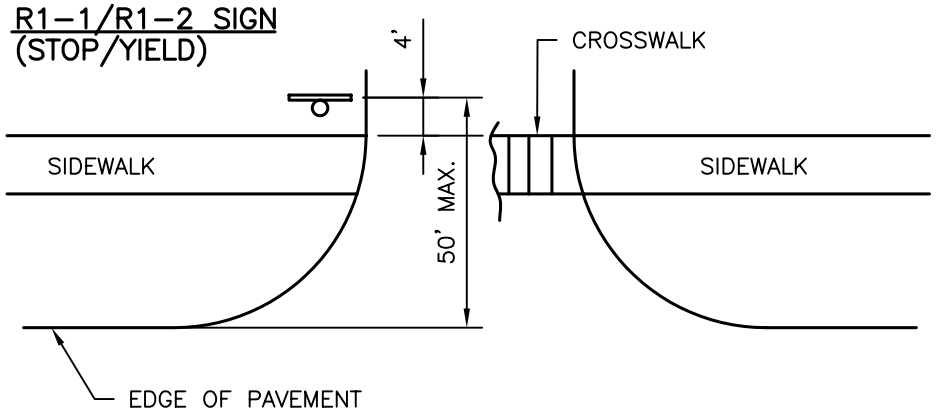
9. PRIVATE STREETS SHALL HAVE A 'P' INSTALLED ON THE STREET NAME SIGN. THIS LETTER IS TO BE 3 INCHES HIGH, LOCATED TO THE RIGHT OF THE STREET NAME LEGEND AND BE SEPARATED FROM THE LEGEND BY AT LEAST 2 INCHES.

THE FOLLOWING LIST OF ACCEPTABLE ABBREVIATIONS SHALL BE USED FOR STREET SIGN NAMES:

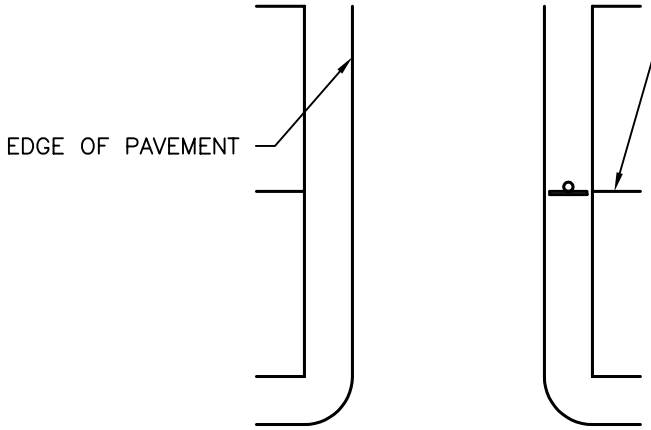
AVENUE - AVE	BOULEVARD - BLVD
CIRCLE - CIR	COURT - CT
LANE - LN	PLACE - PL
ROAD - RD	STREET - ST
NORTH - N	NORTHEAST - NE
EAST - E	SOUTHEAST - SE
SOUTH - S	SOUTHWEST - SW
WEST - W	NORTHWEST - NW

SPECIFIC INTERPRETATIONS OF THESE SPECIFICATION SHOULD BE DIRECTED TO THE CITY TRAFFIC ENGINEER.

R1–1/R1–2 SIGN (STOP/YIELD)



R2–1 SIGN (SPEED LIMIT)

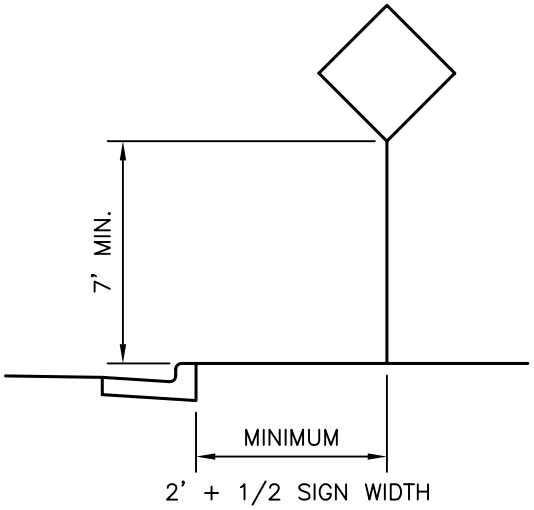


*PLACED AT OR NEAR THE FIRST LOT LINE AWAY FROM INTERSECTION

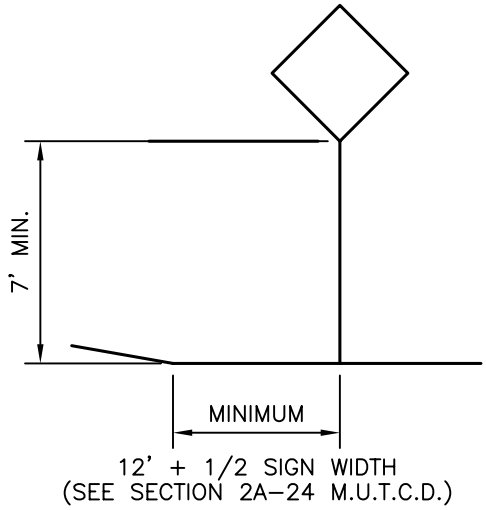
*SPEED LIMIT SIGNS ARE REQUIRED AT THE CHANGE IN LIMIT SPEED

LATERAL PLACEMENT

WITH CURB



WITHOUT CURB



CITY OF RAPID CITY — PUBLIC WORKS DEPARTMENT

TRAFFIC DESIGN STANDARDS
SIGN LOCATIONS –SI3

DATE: 5–1–07

SEC. 91–3b SHT.

TRAFFIC SIGN SPECIFICATIONS:

THE FOLLOWING SPECIFICATIONS APPLY TO ALL TRAFFIC CONTROL SIGNS INSTALLED WITHIN THE CITY. ALL SIGNS SHALL BE MANUFACTURED AND INSTALLED PER CITY SPECIFICATIONS/STANDARDS. ITEMS NOT SPECIFICALLY DEFINED BY THE CITY SHALL FOLLOW SDDOT SPECIFICATIONS, AND THOSE IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND TRAFFIC CONTROL DEVICES HANDBOOK.

MANUFACTURE:

THE FOLLOWING PERTAINS TO ALL TRAFFIC CONTROL SIGNS SIGN FACES:

1. SIGNS SHALL BE STANDARD SIZE.
2. SIGN FACES SHALL BE MANUFACTURED USING HIGH INTENSITY OR DIAMOND GRADE SHEETING MATERIAL.
3. SILK SCREENED FACES SHALL BE FREE OF DRIPS, SMEARS, THIN SPOTS OR OTHER DEFECTS THAT WILL AFFECT THEIR USEFULNESS OR LONGEVITY.
4. COLOR SHALL BE UNIFORM AND MATCH FEDERAL COLOR STANDARDS.
5. FACES SHALL BE FULLY ADHERED TO THE BACKING MATERIAL.

BACKING MATERIAL:

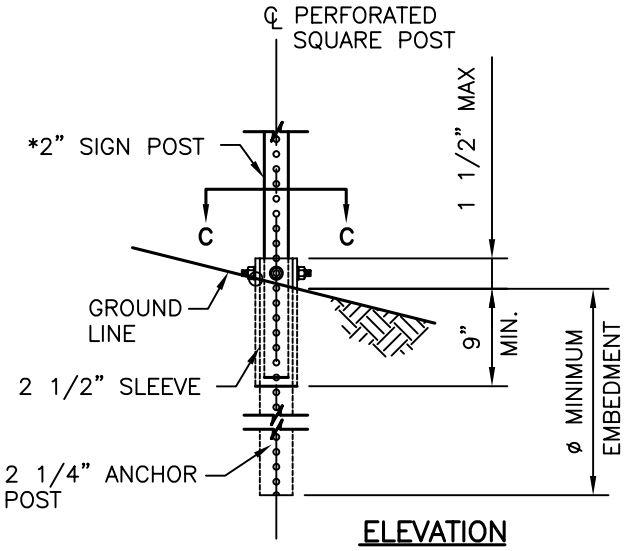
1. ALUMINUM SHALL BE ANODIZED AND 0.080 MINIMUM GAUGE THICKNESS.
2. ALUMINUM SHALL BE MINIMUM GRADE TYPE 5000.
3. RECYCLED PLASTIC SIGN BLANKS ARE ALLOWED. USE OF PLASTIC BLANKS MUST BE APPROVED BY THE CITY TRAFFIC ENGINEER PRIOR TO USE.
4. WOOD, PAPER, OR OTHER MATERIALS ARE NOT ALLOWED.
5. BACK OF SIGN BLANK SHALL BE FREE OF ALL OBJECTS EXCEPT DATE STICKER.

INSTALLATION:

GENERALLY, TRAFFIC CONTROL SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT PLANS, THESE SPECIFICATIONS AND THE FOLLOWING NOTES AND DETAIL:

1. ALL TRAFFIC CONTROL SIGNS SHALL BE INSTALLED 7 FEET ABOVE THE ROADWAY ELEVATION
2. THE POST(S) SHALL EXTEND TO THE TOP OF THE SIGN.
3. SQUARE TUBE TYPE SIGN POSTS SHALL BE USED. THESE POSTS SHALL MEET ALL APPLICABLE FEDERAL BREAK–AWAY STANDARDS, OR, BE OF THE SAME MANUFACTURE/TYPE AS USED BY THE CITY.
4. ALL POSTS SHALL BE FULLY GALVANIZED.

SPECIFIC INTERPRETATIONS OF THESE SPECIFICATIONS SHALL BE MADE BY THE CITY TRAFFIC ENGINEER.



ELEVATION

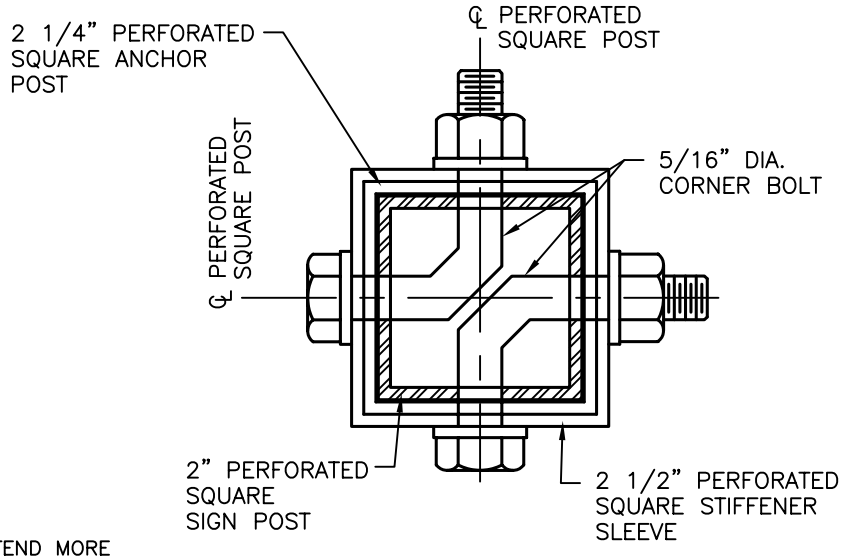
MINIMUM EMBEDMENT LENGTH ø SHALL BE 3'–0".

GENERAL NOTES:

1. ALL POSTS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A653.
2. ALL HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153.

INSTALLATION PROCEDURE:

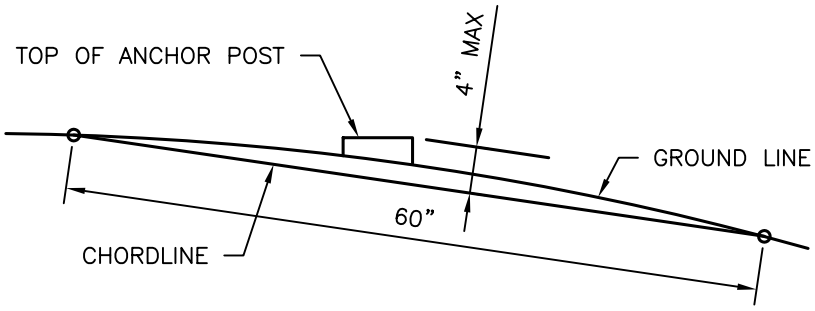
1. DRIVE ANCHOR POST AND SLEEVE TO WITHIN APPROXIMATELY 1 1/2 '' ABOVE GROUND LEVEL.
2. INSERT SIGN POST INTO ANCHOR TO A MINIMUM DEPTH OF 9'' BELOW GROUND LEVEL.
3. PLACE CORNER BOLTS AND FLAT WASHERS THROUGH TOP HOLES IN ANCHOR POST. REMOVE DIRT FROM AROUND THE POST AS NECESSARY TO ALLOW ROOM FOR BOLTS
4. PLACE A FLAT WASHER & NUT ON EACH BOLT.
5. TIGHTEN NUTS AND TAMP EARTH AROUND BASE POST FIRMLY.
6. FOR SIGNS OVER 48" WIDE, TWO POSTS ARE REQUIRED.



SECTION C–C

NOTE:

THE TOP OF ANCHOR POST SHALL NOT EXTEND MORE THAN 4" MAX. ABOVE THE CHORDLINE WITHIN A 60" CHORD.



BREAKAWAY SUPPORT STUB CLEARANCE DIAGRAM

CITY OF RAPID CITY — PUBLIC WORKS DEPARTMENT

SIGN POST INSTALLATION DETAIL

DATE: 5–1–07

SEC. 91–3d SHT.

STREET LIGHT LOCATIONS:

THE FOLLOWING APPLIES TO LOCATIONS NOT ALREADY ILLUMINATED TO A LEVEL MEETING THESE STANDARDS

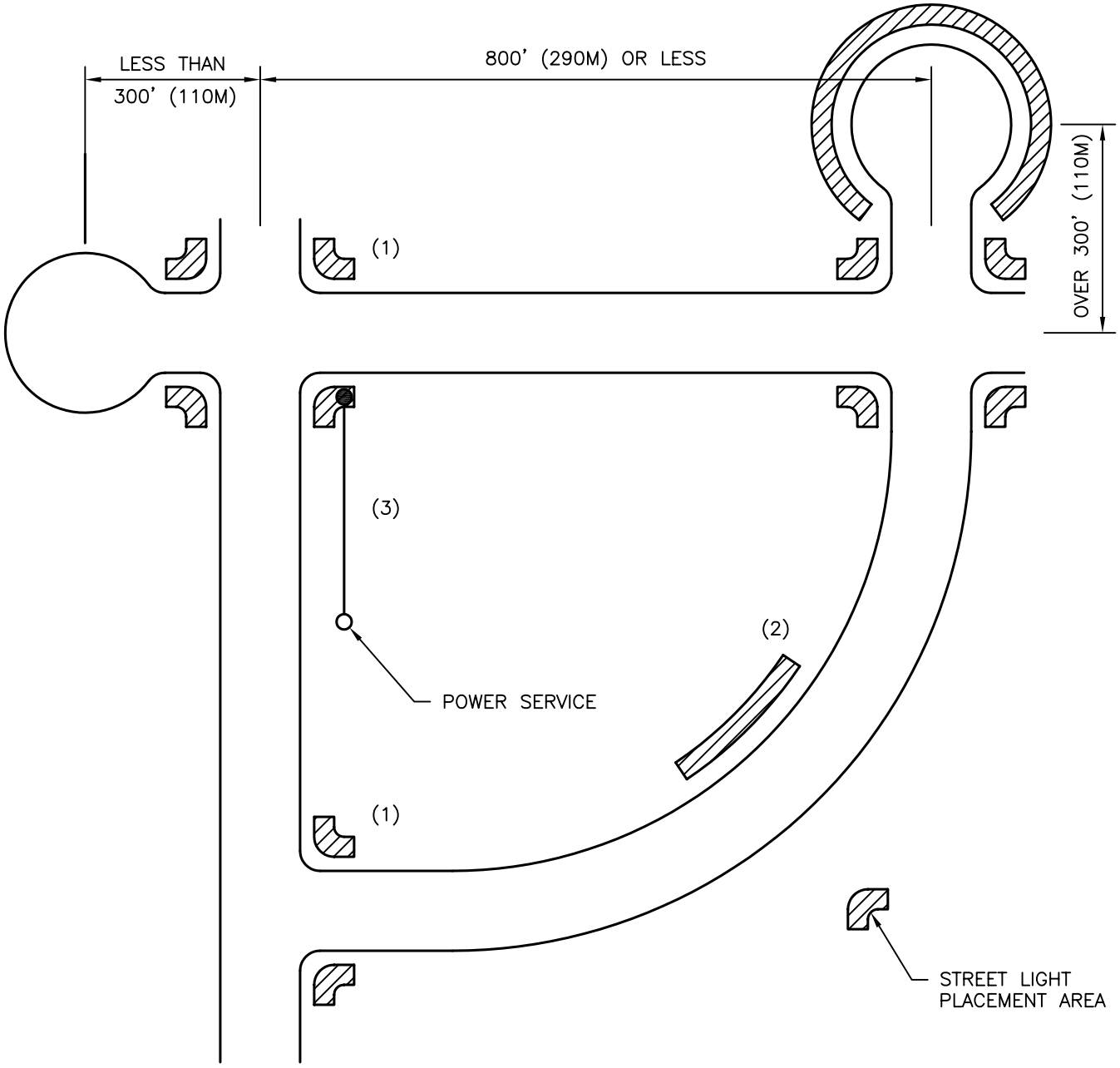
RESIDENTIAL OR LOCAL STREETS REQUIRE STREET LIGHTS AT LOCATIONS FOLLOWING THESE GUIDELINES:

1. ALL INTERSECTIONS.
2. AT INTERMEDIATE LOCATIONS WHEN ADJACENT INTERSECTIONS ARE SPACED OVER 290 METERS (800 FEET) APART.
3. AT THE END OF DEAD END STREETS OVER 110 METERS (300 FEET) LONG.
4. CHANGES IN VERTICAL OR HORIZONTAL ROADWAY ALIGNMENT.

COLLECTOR AND ARTERIAL STREETS SHALL BE LIT WITH STREET LIGHT POLE SPACING FOLLOWING ILLUMINATING SOCIETY ROADWAY STANDARDS. CONTACT THE CITY TRAFFIC ENGINEER FOR ASSISTANCE WITH STREET LIGHT LOCATIONS ON COLLECTOR AND ARTERIAL ROADWAYS.

STREET LIGHT INSTALLATION:

1. CABLE INSTALLATION IS TO BE COORDINATED WITH APPROPRIATE POWER COMPANY AT TIME OF SUBDIVISION CONSTRUCTION.
2. CABLE SHALL BE IN USABLE CONDITION WHEN SUBDIVISION IMPROVEMENTS ARE COMPLETED
3. CABLE TYPE & INSTALLATION IS TO MEET LOCAL POWER COMPANY REQUIREMENTS
4. IF POLES ARE TO BE OWNED OR MAINTAINED BY THE CITY, THE CABLE TYPE AND INSTALLATION IS TO MEET CITY REQUIREMENTS AND MUST BE ENCLOSED IN SCH. 80 PVC CONDUIT UNDER ROADWAYS AND SCH. 40 ELSEWHERE.
5. AS BUILT PLANS SHOWING ALL STREET LIGHT CABLE LOCATIONS SHALL BE PROVIDED TO CITY ENGINEERING DEPARTMENT.



NOTES:

1. LIGHTS SHALL BE LOCATED IN ONE OF THE CORNERS OF EACH INTERSECTION.
2. LIGHTS LOCATED ON CURVES SHALL BE LOCATED ON THE INSIDE OF SUCH CURVES.
3. UNDERGROUND CABLE SHALL BE INSTALLED BETWEEN AN APPROPRIATE POWER SERVICE AND THE STREET LIGHT LOCATION (SEE SHEET SL3).
4. ALL STREET LIGHT POLES SHALL BE OUT OF THE ROADWAY CLEAR ZONE.
5. IN NO CASE SHALL A POLE BE INSTALLED WITH LESS THAN 2' CLEAR DISTANCE FROM THE FACE OF THE POLE TO THE BACK OF CURB.
6. IF NOT AT AN INTERSECTION, STREET LIGHTS ARE TYPICALLY LOCATED NEAR A PROPERTY LINE.

CITY OF RAPID CITY — PUBLIC WORKS DEPARTMENT

TRAFFIC DESIGN STANDARDS
STREET LIGHT LOCATIONS – SL2

DATE: 5–1–07

SEC. 91–4a SHT.