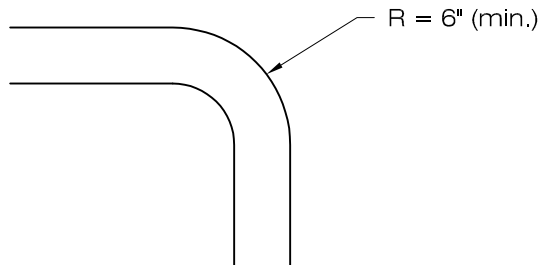


HANDRAIL DETAIL



TOP RAIL CORNER DETAIL

NOTES:

1. The sidewalk width shall be increased by a minimum of 6" whenever handrail is used.
2. If a sidewalk is more than 30" above the adjacent grade, the handrail shall be used.
3. Open clearance between intermediate rails must be 4" or less.
4. Finish shall be either galvanized or semi-gloss enamel over a shop coat of metal primer.
5. When the slope behind the sidewalk is steeper than 4:1, the handrail must be used.
6. When slope behind sidewalk is less than or equal to 4:1 for a minimum distance of 10', a handrail is not required.

HANDRAIL DETAILS

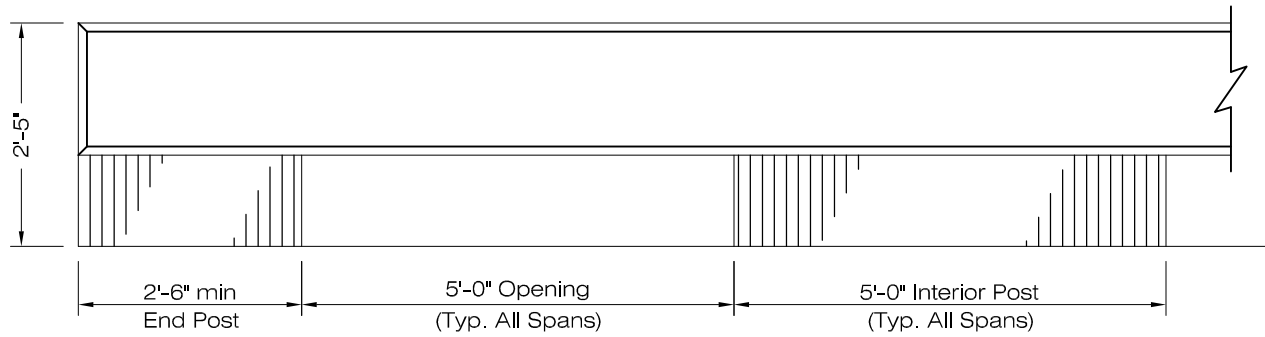
**LARIMER COUNTY
URBAN AREA
STREET STANDARDS**

**CONSTRUCTION
DRAWINGS**

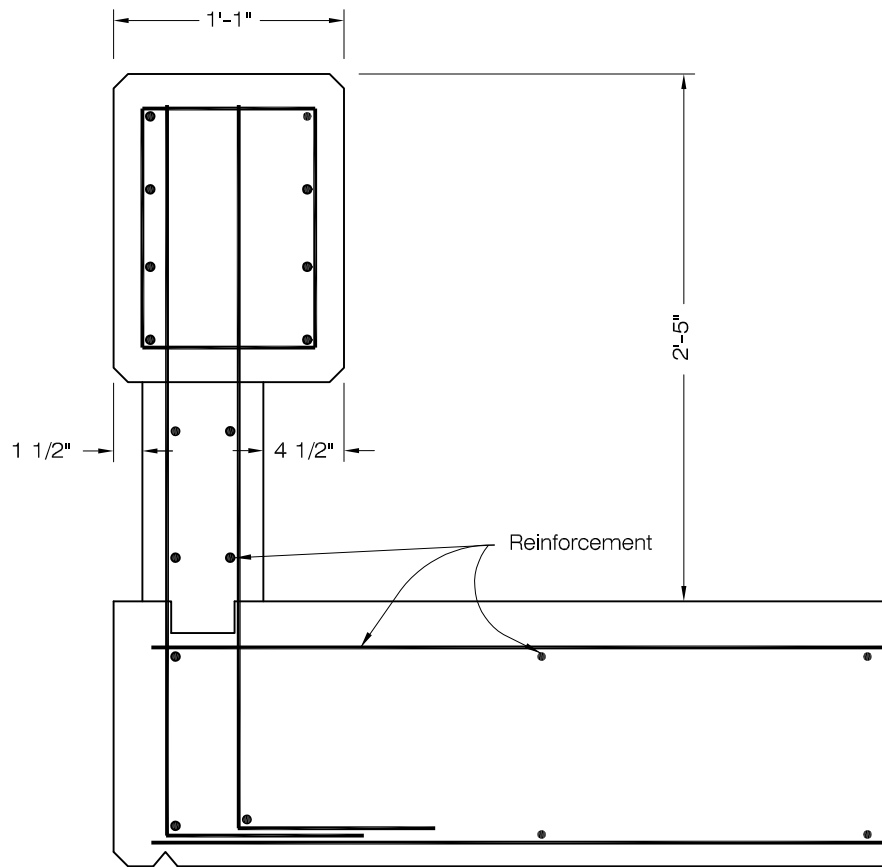
REVISION NO: 1
DATE: 03/01/02

**DRAWING
1101**

LOVELAND ONLY



Elevation of Traffic Rail



Section

Rail Height (in.)	29	
Test Vehicle (lb.)	1980# - Car	4660# - Car
Impact Speed (mph)	59	59
Impact Angle (degrees)	18.9	25.4

FROM AASHTO ROADWAY GUIDELINE

NOTE: This drawing has been converted from metric to English units.

OKLAHOMA TR-1 BRIDGE RAILING

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

REVISION NO:

DATE: 08/07/00

DRAWING

1102L

Technical drawing of a mechanical part, likely a bracket or arm, showing dimensions and a 10° R fillet.

Dimensions (in inches):

- Overall width: 1'-8"
- Distance from left edge to center of circular feature: 10 1/2"
- Distance from center of circular feature to right edge: 9 1/2"
- Height of circular feature: 1'-6"
- Radius of circular feature: 1 1/2"
- Radius of fillet: 10° R
- Height of main body: 1'-6 7/8"
- Height of base: 2'-7 7/8"
- Height of base section: 10"
- Width of base section: 3/8"
- Height of base section: 3"
- Height of base section: 12"
- Height of base section: 1 1/2"
- Height of base section: 1 1/2"

Rail Height (in.)	50
Test Vehicle (lb.)	80,150- Truck
Impact Speed (mph)	48
Impact Angle (degrees)	14.5

NOTE: This drawing has been converted from metric to English units.

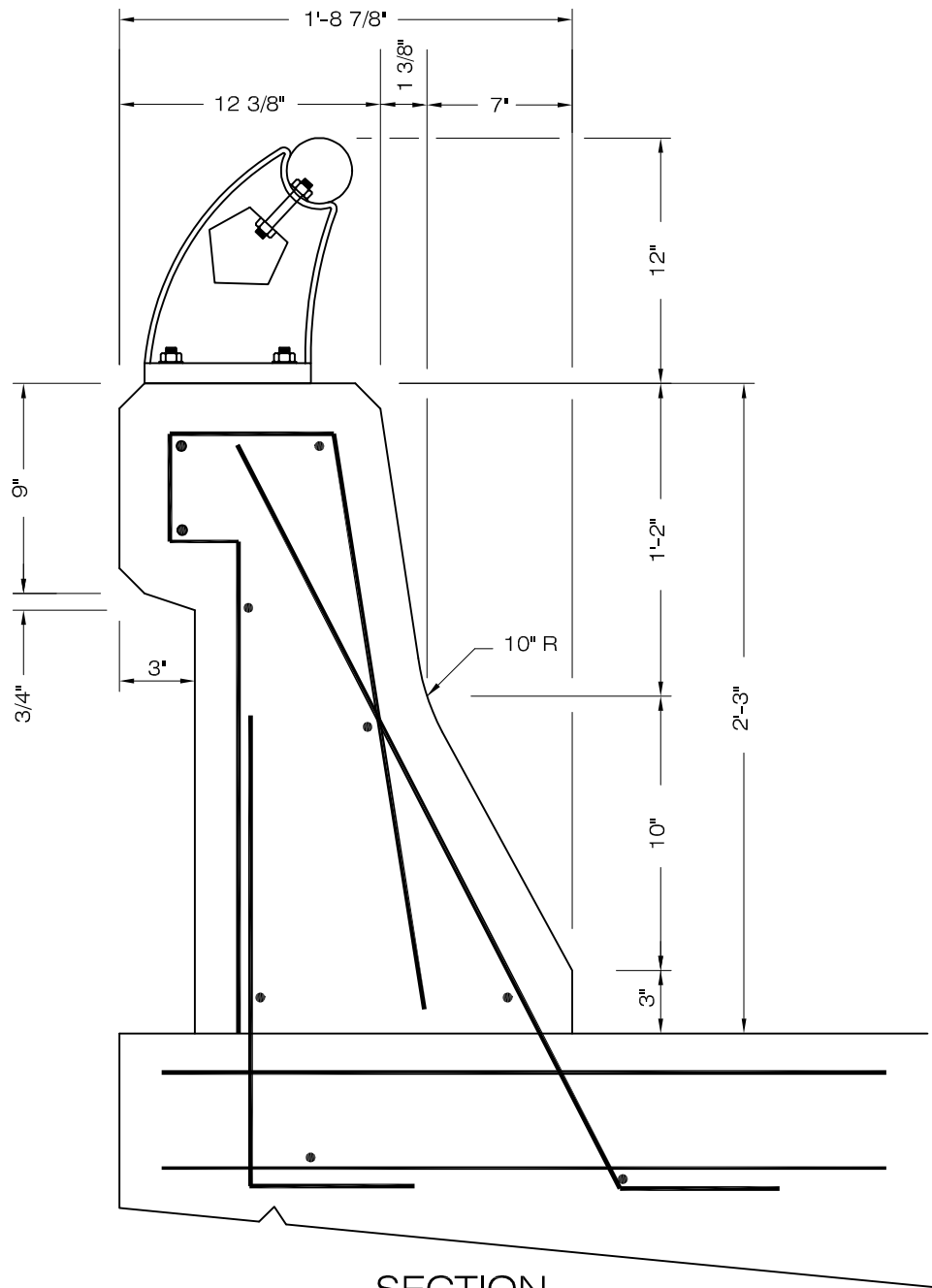
**LARIMER COUNTY
URBAN AREA
STREET STANDARDS**

REVISION NO:

DATE: 08/07/00

DRAWING
1103L

LOVELAND ONLY



SECTION

Rail Height (in.)	39		
Test Vehicle (lb.)	1900- Car	4600- Car	40,000- Bus
Impact Speed (mph)	61	62	59
Impact Angle (degrees)	19.3	24.9	16.4

FROM AASHTO ROADWAY GUIDELINE

NOTE: This drawing has been converted from metric to English units.

NEVADA CONCRETE SAFETY SHAPE

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

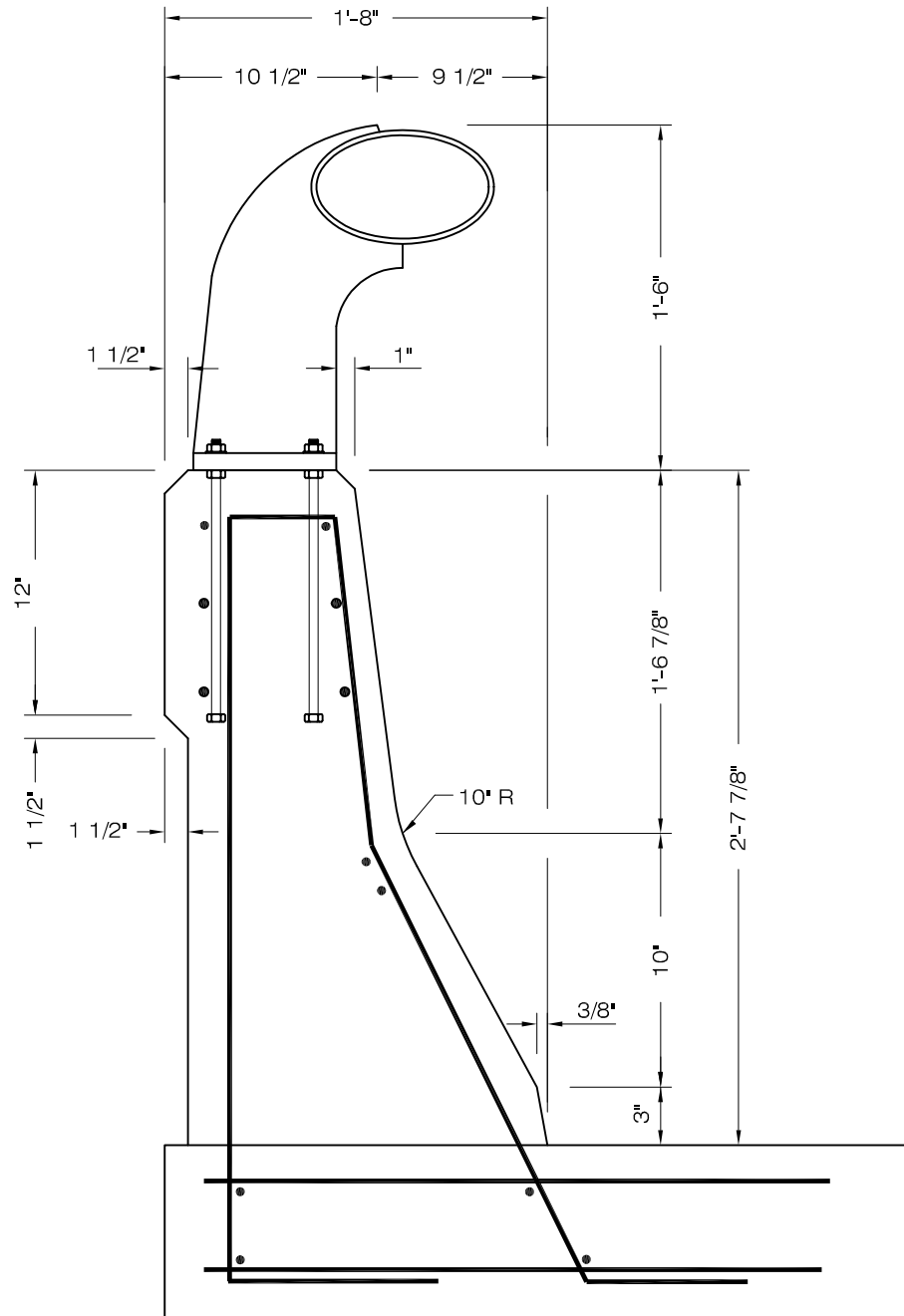
REVISION NO:

DATE: 08/07/00

DRAWING

1104L

LOVELAND ONLY



SECTION

Rail Height (in.)	50
Test Vehicle (lb.)	80,150- Truck
Impact Speed (mph)	48
Impact Angle (degrees)	14.5

FROM AASHTO ROADWAY GUIDELINE

NOTE: This drawing has been converted from metric to English units.

TEXAS TYPE HT

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

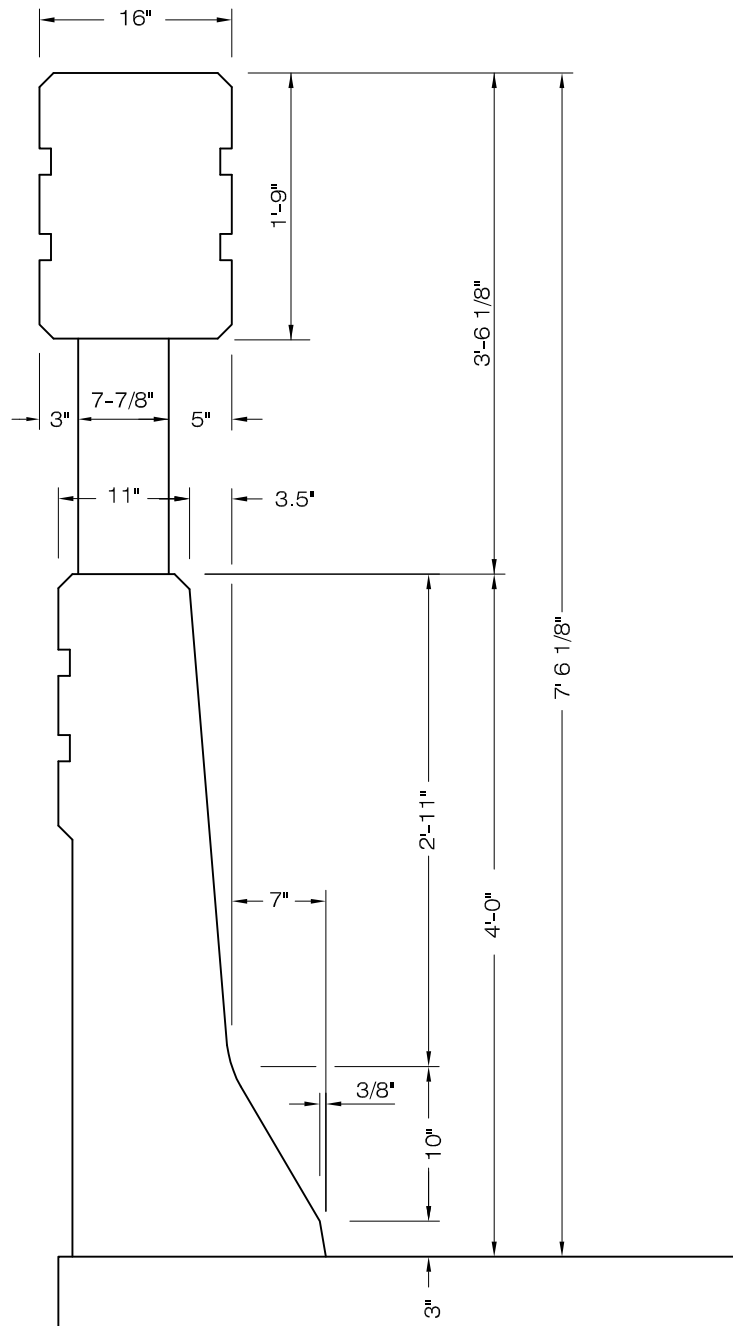
REVISION NO:

DATE: 08/07/00

DRAWING

1105L

LOVELAND ONLY



Rail Height (in.)	98
Test Vehicle (lb.)	80,190 -Tank Type Tractor-Trailer
Impact Speed (mph)	52
Impact Angle (degrees)	15.0

FROM AASHTO ROADWAY GUIDELINE

NOTE: This drawing has been converted from metric to English units.

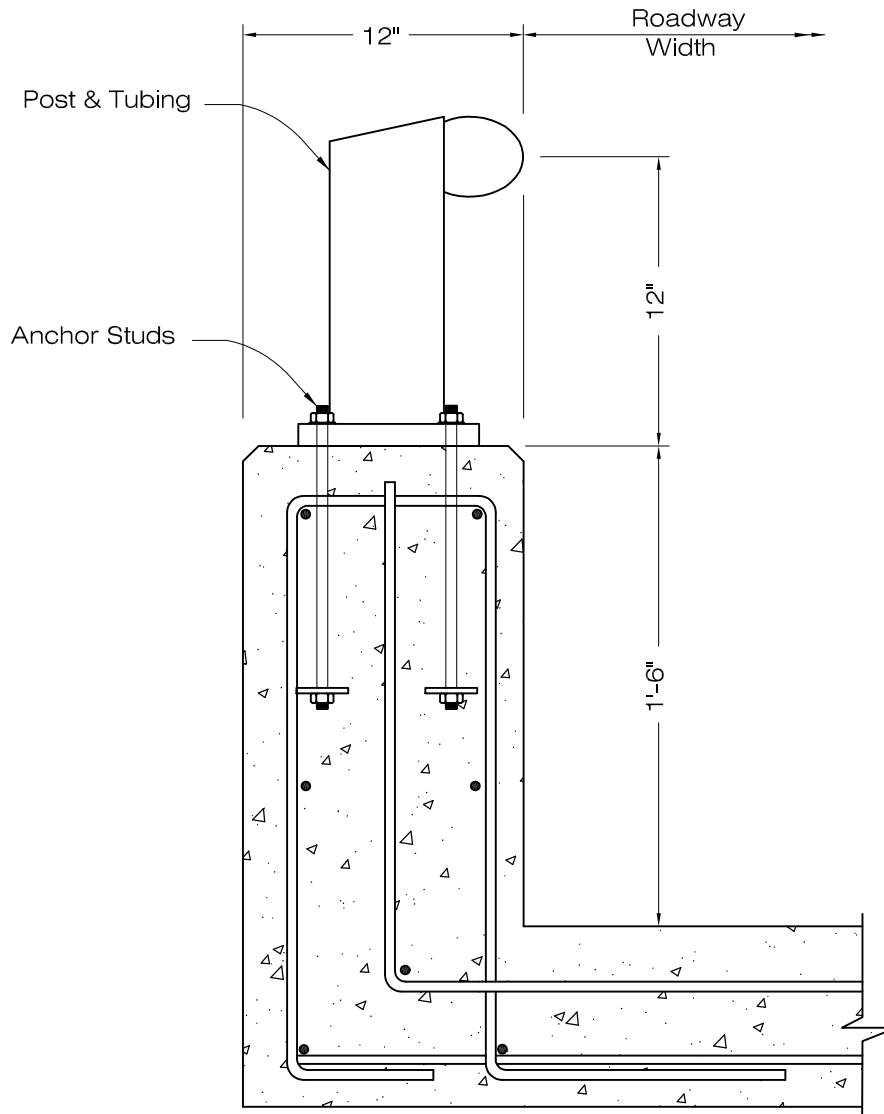
TEXAS TYPE TT

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

REVISION NO:
DATE: 08/07/00

DRAWING
1106L



Section Through Parapet & Rail

Rail Height (in.)	32"		
Test Vehicle (lb.)	1990- Car	4660- Car	20,000- Bus
Impact Speed (mph)	60	60	57
Impact Angle (degrees)	18.8	25.0	14.8

FROM AASHTO ROADWAY GUIDELINE

TYPE C ALUMINUM BRIDGE RAILING

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

REVISION NO:

DATE: 08/07/00

DRAWING

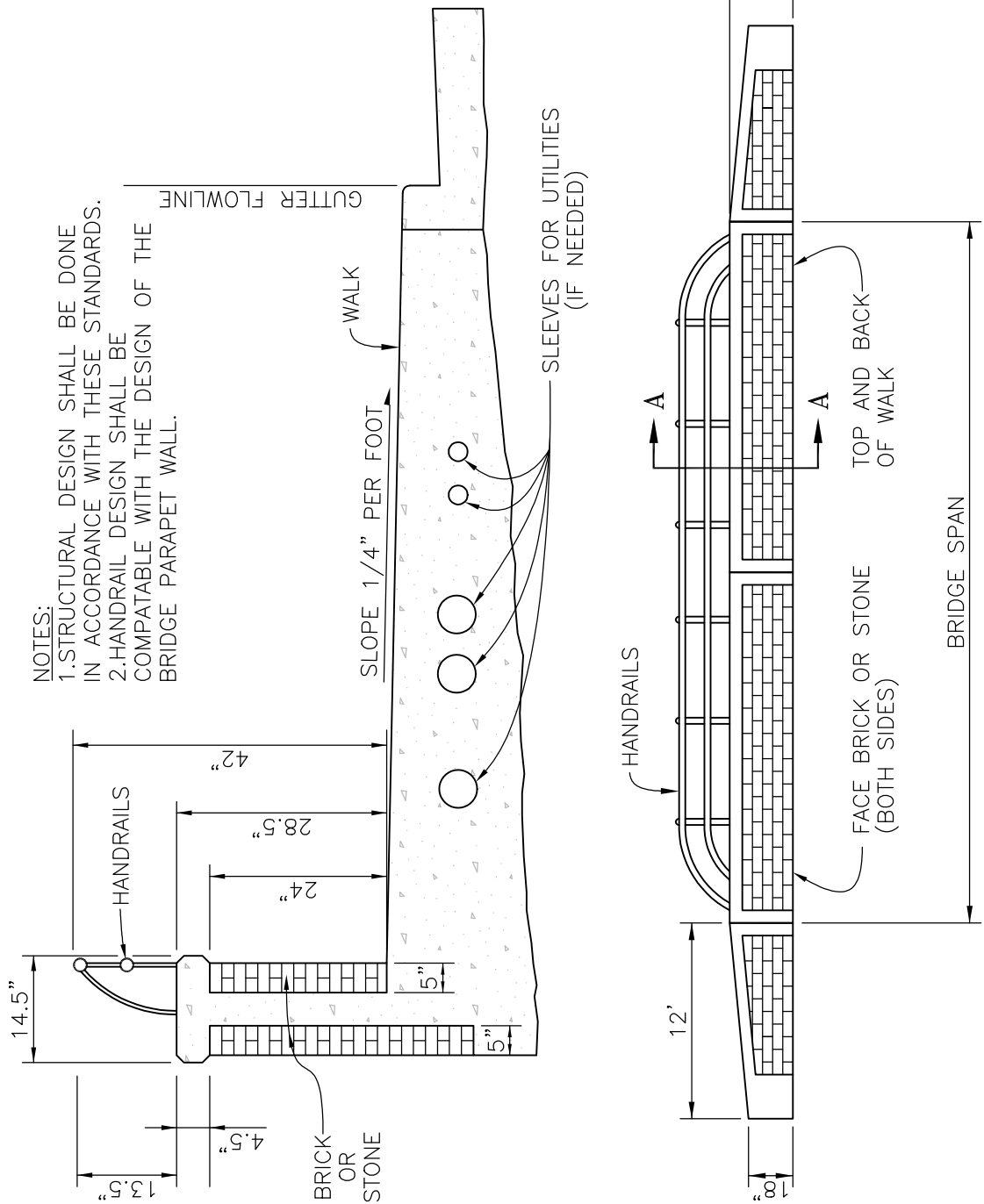
1107

FORT COLLINS ONLY

HEADWALL NOTES:

1. PROVIDE MASONRY TIES FOR EACH BRICK COURSE.
2. ALL EXPOSED CONCRETE SHALL HAVE A RUBBED FINISH.

THIS PLAN SPECIFIES APPEARANCE ONLY. THE STRUCTURE MUST BE DESIGNED TO FIT THE SPECIFIC CONDITIONS.



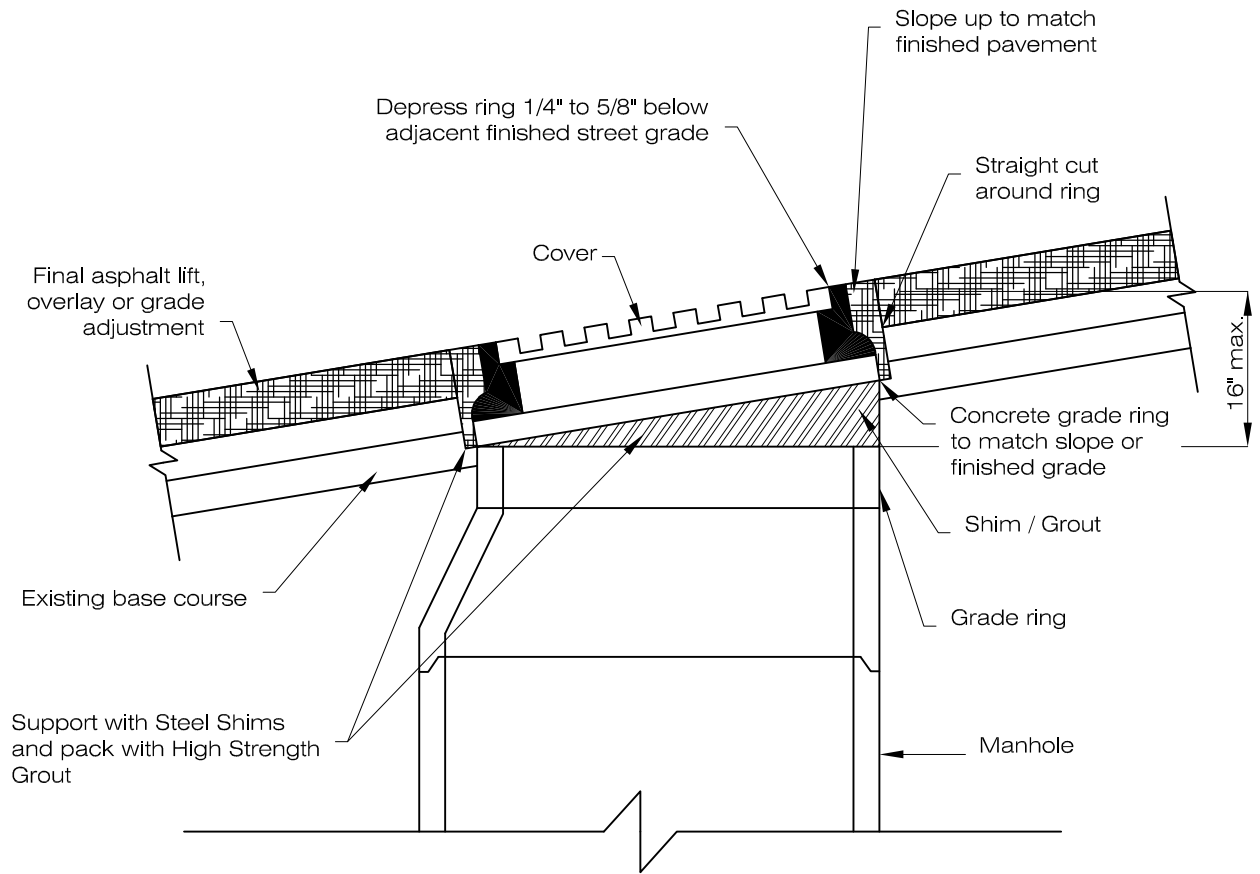
BRIDGE RAILING/PARAPET WALL CONFIGURATION DETAIL

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

REVISION NO: 1
DATE: 11/16/00

FIGURE
1108



NOTE:

1. Grout shall be a mixture of 100 lbs Grout mix, 26 lbs water (3.12 Gal), and 100 lbs of sand conforming to ASTM C-35.
2. Manholes shall not be located in crosspans, gutters, or wheel path.
3. Shim and grout to make ring and cover flush with the finished pavement surface.

STANDARD MANHOLE COVER

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

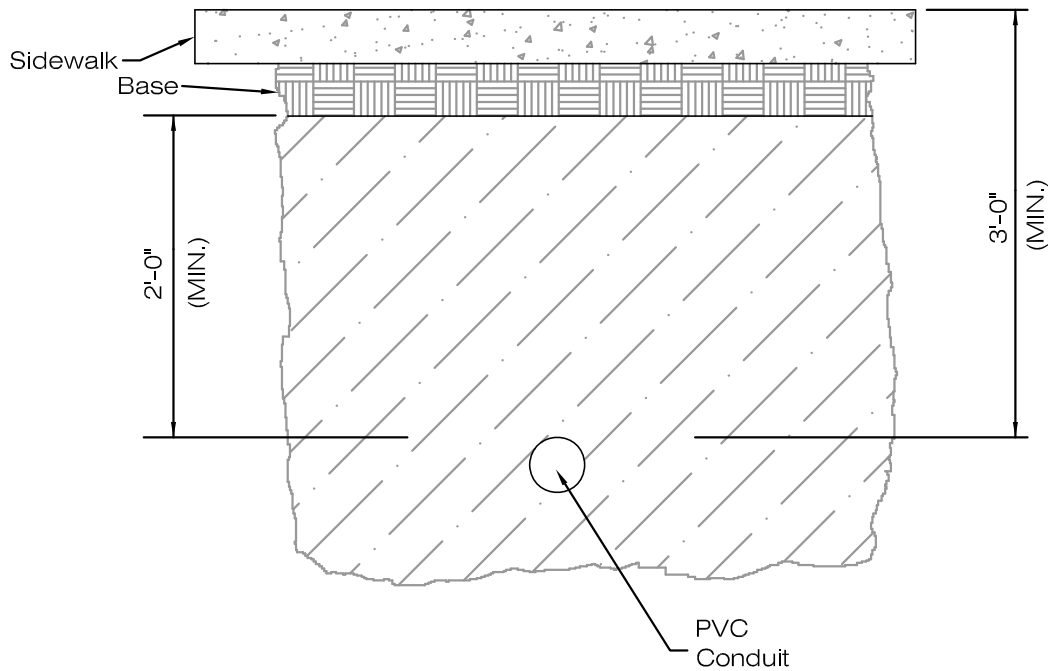
CONSTRUCTION
DRAWINGS

REVISION NO:

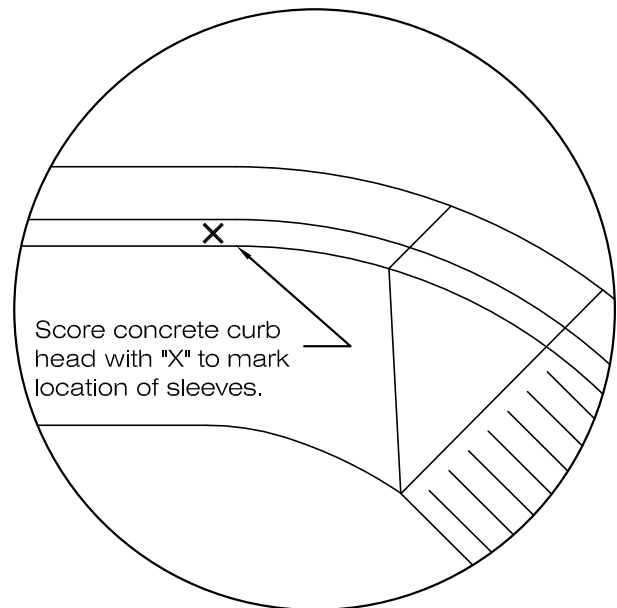
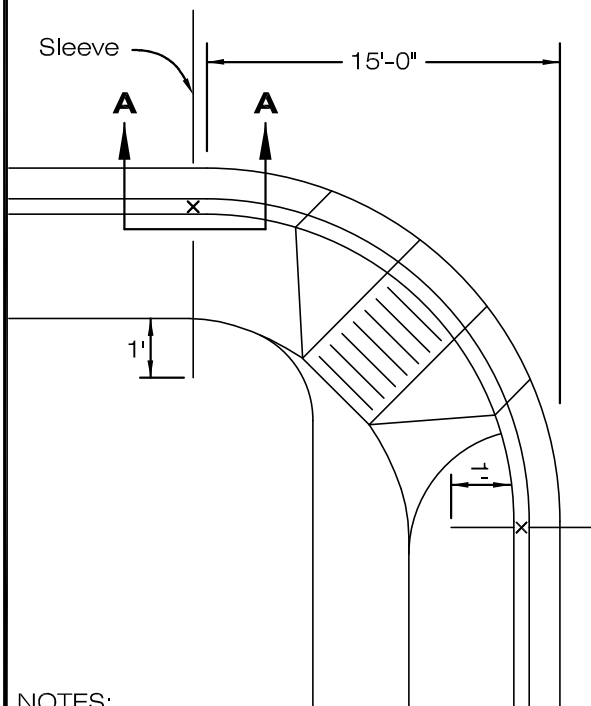
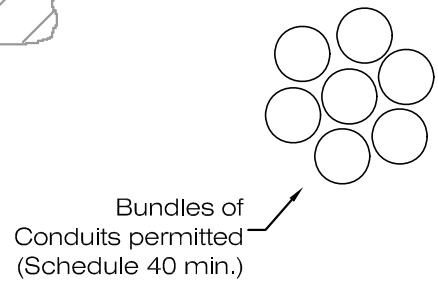
DATE: 08/07/00

DRAWING

1201



SECTION A-A



DETAIL

NOTES:

1. Match location of sleeves on curb head.
2. Depth of sleeve shall be no less than 3'-0" below street grade.
3. Bundles of sleeves are permitted.
4. Sleeves shall be installed with "Pull Wires".

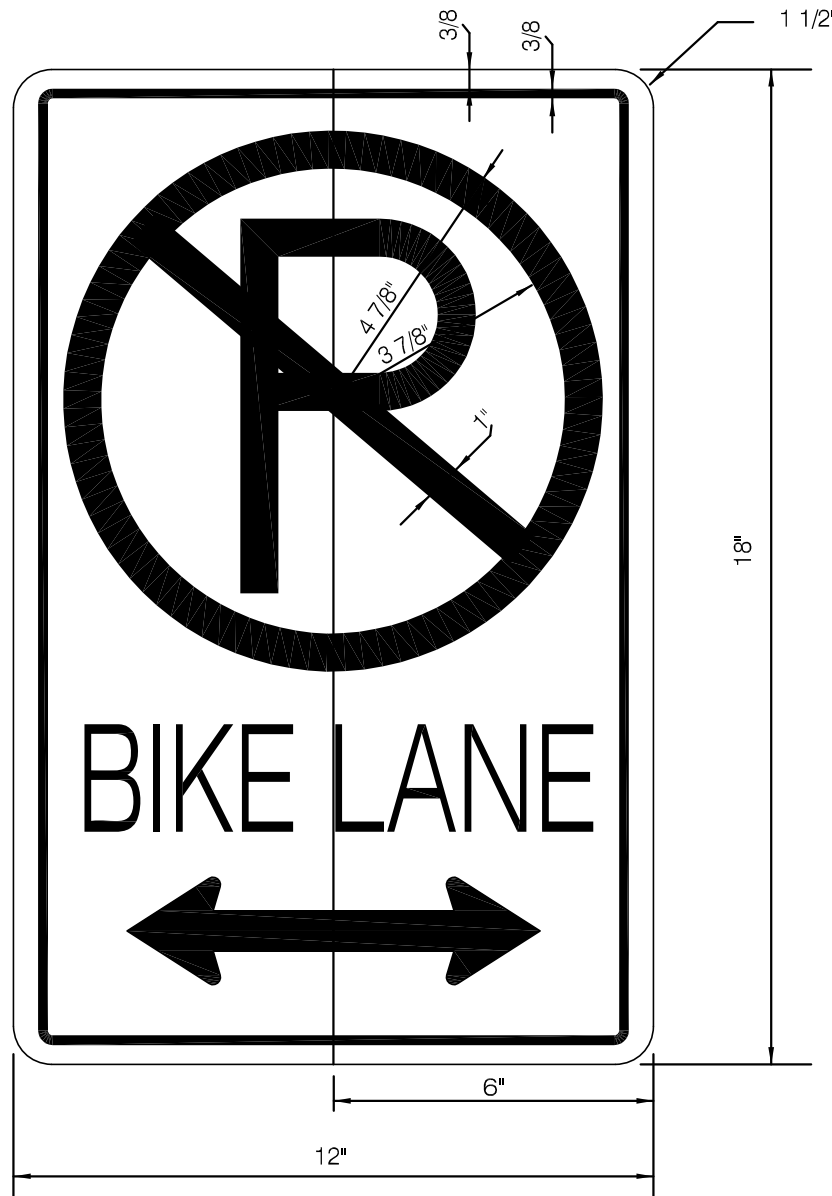
SLEEVE LOCATIONS

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

REVISION NO: 1
DATE: 04/01/07

DRAWING
1202



R7-9a

MUTCD Designation

COLOR SCHEDULE	
LEGEND, CIRCLE DIAGONAL, BORDER, "ARROW", "BIKE LANE"	RED
BACKGROUND	WHITE
"P"	BLACK

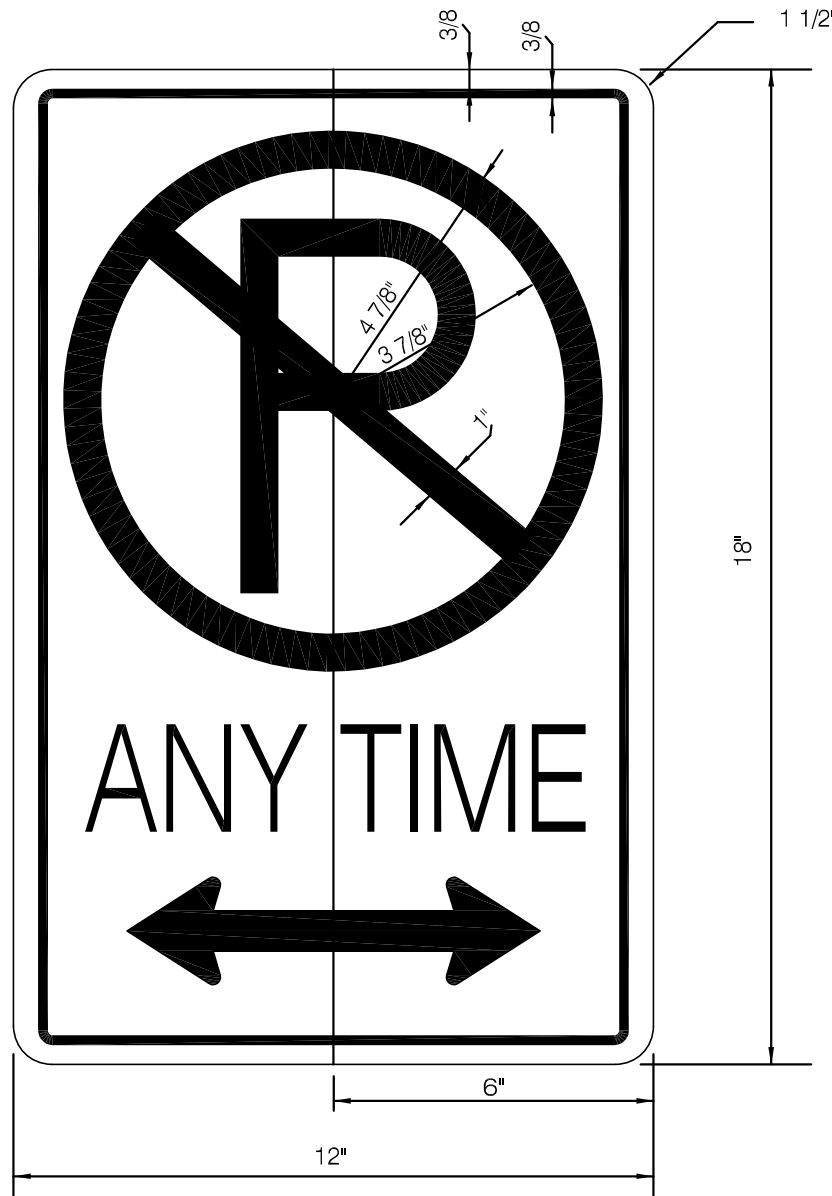
NO PARKING BIKE LANE SIGN DETAIL

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

REVISION NO: 2
DATE: 04/01/07

DRAWING
1402a



R7-9a

MUTCD Designation

COLOR SCHEDULE	
LEGEND, CIRCLE DIAGONAL, BORDER, "ARROW", "ANY TIME"	RED
BACKGROUND	WHITE
"P"	BLACK

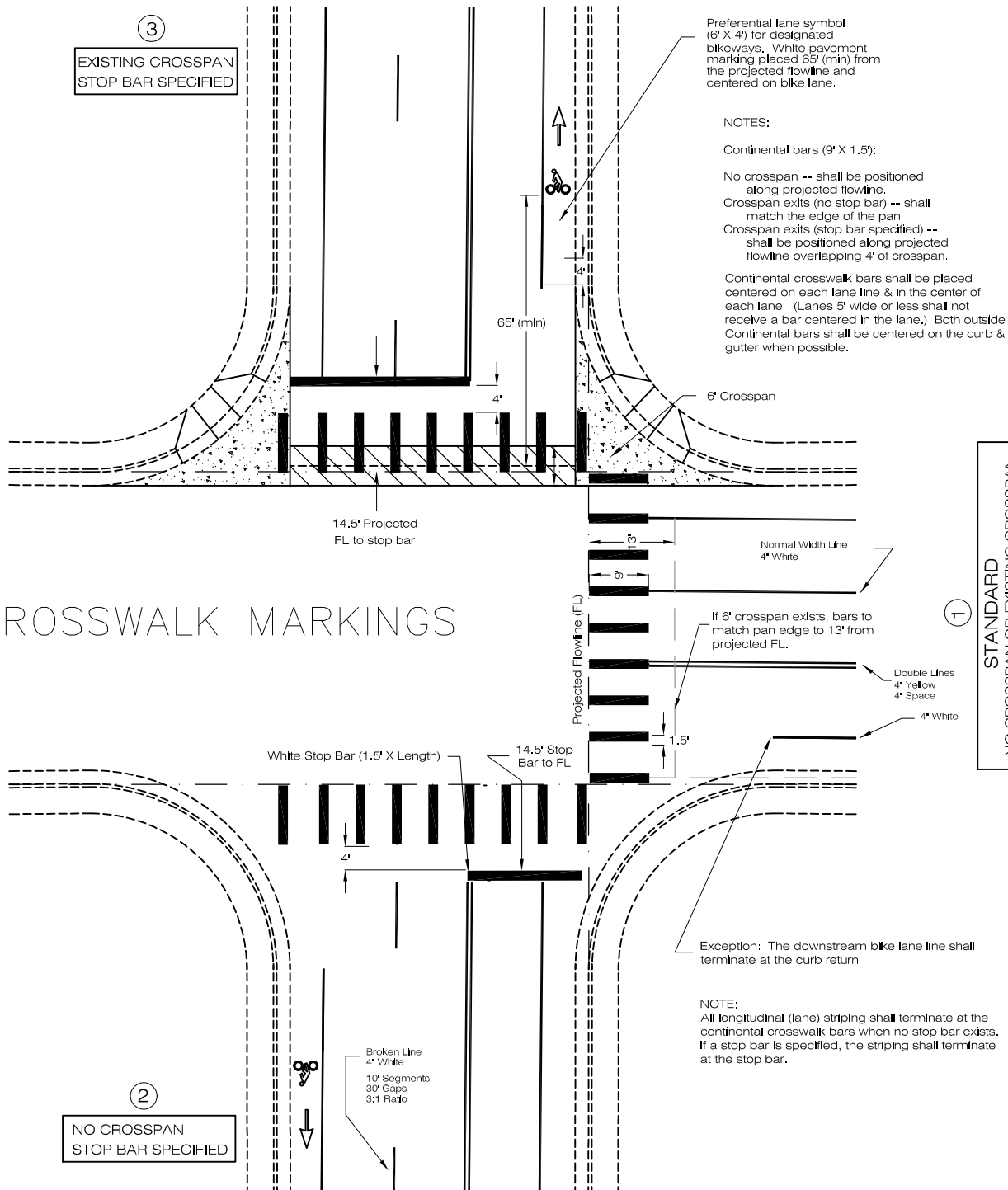
NO PARKING ANY TIME SIGN DETAIL

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

REVISION NO: 2
DATE: 04/01/07

DRAWING
1402b



STANDARD PAVEMENT MARKINGS

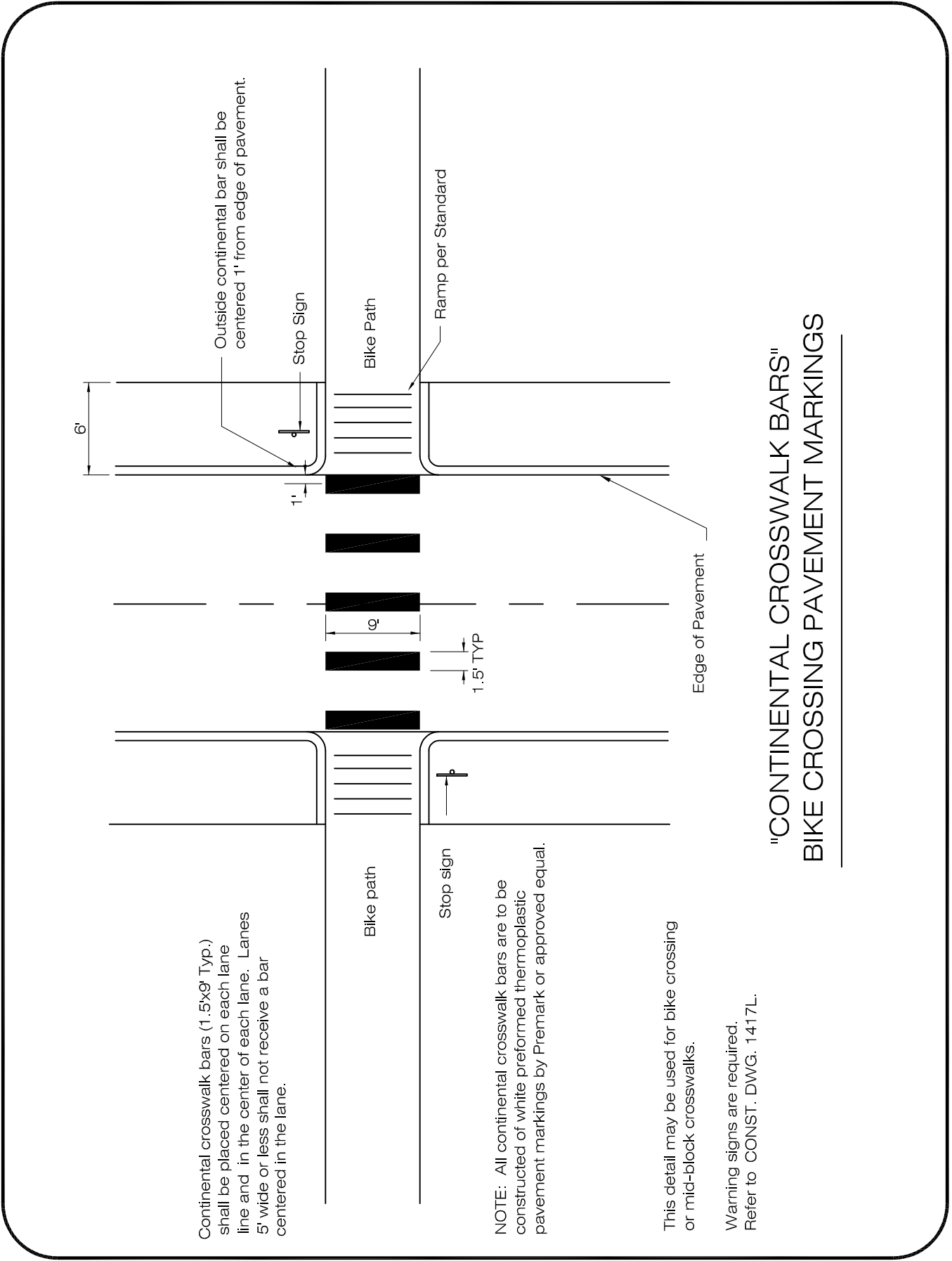
LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

REVISION NO: 1
DATE: 03/01/02

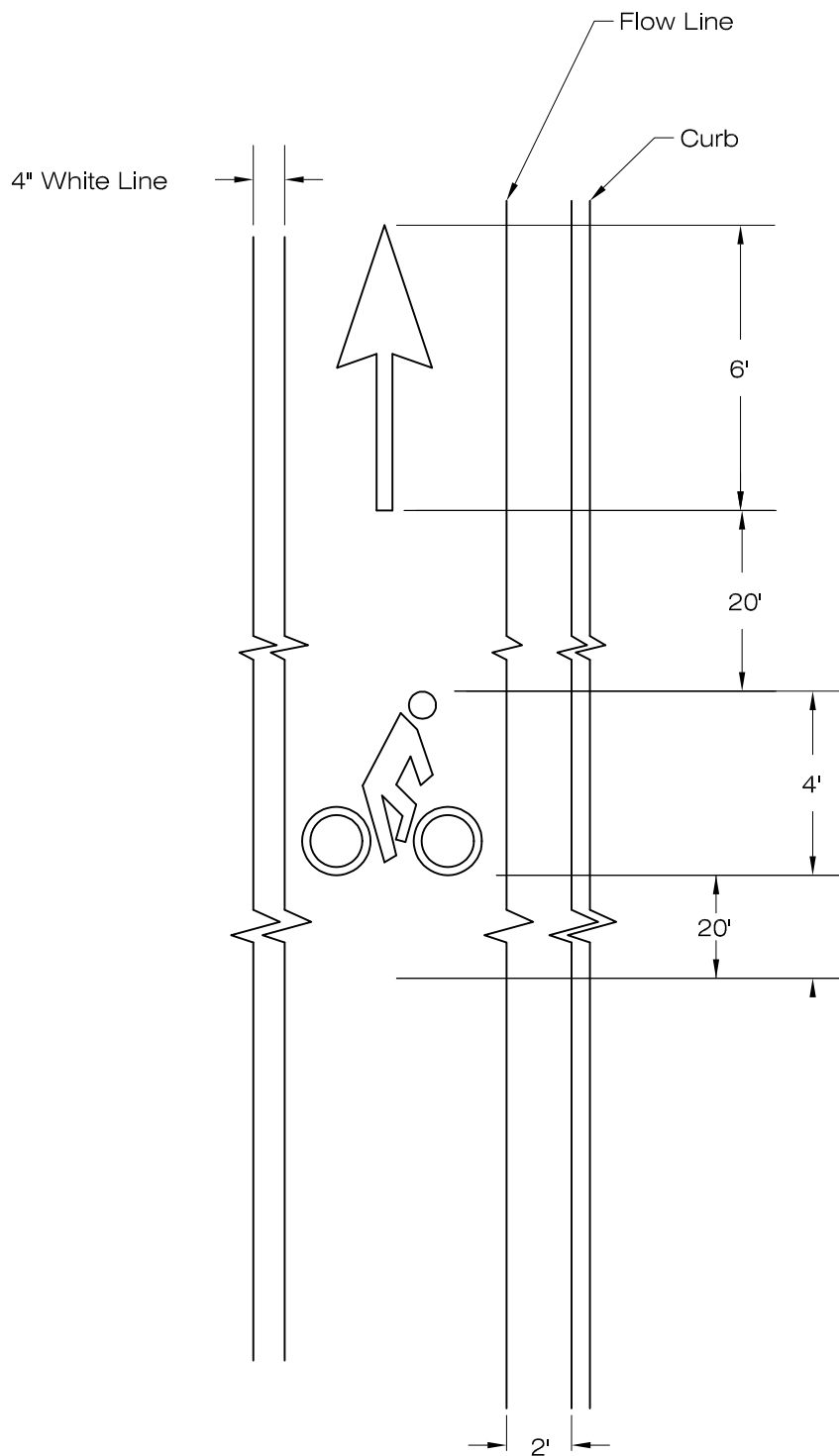
DRAWING
1403

DRAWING
1404



"CONTINENTAL CROSSWALK BARS" BIKE CROSSING PAVEMENT MARKINGS

PAVEMENT MARKINGS FOR BIKE CROSSING			
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO:	DRAWING 1405
		DATE: 08/07/00	



TYPICAL BICYCLE LANE PAVEMENT MARKINGS

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

REVISION NO: 1
DATE: 03/01/02

DRAWING
1406

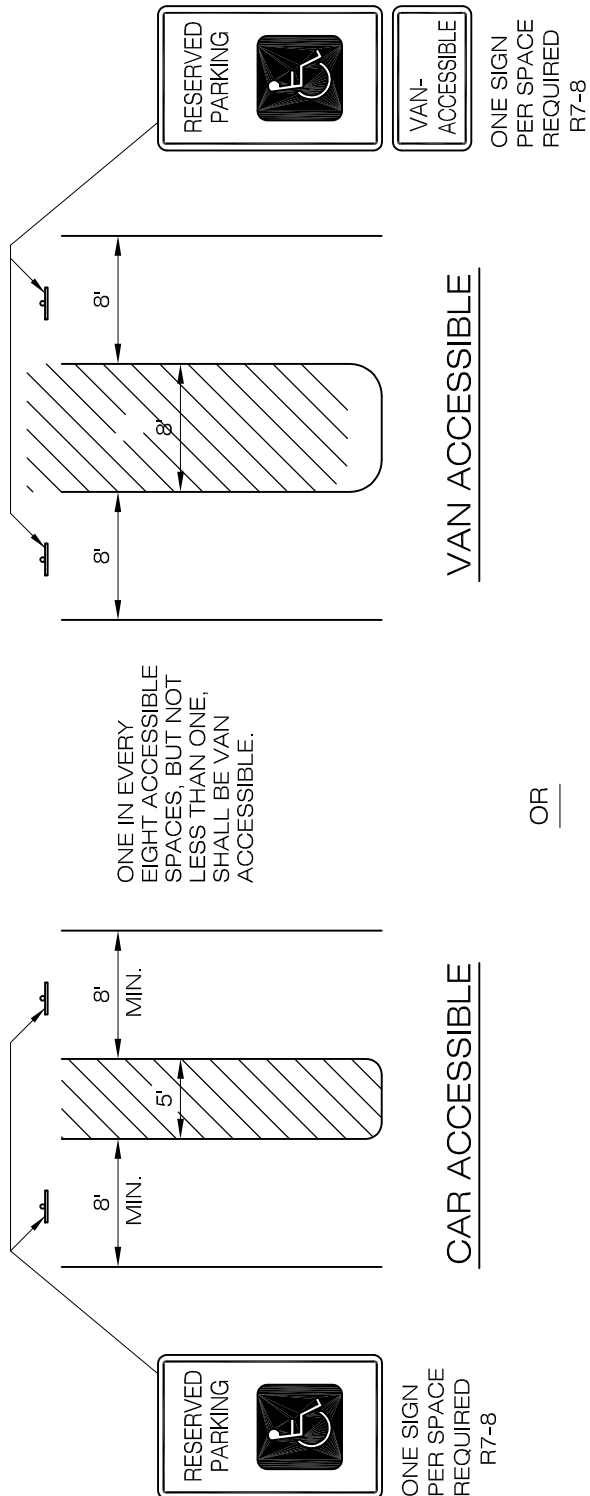
HANDICAP PARKING REQUIREMENTS (AS PER "ADA")

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

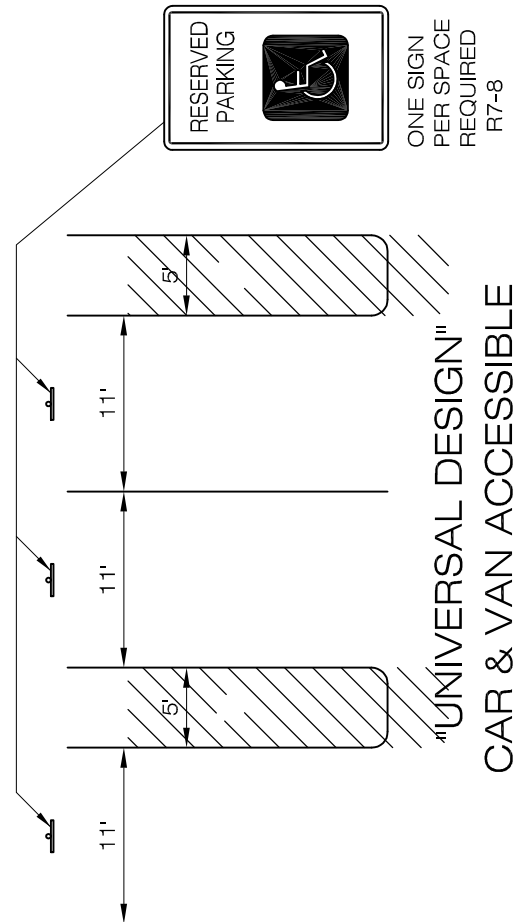
REVISION NO: 1
DATE: 03/01/02

DRAWING
1407



OR

A "UNIVERSAL" PARKING SPACE DESIGN MAY BE USED. THIS DESIGN IS USED TO ACCOMMODATE CAR & VAN ACCESSIBLE PARKING SPACES, WHICH ELIMINATES THE NEED FOR TWO SIGN TYPES.

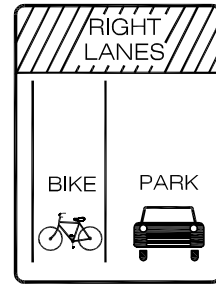
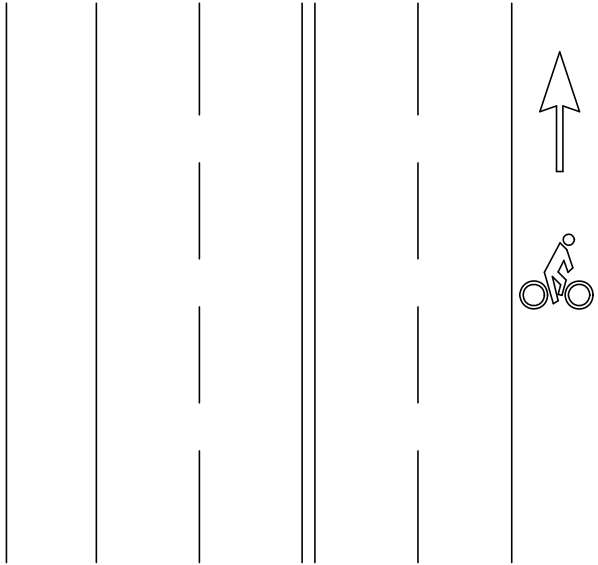


LOVELAND ONLY

The bike and parking only sign may be used in two separate applications:

- *1. Where there is enough lane width for the painted line with a five foot wide bicycle lane and seven feet of undesignated parking lane.
- *2. Where the bicycle lane is designated by two painted lines and eight feet of parking lane.

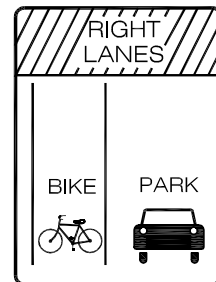
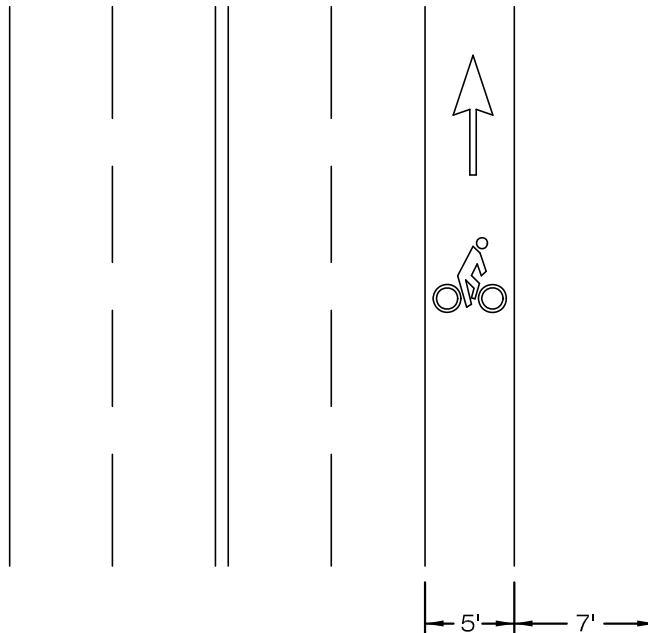
*1



R3-17a Modified
12" x 18"
(Black on White)

See **CONST. DWG. 1409L** for detail.

*2



R3-17a Modified
12" x 18"
(Black on White)

BICYCLE AND PARKING PAVEMENT MARKINGS

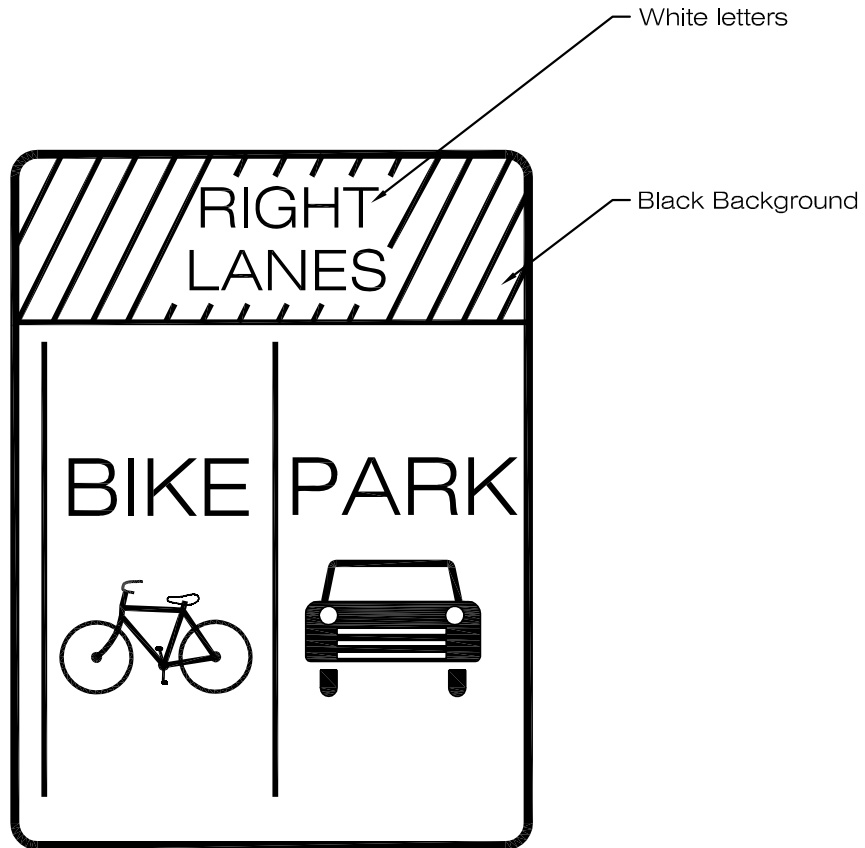
LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

REVISION NO: 2
DATE: 04/01/07

DRAWING
1408L

LOVELAND ONLY



R 3-17a Modified
12" x 18"
(Black on White)

BICYCLE / PARKING SIGN

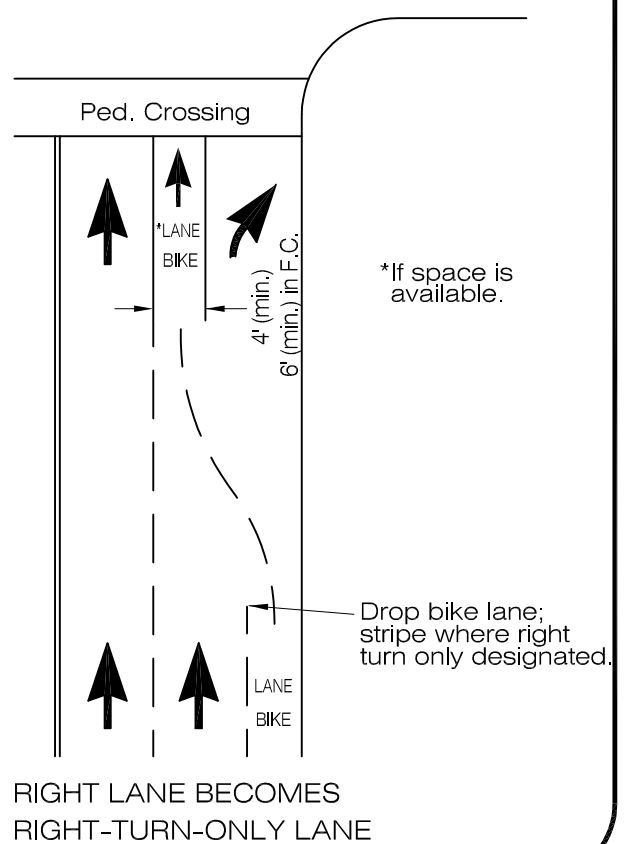
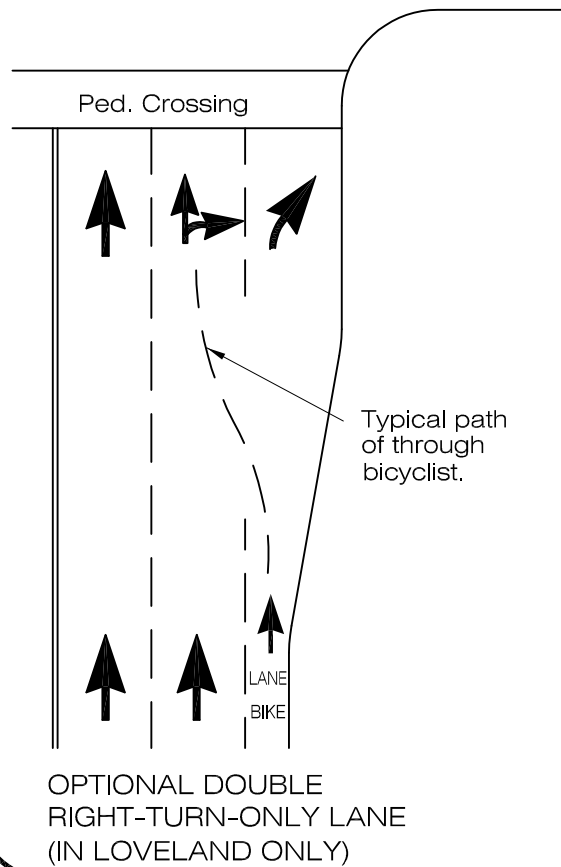
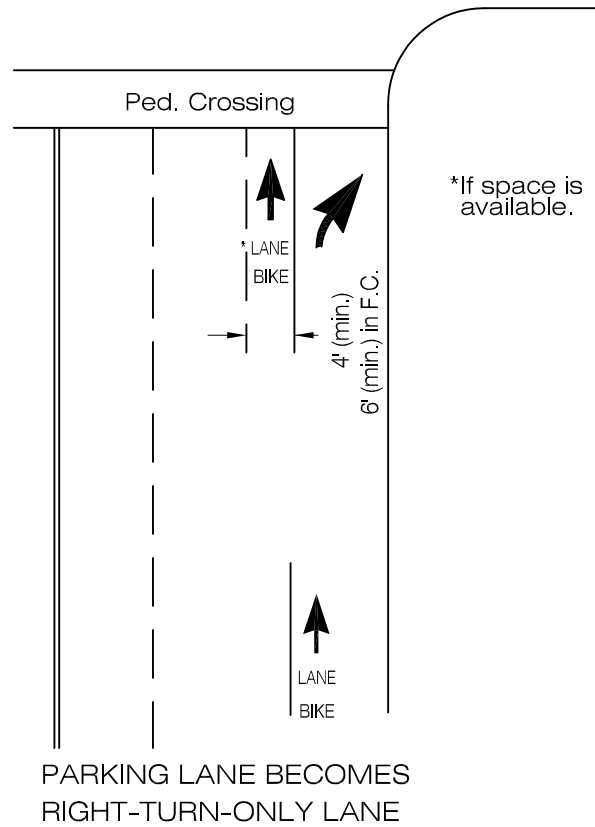
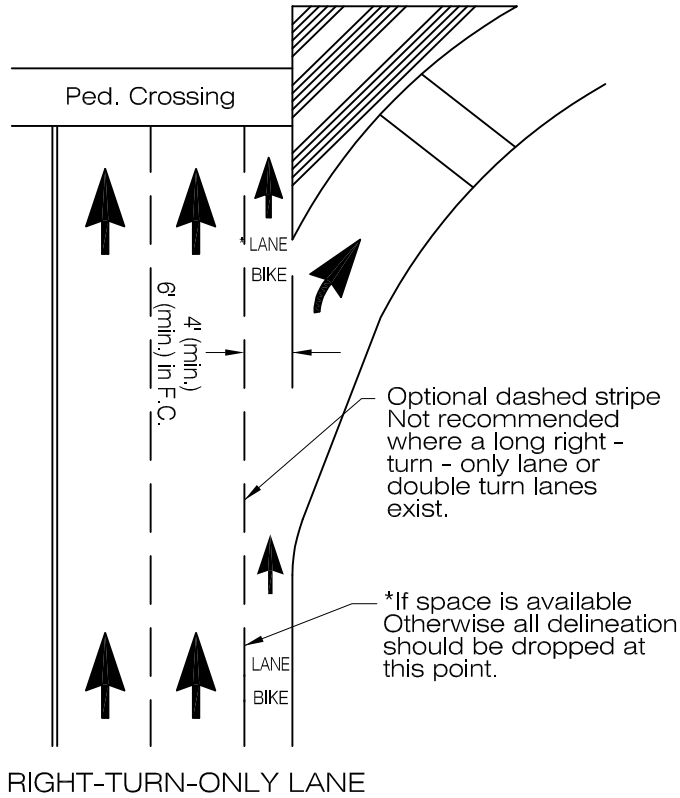
LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

REVISION NO: 1
DATE: 04/01/07

DRAWING
1409L

(Metric Conversion: 1 ft. = 0.3 m.)



BICYCLE LANE APPROACHING VEHICLE RIGHT TURN LANE

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

REVISION NO:

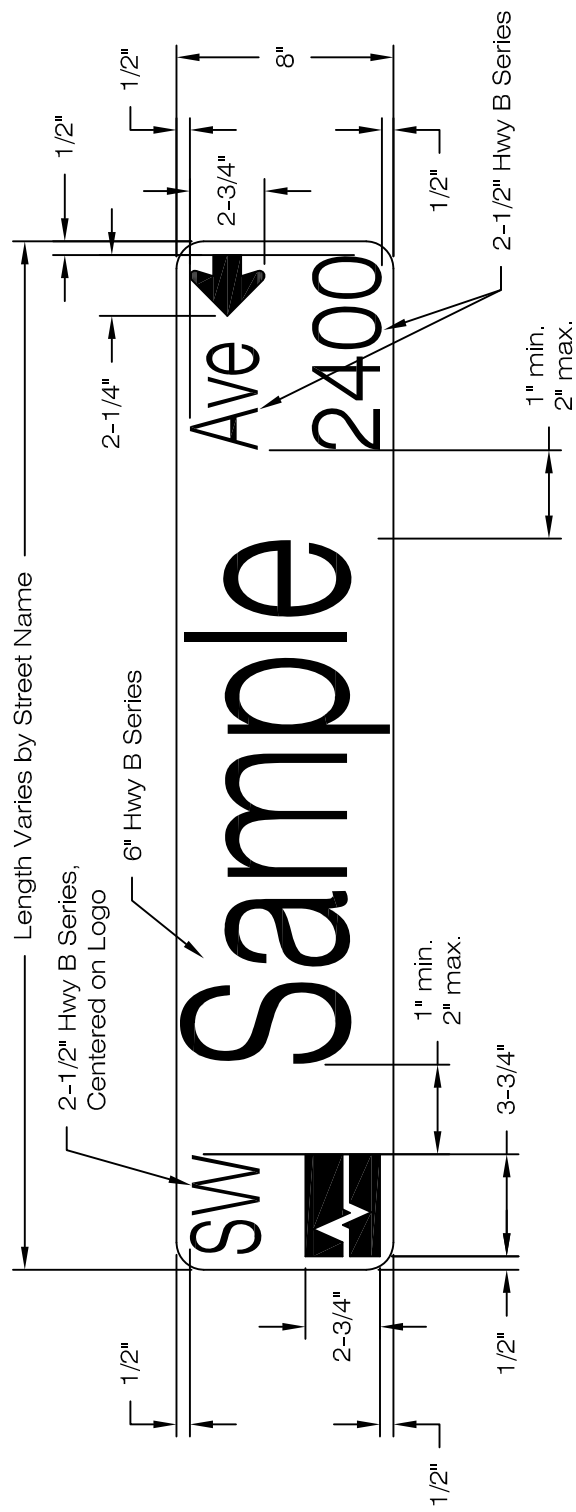
DATE: 08/07/00

DRAWING

1410

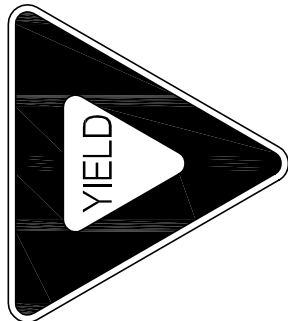
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 3	DRAWING 1411
		DATE: 08/01/21	

STREET NAME SIGN

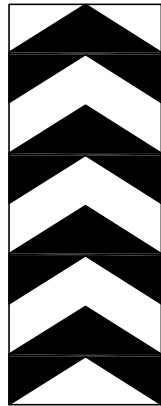


NOTES:

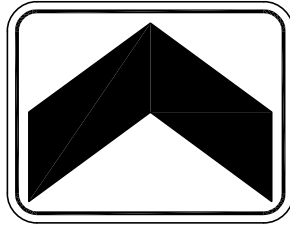
1. Street name must be 6" (min.) mixed case white letters, FHWA Series "B".
2. Prefix must be 2" letters, FHWA Series "B" and placed on the upper left.
3. Suffix must be 2" (min.) letters and block number must be 2" (min.) numbers, FHWA Series "B".
4. Overall sign length dimension varies according to length of street name.
5. All sign lettering and green background material must be at least Diamond Grade sheeting per FHWA; No silk screened signs will be permitted.
6. Street numbers shall always point to higher block number.
7. Aluminum sign blank shall be 0.10 thickness with 3/4" radius corners.
8. Loveland only, signalized intersection signs shall be 18" (min.) in height.
9. All street name signs shall be retroreflective.



RI-2
36" x 36" x 36"
(Red on White)



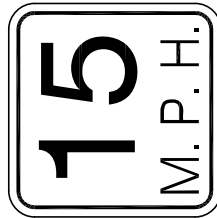
W1-8a
54" x 24" (min.)
(Black on White)



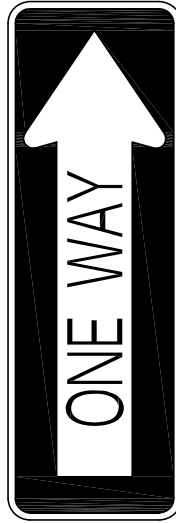
W1-8
18" x 24"



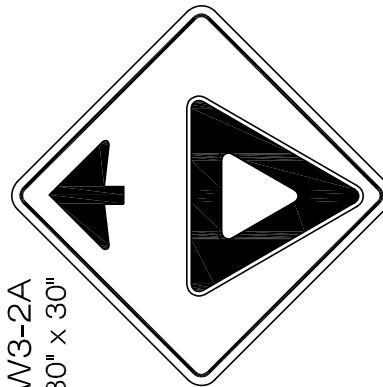
W11-2a
30" x 30"



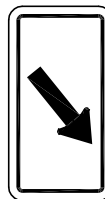
W13-1
18" x 18"



R6-1
54" x 18"
*This sign should only be used on major/larger roundabouts.



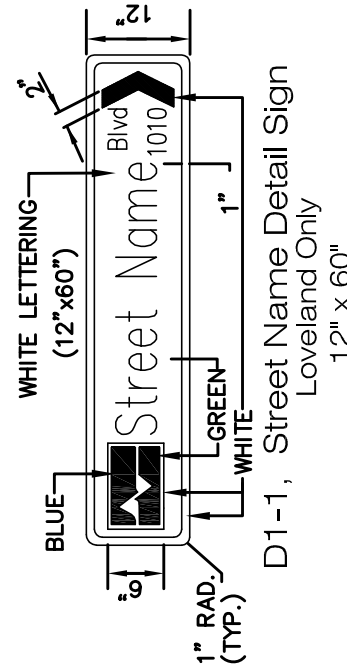
W3-2A
30" x 30"



W16-7P
24" x 18"



W2-6
30" x 30"
(Black on Yellow)



D1-1, Street Name Detail Sign
Loveland Only
12" x 60"

*This street name sign should only be used on Urban Roundabouts, mounted directly to sign post with rivets and nylon washers; 4 each per installation. (Use 8" blank for Mini-Roundabouts)



24" x 18"

See the FHWA Roundabout Guidelines for additional signing details.

URBAN ROUNDABOUT SIGN DETAILS

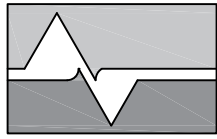
LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

REVISION NO: 2
DATE: 04/01/07

DRAWING
1412

LOVELAND ONLY



NOTICE

THIS ROAD WILL BE
EXTENDED WITH
FUTURE DEVELOPMENT
FOR MORE INFO CONTACT
CITY OF LOVELAND
PUBLIC WORKS DEPARTMENT
970-962-2501

Notes:

1. Sign dimensions 30"x30"
2. White Lettering on Green Background
3. For Sign Mounting, see LCUASS Drawing 1401

FUTURE ROAD EXTENSION SIGN

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

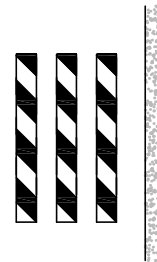
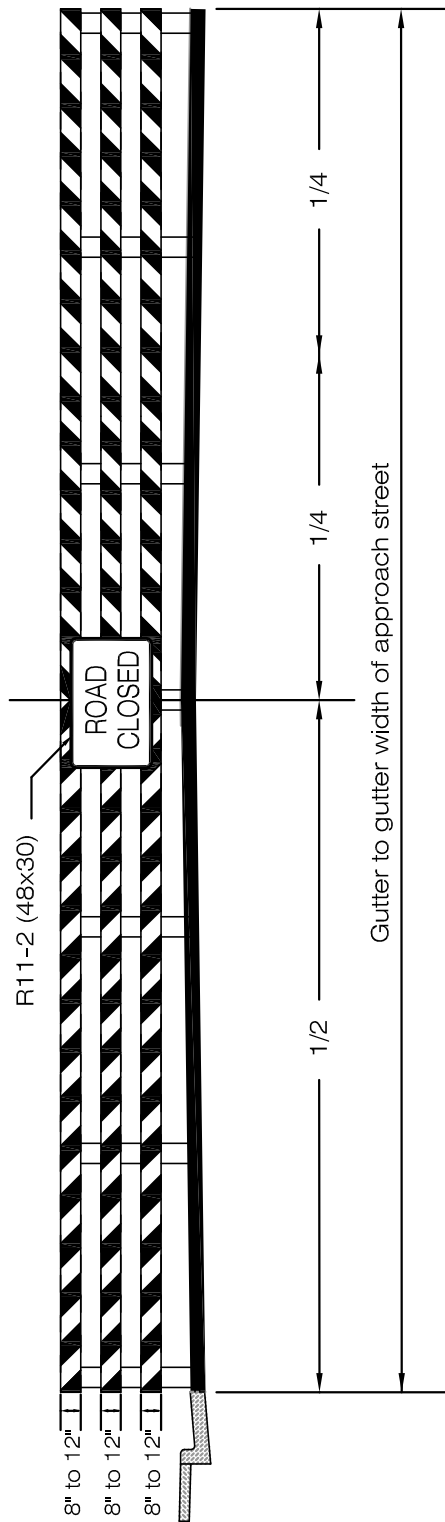
CONSTRUCTION
DRAWINGS

REVISION NO:

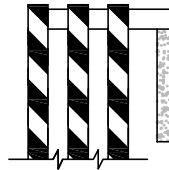
DATE: 08/01/21

DRAWING

1412L



DETACHED OR SIDEWALK
DOES NOT END AT BARRICADE



ATTACHED / SIDEWALK
ENDS AT BARRICADE

NOTES:

1. Rails shall be nominal lumber dimension.
2. Posts shall be 6" x 6" pressure treated, rot-resistant lumber.
3. Use 6" wide reflectorized orange stripes on reflectorized white background, front side only, paint back and edges white.
4. Other options may be used as approved by Local Entity Engineer.

These signs and barricades must be installed by the Developer at the end of all new streets that dead end on a temporary basis, and must be maintained by the Developer until the street is extended by future development.

STANDARD TEMPORARY DEAD END BARRICADES

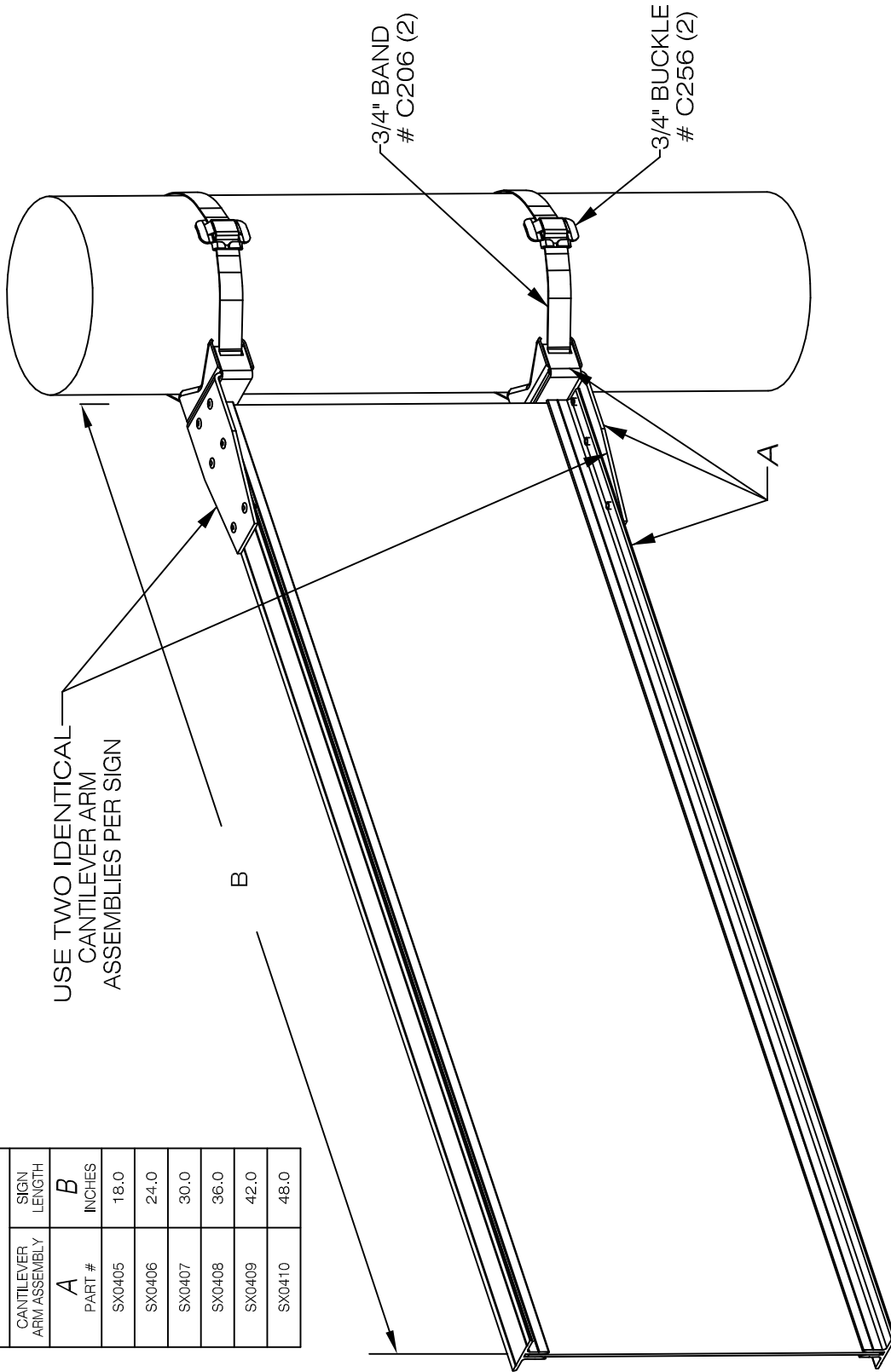
LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

REVISION NO: 2
DATE: 04/01/07

DRAWING
1413

BAND-IT		SIGN LENGTH
CANTILEVER ARM ASSEMBLY	A	B
PART #		INCHES
SX0405		18.0
SX0406		24.0
SX0407		30.0
SX0408		36.0
SX0409		42.0
SX0410		48.0



NOTES:

1. Standard drilling (5/16" x 18" x 1/2" set screw).
2. Bolt Thru drilling (1/4" x 20" x 1/2" socket head bold).
3. BAND-IT is a unit of the IDEX Corporation.

CANTILEVER ARM BRACKET FOR FLAT OR EXTRUDED BLADES

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

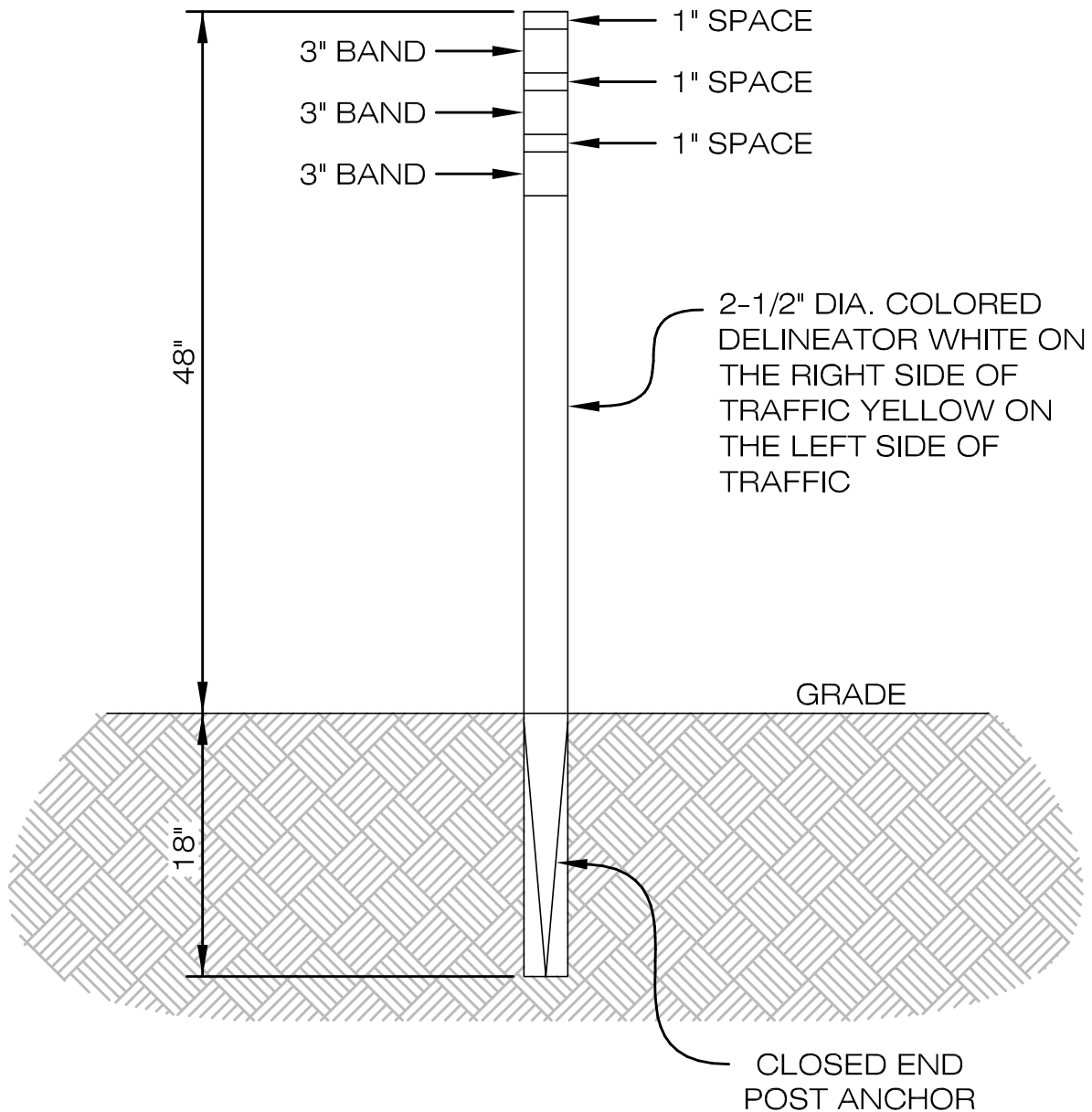
CONSTRUCTION
DRAWINGS

REVISION NO:

DATE: 08/07/00

DRAWING

1414



NOTES:

DELINEATORS ARE ROUND W/ YELLOW OR WHITE REFLECTIVE MATERIAL WRAPPED AROUND WITH THE **SAME COLOR REFLECTIVE MATERIAL (BAND)** AS THE POST (YELLOW OR WHITE). THE REFLECTIVE MATERIAL IS WRAPPED ALL THE WAY AROUND THE DELINEATORS SO THAT THEY ARE VISIBLE FROM ALL DIRECTIONS.

THE NUMBER OF REFLECTIVE BANDS ON THE DELINEATOR SHALL BE THREE.

IF ANCHOR IS LOCATED IN AN ISLAND OR PAVED MEDIAN, A 4" DIA. PVC SLEEVE SHALL BE EXTENDED THROUGH THE PAVEMENT FOR POST ANCHOR (STUB).

DELINEATOR DETAIL (SAFE HIT)

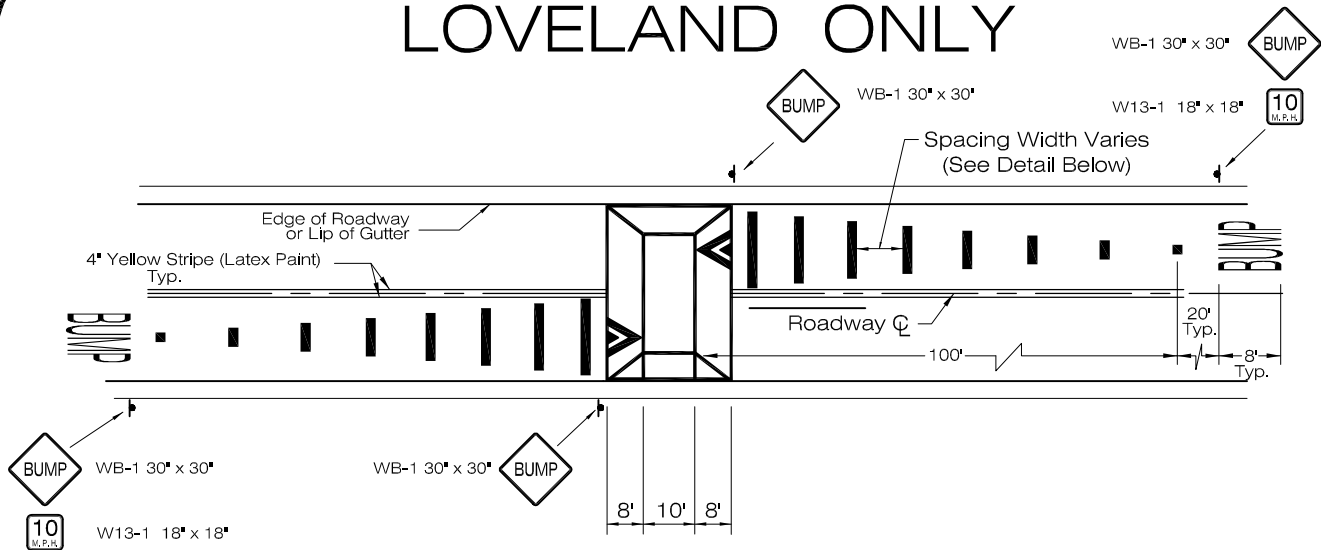
LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

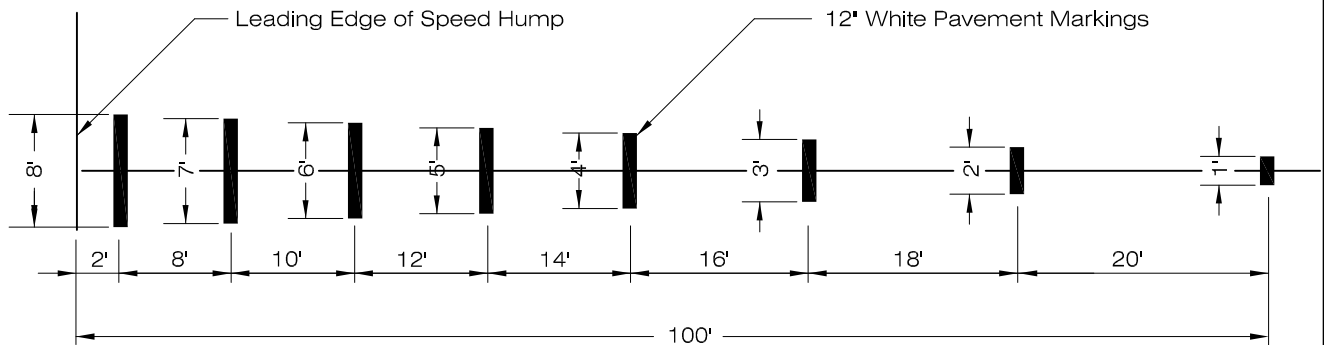
REVISION NO: 2
DATE: 04/01/07

DRAWING
1415

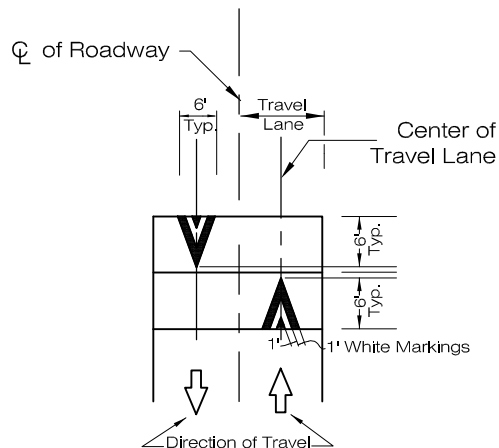
LOVELAND ONLY



PLAN VIEW



GRADUATED BAR DETAIL



CHEVRON DETAIL

NOTES:

1. Graduated bars, chevron and "Bump" markings are centered in the travel lanes.
2. All pavement markings (except the centerline striping) are to be pre-formed thermoplastic (PREMARK by Flint Trading, or equal)

SIGNS & PAVEMENT MARKINGS FOR SPEED TABLES

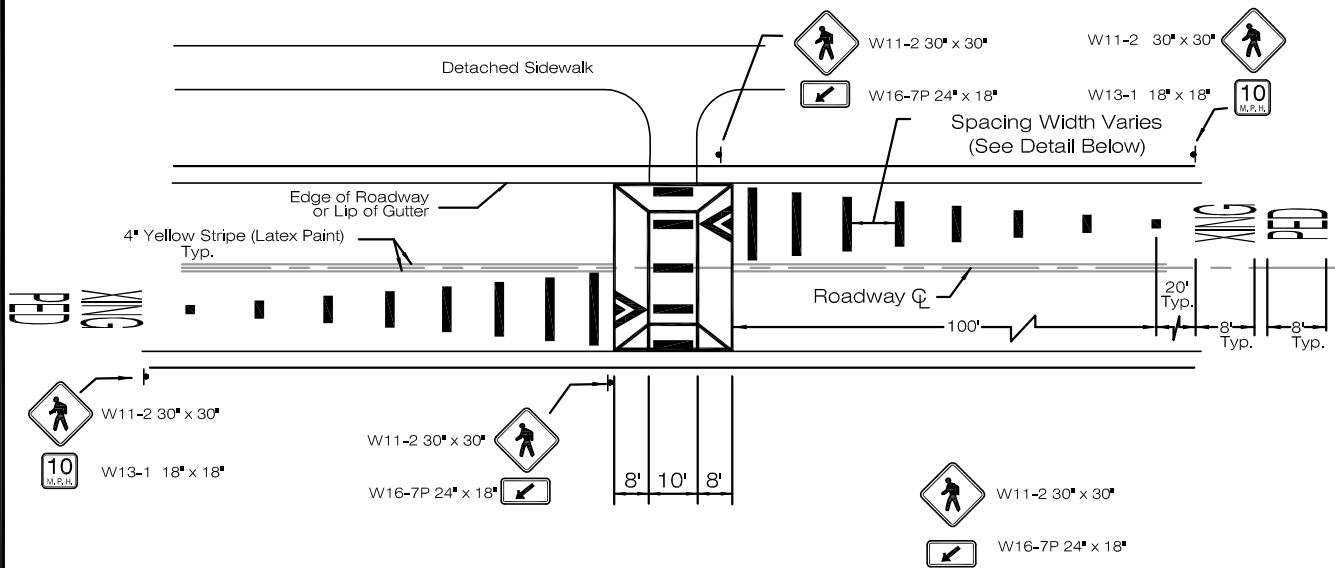
LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

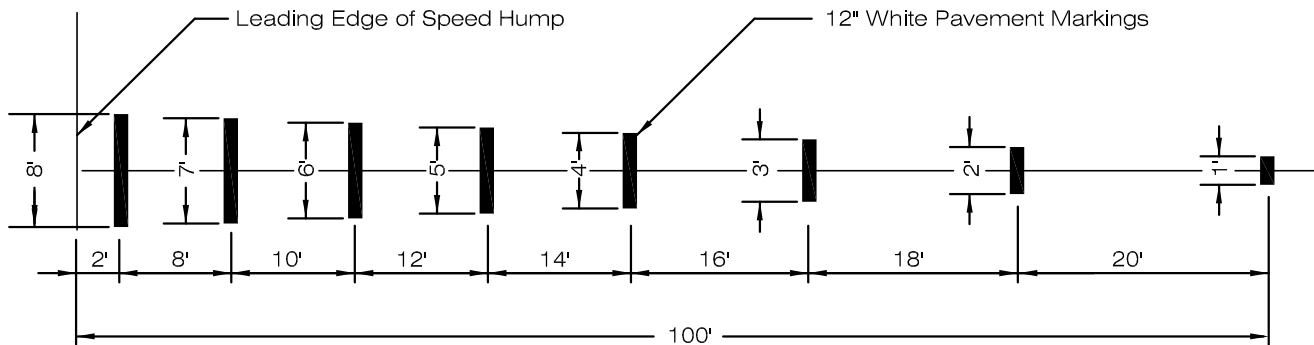
REVISION NO: 1
DATE: 03/01/02

DRAWING
1416L

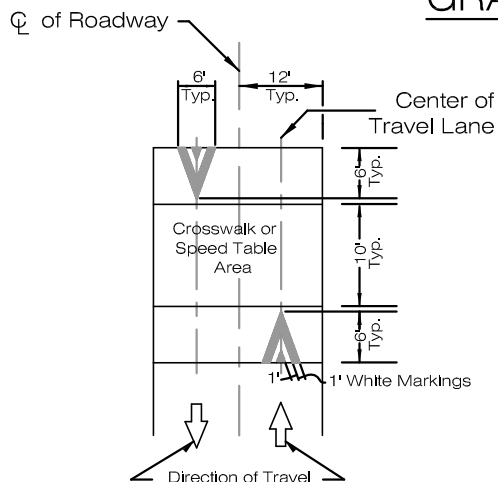
LOVELAND ONLY



PLAN VIEW



GRADUATED BAR DETAIL



CHEVRON DETAIL

NOTES:

1. Graduated bars, chevron and "PED XING" markings are centered in the travel lanes.
2. All pavement markings (except the centerline striping) are to be pre-formed thermoplastic (PREMARK by Flint Trading, or equal).

SIGNS & PAVEMENT MARKINGS FOR RAISED CROSSINGS

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

REVISION NO: 2
DATE: 04/01/07

DRAWING
1417L



STANDARD
FIRE LANE SIGN DETAIL
(FORT COLLINS ONLY)

UNIVERSAL
FIRE LANE SIGN DETAIL

COLOR SCHEDULE	
LEGEND, CIRCLE DIAGONAL, BORDER, "ARROW", "FIRE LANE"	RED
BACKGROUND	WHITE
"P"	BLACK

NOTES:

1. THE SIGN PLATE SHALL BE A MINIMUM OF 12"X18" WITH A THICKNESS OF .080 ALUMINUM CONSTRUCTION.
2. THE SIGN FACE SHALL HAVE A WHITE REFLECTIVE BACKGROUND WITH A RED LEGEND. USE THE STANDARD 3M SCOTCHLITE SIGN FACE NUMBER R7-32 OR EQUIVALENT, WITH RED LETTERING AS SHOWN ABOVE.
3. ARROWS MAY BE NEEDED (LEFT, RIGHT OR DOUBLE), TO DESIGNATE BEGIN AND END OF NO PARKING AREA.

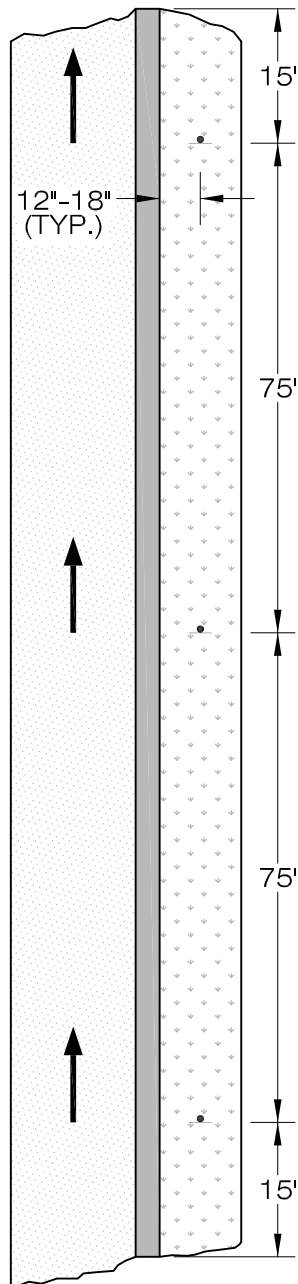
FIRE ACCESS ROAD SIGNS

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

REVISION NO: 2
DATE: 04/01/07

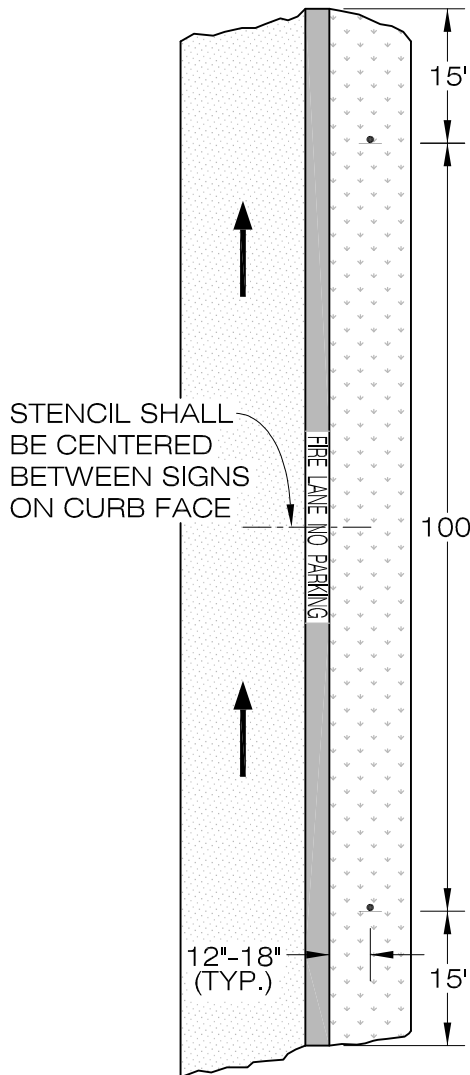
DRAWING
1418



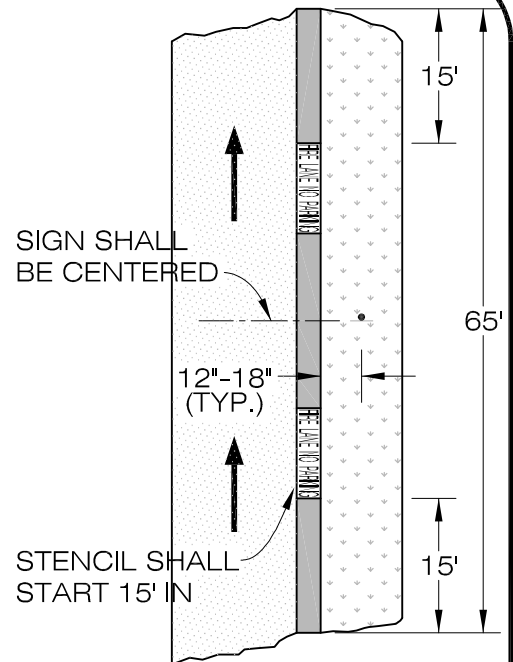
**STANDARD DETAIL 1
(WITHOUT STENCIL)**

NOTE:

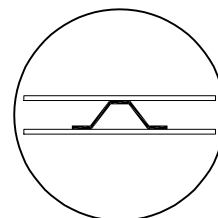
1. APPROVED FIRE LANE SIGNS SHALL BE INSTALLED 12' TO 18" FROM BACK OF CURB OR BACK OF SIDEWALK.
2. SIGN MUST FACE THE ONCOMING TRAFFIC.
3. STENCILS SHALL BE IN WHITE LETTERING (3" HT. 1/2" STROKE) ON RED PAINTED CURB.
4. STENCIL SHALL READ "FIRE LANE NO PARKING"



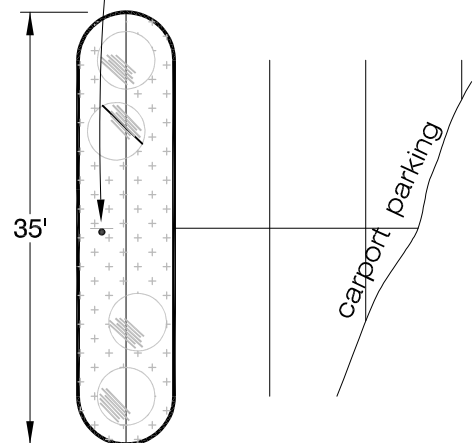
**STANDARD DETAIL 1
(WITH STENCIL)**
ACCESS OFFICER MUST
PRE-APPROVE THIS
APPLICATION



**DETAIL 3
(65' OR LESS)**
MUST BE PRE-APPROVED



2 APPROVED
FIRE LANE
SIGNS-BACK
TO BACK



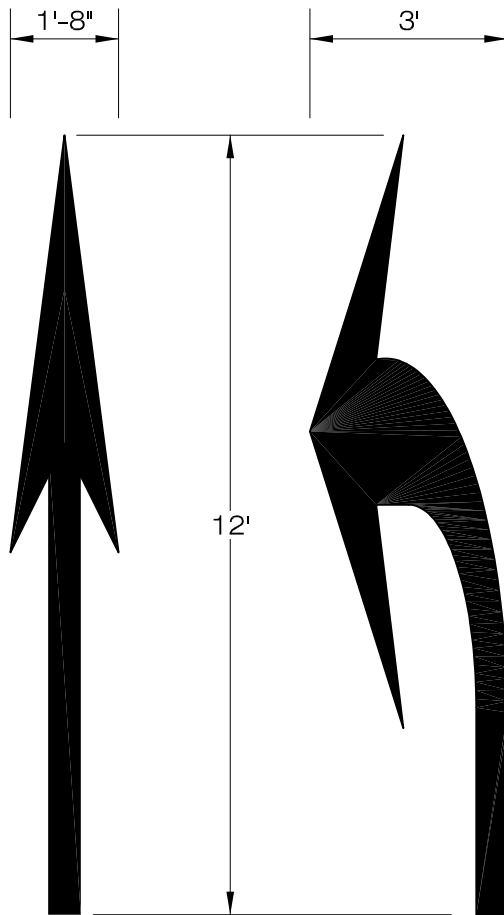
FIRE APPARATUS ACCESS ROAD STENCILING & FIRE LANE SIGN INSTALLATION

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

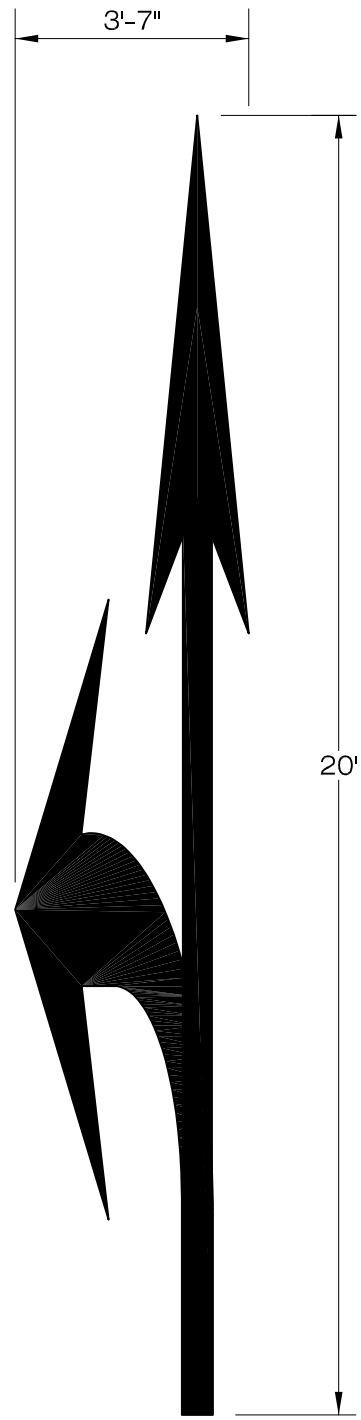
REVISION NO: 1
DATE: 02/27/02

DRAWING
1419



#330248

#330247



#330149

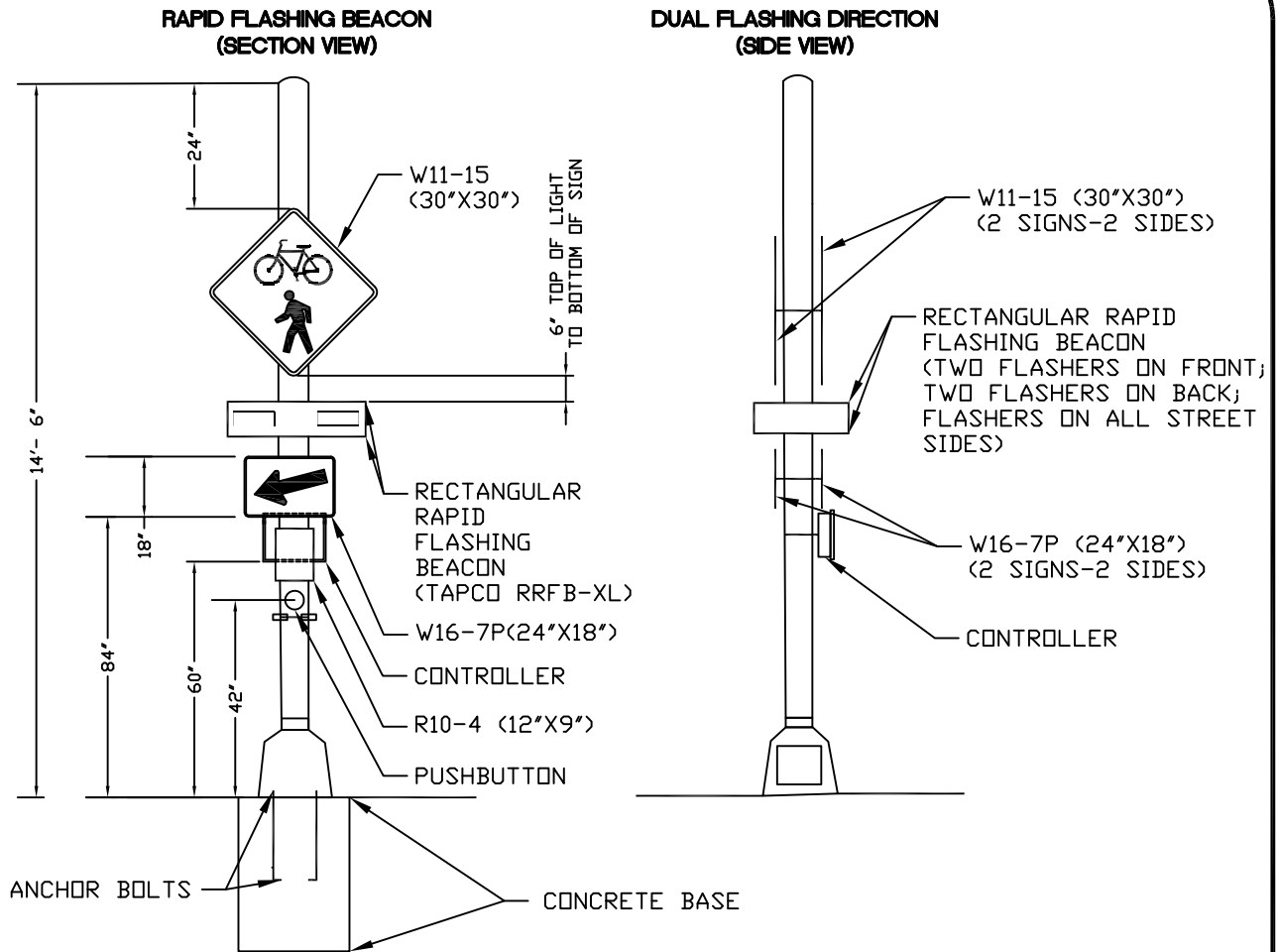
NEW FHWA ARROWS (ELONGATED)

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

CONSTRUCTION
DRAWINGS

REVISION NO: 1
DATE: 02/28/02

DRAWING
1420



RECTANGULAR RAPID FLASHING BEACON SPECIFICATIONS (RRFB):

1. MANUFACTURER: TAPCO RRFB XL (AS APPROVED BY CITY OF LOVELAND)
2. POWER IS TO BE PROVIDED FROM THE CLOSEST CITY OF LOVELAND STREET LIGHT POLE. COORDINATE WITH LOVELAND POWER DEPARTMENT FOR INSTALLATION.

SIGNS:

1. ALL SIGNS MUST BE STANDARD BLACK LETTERING ON FLUORESCENT YELLOW GREEN BACKGROUND.
2. SIGN ORIENTATION IS REVERSED FOR PLACEMENT ON LEFT SIDE OF ROAD.

POLE SPECIFICATIONS:

1. PEDESTAL POLE W/DOME POLE CAP 14' X4.5" ROUND SCHEDULE 80 (.438 INCHES SPUN ALUMINUM)
2. PEDESTAL POLE ALUMINUM SQUARE BASE WITH ALUMINUM DOOR
3. PELCO BRAND PEDESTRIAN POLE COLLARS PART # PB5325
4. PELCO PEDESTRIAN POLE CAP, ALUMINUM PART # PB S402
5. PEDESTRIAN PUSH BUTTON - BLACK POLARA PART # PBF5X7-B
6. PEDESTRIAN PUSH BUTTON SIGN POLARA PART NUMBER PN5X7A REVERSIBLE OR EQUAL
7. PEDESTRIAN PEDESTAL POLE CONCRETE FOUNDATION PER CDOT STANDARDS (S-614-14)
8. PROVIDE 2 - 2INCH CONDUITS (1 FOR POWER AND 1 FOR COMMUNICATIONS)

NOT TO SCALE

RECTANGULAR RAPID FLASHING BEACON (RRFB)

**LARIMER COUNTY
URBAN AREA
STREET STANDARDS**

**CONSTRUCTION
DRAWINGS**

REVISION NO: 4
DATE: 08/01/21

**DRAWING
1421**



- NOT TO SCALE

LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO:	DRAWING 1422
		DATE: 08/01/21	