

Open House #2

Updates to the Larimer County Urban Area Street Standards (LCUASS)

City of Fort Collins, City of Loveland, and Larimer
County

1/28/21



LCUASS Revisions Summary (Page 1 of 5)

Chapter 1 – *General Provisions*

Technical corrections and text revisions. Allow technical corrections to be made administratively as long as they are not policy related or adding cost. Text revised in Section 1.9.2 to clarify off- site, adjacent, and on-site improvements for the Street Construction Policy. Section 1.9.3.B was re-written to clarify street oversizing and third-party reimbursements for the City of Loveland. Section 1.9.4 was updated for changes that was approved by City of Fort Collins regarding variances to LOS standards that the City of Loveland would also like to adopt.

Chapter 2 – *Submittal and Review Procedures*

Technical corrections and text revisions. Text revised in Section 2.2.2 to change the title from Public Improvement Construction Plans to Civil Construction Plans.

Chapter 3 – *Information Requirements for Construction Plans*

Technical corrections and text revisions. Text revised in Section 3.2.6 to allow electronic PE stamps per Colorado Board of Registration Requirements.

Chapter 4 – *Transportation Impact Studies*

Removed link volume levels of service (LOS) requirements to be consistent with CDOT, other jurisdictions, and standard practices for traffic impact studies (Loveland only). Section 4.6 revised to allow mitigation that is reasonably related and proportional to impact that is not feasible (or not desired by the Local entity) to address the specific LOS issue. Added Section 4.6.8 Alternative Mitigation Strategies for intersections that do not meet overall level of service standards, and reasonably related and proportional mitigation to address the level of service is not possible or not desired by the Local Entity, an Alternative Mitigation Strategy may be requested and considered. Section 4.6 and 4.6.8 were already adopted by the City of Fort Collins that the City of Loveland would also like to adopt.

LCUASS Revisions Summary (Page 2 of 5)

Chapter 5 – Soil Investigations and Report

Technical corrections and text revisions. Fill requirements text modified in Section 5.2.1.C to be consistent with industry standard practices.

Chapter 6 – Permits

Technical corrections and text revisions. Text in Section 6.17.A.11 modified to change notification from 24 hours to 48 hours for erosion control inspection. Additionally, text change to specify that the Public Improvements Opinion of Cost are to be signed and stamped by a professional engineer (PE).

Chapter 7 – Street Design and Technical Criteria

Sight distance requirements changed to be consistent with the CDOT State Highway Access Code criteria. Striped buffered bike lane and protected bike lane options on arterial roadways added to the cross section figures. 5' (min.) sidewalk and 8' (min.) parkway width added to the Fort Collins cross section figures.

Chapter 8 – Intersections

Technical corrections and text revisions. Text in Section 8.2.17 revised to indicate that roundabouts shall be designed in accordance with LCUASS Appendix I.

Chapter 9 – Access Requirements and Design Criteria

Technical corrections and text revisions. Section 9.4.10, change in use updated to be consistent with CDOT criteria (20% or 100 total daily trips).

Chapter 10 – Pavement Design and Report

Technical corrections and text revisions to be consistent with current practices.

LCUASS Revisions Summary (Page 3 of 5)

Chapter 11 – Structures

Technical corrections and text revisions to be consistent with current practices.

Chapter 12 – Utility Installations

Technical corrections and text revisions to be consistent with current practices.

Section 12.2.3 access covers shall be ¼ inch below the finished roadway surface.

Chapter 13 – Street Naming and Addressing

Technical corrections and text revisions to be consistent with current practices.

Website addresses updated. Road Naming Criteria title changed in Table 13-1.

Chapter 14 – Traffic Control Devices

Technical corrections and text revisions to be consistent with current practices.

Chapter 15 – Street Lighting

Technical corrections and text revisions to be consistent with current practices.

Section 15.1.2 Replaced “\$300 design electrical deposit” text with “required electrical design deposit”.

Chapter 16 – Pedestrian Facilities

Technical corrections and text revisions to be consistent with current practices.

Loveland is removing Industrial areas exception for sidewalk facilities unless otherwise approved by the Local Entity Engineer Section 16.2.1.D.

Chapter 17 – Bicycle Facilities

Technical corrections and text revisions to be consistent with current practices.

Bicycle detection text added to Section 17.2.4.

LCUASS Revisions Summary (Page 4 of 5)

Chapter 18 – Neighborhood Traffic Safety

Technical corrections and text revisions to be consistent with current practices.

Chapter 19 – Parking

Technical corrections and text revisions. Figure 19-6 revised where Local Entity Engineer can vary parking setback distance requirements on a case-by-case basis.

Chapter 20 – Public Improvements Cost Estimate

Section 20.2 Remove Option of Cost and reference form

Chapter 21 – Reserved

Chapter 22 -Materials & Construction Specifications

Technical corrections and text revisions to be consistent with current practices.

Chapter 23 – Inspection and Testing Procedures

Technical corrections and text revisions.

Chapter 24 – Acceptance/Warranty Procedures and Record Drawings

Technical corrections and text revisions. Section 24.3.4 Failure to Complete Repair section modified to require a 15% fee for the value of the work or a \$500 administrative fee whichever is greater.

LCUASS Revisions Summary (Page 5 of 5)

Chapter 25 – *Reconstruction and Repair*

**Technical corrections and text revisions to be consistent with current practices.
Section 25.2.4 Flow fill will be required on soft surface potholing per the discretion of the Local Entity Engineer**

Appendix A - *Standard Drawings*

**The updates to Appendix A include technical revisions and corrections to meet the current industry standards and practices and to be consistent with the changes being made to the various chapters listed within this document.
Drawing 702 Drive-over Curb and Gutter (bevel instead to provide a smoother transition)**

Appendix C – *Fort Collins Streetscape Design Standards*

The updates to Appendix C include technical revisions and corrections to meet the current industry standards and practices

Top 10 Items

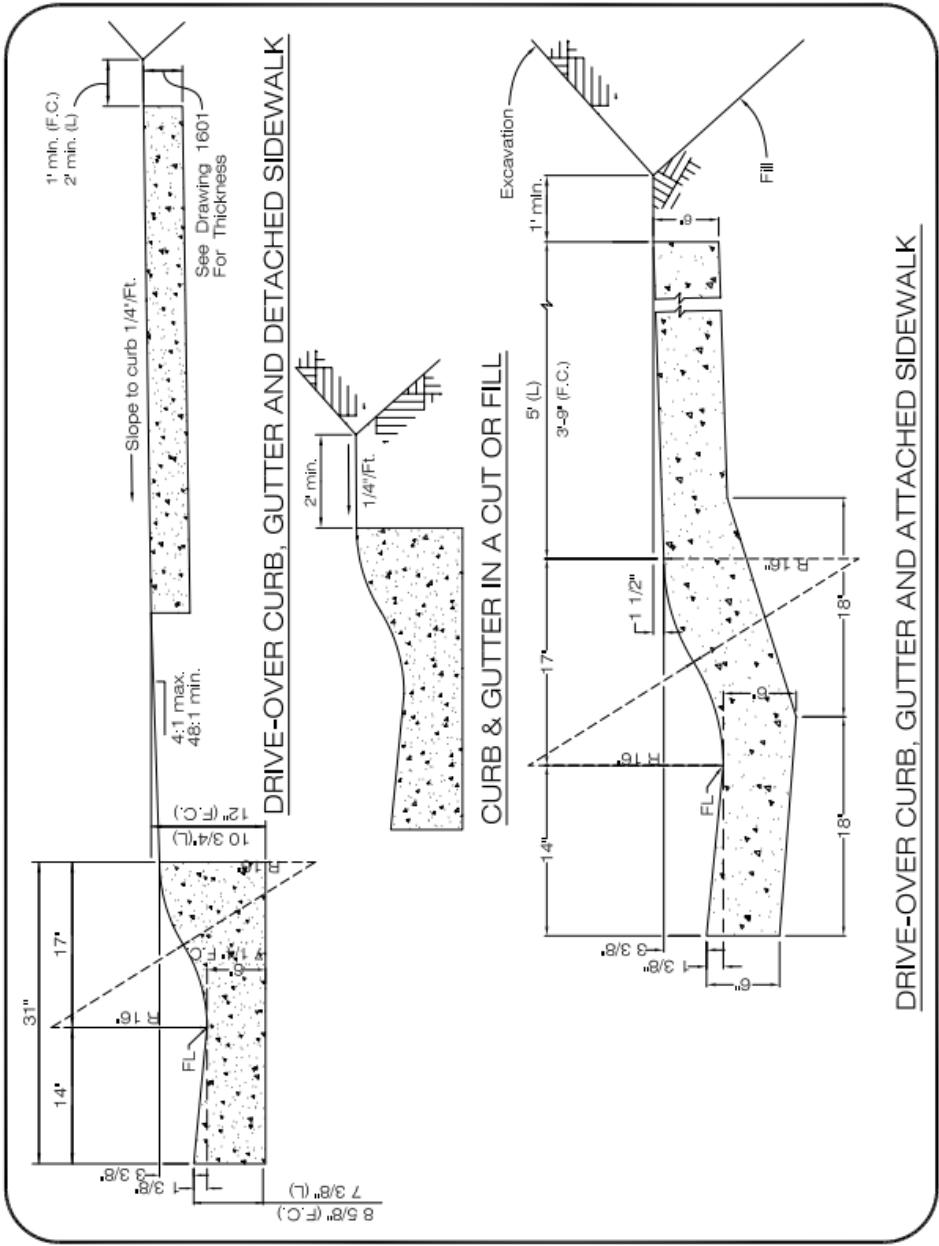
- 1. “Public Improvement Construction Plans” changed to “Civil Construction Plans” (Section 6.3.1)**
- 2. Drive-over curb and gutter (bevel instead to provide smoother transition for passenger vehicles using driveways)**
- 3. Text revised to allow electronic PE stamps per Colorado Board of Registration Requirements (Chapter 3)**
- 4. Section 1.9.3.B re-written to clarify street oversizing and third party reimbursements (Loveland)**
- 5. Section 1.9.4 updated for changes approved by Fort Collins for variances to LOS standards. Loveland would also like to adopt these changes**

Top 10 Items (continued)

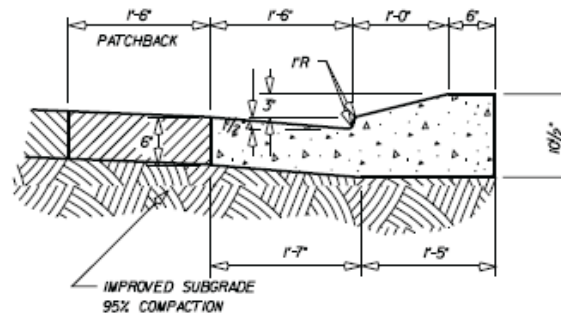
- 6. Chapter 4 Removed link volume levels of service (LOS) requirements (Loveland)**
- 7. Section 4.6 revised to allow alternate mitigation strategies to be considered**
- 8. Table 7-2 Loveland. Detached sidewalks required for all streets other than alleys**
- 9. Chapter 7 Cross Sections. Added buffered bike lanes**
- 10. Sight Distance. Reference the CDOT State Highway Access Code**

Section 4.6

Section 4.6 revised to allow mitigation that is reasonably related and proportional to impact that is not feasible (or not desired by the Local entity) to address the specific LOS issue. Added Section 4.6.8 Alternative Mitigation Strategies for intersections that do not meet overall level of service standards, and reasonably related and proportional mitigation to address the level of service is not possible or not desired by the Local Entity, an Alternative Mitigation Strategy may be requested and considered. Section 4.6 and 4.6.8 were already adopted by the City of Fort Collins that the City of Loveland would also like to adopt.

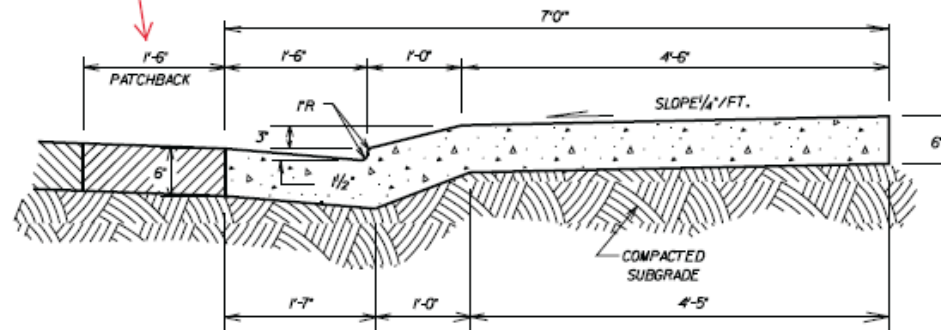


CURB AND GUTTER/SIDEWALK			
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 1	DRAWING 702
		DATE: 03/01/02	



CURB SECTION

2.0' patchback



CURBWALK SECTION

NOTE:

1. GUTTER SLOPE - 1/2" IN 1'-6"
2. WALK SLOPE - 1/4" IN 1'-0"
3. RESIDENTIAL ONLY.
4. ALLEY DRIVE CUTS SHALL BE 10" THICK

REV 1560
3/6/1997
3/9/2001
1/3/2005



PUBLIC WORKS DIVISION

MOUNTABLE CURBWALK
DETAIL 200-10

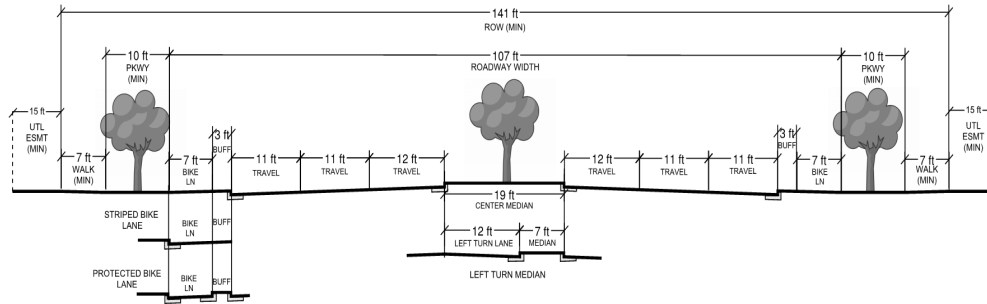
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DATE: MARCH, 1997

SCALE: NOT TO SCALE

Chapter 7 Figures (Cross-Sections):

FORT COLLINS ONLY



ROADWAY WIDTH: 107'

RIGHT OF WAY WIDTH: 141' (min.) plus 15' (min) utility easement each side of street.

TRAVEL LANES: Six lanes, (4) - 11' wide and (2) - 12' wide.

LEFT TURN LANE: 12' wide

BIKE LANES: Two lanes, 7' wide lane, 3' wide painted buffer (optional protected bike lane per Bike Plan).

BIKE LANE OPTIONS: Striped bike lane and protected bike lane options will require City Engineer approval.

PARKING: None.

PARKWAY: 10' (min.) wide. Additional width optional.

SIDEWALK: 7' (min.) wide. Additional width may be required for higher pedestrian traffic within and leading to activity centers or as required by Area Plans.

MEDIAN: Center Median: 19' wide landscaped; Left Turn Median: 7' wide landscaped. Barrier curb or out-fall curb and gutter.

WHERE USED: These specifications shall apply as required by the Local Entity when a 6-lane arterial street is shown on the Master Street Plan.

DESIGN SPEED: 50 MPH

SPEED LIMIT: 40-45 MPH

ACCESS: Access will be limited. Points of access must be approved by the Local Entity.

CONTINUITY: Unlimited

FENCES: Fences shall be setback a minimum of 2' from back of sidewalk or on the property line, whichever is greater.

CURB AND GUTTER: Vertical curb and gutter.

6-LANE ARTERIAL STREET

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

DESIGN
FIGURE

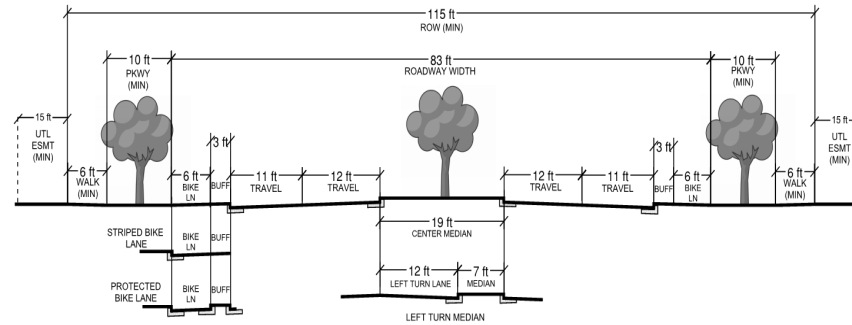
REVISION NO:

DATE: September, 2016

FIGURE

7-1F

FORT COLLINS ONLY



ROADWAY WIDTH: 83'

RIGHT OF WAY WIDTH: 115' (min.) plus 30' (min.) utility easement.

TRAVEL LANES: 4 lanes, (2) 11' wide and (2) 12' wide.

LEFT TURN LANE: 12' wide

BIKE LANES: Two lanes, 6' wide lane, 3' wide painted buffer (optional protected bike lane per Bike Plan)

BIKE LANE OPTIONS: Striped bike lane and protected bike lane options will require City Engineer approval.

PARKING: None.

PARKWAY: 10' (min.) width. Additional width optional.

SIDEWALK: 6' (min.) width. Additional width may be required for higher pedestrian traffic in and leading to activity areas or as required by Area Plans.

MEDIAN: Center Median: 19' wide landscaped; Left Turn Median: 7' wide landscaped. Barrier curb or out-fall curb and gutter.

WHERE USED: These specifications shall apply as required by the Local Entity when a 4-lane arterial street is shown on the Master Street Plan.

DESIGN SPEED: 50 MPH

SPEED LIMIT: 35-45 MPH

ACCESS: Access will be limited. Points of access must be approved by the Local Entity.

CONTINUITY: Unlimited

FENCES: Fences shall be setback a minimum of 2' from back of sidewalk or on the property line, whichever is greater.

CURB AND GUTTER: Vertical curb and gutter.

4-LANE ARTERIAL STREET

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

DESIGN
FIGURE

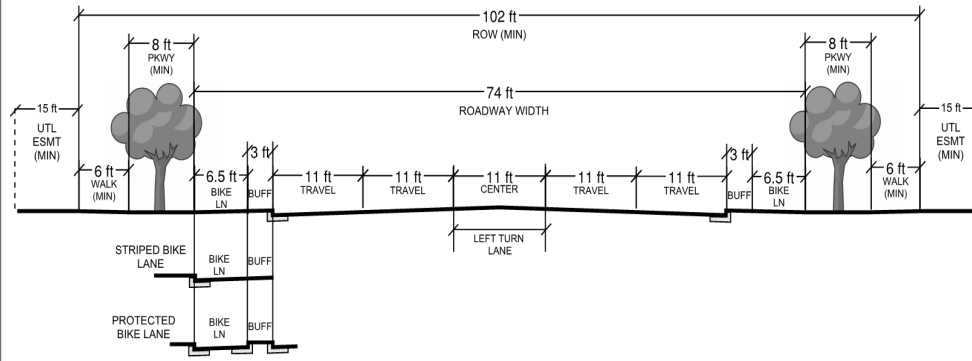
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DATE: September, 2016

FIGURE

7-2F

FORT COLLINS ONLY



ROADWAY WIDTH: 74'

RIGHT OF WAY WIDTH: 102' (min.) plus 30' (min.) utility easement.

TRAVEL LANES: 5 lanes, ~~12'~~ 11' wide.

LEFT TURN LANE: 12' wide

BIKE LANES: Two lanes, 6.5' wide lane, 3' wide painted buffer

BIKE LANE OPTIONS: Striped bike lane and protected bike lane options will require City Engineer approval.

PARKING: None.

PARKWAY: 8' (min.) width. Additional width optional.

SIDEWALK: 6' (min.) width. Additional width may be required for higher pedestrian traffic in and leading to activity areas or as required by Area Plans.

MEDIAN: Not required, except where necessary to control access and/or to provide pedestrian refuge or where Developer requested medians are approved by the local entity. Additional roadway and right of way width may be required.

WHERE USED: These specifications shall apply as required by the Local Entity when a 4-lane arterial street is shown on the Master Street Plan in constrained right of way situation after review and approval of the City Engineer.

DESIGN SPEED: 50 MPH

SPEED LIMIT: 35-45 MPH

ACCESS: Access will be limited. Points of access must be approved by the Local Entity.

CONTINUITY: Unlimited

FENCES: Fences shall be setback a minimum of 2' from back of sidewalk or on the property line, whichever is greater.

CURB AND GUTTER: Vertical curb and gutter.

4 - LANE MODIFIED ARTERIAL STREET

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

DESIGN
FIGURE

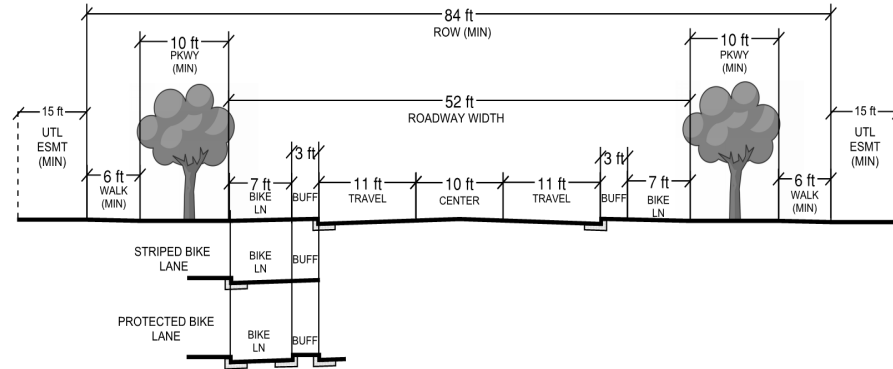
REVISION NO:

DATE: September, 2016

FIGURE

7-2.5F

FORT COLLINS ONLY



ROADWAY WIDTH: 52'

RIGHT OF WAY WIDTH: 84' (min), plus 18' (min) utility easement.

TRAVEL LANES: Three ~~two~~ lanes, (2) 11' wide and a 10' center lane.

LEFT TURN LANES: 10' wide provided in center lane. ~~at intersections where needed.~~

BIKE LANES: Two lanes, 7' wide lane, 3' wide painted buffer

BIKE LANE OPTIONS: Striped bike lane and protected bike lane options will require City Engineer approval.

PARKING: None

PARKWAY: 10' (min.) width. Additional width optional.

SIDEWALK: 6' (min.) wide. Additional width may be required for higher pedestrian traffic in and leading to activity areas or as required by Area Plans.

MEDIAN: Not required, except where necessary to control access and/or to provide pedestrian refuge or where Developer requested medians are approved by the local entity. Additional roadway and right of way width may be required.

WHERE USED: These specifications shall apply as required by the Local Entity when a Collector street is shown on the Master Street Plan.

DESIGN SPEED: 50 MPH

SPEED LIMIT: 30 - 45 MPH

ACCESS: Access will be limited. Points of access must be approved by the Local Entity.

CONTINUITY: Unlimited

FENCES: Fences shall be setback a minimum of 2' from back of sidewalk or on the property line, whichever is greater.

2-LANE ARTERIAL STREET

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

DESIGN
FIGURE

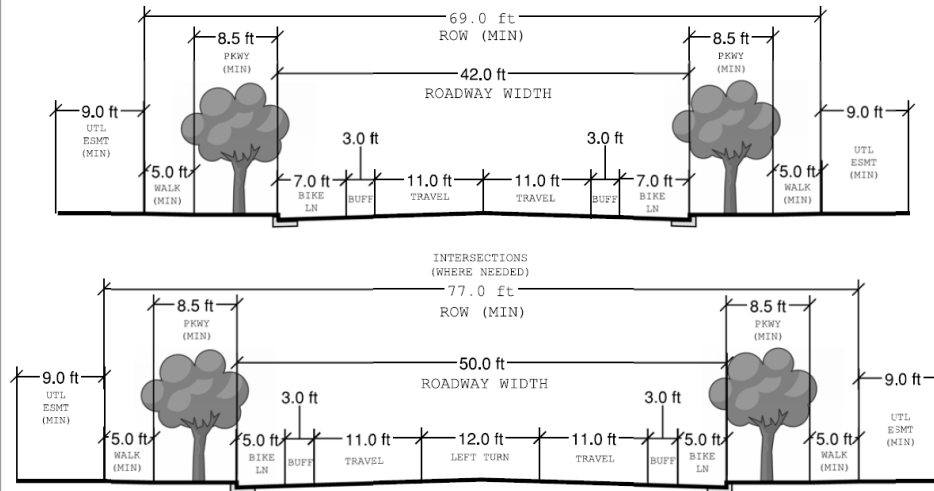
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DATE: September, 2016

FIGURE

7-3F

FORT COLLINS ONLY



ROADWAY WIDTH: 42' (Widen to 50' where a left turn lane is required).

RIGHT OF WAY WIDTH: 69' (min) (Widen to 77' where a left turn lane is required.) , plus 18' (min) utility easement.

TRAVEL LANES: Two lanes, 11' wide

LEFT TURN LANES: 12' wide at intersection where needed.

BIKE LANES: Two lanes, 7' wide lane, 3' wide painted buffer

PARKING: None. Parking must be provided off street for any development adjoining the street.

PARKWAY: 8' (min) width. Additional width optional.

SIDEWALK: 5' (min.) width. Additional width may be required for higher pedestrian traffic within and leading to activity areas.

MEDIAN: Not required, except where necessary to control access and/or to provide pedestrian refuge or when requested by the Developer and approved by the Local Entity. Additional roadway and right of way width may be required.

WHERE USED: These specifications shall apply as required by the Local Entity, when a Collector street is shown on the Master Street Plan.

DESIGN SPEED: 40 MPH

SPEED LIMIT: 30-35 MPH

ACCESS: Access will be limited. Points of access must be approved by the Local Entity.

CONTINUITY: The street shall be continuous for no more than 1320 feet.

FENCES: Fences shall be setback a minimum of 2' from back of sidewalk or on the property line, whichever is greater.

COLLECTOR – WITHOUT PARKING

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

DESIGN
FIGURE

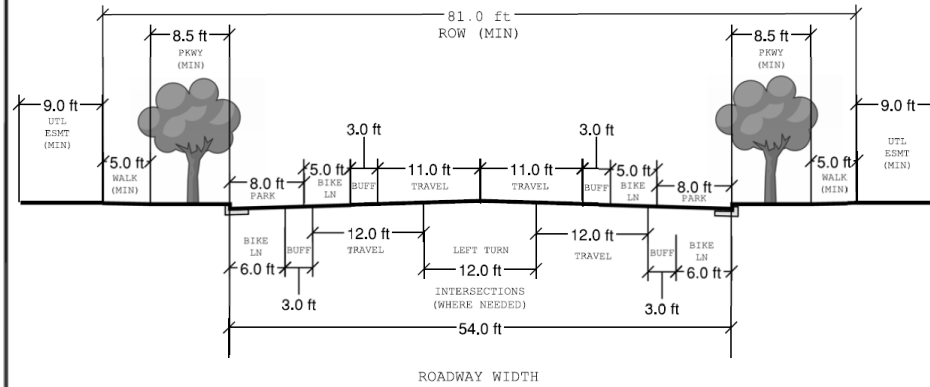
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DATE: September, 2016

FIGURE

7-4F

FORT COLLINS ONLY



ROADWAY WIDTH: 54'

RIGHT OF WAY WIDTH: 81' (min), plus 18' (min) utility easement.

TRAVEL LANES: Two lanes 81' (min), plus 18' (min) utility easement.

LEFT TURN LANES: 12' wide at intersections where needed.

BIKE LANES: Two lanes, 5' or 6' wide lane, 3' wide painted buffer (parking-buffer-when-on-street-parking-present).

PARKING: Two lanes, 8' wide; parking may be removed at certain locations to provide a left turn lane at Intersections where needed.

PARKWAY: 8' (min) width. Additional width optional.

SIDEWALK: 5' (min.) width. Additional width may be required for higher pedestrian traffic within and leading to activity areas or as required by Area Plans.

MEDIAN: Not required, except where necessary to control access and/or to provide pedestrian refuge. additional roadway and ROW width may be required.

WHERE USED: These specifications shall apply as required by the Local Entity, when a Collector street is shown on the Master Street Plan.

DESIGN SPEED: 40 MPH

SPEED LIMIT: 25-30 MPH

ACCESS: Access will be limited. Points of access must be approved by the Local Entity.

CONTINUITY: The street shall be continuous for no more than 1320 feet.

FENCES: Fences shall be setback a minimum of 2' from back of sidewalk or on the property line, whichever is greater.

COLLECTOR – WITH PARKING

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

DESIGN
FIGURE

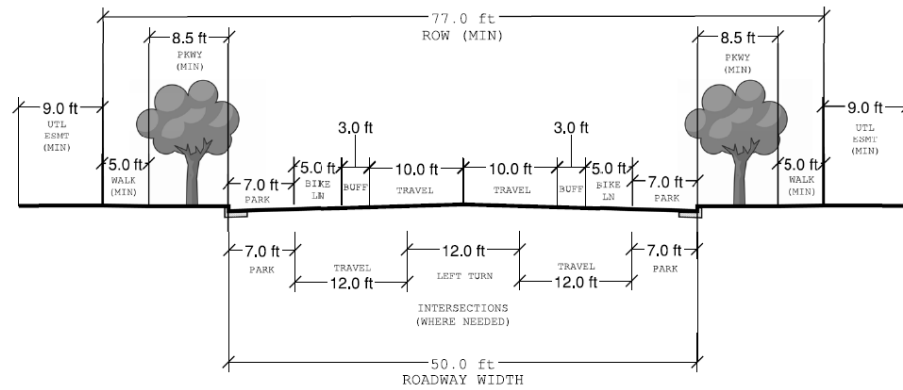
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DATE: September, 2016

FIGURE

7-5F

FORT COLLINS ONLY



ROADWAY WIDTH: 50' wide

RIGHT OF WAY WIDTH: 77' (min), plus 18' (min) utility easement.

TRAVEL LANES: Two lanes, 10' wide.

LEFT TURN LANES: 12' wide, provided at certain intersections where needed.

BIKE LANES: Two lanes, 7' wide or 5' wide with 3' parking buffer. when on-street parking present. The buffer may be moved to the parking side if there is a high parking turnover rate and traffic is anticipated to be slower than standard speeds.

PARKING: Two lanes, 7' wide. None provided at intersections or where a left turn lane is required.

PARKWAY: 8' (min) width. Additional width optional.

SIDEWALK: 5' (min) width. Additional width may be required for higher pedestrian traffic serving activity areas.

MEDIAN: Not required, except where necessary to control access and/or to provide pedestrian refuge. Additional roadway and right of way width may be required.

WHERE USED: These specifications shall apply to streets used in commercial areas for local access and circulation.

DESIGN SPEED: 30 MPH

SPEED LIMIT: 25 MPH

ACCESS: Access will be limited. Points of access must be approved by the Local Entity.

CONTINUITY: Streets are limited in length to 1320 feet.

FENCES: Fences shall be setback a minimum of 2' from back of sidewalk or on the property line, whichever is greater.

COMMERCIAL LOCAL STREET

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

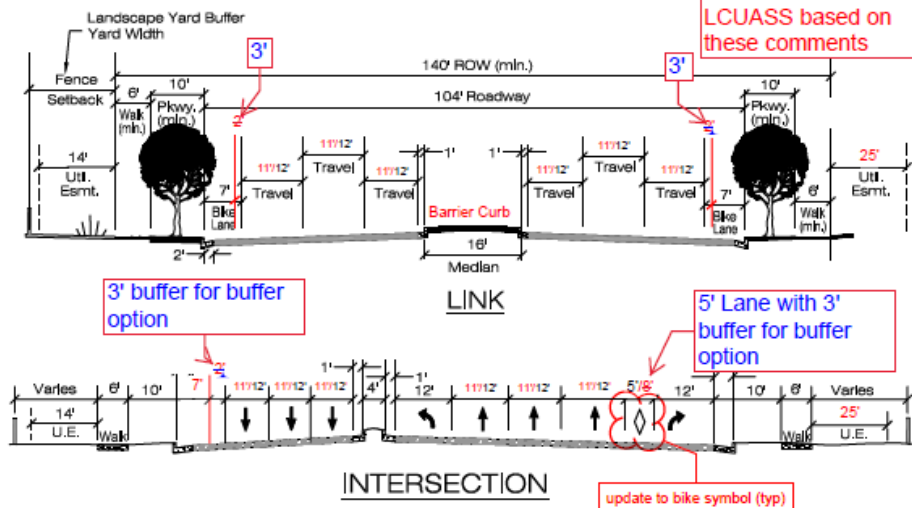
DESIGN
FIGURE

REVISION NO:
DATE: September, 2016

FIGURE
7-6F

LOVELAND ONLY

Update Table 7-2 & 7-4 & other sections of LCUASS based on these comments

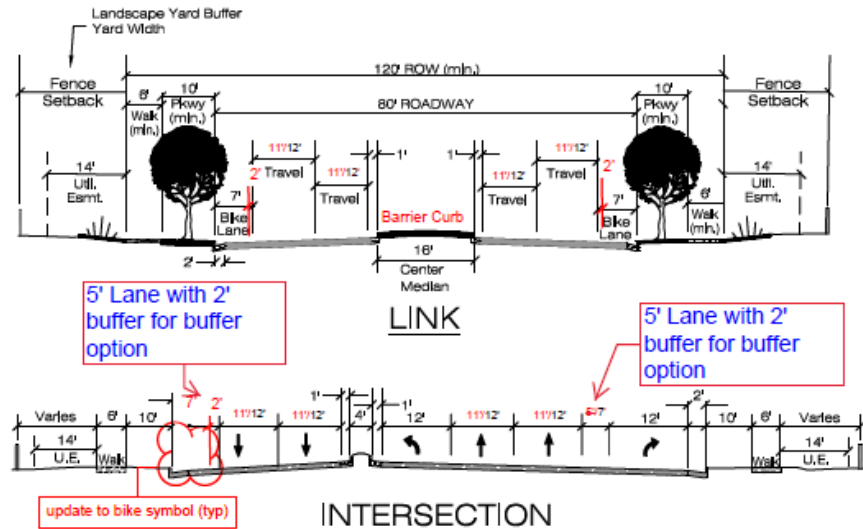


- ROADWAY WIDTH:** 104'
 - RIGHT OF WAY WIDTH:** 140' (min.) plus 28' (min.) utility easement.
 - TRAVEL LANES:** Six lanes, 12' w **Buffered** of gutter or 12' from face of curb where no gutter.
 - RIGHT TURN LANE:** 12' wide, required at Intersections or accesses receiving more than 200 right turning vehicles per hour.
 - BIKE LANES:** Two lanes, 7' wide (exclusive of gutter).
 - PARKING:** None. **PROTECTED BIKE LANE OPTIONS:** Options will vary depending on the project and will require City Engineer approval
 - TREE LAWN:** 10' (min.) wide. Additional width optional.
 - SIDEWALK:** 6' (min.) wide, detached by at least 10'. Additional width may be required for higher pedestrian traffic in and leading to activity centers. ~~6' (min.) wide attached for redevelopment.~~
 - MEDIAN:** Center Median: 16' wide. (4' wide in left turn lane area). Colored concrete, painted or landscaped. See **Table 7-2**. See **CONST. DWG. 801**. (5" concrete flag stone brown)
 - WHERE USED:** These specifications shall apply as required by the Local Entity when a major arterial street is shown on the Master Street Plan, or when the traffic volume on the street is anticipated to be 32,001 to 48,000 vpd.
 - DESIGN SPEED:** 50 MPH
 - POSTED SPEED:** 45 MPH
 - ACCESS:** No primary access to individual lots. 1/2 mile spacing for signalized intersections.
 - CONTINUITY:** Unlimited
 - FENCES:** Fences shall be placed outside of the landscape buffer yard.
 - LANDSCAPING:** Tree Lawn, Median, and Buffer Area landscaping maintenance shall be the responsibility of the adjacent property owner or HOA. **add Metro Districts**
 - CURB AND GUTTER:** Vertical curb and gutter.
- Cross Section may vary on State Highways, approved corridor studies or adopted IGA's with adjacent jurisdictions*

6-LANE ARTERIAL STREET

LARIMER COUNTY URBAN AREA STREET STANDARDS	DESIGN FIGURE	REVISION NO:	FIGURE
		DATE: September, 2016	

LOVELAND ONLY



ROADWAY WIDTH: 80' between Intersections; 104' at Intersections; 116' at Intersections with double left turn lanes.

RIGHT OF WAY WIDTH: 120' (min.) between Intersections; 140' at Intersections plus 28' (min.) utility easement.

TRAVEL LANES: 4 lanes, 12' wide (exclusive of gutter or 12' from face of curb where no gutter).

LEFT TURN LANE: 12' wide, required at Intersection. **BUFFERED**

BIKE LANES: 2 lanes, 5' wide (exclusive of gutter) **PROTECTED BIKE LANE OPTIONS:** Options will vary depending on the project and will require City Engineer approval

PARKING: None.

PARKWAY: 10' (min.) width. Additional width optional.

SIDEWALK: 6' (min.) wide if detached by at least 10'. Additional width may be required for higher pedestrian traffic in and leading to activity areas. **6' (min.) wide attached for redevelopment.**

MEDIAN: Center Median: 18' wide (6' wide in left turn lane area). Colored concrete, painted, or landscaped. See **Table 7-2, (6" concrete flag stone brown)**

WHERE USED: These specifications shall apply as required by the Local Entity when a major arterial street is shown on the Master Street Plan, or when the traffic volume on the street is anticipated to be 16,001 to 32,000 vpd..

DESIGN SPEED: 50 MPH

POSTED SPEED: 45 MPH

ACCESS: No primary access to individual lots permitted. 1/2 mile spacing for signalized Intersections.

CONTINUITY: Unlimited.

FENCES: Fences shall be placed outside of the landscaping buffer yard.

LANDSCAPING: Tree, Lawn, Median, and Buffer Area landscaping maintenance shall be the responsibility of the adjacent property owner, or HOA. **add Metro Districts**

CURB AND GUTTER: Vertical curb and gutter.

Add Note: Cross Section may vary on State Highways, approved corridor studies or adopted IGA's with adjacent jurisdictions

4-LANE ARTERIAL STREET

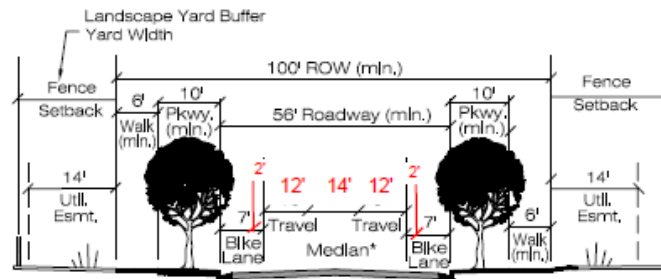
LARIMER COUNTY
URBAN AREA
STREET STANDARDS

DESIGN
FIGURE

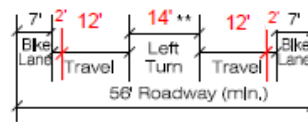
REVISION NO:
DATE: September, 2016

FIGURE
7-2L

LOVELAND ONLY



LINK



** Continuous left turn lane as determined by the Local Entity. Additional auxiliary lanes may be needed as determined by the Local Entity. Raised median may be required.

INTERSECTION

ROADWAY WIDTH: 56' (min.) (Widen where a right turn lane is required).

RIGHT OF WAY WIDTH: 100' (min.) plus 28' (min.) utility easement.

TRAVEL LANES: Two lanes, 12' wide

LEFT TURN LANES: 12' wide, required at Intersection.

BIKE LANES: Two lanes, 7' wide with 2' buffers

PARKING: None

PARKWAY: 10' (min.) width. Additional roadway and right of way width optional. ~~No parkway required if attached walk~~

SIDEWALK: 6' (min.) wide if detached by at least 10'. Additional width may be required for higher pedestrian traffic in and leading to activity areas. ~~6' (min.) wide attached for redevelopment~~

MEDIAN: 14' (min.). Painted median or raised median if required.

WHERE USED: These specifications shall apply as required by the Local Entity when a Collector street is shown on the Master Street Plan or when the traffic volume on the street is anticipated to be 7,000 to 16,000 vpd. See **Table 7-2**.

DESIGN SPEED: 45 MPH

POSTED SPEED: 40 MPH

ACCESS: No primary access to individual lots. See **Table 7-2**.

CONTINUITY: Unlimited

FENCES: Fences shall be placed outside of the landscaped buffer yard.

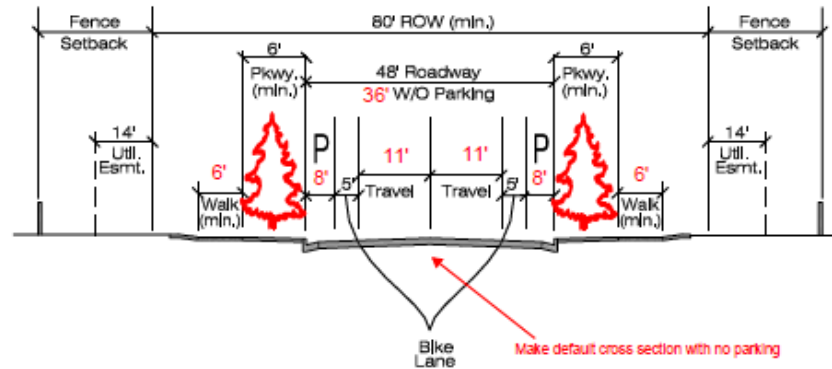
LANDSCAPING: Tree, Lawn, Median, and Buffer Area landscaping maintenance shall be the responsibility of the adjacent property owner or HOA, **add Metro Districts**

CURB AND GUTTER: Vertical.

2-LANE ARTERIAL STREET

LARIMER COUNTY URBAN AREA STREET STANDARDS	DESIGN FIGURE	REVISION NO:	FIGURE 7-3L
		DATE: September, 2016	

LOVELAND ONLY



ROADWAY WIDTH: 48' with parking, 36' without parking, 50' without parking but with left turn lane.

RIGHT OF WAY WIDTH: 80' (min.) plus 14' (min.) utility easement each side.

TRAVEL LANES: Two lanes, 11' wide.

BIKE LANES: Two lanes, 5' wide when adjacent to a parking or turn lane, 7' wide when adjacent to the curb.

PARKING: Developer needs to demonstrate a need for parking if to be installed. (No parking within 200' of intersections)

PARKWAY: 6' (min.) width.

SIDEWALK: 6' (min.) width, detached.
Additional width may be required for higher pedestrian traffic in and leading to activity areas.

MEDIAN: None. Additional width would be required for development requested medians.

WHERE USED: These specifications shall apply as required by the Local Entity, when a Collector street is shown on the Master Street Plan or when the traffic volume on the street is anticipated to be in the range of 3,001 to 7,000 vehicles per day.

DESIGN SPEED: 35 MPH **If intersections are greater or equal to 1/2 mile spacing**

~~POSTED SPEED: 35 MPH~~ **the City can increase the Posted Speed**

ACCESS: 1 forward-direction access per lot (if access cannot be provided from a street of lower classification).

CONTINUITY: 2 miles

FENCES: Fences shall be placed outside of the landscaped buffer yard.

PARKWAY LANDSCAPING: Tree Lawn, Median, and Buffer Area landscaping shall be the responsibility of the adjacent property owner or HOA. **add Metro Districts**

CURB AND GUTTER: Vertical.

STRIPING: The centerline and separate bike and parking lanes shall be marked on the pavement in conformance with the requirements of Chapter 14 Traffic Control Devices and CONST. DWG. 1408L.

MAJOR COLLECTOR/COMMERCIAL COLLECTOR STREET

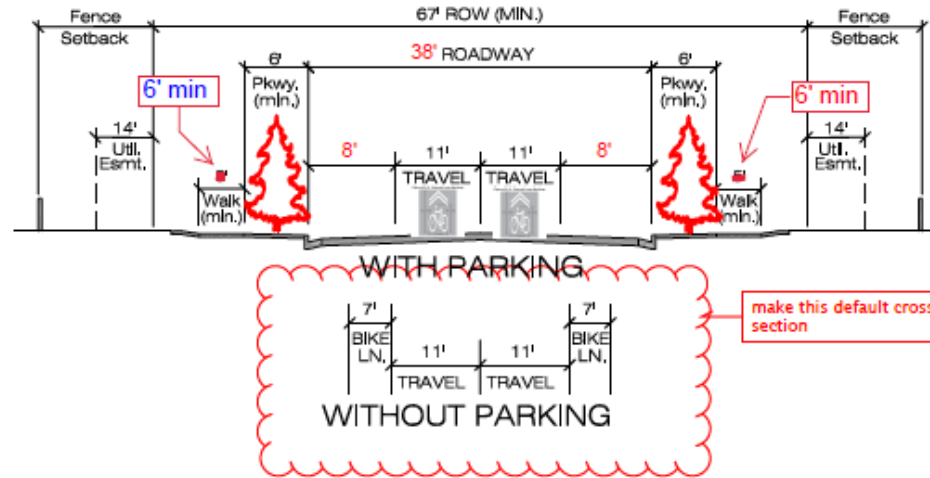
LARIMER COUNTY
URBAN AREA
STREET STANDARDS

DESIGN
FIGURE

REVISION NO:
DATE: September, 2016

FIGURE
7-4L

LOVELAND ONLY



ROADWAY WIDTH: 44' with parking; 36' without parking.

RIGHT OF WAY WIDTH: 60' (min.) plus 28' (min.) utility easement.

TRAVEL LANES: Two lanes, 11' wide.

LEFT TURN LANES: 11' wide at intersections where needed.

BIKE LANES: Two lanes, 7' wide. If parking approved on street shoulders as per MUTCD standard shall be installed

PARKING: Developer needs to demonstrate a need for parking if to be installed. (None provided at intersections)

PARKWAY: 6' (min.) width. ~~Parkways are optional only when sidewalks are adjacent to single-family residential homes.~~

SIDEWALK: 5' (min.) width, detached. ~~Sidewalks may be attached when adjacent to single-family residential homes.~~

MEDIAN: None. Additional roadway and right of way width would be required for development requested medians.

WHERE USED: These specifications shall apply as required by the Local Entity when a Collector street is shown on the Master Street Plan or when the traffic volume on the street is anticipated to be in the range of 1,000 to 3,000 vehicles per day (in accordance with A.C.F. ordinance).

DESIGN SPEED: 30 MPH

POSTED SPEED: 25 MPH

ACCESS: Maximum of two (2) per lot per street frontage.

CONTINUITY: The street shall be continuous for no more than 2640 feet.

FENCES: Fences shall be placed outside of the landscaped buffer yard.

LANDSCAPING: Tree, Lawn, Median, and Buffer Area landscaping shall be the responsibility of the adjacent property owner or HOA. **add Metro Districts**

CURB AND GUTTER: Vertical, drive-over, or rollover. See Table 7-2.

STRIPING: Center line only.

MINOR COLLECTOR STREET

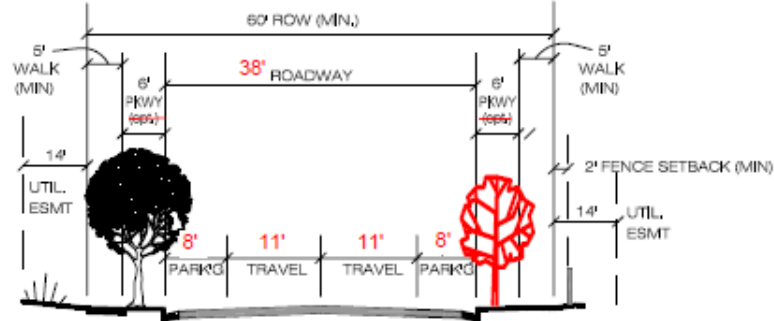
LARIMER COUNTY
URBAN AREA
STREET STANDARDS

DESIGN
FIGURE

REVISION NO: 1
DATE: September, 2016

FIGURE
7-5L

LOVELAND ONLY



ROADWAY WIDTH: 38' wide (with parking).

RIGHT OF WAY WIDTH: 60' (min.) plus 28' (min.) utility easement.

LEFT TURN LANES: 11' wide at intersections where needed.

BIKE LANES: Share street.

PARKING: Two lanes wide shared with bikes. None provided at intersections.

PARKWAY: ~~Not required.~~ 6' (min.) width ~~where used.~~

SIDEWALK: 5' (min.) width ~~attached~~ ~~or~~ detached. Additional width may be required within and leading to activity areas.

MEDIAN: None. Additional width required for development requesting medians.

WHERE USED: These specifications shall apply to streets used in commercial areas for local access and circulation, when the traffic volume on the street is anticipated to be in the range of 201 to 1,000 ADT.

DESIGN SPEED: 30 MPH

POSTED SPEED: 25 MPH

ACCESS: No limit.

CONTINUITY: Streets are limited in length to 660 feet.

FENCES: Setback a minimum of 2' from the edge of the sidewalk.

PARKWAY LANDSCAPING: Tree Lawn, Median, and Buffer Area landscaping shall be the responsibility of the adjacent property owner or HOA.

CURB AND GUTTER: Vertical, rollover, or driveover.

3 feet (UDC amendment)

add Metro Districts

COMMERCIAL/INDUSTRIAL LOCAL STREET

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

DESIGN
FIGURE

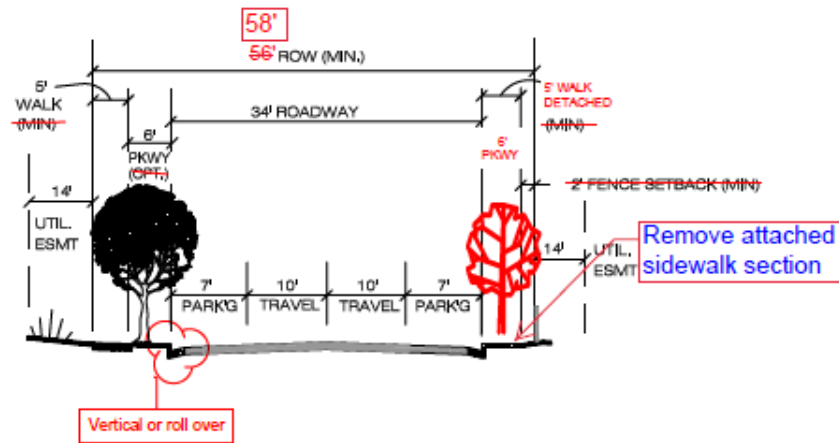
REVISION NO:

DATE: September, 2016

FIGURE

7-6L

LOVELAND ONLY



ROADWAY WIDTH: 34' wide (with parking).

RIGHT OF WAY WIDTH: 56' (min.) plus 28' (min.) utility easement.

BIKE LANES: Share street.

PARKING: Two lanes 7' wide shared with bikes.

PARKWAY: ~~Not required~~. 6' (min.) width where used.

7' (min.) where driveover or rollover is used

SIDEWALK: 5' (min.) width ~~attached or~~ detached. Additional width may be required within and leading to activity areas.

MEDIAN: None. Additional width required for development requesting medians.

WHERE USED: These specifications shall apply to streets used in residential areas for local access and circulation, when the traffic volume on the street is anticipated to be in the range of 201 to 1,000 vpd.

DESIGN SPEED: 25 MPH

SPEED LIMIT: 25 MPH

ACCESS: No limit.

CONTINUITY: Streets are limited in length to 660 feet.

FENCES: Setback a minimum of 2' from the edge of the sidewalk.

PARKWAY LANDSCAPING: Tree, Lawn, Median, and Buffer Area landscaping shall be the responsibility of the adjacent property owner or HOA. **add Metro Districts**

CURB AND GUTTER: Vertical, rollover, or driveover.

RESIDENTIAL LOCAL STREET

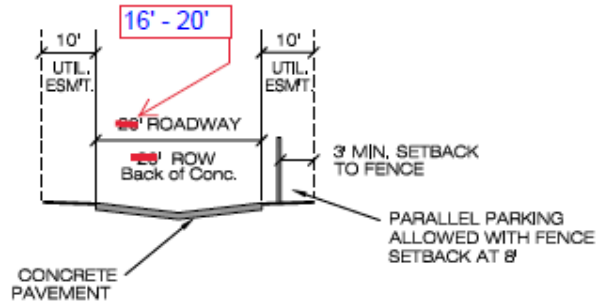
LARIMER COUNTY
URBAN AREA
STREET STANDARDS

DESIGN
FIGURE

REVISION NO:
DATE: September, 2016

FIGURE
7-7L

LOVELAND ONLY



private alley only wood further discussion

16' to 20'

16' to 20' (20' min. width required for commercial and industrial areas or as required by Local Entity Engineer)

ROADWAY WIDTH:

RIGHT OF WAY WIDTH:

16' to 20' (20' min. width required for commercial and industrial areas or as required by Local Entity Engineer)

TRAVEL LANES: 20' wide (exclusive of gutter 1' shy distance to curb).

PARKING: None. Parking must be provided on private property.

WHERE USED: Secondary access only unless otherwise approved by the Local Entity Engineer. Traffic volume is anticipated to be less than 200 ADT.

DESIGN SPEED: N/A.

ACCESS: Access will be unlimited.

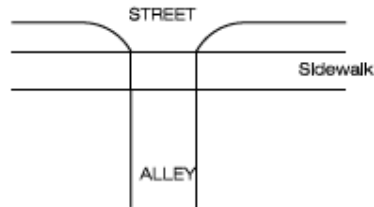
CONTINUITY: Streets are limited in length to 660 feet.

FENCES: Fences may be placed as close as 3' from the right of way line on private property.

DRIVEWAY CONNECTIONS TO ALLEYS: Driveway connections to alleys must be flared.

ALLEY CONNECTIONS TO STREETS: Where an alley intersects the right of way for a street, 10' x 10' corner cuts shall be dedicated R.O.W. for visibility as shown in Detail 1 below. These areas may be landscaped no higher than 24". No fences may encroach.

Garage Door Set Back: Setbacks shall be in accordance with the Uniform Development Code.



DETAIL 1

Alley Width FT.	Driveway Flare	
	a FT.	b FT.
20	0	0
18	2'	6'
16	4'	8'

ALLEY OPTION (A) (DRAINAGE TO CENTER)

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

DESIGN
FIGURE

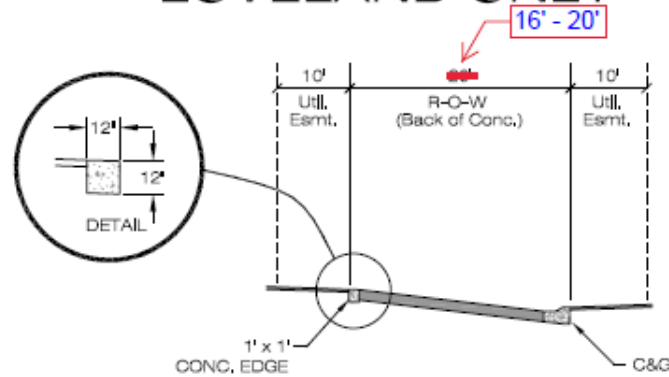
REVISION NO:

DATE: September, 2016

FIGURE

7-9L

LOVELAND ONLY



16' to 20' **16' to 20'** (20' min. width required for commercial and industrial areas or as required by Local Entity Engineer)

ROADWAY WIDTH: 16' to 20' (20' min. width required for commercial and industrial areas or as required by Local Entity Engineer)

RIGHT OF WAY WIDTH: 16' to 20' (20' min. width required for commercial and industrial areas or as required by Local Entity Engineer)

TRAVEL LANES: 16' wide (exclusive of gutter 1' shy distance to curb).

PARKING: None. Parking must be provided on private property.

WHERE USED: Secondary access only unless otherwise approved by the Local Entity Engineer. Traffic volume is anticipated to be less than 250 ADT.

DESIGN SPEED: N/A.

ACCESS: Access will be unlimited.

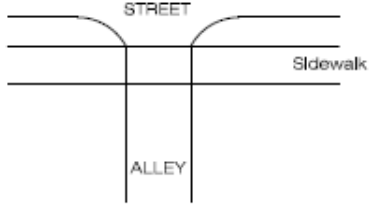
CONTINUITY: Streets are limited in length to 660 feet.

FENCES: Fences may be placed as close as 3' from the right of way line on private property.

DRIVEWAY CONNECTIONS TO ALLEYS: Driveway connections to alleys must be flared.

ALLEY CONNECTIONS TO STREETS: Where an alley intersects the right of way for a street, 10' x 10' corner cuts shall be dedicated R.O.W. for visibility as shown in Detail 1 below. These areas may be landscaped no higher than 24". No fences may encroach.

GARAGE DOOR SETBACK: Setbacks shall be in accordance with the Uniform Codebook 20-201 minimum for the Development Code.



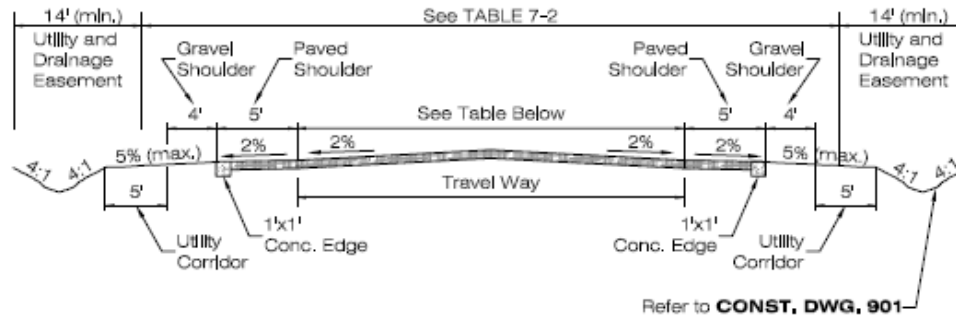
DETAIL 1

Alley Width FT.	Driveway Flare	
	a FT.	b FT.
20	0	0
18	2'	6'
16	4'	8'

ALLEY OPTION (B) (DRAINAGE TO ONE SIDE)

LARIMER COUNTY URBAN AREA STREET STANDARDS	DESIGN FIGURE	REVISION NO:	FIGURE 7-10L
		DATE: September, 2016	

LOVELAND ONLY



CLASSIFICATION	WIDTH OF TRAVEL WAY
Lane	18'
Local	22'
Collector	24'
Arterial	Per Local Entity

ROADWAY WIDTH: See table above.

RIGHT OF WAY WIDTH: See **TABLE 7-2**.

PARKING: No parking permitted on arterial roads. Shoulder may be used for parking on other roads.

CURB AND GUTTER: optional

2.5 min. acre lots

WHERE USED: These specifications may be used for estate type developments / ~~green developments~~ ~~with~~ or within separator or transition areas as recommended in other studies adopted by local entities.

DESIGN SPEED: See **TABLE 7-4**.

SPEED LIMIT: See **TABLE 7-4**.

GARAGE DOOR SETBACKS:

Setbacks shall be in accordance with the Uniform Development Code.

SIDEWALK: None.

BIKE LANES: Bicyclists may use the 5' paved shoulder or share the roadway with motor vehicles.

GRAVEL SHOULDERS: Surface shall be covered with a minimum of 6" Class 5 or 6 Roadbase.

CONTINUITY: See **TABLE 7-2**.

DRAINAGE MAINTENANCE: The drainage ditches are the responsibility of the adjacent property owner or HOA.

RURAL ROAD

LARIMER COUNTY
URBAN AREA
STREET STANDARDS

DESIGN
FIGURE

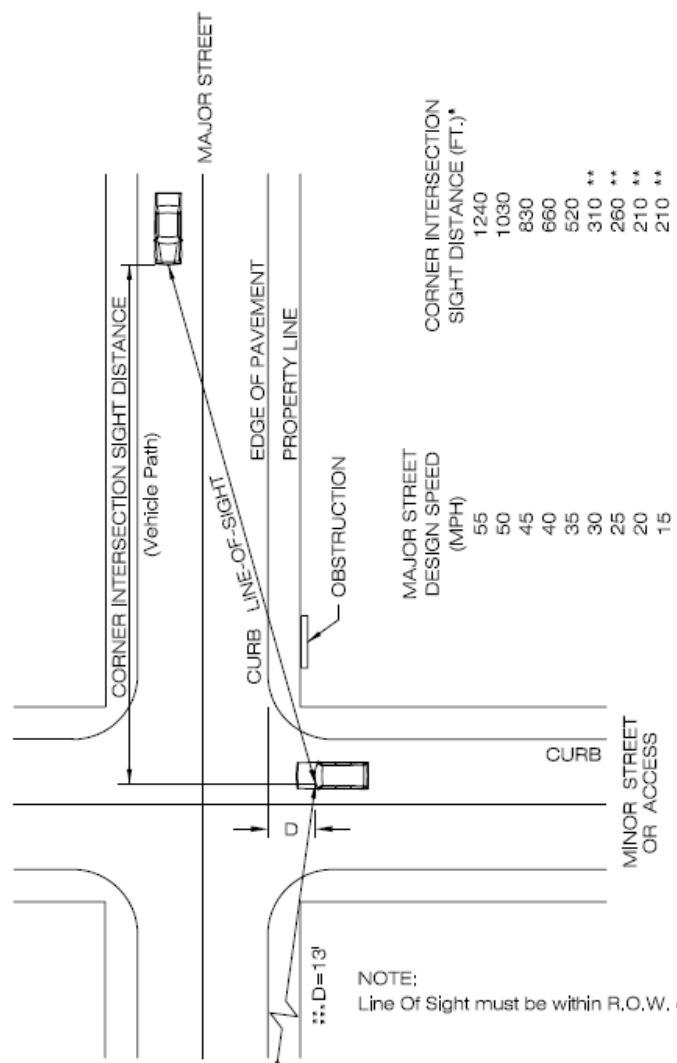
REVISION NO:

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FIGURE

7-11L

**Figure-17
(Sight Distance):**



MAJOR STREET DESIGN SPEED (MPH)	CORNER INTERSECTION SIGHT DISTANCE (FT.)*
55	1240
50	1030
45	830
40	660
35	520
30	310 **
25	260 **
20	210 **
15	210 **

- * Corner sight distance measured from a point on the minor road at 13 feet back from the edge of the major road pavement (flowline) and measured from a height of eye at 3.50 feet on the minor road to a height of object at 4.25 feet on the major road.
 - ** At Local-Local street intersections only, the "D" distance shall be ten feet (10') and the sight distance shall be measured to the centerline of the street.
 - *** For private driveway access to a public street, use 10 feet back from flowline (or shoulder for gravel roads).
1. These values apply to passenger cars on 2-lane roads only. Intersections and access serving trucks or on multi-lane roadways requires separate analysis.
 2. Adjustments may be required for a skewed intersection.

SIGHT DISTANCE AT INTERSECTIONS
(Unsignalized)

From "A Policy on Geometric Design of Highways and Streets 1990"
by American Association of State Highway and Transportation Officials

SIGHT DISTANCE (SIGHT TRIANGLE)			
LARIMER COUNTY URBAN AREA STREET STANDARDS	DESIGN FIGURE	REVISION NO:	FIGURE
		DATE: 09/11/00	

Sight Distance

Design Speed (mph)	Stopping Sight Distance	LCUASS Figure 7-16 Current Sight Distance	CDOT SHAC	CDOT SHAC	2018 "Green Book"	
			Table 4-2 (Single Unit Truck) Entering Sight Distance	Table 4-2 (Passenger Car) Entering Sight Distance	Sight Distance Left Turn	Sight Distance Right Turn
15	80'	210'	210'	210'	170'	145'
20	115'	210'	210'	210'	225'	195'
25	155'	260'	325'	250'	280'	240'
30	200'	310'	390'	300'	335'	290'
35	250'	520'	455'	350'	390'	335'
40	305'	660'	520'	400'	445'	385'
45	360'	830'	585'	450'	500'	430'
50	425'	1030'	650'	500'	555'	480'
55	495'	1240'	715'	550'	610'	530'

*Assumes two lane roadway with grades of 3% or less

**Sight Distance (210') for design speeds of 15 mph and 20 mph is not changing

Next Steps...

- Boards and Commissions (Construction Advisory Board, Transportation Advisory Board, Planning Commission, City Councils & County Commissioners)
- Estimated final approvals ~ May/June 2021
- Effective Date ~ July, 1, 2021

Questions?