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## Appendix 3:

# Alternative Cross Sections



## SH 5 Alternative Cross Sections

The cross sections illustrated in the SH 5 Master Plan reflect the conceptual designs that will best maintain the character and community-based vision established for the corridor. However, as part of the development of alternatives, multiple cross sections were created to demonstrate the recommended cross section, TxDOT design criteria cross section, and modified TxDOT design criteria cross section. Appendix 3 contains these conceptual alternatives as well as a comparison to the existing street section and typical Texas Department of Transportation (TxDOT) standards. Appendix 3 is intended to supplement the synthesis of the overall shared vision which appears in Section 4 of the SH 5 Master Plan.

A brief description of each cross-section alternative, along with an explanation of why it was deemed as less desirable than the ultimate recommended concept is also included in this appendix section.

### *Urban Cross Section*

The recommended urban cross section combines narrow lanes (11') and on-street parking to create a natural traffic calming and an atmosphere for an urban downtown that is pedestrian friendly and conducive to commercial development. Landscaping is proposed in the median and buffer zones. Bicyclists would be accommodated on the shared use path, in the street on the 11' lanes, and with a parallel facility on Tennessee Street.

Current TxDOT criteria call for a 14' outside travel lane for bicycle accommodation, as well as a 1-2' offset between travel lanes and the curb. Based on the constrained right-of-way available through the Town Center, implementation of these TxDOT criteria would eliminate the ability to include on-street parallel parking and would encourage higher traffic speeds (due to wider travel lanes) through the urban core of McKinney. With this in mind, the TxDOT design criteria cross section would create a facility that would not contribute to traffic calming or pedestrian activity. It would also not be conducive to the co-existence of vehicles, bicyclists and pedestrians in an urban environment. The alternative option would create on-street bike lanes instead of the wide outside lane or on-street parking.

### *Urban/Rural Transition Cross Section*

The recommended urban transition and rural transition cross sections combine narrow inside and outside lanes to create a lower speed facility that increases pedestrian safety at intersections and midblock crossings. The cross sections also combine the use of wide shared use paths on either side of the roadway to accommodate bicyclists and other recreational users.

Current TxDOT criteria call for a 14' outside lane to accommodate bicyclists, as well as a wider (2' preferred) curb offset. These increased street dimensions would reduce the size of the shared use paths and would encourage higher vehicular speeds through the City, which is not preferred for bicycle and pedestrian safety.

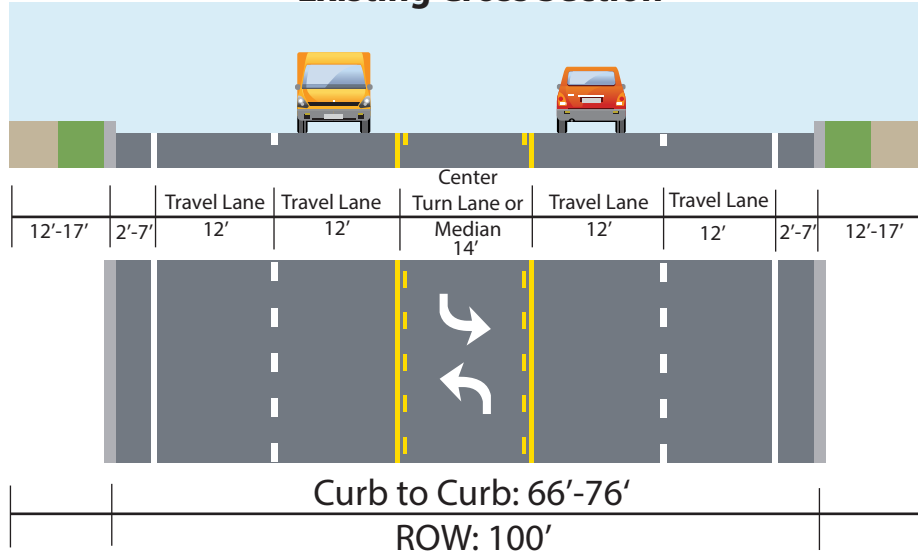
### *Suburban Cross Section*

The recommended suburban cross section combines narrow lanes and a 1' curb offset. The cross section also combines the use of wide shared use paths on either side of the roadway to accommodate bicyclists and other recreational users.

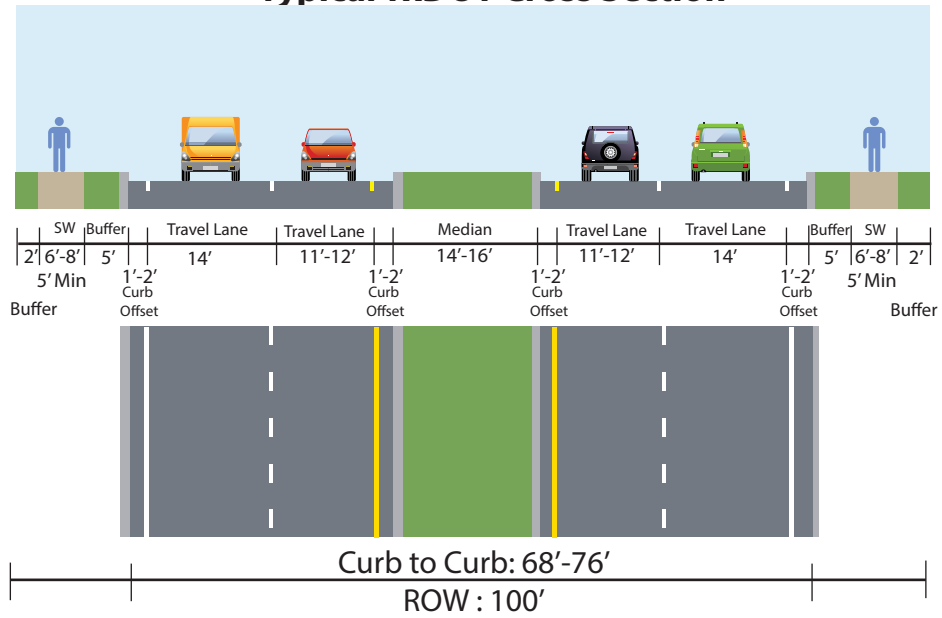
Current TxDOT criteria call for 14' outside lane to accommodate bicyclists, as well as a wider (2' preferred) curb offset. The alternative option is similar to the recommended option, but includes a wide outside lane (14') to accommodate bicyclists. Due to the extensive size of the right-of-way, the shared use path is still proposed with a 10' width and landscaping in the median and buffer zones.

# Urban Cross Sections

## Existing Cross Section

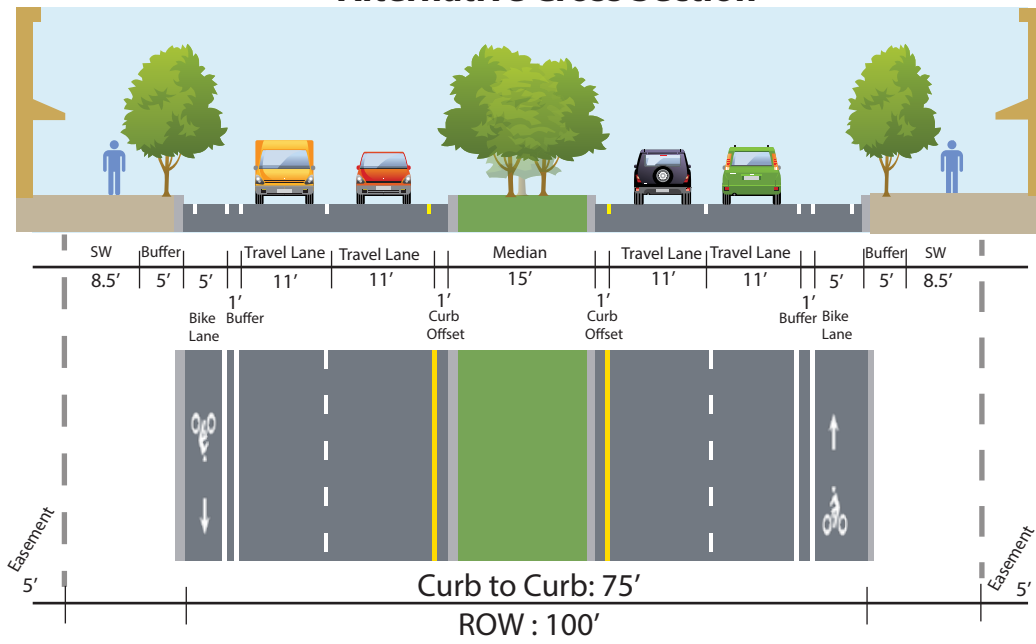


## Typical TxDOT Cross Section



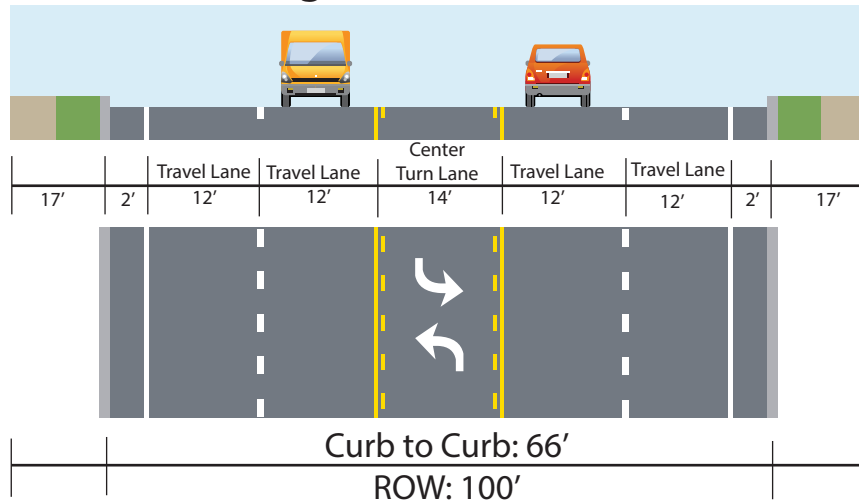
# Urban Cross Sections

## Alternative Cross Section

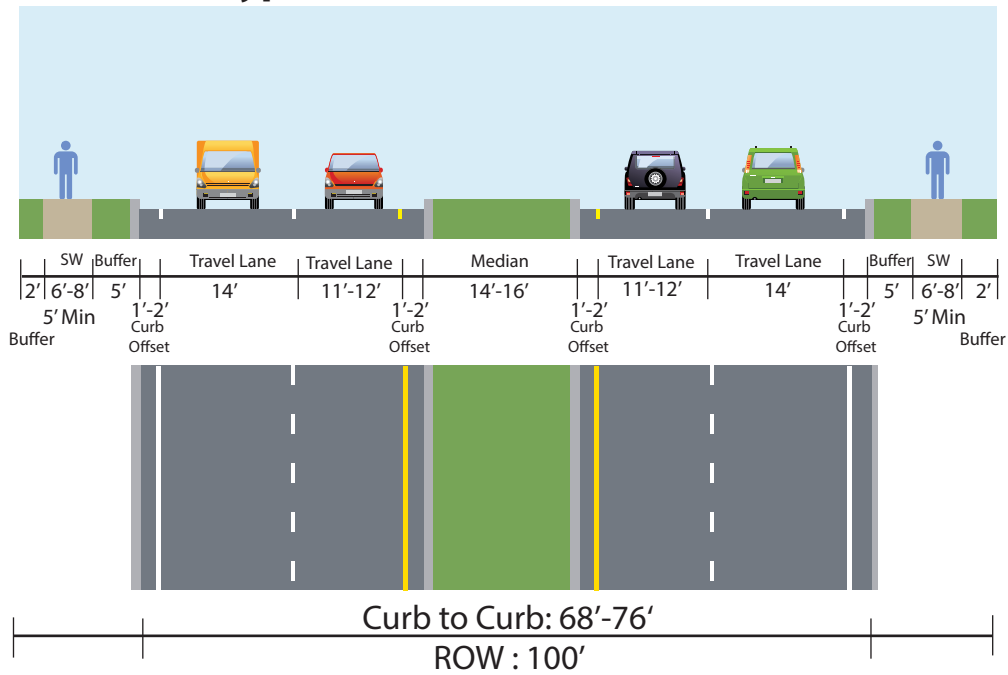


# Urban Transition Cross Sections

## Existing Cross Section

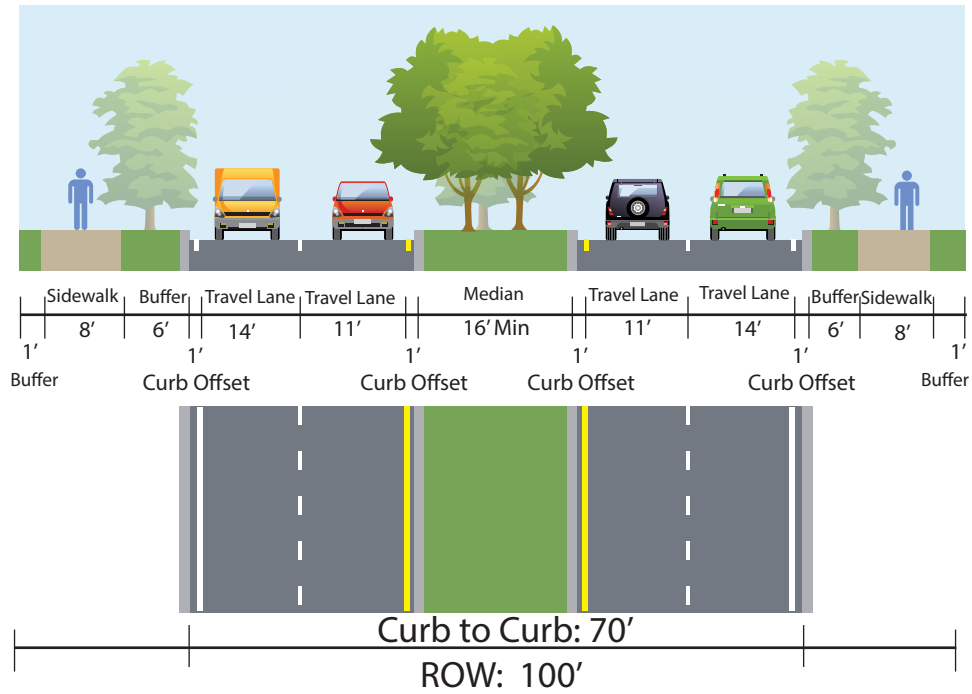


## Typical TxDOT Cross Section



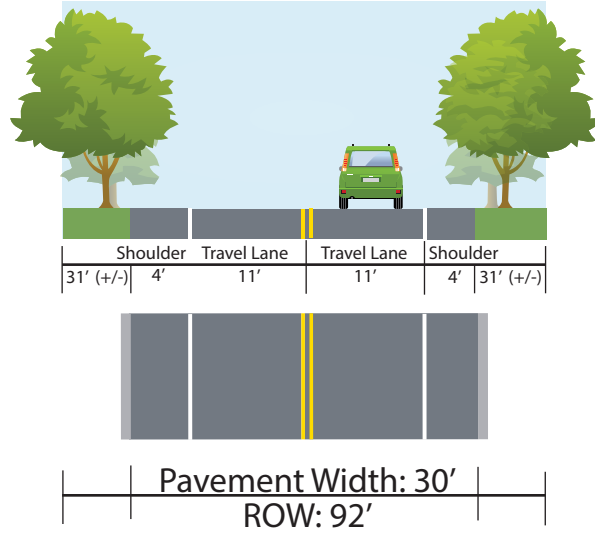
# Urban Transition Cross Sections

## Alternative Cross Section

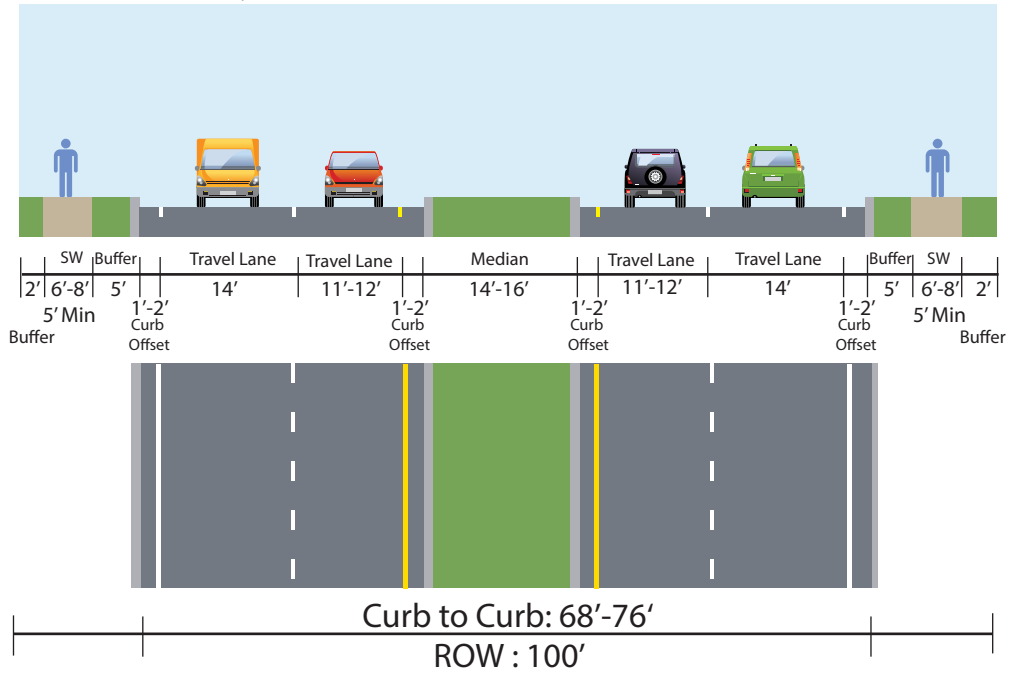


# Rural Transition Cross Sections

## Existing Cross Section



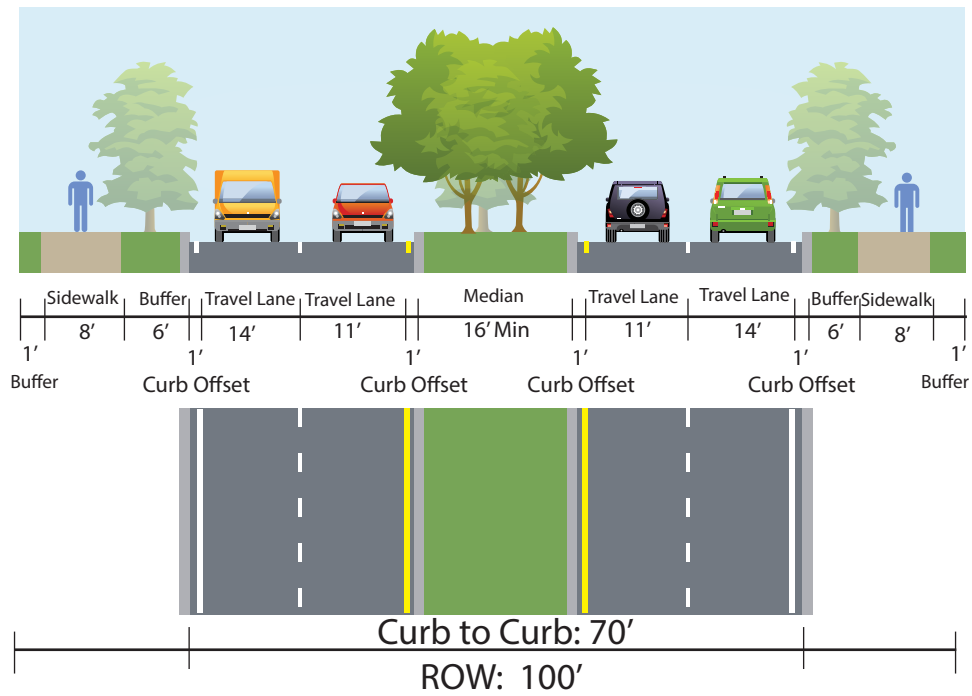
## Typical TxDOT Cross Section





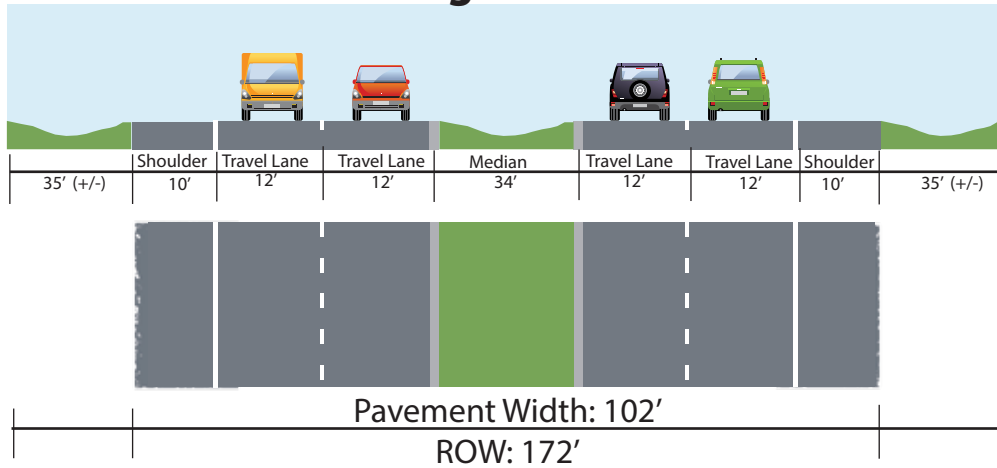
# Rural Transition Cross Sections

## Alternative Cross Section

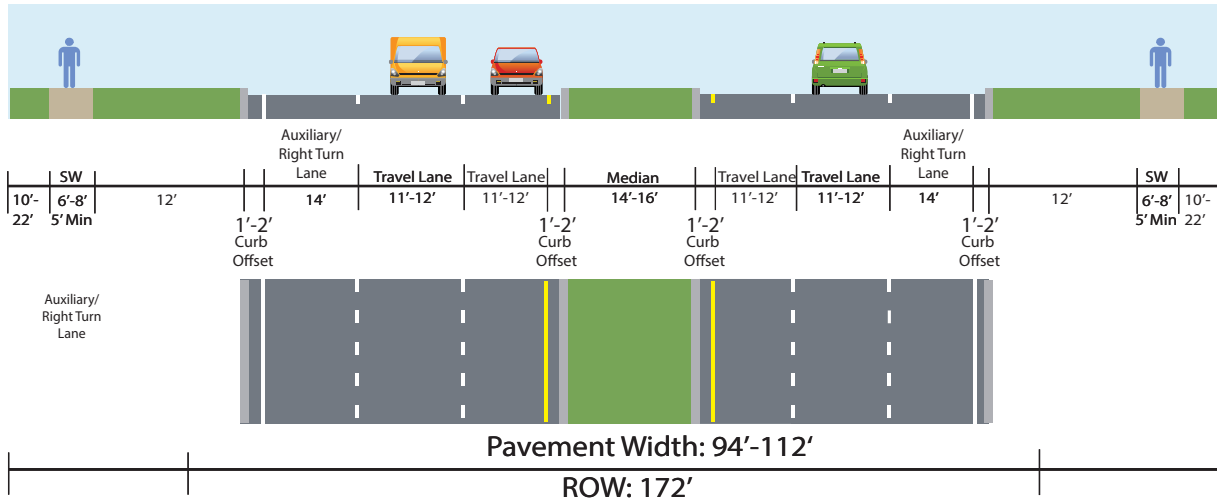


# Suburban Cross Sections

## Existing Cross Section

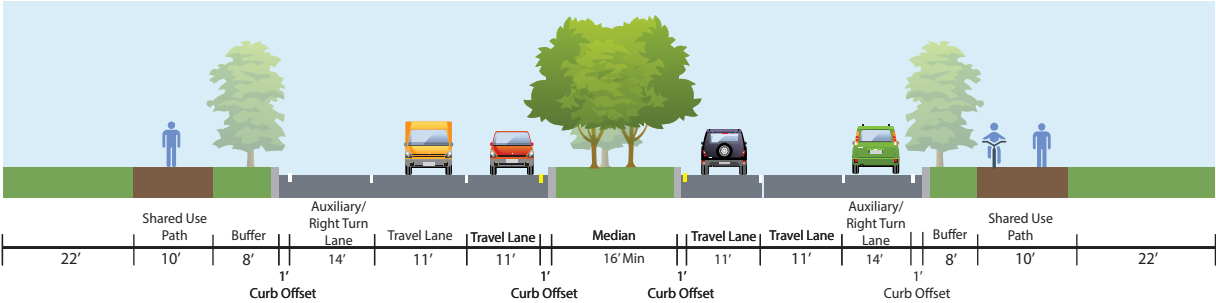


## Typical TxDOT Cross Section



# Suburban Cross Sections

## Alternative Cross Section



Curb to Curb: 91'  
ROW: 172'