



## Quality Control - Preliminary Plans Checklist

Project ID: \_\_\_\_\_ Consultant/RPG: \_\_\_\_\_ Date: \_\_\_\_\_

County: \_\_\_\_\_ Description: \_\_\_\_\_

- Conduct DFR RDM 21.1.5
- Perform Constructability Review

### Title Sheet

- 1.1 \_\_\_\_\_ County, Project ID, Description, and Scope consistent with P2S RDM 22.1.4/22.2.1
- 1.2 \_\_\_\_\_ Road Number labeled on Title Sheet RDM 22.2.2
- 1.3 \_\_\_\_\_ Map properly depicts location RDM 22.2.2
  - 1.3.1 \_\_\_\_\_ Location Map Labels (...County or Town/City of...) RDM 22.2.2
  - 1.3.2 \_\_\_\_\_ Project area clearly highlighted on map RDM 22.2.2
  - 1.3.3 \_\_\_\_\_ Ensure scale is accurately shown and labeled RDM 22.2.2
- 1.4 \_\_\_\_\_ Design Reference Year/Hydraulic Design Reference year is appropriate for Department practices RDM 22.2.2
- 1.5 \_\_\_\_\_ Traffic data (current and design year) for each road RDM 22.2.2
  - 1.5.1 \_\_\_\_\_ Design year selection RDM 3.6.2
- 1.6 \_\_\_\_\_ Project location and description RDM 22.2.2
- 1.7 \_\_\_\_\_ North arrow shown RDM 22.2.2
- 1.8 \_\_\_\_\_ Index with Subtotals and Total Sheets or note to IL1 RDM 22.1.3/22.2.2
  - 1.8.1 \_\_\_\_\_ If IL1 is noted, ensure IL1 Sheet is provided
- 1.9 \_\_\_\_\_ Longitude and Latitude RDM 22.2.2
- 1.10 \_\_\_\_\_ Railroad involvement indicated RDM 22.2.2
- 1.11 \_\_\_\_\_ Environmental Permit Information Completed RDM 22.2.2
- 1.12 \_\_\_\_\_ Check Beginning and Ending Station Notes on Location Map Agree with each of the following:
  - 1.12.1 \_\_\_\_\_ Typical Section
  - 1.12.2 \_\_\_\_\_ Plans
  - 1.12.3 \_\_\_\_\_ Profiles
  - 1.12.4 \_\_\_\_\_ Cross Sections
  - 1.12.5 \_\_\_\_\_ Include arrows indicating "Begin" and "End" of project survey(s) RDM 22.2.2
- 1.13 \_\_\_\_\_ Ensure notes for bridges/culverts and notes for exceptions agree with:
  - 1.13.1 \_\_\_\_\_ Typical Section
  - 1.13.2 \_\_\_\_\_ Plans
  - 1.13.3 \_\_\_\_\_ Profiles
  - 1.13.4 \_\_\_\_\_ Cross Sections

- 1.13.5  Note: "Bridge plans bound under separate cover"
- 1.14  Check length of Project
  - Show length(s) in thousandths for each mainline survey (side roads, connectors, ramps, etc.)
  - 1.14.1
  - 1.14.2  Calculate and provide detour mileage if applicable RDM 22.2.2
  - 1.14.3  Show total mileage if multiple roads/alignments RDM 22.2.2
  - 1.14.4  Check for exceptions of roadway RDM 22.2.2
  - 1.14.5  Show equalities in stationing (agrees with plans) RDM 22.2.2
- 1.15  RPG Number/Group Coordinator Initials & Initials of Preparer

Comments:

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### Index Layout Sheet (if used)

- IL.1  Index accurate based on information included in plans RDM 22.2.3
  - All sheets to be included in final set are shown in index, including "omitted"
- IL.2  sheets RDM 22.2.3

Comments:

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### Typical Section RDM 22.2.5

#### General

- 3.1  Do station limits agree with plan(s) and cross section(s)? RDM 22.2.5.4/22.2.7.2
- 3.2  Is profile grade line location shown? RDM 6.2.3.2
- 3.3  Functional classification provided RDM 22.2.5.9
- 3.4  Sidewalk separated from travel lane by curb or grassed space RDM 7.3.3
- 3.5  Base 0.5' wider than surface/intermediate (non-curb/gutter)
- 3.6  "NTS" if not to scale RDM 22.2.5.1
- 3.7  Ditch note allowing variable ditch where applicable RDM Fig. 16.2-A
- 3.8  Is guardrail note included if applicable
- 3.9  Is on-street parking applicable RDM 7.2.7
- 3.10  Does shown width of the whole section matches the sum of the parts shown?

**Travel & Auxiliary Lanes**  N/A RDM Chapters 14-17

Are lane widths and slopes dimensioned and appropriate for the road type?

- 3.11 Travel lanes  N/A  Width  Slope  Dimension
- 3.12 Auxiliary lanes  N/A  Width  Slope  Dimension
- 3.13 Shared Use Paths  N/A  Width  Slope  Dimension AASHTO Bike Guide

**Shoulders (RDM 2.2.9/7.2.4.2)**  N/A

Are shoulder widths and slopes dimensioned and appropriate for the road type?

- 3.17 Paved Shoulders  N/A  Width  Slope  Dimension
- 3.18 Earth Shoulders  N/A  Width  Slope  Dimension
- 3.19 Shared Use Paths  N/A  Width  Slope  Dimension
- 3.20 Interchange Ramps  N/A  Width  Slope  Dimension RDM 10.5.4

**Bike/Ped (RDM 7.3.3)**  N/A

Are widths and slopes appropriate for the road type and dimensioned?

- 3.21 Sidewalk  N/A  Width  Slope  Dimension
- 3.22 Shared Use Paths  N/A  Width  Slope  Dimension
- 3.23 Bike Lanes  N/A  Width  Slope  Dimension
- 3.24 Shared Use Lanes  N/A  Width  Slope  Dimension

**Medians**  N/A

Are widths appropriate for the road type and dimensioned?

- 3.25 Flush  N/A  Width  Dimensioned RDM 7.4.2.2
- 3.26 TWLTL  N/A  Width  Dimensioned RDM 7.4.3
- 3.27 Raised Concrete  N/A  Width  Dimensioned RDM 7.4.2.3
- 3.28 Raised Planted  N/A  Width  Dimensioned RDM 7.4.2.3
- 3.29 Earthen Depressed  N/A  Width  Dimensioned RDM 7.4.2.4

## Other

- 3.30 Do bridge widths match approach sections?  N/A  Yes RDM 7.5.1.1
- 3.31 Fill Heights  Fill Height Table  2:1s labeled as 2:1 Max RDM 7.3.2.2
- 3.32 Design Speed  Roadway  SUP  Roundabout RDM 22.2.5.8, 3.5.1
- 3.33 Flat Bottom Ditches  Labeled RDM 22.2.5.2

Ensure shown width of the whole section matches the sum of the parts shown

Comments:

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## Reference Data Sheet

- 5A.1 Curve Data RDM 22.2.7.3
- 5A.1.1 Includes PI,  $\Delta$ , Degree, Tangent, Length, External, Radius, Design Speed, eMax, e, PC/PT-LG% RDM Figure 22.2-D
- 5A.3 Design speeds consistent with typical sections
- 5A.4 Horizontal curves meet minimum radius
- 5A.5 Horizontal curves meet minimum lengths RDM 5.2.5
- 5A.6 Tangent length between curves is adequate (Reverse Curves) RDM 5.2.2.4/5.3.7

Comments:

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## Survey Control Data Sheet

PCDM-08

- 5B.1 Required
- 5B.2 Datum Defined (with a Combined Scale Factor (CSF) included)
- 5B.3 Project survey control coordinate and elevation information provided

Comments:

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## Plan Sheets

### General

### RDM Section 3.8.4.3

- |       |   |                       |
|-------|---|-----------------------|
| 6.1   | <input type="checkbox"/> Utility Owners note on first plan sheet  | RDM 22.2.7.2          |
| 6.2   | <input type="checkbox"/> All right of way properly verified   |                       |
| 6.2.1 | <input type="checkbox"/> "Present" Heading  | RDM 12.1.2/22.2.6.1.1 |
| 6.3   | <input type="checkbox"/> North arrow on all plan sheets   | RDM 22.2.8.21         |
| 6.4   | <input type="checkbox"/> Match lines shown are in agreement with station alignments and appropriate pages |                       |
| 6.5   | <input type="checkbox"/> Bearings provided on all plan sheets,  | RDM 22.2.8.21         |
| 6.6   | <input type="checkbox"/> PI's do not exceed maximum without a curve                                       | RDM 5.2.4             |
| 6.7   | <input type="checkbox"/> Relocated centerline notes provided  |                       |
| 6.8   | <input type="checkbox"/> Are transition tapers shown and labeled?   |                       |
| 6.9   | <input type="checkbox"/> Label Existing Control of Access   | RDM 3.8/22.2.8.3      |
| 6.10  | <input type="checkbox"/> Alignment control note on all plan sheets  |                       |
| 6.11  | <input type="checkbox"/> Medians designed in accordance with Section 7.4 of the RDM?                      | RDM 7.4               |
| 6.12  | <input type="checkbox"/> Access management is consistent throughout corridor?                             | RDM 3.8.2             |
| 6.14  | <input type="checkbox"/> Construction limits shown  | RDM 12.1.6/22.2.8.9   |
| 6.15  | <input type="checkbox"/> Earth retaining structures shown on plans  |                       |
|       | Locations _____   |                       |
| 6.16  | <input type="checkbox"/> New box culverts & culvert extensions shown                                      |                       |
|       | Locations _____   |                       |
| 6.17  | <input type="checkbox"/> Roadway design has been coordinated with a geotechnical engineer                 |                       |

### Travelway widths

RDM 22.2.8.6

- |      |  |  |
|------|--|--|
| 6.18 | <input type="checkbox"/> Lane widths tie to existing at beginning and end of project |  |
| 6.19 | <input type="checkbox"/> Shown at beginning and end of each sheet                    |  |
| 6.20 | <input type="checkbox"/> Shown at beginning and end of tapers                        |  |
| 6.21 | <input type="checkbox"/> Pluses (+) shown at beginning and end                       |  |
| 6.22 | <input type="checkbox"/> Consistent with typical section(s)                          |  |

### Sight Distances - Check horizontally and vertically

- |      |  |         |
|------|--|---------|
| 6.23 | <input type="checkbox"/> Stopping Sight Distance     | RDM 4.1 |
| 6.24 | <input type="checkbox"/> Intersection sight distance |         |
| 6.25 | <input type="checkbox"/> Passing Sight Distance      | RDM 4.2 |
| 6.26 | <input type="checkbox"/> Decision Sight Distance     | RDM 4.3 |
| 6.27 | <input type="checkbox"/> Roundabouts                 | RDM 4.5 |

### ROW Data

- |      |   |                |
|------|---|----------------|
| 6.28 | <input type="checkbox"/> Property lines shown   | RDM 22.2.6.1.4 |
| 6.29 | <input type="checkbox"/> Tracts numbered  | RDM 12.2.1     |
| 6.30 | <input type="checkbox"/> Right of way labeled at beginning and end of each sheet                            |                |
| 6.31 | <input type="checkbox"/> Station-Offset given for shifts and at beginning and end of tapers for present ROW | RDM 22.2.6.1.1 |

6.32	Label right of way at breaks/shifts in present right of way	
6.33	ROW included for sight triangle areas	RDM 12.1.8
6.34	Station-Offset text shown (if not on separate sheet)	RDM 21.1.2
6.35	Additional ROW acquired for bridge sites	RDM 12.1.14
<b>Roadway Drainage</b>		RDM 3.10/22.2.7.4
6.36	Structures (i.e. culvert agrees with culvert details)	RDM 3.10.3.6
6.37	Cross line pipes 48" or greater shown on profile	RDM 22.2.8.11
6.38	Hydro data provided for bridges and culverts larger than 48"	
6.39	Dams - Ensure dams are not being constructed within SCDOT right of way	
<b>Interchanges</b>		<b>RDM Section 3.8.4.3</b>
6.40	Taper rates for taper style ramp are between 2 and 5 degrees	RDM 10.4.1.2
6.41	Deceleration lane lengths correct	RDM 10.4.1.3
6.42	Acceleration lane lengths correct	
6.43	Cross slope rollover at gores meets RDM section 10.4.1.6	RDM 10.4.1.6
6.44	Gore areas drawn	RDM 10.4.1.8
<b>Intersections</b>		
6.45	Offset intersection legs comply with RDM Section 9.2.6.3	RDM 9.2.6.3
6.46	Lane movements tie across intersection	
4.47	Intersection spacing is consistent with RDM Section 9.2.3	RDM 9.2.3
6.48	Angle of intersection is consistent with RDM Section 9.2.6.2	RDM 9.2.6.2
6.49	Intersection realignment is consistent with RDM Figure 9.2-C	RDM Figure 9.2-C
6.50	Throat widths with adequate taper tie-in (designed in accordance with proper design vehicle)	
6.51	Specify signal pole and cabinet location	PCDM - 13
6.52	Minimum size of channelizing islands is met	RDM 9.6.3
Design Vehicle Selection		RDM 3.7/9.2.5
6.53	Turning radii depicted on plans at all major intersections	
6.54	For new curb/gutter being introduced, verify adequate design vehicle(s) can access intersections/drives	
Auxiliary lanes		
6.55	Storage length shown and clearly labeled	RDM 9.5.2.2
6.56	Tapers shown and clearly labeled	RDM Figure 9.5-I
6.57	Widths shown and clearly labeled	RDM 7.2.6.1/9.5.2.1
6.58	Offset Lanes shown and clearly labeled	RDM 9.5.3
6.59	Dual-Turn Lanes shown and clearly labeled	RDM 9.5.4

<b>Roundabouts</b>		RDM 9.7
6.60	Design Considerations	RDM 9.7.4
6.61	R1-R5 Verification	NCHRP Report 672 6.7

<b>Bike/Ped Accommodations</b>		
6.62	Minimum PAR maintained	
6.62.1	<input type="checkbox"/> No signs, poles, hydrants, etc. allowed within PAR	RDM 7.3.3
6.62.2	<input type="checkbox"/> Must be maintained through ALL driveways, alleys, etc.	
6.63	Sidewalk ties to existing sidewalk or ends at logical termini (intersections, major area attractions)	RDM 7.3.3
6.64	Sidewalk breaks and radius turns are shown at driveways correctly	
6.65	SUP is separated from pavement of nearest travel way or a suitable barrier is used	
6.66	Are bike lanes terminated per AASHTO 2012 Bike Guide (if not tied to existing bike lanes)	
Comments:		
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<b>Profiles</b>		
6A.1	K-values meet required minimum values (appropriate curve lengths)	RDM 6.5
6A.2	Vertical clearances meet minimums	RDM 6.6/7.5.1.2
6A.3	Grades are equal to or below maximum grade	RDM 6.3.1
6A.4	Grades are equal to or above minimum grade	RDM 6.3.2
6A.5	Critical length of grade checked	RDM 6.3.3
6A.6	Existing ground profile shown and labeled	RDM 22.2.8.12
6A.7	Centerline elevations agree with cross sections	
6A.8	Vertical alignment ties at beginning and end of project	

<b>Side Roads</b>		RDM 9.2.7
6A.9	Landing Area/Approach grade	RDM 9.2.7.1
6A.10	Sag/Crest Breaks	RDM Figures 9.2-F & 9.2-G
6A.11	Buffer between mainline and 1st side road vertical curve	RDM Figures 9.2-F & 9.2-G
6A.12	Intersection Sight Distance (ISD)	RDM 4.4
6A.13	Vertical Profile	RDM 9.2.7.3
Comments:		
<hr/>		
<hr/>		
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## Cross Sections

RDM 21.1.10

- XS.1  Reference Data Sheet RDM 22.2.21
- XS.2  Clear zone is provided throughout project Roadside Design Guide Table 3-1
- XS.3  Consistent with typical sections(s) - rates, widths, cross slopes, depths
- XS.4  Consistent with plan view - widths, presence of turn lanes, ditches, guardrail
- XS.5  Consistent with profile(s) - elevations
- XS.6  Labels for present right of way shown
- XS.8  Station equalities labeled RDM 22.2.21
- XS.9  Bridge station limits labeled RDM 22.2.21
- XS.11  Matchlines shown for intersecting roads RDM 22.2.21

Comments:

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## General

- G.1  Freeway (See AASHTO Interstate Guide)
- G.2  Project has been reviewed for design consistency within the roadway corridor RDM 2.2.7
- G.3  All utility relocations notes/reviewed. Utilities outside clear zone, do not conflict with drainage or PAR
- G.5  SCDOT Standard Drawings are not duplicated in plan set
- G.6  Bike/ped. design is consistent with local/regional plans

Comments:

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## ADA Considerations

### Sidewalk

ADA.1  Is the sidewalk width 5 foot (60") exclusive of curb?

ADA.2  Where sidewalk width is less than 5 feet, are passing zones (60" x 60") provided at intervals no greater than every 200 feet?

Comments:

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## Quality Control - Right of Way Plans Checklist

Project ID: \_\_\_\_\_ Consultant/RPG: \_\_\_\_\_ Date: \_\_\_\_\_

County: \_\_\_\_\_ Description: \_\_\_\_\_

- Conduct DFR RDM 21.1.5
- Perform Constructability Review

### Title Sheet

- |        |  |                     |
|--------|--|---------------------|
| 1.1    | <input type="checkbox"/> County, Project ID, Description, and Scope consistent with P2S                                | RDM 22.1.4/22.2.1   |
| 1.2    | <input type="checkbox"/> Road Number labeled on Title Sheet  | RDM 22.2.2          |
| 1.3    | <input type="checkbox"/> Map properly depicts location   | RDM 22.2.2          |
| 1.3.1  | <input type="checkbox"/> Location Map Labels (...County or Town/City of...)  | RDM 22.2.2          |
| 1.3.2  | <input type="checkbox"/> Project area clearly highlighted on map   | RDM 22.2.2          |
| 1.3.3  | <input type="checkbox"/> Ensure scale is accurately shown and labeled  | RDM 22.2.2          |
| 1.4    | <input type="checkbox"/> Design Reference Year/Hydraulic Design Reference year is appropriate for Department practices | RDM 22.2.2          |
| 1.5    | <input type="checkbox"/> Traffic data (current and design year) for each road  | RDM 22.2.2          |
| 1.5.1  | <input type="checkbox"/> Design year selection   | RDM 3.6.2           |
| 1.6    | <input type="checkbox"/> Project location and description  | RDM 22.2.2          |
| 1.7    | <input type="checkbox"/> North arrow shown   | RDM 22.2.2          |
| 1.8    | <input type="checkbox"/> Index with Subtotals and Total Sheets or note to IL1  | RDM 22.1.3/22.2.2   |
| 1.8.1  | <input type="checkbox"/> If IL1 is noted, ensure IL1 Sheet is provided   |                     |
| 1.9    | <input type="checkbox"/> Longitude and Latitude  | RDM 22.2.2          |
| 1.10   | <input type="checkbox"/> Railroad involvement indicated  | RDM 22.2.2          |
| 1.11   | <input type="checkbox"/> Environmental Permit Information Completed  | RDM 22.2.2          |
| 1.12   | <input type="checkbox"/> NPDES Permit Information Provided   | RDM 12.1.5.3/22.2.2 |
| 1.13   | <input type="checkbox"/> Check Beginning and Ending Station Notes on Location Map Agree with each of the following:    |                     |
| 1.13.1 | <input type="checkbox"/> Typical Section   |                     |
| 1.13.2 | <input type="checkbox"/> Plans   |                     |
| 1.13.3 | <input type="checkbox"/> Profiles  |                     |
| 1.13.4 | <input type="checkbox"/> Cross Sections  |                     |
| 1.13.5 | <input type="checkbox"/> Include arrows indicating "Begin" and "End" of project survey(s)                              | RDM 22.2.2          |
| 1.14   | <input type="checkbox"/> Ensure notes for bridges/culverts and notes for exceptions agree with:                        |                     |
| 1.14.1 | <input type="checkbox"/> Typical Section   |                     |
| 1.14.2 | <input type="checkbox"/> Plans   |                     |
| 1.14.3 | <input type="checkbox"/> Profiles  |                     |
| 1.14.4 | <input type="checkbox"/> Cross Sections  |                     |
| 1.14.5 | <input type="checkbox"/> Note: "Bridge plans bound under separate cover"   |                     |
| 1.15   | <input type="checkbox"/> Check length of Project   |                     |

- 1.15.1  Show length(s) in thousandths for each mainline survey (side roads, connectors, ramps, etc.)
  - 1.15.2  Calculate and provide detour mileage if applicable RDM 22.2.2
  - 1.15.3  Show total mileage if multiple roads/alignments RDM 22.2.2
  - 1.15.4  Check for exceptions of roadway RDM 22.2.2
  - 1.15.5  Show equalities in stationing (agrees with plans) RDM 22.2.2
  - 1.16  RPG Number/Group Coordinator Initials & Initials of Preparer
- Comments: \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**Index Layout Sheet (if used)**

- IL.1  Index accurate based on information included in plans RDM 22.2.3
  - All sheets to be included in final set are shown in index, including "omitted"
  - IL.2  sheets RDM 22.2.3
- Comments: \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

**Typical Section RDM 22.2.5**

**General**

- 3.1  Do station limits agree with plan(s) and cross section(s)? RDM 22.2.5.4/22.2.7.2
- 3.2  Is profile grade line location shown? RDM 6.2.3.2
- 3.3  Functional classification provided RDM 22.2.5.9
- 3.3.1  Local Roads and Streets (group number also for local routes) RDM 14
- 3.3.2  Collector Roads and Streets RDM 15
- 3.3.3  Rural and Urban Arterials RDM 16
- 3.3.4  Freeways RDM 17
- 3.4  Sidewalk separated from travel lane by curb or grassed space RDM 7.3.3
- 3.5  Base 0.5' wider than surface/intermediate (non-curb/gutter)
- 3.6  "NTS" if not to scale RDM 22.2.5.1
- 3.7  Ditch note allowing variable ditch where applicable RDM Fig. 16.2-A
- 3.8  Is guardrail note included if applicable
- 3.9  Is on-street parking applicable RDM 7.2.7
- 3.10  Does shown width of the whole section matches the sum of the parts shown?

**Travel & Auxiliary Lanes  N/A RDM Chapters 14-17**

- Are lane widths and slopes dimensioned and appropriate for the road type?
- 3.11 Travel lanes  N/A  Width  Slope  Dimension
  - 3.12 Auxiliary lanes  N/A  Width  Slope  Dimension
  - 3.13 Shared Use Paths  N/A  Width  Slope  Dimension AASHTO Bike Guide

**Curbs (RDM 7.2.8)  N/A**

- 3.14  Curb Ramp Notes RDM 22.2.5.7
- 3.15  Curb Types and Widths Appropriate RDM 7.2.8
- 3.16  Valley Gutter RDM 7.2.9/11.11.3.7

**Shoulders (RDM 2.2.9/7.2.4.2)  N/A**

Are shoulder widths and slopes dimensioned and appropriate for the road type?

- 3.17 Paved Shoulders  N/A  Width  Slope  Dimension
- 3.18 Earth Shoulders  N/A  Width  Slope  Dimension
- 3.19 Shared Use Paths  N/A  Width  Slope  Dimension
- 3.20 Interchange Ramps  N/A  Width  Slope  Dimension RDM 10.5.4

**Bike/Ped (RDM 7.3.3)  N/A**

Are widths and slopes appropriate for the road type and dimensioned?

- 3.21 Sidewalk  N/A  Width  Slope  Dimension
- 3.22 Shared Use Paths  N/A  Width  Slope  Dimension
- 3.23 Bike Lanes  N/A  Width  Slope  Dimension
- 3.24 Shared Use Lanes  N/A  Width  Slope  Dimension

**Medians  N/A**

Are widths appropriate for the road type and dimensioned?

- 3.25 Flush  N/A  Width  Dimensioned RDM 7.4.2.2
- 3.26 TWLTL  N/A  Width  Dimensioned RDM 7.4.3
- 3.27 Raised Concrete  N/A  Width  Dimensioned RDM 7.4.2.3
- 3.28 Raised Planted  N/A  Width  Dimensioned RDM 7.4.2.3
- 3.29 Earthen Depressed  N/A  Width  Dimensioned RDM 7.4.2.4

**Other**

- 3.30 Do bridge widths match approach sections?  N/A  Yes RDM 7.5.1.1
- 3.31 Fill Heights  Fill Height Table  2:1s labeled as 2:1 Max RDM 7.3.2.2
- 3.32 Design Speed  Roadway  SUP  Roundabout RDM 22.2.5.8, 3.5.1
- 3.33 Flat Bottom Ditches  Labeled RDM 22.2.5.2

Ensure shown width of the whole section matches the sum of the parts shown

## Pavement Design

- Design included RDM 22.2.5.3
- 3.34  Approved by Pavement Design Engineer within last three years. Provide memo/e-mail to QA. RDM 21.1.8
- Reviewed against DFR plan review recommendations
- 3.35  Widths and thickness/rate of material agrees with plans and cross sections
- Pavement legend agrees with OMR or DFR
- Asphalt materials comply with guidelines for HMA Selection (Latest version)
- 3.36  Graded Aggregate Bases (Should not be used in areas with 6' or less width) (requires note)

Comments:

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## Right of Way Data Sheet

RDM 22.2.6.1

- 4.1  Required and included in plans RDM 22.2.6
- 4.2  Tract numbers agree with Property Strip Map and Plan sheets RDM 22.2.6.1
- 4.3  Ensure compliance with Notes A and B on ROW Data Sheet
- 4.4  Permissions noted and accurate RDM 12.2.6
- 4.5  New ROW included and accurate RDM X.X.X

Comments:

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## Property Strip Map

RDM 22.2.6.2

- 4A.1  Tracts numbered RDM 22.2.6.2
- 4A.2  Property Closures RDM 12.2.3/22.2.6.2
- 4A.3  Present and new right of way clearly noted RDM 22.2.6.2
- 4A.3.1  Agrees with plans
- 4A.3.2  Drawn to reflect correct offset from CL with labels at all ROW line breaks
- 4A.4  Readable at half-size

Comments:

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## Reference Data Sheet

- |        |   |                   |
|--------|---|-------------------|
| 5A.1   | Curve Data  | RDM 22.2.7.3      |
| 5A.1.1 | Includes PI, Δ, Degree, Tangent, Length, External, Radius, Design Speed, eMax, e, PC/PT-LG% | RDM Figure 22.2-D |
| 5A.3   | Design speeds consistent with typical sections  |                   |
| 5A.4   | Horizontal curves meet minimum radius   |                   |
| 5A.5   | Horizontal curves meet minimum lengths  | RDM 5.2.5         |
| 5A.6   | Tangent length between curves is adequate (Reverse Curves)                                  | RDM 5.2.2.4/5.3.7 |

Comments:

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## Survey Control Data Sheet

**PCDM-08**

- |      |  |  |
|------|--|--|
| 5B.1 | Required   |  |
| 5B.2 | Datum Defined (with a Combined Scale Factor (CSF) included)          |  |
| 5B.3 | Project survey control coordinate and elevation information provided |  |

Comments:

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## Plan Sheets

### General

### RDM Section 3.8.4.3

- |        |  |                        |
|--------|--|------------------------|
| 6.1    | Utility Owners note on first plan sheet  | RDM 22.2.7.2           |
| 6.2    | All right of way properly verified   |                        |
| 6.2.1  | "Present" Heading  | RDM 12.1.2/22.2.6.1.1  |
| 6.2.2  | "New" Heading  | RDM 22.2.6.1.2         |
| 6.3    | North arrow on all plan sheets   | RDM 22.2.8.21          |
| 6.4    | Match lines shown are in agreement with station alignments and appropriate pages |                        |
| 6.5    | Bearings provided on all plan sheets,  | RDM 22.2.8.21          |
| 6.6    | PI's do not exceed maximum without a curve                                       | RDM 5.2.4              |
| 6.7    | Relocated centerline notes provided  |                        |
| 6.8    | Are transition tapers shown and labeled?   |                        |
| 6.9    | Label Existing & Proposed Control of Access                                      | RDM 3.8/22.2.8.3       |
| 6.10   | Alignment control note on all plan sheets  |                        |
| 6.11   | Medians designed in accordance with Section 7.4 of the RDM?                      | RDM 7.4                |
| 6.12   | Access management is consistent throughout corridor?                             | RDM 3.8.2              |
| 6.13   | Channelization designed in accordance with Section 9.6 of the RDM?               | RDM 9.6                |
| 6.14   | Construction limits shown  | RDM 12.1.6/22.2.8.9    |
| 6.15   | NPDES lines shown  | RDM 12.1.5.2/22.2.8.10 |
| 6.15.1 | Includes temporary conditions (e.g. for temporary traffic control)               |                        |
| 6.16   | BCA lines shown  | RDM 12.1.15            |

- 6.17  Top of curb profiles included RDM 22.2.9.1
- 6.17.1  TOC profiles match cross sections
- 6.18  Earth retaining structures shown on plans  
 Locations \_\_\_\_\_
- 6.19  New box culverts & culvert extensions shown  
 Locations \_\_\_\_\_
- 6.20  Roadway design has been coordinated with a geotechnical engineer

**Travelway widths RDM 22.2.8.6**

- 6.20  Lane widths tie to existing at beginning and end of project
- 6.21  Shown at beginning and end of each sheet
- 6.22  Shown at beginning and end of tapers
- 6.23  Pluses (+) shown at beginning and end
- 6.24  Consistent with typical section(s)

**Sight Distances - Check horizontally and vertically**

- 6.25  Stopping Sight Distance RDM 4.1
- 6.26  Intersection sight distance
- 6.27  Passing Sight Distance RDM 4.2
- 6.28  Decision Sight Distance RDM 4.3
- 6.29  Roundabouts RDM 4.5

**ROW Data**

- 6.30  Property lines shown RDM 22.2.6.1.4
- 6.31  Tracts numbered RDM 12.2.1
- 6.32  Right of way labeled at beginning and end of each sheet
- 6.33  Station-Offset given for shifts and at beginning and end of tapers for present ROW RDM 22.2.6.1.1
- 6.34  Station-Offset given for shifts and at beginning and end of tapers for new ROW
- 6.35  Label right of way at breaks/shifts in present right of way
- 6.36  Label right of way at breaks/shifts in new right of way
- 6.37  ROW included for sight triangle areas RDM 12.1.8
- 6.38  ROW included for in-fall/out-fall ditches RDM 12.1.11
- 6.39  ROW included for signal equipment areas PCDM - 13
- 6.40  Station-Offset text shown (if not on separate sheet) RDM 21.1.2
- 6.41  Additional ROW acquired for bridge sites RDM 12.1.14
- 6.42  ROW
- 6.43  Sufficient space provided between construction limits and existing/new ROW for construction activities RDM 12.1.4

**Roadside Safety RDM 2.2.11/7.3.1**

- 6.44  Length of need checked Roadside Design Guide 5.6.4
- 6.45  Appropriate end treatments shown on plans
- 6.46  Cross sections checked for barrier warrents

6.46.1	Necessary - Slopes cannot strategically be flattened via permissions, new right of way, etc.	
6.47	Transverse slopes at side roads and median breaks protected as necessary	
6.48	Other special features - driveway openings, retrofits, pipe beveling, noise walls, etc.	
6.49	All blunt ends within clear zone are protected (walls, bridges)	
<b>Roadway Drainage</b>		<b>RDM 3.10/22.2.7.4</b>
6.50	Superelevation transitions checked for flat spots in curb profiles?	RDM 5.3.9
6.51	Check against DFR plan recommendations	
6.52	Catch basins placed in sags for curb curb & gutter or valley gutter sections	RDM 3.10.3.2
6.53	Structures (i.e. culvert agrees with culvert details)	RDM 3.10.3.6
6.54	Cross line pipes 48" or greater shown on profile	RDM 22.2.8.11
6.55	Hydro data provided for bridges and culverts larger than 48"	
6.56	Dams - Ensure dams are not being constructed within SCDOT right of way	
6.57	Proper drainage tables and link ID's are provided in plans	RDM 22.2.8.11
6.58	Bridge drainage designed in accordance with PCDM 16 and shown on plans	RDM 3.10.3.7
<b>Interchanges</b>		<b>RDM Section 3.8.4.3</b>
6.59	Taper rates for taper style ramp are between 2 and 5 degrees	RDM 10.4.1.2
6.60	Deceleration lane lengths correct	RDM 10.4.1.3
6.61	Acceleration lane lengths correct	
6.62	Cross slope rollover at gores meets RDM section 10.4.1.6	RDM 10.4.1.6
6.63	Gore areas drawn	RDM 10.4.1.8
<b>Intersections</b>		
6.64	Offset intersection legs comply with RDM Section 9.2.6.3	RDM 9.2.6.3
6.65	Lane movements tie across intersection	
6.66	Intersection spacing is consistent with RDM Section 9.2.3	RDM 9.2.3
6.67	Angle of intersection is consistent with RDM Section 9.2.6.2	RDM 9.2.6.2
6.68	Intersection realignment is consistent with RDM Figure 9.2-C	RDM Figure 9.2-C
6.69	Throat widths with adequate taper tie-in (designed in accordance with proper design vehicle)	
6.70	Specify signal pole and cabinet location	PCDM - 13
6.71	Minimum size of channelizing islands is met	RDM 9.6.3
Design Vehicle Selection		RDM 3.7/9.2.5
6.72	Turning radii depicted on plans at all major intersections	
6.73	For new curb/gutter being introduced, verify adequate design vehicle(s) can access intersections/drives	
Auxiliary lanes		
6.74	Storage length shown and clearly labeled	RDM 9.5.2.2
6.75	Tapers shown and clearly labeled	RDM Figure 9.5-I
6.76	Widths shown and clearly labeled	RDM 7.2.6.1/9.5.2.1
6.77	Offset Lanes shown and clearly labeled	RDM 9.5.3
6.78	Dual-Turn Lanes shown and clearly labeled	RDM 9.5.4



<b>Roundabouts</b>	<b>RDM 9.7</b>
--------------------	----------------

- |      |  |                      |
|------|--|----------------------|
| 6.79 | <input type="checkbox"/> Design Considerations | RDM 9.7.4            |
| 6.80 | <input type="checkbox"/> R1-R5 Verification    | NCHRP Report 672 6.7 |

<b>Bike/Ped Accommodations</b>
--------------------------------

- |        |  |           |
|--------|--|-----------|
| 6.81   | <input type="checkbox"/> Minimum PAR maintained  |           |
| 6.81.1 | <input type="checkbox"/> No signs, poles, hydrants, etc. allowed within PAR  | RDM 7.3.3 |
| 6.81.2 | <input type="checkbox"/> Must be maintained through ALL driveways, alleys, etc.  |           |
| 6.82   | <input type="checkbox"/> Sidewalk ties to existing sidewalk or ends at logical termini (intersections, major area attractions) | RDM 7.3.3 |
| 6.83   | <input type="checkbox"/> Crosswalks shown  |           |
| 6.84   | <input type="checkbox"/> Sidewalk breaks and radius turns are shown at driveways correctly                                     |           |
| 6.85   | <input type="checkbox"/> SUP is separated from pavement of nearest travel way or a suitable barrier is used                    |           |
| 6.86   | <input type="checkbox"/> Are bike lanes terminated per AASHTO 2012 Bike Guide (if not tied to existing bike lanes)             |           |

Comments:

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<b>Profiles</b>
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- |      |  |                 |
|------|--|-----------------|
| 6A.1 | <input type="checkbox"/> K-values meet required minimum values (appropriate curve lengths) | RDM 6.5         |
| 6A.2 | <input type="checkbox"/> Vertical clearances meet minimums                                 | RDM 6.6/7.5.1.2 |
| 6A.3 | <input type="checkbox"/> Grades are equal to or below maximum grade                        | RDM 6.3.1       |
| 6A.4 | <input type="checkbox"/> Grades are equal to or above minimum grade                        | RDM 6.3.2       |
| 6A.5 | <input type="checkbox"/> Critical length of grade checked                                  | RDM 6.3.3       |
| 6A.6 | <input type="checkbox"/> Existing ground profile shown and labeled                         | RDM 22.2.8.12   |
| 6A.7 | <input type="checkbox"/> Centerline elevations agree with cross sections                   |                 |
| 6A.8 | <input type="checkbox"/> Vertical alignment ties at beginning and end of project           |                 |

**Side Roads****RDM 9.2.7**

- 6A.9  Landing Area/Approach grade RDM 9.2.7.1
- 6A.10  Sag/Crest Breaks RDM Figures 9.2-F & 9.2-G
- 6A.11  Buffer between mainline and 1st side road vertical curve RDM Figures 9.2-F & 9.2-G
- 6A.12  Intersection Sight Distance (ISD) RDM 4.4
- 6A.13  Vertical Profile RDM 9.2.7.3

Comments:

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**Cross Sections****RDM 21.1.10**

- XS.1  Reference Data Sheet RDM 22.2.21
- XS.2  Clear zone is provided throughout project Roadside Design Guide Table 3-1
- XS.3  Consistent with typical sections(s) - rates, widths, cross slopes, depths
- XS.4  Consistent with plan view - widths, presence of turn lanes, ditches, guardrail
- XS.5  Consistent with profile(s) - elevations
- XS.6  Labels for present and new right of way shown
- XS.7  Minimum depth of ditches
- XS.8  Cross line pipes shown RDM 22.2.21
- XS.9  Station equalities labeled RDM 22.2.21
- XS.10  Bridge station limits labeled RDM 22.2.21
- XS.11  Major drives shown RDM 22.2.21
- XS.12  Matchlines shown for intersecting roads RDM 22.2.21
- XS.13  Guardrail/concrete barrier shown RDM 22.2.21
- XS.14  Shoulder width and taper accounted for at end treatments
- XS.15  Earth retaining structures shown

Comments:

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**General**

- G.1  Freeway (See AASHTO Interstate Guide)
- G.2  Project has been reviewed for design consistency within the roadway corridor RDM 2.2.7
- G.3  All utility relocations notes/reviewed. Utilities outside clear zone, do not conflict with drainage or PAR
- G.4  Detour plans included if applicable
- G.5  SCDOT Standard Drawings are not duplicated in plan set
- G.6  Bike/ped. design is consistent with local/regional plans

Comments:

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## ADA Considerations

### Sidewalk

- ADA.1  Is the sidewalk width 5 foot (60") exclusive of curb?
- ADA.2  Where sidewalk width is less than 5 feet, are passing zones (60" x 60") provided at intervals no greater than every 200 feet?
- ADA.3  Are sidewalks adjacent to steep longitudinal grades?
- ADA.3.1  If yes, are handrails provided?
- ADA.4  Are there protruding objects located in the sidewalk (ex: utility poles, mailboxes, signal poles, signs, etc.)?

### Ramps and Roadway Crossings

- ADA.5  Ramps are free from obstacles
- ADA.6  Ramps are perpendicular to the curb
- ADA.7  Ramps are placed at each end and in-line with crosswalk
- ADA.8  Crosswalks are perpendicular to the lanes
- ADA.9  Stop bars are located a minimum of 4 feet from the crosswalk
- ADA.10  Pedestrian push buttons are located 10 feet maximum from the curb and accessible
- ADA.11  Construction notes on roadway plans include detectable warning surfaces placement
- ADA.12  Ramps are located to minimize pedestrian exposure to traffic
- ADA.13  Ramps are located outside of low points where ponding could occur
- ADA.14  If the project includes multi-use trails, is the ramp width equal to the width of the trail?
- ADA.15  If the project includes multi-use trails, is the crosswalk width equal to the width of the trail?

### Median Treatments

- ADA.16  Is the minimum median width for pedestrian refuge 6 feet from face of curb to face of curb?
- ADA.17  Is a 4-foot minimum clear width for pedestrian travel provided on cut through and ramped medians?
- ADA.18  Are median ramp slopes 12:1 maximum?
- ADA.19  Is a level area measuring 4 feet wide by 4 feet long provided when using a ramped median?

### Accessible Pedestrian Signals (APS)

- ADA.20  Are pedestrian signals being replaced or installed within the limits of the project?
- ADA.20.1  If yes, are Accessible Pedestrian Signals included?

### Protruding Objects

- ADA.21  Are any objects mounted to a fixed structure between 27" and 80" above the ground?
- ADA.21.1  If yes, do the objects extend more than 4" from the fixed structure into the sidewalk?

## Inlets

ADA.22  Is there an inlet in the cross walk or landing area?

ADA.22.2  If yes, are the gaps less than ½" wide and placed perpendicular to the pedestrian travel way?

ADA.22.3  If not, can the ramp be relocated?

## Miscellaneous

ADA.23  Is enough detail included to construct all ADA features properly?

ADA.24  Do plans include handicapped accessible Maintenance of Pedestrian Access plans?

Comments:

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### Quality Control - Construction Plans Checklist

Project ID: \_\_\_\_\_ Consultant/RPG: \_\_\_\_\_ Date: \_\_\_\_\_

County: \_\_\_\_\_ Description: \_\_\_\_\_

- Conduct DFR RDM 21.1.5
- Perform Constructability Review

#### Title Sheet

- 1.1 \_\_\_\_\_ County, Project ID, Description, and Scope consistent with P2S RDM 22.1.4/22.2.1
- 1.2 \_\_\_\_\_ Road Number labeled on Title Sheet RDM 22.2.2
- 1.3 \_\_\_\_\_ Map properly depicts location RDM 22.2.2
- 1.3.1 \_\_\_\_\_ Location Map Labels (...County or Town/City of...)
- 1.3.2 \_\_\_\_\_ Project area clearly highlighted on map RDM 22.2.2
- 1.3.3 \_\_\_\_\_ Ensure scale is accurately shown and labeled RDM 22.2.2
- 1.4 \_\_\_\_\_ Design Reference Year/Hydraulic Design Reference year is appropriate for Department practices RDM 22.2.2
- 1.5 \_\_\_\_\_ Traffic data (current and design year) for each road RDM 22.2.2
- 1.5.1 \_\_\_\_\_ Design year selection RDM 3.6.2
- 1.6 \_\_\_\_\_ Project location and description RDM 22.2.2
- 1.7 \_\_\_\_\_ North arrow shown RDM 22.2.2
- 1.8 \_\_\_\_\_ Index with Subtotals and Total Sheets or note to IL1 RDM 22.1.3/22.2.2
- 1.8.1 \_\_\_\_\_ If IL1 is noted, ensure IL1 Sheet is provided
- 1.9 \_\_\_\_\_ Longitude and Latitude RDM 22.2.2
- 1.10 \_\_\_\_\_ Railroad involvement indicated RDM 22.2.2
- 1.11 \_\_\_\_\_ Environmental Permit Information Completed RDM 22.2.2
- 1.12 \_\_\_\_\_ NPDES Permit Information Provided RDM 12.1.5.3/22.2.2
- 1.13 \_\_\_\_\_ Check Beginning and Ending Station Notes on Location Map Agree with each of the following:
  - 1.13.1 \_\_\_\_\_ Typical Section
  - 1.13.2 \_\_\_\_\_ Plans
  - 1.13.3 \_\_\_\_\_ Profiles
  - 1.13.4 \_\_\_\_\_ Cross Sections
  - 1.13.5 \_\_\_\_\_ Include arrows indicating "Begin" and "End" of project survey(s) RDM 22.2.2
- 1.14 \_\_\_\_\_ Ensure notes for bridges/culverts and notes for exceptions agree with:
  - 1.14.1 \_\_\_\_\_ Typical Section
  - 1.14.2 \_\_\_\_\_ Plans
  - 1.14.3 \_\_\_\_\_ Profiles

- 1.14.4  Cross Sections
- 1.14.5  Note: "Bridge plans bound under separate cover"
- 1.15  Check length of Project
- 1.15.1  Show length(s) in thousandths for each mainline survey (side roads, connectors, ramps, etc.)
- 1.15.2  Calculate and provide detour mileage if applicable RDM 22.2.2
- 1.15.3  Show total mileage if multiple roads/alignments RDM 22.2.2
- 1.15.4  Check for exceptions of roadway RDM 22.2.2
- 1.15.5  Show equalities in stationing (agrees with plans) RDM 22.2.2
- 1.16  RPG Number/Group Coordinator Initials & Initials of Preparer

Comments:

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### Index Layout Sheet (if used)

- IL.1  Index accurate based on information included in plans RDM 22.2.3
- All sheets to be included in final set are shown in index, including "omitted"
- IL.2  sheets RDM 22.2.3

Comments:

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### Summary of Estimated Quantities

### RDM CHAPTER 20

Verified quantities for project, including, but not limited to

- Q.1 Earthwork
- Q.2 Fine grading
- Q.3 Pavement quantities
- Q.5 Roadside barriers
- Q.6 Traffic items
- Q.7 Rumble Strips
- Q.8 Drainage
- Q.9 R/W plats and monuments
- Q.10 Geotechnical
- Q.11 Stabilized construction entrance
- Q.12 Seeding
- Q.13 Clearing and grubbing
- Q.14 Pedestrian ramps
- Q.15 Prime coat
- Q.16 SEQ = Plan Quantities + Inclusions

## Typical Section

RDM 22.2.5

### General

- 3.1  Do station limits agree with plan(s) and cross section(s)? RDM 22.2.5.4/22.2.7.2
- 3.2  Is profile grade line location shown? RDM 6.2.3.2
- 3.3  Functional classification provided RDM 22.2.5.9
- 3.3.1  Local Roads and Streets (group number also for local routes) RDM 14
- 3.3.2  Collector Roads and Streets RDM 15
- 3.3.3  Rural and Urban Arterials RDM 16
- 3.3.4  Freeways RDM 17
- 3.4  Sidewalk separated from travel lane by curb or grassed space RDM 7.3.3
- 3.5  Base 0.5' wider than surface/intermediate (non-curb/gutter)
- 3.6  "NTS" if not to scale RDM 22.2.5.1
- 3.7  Ditch note allowing variable ditch where applicable RDM Fig. 16.2-A
- 3.8  Is guardrail note included if applicable
- 3.9  Is on-street parking applicable RDM 7.2.7
- 3.10  Does shown width of the whole section matches the sum of the parts shown?

### Travel & Auxiliary Lanes

N/A

RDM Chapters 14-17

Are lane widths and slopes dimensioned and appropriate for the road type?

- 3.11 Travel lanes  N/A  Width  Slope  Dimension
- 3.12 Auxiliary lanes  N/A  Width  Slope  Dimension
- 3.13 Shared Use Paths  N/A  Width  Slope  Dimension AASHTO Bike Guide

### Curbs (RDM 7.2.8)

N/A

- 3.14  Curb Ramp Notes RDM 22.2.5.7
- 3.15  Curb Types and Widths Appropriate RDM 7.2.8
- 3.16  Valley Gutter RDM 7.2.9/11.11.3.7

### Shoulders (RDM 2.2.9/7.2.4.2)

N/A

Are shoulder widths and slopes dimensioned and appropriate for the road type?

- 3.17 Paved Shoulders  N/A  Width  Slope  Dimension
- 3.18 Earth Shoulders  N/A  Width  Slope  Dimension
- 3.19 Shared Use Paths  N/A  Width  Slope  Dimension
- 3.20 Interchange Ramps  N/A  Width  Slope  Dimension RDM 10.5.4

### Bike/Ped (RDM 7.3.3)

N/A

Are widths and slopes appropriate for the road type and dimensioned?

- 3.21 Sidewalk  N/A  Width  Slope  Dimension
- 3.22 Shared Use Paths  N/A  Width  Slope  Dimension
- 3.23 Bike Lanes  N/A  Width  Slope  Dimension
- 3.24 Shared Use Lanes  N/A  Width  Slope  Dimension

## Medians

N/A

Are widths appropriate for the road type and dimensioned?

- |      |                   |                              |                                |                                      |             |
|------|-------------------|------------------------------|--------------------------------|--------------------------------------|-------------|
| 3.25 | Flush             | <input type="checkbox"/> N/A | <input type="checkbox"/> Width | <input type="checkbox"/> Dimensioned | RDM 7.4.2.2 |
| 3.26 | TWLT              | <input type="checkbox"/> N/A | <input type="checkbox"/> Width | <input type="checkbox"/> Dimensioned | RDM 7.4.3   |
| 3.27 | Raised Concrete   | <input type="checkbox"/> N/A | <input type="checkbox"/> Width | <input type="checkbox"/> Dimensioned | RDM 7.4.2.3 |
| 3.28 | Raised Planted    | <input type="checkbox"/> N/A | <input type="checkbox"/> Width | <input type="checkbox"/> Dimensioned | RDM 7.4.2.3 |
| 3.29 | Earthen Depressed | <input type="checkbox"/> N/A | <input type="checkbox"/> Width | <input type="checkbox"/> Dimensioned | RDM 7.4.2.4 |

## Other

- |      |   |  |  |                                     |                     |
|------|---|--|--|-------------------------------------|---------------------|
| 3.30 | Do bridge widths match approach sections? | <input type="checkbox"/> N/A               | <input type="checkbox"/> Yes                     | RDM 7.5.1.1                         |                     |
| 3.31 | Fill Heights                              | <input type="checkbox"/> Fill Height Table | <input type="checkbox"/> 2:1s labeled as 2:1 Max | RDM 7.3.2.2                         |                     |
| 3.32 | Design Speed                              | <input type="checkbox"/> Roadway           | <input type="checkbox"/> SUP                     | <input type="checkbox"/> Roundabout | RDM 22.2.5.8, 3.5.1 |
| 3.33 | Flat Bottom Ditches                       | <input type="checkbox"/> Labeled           |  | RDM 22.2.5.2                        |                     |

Ensure shown width of the whole section matches the sum of the parts shown

## Pavement Design

- |      |   |              |
|------|---|--------------|
|      | <input type="checkbox"/> Design included  | RDM 22.2.5.3 |
| 3.34 | <input type="checkbox"/> Approved by Pavement Design Engineer within last three years. Provide memo/e-mail to QA.   | RDM 21.1.8   |
|      | <input type="checkbox"/> Reviewed against DFR plan review recommendations   |              |
| 3.35 | <input type="checkbox"/> Widths and thickness/rate of material agrees with plans and cross sections                 |              |
|      | <input type="checkbox"/> Pavement legend agrees with OMR or DFR   |              |
|      | <input type="checkbox"/> Asphalt materials comply with guidelines for HMA Selection (Latest version)                |              |
| 3.36 | <input type="checkbox"/> Graded Aggregate Bases (Should not be used in areas with 6' or less width) (requires note) |              |

Comments:

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## Right of Way Data Sheet

RDM 22.2.6.1

- |     |  |              |
|-----|--|--------------|
| 4.1 | <input type="checkbox"/> Required and included in plans                              | RDM 22.2.6   |
| 4.2 | <input type="checkbox"/> Tract numbers agree with Property Strip Map and Plan sheets | RDM 22.2.6.1 |
| 4.3 | <input type="checkbox"/> Ensure compliance with Notes A and B on ROW Data Sheet      |              |
| 4.4 | <input type="checkbox"/> Permissions noted and accurate                              | RDM 12.2.6   |
| 4.5 | <input type="checkbox"/> New ROW included and accurate                               | RDM X.X.X    |

Comments:

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## Property Strip Map

RDM 22.2.6.2



- 4A.1  Tracts numbered RDM 22.2.6.2
- 4A.2  Property Closures RDM 12.2.3/22.2.6.2
- 4A.3  Present and new right of way clearly noted RDM 22.2.6.2
- 4A.3.1  Agrees with plans
- 4A.3.2  Drawn to reflect correct offset from CL with labels at all ROW line breaks
- 4A.4  Readable at half-size

Comments:

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### General Construction Notes

- 5.1 Descriptions clearly specify work type and placement RDM 22.2.7.1
- 5.2 Units correct and match SEQ
- 5.3 Inclusions reflected in SEQ totals RDM 22.2.4.1.2
- 5.4 General Construction Note included RDM 22.2.7.1

### Reference Data Sheet

- 5A.1 Curve Data RDM 22.2.7.3
- 5A.1.1  Includes PI,  $\Delta$ , Degree, Tangent, Length, External, Radius, Design Speed, eMax, e, PC/PT-LG% RDM Figure 22.2-D
- 5A.3  Design speeds consistent with typical sections
- 5A.4  Horizontal curves meet minimum radius
- 5A.5  Horizontal curves meet minimum lengths RDM 5.2.5
- 5A.6  Tangent length between curves is adequate (Reverse Curves) RDM 5.2.2.4/5.3.7

Comments:

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### Survey Control Data Sheet

**PCDM-08**

- 5B.1  Required
- 5B.2  Datum Defined (with a Combined Scale Factor (CSF) included)
- 5B.3  Project survey control coordinate and elevation information provided

Comments:

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## Plan Sheets

### General

### RDM Section 3.8.4.3

- |        |   |                        |
|--------|---|------------------------|
| 6.1    | <input type="checkbox"/> Utility Owners note on first plan sheet  | RDM 22.2.7.2           |
| 6.2    | <input type="checkbox"/> All right of way properly verified   |                        |
| 6.2.1  | <input type="checkbox"/> "Present" Heading  | RDM 12.1.2/22.2.6.1.1  |
| 6.2.2  | <input type="checkbox"/> "New" Heading  | RDM 22.2.6.1.2         |
| 6.3    | <input type="checkbox"/> North arrow on all plan sheets   | RDM 22.2.8.21          |
| 6.4    | <input type="checkbox"/> Match lines shown are in agreement with station alignments and appropriate pages |                        |
| 6.5    | <input type="checkbox"/> Bearings provided on all plan sheets,  | RDM 22.2.8.21          |
| 6.6    | <input type="checkbox"/> PI's do not exceed maximum without a curve                                       | RDM 5.2.4              |
| 6.7    | <input type="checkbox"/> Relocated centerline notes provided  |                        |
| 6.8    | <input type="checkbox"/> Are transition tapers shown and labeled?   |                        |
| 6.9    | <input type="checkbox"/> Label Existing & Proposed Control of Access                                      | RDM 3.8/22.2.8.3       |
| 6.10   | <input type="checkbox"/> Alignment control note on all plan sheets  |                        |
| 6.11   | <input type="checkbox"/> Medians designed in accordance with Section 7.4 of the RDM?                      | RDM 7.4                |
| 6.12   | <input type="checkbox"/> Access management is consistent throughout corridor?                             | RDM 3.8.2              |
| 6.13   | <input type="checkbox"/> Channelization designed in accordance with Section 9.6 of the RDM?               | RDM 9.6                |
| 6.14   | <input type="checkbox"/> Construction limits shown  | RDM 12.1.6/22.2.8.9    |
| 6.15   | <input type="checkbox"/> NPDES lines shown  | RDM 12.1.5.2/22.2.8.10 |
| 6.15.1 | <input type="checkbox"/> Includes temporary conditions (e.g. for temporary traffic control)               |                        |
| 6.16   | <input type="checkbox"/> BCA lines shown  | RDM 12.1.15            |
| 6.17   | <input type="checkbox"/> Top of curb profiles included  | RDM 22.2.9.1           |
| 6.17.1 | <input type="checkbox"/> TOC profiles match cross sections  |                        |
| 6.18   | <input type="checkbox"/> Earth retaining structures shown on plans  |                        |
|        | Locations _____   |                        |
| 6.19   | <input type="checkbox"/> New box culverts & culvert extensions shown                                      |                        |
|        | Locations _____   |                        |
| 6.20   | <input type="checkbox"/> Roadway design has been coordinated with a geotechnical engineer                 |                        |

### Travelway widths

RDM 22.2.8.6

- |      |  |  |
|------|--|--|
| 6.20 | <input type="checkbox"/> Lane widths tie to existing at beginning and end of project |  |
| 6.21 | <input type="checkbox"/> Shown at beginning and end of each sheet                    |  |
| 6.22 | <input type="checkbox"/> Shown at beginning and end of tapers                        |  |
| 6.23 | <input type="checkbox"/> Pluses (+) shown at beginning and end                       |  |
| 6.24 | <input type="checkbox"/> Consistent with typical section(s)                          |  |
-

## Sight Distances - Check horizontally and vertically

6.25	Stopping Sight Distance	RDM 4.1
6.26	Intersection sight distance	
6.27	Passing Sight Distance	RDM 4.2
6.28	Decision Sight Distance	RDM 4.3
6.29	Roundabouts	RDM 4.5

## ROW Data

6.30	Property lines shown	RDM 22.2.6.1.4
6.31	Tracts numbered	RDM 12.2.1
6.32	Right of way labeled at beginning and end of each sheet	
6.33	ROW	RDM 22.2.6.1.1
6.34	Station-Offset given for shifts and at beginning and end of tapers for new ROW	
6.35	Label right of way at breaks/shifts in present right of way	
6.36	Label right of way at breaks/shifts in new right of way	
6.37	ROW included for sight triangle areas	RDM 12.1.8
6.38	ROW included for in-fall/out-fall ditches	RDM 12.1.11
6.39	ROW included for signal equipment areas	PCDM - 13
6.40	Station-Offset text shown (if not on separate sheet)	RDM 21.1.2
6.41	Additional ROW acquired for bridge sites	RDM 12.1.14
6.42	Walls with backfill or reinforced backfill requiring easement or additional ROW	
6.43	Sufficient space provided between construction limits and existing/new ROW for construction activities	RDM 12.1.4

## Roadside Safety

RDM 2.2.11/7.3.1

6.44	Length of need checked	Roadside Design Guide 5.6.4
6.45	Appropriate end treatments shown on plans	
6.46	Cross sections checked for barrier warrents	
6.46.1	Necessary - Slopes cannot strategically be flattened via permissions, new right of way, etc.	
6.47	Transverse slopes at side roads and median breaks protected as necessary	
6.48	Other special features - driveway openings, retrofits, pipe beveling, noise walls, etc.	
6.49	All blunt ends within clear zone are protected (walls, bridges)	

**Roadway Drainage** RDM 3.10/22.2.7.4

- 6.50  Superelevation transitions checked for flat spots in curb profiles? RDM 5.3.9
- 6.51  Check against DFR plan recommendations
- 6.52  Catch basins placed in sags for curb curb & gutter or valley gutter sections RDM 3.10.3.2
- 6.53  Structures (i.e. culvert agrees with culvert details) RDM 3.10.3.6
- 6.54  Cross line pipes 48" or greater shown on profile RDM 22.2.8.11
- 6.55  Hydro data provided for bridges and culverts larger than 48"
- 6.56  Dams - Ensure dams are not being constructed within SCDOT right of way
- 6.57  Proper drainage tables and link ID's are provided in plans RDM 22.2.8.11
- 6.58  Bridge drainage designed in accordance with PCDM 16 and shown on plans RDM 3.10.3.7

**Interchanges** **RDM Section 3.8.4.3**

- 6.59  Taper rates for taper style ramp are between 2 and 5 degrees RDM 10.4.1.2
- 6.60  Deceleration lane lengths correct RDM 10.4.1.3
- 6.61  Acceleration lane lengths correct
- 6.62  Cross slope rollover at gores meets RDM section 10.4.1.6 RDM 10.4.1.6
- 6.63  Gore areas drawn RDM 10.4.1.8

**Intersections**

- 6.64  Offset intersection legs comply with RDM Section 9.2.6.3 RDM 9.2.6.3
- 6.65  Lane movements tie across intersection
- 6.66  Intersection spacing is consistent with RDM Section 9.2.3 RDM 9.2.3
- 6.67  Angle of intersection is consistent with RDM Section 9.2.6.2 RDM 9.2.6.2
- 6.68  Intersection realignment is consistent with RDM Figure 9.2-C RDM Figure 9.2-C
- 6.69  Throat widths with adequate taper tie-in (designed in accordance with proper design vehicle)
- 6.70  Specify signal pole and cabinet location PCDM - 13
- 6.71  Minimum size of channelizing islands is met RDM 9.6.3
- Design Vehicle Selection RDM 3.7/9.2.5

- 6.72  Turning radii depicted on plans at all major intersections
- 6.73  For new curb/gutter being introduced, verify adequate design vehicle(s) can access intersections/drives

**Auxiliary lanes**

- 6.74  Storage length shown and clearly labeled RDM 9.5.2.2
- 6.75  Tapers shown and clearly labeled RDM Figure 9.5-1
- 6.76  Widths shown and clearly labeled RDM 7.2.6.1/9.5.2.1
- 6.77  Offset Lanes shown and clearly labeled RDM 9.5.3
- 6.78  Dual-Turn Lanes shown and clearly labeled RDM 9.5.4

<b>Roundabouts</b>		RDM 9.7
6.79	Design Considerations	RDM 9.7.4
6.80	R1-R5 Verification	NCHRP Report 672 6.7

<b>Bike/Ped Accommodations</b>		
6.81	Minimum PAR maintained	
6.81.1	<input type="checkbox"/> No signs, poles, hydrants, etc. allowed within PAR	RDM 7.3.3
6.81.2	<input type="checkbox"/> Must be maintained through ALL driveways, alleys, etc.	
6.82	Sidewalk ties to existing sidewalk or ends at logical termini (intersections, major area attractions)	RDM 7.3.3
6.83	Crosswalks shown	
6.84	Sidewalk breaks and radius turns are shown at driveways correctly	
6.85	SUP is separated from pavement of nearest travel way or a suitable barrier is used	
6.86	Are bike lanes terminated per AASHTO 2012 Bike Guide (if not tied to existing bike lanes)	
Comments:		
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<b>Profiles</b>		
6A.1	K-values meet required minimum values (appropriate curve lengths)	RDM 6.5
6A.2	Vertical clearances meet minimums	RDM 6.6/7.5.1.2
6A.3	Grades are equal to or below maximum grade	RDM 6.3.1
6A.4	Grades are equal to or above minimum grade	RDM 6.3.2
6A.5	Critical length of grade checked	RDM 6.3.3
6A.6	Existing ground profile shown and labeled	RDM 22.2.8.12
6A.7	Centerline elevations agree with cross sections	
6A.8	Vertical alignment ties at beginning and end of project	

<b>Side Roads</b>		RDM 9.2.7
6A.9	Landing Area/Approach grade	RDM 9.2.7.1
6A.10	Sag/Crest Breaks	RDM Figures 9.2-F & 9.2-G
6A.11	Buffer between mainline and 1st side road vertical curve	RDM Figures 9.2-F & 9.2-G
6A.12	Intersection Sight Distance (ISD)	RDM 4.4
6A.13	Vertical Profile	RDM 9.2.7.3
Comments:		
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## Cross Sections

RDM 21.1.10

- XS.1  Reference Data Sheet RDM 22.2.21
- XS.2  Clear zone is provided throughout project Roadside Design Guide Table 3-1
- XS.3  Consistent with typical sections(s) - rates, widths, cross slopes, depths
- XS.4  Consistent with plan view - widths, presence of turn lanes, ditches, guardrail
- XS.5  Consistent with profile(s) - elevations
- XS.6  Labels for present and new right of way shown
- XS.7  Minimum depth of ditches
- XS.8  Cross line pipes shown RDM 22.2.21
- XS.9  Station equalities labeled RDM 22.2.21
- XS.10  Bridge station limits labeled RDM 22.2.21
- XS.11  Major drives shown RDM 22.2.21
- XS.12  Matchlines shown for intersecting roads RDM 22.2.21
- XS.13  Guardrail/concrete barrier shown RDM 22.2.21
- XS.14  Shoulder width and taper accounted for at end treatments
- XS.15  Earth retaining structures shown

Comments:

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## General

- G.1  Freeway (See AASHTO Interstate Guide)
- G.2  Project has been reviewed for design consistency within the roadway corridor RDM 2.2.7
- G.3  All utility relocations notes/reviewed. Utilities outside clear zone, do not conflict with drainage or PAR
- G.4  Detour plans included if applicable
- G.5  SCDOT Standard Drawings are not duplicated in plan set
- G.6  Bike/ped. design is consistent with local/regional plans

Comments:

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## ADA Considerations

### Sidewalk

- ADA.1  Is the sidewalk width 5 foot (60") exclusive of curb?
- ADA.2  Where sidewalk width is less than 5 feet, are passing zones (60" x 60") provided at intervals no greater than every 200 feet?
- ADA.3  Are sidewalks adjacent to steep longitudinal grades?
- ADA.3.1  If yes, are handrails provided?
- ADA.4  Are there protruding objects located in the sidewalk (ex: utility poles, mailboxes, signal poles, signs, etc.)?

### Ramps and Roadway Crossings

- ADA.5  Ramps are free from obstacles
- ADA.6  Ramps are perpendicular to the curb
- ADA.7  Ramps are placed at each end and in-line with crosswalk
- ADA.8  Crosswalks are perpendicular to the lanes
- ADA.9  Stop bars are located a minimum of 4 feet from the crosswalk
- ADA.10  Pedestrian push buttons are located 10 feet maximum from the curb and accessible
- ADA.11  Construction notes on roadway plans include detectable warning surfaces placement
- ADA.12  Ramps are located to minimize pedestrian exposure to traffic
- ADA.13  Ramps are located outside of low points where ponding could occur
- ADA.14  If the project includes multi-use trails, is the ramp width equal to the width of the trail?
- ADA.15  If the project includes multi-use trails, is the crosswalk width equal to the width of the trail?

### Median Treatments

- ADA.16  Is the minimum median width for pedestrian refuge 6 feet from face of curb to face of curb?
- ADA.17  Is a 4-foot minimum clear width for pedestrian travel provided on cut through and ramped medians?
- ADA.18  Are median ramp slopes 12:1 maximum?
- ADA.19  Is a level area measuring 4 feet wide by 4 feet long provided when using a ramped median?

### Accessible Pedestrian Signals (APS)

- ADA.20  Are pedestrian signals being replaced or installed within the limits of the project?
- ADA.20.1  If yes, are Accessible Pedestrian Signals included?

### Protruding Objects

- ADA.21  Are any objects mounted to a fixed structure between 27" and 80" above the ground?

ADA.21.1  If yes, do the objects extend more than 4" from the fixed structure into the sidewalk?

## Inlets

ADA.22  Is there an inlet in the cross walk or landing area?

ADA.22.2  If yes, are the gaps less than ½" wide and placed perpendicular to the pedestrian travel way?

ADA.22.3  If not, can the ramp be relocated?

## Miscellaneous

ADA.23  Is enough detail included to construct all ADA features properly?

ADA.24  Do plans include handicapped accessible Maintenance of Pedestrian Access plans?

Comments:

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## Landscaping Plans

- |     |  |             |
|-----|--|-------------|
| L.1 | All items shown, described and quantified on plans                       | RDM 22.2.12 |
| L.2 | Clear zone maintained  |             |
| L.3 | Sight distances unobscured   |             |
| L.4 | Consistent with SCDOT environmental, maintenance, and quality principles | RDM 11.3    |
| L.5 | Consistent with SCDOT Vegetation Management Guidelines                   |             |
| L.6 | Consistent with American Standards for Nursery Stock                     |             |