GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF TRANSPORTATION DATA

RC MANUAL
HOW TO CODE OFFICE DATA ITEMS

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MARCH 2011

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1. Preface

1.1 Purpose

The purpose of this document is to provide information about how to code the Road Characteristics (RC) file for the data items collected or calculated in the Georgia Department of Transportation (GDOT) Office of Transportation (OTD). For each data item the following information is provided:

- Field Name
- Field Number in Old RC File
- Code Value Format
- Code Value Helps
- Code Value Definitions
- Glossary
- Field Dependencies
- Examples

1.2 Intended Audience

The intended audience includes:

- the staff in the GDOT Office of Transportation Data
- the staff in the GDOT Field Districts

1.3 Disclaimer

This document has been deemed accurate. However, no warranty is expressed or implied, by the Georgia Department of Transportation (GDOT) as to the explicit accuracy and functioning of the document; nor shall the fact of distribution constitute any such warranty, and no responsibility is assumed by the Georgia Department of Transportation (GDOT) in any connection therewith.

1.4 Acronyms and Abbreviations

The following table contains a list of the acronyms and abbreviations used in this document.

Acronym/Abbreviations	Definition
AC	Access Control
CD	Collector Distributor
CHPC	Congressional High Priority Corridor
COL	County Line
CR	County Road
CS	City Street
DOT	Department of Transportation
FA	Federal Aid
FAS	Federal Aid System
FC	Functional Classification
GA	Georgia
GDOT	Georgia Department of Transportation
HPMS	Highway Performance Monitoring System
I	Interstate
MP	Milepoint
N	No
NA	Not Applicable
NHS	National Highway System
OTD	Office of Transportation Data
PJ	Projected
PR	Public Road
RA	Roundabout
RC	Road Characteristic
RI group	Road Inventory group
RP	Ramp
RT	Route
RU or R/U	Rural Urban
SR	State Route
STRAHNET	Strategic Highway Network
UAB	Urban Area Boundary
UC	Under Construction
US or U.S.	United States
USC or U.S. C.	United States Code
Y	Yes

1.5 Revision History

The following table contains a history of the revisions of this document.

Date	Revision Number	By	Description
01/19/2011	00.01	C. Crow	Initial Draft for version 1.
03/09/2011	00.02	C. Crow	Incorporated review comments. Removed data items (AADT, City Code, Dual Maintenance Pavement Rating, Improvement Type & Year, Inventory Pavement Condition Rating Month & Year, Maintenance Surface Designator, Traffic Counter, Transaction Type, Traveled Lanes Number, Truck Percentage, Truck Route Number)

2. Office Data Items - In Alphabetic Order

The field data items include the following fields:

- Congressional District
- Divided Highway Indicator
- FA/FAS/Interstate Route
- Functional Classification
- GDOT Field District
- GDOT Maintenance Area
- HPMS Access Control
- HPMS Identification
- Milepoint
  - Beginning
  - Ending
- NHS/STRAHNET/CHPC
- Open To Traffic
- Road Width
- Rural Urban Designation
- Section Length
- State Route Sequence Number
- Traveled Lanes
  - Lane Width
  - Total Lanes
- Truck Route Designation

2.1 CONGRESSIONAL DISTRICT

Field Number in Old RC File - 18

Code Value Format - Georgia US Congressional District Number

- Enter the Georgia US Congressional District number
- Must be 2 numeric characters (01 - 13)

Code Value Helps

- For a map showing the boundary lines of the Georgia US Congressional District numbers, refer to the Statewide Maps section on the Maps page of the external Georgia Department of Transportation website, http://www.dot.ga.gov/maps.

Code Value Definitions

Congressional District	Code Value
1	01
2	02
3	03
4	04
5	05
6	06
7	07
8	08
9	09
10	10
11	11
12	12
13	13

Field Dependencies

- None

Example

Example: SR 403 in Jackson County, Congressional District 10

- 10

2.2 DIVIDED HIGHWAY INDICATOR

Field Number in Old RC File - NA

Code Value Format - Divided Highway Indicator

- The divided highway indicator value is derived, based on the value in the Divided Highway Median Type field (Refer to the Field Dependencies sub-section)
- Must be 1 alpha character (Y or N)

Code Value Definitions

Designation Type	Code Value
Roadway is a divided highway	Y
Roadway is not a divided highway	N

Field Dependencies

IF …	THEN …
DIVIDED HIGHWAY INDICATOR = **N**	DIVIDED HIGHWAY MEDIAN TYPE = **0**
DIVIDED HIGHWAY INDICATOR = **Y**	DIVIDED HIGHWAY MEDIAN TYPE = **1, 2, 3, 4, 5, 6, 7, or 8**

Example

Example: I-75/SR-401

- Y

2.3 FA/FAS/INTERSTATE ROUTE

Field Number in Old RC File - 16

Code Value Format – FA/FAS/Interstate Route Number

- Enter the Federal Aid (FA)/Federal Aid System (FAS)/Interstate (I) Route number
- Must be 5 numeric characters (00016, 00020, 00024, 00059, 00085, 00095, 00185, 00285, 00475, 00516, 00520, 00575, 00675, 00985) or 5 blank spaces

Code Value Helps

- For a map showing the Georgia Interstates and corresponding State Route values, refer to the Statewide Maps section on the Maps page of the external Georgia Department of Transportation website, http://www.dot.ga.gov/maps.

Code Value Definitions

- None

Field Dependencies

IF …	THEN …
FA/FAS/INTERSTATE ROUTE = **5 blank spaces**	FUNCTIONAL CLASSIFICATION = **02, 06, 07, 08, 09, 12, 14, 16, 17, or 19**
FA/FAS/INTERSTATE ROUTE = **00016, 00020, 00024, 00059, 00085, 00095, 00185, 00285, 00475, 00516, 00520, 00575, 00675, or 00985**	FUNCTIONAL CLASSIFICATION = **01 or 11**

Example

Example: I-75/SR-401

- 00075

2.4 FUNCTIONAL CLASSIFICATION

Field Number in Old RC File - 30

Code Value Format - Functional Classification Number

- Enter the Functional Classification (FC) number
- Must be 2 numeric characters (01, 02, 06, 07, 08, 09, 11, 12, 14, 16, 17, or 19)

Code Value Helps

- For a map showing the Functional Classification (FC) values for roads in a specific county, refer to the Highway System Maps section on the Maps page of the external Georgia Department of Transportation website, http://www.dot.ga.gov/maps.
- The values in the FRED_RCV_FIELD_COLLECT_ALL table are correct.
- The Milepoint ranges in the FRED_RCV_SCB table cannot be overlapped for Functional Classification (FC).
- The Functional Classification (FC) value can change only at a bridge, railroad, intersection, county boundary, or the closest physical feature to the Urban Area Boundary (UAB).
- A Functional Classification (FC) value is assigned to all existing roadways opened to the traveling public and projected (PJ) roadways.

Code Value Definitions

Functional Classification		Code Value
Rural	Interstate Principal Arterial	01
	Principal Arterial	02
	Minor Arterial	06
	Major Collector	07
	Minor Collector	08
	Local	09
Urban	Interstate Principal Arterial	11
	Freeway and Expressway	12
	Principal Arterial	14
	Minor Arterial	16
	Collector	17
	Local	19

Field Dependencies - Functional Classification

IF …	THEN …
FUNCTIONAL CLASSIFICATION = **01, 02, 06, 07, 08, or 09**	RURAL URBAN CODE = **1**
FUNCTIONAL CLASSIFICATION = **01 or 11**	HPMS ACCESS CONTROL = **F**
FUNCTIONAL CLASSIFICATION = **01 or 11**	FA/FAS/INTERSTATE = **00016, 00020, 00024, 00059, 00085, 00095, 00185, 00285, 00516, 00520, 00575, 00675, or 00985**
FUNCTIONAL CLASSIFICATION = **01 or 11**	NHS/STRAHNET/CHPC = **5, 6, or 7**
FUNCTIONAL CLASSIFICATION = **02, 12, or 14**	NHS/STRAHNET/CHPC = **3**
FUNCTIONAL CLASSIFICATION = **02, 06, 07, 08, 09, 12, 14, 16, 17, or 19**	FA/FAS/INTERSTATE = **5 blank spaces**
FUNCTIONAL CLASSIFICATION = **08, 09, or 19**	HPMS ACCESS CONTROL = **U or P**
FUNCTIONAL CLASSIFICATION = **11, 12, 14, 16, 17, or 19**	RURAL URBAN CODE = **2, 3, or 4**

Example

Example: I-75 in Cobb County

- 11

2.5 GDOT FIELD DISTRICT

Field Number in Old RC File – 7A

Code Value Format - GDOT Field District Number

- Enter the GDOT Field District number
- Must be 1 numeric character (1 - 7)

Code Value Helps

- For a map showing the boundary lines of the Georgia Department of Transportation (GDOT) Field District numbers, refer to the Statewide Maps section on the Maps page of the external Georgia Department of Transportation website, http://www.dot.ga.gov/maps.

Code Value Definitions

GDOT Field District	Code Value
GDOT Field District 1	1
GDOT Field District 2	2
GDOT Field District 3	3
GDOT Field District 4	4
GDOT Field District 5	5
GDOT Field District 6	6
GDOT Field District 7	7

Field Dependencies

- None

Example

Example: Gwinnett County

- 1

2.6 GDOT MAINTENANCE AREA

Field Number in Old RC File – 7A

Code Value Format - GDOT Maintenance Area Number

- Enter the GDOT maintenance area number
- Must be 1 numeric character (1 - 7)

Code Value Helps

- For a map showing the boundary lines of the Georgia Department of Transportation (GDOT) Maintenance Area numbers, refer to the myTeams OTD internal page, GIS Documents folder, http://myteams.dot.ga.gov/offices/otd/GISDocuments/Forms/AllItems.aspx.

Code Value Definitions

GDOT Maintenance Area	Code Value
GDOT Maintenance Area 1	1
GDOT Maintenance Area 2	2
GDOT Maintenance Area 3	3
GDOT Maintenance Area 4	4
GDOT Maintenance Area 5	5
GDOT Maintenance Area 6	6
GDOT Maintenance Area 7	7

Field Dependencies

- None

Example

Example: The maintenance area that includes Gwinnett County

- 5

2.7 HPMS ACCESS CONTROL

Field Number in Old RC File - 21

Code Value Format - HPMS Access Control

- Enter the Highway Performance Monitoring System (HPMS) Access Control value
- Must be 1 alpha character (U, P, or F)

Code Value Definitions

Access Control	Code Value
Full control	F
Partial control	P
Uncontrolled	U

Glossary - HPMS Access Control Types

Glossary Term	Definition
full control	Access is gained only at interchanges. No at-grade intersections except to or from interchange or rest area.
partial control	At-grade access is gained at intersecting roads, but not businesses or residential driveways.
uncontrolled	At-grade access is gained at intersection roads, businesses, or residential driveways.

Field Dependencies

IF …	THEN …
HPMS ACCESS CONTROL = **F**	FUNCTIONAL CLASSIFICATION = **01 or 11**
HPMS ACCESS CONTROL = **U or P**	FUNCTIONAL CLASSIFICATION = **08, 09, or 19**

Example

Example: I-75 in Cobb County

- F

2.8 HPMS IDENTIFICATION

Field Number in Old RC File - 43

Code Value Format - HPMS Identification Number

- Enter the 13 alpha-numeric character Highway Performance Monitoring System (HPMS) identification number (This number includes route number, route type (RT), beginning milepoint (MP) and sub-section identification)
  - For the route number, must be 6 alpha-numeric characters
  - For the route type (RT), must be 1 numeric character
  - For the beginning milepoint (MP), must be 5 numeric characters
  - For the sub-section identification, must be 1 alpha-numeric characters
- For beginning milepoint (MP), use leading zeros as required
- None

Field Dependencies

- None

Example

Example: beginning milepoint 12430 on State Route 4 (not sub-sampled)

- 000400112430

2.9 MILEPOINT - BEGINNING

Field Number in Old RC File - 5

Code Value Format - Beginning Milepoint

- Enter the odometer reading for the beginning milepoint (MP), in miles and hundredths
- Use leading zeros for values less than 1.00
- Can include a decimal point

Code Value Definitions

- None

Field Dependencies

- None

Example - 1

Example: beginning milepoint 12.56

- 12.56

Example - 2

Example: beginning milepoint 0.12

- 0.12

2.10 MILEPOINT - ENDING

Field Number in Old RC File - NA

Code Value Format - Ending Milepoint

- The ending milepoint (MP) value is derived, based on the beginning milepoint (MP) of the next segment.
- ENDING MILEPOINT = [(next segment's BEGINNING MILEPOINT)]
- Can include a decimal point

Code Value Definitions

- None

Field Dependencies

- None

Example - 1

Example: ending milepoint 12.56

- 12.56

Example - 2

Example: ending milepoint 0.12

- 0.12

2.11 NHS/STRAHNET/CHPC

Field Number in Old RC File - 11

Code Value Format – NHS/STRAHNET/CHPC

- Enter the National Highway System (NHS), Strategic Highway Network (STRAHNET), Congressional Highway Priority Corridor (CHPC)or Interstate designation number
- Must be 1 numeric number (1, 2, 3, 5, 6, 7, 8, or 9)

Code Value Helps

- NHS/STRAHNET/CHPC codes change at intersections.

Code Value Definitions

Designation Type	Code Value
NOTE: This code value is no longer used by the GDOT Office of Transportation Data.	0
National Highway System (NHS) **and** Strategic Highway Network (STRAHNET)	1
Strategic Highway Network (STRAHNET)	2
National Highway System (NHS)	3
NOTE: This code value is no longer used by the GDOT Office of Transportation Data.	4
Interstate (State Route 411 runs common with Interstate 185 in Muscogee County) in United State Code (U.S.C.) Section 139a(1) of Title 23 Eligible for Intermodal (IM) funding, but **not** included in the apportionment formula. Added prior to 3/9/1984.	5
Interstate (State Route 21 runs common with Interstate 516 in Chatham County and State Route 365 runs common with Interstate 985 in Gwinnett and Hall Counties) in United State Code (U.S.C.) Section 139a(2) of Title 23 **Not** eligible for Intermodal (IM) funding **and not** included in the apportionment formula. Added prior to 3/9/1984.	6
Interstate (Interstate 185) in United State Code (U.S.C.) Section 139b of Title 23	7
National Highway System (NHS), Strategic Highway Network (STRAHNET), **and** Congressional High Priority Corridor (CHPC)	8
National Highway System (NHS) **and** Congressional High Priority Corridor (CHPC)	9

Glossary – NHS/STRAHNET/CHPC Designation Types

Glossary Term	Definition
National Highway System (NHS)	Interconnected urban and rural principal arterials and highways which serve major population centers, international border crossings, ports, airports, public transportation facilities, other intermodal transportation facilities, and other major travel destinations. These highways meet national defense requirements and serve interstate and interregional travel. NOTE: A specific roadway may be on more than one sub-system.
Strategic Highway Network (STRAHNET)	A network of highways which are important to the nation's strategic defense policy and provide defense access, continuity, and emergency capabilities for defense purposes.
Congressional High Priority Corridor (CHPC)	Corridors that have been designated in Federal transportation legislation as high priority corridors on the National Highway System (NHS) for inclusion in the approved NHS as specific routes or general corridors.

Field Dependencies

IF …	THEN …
NHS/STRAHNET/CHPC = **0**	TRAVEL WAY CATEGORY = **2**
NHS/STRAHNET/CHPC = **3**	FUNCTIONAL CLASS = **02, 12, or 14**
NHS/STRAHNET/CHPC = **5, 6, or 7**	FUNCTIONAL CLASS = **01 or 11**

Example

Example: I-75/SR-401

- 1

2.12 OPEN TO TRAFFIC

Field Number in Old RC File - NA

Code Value Format - Open To Traffic Designation

- The open to traffic designation value is derived, based on the value in the Travel Way Category field (Refer to Field Dependencies sub-section)
- Must be 1 alpha character (N or Y)

Code Value Definitions

Suffix	Code Value
Not open to traffic	N
Open to traffic	Y

Field Dependencies

IF …	THEN …
OPEN TO TRAFFIC = **N**	TRAVEL WAY CATEGORY = **0 or 3**
OPEN TO TRAFFIC = **Y**	TRAVEL WAY CATEGORY = **1, 2, 4, 5, 6, 7, 8, or 9**

Example

Example: roadway is a projected route

- N

2.13 ROAD WIDTH

Field Number in Old RC File - NA

Code Value Format - Road Width

- The road width value is derived, based on the values in the Divided Highway Surface Width and Undivided Highway Surface Width fields
- ROAD WIDTH = [(DIVIDED HIGHWAY SURFACE WIDTH) + (UNDIVIDED HIGHWAY SURFACE WIDTH)]
- Must be 2 numeric characters (00 - 99)

Code Value Definitions

- None

Field Dependencies

- None

Example 1

Example: an undivided roadway with 1 lane in each direction

- 24

Example 2

Example: a divided roadway with 3 lanes in each direction

- 72

2.14 RURAL URBAN DESIGNATION

Field Number in Old RC File - 14

Code Value Format - Rural/Urban Designation Code

- Enter the rural/urban designation number
- Must be 1 numeric character (1 - 4)

Code Value Helps

- For more information about rural urban designations, refer to **Appendix A - Rural Urban Designations**.

Code Value Definitions

Rural/Urban Designation	Code Value
Rural Area	1
Small Urban Area	2
Small Urbanized Area	3
Large Urbanized Area	4

Glossary - Rural Urban Designations

Glossary Term	Definition
Rural Area	Population less than 5,000
Small Urban Area	Population 5,000 – 49,000
Small Urbanized Area	Population 50,000 – 199,999
Large Urbanized Area	Population 200,000 or more

Field Dependencies

IF …	THEN …
RURAL URBAN CODE = **1**	FUNCTIONAL CLASSIFICATION = **01, 02, 06, 07, 08, or 09**
RURAL URBAN CODE = **2, 3, or 4**	FUNCTIONAL CLASSIFICATION = **11, 12, 14, 16, 17, or 19**
RURAL URBAN CODE = **1**	CITY CODE = 0000
RURAL URBAN CODE = **2, 3, or 4**	CITY CODE = 0001 - 9999

Example

Example: Unincorporated Chatham County

- 5

2.15 SECTION LENGTH

Field Number in Old RC File - NA

Code Value Format - Section Length

- The section length value is derived, based on the values in the Beginning Milepoint, Ending Milepoint, and Travel Way Category fields
- SECTION LENGTH = [(ENDING MILEPOINT) – (BEGINNING MILEPOINT)]
- Must be 4 numeric characters (0000 - 9999)

Code Value Definitions

- None

Field Dependencies

IF …	THEN …
SECTION LENGTH = **0000**	TRAVEL WAY CATEGORY = **0 or 3**

Example

Example: Beginning milepoint of next road segment is 15 and beginning milepoint of current road segment is 10

- 5

2.16 STATE ROUTE SEQUENCE NUMBER

Field Number in Old RC File - 19

Code Value Format - State Route Sequence Number

- Enter the State Route sequence number
- Must be 2 numeric characters (01 - 99)

Code Value Helps

- The State Route Sequence Number value is 1 in the first county where the State Route originates and is incremented by 1 each time the State Route crosses a county line. If the State Route leaves a county and re-enters that same county, the State Route Sequence Number value is incremented each time it crosses the county line.

Code Value Definitions

- None

Field Dependencies

IF …	THEN …
STATE ROUTE SEQUENCE NUMBER = **01 - 99**	ROUTE TYPE = **1**
STATE ROUTE SEQUENCE NUMBER = **00**	ROUTE TYPE = **2, 3, 4, 6, 7, 8, or 9**

Example

Example: I-75/SR 401 at Florida/Georgia border

- 01

2.17 TRAVELED LANES – LANE WIDTH

Field Number in Old RC File - NA

Code Value Format - Average Travel Lane Width

- The average width of the traveled lane is derived, based on the values in the Road Width and Total Traveled Lanes fields
- AVERAGE TRAVEL LANES WIDTH = [(ROAD WIDTH) / (TOTAL TRAVELED LANES)]
- Must be 2 numeric characters (00 - 99)

Code Value Definitions

- None

Field Dependencies

- None

Example

Example: SR-000700, 1 left lane with surface width of 12 feet and 1 right lane with surface width of 12 feet

- 12

2.18 TRAVELED LANES - TOTAL LANES

Field Number in Old RC File - NA

Code Value Format - Total Traveled Lanes Number

- The total number of traveled lanes is derived, based on the values in the Left Traveled Lanes and Right Traveled Lanes fields
- TOTAL TRAVELED LANES = [(LEFT TRAVELED LANES) + (RIGHT TRAVELED LANES)]
- Must be 2 numeric characters (00 - 99)

Code Value Definitions

- None

Field Dependencies

- None

Example

Example: I-75/SR 401 at SR-92

- 06

2.19 TRUCK ROUTE DESIGNATION

Field Number in Old RC File - 12

Code Value Format - Designated Truck Route Designation

- Enter the truck route designation value
- Must be 1 alpha character (D, E, or T) or 1 blank space

Code Value Definitions

Designation Type	Code Value
Interstate Route	D
NOTE: This code value is no longer used by GDOT Office of Transportation Data	B
NOTE: This code value is no longer used by GDOT Office of Transportation Data	C
NOTE: This code value is no longer used by GDOT Office of Transportation Data	A
Locally Designated Truck Route	E
Federally Designated National Network Truck Route, other than interstate route	T

Glossary - Truck Route Designation Types

Designation Type	Definition
Federally Designated Truck Route	Routes (other than Interstates) designated as truck routes.
Local Designated Truck Route	Routes (City Streets and County Roads) designated as truck routes at the request of local government officials, upon approval by the Commissioner of the Georgia Department of Transportation (GDOT).
Interstate Route	Routes of highest importance to the nation, built to the uniform geometric and construction standards, which connect, as directly as practicable, the principal metropolitan areas, cities, and industrial centers, including important routes into, through, and around urban areas, serve the national defense and, to the greatest extent possible, connect at suitable border points with routes of continental importance in Canada and Mexico.

Field Dependencies

IF …	THEN …
TRUCK ROUTE DESIGNATION = **E**	TRUCK ROUTE NUMBER = **4 blank spaces**
TRUCK ROUTE DESIGNATION = **D**	TRUCK ROUTE NUMBER = **4 alpha-numeric characters**

Example

Example: I-75/SR-401

- D

Appendix A - Rural Urban Designations

Small Urban Areas (Rural Urban Designation Value = 2)

Small Urban Area	County Name	County FIPS
Adel	Cook	075
Americus	Sumter	261
Bainbridge	Decatur	087
Barnesville	Lamar	171
Blakely	Early	099
Cairo	Grady	131
Calhoun	Gordon	129
Camilla	Mitchell	205
Carrollton	Carroll	045
Cartersville	Bartow	015
Cedartown	Polk	233
Commerce	Jackson	157
Cordele	Crisp	081
Dawson	Terrell	273
Douglas	Coffee	069
Dublin	Laurens	175
Eastman	Dodge	091
Eatonton	Putnam	237
Fitzgerald	Ben Hill	017
	Irwin	155
Fort Valley	Peach	225
Georgetown	Quitman	239
Jesup	Wayne	305
Kingsland	Camden	039
La Fayette	Walker	295
LaGrange	Troup	285
Milledgeville	Baldwin	009
Monroe	Walton	297
Moultrie	Colquitt	071
Newnan	Coweta	077
Perry	Houston	153
	Peach	225
Richmond Hill	Bryan	029

Small Urban Area	County Name	County FIPS
Sandersville	Washington	303
Statesboro	Bulloch	031
Swainsboro	Emanuel	107
Sylvester	Worth	321
Thomaston	Upson	293
Thomasville	Thomas	275
Thomson	McDuffie	189
Tifton	Tift	277
Toccoa	Stephens	257
Vidalia	Toombs	279
	Montgomery	209
Waycross		
	Ware	299
	Brantley	025
	Pierce	229
Waynesboro	Burke	033
Winder	Barrow	013

Small Urbanized Areas (Rural Urban Designation Value = 3)

Small Urbanized Area	Urbanized Area Code
Albany	209
Athens-Clarke County	317
Brunswick	382
Dalton	435
Gainesville	444
Hinesville	451
Rome	318
Valdosta	502
Warner Robins	319

Large Urbanized Areas (Rural Urban Designation Value = 4)

Large Urbanized Area	Urbanized Area Code
Atlanta	025
Augusta-Richmond County (GA - SC)	131
Chattanooga (TN - GA)	086
Columbus (GA - AL)	109
Macon	143
Savannah	100