

# Michigan Geographic Framework Field Definitions

## (Arc Attribute Table)

(April 29, 2008)  
(MGF Version 8)

**Please Note:** Not every data item in the file has been filled. If you have any questions about the framework data you have received, please contact Laura Blastic at the Michigan Center for Geographic Information.  
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### ARC/INFO Coverage Fields

| Field Name | Type | Size | Description                    | Comments                                                                                                                      |
|------------|------|------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| FNODE#     | B    | 4    | From Node Number               | Arc/node topology has been built. Values are automatically updated in ARC/INFO when topology is edited and coverage is built. |
| TNODE#     | B    | 4    | To Node Number                 |                                                                                                                               |
| LPOLY#     | B    | 4    | Left Polygon Number            | Polygon topology has not been built.                                                                                          |
| RPOLY#     | B    | 4    | Right Polygon Number           |                                                                                                                               |
| LENGTH     | F    | 8    | Arc length (in coverage units) | Values are automatically updated as coverage is edited.                                                                       |

### Arc Identification Fields

| Field Name     | Type | Size | Description                           | Comments                                                                                                                                                                                                                                                                                                                                    |
|----------------|------|------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <COVERNAME>#   | B    | 4    | ARC/INFO Internal ID                  | Arc/node topology has been built. Unique IDs are automatically updated in ARC/INFO when topology is edited and coverage is built.                                                                                                                                                                                                           |
| <COVERNAME>-ID | B    | 4    | ARC/INFO User ID                      | Set equal to the ARC/INFO Internal ID. Values remain static even when topology is edited and the coverage is built. Values may be manually updated.                                                                                                                                                                                         |
| VER            | C    | 3    | Michigan Geographic Framework Version | This field will be filled with the current MGF version number. All arcs in the MGF will have this field filled. Users of the MGF will be able to determine the version of Framework they are working with by a query of the VER field. However, this field was added for version 3a. Previous versions of Framework do not have this field. |

### Arc Identification Fields cont.

| Field Name | Type | Size | Description                                                           | Comments                                                                                                                                                                                                                                                                                                                                                     |
|------------|------|------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OID        | I    | 13   | Object Identification Number : Michigan Geographic Framework (MGF) ID | Unique ID for each segment statewide. This attribute is for general purposes. It can be used when communicating with CGI to identify Framework features to review for possible change. Though it can be used to link data to the Framework, OID values are subject to change. Changed OID values are tracked by CGI, but deleted OID values are not tracked. |
| BPT        | C    | 8    | Permanent, unique segment Beginning Point ID                          | Used along with PR as the fundamental key in identifying change transactions                                                                                                                                                                                                                                                                                 |
| EPT        | C    | 8    | Permanent, unique segment Ending Point ID                             | Used along with PR as the fundamental key in identifying change transactions                                                                                                                                                                                                                                                                                 |
| FCC        | C    | 3    | Framework Classification Code                                         | See attached Appendix D                                                                                                                                                                                                                                                                                                                                      |
| SYM        | I    | 3    | Line Symbol                                                           | May be used as the line symbol item in ARC/INFO to display arcs in different line types and/or colors.                                                                                                                                                                                                                                                       |

### Feature Name Fields

| Field Name | Type | Size | Description                        | Comments                                                                              |
|------------|------|------|------------------------------------|---------------------------------------------------------------------------------------|
| FEDIRP     | C    | 2    | Feature Prefix Direction           | A pre-directional associated with an arc's street name (N, S, E, W, etc.).            |
| FENAME     | C    | 30   | Feature Name                       | The street name assigned to the arc.                                                  |
| FETYPE     | C    | 4    | Feature Type                       | The street type (AVE, BLVD, RD, ST etc) assigned to the arc.                          |
| FEDIRS     | C    | 2    | Feature Suffix Direction           | A post-directional associated with an arc's street name component (N, S, E, W, etc.). |
| FEDIRP2    | C    | 2    | Secondary Feature Prefix Direction | Road name aliases (e.g., Ford Fwy for I-94 Fwy).                                      |
| FENAME2    | C    | 30   | Secondary Feature Name             | The road name aliases assigned to the arc.                                            |
| FETYPE2    | C    | 4    | Secondary Feature Type             | A post-directional associated with an arc's road name alias (N, S, E, W, etc.).       |
| FEDIRS2    | C    | 2    | Secondary Feature Suffix Direction | A post-directional associated with an arc's street name component (N, S, E, W, etc.). |

### Feature Name Fields cont.

| Field Name | Type | Size | Description                | Comments                                                                                                                                                                                                                                                                           |
|------------|------|------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FEDIRP3    | C    | 2    | Feature Direction Prefix 3 | A pre-directional associated with an arc's Post Office/Zip+4 name (N, S, E, W, etc.). This field will only be filled when some part of the Post Office street name is different from the corresponding part of any of the "primary" street name components (FEDIRP, FENAME, etc.)  |
| FENAME3    | C    | 30   | Feature Name 3             | The name used by the Post Office in the Zip+4. This field will only be filled when some part of the Post Office street name is different from the corresponding part of any of the "primary" street name components (FEDIRP, FENAME, etc.)                                         |
| FETYPE3    | C    | 4    | Feature Type 3             | The street type of the Post Office/Zip+4 name (N, S, E, W, etc.). This field will only be filled when some part of the Post Office street name is different from the corresponding part of any of the "primary" street name components (FEDIRP, FENAME, etc.)                      |
| FEDIRS3    | C    | 2    | Feature Direction Suffix 3 | A post-directional associated with an arc's Post Office/Zip+4 name (N, S, E, W, etc.). This field will only be filled when some part of the Post Office street name is different from the corresponding part of any of the "primary" street name components (FEDIRP, FENAME, etc.) |

### Address Ranges and Zip Code Fields

| Field Name | Type | Size | Description             | Comments                                                                                                                                |
|------------|------|------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| FRADDL     | I    | 11   | Left side from Address  | Potential "from" and "to" address ranges. These ranges were originally transferred from TIGER. Some modifications have since been made. |
| TOADDL     | I    | 11   | Left side to Address    |                                                                                                                                         |
| FRADDR     | I    | 11   | Right side from Address |                                                                                                                                         |
| TOADDR     | I    | 11   | Right side to Address   |                                                                                                                                         |
| ZIPL       | I    | 5    | Left side ZIP code      | ZIP codes as created by the Michigan Center for Geographic Information. <b>ZIP codes do not form closed polygon boundaries.</b>         |
| ZIPR       | I    | 5    | Right side ZIP code     |                                                                                                                                         |

## Political Boundary Fields

| Field Name | Type | Size | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Comments                                                                                                                                                                                                                                |
|------------|------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STATEL     | I    | 2    | Left side State FIPS code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | State boundaries may be displayed by selecting STATEL <> STATER. The state polygon boundary has been closed. All arcs have been assigned STATEL and STATER values.                                                                      |
| STATER     | I    | 2    | Right side State FIPS code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                         |
| COUNTYL    | I    | 3    | Left side County FIPS code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | County boundaries may be displayed by selecting COUNTYL <> COUNTYR. The county polygon boundary has been closed. All arcs have been assigned COUNTYL and COUNTYR values.                                                                |
| COUNTYR    | I    | 3    | Right side County FIPS code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                         |
| ADJ_CNTY   | I    | 3    | Sometimes roads, with their assigned PR (Physical Road) numbers, cross county boundaries where the county boundary is represented by a non visible line. To maintain the PR data in this situation, ADJ_CNTY will hold the 3 digit FIPS code of the adjacent county.<br><br>For Example: For a road that crosses a non visible boundary between Eaton (045) and Ingham (065) counties, 045 will be placed in the ADJ_CNTY field for the portion of the road inside Ingham county. Conversely, 065 will be placed in the ADJ_CNTY field for the portion of the road inside Eaton county. | This item is used only by MDOT or a user who needs MALI mile points. It identifies arcs from adjacent counties that are needed to make the PR segment complete.                                                                         |
| FMCDL      | I    | 5    | Left side Federal Information Processing Standards (FIPS) MCD code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Minor Civil Division (MCD) boundaries may be displayed by selecting FMCDL <> FMCDR. The MCD polygon boundaries have been closed. All arcs have been assigned FMCDL and FMCDR values.                                                    |
| FMCDR      | I    | 5    | Right side FIPS MCD code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                         |
| FPLL       | I    | 5    | Left side FIPS Place code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Place boundaries (villages, Census Designated Place (CDP)s, and cities) may be displayed by selecting FPLL <> FPLR. The place polygon boundaries have been closed. All arcs, where applicable, have been assigned FPLL and FPLR values. |
| FPLR       | I    | 5    | Right side FIPS Place code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                         |

## District / Precinct Boundary Fields

| Field Name | Type | Size | Description                                    | Comments                                                                                                                                                                                                                 |
|------------|------|------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A425L      | C    | 12   | Left side of an Act 425 annexation boundary    | Act 425 annexations are Intergovernmental Conditional Transfer Of Property By Contract. These agreements form temporary boundaries defining what should happen to the affected land at the termination of the agreement. |
| A425R      | C    | 12   | Right side of an Act 425 annexation boundary   |                                                                                                                                                                                                                          |
| USCL       | C    | 2    | Left side U.S. Congressional district 2002     | US Congress boundaries may be displayed by selecting USCL <> USCR. The US Congress polygon boundary has been closed. All arcs have been assigned USCL and USCR values.                                                   |
| USCR       | C    | 2    | Right side U.S. Congressional district 2002    |                                                                                                                                                                                                                          |
| STSL       | C    | 2    | Left side Michigan State Senate district 2002  | MI State Senate boundaries may be displayed by selecting STSL <> STSR. The MI State Senate polygon boundary has been closed. All arcs have been assigned STSL and STSR values.                                           |
| STSR       | C    | 2    | Right side Michigan State Senate district 2002 |                                                                                                                                                                                                                          |
| STHL       | C    | 3    | Left side Michigan State House District 2002   | MI State House boundaries may be displayed by selecting STHL <> STHR. The MI State House polygon boundary has been closed. All arcs have been assigned STHL and STHR values.                                             |
| STHR       | C    | 3    | Right side Michigan State House District 2002  |                                                                                                                                                                                                                          |
| CCDL       | C    | 2    | Left side County Commissioner District         | The attributes for CCDL and CCDR have not been assigned                                                                                                                                                                  |
| CCDR       | C    | 2    | Right side County Commissioner District        |                                                                                                                                                                                                                          |
| PCTL       | C    | 14   | Left side Precinct                             | The attributes for PCTL and PCTR have not been assigned                                                                                                                                                                  |
| PCTR       | C    | 14   | Right side Precinct                            |                                                                                                                                                                                                                          |
| VPL        | C    | 2    | Left side Village Precinct                     | The attributes of VPL and VPR have not yet been assigned.                                                                                                                                                                |
| VPR        | C    | 2    | Right side Village Precinct                    |                                                                                                                                                                                                                          |
| SDL        | C    | 5    | Left side School District FIPS code            | School District boundaries may be displayed by selecting SDL <> SDR. The School District polygon boundary has been closed. All arcs have been assigned SDL and SDR values.                                               |
| SDR        | C    | 5    | Right side School District FIPS code           |                                                                                                                                                                                                                          |
| SDPL       | C    | 6    | Left side School District Precinct             | The attributes of SDPL and SDPR have not yet been assigned.                                                                                                                                                              |

|      |   |   |                                     |  |
|------|---|---|-------------------------------------|--|
| SDPR | C | 6 | Right side School District Precinct |  |
|------|---|---|-------------------------------------|--|

### Census/TIGER Related Fields

| Field Name | Type | Size | Description                                                  | Comments                                                                                                                                                           |
|------------|------|------|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CTBNA00L   | C    | 6    | Left side Census 2000 Tract/Block Numbering Area (BNA) code  | Census polygons may be displayed by entering CTBNA00L <> CTBNA00R or BG00L <> BG00R. All arcs have been assigned with CTBNA00L, BG00L, CTBNA00R, and BG00R values. |
| CTBNA00R   | C    | 6    | Right side Census 2000 Tract/Block Numbering Area (BNA) code |                                                                                                                                                                    |
| BG00L      | C    | 7    | Left Side Census 2000 Block Group Number                     |                                                                                                                                                                    |
| BG00R      | C    | 7    | Right side Census 2000 Block Group Number                    |                                                                                                                                                                    |

### Transportation Polygon Fields

| Field Name | Type | Size | Description                      | Comments       |
|------------|------|------|----------------------------------|----------------|
| FAUBL      | I    | 4    | Federal Aid Urban Boundary Left  | See Appendix E |
| FAUBR      | I    | 4    | Federal Aid Urban Boundary Right |                |

### Transportation Component Fields

| Field Name | Type | Size | Description                                                                        | Comments                                                                                                                                                                         |
|------------|------|------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PR         | I    | 7    | Physical Road ID number                                                            | Michigan Dept. of Transportation (MDOT's) standard for the Linear Referencing System requires that Physical Roads (PRs) are continuous without gaps or overlaps in mile posting. |
| LID        | I    | 8    | Location ID                                                                        | Internal CGI tracking ID                                                                                                                                                         |
| BKP        | N    | 8,3  | Beginning PR (Physical Road) segment Kilometer Point for linear referencing system | This value is derived from the MALI database and may not match the GIS length.                                                                                                   |
| EKP        | N    | 8,3  | Ending PR (Physical Road) segment Kilometer Point for linear referencing system    | This value is derived from the MALI database and may not match the GIS length.                                                                                                   |
| BMP        | N    | 10,3 | Beginning PR (Physical Road) segment Mile Point for linear referencing system      | This value is derived from the MALI database and may not match the GIS length.                                                                                                   |
| EMP        | N    | 10,3 | Ending PR (Physical Road) segment Mile Point for linear referencing system         | This value is derived from the MALI database and may not match the GIS length.                                                                                                   |
| LENFT      | N    | 6    | Segment Length in Feet                                                             | This value is derived from the MALI database and may not match the GIS length.                                                                                                   |

|       |   |     |                         |                                                                                |
|-------|---|-----|-------------------------|--------------------------------------------------------------------------------|
| LENMI | N | 6.3 | Segment Length in Miles | This value is derived from the MALI database and may not match the GIS length. |
|-------|---|-----|-------------------------|--------------------------------------------------------------------------------|

## Transportation Component Fields cont.

| Field Name | Type | Size | Description                                                                                                                                                                                                                                                            | Comments                                                                                                                                                                                       |
|------------|------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RDBRANCH   | C    | 2    | County based breakdown of the local road network into chunks.<br><br>**(See below for Branch information)                                                                                                                                                              | Most Common:<br>11: 'Reverse' side of a boulevard<br>21: 'Reverse' side of a roundabout<br>51: 'Cutoffs'<br>71: Directional turnarounds                                                        |
| TRAFALIGN  | C    | 1    | Traffic Alignment ("+" or "-" = one way and B or blank = bidirectional) in relation to PR direction                                                                                                                                                                    | This field can be used to identify one-way streets. Not every one-way street in the State has been identified at this time. Updates to this field will occur as information becomes available. |
| GSF        | I    | 1    | Grade (Spatial) Separation From<br>0 = Intersection (No separation)<br>1 = Underpass<br>2 = Overpass<br>3 = Intersections of more than one freeway                                                                                                                     | Most (Grade Separation From) to (Grade Separation To) combinations will be 0-1 or 1-0 or 0-2 or 2-0.<br>(See info following Transportation Component Table on Grade separations)               |
| GST        | I    | 1    | Grade Separation To<br>0 = Intersection (No separation)<br>1 = Underpass<br>2 = Overpass<br>3 = Intersections of more than one freeway                                                                                                                                 |                                                                                                                                                                                                |
| CS         | I    | 5    | Control Section value                                                                                                                                                                                                                                                  |                                                                                                                                                                                                |
| CSPATH     | C    | 1    | Control Section Path<br>1 = Main line forward direction<br>2 = Main line reverse direction<br>3 = Forward side on collector distributors and service drives<br>4 = Reverse side on collector distributors and service drives<br>5 = Ramps and other Trunkline features | The new 3-part CS referencing includes CS, CSPATH, and CSBMP/CSEMP. CSPATH is required to make CS Milepoints unique on CSPATH = 1-4.                                                           |
| CSBRANCH   | C    | 2    | Michigan Department of Transportation (MDOT) Control Section Branch<br><br>**(See below for Branch information)<br>County based breakdown of trunk lines into chunks                                                                                                   | Most Common:<br>1-10: "Forward Side"<br>11-50: "Reverse Side"<br>61-65: Service Drives<br>66-69: Collector Distributor<br>97: Weigh Station<br>98: Rest Area<br>99: Ramp                       |
| CSALIGN    | C    | 1    | Control Section Alignment (+ or -) in relation to PR direction                                                                                                                                                                                                         |                                                                                                                                                                                                |
| CSBMP      | N    | 6.3  | Control Section segment Beginning Mile Point                                                                                                                                                                                                                           | This value is derived from the MALI database and may not match the GIS length.                                                                                                                 |
| CSEMP      | N    | 6.3  | Control Section segment Ending Mile Point                                                                                                                                                                                                                              |                                                                                                                                                                                                |

### Transportation Component Fields cont.

| Field Name | Type | Size | Description                                                                                                                                                           | Comments                                                                                                                                  |
|------------|------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| SYNCPR     | I    | 7    | Synchronize PR Number                                                                                                                                                 | Synchronization PR's apply to divided highways and will be used to synchronize data to both sides of the route.                           |
| SYNCBMP    | N    | 8,3  | Synchronized Beginning Mile Point value                                                                                                                               | Synchronization of the reverse side to the forward side of a CS Trunkline.                                                                |
| SYNCEMP    | N    | 8,3  | Synchronized Ending Mile Point value                                                                                                                                  |                                                                                                                                           |
| RT1        | C    | 6    | Route 1: 6 digit number made up of a 1 digit route designation, a 3 digit highway number and a 2 digit city number. (See next page for more Route information)        | This field is used to indicate the route type and highway number. (See Appendix F)                                                        |
| RT1BRANCH  | C    | 2    | Route 1 Branch<br>**(See previous page for Branch information)                                                                                                        |                                                                                                                                           |
| RT1ALIGN   | C    | 1    | Route 1 Alignment (+ or -) in relation to PR direction                                                                                                                |                                                                                                                                           |
| RT1BMP     | N    | 8,3  | Route 1 segment Beginning Mile Point                                                                                                                                  | This value is derived from the MALI database and may not match the GIS length.                                                            |
| RT1EMP     | N    | 8,3  | Route 1 segment Ending Mile Point                                                                                                                                     |                                                                                                                                           |
| SYNCPR1    | I    | 7    | Synchronized PR for Route 1                                                                                                                                           | Synchronization PR's apply to divided highways and will be used to synchronize data to both sides of the route.                           |
| RT2        | C    | 6    | Route 2: 6 digit number made up of a 1 digit route designation, a 3 digit highway number and a 2 digit city number.<br>(See next page for Route information)          | This field is used to indicate the route type and highway number when a segment has two possible highway designations. (See Appendix F)   |
| RT2BRANCH  | C    | 2    | Route 2 Branch                                                                                                                                                        |                                                                                                                                           |
| RT2ALIGN   | C    | 1    | Route 2 Alignment (+ or -) in relation to PR direction                                                                                                                |                                                                                                                                           |
| RT2BMP     | N    | 8,3  | Route 2 segment Beginning Mile Point                                                                                                                                  | This value is derived from the MALI database and may not match the GIS length.                                                            |
| RT2EMP     | N    | 8,3  | Route 2 segment Ending Mile Point                                                                                                                                     |                                                                                                                                           |
| SYNCPR2    | I    | 7    | Synchronized PR for Route 2                                                                                                                                           | Synchronization PR's apply to divided highways and will be used to synchronize data to both sides of the route.                           |
| RT3        | C    | 6    | Route 3: 6 digit number made up of a 1 digit route designation, a 3 digit highway number and a 2 digit city number.<br>(See previous page for more Route information) | This field is used to indicate the route type and highway number when a segment has three possible highway designations. (See Appendix F) |
| RT3BRANCH  | C    | 2    | Route 3 Branch                                                                                                                                                        |                                                                                                                                           |
| RT3ALIGN   | C    | 1    | Route 3 alignment (+ or -) in relation to PR direction                                                                                                                |                                                                                                                                           |

### Transportation Component Fields cont.

| Field Name  | Type | Size | Description                                                                                                                                                                                                                               | Comments                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RT3BMP      | N    | 8,3  | Route 3 segment Beginning Mile Point                                                                                                                                                                                                      | This value is derived from the MALI database and may not match the GIS length.                                                                                                                                                                                                                                                                                              |
| RT3EMP      | N    | 8,3  | Route 3 segment Ending Mile Point                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                             |
| SYNCPR3     | I    | 7    | Synchronized PR for Route 3                                                                                                                                                                                                               | Synchronization PR's apply to divided highways and will be used to synchronize data to both sides of the route.                                                                                                                                                                                                                                                             |
| OWP         | I    | 1    | One Way Pair<br>1= "Forward Side" of pair<br><br>2= "Reverse Side" of pair                                                                                                                                                                | Any segment with OWP > 0 is a one-way paired surface street that is synchronized with another one-way paired surface street. This synchronization is for data collection and mileage summation purposes. Currently only State trunk line have OWP values. Example: Oakland and Saginaw streets (M 43) in Lansing or Huron and Hamilton streets (M 17, Bus 94) in Ypsilanti. |
| ICN         | C    | 9    | Interchange Number                                                                                                                                                                                                                        | Designated by MDOT to identify all features associated with an interchange. This includes all ramps, main cross road, and any service drives considered part of the interchange traffic system. Generally the value is made up of MDOT County Number, Route designation, and exit number. Example: I 96 / Okemos Road interchange in Ingham county is 33096110              |
| RAMPID      | C    | 10   | Michigan Accident Location Index (MALI) Ramp Identification Number                                                                                                                                                                        | MDOT individual RAMP identification within an interchange. Made up of 3 digits and a letter. Example: The RAMPID for the exit ramp from N US 131 to eastbound 28 <sup>th</sup> street in Kent county is 008D.                                                                                                                                                               |
| SRATE       | I    | 4    | Rating Section                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                             |
| SDIR        | I    | 1    | Direction                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                             |
| SINTMATCH   | I    | 1    | Intersection Matches                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                             |
| LEGALSYSTEM | I    | 1    | Indicates ownership of the road:<br>0 – Non Act 51 Certified<br>1 – State Trunkline<br>2 – County Primary<br>3 – County Local<br>4 – City Major<br>5 – City Minor<br>7 – Other Public Entity (road is uncertified, non-trunkline, public) | The legal system defines the importance of the road and the unit of government that has jurisdiction over the road.                                                                                                                                                                                                                                                         |

### Transportation Component Fields cont.

|           |   |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                              |
|-----------|---|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PC_COL    | I | 4 | Place Code County Left<br>The County codes run alphabetically from 1-83 (Using St., not Saint for St Clair (77) and St Joseph (78))                                                                                                                                                                                                                                                                                                                                                                                                                             | Represents the county owning the left side of the road                                                                                                                                                                                                                                                                                                       |
| PC_COR    | I | 4 | Place Code County Right<br>The County codes run alphabetically from 1-83 (Using St., not Saint for St Clair (77) and St Joseph (78))                                                                                                                                                                                                                                                                                                                                                                                                                            | Represents the county owning the right side of the road                                                                                                                                                                                                                                                                                                      |
| PC_CITY_L | I | 4 | Place Code City Left: For a listing of codes and their values, see Appendix A.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Represents the city owning the left side of the road                                                                                                                                                                                                                                                                                                         |
| PC_CITY_R | I | 4 | Place Code City Right: For a listing of codes and their values, see Appendix A.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Represents the city owning the right side of the road                                                                                                                                                                                                                                                                                                        |
| FUNCLASS  | I | 2 | MDOT National Functional Classification (NFC) code<br><br>1 - Rural Interstate (principal arterial)<br>2 - Rural Other Principal Arterial<br>5 - Rural Other Freeway (principal arterial)<br>6 - Rural Minor Arterial<br>7 - Rural Major Collector<br>8 - Rural Minor Collector<br>9 - Rural Local<br>11 - Urban Interstate (principal arterial)<br>12 - Urban Other Freeway (principal arterial)<br>14 - Urban Other Principal Arterial<br>16 - Urban Minor Arterial<br>17 - Urban Collector<br>19 - Urban Local<br>0 or uncoded - not a certified public road | Uses United States Department of Transportation (USDOT) system classifying all roads by their transportation function. This system is called the National Functional Classification (NFC) system.<br><br>There are three major types: (Arterial, Collector, and Local)<br>The classification codes 1-9 are rural<br>The classification codes 10-19 are urban |
| NHS       | I | 1 | National Highway System<br>0 - This section is not on the NHS<br>1 - This section is on the NHS but is not an NHS intermodal connector<br>2 – 9 This section is an NHS intermodal connector. Type of connector:<br>2 - Major Airport<br>3 – Major Port Facility<br>4 – Major Amtrak Station<br>5 – Major Rail/Truck Terminal<br>6 – Major Intercity Bus Terminal<br>7 – Major Public Transit or Multi-Modal Passenger Terminal<br>8 – Major Pipeline Terminal<br>9 – Major Ferry Terminal<br>Blank = Non Road Feature                                           | This field is used to identify roads involved in the National Highway System and indicates the type of intermodal connector the road is functioning as. If more than one connector type is involved, the predominant type.                                                                                                                                   |

## Transportation Component Fields cont.

| Field Name | Type | Size | Description                                                                                                                                                                                                                                                      | Comments                                                                                                                                                                                                                                                                                                     |
|------------|------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SPID       | C    | 8    | State Park ID                                                                                                                                                                                                                                                    | Unique identifier for each State Park within Michigan                                                                                                                                                                                                                                                        |
| BASID      | C    | 8    | Michigan Department of Natural Resources Boating Access Site ID                                                                                                                                                                                                  | Unique identifier for each boating access site with Michigan.                                                                                                                                                                                                                                                |
| ROUNDID    | N    | 5    | Roundabout ID                                                                                                                                                                                                                                                    | Designated by Center for Geographic Information to identify all features associated with a roundabout intersection. (See attached Appendix H)                                                                                                                                                                |
| IRRCODE    | N    | 5    | Bureau of Indian Affairs (BIA) Network Codes                                                                                                                                                                                                                     | Unique identifier for each of the Indian Tribes within Michigan (see attached Appendix G)                                                                                                                                                                                                                    |
| IRRCLASS   | N    | 2    | Bureau of Indian Affairs (BIA) Ownership Classification Code<br>1 – BIA<br>2 – Tribe<br>3 – State<br>4 – Urban<br>5 – County and Township<br>7 – Other Federal Government Departments and Agencies<br>9 – Other not include above<br>0 – Not BIA classified road | Use to define the various types of transportation features within a tribes road network.                                                                                                                                                                                                                     |
| MDOTEXP    | I    | 3    | MDOT Exception Field                                                                                                                                                                                                                                             | The values assigned to the 7 “MDOT attributes” (FUNCLASS, LEGALSYSTEM, NHS, PC_COL, PC_COR, PC_CITY_L, PC_CITY_R) for a road segment have defined relationships. There are, however, circumstances when values are assigned in violation of the rules. The codes in this field will identify those segments. |

\* Grade separations indicate the physical spatial relationship of two PR's at the point of intersection. In most cases, there are no level separations between two intersection roads (such as a usual four-corner intersection) and their grade separation is “0”. However, where there is an overpass or underpass (such as limited access expressways), there is no intersection of the roads, and they pass each other in levels of grade separation. Where one road passes under another, its grade separation level is “1” while the overpassing road is given a level of “2”. Grad separation levels are assigned from the “bottom up,” to accommodate any multiple grade separation levels of 3, 4, 5, etc., that may occur in more complex urban interchanges. As grade separations are segment attributes, each segment has a “from” grade separation (GSF) and a “to” grade separation (GST) to indicate the relationship of the cross PR at the “from” point and “end “ point of the segment.

\*\* “Branch” is used to distinguish between the various branches that may occur along a control section or route (such as divided roads, ramps, collector-distributors, etc.). The “primary” route is designated as branch “1” and for divided roadways, will apply to the northbound or eastbound roadbed. The “secondary” route is designated by a branch of “11” or higher. Branches of “12”, “13”, etc., may occur where the route separates and joins more than once, such as US-24. Ramps off the primary and secondary routes have the branch designation of “99”.

## MCGI Metadata

| Field Name | Type | Size | Description                                                                                                                                                                                                                                                     | Comments                                                  |
|------------|------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| MGF_HIST   | I    | 3    | MGF Conflation History<br>0 – Added since conflation<br>1 – Matched TIGER to MIRIS<br>2 – Original unmatched MIRIS<br>3 – Appended unmatched TIGER<br>4 – Ambiguous                                                                                             | Static field representing original source of geography.   |
| SRC_NM     | C    | 1    | Source Name<br>2 – Framework Version 2<br>A – Act 51<br>C – Clerk<br>D – Digital Map (Google, MapQuest)<br>L – Local: County or Municipal data<br>L1 – Local 1:County address point file<br>N – 911<br>O – Official<br>P – Postal<br>T – TIGER<br>U - Unknown   | The source referenced to the name in FENAME.              |
| SRC_NM2    | C    | 1    | Source Name 2<br>2 – Framework Version 2<br>A – Act 51<br>C – Clerk<br>D – Digital Map (Google, MapQuest)<br>L – Local: County or Municipal data<br>L1 – Local 1:County address point file<br>N – 911<br>O – Official<br>P – Postal<br>T – TIGER<br>U - Unknown | The source referenced to the alias name found in FENAME2. |
| SRC_RNG    | C    | 2    | Source Range<br>C – Clerk<br>D – Digital Map (Google, MapQuest)<br>L – Local: County or Municipal data<br>L1 – Local 1:County address point file<br>L2 – Local 2:<br>N – 911<br>P – Postal<br>T – TIGER 1990<br>T2 – TIGER 2000                                 | The source referenced to the primary address range.       |

## MCGI Metadata cont.

| Field Name   | Type | Size | Description                                                                                                                                                                                                                                                                                                                                                                                                                   | Comments                                                                                                                                                                                                                                                                                                                                                        |
|--------------|------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SRC_POS      | I    | 2    | Source Position<br>01 – MIRIS<br>02 – TIGER<br>03 – GPS “drive line”<br>04 – Act 51 maps<br>05 – MDOT Functional Class Map<br>06 – MDOT design plans<br>07 – QVF maps, Clerk maps<br>08 – Misc.<br>09 – DOQ (Digital Ortho Quad)<br>10 – External GIS database – i.e. local GIS source, Digital Parcel Layer<br>11 – MSU Landscan arial photo<br>12 – Scanned Topo (DRG)<br>13 – Other photo source<br>14 – Legal Description | The type of data source used to determine the position where a feature should be located when it is being digitized/captured.                                                                                                                                                                                                                                   |
| REF_MTHD_POS | I    | 2    | Referencing Method Position<br>01 – Geo-referenced backdrop (DOQ, GPS, etc.)<br>02 – Scanned backdrop (Act 51 maps, other registered images)<br>03 – No backdrop – eyeball digitized<br>04 – Unknown<br>05 – TIGER arc appended in during conflation process<br>06 – Minor topological changes made by operator<br>07 – Programmatically adjusted to a more accurate source<br>08 - Legal Description                         | The referencing method used to digitize/capture the feature for the framework geography. Gives an idea of the probable positional accuracy of a particular feature.                                                                                                                                                                                             |
| DT_FE_ADD    | D    | 8    | Date Feature Added                                                                                                                                                                                                                                                                                                                                                                                                            | This field will be updated with the current date when a new feature is added to the framework geography. A road being added as a result of a new subdivision is an example of an instance where this field should be filled. In addition, this field will be filled when roads have been modified due to reconstruction and the reconstruction can be verified. |
| DT_POS_ED    | D    | 8    | Date Position Edited                                                                                                                                                                                                                                                                                                                                                                                                          | The date the position of a feature was last edited. This can include both moving a feature as well as reshaping.                                                                                                                                                                                                                                                |

## MCGI Metadata cont.

| Field Name | Type | Size | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Comments                                                                                                                                                                                             |
|------------|------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DT_POS_SRC | D    | 8    | Date Positional Source                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | The creation date of the positional source used to digitize/capture the feature                                                                                                                      |
| DT_NM      | D    | 8    | Date Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | The date the name (FENAME) on an arc was added or last changed.                                                                                                                                      |
| DT_NM2     | D    | 8    | Date Name 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | The date the alias name (FENAME2) on an arc was added or last changed.                                                                                                                               |
| DT_RNG     | D    | 8    | Date Range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Date the address range on an arc was added or last changed.                                                                                                                                          |
| INTERP_FLG | I    | 2    | Interpolation Flag<br>0. Not interpolated due to no duplication of OID or no addresses<br>1. Interpolated normally<br>2. Indicates addresses per distance calculation done in address editing. Based on local address authority standards (e.g. 1000 address number spread per mile)<br>3. Addresses already different<br>4. Different names<br>5. Different zipcodes<br>6. Loop<br>7. Unable to interpolate due to a range or arc that is too short.<br>8. Parity (odd/even) problem<br>9. Direction problem<br>10. Non-contiguous<br>11. Interpolated Manually | A number utilized to flag an arc that has had an interpolation process used on it to calculate the address range. If INTERP_FLG value is 3 – 10 it means that interpolation has not yet taken place. |

## Original TIGER Attribute Fields

| Field Name | Type | Size | Description                                 | Comments                                                                                    |
|------------|------|------|---------------------------------------------|---------------------------------------------------------------------------------------------|
| TLID       | I    | 10   | 1994 TIGER Line ID                          | Originally, a unique numeric identification in TIGER for each segment.                      |
| BLK90L     | C    | 4    | Left side 1990 Census tabulation block no.  | Although BLK90L and BLK90R values exist, these polygon boundaries may or may not be closed. |
| BLK90R     | C    | 4    | Right side 1990 Census tabulation block no. |                                                                                             |

## Michigan Geographic Framework Field Definitions (Node Attribute Table)

### Node Identification Fields

| Field Name     | Type | Size | Description                                                                     | Comments                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------|------|------|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ARC#           | B    | 4    | Internal sequence number of one of the arcs that connects at the node location. | Arc/node topology has been built. Values are automatically updated in ARC/INFO when topology is edited and coverage is built.                                                                                                                                                                                                                                                                                          |
| <COVERNAME>#   | B    | 4    | ARC/INFO Internal sequence number of the node.                                  | Arc/node topology has been built. Unique IDs are automatically updated in ARC/INFO when topology is edited and coverage is built.                                                                                                                                                                                                                                                                                      |
| <COVERNAME>-ID | B    | 4    | ARC/INFO User assigned ID.                                                      | This item contains the MCGI Framework point ID. It is essential for MDOT transportation linear reference, and for all MCGI Framework version tracking. It is also used for data reintegration and conflation. This was originally a basic Arc/Info item. But Arc/Info designed it for coverage owner use. Values remain static even when topology is edited and the coverage is built. Values may be manually updated. |

### ARC/INFO Coverage Fields

| Field Name | Type | Size | Description                                                                  | Comments                                                                                                                                                                      |
|------------|------|------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-COORD    | F    | 8    | X value of the node location in coverage units.                              | Only recalculated by running 'addxy' command in Arc/Info.                                                                                                                     |
| Y-COORD    | F    | 8    | Y value of the node location in coverage units.                              |                                                                                                                                                                               |
| STRU1      | I    | 8    | Bridge structure identification number as assigned by the MDOT bridge group. | 4 digit number assigned to a node representing a bridge.                                                                                                                      |
| STRU2      | I    | 8    | Bridge structure identification number as assigned by the MDOT bridge group. | 4 digit number assigned to a node where two bridges intersect at the same point. The bridge identified by STRU2 is at a higher elevation than the bridge identified by STRU1. |

**ARC/INFO Coverage Fields cont.**

| Field Name | Type | Size | Description                                                                  | Comments                                                                                                                                                                                                                           |
|------------|------|------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STRU3      | I    | 8    | Bridge structure identification number as assigned by the MDOT bridge group. | 4 digit number assigned to a node where three bridges intersect at the same point. The bridge identified by STRU3 is at a higher elevation than the bridge identified by STRU2.                                                    |
| NI         | C    | 7    | National Inventory number                                                    | A unique value assigned to nodes where rail features cross road features. Value assigned by Federal agency. MDOT uses this identifier to track information about the crossing.<br><br>This field has not been filled at this time. |
| UNINC      | I    | 4    | Unincorporated Place ID                                                      | A unique value created and assigned by CGI.                                                                                                                                                                                        |

**Type:** B      Binary  
          F      Floating  
          I      Integer  
          C      Character  
          N      Numeric  
          D      Date – YYYYMMDD