1   Summary

The following geospatial data and corresponding attribute specifications are required to be regularly maintained by each county for Mapped Automated Location Information (ALI), Location Validation Function (LVF) and Emergency Call Routing Function (ECRF). Please provide monthly updates and make all submissions in ESRI ArcGIS file geodatabase format. Upon submission, all geospatial data must have a known defined projection. **Incomplete datasets which require reformatting will be returned to the county and not updated in the PSAPs**. Each is very specific and must follow the exact guidelines (such as the "L_ESN" field being a 5 character long Text) outlined below. Remember to keep the field names in your database the same as those listed, and in the same order, and that all entries for every field must be in UPPER CASE. The complete attribute definitions shown in the GIS data tables are described and defined in sections "Database Format" for each dataset. The data fields shown as **M**andatory and **C**onditional must be present in the data. In the tables below, the column **M/C/O** is to indicate whether the attribute values is Mandatory (**M**), Conditional (**C**), or Optional (**O**).

- **Mandatory** signifies an attribute value must exist
- **Conditional** signifies that if the attribute information exists in the real world, it must be included. If no value exists for the feature, the individual value is left blank without an empty space (if text), or 0 (if numeric)
- **Optional** signifies an attribute value may or may not be included in the data field

In the GIS data tables below, the **TYPE** column indicates the data type used for the data field.
- **TEXT** – string of alphanumeric characters including any combination of alphabetical letters A-Z and numbers 0-9
- **DATE** – Date and **time** using ISO 8601 compliant formats which are in the format of yyyy-MM-dd HH:mm:ss
- **DOUBLE** – double precision floating point numeric values with decimals
- **LONG** – whole numeric values ranging from -2,147,483,648 to 2,147,483,647 without decimals

In the GIS data tables below, the **WIDTH** column indicates the number of allowable characters within each field.

2   Road Centerlines (RCL)

This line data represents road networks in the Capital Area region. This layer includes the street names and address ranges used to assign an address.

2.1 Graphic Edits
Each named street needs to be represented in the GIS graphically and include attribution for all database fields listed below. All unnamed streets included in the street centerline layer are only required to have the designation "DRVW" entered in the 'street name' field. When a street centerline needs to be added, and it can be seen on the current aerial photography provided by CAPCOG, the centerline can be drawn in using the imagery as a reference. If, however, the street centerline is not visible on the most current aerial photography, alternative methods will have to be used to update the street centerline dataset. These methods include using a GPS unit to capture new street centerlines, or using georeferenced paper plats or digital CAD files to digitize street centerlines. In all cases each new street centerline will need to be broken, or checked for breaks, at each jurisdiction and ESN line/boundary intersection. In addition street segment directionals must be correct as well.

2.2 Database Format

FIELD NAME	M/C/O	TYPE	WIDTH	DESCRIPTION/ VALID ENTRIES
SOURCE	M	TEXT	75	Agency that last updated the record, i.e. FAYETTE, TRAVIS
PROVIDER	M	TEXT	75	The name of the regional 911 authority *CAPCOG will populate*
LAST_MOD	M	DATE	26	Date of last update using ISO 8601 format
EFF_DATE	O	DATE	26	Date the new record information goes into effect in ISO 8601 format
SEGMENTID	M	LONG	DEFAULT	Unique segment ID *CAPCOG will populate*
RCL_UNIQID	M	TEXT	100	ID for each road segment - *CAPCOG will populate*
COUNTRY	M	TEXT	2	Country name represented by two capital letters
L_STATE	M	TEXT	2	Left state name by two letters defined by USPS publication 28
R_STATE	M	TEXT	2	Right state name by two letters defined by USPS publication 28
L_COUNTY	M	TEXT	40	Fully spelled county name on the left side of the road
R_COUNTY	M	TEXT	40	Fully spelled county name on the right side of the road
L_MUNI	M	TEXT	100	Name of municipality on Left, if none populate with "UNINCORPORATED"
R_MUNI	M	TEXT	100	Name of municipality on Right, if none populate with "UNINCORPORATED"
L_MUNI_DIV	C	TEXT	100	Name of municipality division on Left, i.e. "WARD 5 FRIENDSHIP DISTRICT"
R_MUNI_DIV	C	TEXT	100	Name of municipality division on Right i.e. "WARD 5 FRIENDSHIP DISTRICT"
L_NBRHOOD	O	TEXT	100	Name of neighborhood or subdivision on Left
R_NBRHOOD	O	TEXT	100	Name of neighborhood or subdivision on Right
L_RNG_PRE	C	TEXT	15	Part of an address preceding the numeric address on Left
R_RNG_PRE	C	TEXT	15	Part of an address preceding the numeric address on Right
LF_ADDR	M	LONG	DEFAULT	Left address number at the FROM node
LT_ADDR	M	LONG	DEFAULT	Left address number at the TO node
RF_ADDR	M	LONG	DEFAULT	Right address number at the FROM node
RT_ADDR	M	LONG	DEFAULT	Right address number at the TO node
L_PARITY	M	TEXT	1	E, O, B, Z for Even, Odd, Both, or Zero (if the range is 0 to 0)
R_PARITY	M	TEXT	1	E, O, B, Z for Even, Odd, Both, or Zero (if the range is 0 to 0)
L_POST_COM	C	TEXT	40	City name for the ZIP of an address, as given in the USPS on Left
R_POST_COM	C	TEXT	40	City name for the ZIP of an address, as given in the USPS on Right
L_ZIP	C	TEXT	5	5-digit numeric postal code area on Left
R_ZIP	C	TEXT	5	5-digit numeric postal code area on Right
L_ESN	M	TEXT	5	5-digit Emergency Service Number as identified by MSAG on Left. If the ESN number only has 2-3 digits, it must be preceded by zeros
R_ESN	M	TEXT	5	Emergency Service Number as identified by MSAG on Right. Must be Preceded by zeros if less than 5 digits, i.e. "00088" for ESN 88
L_MSAG	M	TEXT	30	Valid service community as identified by MSAG on Left
R_MSAG	M	TEXT	30	Valid service community as identified by MSAG on Right
PRE_MOD	O	TEXT	15	Word or phrase separate from type and direction that precedes PRE_DIR i.e. Access, Alternate, Business, Connector, Extension, Scenic, Spur, Ramp Underpass, Overpass
PRE_DIR	C	TEXT	2	Leading directional prefix N, S, E, W, NE, NW, SE, SW
PRE_TYPE	C	TEXT	20	Spelled out word or phrase that precedes and identifies a type of thoroughfare
ST_NAME	M	TEXT	60	**Legal** street name as assigned by local addressing authority

ST_TYPE	C	TEXT	4	Type of street following the street name, valid entries on USPS Pub 28
POST_DIR	C	TEXT	2	Trailing directional suffix N, S, E, W, NE, NW, SE, SW
POST_MOD	C	TEXT	12	Word or phrase separate from type and direction that follows ST_NAME
FULL_NAME	M	TEXT	125	Full street name, should be a concatenation of 4 fields : PRE_DIR, ST_NAME, ST_TYPE and POST_DIR with no trailing or leading spaces
ST_ALIAS	C	TEXT	125	Entire alias street name assigned to street segment
ONE_WAY	O	TEXT	2	**B, FT, TF** for **B**oth, **F**ROM node to **T**O node, **T**O node to **F**ROM node
SP_LIMIT	O	LONG	DEFAULT	Posted speed limit in MPH
CLASS	M	TEXT	4	Street type designation code (See ROC Codes below)
RDCLS_TYP	O	TEXT	15	See valid Road Class Types below
NOTES	O	TEXT	75	Additional information

2.3 ROC Codes ('Street Type' Designation)
IH – Interstate
US – US highways
SH – State highways
FM – Farm to Market, Ranch Road, Ranch to Market
LS – City Street, County Road, Park Road, Recreational, Frontage Road
AC – Access Road, Crossover
PVT- Private Road
TR – Toll Road
RAMP- On-ramp, Off-ramp
DW - Driveways

2.4 Road Class Types
Primary
Secondary
Local (City, Neighborhood, or Rural Road)
Ramp
Service (usually along a limited access highway)
Vehicular Trail (4WD, snowmobiles)
Walkway (Pedestrian Trail, Boardwalk)
Alley
Private (service vehicles, logging, oil fields, ranches, etc.)
Parking Lot
Trail (Ski, Bike, Walking / Hiking Trail)

3   Site / Structure Address Points (AP)

This point data represents addressable structures that exist within the Capital Area.

3.1 Graphic Edits
All addressed structures must be represented in the address point layer with a symbol which represents the general center of the structure. When an address point needs to be added or moved, and the structure can be seen on the most current aerial photography provided by CAPCOG, the point can be moved or placed using the imagery as the primary reference. If, however, the structure is not visible on the most current aerial photography, alternative methods must be used to update the address point dataset.   These methods include using GPS to capture new points, using existing digital plat files, or scanning and georeferencing paper plat files, and "heads-up" digitizing new points.

3.2 Database Format

FIELD NAME	M/C/O	TYPE	WIDTH	DESCRIPTION/ VALID ENTRIES
SOURCE	M	TEXT	75	Agency that last updated the record, i.e. HAYS, WILLIAMSON
PROVIDER	M	TEXT	75	The name of the regional 911 authority *CAPCOG will populate*
LAST_MOD	M	DATE	26	Date of last update using ISO 8601 format
EFF_DATE	O	DATE	26	Date the new record information goes into effect in ISO 8601 format
SITE_ID	M	LONG	DEFAULT	Unique site ID *CAPCOG will populate*
SITEUNQID	M	TEXT	100	Unique ID for each address site - *CAPCOG will populate*
COUNTRY	M	TEXT	2	Country name represented by two capital letters
STATE	M	TEXT	2	State name by two letters defined by USPS publication 28
COUNTY	M	TEXT	40	County name or equivalent fully spelled out
MUNICIPAL	M	TEXT	100	Name of municipality, if none populate with "UNINCORPORATED"
MUNI_DIV	C	TEXT	100	Name of municipality division i.e. "WARD 5 FRIENDSHIP DISTRICT"
NBRHOOD	C	TEXT	100	Name of neighborhood or subdivision where the address is located
ADDNUM_PRE	O	TEXT	15	Part of an address leading the numeric address
ADDR_NUM	M	LONG	DEFAULT	Numeric identifier of a location along a thoroughfare
ADDNUM_SUF	C	TEXT	15	Part of an address following the address number i.e. ½, B
PRE_MOD	O	TEXT	15	Word or phrase separate from type and direction that precedes PRE_DIR i.e. Access, Alternate, Business, Connector, Extension, Scenic, Spur, Ramp Underpass, Overpass
PRE_DIR	C	TEXT	2	Leading directional prefix N, S, E, W, NE, NW, SE, SW
PRE_TYPE	O	TEXT	20	Spelled out word or phrase that precedes and identifies a type of thoroughfare
ST_NAME	M	TEXT	60	**Legal** street name as assigned by local addressing authority
ST_TYPE	C	TEXT	4	Type of street following the street name, valid entries on USPS Pub 28
POST_DIR	C	TEXT	2	Trailing directional suffix N, S, E, W, NE, NW, SE, SW
POST_MOD	O	TEXT	12	Word or phrase separate from type and direction that follows ST_NAME
FULL_NAME	M	TEXT	125	Full street name, must be identical to the site's related road FULL_NAME
ST_ALIAS	C	TEXT	125	Entire alias street name assigned to related street segment
FULL_ADDR	M	TEXT	170	Full address, should be a concatenation of ADDNUM_PRE + ADDR_NUM + ADDNUM_SUF + FULL_NAME with no extra, leading and trailing spaces
ESN	M	TEXT	5	Emergency Service Number associated with the address and community name Precede by '0' if digits are less than 5
MSAG_COM	M	TEXT	30	Valid service community associated with the location of the address
POSTAL_COM	M	TEXT	40	City name for the ZIP of an address, as given in the USPS
ZIP	C	TEXT	5	5-digit numeric postal code area
ZIP4	O	TEXT	4	ZIP plus 4 code without the dash
BLDG	O	TEXT	75	One among a group of buildings that have the same address
FLOOR	O	TEXT	75	A floor, story or level within a building
UNIT	O	TEXT	75	A suite or group of rooms within a building that share the same entrance
ROOM	O	TEXT	75	A single room within a building
SEAT	O	TEXT	75	A place where a person sits within a building i.e. cubicle
LANDMARK	O	TEXT	150	The name by which a prominent feature is publicly known or Vanity address
MILEPOST	C	LONG	DEFAULT	A posted numeric measurement from a given beginning point
SITE_TYPE	C	TEXT	50	Type of feature identified by the address i.e. residential, office, store, school

POINT_X	O	DOUBLE	DEFAULT	Longitude of point in decimal degrees using EPSG: 4326
POINT_Y	O	DOUBLE	DEFAULT	Latitude of point in decimal degrees using EPSG: 4326
NOTES	O	TEXT	254	Additional location information, which is not a building, floor, unit, room or seat
ELEVATION	O	DOUBLE	DEFAULT	Height above Mean Sea Level in meters

4   Emergency Service Zone (ESZ)

This polygon data consists of the intersection of law enforcement, fire district, and emergency medical service and telephone exchange boundaries in the Capital Area region.

4.1 Graphic Edits

These are area files that need to accurately reflect the boundaries of each geographically unique combination of fire, law and EMS responders. This layer is created and maintained by overlaying it on the street centerline file and determining where the boundaries fall based on the jurisdictions responder's service areas. As new responders are added to or change in an area, this boundary file will need to be modified accordingly. Communications must be regularly maintained with all fire, law, and emergency medical responders to obtain the information required in order to maintain the ESZ updated with no gaps or overlaps among or between ESZ. **It is of utmost importance that all features with identical attribute information are merged into one multipart polygon.**

4.2 Database Format

FIELD NAME	M/C/O	TYPE	WIDTH	DESCRIPTION/ VALID ENTRIES
SOURCE	M	TEXT	75	Agency that last updated the record, i.e. BASTROP, BURNET
PROVIDER	M	TEXT	75	The name of the regional 911 authority *CAPCOG will populate*
LAST_MOD	M	DATE	26	Date of last update using ISO 8601 format
EFF_DATE	O	DATE	26	Date the new record information goes into effect in ISO 8601 format
ES_UNQID	M	TEXT	100	ID for each emergency service polygon - *CAPCOG will populate*
LAW	M	TEXT	60	Name of law service provider
FIRE	M	TEXT	60	Name of fire service provider
MEDICAL	M	TEXT	60	Name of medical service provider
COUNTRY	M	TEXT	2	Country name represented by two capital letters
STATE	M	TEXT	2	State name by two letters defined by USPS publication 28
COUNTY	M	TEXT	40	County name fully spelled out
URI	M	TEXT	254	URN/URL for routing. Example: sip:sos.law@city.eoc.tx.us
URN	M	TEXT	50	The URN for the Emergency Service or other Well-Known Service*
ESN	M	TEXT	5	ESN of the responding agency preceded by '0' if number of digits < 5
TANDEM	M	TEXT	3	911 Selected Router Code
TANDEM2	C	TEXT	3	911 Selected Router Code
ESSID	M	TEXT	2	Unique tandem routing code *CAPCOG will populate*
ESNGUID	M	TEXT	8	Concatenation of ESN and ESSID separated by a single forward slash "/" CAPCOG will concatenate
AVCARDURI	C	TEXT	254	URI for the vCARD of contact information

* Example: "urn:service:sos" for a PSAP or "urn:service:sos.ambulance" for an ambulance service

5   Municipal Boundary

This polygon data represents municipal boundaries in the Capital Area region.

5.1 Graphic Edits

When city limits change due to annexations, metes and bounds descriptions for the new city boundaries description must be acquired and the city limits lines updated with them. Coordinate geometry (COGO) - a method for calculating coordinate points from surveyed bearings, distances, and angles- descriptions should be used to input the metes and bounds into the GIS.

5.2 Database Format

FIELD NAME	M/C/O	TYPE	WIDTH	DESCRIPTION/ VALID ENTRIES
SOURCE	M	TEXT	75	Agency that last updated the record, i.e. CALDWELL, LLANO
PROVIDER	M	TEXT	75	The name of the regional 911 authority *CAPCOG will populate*
LAST_MOD	M	DATE	26	Date of last update using ISO 8601 format
EFF_DATE	O	DATE	26	Date the new record information goes into effect in ISO 8601 format
POLY_ID	M	LONG	DEFAULT	Numeric Polygon ID *CAPCOG will populate*
MUNIUNQID	M	TEXT	100	Unique ID for each municipality - *CAPCOG will populate*
COUNTRY	M	TEXT	2	Country name represented by two capital letters
STATE	M	TEXT	2	State Name (eg: TX)
COUNTY	M	TEXT	40	County name fully spelled out
MUNI_NM	M	TEXT	100	Name of municipality i.e. "AUSTIN"