Information Technology Division / Geographic Systems Section

GEOSUPPORT SYSTEM TECHNICAL BULLETIN 11-01

SUBJECT: Version 11.0 Enhancements

August 26, 2011

Target audience: All Geosupport users

Introduction

The principal enhancements to Geosupport for Version 11.0 include:

I. 2010 Census Geography (Character Only Work Area (COW) and Mainframe Specific Work Area (MSW))
   a. 2000 Census Fields are moved to new columns and renamed.
   b. 2010 Census Fields are put into 2000 columns

II. New Fields Added/ Old Fields Deleted (COW and MSW)

III. Mode Switch of X (Extended) for Work Area 2 for Functions 1, 1E, 1A, 3 and 3C (COW only)
   a. To use Extended Work Area 2, you must define the longer (extended) work area
   b. New Data
      i. Extended Functions 1, 1E, 1A return Street Names in addition to Street Codes
      ii. Extended Functions 1, 1E, 3, 3C return selected CSCL data
      iii. Principal Street Names returned for Function 1/1E Cross Streets instead of Primary Street Names in GOAT

IV. New Function 1B (COW only) combines Extended Function 1E with Extended Function 1A
   a. New ERRFIL2 output error file added to GBAT for Function 1B only
   b. New second GRC, Reason Code and Error Message added to Work Area 1 for Function 1B

V. Miscellaneous Updates

Included in this document are the following:

Appendix A

- Work Area layouts for Functions 1/1E Extended, 3 Extended, 3C Extended, 1A Extended, and Function 1B

Appendix B

- Table of Geosupport Functions

Appendix C

- Table 1 - offsets for the 2010 and 2000 Census data provided in COW Work Area 2
- Table 2 - the offsets for the 2010 and 2000 Census data provided in MSW Work Area 2

Appendix D

- Table 1 - Census 2010 copylib members and specific field names for COW, broken down by programming language within each function
- Table 2 – Census 2010 copylib members and specific field names for MSW, broken down by programming language within each function

Appendix E

- Table of Census 2000 old and new field names for both COW and MSW, broken down by programming language within each function

Appendix F

- Summary of GBAT changes for both the new switch Mode=X and Function 1B

Appendix G

- Table of new field names added to the COW Work Area 2 for extended Functions 1/1E, 1A 3 and 3C, broken down by programming language within each function

Glossary of CSCL Data

Background and Overview

DCP has received the 2010 Census geography from the Census Bureau. **While we are returning the new 2010 Census geography (e.g. census tract and census block) in Release 11A, Software Version 11.0, note that all other tract based district information (e.g. health areas and community development eligibility) will still be based on the 2000 Census geography until further notice.**

Users have expressed a desire to receive **Street Names along with Street Codes** when making Geosupport calls. In previous versions of Geosupport, Street Names were not a part of Work Area 2. If a user wanted to get the Street Names corresponding to the Street Codes he/she would have to make an additional call to Geosupport using function D, DG, or DN. In response, Geosupport is implementing a **"Mode Switch" which may be used by Functions 1, 1E and 1A** to request that Geosupport return the Street Names for all Street Codes in new **"Extended" Work Areas**. These Extended Work Areas have extra space for future data items. Note that when the Mode Switch is set to 'X", for functions 1, 1E, 1A, 3 and 3C, the functions may be referred to as Function 1 Extended, Function 1E Extended, and Function 1A Extended, 3 Extended and 3C Extended respectively.

Users have also asked to receive Block Face information (which is available with Function 1 or 1E) and Property Level information (which is available with Function 1A) in one Geosupport call. In

response to this request we have created a new function named **Function 1B** which combines Function 1E Extended with Function 1A Extended.

DCP has also included some new information from the **Citywide Street Centerline file (CSCL)**. To receive the added information for Functions 1 and 1E, 3 and 3C, users must utilize the "Mode Switch". Please see the glossary at the end of this document for details on the CSCL fields.

For **Functions 1 and 1E**, the **Cross Street** names and codes are currently (prior to Version 11.0) defined as B5SC's in Work Area 2, which returns Primary Street Names for the cross streets. The Primary Name is not always the best name to use for a particular cross street. **B7SC's and their associated Principal Street Names** will now be returned in newly defined fields for Function 1 and 1E with **"Mode Switch"** set to "X". Starting with Geosupport version V11.0, the Functions 1and 1E GOAT screens will display the Principal Street Names for the Cross Streets, based on these B7SCs.

User Programming Considerations

I. 2010 Census Geography (COW and MSW) for Functions 1, 1E, 2, 3, and 3C

- New 2010 Census data **replaces** 2000 Census data
- Census 2000 data **moved** to new location and **renamed**
- No need to do any modifications to get 2010 Census information from GBAT or programs that use offsets
- Modification needed to get 2000 Census information from GBAT or programs that use offsets
- At some point, users must modify and recompile programs that access Census information, accessing the new 2010 or 2000 Census field names
- If users do not recompile and Census data is processed, they will get the 2010 data Note: If you do not recompile and you are accessing Census information, the next time you try to recompile you will get a compile error since the existing Census field names no longer exist. You will have to indicate at that point whether you want Census 2010 or Census 2000 by modifying the field names in the programs
- **MSW Users: For Function 1/1E**, the 2000 Census information has been moved to Long Work Area 2, as there was no room for it in the regular Work Area 2. Census 2010 information is in the regular Work Area 2.

Every 10 years, in conjunction with the decennial census of the population, the U.S. Census Bureau defines a new set of census geography (census tract and census block boundary lines and identifiers) throughout the nation. The Geosupport System has been providing 1990 census tract and 2000 census tract, census block and census block suffix fields. This data will continue to be included in the output information returned from Functions 1, 1E, 2, 3 and 3C.

DCP/GSS has received the 2010 census geography from the Census Bureau and will include this information in File Release 11A, Geosupport Software Version 11.0. The 1990 census information will continue to be returned in the same work area fields that have been used in previous releases. **However, as of Release 11A, Version 11.0, the 2010 Census information for both COW and**

MSW outputs <u>will be returned in the same positions that previously held the 2000 Census information</u>, and the 2000 Census information will be moved to positions previously defined as filler. We also changed the names of the 2000 Census information.

We chose to do this so that users who want the most current Census information will not have to immediately recompile their programs and change their GBAT jobs to get this data. However, **<u>whenever users recompile their programs, they will have to update the field names for the 2010 Census information, and, if they want the 2000 Census information, they will have to update the field names for that as well</u>**. The name changes were done purposely in order to force users who recompile programs that use the copylibs and look at Census information to change their programs and make decisions whether they want to continue receiving Census 2000 data and/or update their programs to receive Census 2010 data

Appendices C, D, and E contain specific information on field names and offsets for Census 2010 and Census 2000 data, and old and new field names for Census 2000.

Please see **Appendix C** for tables of offsets for the 2010 and 2000 Census data provided in Work Area 2 output for both COW and MSW, both prior to V11.0 and going forward as of V11.0. Table I contains the offsets for the 2010 and 2000 COW information. Table II contains the offsets for the 2010 and 2000 MSW information.

Please see **Appendix D** for tables of copylib members and specific field names for each programming language, for both COW and MSW for Census information.

Please see **Appendix E** for tables of Census 2000 old and new field names for both COW and MSW.

<u>II. New Fields Added (COW only) / Fields Deleted (COW and MSW) in Work Area 2</u>

a) Function 1 - COW and MSW

The Split School District Flag in Function 1 has been deleted from Geosupport for both COW and MSW. The field has become filler. School information had previously been kept in a separate graphic overlay file, and the split flag was maintained to indicate where segments were graphically (but not physically) split. The school districts are now integrated into the base file, eliminating the need for this flag.

The following table contains the name of the deleted flag for each programming language in COW format:

FIELD	**<u>BAL</u>** P2BAL	**<u>C</u>** PAC	**<u>COBOL</u>** P2COB	**<u>NATURAL</u>** GEOLP2	**<u>PL/1</u>** P2PL1
Split School District Flag	P2F1SSCH	scsd_flag	GEO-WA2-FN1-SPLIT-SCHOOL-FLAG	PIWA2-FN1-SCHL-DIST-SPLIT-FLAG	PIWA2_FN1_SCHL_DIST_SPLIT_FLAG

The following table contains the name of the deleted flag for each programming language in MSW format:

FIELD	**BAL** W2BAL	**C** WAC	**COBOL** W2COB	**NATURAL** GEOLW2	**PL/1** W2PL1
Split School District Flag	W2F1SSCH	scsd_flag	GEO-WA2-FN1-SPLIT-SCHOOL-FLAG	GEO-WA2-FN1-SPLIT-SCHOOL-FLAG	GEO_WA2_FN1_SPLIT_SCHOOL_FLAG

b) Function 2 - COW Only

Geosupport will return 2 new fields for Function 2 for COW only. GOAT will display the Sanitation District on the bottom right hand side of the screen. At this point, the Sanitation District will not be displayed on GOAT.

The following table gives the two new fields, their lengths and offsets in the COW Function 2 Work Area 2:

Field	**Length**	**Offset**
Health Center District	2	182-183
Sanitation District	3	184-186

The following table contains the field names and copylib members for the two new fields:

FIELD	**BAL** P2BAL	**C** PAC	**COBOL** P2COB	**NATURAL** GEOLP2	**PL/1** P2PL1
Health Center District	P2F2HCD	health_cen_dist	PIWA2-FN2-HEALTH-CENTER-DIST	PIWA2-FN2-HEALTH-CENTER-DIST	PIWA2_FN2_HEALTH_CENTER_DIST
Sanitation District	P2F2SD	sanit_dist	PIWA2-FN2-SANITATION-DIST	PIWA2-FN2-SANITATION-DIST	PIWA2_FN2_SANITATION_DIST

c) Function 3 - COW Only

Geosupport will return 6 new fields for Function 3 for COW only. Following is a table of the new fields, their lengths and offsets:

Field	**Length**	**Start/End Columns**
Left ED	3	245-247
Left AD	2	248-249
Left Blockface ID	7	282-288
Right ED	3	395-397
Right AD	2	398-399
Right Blockface ID	7	432-438

The following table has the new field names for Function 3 COW for the different programming languages and the copylib member they would be found in:

Field	**BAL** P2BAL	**C** PAC	**COBOL** P2COB	**NATURAL** GEOLP2	**PL/1** P2PL1
Left ED	P2F3EDL	ED	PIWA2-FN3-L-ED	PIWA2-FN3-L-ED	PIWA2_FN3_L_ED
Left AD	P2F3ADL	AD	PIWA2-FN3-L-AD	PIWA2-FN3-L-AD	PIWA2_FN3_L_AD
Left Blockface ID	P2F3BIDL	blockface_id	PIWA2-FN3-L-BLOCKFACE-ID	PIWA2-FN3-L-BLOCKFACE-ID	PIWA2_FN3_L_BLOCKFACE_ID
Right ED	P2F3EDR	ED	PIWA2-FN3-R-ED	PIWA2-FN3-R-ED	PIWA2_FN3_R_ED
Right AD	P2F3ADR	AD	PIWA2-FN3-R-AD	PIWA2-FN3-R-AD	PIWA2_FN3_R_AD
Right Blockface ID	P2F3BIDR	blockface_id	PIWA2-FN3-R-BLOCKFACE-ID	PIWA2-FN3-R-BLOCKFACE-ID	PIWA2_FN3_R_BLOCKFACE_ID

d) Function 3C - COW Only

Geosupport will return 3 new fields for Function 3C for COW only. Following is a table of the new fields, their lengths and offsets:

Field	**Length**	**Start/End Columns**
ED	3	245-247
AD	2	248-249
Blockface ID	7	282-288

The following table has the new field names for Function 3C for the different programming languages and the copylib member they would be found in:

FIELD	**BAL** P2BAL	**C** PAC	**COBOL** P2COB	**NATURAL** GEOLP2	**PL/1** P2PL1
ED	P23CED	ED	PIWA2-FN3C-ED	PIWA2-FN3C-ED	PIWA2_FN3C_ED
AD	P23CAD	AD	PIWA2-FN3C-AD	PIWA2-FN3C-AD	PIWA2_FN3C_AD
Blockface ID	P23CBID	blockface_id	PIWA2-FN3C-BLOCKFACE-ID	PIWA2-FN3C-BLOCKFACE-ID	PIWA2_FN3C_BLOCKFACE_ID

III. Mode Switch of "X" (Extended) for Functions 1, 1E, 1A, 3 and 3C (COW only)

- New Mode Switch field defined in input byte 330 of Work Area 1
- New, longer Work Area 2 layouts defined for the above functions
- CSCL information returned to user in the longer Work Area 2, as well as extra fields defined for the user's convenience

General Considerations

There is a new switch defined in Work Area 1 that will allow a user to call Geosupport and get a new, extended Work Area 2 for Functions 1, 1E, 1A, 3 and 3C. These new, extended Work Areas contain street names in addition to Street Codes. Users will no longer have to make separate D, DG, or DN

calls to get the street names. In addition, CSCL data will be returned in the extended Work Area 2, and space has been reserved for new CSCL data as it becomes available. Users who think they may want to use this new CSCL data in the future should consider modifying their applications to use the new extended Work Area 2's with the Mode Switch.

The new Mode Switch is a one-byte field, in column 330 of COW Work Area 1. The only valid values for the Mode Switch are "X" for extended, and blank.

The following table contains the field name in the copylibs for the Mode Switch:

BAL	**C**	**COBOL**	**NATURAL**	**PL/1**
P1IMODES	mode_switch	PIWA1-IN-MODE-SWITCH	PIWA1-IN-MODE-SWITCH	PIWA1_IN_MODE_SWITCH

COW Work Area 1 copylib members that you will need to use to set the Mode Switch:

COW LANGUAGE	**COPYLIB MEMBER**
BAL	P1BAL
C	PAC
COBOL	P1COB
PL/1	P1PL1
Natural	GEOLP1

Geosupport Return Codes (GRC), Reason Codes and Error Messages that may be returned if there are problems with Mode Switch set to "X":

GRC	**Reason Code**	**Message**
31	1	MODE SWITCH OF X NOT VALID WITH LONG-WORK-AREA-2 SET TO " L"
69	C	INVALID MODE SWITCH VALUE. MUST BE X OR BLANK
70	C	MODE SWITCH OF X (EXTENDED) NOT VALID FOR THIS FUNCTION

GOAT:

GOAT already displays a lot of the information that is in the new Work Area 2 for the Mode Switch ="X" layout. Some new fields will be displayed and will be discussed under the specific Functions below.

GBAT:

GBAT requirements for Extended Work Area 2: You must include the following control cards:

- MODE=X
- RECTYPE = 1, 1E, 1A, 3 or 3C
- WORKAREA= COW
- GEOCODE= ALL or YES (MODE=X is invalid when GEOCODE=NO)

Longwa2 cannot be set to YES for Function 1A with MODE=X. Either do not add a control card for LONGWA2 so it defaults to NO or use the control card LONGWA2=NO.

All other control cards are the same as for each of the Functions 1, 1E, 1A, 3 or 3C.

The following table contains the length of the output for Functions 1, 1E, 1A, 3 and 3C with Mode Switch set to "X". Note: You **must** add the length of your input record to GBAT to each of the output record lengths below.

FUNCTION	GEOCODE = YES	GEOCODE = ALL
1 and 1E	1500	1570
1A	2800	2870
3	1000	1129
3 with Auxiliary Segments	1500	1629
3C	850	979
3C with Auxiliary Segments	1350	1479

Function 1/1E with Mode Switch set to "X"

Geosupport has a new Work Area 2 for Functions 1 and 1E Extended. Most of the first 300 bytes of Function 1 and 1E with the Mode Switch set to "X" will be the same as regular Function 1 and 1E calls. The Census 2010 and Census 2000 modifications have been discussed in detail above (see section I. 2010 Census Geography). The Split School District Flag has been replaced with filler, as per above. No other changes have been made to this part of Work Area 2.

Function 1 Extended will not contain the political information, while Function 1E Extended will.

Note: Please see **Appendix A** for the Work Area 2 layout.

The following table provides the names of the COW copylib members for each programming language for Work Area 2 for Functions 1, and 1E with Mode Switch set to "X". To make use of the new, extended work area 2 for Function 1/1E, look in the copylib member for the Field Name Prefix in the third column of the table. All fields for this functionality will start with this prefix.

Programming Language	Function 1/1E Copylib Member for Mode Switch of X	Function 1/1E Field Name Prefix in Copylib
BAL	P2BAL1A	P2EX
C	PAC	C_WA2_F1EX
COBOL	P2COB1AL	PIWA2-FN1EX
Natural	GEOLP2AL	PIWA2-1EX
PL/1	P2PL11AL	PIWA2_1EX

The Cross Street street codes for Function 1 and 1E are currently defined as B5SC's in Work Area 2, which returns Primary Street Names for the cross streets. The Primary Name is not always the best name to use for a particular cross street. B7SC's and their associated Street Names have been defined for cross streets in the extended portion of Work Area 2.

NOTE: There is no longer a need to set the Cross Street Names Flag to "E" when using Function 1 and 1E with Mode Switch of "X", since the Cross Street Names are in the Extended part of the work area, although this will not create an error if the field is set to "E". However, the Street Names returned in Work Area 1 with the Cross Street Name flag are based on the B5SCs and not the updated B7SCs.

In the Extended 1 and 1E work area, the BOE Preferred LGC and associated street name will be returned in new fields defined in the "Extended" portion of Work Area 2.

Using Function 1 with the new Mode Switch flag of "X" is easy. DCP has kept the copylib names of individual fields for Function 1 and Function 1 with Mode of "X" the same, with the exception of the prefix. Add any new fields you would like to access from the table of new fields below.

Here is a breakdown of what to do for each language:

BAL: Use copylib member P2BAL1A instead of P2BAL. Change all references of P2F1 to P2EX.

C Language: The copylib member has not changed. Use C_WA2_F1EX structure for Function 1 or 1E with Mode Switch of "X". Please note that both Function 1 and Function 1E use the F1EX prefix.

COBOL: Use the copylib member P2COB1AL instead of P2COB. Change all references of PIWA2-FN1 (or PIWA2-FN1E) to PIWA2-FN1EX. Change all references of GEO-WA2-FN1 (or GEO-WA2-FN1E) to PIWA2-FN1EX. Please note that both Function 1 and Function 1E use the FN1EX prefix.

NATURAL: Use the copylib member GEOLP2AL instead of GEOLP2. Change all references of PIWA2-FN1 to PIWA2-1EX. Please note that both Function 1 and Function 1E use the 1EX prefix.

PL/1: Use the copylib member P2PL11AL instead of P2PL1. Change all references of PIWA2_FN1 to PIWA2_1EX. Please note that both Function 1 and Function 1E use the 1EX prefix.

For a listing of new fields, field lengths and offsets, see **Appendix A.** See **Appendix G** for table of new field names and associated copylib members.

Function 1A with Mode Switch set to "X"

Mode Switch of "X" is not valid with the Long Work Area 2 Flag set to Y. The first 246 bytes, up to the "Number of Entries in List of Geographic Identifiers" field, are the same as with regular Work Area 2 for Function 1A. Aside from adding the new Function 1A Reason Code, Warning Code, GRC and filler to the work area for Function 1A Extended, the only change is in the address list. **The Principal Street Name (based on the B7SC in the address list) has been added to each element**

in the address list for the user's convenience.

The following table provides the names of the COW copylib members for each programming language that you can use for Work Area 2 for Function 1A with Mode Switch set to "X". To make use of the new, extended work area 2 for Function 1A, look in the copylib member for the Field Name Prefix in the third column of the table. All fields for this functionality will start with this prefix.

COW Language	Copylib Member for Function 1A with Mode Switch of X	Function 1A Field Name Prefix in Copylib
BAL	P2BAL1A	P2AX
C	PAC	C_WA2_F1AX
COBOL	P2COB1AL	PIWA2-1AX
Natural	GEOLP2AL	PIWA2-1AX
PL/1	P2PL11AL	PIWA2_1AX

Using Function 1A with the new Mode Switch flag of "X" is easy. DCP has kept the copylib names of individual fields for regular Function 1A and Function 1A with Mode of "X" the same, with the exception of the prefix. Add any new fields you would like to access from the table of new fields below.
Here is a breakdown of what to do for each language:

BAL: Use copylib member P2BAL1A. Change all references of P21A to P2AX.

C Language: Use copylib member PAC. Use C_WA2_F1AX structure for Function 1A with Mode of "X".

COBOL: Use copylib member P2COB1AL. Change all references of PIWA2-1A to PIWA2-1AX. Change all references of GEO-WA2-1A to PIWA2-1AX.

NATURAL: Use copylib member GEOLP2AL. Change all references of PIWA2-1A to PIWA2-1AX.

PL/1: Use copylib member P2PL11AL. Change all references of PIWA2_1A to PIWA2_1AX.

For a listing of new fields, lengths and offsets, see **Appendix A.** See **Appendix G** for table of new field names and associated copylib members.

Function 3 with Mode Switch set to "X"

Geosupport has a new record layout for Function 3 Extended. Most of the first 450 bytes of Function 3 with the Mode Switch set to "X" will be the same as regular Function 3 calls. The Census 2010 and Census 2000 modifications have been discussed in detail above. There are 3 new fields in the segment side information: ED, AD and Blockface ID. (See the Section of the Technical Bulletin that describes the added/deleted fields for each Function.) No other changes have been made to this part of Work Area 2.

The following table provides the names of the COW copylib members for each programming language that you can use for Work Area 2 for Function 3 with Mode Switch set to "X". To make use of the new, extended work area 2, look in the copylib member for the Field Name Prefix in the third column of the table. All fields for this functionality will start with this prefix.

COW Language	**Copylib Member for Function 3 With Mode Switch of X**	**Function 3 Field Name Prefix in Copylib**
BAL	P2BAL	P23X
C	PAC	C_WA2_F3X
COBOL	P2COB	PIWA2-3X
Natural	GEOLP2	PIWA2-3X
PL/1	P2PL1	PIWA2_3X

Here is a breakdown of what to do for each language:

BAL: Use copylib member P2BAL. Change all references of P2F3 to P23X.

C Language: Use copylib member PAC. Use C_WA2_F3X structure for Function 3 with Mode of "X".

COBOL: Use copylib member P2COB. Change all references of PIWA2-FN3 to PIWA2-3X. Change all references of GEO-WA2-FN3 to PIWA2-3X. Change all references of GEO-WA2-3L- L to PIWA2- 3X-L. Change all references of GEO-WA2-3L-R to PIWA2-3X-R.

NATURAL: Use copylib member GEOLP2. Change all references of PIWA2-FN3 to PIWA2-3X.

PL/1: Use copylib member P2PL1. Change all references of PIWA2_FN3 to PIWA2_3X.

For a listing of new fields, offsets and lengths, see **Appendix A.** See **Appendix G** for table of new field names and associated copylib members.

<u>Function 3C with Mode Switch set to "X"</u>

Geosupport has a new record layout for Functions 3C Extended. Most of the first 300 bytes of Function 3C with the Mode Switch set to "X" will be the same as regular Function 3C calls. The Census 2010 and Census 2000 modifications have been discussed in detail above. There are 3 new fields for Function 3C: ED, AD and Blockface ID. (See the Section of the Technical Bulletin that describes the added/deleted fields for each Function.) No other changes have been made to this part of Work Area 2.

The following table provides the names of the COW copylib members for each programming language that you can use for Work Area 2 for Function 3C with Mode Switch set to "X". To make

use of the new, extended work area 2, look in the copylib member for the Field Name Prefix in the third column of the table. All fields for this functionality will start with this prefix.

COW Language	**Copylib Member for Function 3C With Mode Switch of X**	**Function 3C Field Name Prefix in Copylib**
BAL	P2BAL	P2CX
C	PAC	C_WA2_F3CX
COBOL	P2COB	PIWA2-3CX
Natural	GEOLP2	PIWA2-3CX
PL/1	P2PL1	PIWA2_3CX

Here is a breakdown of what to do for each language:

BAL: Use copylib member P2BAL. Change all references of P23C to P2CX.

C Language: Use copylib member PAC. Use C_WA2_F3CX structure for Function 3C with Mode of "X".

COBOL: Use copylib member P2COB. Change all references of PIWA2-FN3C to PIWA2-3CX. Change all references of GEO-WA2-FN3C to PIWA2-3CX.

NATURAL: Use copylib member GEOLP2. Change all references of PIWA2-FN3C to PIWA2-3CX.

PL/1: Use copylib member P2PL1. Change all references of PIWA2_FN3C to PIWA2_3CX.

For a listing of new fields, lengths and offsets, see **Appendix A.** See **Appendix G** for table of new field names and associated copylib members.

IV. New Function 1B (COW only)

Function 1B returns Block Face-level information and political geography, followed by property level information for a given input. Work Area 2 consists of the output of a Function 1E call with Mode Switch = "X" followed by the output of a Function 1A call with Mode Switch = "X". The input requires borough or zip code, address number if needed, and street name or street code. Function 1B retrieves the tax lot and building information from the PAD file based on the input. The block face and political data are then retrieved from the GRID and the Election files for the address set by the building level information.

Using the input, Geosupport reads the PAD file to retrieve the property level information first. If this information is found, Geosupport uses the exact same borough, address number and street name to retrieve the block face and political information. If modifications have been made to the input address number (for instance, a hyphen is inserted into the address number), the modified address number is used to search the GRID and Election files. If no tax lot and building information is found in PAD for the input, Geosupport uses the original address number and street name/code to find block face and political information from GRID and the Election files.

The following table provides the names of the COW COPY files that you will need to use for Work Area 2 for Function 1B:

COW Language	Copylib Member for Function 1B
BAL	P2BAL1A
C	PAC
COBOL	P2COB1AL
Natural	GEOLP2AL
PL/1	P2PL11AL

A second set of Geosupport Return Code (GRC), Reason Code and Error/Warning Message fields have been defined in Work Area 1 to be used for Function 1B. This new set contains the GRC, Reason Code and Error or Warning Message for the Function 1A Extended portion of the Function 1B call. The original GRC, Reason Code and Message fields in Work Area 1 contain the Return Code, Reason Code and Error or Warning Message from the Function 1E Extended portion of the Function 1B call. It is entirely possible that Geosupport will find one set of information and not find the other. There can be an error code and message in the new GRC and Message fields indicating PAD data (Function 1A) has not been found, and a 00 or 01 GRC in the original Return Code field indicating Block Face (Function 1E) information has been found, or just the opposite.

The following table shows the field names for the new Reason Code 2, GRC 2 and Message Area 2 in Work Area 1.

FIELD	BAL	C	COBOL	NATURAL	PL/1
Reason Code 2	P1OREAS2	reason_code_2	GEO-WA1-OUT-REASON-CODE2	PIWA1-OUT-REASON-CODE-2	PIWA1_OUT_REASON_CODE_2
Return Code 2	P10RC2	ret_code_2	GEO-WA1-OUT-RETURN-CODE2	PIWA1-OUT-RETURN-CODE-2	PIWA1_OUT_RETURN_CODE_2
Error Message 2	P10ERR2	msg_2	GEO-WA1-OUT-ERROR-MESSAGE2	PIWA1-OUT-ERROR-MESSAGE-2	PIWA1_OUT_ERROR_MESSAGE_2

The following table shows the offsets and length of GRC 2, Reason Code 2 and message area 2.

Offset	Length	Field
574	1	Reason Code 2
578	2	Geosupport Return Code 2 (GRC 2)
580	80	Message Area 2

The following is the Reason Code for GRC "??" and the new associated Error Message for Function 1B:

GRC	Reason Code	Message
??	1	INVALID FUNCTION CODE – AVAILABLE IN COW FORMAT ONLY

Note: A GRC of "??" (2 question marks) has always been defined as Invalid Function Code.

Work Area 2 for Function 1B

Function 1B returns a total of 4300 bytes in Work Area 2. The first 1500 are for the Block Face (Function 1E) portion of the call. The next 2800 bytes are for the Property Level (1A) portion of the call.

We have defined new Return Code and Reason Code fields in Work Area 2 for each of the 1E and 1A portions of the 1B call. This information duplicates the original and new secondary Return Code and Reason Codes in Work Area 1. **GBAT does not return a Work Area 1 and therefore does not return both Return Code fields. In order to make it easier for the GBAT user to see the results for both components of the 1B call, Work Area 2 contains a Return Code for each portion**. If any information is found, either in the Block Face (Function 1E) call or the Property Level (Function 1A) call, that information will be returned to the user along with both Return Codes and Reason Codes.

If data has been found for the Block Face (1E) portion of the call, there will be data in columns 1 through 1500 of Work Area 2 returned to the user. Columns 1005-1006 will contain the GRC for the 1E portion of the call (which will be either a "00" or "01" indicating a warning) and column 1001 will contain the Reason Code if there is a warning. If data has not been found for the Block Face (1E) portion of the call, columns 1 through 1500 will be blank aside from the Error GRC in column 1005-1006 and the Error Reason Code, if any, in column 1001.

If data has been found for the Property Level (1A) portion of the call, there will be data in columns 1501-4300 of Work Area 2. Columns 1751-1752 will contain the GRC for the 1A portion of the call (which will be either a "00" or a "01" indicating a warning) and column 1747 will contain the Reason Code if there is a warning. If data has not been found for the Property Level (1A) portion of the call, columns 1501-4300 will be blank aside from the Error GRC in column 1751-1752 and the Error Reason Code, if any, in column 1747.

If data has not been found for either the Block Face or Property Level request, Work Area 2 will be returned to the user with all fields blank aside from the two GRC and Reason Code fields mentioned above.

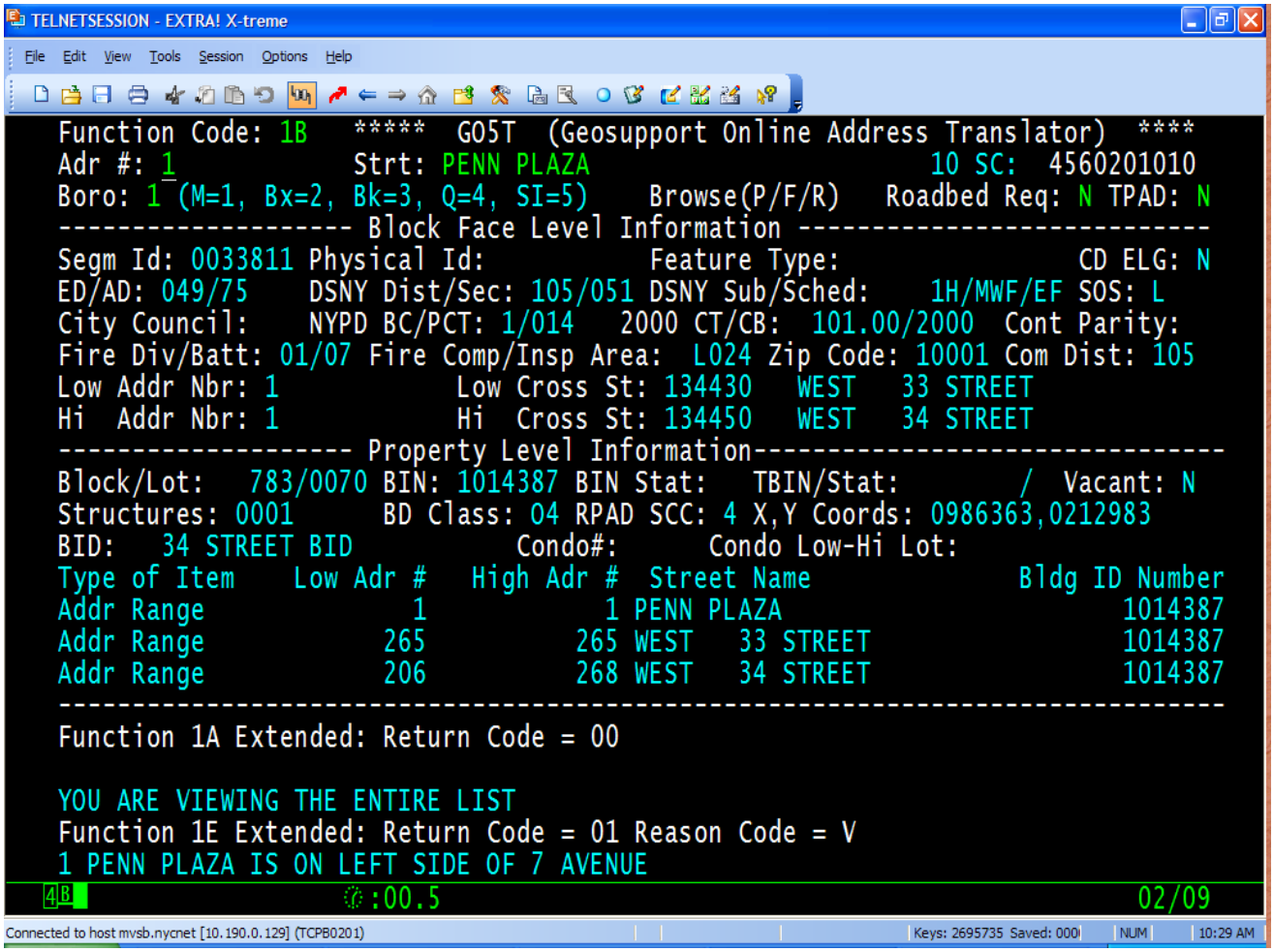
For a listing of new fields, offsets and lengths, see **Appendix A.**

GOAT for Function 1B

There is a new GOAT screen for Function 1B. Due to the amount of information that has to fit onto the page, there is only one field for the address number (Adr #:) and the street name (STRT:). On all other GOAT screens, there is a field for the user's input and a field for the normalized output. On the 1B screen, the input fields for address number and street name hold the output normalized values after the call is made.

Two message areas will be displayed at the bottom of the 1B GOAT screen. The first message will be for the Property Level information and the second will be for the Block Face and Political information.

On all other GOAT screens, to go from one function to another, the user tabs down to the “Function:” input field on the screen, types in the new function and hits enter. The Function 1B screen has the Function input field on top of the page. To change functions, either hit the Shift and Tab keys at the same time to go back one field or just tab through all the input fields until you reach the Function Code input field, and type in the new function.



GBAT for Function 1B

GBAT requirements: You must include the following control cards:

RECTYPE = 1B

WORKAREA= COW

GEOCODE= ALL or YES (Function 1B is invalid when GEOCODE=NO)

All other control cards are the same as for each of the Functions 1 and 1A. Both Expanded Mode of "X" and LONGWA2=YES are not valid with Function 1B.

The following table contains the length of the GBAT output file for Function 1B. Note: You **must** add the length of your input record to GBAT to each of the output record lengths below.

FUNCTION	GEOCODE = YES	GEOCODE = ALL
1B	4300	4370

ERRFIL2: New Output Error File for GBAT:

A new output error file, ERRFIL2, has been defined in GBAT, to be used only for Function 1B at this point in time. For review: the old output error file, ERRFILE, must be 4 bytes larger than the input file. The first 4 columns of the ERRFILE contain the 2-byte GRC (Geosupport Return Code), followed by a dash, and followed by the Reason Code. The new ERRFIL2 output file must be **20 bytes** larger than the input file.

The first 4 columns contain the 2-byte GRC, followed by a dash, followed by the Reason Code for the Block Face level (Function 1E) information. This is followed by 6 bytes of filler. Column 11 contains the 2-byte GRC, followed by a dash, followed by the Reason Code for the Property level (Function 1A) information. This is followed by 6 bytes of filler. The input record begins in column 21.

The GBAT output ERRFILE will contain only those records that were rejected for both Block and Property level information.

The newly defined GBAT output ERRFIL2 will contain all records that were rejected for any reason. It will contain records that were rejected for:

The Block level but not the Property level call
The Property level but not for the Block level call
Both the Block and Property level calls (These rejects will also be in the ERRFILEl)

If the input record has been rejected for both Block and Property level information, the output error record will be found both in the ERRFILE output error file, as well as the ERRFIL2 error file. The ERRFILE output record will have the GRC of the results of the Block level call (i.e. Function 1E), and corresponds to the GRC and Reason Code in Work Area 1. ERRFIL2 will have the same output error record and will contain both the GRC and Reason code and the newly defined GRC2 and its corresponding Reason Code. There will be no Work Area 2 returned by GBAT.

Note: If you are not using Function 1B, you do not have to add ERRFIL2 to your GBAT JCL. The file is not opened. No changes have to be made. However, if you are using GBAT for a Function 1B call, your program will abend if you do not add a DD card for ERRFIL2 to your JCL.

GBAT Statistics:

The GBAT statistics for Function 1B is based on what is in the ERRFILE output error file. Since only records that are rejected for both the Blockface (Function 1E) and the Property Level (Function 1A) calls are in the ERRFILE, the output statistics are based on these records. The actual errors indicated in the statistics are based on the GRC from the Function 1E call.

We have added totals for the records that were accepted for the 1A portion but rejected for the 1E portion, and totals for the records that were accepted for the 1E portion but rejected for the 1A portion. At some point in the future, we may expand the statistics listings and have separate, complete tables with GRC and explanation for each of the possible combinations of rejects for Function 1B.

V. Miscellaneous Modifications

1. There is a new value of "C" in the Geosupport Feature Type Code.

   C =CCO (Corporation Council Opinion). A CCO is an opinion by the City's Law Department that a street area, not owned by the City, has been dedicated for public use, consistent with the requirements of General City Law, Section 36(2). That allows the City to use public funds for various improvements and services, including paving of the roadway and installing sewers. The request usually relates to planned work by the City's Department of Transportation, Department of Design and Construction, and Department of Environmental Protection.

2. Dynamic Blocks are now known as Atomic Polygons. On GOAT, the Dynamic Block will be displayed as Atomic Polygon. However, DCP did not change the name of the fields in the copylibs to avoid users needing to modify their programs.

APPENDIX A

Character-Only Work Area 2 - Functions 1/1E Extended

Blockface Defined By Address Range Along A Street

FIELD	POSITIONS Size	From	To	Comments
Internal Use	21	1	21	
Continuous Parity Indicator/Duplicate Address Indicator	1	22	22	
Low House Number of Block face-Sort Format	11	23	33	
High House Number of Block face-Sort Format	11	34	44	
DCP Preferred LGC[1]	2	45	46	
Number of Cross Streets at Low Address End	1	47	47	
List of Cross Streets at Low Address End (Up to 5 B5SCs)	30	48	77	B5SC - Blank-Filled
Number of Cross Streets at High Address End	1	78	78	
List of Cross Streets at High Address End (Up to 5 B5SCs)	30	79	108	B5SC - Blank-Filled
LION KEY	10	109	118	
Borough Code	1	109	109	
Face Code	4	110	113	
Sequence Number	5	114	118	
Special Address Generated Record Flag	1	119	119	
Side of Street Indicator	1	120	120	
Segment Length in Feet	5	121	125	
Spatial X-Y Coordinates of Address	14	126	139	
Reserved for Possible Z Coordinate	7	140	146	
Community Development Eligibility Indicator	1	147	147	
Marble Hill/Rikers Island Alternative Borough Flg	1	148	148	
DOT Street Light Contractor Area	1	149	149	
Community District:	3	150	152	
Community District Borough Code	1	150	150	
Community District Number	2	151	152	
Zip Code	5	153	157	
Election District	3	158	160	
Assembly District	2	161	162	
Split Election District Flag	1	163	163	
Congressional District	2	164	165	
State Senatorial District	2	166	167	
Civil Court District	2	168	169	
City Council District	2	170	171	
Health Center District	2	172	173	
Health Area	4	174	177	
Sanitation District	3	178	180	
Sanitation Collection Scheduling Section and Subsection	2	181	182	
Sanitation Regular Collection Schedule	5	183	187	
Sanitation Recycling Collection Schedule	3	188	190	
Police Patrol Borough Command	1	191	191	

[1] For 1E Extended, BOE Preferred LGC is always provided

Blockface Defined By Address Range Along A Street (Function 1/1E) Cont'd

FIELD	POSITIONS Size	From	To	Comments
Precinct	3	192	194	
Fire Division	2	195	196	
Fire Battalion	2	197	198	
Fire Company Type	1	199	199	
Fire Company Number	3	200	202	
Filler	1	203	203	
Community School District	2	204	205	
Dynamic Block	3	206	208	Atomic Polygon
Filler	2	209	210	
Feature Type Code	1	211	211	
Segment Type Code	1	212	212	
Alley or Cross Street Names Flag	1	213	213	Internal Use
Coincidence Segment Count	1	214	214	
Filler	3	215	217	
1990 Census Tract	6	218	223	
2010 Census Tract	6	224	229	
2010 Census Block	4	230	233	
2010 Census Block Suffix	1	234	234	Not Implemented
2000 Census Tract	6	235	240	
2000 Census Block	4	241	244	
2000 Census Block Suffix	1	245	245	
Filler	28	246	273	
Underlying Address Number for NAPs	11	274	284	Sort Format
Underlying B7SC	8	285	292	
Segment Identifier	7	293	299	
Curve Flag	1	300	300	
List of 4 LGC's	8	301	308	
BOE LGC Pointer	1	309	309	
Segment Azimuth	3	310	312	
Segment Orientation	1	313	313	
Spatial Coordinates of Segment:	42			
X Coordinate, Low Address End	7	314	320	
Y Coordinate, Low Address End	7	321	327	
Z Coordinate, Low Address End	7	328	334	Not Implemented
X Coordinate, High Address End	7	335	341	
Y Coordinate, High Address End	7	342	348	
Z Coordinate, High Address End	7	349	355	Not Implemented
Spatial Coordinates of Center of Curvature:	21			
X Coordinate	7	356	362	
Y Coordinate	7	363	369	
Z Coordinate	7	370	376	Not Implemented
Radius of Circle	7	377	383	
Secant Location Related to Curve	1	384	384	Left or Right
Angle to From Node – Beta Value	5	385	389	Internal Use
Angle to To Node – Alpha Value	5	390	394	Internal Use
From LION Node Id	7	395	401	
To LION Node Id	7	402	408	

Blockface Defined By Address Range Along A Street (Function 1/1E) Cont'd

FIELD	Size	POSITIONS From	To	Comments
LION Key for Vanity Address	10	409	418	
Borough Code	1	409	409	
Face Code	4	410	413	
Sequence Number	5	414	418	
Side of Street of Vanity Address	1	419	419	
Split Low House Number	11	420	430	
Traffic Direction	1	431	431	
Turn Restrictions	10	432	441	Not Implemented
Fraction for Curve Calculation	3	442	444	Internal Use
Roadway Type	2	445	446	CSCL Data
Physical Id	7	447	453	CSCL Data
Generic Id	7	454	460	CSCL Data
NYPD Id	7	461	467	CSCL Data
FDNY ID	7	468	474	CSCL Data
Blockface Id	7	475	481	Not Yet Implemented
Street Status	1	482	482	CSCL Data
Street Width	3	483	485	Not Yet Implemented
Street Width Irregular	1	486	486	Not Yet Implemented
Bike Lane	1	487	487	CSLC Data
Federal Classification Code	2	488	489	Not Yet Implemented
Row Type	1	490	490	CSLC Data
List of Second Set of 5 LGCs	10	491	500	CSCL Data
Legacy Segment Id	7	501	507	CSLC Data
From Preferred LGCs First Set of 5	10	508	517	CSLC Data
To Preferred LGCs First Set of 5	10	518	527	CSCL Data
From Preferred LGCs Second Set of 5	10	528	537	CSLC Data
To Preferred LGCs Second Set of 5	10	538	547	CSCL Data
No Cross Street Calculation Flag	1	548	548	Internal Use
Individual Segment Length	5	549	553	Internal Use
Filler	447	554	1000	
Reason Code	1	1001	1001	
Reason Code Filler	1	1002	1002	
Warning Code Filler	2	1003	1004	
Return Code	2	1005	1006	
Number of Cross Streets at Low Address End	1	1007	1007	
List of Cross Streets at Low Address End (Up to 5 B7SCs)	40	1008	1047	Blank Filled
Number of Cross Streets at High Address End	1	1048	1048	
List of Cross Streets at High Address End (Up to 5 B7SCs)	40	1049	1088	Blank Filled
List of Cross Street Names at Low Address End	160	1089	1248	Up to 5 Street Names
List of Cross Street Names at High Address End	160	1249	1408	Up to 5 Street Names
BOE Preferred B7SC	8	1409	1416	
BOE Preferred Street Name	32	1417	1448	
Filler	52	1449	1500	

APPENDIX A

Character-Only Work Area 2 - Function 3 Extended

Street Segment Defined By 'On' And Two Cross Streets

FIELD	POSITIONS Size	From	To	Comments
Internal Use	21	1	21	
Duplicate Key Flag or Continuous Parity	1	22	22	
Locational Status of Segment	1	23	23	
County Boundary Indicator	1	24	24	
DCP-Preferred LGC for Street 1	2	25	26	
DCP-Preferred LGC for Street 2	2	27	28	
DCP-Preferred LGC for Street 3	2	29	30	
Number of Cross Streets at Low Address End	1	31	31	
List of Cross Streets at Low Address End (Up to five B5SCs, 6 bytes each)	30	32	61	Blank Filled
Number of Cross Streets at High Address End	1	62	62	
List of Cross Streets at High Address End (Up to five B5SCs, 6 bytes each)	30	63	92	Blank Filled
Cross Street Reversal Flag	1	93	93	
LION KEY	10	94	103	
LION Borough Code	1	94	94	
LION Face Code	4	95	98	
LION Sequence Number	5	99	103	
Generated Record Flag	1	104	104	
Length of Segment in Feet	5	105	109	
Segment Azimuth	3	110	112	
Segment Orientation	1	113	113	
Marble Hill/Rikers Island Alternative Borough Flag	1	114	114	
From Node	7	115	121	
To Node	7	122	128	
Filler	5	129	133	
Segment Identifier	7	134	140	
DOT Street Light Contractor Area	1	141	141	
Curve Flag	1	142	142	
Dog Leg Flag	1	143	143	
Feature Type Code	1	144	144	
Segment Type Code	1	145	145	
Coincident Segment Count	1	146	146	
Filler	4	147	150	

Street Segment Defined By 'On' And Two Cross Streets (Function 3) Cont'd

FIELD	Size	POSITIONS From	To	Comments
LEFT SIDE:				
Community District:	3			
Community District Borough Code	1	151	151	
Community District Number	2	152	153	
Low House Number	16	154	169	Display Format
High House Number	16	170	185	Display Format
Future Use	32	186	217	
Community Development Eligibility Indicator	1	218	218	
Zip Code	5	219	223	
Health Area	4	224	227	
Police Patrol Borough Command	1	228	228	
Police Precinct	3	229	231	
Fire Division	2	232	233	
Fire Battalion	2	234	235	
Fire Company Type	1	236	236	
Fire Company Number	3	237	239	
Community School District	2	240	241	
Dynamic Block	3	242	244	Atomic Polygon
ED	3	245	247	
AD	2	248	249	
Filler	4	250	253	
1990 Census Tract	6	254	259	
2010 Census Tract	6	260	265	
2010 Census Block	4	266	269	
2010 Census Block Suffix	1	270	270	Not Implemented
2000 Census Tract	6	271	276	
2000 Census Block	4	277	280	
2000 Census Block Suffix	1	281	281	
Blockface ID	7	282	288	Not Yet Implemented
Filler	12	289	300	
RIGHT SIDE:				
Community District:	3			
Community District Borough Code	1	301	301	
Community District Number	2	302	303	
Low House Number	16	304	319	Display Format
High House Number	16	320	335	Display Format
Future Use	32	336	367	
Community Development Eligibility Indicator	1	368	368	
Zip Code	5	369	373	
Health Area	4	374	377	
Police Patrol Borough Command	1	378	378	
Police Precinct	3	379	381	
Fire Division	2	382	383	
Fire Battalion	2	384	385	

Street Segment Defined By 'On' And Two Cross Streets (Function 3) Cont'd

FIELD	POSITIONS Size	From	To	Comments
Fire Company Type	1	386	386	
Fire Company Number	3	387	389	
Community School District	2	390	391	
Dynamic Block	3	392	394	Atomic Polygon
ED	3	395	397	
AD	2	398	399	
Filler	4	400	403	
1990 Census Tract	6	404	409	
2010 Census Tract	6	410	415	
2010 Census Block	4	416	419	
2010 Census Block Suffix	1	420	420	Not Implemented
2000 Census Tract	6	421	426	
2000 Census Block	4	427	430	
2000 Census Block Suffix	1	431	431	
Blockface ID	7	432	438	Not Yet Implemented
Filler	12	439	450	
List of 4 LGCs	8	451	458	
List of 4 From LGCs	8	459	466	
List of 4 To LGCs	8	467	474	
Left Health Center District	2	475	476	
Right Health Center District	2	477	478	
Filler	1	479	479	
Traffic Direction	1	480	480	
Roadway Type	2	481	482	CSLC Data
Physical ID	7	483	489	CSCL Data
Generic ID	7	490	496	CSCL Data
NYPD ID	7	497	503	CSCL Data
FDNY ID	7	504	510	CSCL Data
Street Status	1	511	511	CSCL Data
Street Width	3	512	514	Not Yet Implemented
Street Width Irregular	1	515	515	Not Yet Implemented
Bike Lane	1	516	516	CSCL Data
Federal Classification Code	2	517	518	Not Yet Implemented
Right Of War (ROW) Type	1	519	519	CSCL Data
List 5 of LGCs	10	520	529	CSCL Data
Legacy Id	7	530	536	CSLC Data
Filler	464	537	1000	

Character-Only Work Area 2 - Function 3 Extended with Auxiliary Segment List

Street Segment Defined By 'On' And Two Cross Streets

FIELD	POSITIONS			
	Size	From	To	Comments
Same as Regular Work Area 2 for Function 3W	1000	1	1000	
Filler	6	1001	1006	
Segment Count	4	1007	1010	Number of Segments
Segment Ids	490	1011	1500	Up to 70 Segment IDs

Character-Only Work Area 2 - Function 3C Extended

Block Face Defined by 'On' and Two Cross Streets and Compass Direction

FIELD	POSITIONS Size	From	To	Comments
Internal Use	21	1	21	
Duplicate Key Flag or Continuous Parity	1	22	22	
Locational Status of Segment	1	23	23	
County Boundary Indicator	1	24	24	
DCP-Preferred LGC for Street 1	2	25	26	
DCP-Preferred LGC for Street 2	2	27	28	
DCP-Preferred LGC for Street 3	2	29	30	
Number of Cross Streets at Low Address End	1	31	31	
List of Cross Streets at Low Address End (Up to five B5SCs, 6 bytes each)	30	32	61	Blank-Filled
Number of Cross Streets at High Address End	1	62	62	
List of Cross Streets at High Address End (Up to five B5SCs, 6 bytes each)	30	63	92	Blank-Filled
Cross Street Reversal Flag	1	93	93	
LION KEY	10	94	103	
LION Borough Code	1	94	94	
LION Face Code	4	95	98	
LION Sequence Number	5	99	103	
Generated Record Flag	1	104	104	
Length of Segment in Feet	5	105	109	
Segment Azimuth	3	110	112	
Segment Orientation	1	113	113	
Marble Hill/Rikers Island Alternative Borough Flag	1	114	114	
From Node	7	115	121	
To Node	7	122	128	
Filler	5	129	133	
Segment Identifier	7	134	140	
DOT Street Light Contractor Area	1	141	141	
Side of Street Indicator	1	142	142	
Curve Flag	1	143	143	
Feature Type Code	1	144	144	
Segment Type Code	1	145	145	
Coincident Segment Counter	1	146	146	
Filler	4	147	150	
Community District:	3			
Community District Borough Code	1	151	151	
Community District Number	2	152	153	
Low House Number of Block Face	16	154	169	Display Format
High House Number of Block Face	16	170	185	Display Format

Block Face Defined by 'On' and Two Cross Streets and Compass Direction (Fn 3C) Cont'd

FIELD	POSITIONS			
	Size	From	To	Comments
Alternate Low House Number	16	186	201	Supplied for Continuous
Alternate High House Number	16	202	217	Parity - Display Format
Community Development Eligibility Indicator	1	218	218	
Zip Code	5	219	223	
Health Area	4	224	227	
Police Patrol Borough Command	1	228	228	
Police Precinct	3	229	231	
Fire Division	2	232	233	
Fire Battalion	2	234	235	
Fire Company Type	1	236	236	
Fire Company Number	3	237	239	
Community School District	2	240	241	
Dynamic Block	3	242	244	Atomic Polygon
ED	3	245	247	
AD	2	248	249	
Filler	4	250	253	
1990 Census Tract	6	254	259	
2010 Census Tract	6	260	265	
2010 Census Block	4	266	269	
2010 Census Block Suffix	1	270	270	Not Implemented
2000 Census Tract	6	271	276	
2000 Census Block	4	277	280	
2000 Census Block Suffix	1	281	281	
Blockface ID	7	282	288	Not Yet Implemented
Filler	12	289	300	
List of 4 LGCs	8	301	308	
List of 4 From LGCs	8	309	316	
List of 4 To LGCs	8	317	324	
Left Health Center District	2	325	326	
Right Health Center District	2	327	328	
Filler	1	329	329	
Traffic Direction	1	330	330	
Roadway Type	2	331	332	CSCL Data
Physical ID	7	333	339	CSCL Data
Generic Id	7	340	346	CSCL Data
NYPD Id	7	347	353	CSCL Data
FDNY Id	7	354	360	CSCL Data
Street Status	1	361	361	CSCL Data
Street Width	3	362	364	Not Yet Implemented
Street Width Irregular	1	365	365	Not yet Implemented
Bike Lane	1	366	366	CSCL Data
Federal Classification Code	2	367	368	Not Yet Implemented
Right Of Way (ROW) Type	1	369	369	CSCL Data
List 5 of LGCs	10	370	379	CSCL Data
Legacy Id	7	380	386	CSCL Data
Filler	464	387	850	

Character-Only Work Area 2 - Function 3C – Extended with Auxiliary **Segment List**

Block Face Defined by 'On' and Two Cross Streets and Compass Direction

FIELD	POSITIONS			
	Size	From	To	Comments
Same as Regular Work Area 2 for Function 3C	850	1	850	
Filler	6	851	856	
Segment Count	4	857	860	Number of Segments
Segment Ids	490	861	1350	Up to 70 Segment Ids

Character-Only Work Area 2 - Functions 1A Extended

Property Level Information

FIELD	Size	POSITIONS From	To	Comments
Internal Use	21	1	21	
Continuous Parity Indicator /Duplicate Address Indicator	1	22	22	
Low House Number of Defining Address Range	11	23	33	Sort Format
Borough-Tax Block-Tax Lot (BBL):	11	34	44	Billing BBL if
Borough Code	1	34	34	Condo
Tax Block	5	35	39	
Tax Lot	4	40	43	
Filler for Tax Lot Version Number	1	44	44	Not Implemented
RPAD Self-Check Code (SCC) for BBL	1	45	45	
Filler	1	46	46	
RPAD Building Classification Code	2	47	48	
Corner Code	2	49	50	
Number of Existing Structures on Lot	4	51	54	
Number of Street Frontages of Lot	2	55	56	
Interior Lot Flag	1	57	57	
Vacant Lot Flag	1	58	58	
Irregularly-Shaped Lot Flag	1	59	59	
Marble Hill/Rikers Island Alternate Borough Flag	1	60	60	
List of Geographic Identifiers Overflow Flag	1	61	61	When = 'E', there are more than 21 addresses for FNs 1A and BL.
Filler	19	62	80	Not Implemented
Reserved for Internal Use	1	81	81	
Building Identification Number (BIN) of Input Address or NAP	7	82	88	
Condominium Flag	1	89	89	If condo, = C
Filler	1	90	90	
DOF Condominium Identification Number	4	91	94	
Condominium Unit ID Number	7	95	101	Not Implemented
Condominium Billing BBL	10	102	111	
Tax Lot Version Number for Billing BBL	1	112	112	Not Implemented
Self-Check Code (SCC) of Billing BBL	1	113	113	
Low BBL of this Building's Condominium Units	10	114	123	
Tax Lot Version Number of Low BBL	1	124	124	Not Implemented
High BBL of this Building's Condominium Units	10	125	134	
Tax Log Version Number of High BBL	1	135	135	Not Implemented
Filler	15	136	150	
Cooperative ID Number	4	151	154	
SBVP (Sanborn Map Identifier):	8	155	162	
Sanborn Borough Code	1	155	155	
Volume Number	2	156	157	
Volume Number Suffix	1	158	158	
Page Number	3	159	161	
Page Number Suffix	1	162	162	
DCP Commercial Study Area	5	163	167	
Tax Map Number Section & Volume	5	168	172	
Reserved for Tax Map Page Number	4	173	176	

Property Level Information (Function 1A) Cont'd

FIELD	Size	POSITIONS From	To	Comments
Filler	23	177	199	
X-Y Coordinates of COGIS Annotation Point	14	200	213	
Business Improvement District	6	214	219	
TPAD BIN Status	1	220	220	
TPAD New BIN	7	221	227	
TPAD New BIN Status	1	228	228	
TPAD Conflict Flag	1	229	229	
Filler	9	230	238	
Internal Use	8	239	246	
Reason Code	1	247	247	
Reason Code Filler	1	248	248	
Warning Code	2	249	250	
Return Code	2	251	252	
Filler	108	253	360	
Number of Entries in List of Geographic Identifiers	4	361	364	
List of Geographic Identifiers up to 21:	2436	365	2800	
Variable length list of 116-byte entries as follows:				
Low House Number	16			Display format
High House Number	16			Display format
Street Code – B7SC				
Borough Code	1			
5-Digit Street Code	5			
DCP-Preferred Local Group Code (LGC)	2			
Building Identification Number	7			
Side of Street Indicator	1			L= Left, R= Right
Geographic Identifier	1			N-NAP G-Generic NAP X-Part of Generic NAP B-NAUB F-Frontage W-Blank Wall Q-Pseudo Address V-Vanity Address O-Out-of-Sequence Address Blank - Normal
TPAD BIN Status	1			
Street Name	32			
Filler	34			

Character-Only Work Area 2 - Function 1B

Blockface Defined By Address Range Along A Street & Property Level Information

FIELD	POSITIONS Size	From	To	Comments
Internal Use	21	1	21	
Continuous Parity Indicator/Duplicate Address Indicator	1	22	22	
Low House Number of Block face-Sort Format	11	23	33	
High House Number of Block face-Sort Format	11	34	44	
DCP Preferred LGC[2]	2	45	46	
Number of Cross Streets at Low Address End	1	47	47	
List of Cross Streets at Low Address End (Up to 5 B5SCs)	30	48	77	B5SC - Blank-Filled
Number of Cross Streets at High Address End	1	78	78	
List of Cross Streets at High Address End (Up to 5 B5SCs)	30	79	108	B5SC - Blank-Filled
LION KEY	10	109	118	
Borough Code	1	109	109	
Face Code	4	110	113	
Sequence Number	5	114	118	
Special Address Generated Record Flag	1	119	119	
Side of Street Indicator	1	120	120	
Segment Length in Feet	5	121	125	
Spatial X-Y Coordinates of Address	14	126	139	
Reserved for Possible Z Coordinate	7	140	146	
Community Development Eligibility Indicator	1	147	147	
Marble Hill/Rikers Island Alternative Borough Flg	1	148	148	
DOT Street Light Contractor Area	1	149	149	
Community District:	3	150	152	
Community District Borough Code	1	150	150	
Community District Number	2	151	152	
Zip Code	5	153	157	
Election District	3	158	160	
Assembly District	2	161	162	
Split Election District Flag	1	163	163	
Congressional District	2	164	165	
State Senatorial District	2	166	167	
Civil Court District	2	168	169	
City Council District	2	170	171	
Health Center District	2	172	173	
Health Area	4	174	177	
Sanitation District	3	178	180	
Sanitation Collection Scheduling Section and Subsection	2	181	182	
Sanitation Regular Collection Schedule	5	183	187	
Sanitation Recycling Collection Schedule	3	188	190	
Police Patrol Borough Command	1	191	191	
Police Precinct	3	192	194	
Fire Division	2	195	196	
Fire Battalion	2	197	198	
Fire Company Type	1	199	199	

[2] For Function 1B, DCP Preferred LGC is always provided

Blockface Defined By Address Range Along A Street & Property Level Information (Fn 1B) Cont'd

FIELD	POSITIONS Size	From	To	Comments
Fire Company Number	3	200	202	
Filler	1	203	203	
Community School District	2	204	205	
Dynamic Block	3	206	208	Atomic Polygon
Filler	2	209	210	
Feature Type Code	1	211	211	
Segment Type Code	1	212	212	
Alley or Cross Street Names Flag	1	213	213	Internal Use
Coincidence Segment Count	1	214	214	
Filler	3	215	217	
1990 Census Tract	6	218	223	
2010 Census Tract	6	224	229	
2010 Census Block	4	230	233	
2010 Census Block Suffix	1	234	234	Not Implemented
2000 Census Tract	6	235	240	
2000 Census Block	4	241	244	
2000 Census Block Suffix	1	245	245	
Filler	28	246	273	
Underlying Address Number for NAPs	11	274	284	Sort Format
Underlying B7SC	8	285	292	
Segment Identifier	7	293	299	
Curve Flag	1	300	300	
List of 4 LGC's	8	301	308	
BOE LGC Pointer	1	309	309	
Segment Azimuth	3	310	312	
Segment Orientation	1	313	313	
Spatial Coordinates of Segment:	42			
X Coordinate, Low Address End	7	314	320	
Y Coordinate, Low Address End	7	321	327	
Z Coordinate, Low Address End	7	328	334	Not Implemented
X Coordinate, High Address End	7	335	341	
Y Coordinate, High Address End	7	342	348	
Z Coordinate, High Address End	7	349	355	Not Implemented
Spatial Coordinates of Center of Curvature:	21			
X Coordinate	7	356	362	
Y Coordinate	7	363	369	
Z Coordinate	7	370	376	Not Implemented
Radius of Circle	7	377	383	
Secant Location Related to Curve	1	384	384	Left or Right
Angle to From Node – Beta Value	5	385	389	Internal Use
Angle to To Node – Alpha Value	5	390	394	Internal Use
From LION Node Id	7	395	401	
LION To LION Node Id	7	402	408	
Key for Vanity Address	10	409	418	
Borough Code	1	409	409	
Face Code	4	410	413	
Sequence Number	5	414	418	
Side of Street of Vanity Address	1	419	419	
Split Low House Number	11	420	430	
Traffic Direction	1	431	431	
Turn Restrictions	10	432	441	Not Implemented
Fraction for Curve Calculation	3	442	444	Internal Use

Blockface Defined By Address Range Along A Street & Property Level Information (Fn 1B) Cont'd

FIELD	Size	POSITIONS From	To	Comments
Roadway Type	2	445	446	CSCL Data
Physical Id	7	447	453	CSCL Data
Generic Id	7	454	460	CSCL Data
NYPD Id	7	461	467	CSCL Data
FDNY ID	7	468	474	CSCL Data
Blockface Id	7	475	481	Not Yet Implemented
Street Status	1	482	482	CSCL Data
Street Width	3	483	485	Not Yet Implemented
Street Width Irregular	1	486	486	Not Yet Implemented
Bike Lane	1	487	487	CSLC Data
Federal Classification Code	2	488	489	Not Yet Implemented
Row Type	1	490	490	CSLC Data
List of Second Set of 5 LGCs	10	491	500	CSCL Data
Legacy Segment Id	7	501	507	CSLC Data
From Preferred LGCs First Set of 5	10	508	517	CSLC Data
To Preferred LGCs First Set of 5	10	518	527	CSCL Data
From Preferred LGCs Second Set of 5	10	528	537	CSLC Data
To Preferred LGCs Second Set of 5	10	538	547	CSCL Data
No Cross Street Calculation Flag	1	548	548	Internal Use
Individual Segment Length	5	549	553	Internal Use
Filler	447	554	1000	
Reason Code	1	1001	1001	
Reason Code Filler	1	1002	1002	
Warning Code Filler	2	1003	1004	
Return Code	2	1005	1006	
Number of Cross Streets at Low Address End	1	1007	1007	
List of Cross Streets at Low Address End (Up to 5 B7SCs)	40	1008	1047	Blank Filled
Number of Cross Streets at High Address End	1	1048	1048	
List of Cross Streets at High Address End (Up to 5 B7SCs)	40	1049	1088	Blank Filled
List of Cross Street Names at Low Address End	160	1089	1248	Up to 5 Street Names
List of Cross Street Names at High Address End	160	1249	1408	Up to 5 Street Names
BOE Preferred B7SC	8	1409	1416	
BOE Preferred Street Name	32	1417	1448	
Filler	52	1449	1500	
Property Level Fields				
Internal Use	21	1501	1521	
Continuous Parity Indicator /Duplicate Address Indicator	1	1522	1522	
Low House Number of Defining Address Range	11	1523	1533	Sort Format
Borough-Tax Block-Tax Lot (BBL):	10	1534	1543	Billing BBL if Condo
Borough Code	1	1534	1534	
Tax Block	5	1535	1539	
Tax Lot	4	1540	1543	

Blockface Defined By Address Range Along A Street & Property Level Information (Fn 1B) Cont'd

FIELD	Size	POSITIONS From	To	Comments
Filler for Tax Lot Version Number	1	1544	1544	Not Implemented
RPAD Self-Check Code (SCC) for BBL	1	1545	1545	
Filler	1	1546	1546	
RPAD Building Classification Code	2	1547	1548	
Corner Code	2	1549	1550	
Number of Existing Structures on Lot	4	1551	1554	
Number of Street Frontages of Lot	2	1555	1556	
Interior Lot Flag	1	1557	1557	
Vacant Lot Flag	1	1558	1558	
Irregularly-Shaped Lot Flag	1	1559	1559	
Marble Hill/Rikers Island Alternate Borough Flag	1	1560	1560	
List of Geographic Identifiers Overflow Flag	1	1561	1561	When = 'E', there are more than 21 addresses for FNs 1A and BL.
Filler	19	1562	1580	
Reserved for Internal Use	1	1581	1581	
Building Identification Number (BIN) of Input Address or NAP	7	1582	1588	
Condominium Flag	1	1589	1589	If condo, = C
Filler	1	1590	1590	
DOF Condominium Identification Number	4	1591	1594	
Condominium Unit ID Number	7	1595	1601	Not Implemented
Condominium Billing BBL	10	1602	1611	
Tax Lot Version Number for Billing BBL	1	1612	1612	Not Implemented
Self-Check Code (SCC) of Billing BBL	1	1613	1613	
Low BBL of this Building's Condominium Units	10	1614	1623	
Tax Lot Version Number of Low BBL	1	1624	1624	Not Implemented
High BBL of this Building's Condominium Units	10	1625	1634	
Tax Log Version Number of High BBL	1	1635	1635	Not Implemented
Filler	15	1636	1650	
Cooperative ID Number	4	1651	1654	
SBVP (Sanborn Map Identifier):	8	1655	1662	
Sanborn Borough Code	1	1655	1655	
Volume Number	2	1656	1657	
Volume Number Suffix	1	1658	1658	
Page Number	3	1659	1661	
Page Number Suffix	1	1662	1662	
DCP Commercial Study Area	5	1663	1667	
Tax Map Number Section & Volume	5	1668	1672	
Reserved for Tax Map Page Number	4	1673	1676	
Filler	23	1677	1699	
X-Y Coordinates of COGIS Annotation Point	14	1700	1713	
Business Improvement District	6	1714	1719	
TPAD BIN Status	1	1720	1720	
TPAD New BIN	7	1721	1727	
TPAD New BIN Status	1	1728	1728	
TPAD Conflict Flag	1	1729	1729	
Filler	9	1730	1738	

Blockface Defined By Address Range Along A Street & Property Level Information (Fn 1B) Cont'd

FIELD	Size	POSITIONS From	To	Comments
Internal Use	8	1739	1746	
Reason Code	1	1747	1747	
Filler	1	1748	1748	
Warning Code	2	1749	1750	
Return Code	2	1751	1752	
Filler	108	1753	1860	
Number of Entries in List of Geographic Identifiers	4	1861	1864	
List of Geographic Identifiers up to 21:	2436	1865	4300	
Variable length list of 116-byte entries as follows:				
Low House Number	16			Display format
High House Number	16			Display format
Street Code – B7SC				
Borough Code	1			
5-Digit Street Code	5			
DCP-Preferred Local Group Code (LGC)	2			
Building Identification Number	7			
Side of Street Indicator	1			L= Left, R= Right
Geographic Identifier	1			N - NAP G - Generic NAP X - Part of Generic NAP B - NAUB F - Frontage W - Blank Wall Q - Pseudo Address V- Vanity Address O -Out-of-Sequence Address Blank - Normal
TPAD BIN Status	1			
Street Name	32			
Filler	34			

TABLE OF GEOSUPPORT FUNCTIONS

Function	User Input	Selected Geosupport Output Items
1	Address	Standardized Street Name and Street Code, Address Range, List of Cross Streets, Zip Code, Community District, Health Area, Health Center District, 1990 Census Tract, 2000 Census Tract and block, Fire Engine or Ladder Company, School District, Police Precinct, XY Coordinates (based on the State Plane Coordinate System)
1B	Address	Same as for Function 1E + Property Level Information from Function 1A + Street Names for Cross Streets and Address Lists
1E	Address	Same as for Function 1 + Political Geography (Election District, Assembly District, Congressional District, City Council District, Municipal Court District and State Senatorial District)
1A	Address	Standardized Street Name and Street Code, Tax Block and Lot, Alternative Addresses for Lot, Building Identification Number, RPAD Building Class, Interior Lot Flag, Vacant Lot Flag, Irregularly-Shaped Lot Flag, Corner Code, etc.
1N	Street Name	Standardized Street Name and Street Code (not available in the Desktop Edition of GOAT)
2	Pair of Intersecting Streets or Named Intersection	Standardized Street Name and Street Codes, List of Additional Cross Streets, Zip Code, Community District, Health Area, 1990 and 2000 Census Tract, Fire Districts, School District, Police Precinct, XY Coordinates (based on State Plane Coordinate System)
3	On Street and a pair of Consecutive Cross Streets	Standardized Street Names and Street Codes, Lists of Cross Streets at both ends, and information about both sides of the street, (including Zip Codes, Community Districts, Health Areas, 1990 and 2000 Census Tracts, Fire Districts, School Districts, Police Precincts)
3C	On Street and a Pair of Consecutive Cross Streets & a Compass Direction (Side of Street)	Same as Function 3 but for one side of the street only (Blockface information)
3S	On Street and an Optional pair of any Intersecting Streets along the On Street	Street Stretch information: List of intersecting streets in order along 'on' street, the distance between them and node IDs
BF, BB	Character String	List of street names in alphabetic order - supports street name browsing
BL	Tax Block and Lot	List of Addresses for Lot, List of Building Identification Numbers (BINs), RPAD Building Class, Interior Lot Flag, Vacant Log Flag, Flag, Corner Code, etc.
BN	Building Identification Number	List of Address Ranges for Building, Tax Block and Lot, RPAD Building Class, Interior Lot Flag, Vacant Lot Flag, Irregularly Shaped Lot Flag, Corner Code etc.
D,DG,DN	Street Code and/or House Number	Street Name and./or House Number in Displayable Format

APPENDIX C CENSUS DATA OFFSETS

TABLE 1 - Offsets for the 2010 and 2000 Census data for COW Work Area 2

Functions	Data Item	WA2 Position Prior to Release 11A	WA2 Position as of 11A
COW Fns 1 and 1E	2010 Census Tract	Not Provided	224-229
	2010 Census Block	Not Provided	230-233
	2010 Census Filler	Not Provided	234
	2000 Census Tract	224-229	235-240
	2000 Census Block	230-233	241-244
	2000 Census Block Suffix	234	245
COW Fn 2	2010 Census Tract	Not Provided	136-141
	2000 Census Tract	136-141	176-181
COW Fn 3	2010 Left Census Tract	Not Provided	260-265
	2010 Left Census Block	Not Provided	266-269
	2010 Left Census Filler	Not Provided	270-270
	2010 Right Census Tract	Not Provided	410-415
	2010 Right Census Block	Not Provided	416-419
	2010 Right Census Filler	Not Provided	420
	2000 Left Census Tract	260-265	271-276
	2000 Left Census Block	266-269	277-280
	2000 Left Census Block Suffix	270-270	281-281
	2000 Right Census Tract	410-415	421-426
	2000 Right Census Block	416-419	427-430
	2000 Right Census Block Suffix	420-420	431-431
COW Fn 3C	2010 Census Tract	Not Provided	260-265
	2010 Census Block	Not Provided	266-269
	2010 Census Filler	Not Provided	270-270
	2000 Census Tract	260-265	271-276
	2000 Census Block	266-269	277-280
	2000 Census Block Suffix	270	281

TABLE 2 - Offsets for the 2010 and 2000 Census data for MSW Work Area 2

Functions	Data Item	WA2 Position Prior to Release 11A	WA2 Position as of Release 11A
MSW Fns 1 and 1E	2010 Census Tract	Not Provided	91-96
	2010 Census Block	Not Provided	97-100
	2010 Census Filler	Not Provided	101-101
	2000 Census Tract	91-96	222-227 Available only with Long Work Area 2
	2000 Census Block	97-100	228-231 Available only with Long Work Area 2
	2000 Census Block Suffix	101-101	232 -232 Available only with Long Work Area 2

Functions	Data Item	WA2 Position Prior to Release 11A	WA2 Position as of Release 11A
MSW Fn 2	2010 Census Tract	Not Provided	87-92
	2000 Census Tract	87-92	168-173
MSW Fn 3	2010 Left Census Tract	Not Provided	243-248 Available only with Long Work Area 2
	2010 Left Census Block	Not Provided	249-252 Available only with Long Work Area 2
	2010 Left Census Filler	Not Provided	253 -253 Available only with Long Work Area 2
	2010 Right Census Tract	Not Provided	254-259 Available only with Long Work Area 2
	2010 Right Census Block	Not Provided	260-263 Available only with Long Work Area 2
	2010 Right Census Filler	Not Provided	264-264 Available only with Long Work Area 2
	2000 Left Census Tract	243-248 Available only with Long Work Area 2	279-284 Available only with Long Work Area 2
	2000 Left Census Block	249-252 Available only with Long Work Area 2	285-288 Available only with Long Work Area 2
	2000 Left Census Block Suffix	253-253 Available only with Long Work Area 2	289-289 Available only with Long Work Area 2
	2000 Right Census Tract	254-259 Available only with Long Work Area 2	290-295 Available only with Long Work Area 2
	2000 Right Census Block	260-263 Available only with Long Work Area 2	296-299 Available only with Long Work Area 2
	2000 Right Census Block Suffix	264-264 Available only with Long Work Area 2	300-300 Available only with Long Work Area2

Functions	Data Item	WA2 Position Prior to Release 11A	WA2 Position as of Release 11A
MSW Fn 3C	2010 Census Tract	Not Provided	94-99
	2010 Census Block	Not Provided	100-103
	2010 Census Block Suffix	Not Provided	104-104
	2000 Census Tract	94-99	87-92
	2000 Census Block	100-103	196-199
	2000 Census Block Suffix	104-104	200-200

APPENDIX D FIELD NAMES FOR CENSUS DATA

The following tables contain the copylib member and field names for all programming languages that we supply copylibs for, separated by Function.

TABLE 1 - COW FIELD NAMES FOR CENSUS 2010

The following tables represent the COW field names and the copylib members for Census 2010 by function:

Function 1/1E:

Fn 1/1E COW FIELD	**BAL** P2BAL	**C** PAC	**COBOL** P2COB	**NATURAL** GEOLP2	**PL/1** P2PL1
2010 Census Tract	P2F1CT10	cen_tract_ 10	GEO-WA2-FN1-2010-CENS-TRCT	PIWA2-FN1-2010-CENSUS-TRACT	PIWA2_FN1_ 2010_CENSUS_ TRACT
2010 Census Block	P2F1BL10	cen_blk_10	GEO-WA2-FN1-2010-CENS-BLK	PIWA2-FN1-2010-CENSUS-BLOCK	PIWA2_FN1_ 2010_CENSUS_ BLOCK

Function 1/1E with Mode Switch set to X:

Fn 1/1E COW FIELD	**BAL** P2BAL1A	**C** PAC	**COBOL** P2COB1AL	**NATURAL** GEOLP2AL	**PL/1** P2PL11AL
2010 Census Tract	P2EXCT10	cen_tract_ 10	PIWA2-FN1EX-2010-CENS-TRCT	PIWA2-1EX-2010-CENSUS-TRACT	PIWA2_1EX_ 2010_CENSUS_ TRACT
2010 Census Block	P2EXBL10	cen_blk_10	PIWA2-FN1EX-2010-CENS-BLK	PIWA2-1EX-2010-CENSUS-BLOCK	PIWA2_1EX_ 2010_CENSUS_ BLOCK

Function 1B:

Fn 1B COW FIELD	**BAL** P2BAL1A	**C** PAC	**COBOL** P2COB1AL	**NATURAL** GEOLP2AL	**PL/1** P2PL11AL
2010 Census Tract	P21BCT10	cen_tract_ 10	PIWA2-1B-1-2010-CENS-TRCT	PIWA2-1B-1-2010-CENSUS-TRACT	PIWA2_1B_1_ 2010_CENSUS_ TRACT
2010 Census Block	P21BBL10	cen_blk_10	PIWA2-1B-1-2010-CENS-BLK	PIWA2-1B-1-2010-CENSUS-BLOCK	PIWA2_1B_1_ 2010_CENSUS_ BLOCK

TABLE 1 - COW FIELD NAMES FOR CENSUS 2010 Cont'd

Function 2:

Fn 2 COW FIELD	BAL P2BAL	C PAC	COBOL P2COB	NATURAL GEOLP2	PL/1 P2PL1
2010 Census Tract	P2F2CT10	cen_tract_ 10	GEO-WA2-FN2-2010-CENS-TRCT	PIWA2-FN2-2010-CENSUS-TRACT	PIWA2_FN2_ 2010_CENSUS_ TRACT

Function 3:

Fn 3 COW FIELD	BAL P2BAL	C PAC	COBOL P2COB	NATURAL GEOLP2	PL/1 P2PL1
2010 Left Census Tract	P2F3C10L	cen_tract_ 10	GEO-WA2-3L-L-2010-CENS-TRCT	PIWA2-FN3-L-2010-CENSUS-TRACT	PIWA2_FN3_L_ 2010_CENSUS_ TRACT
2010 Left Census Block	P2F3B10L	cen_blk_10	GEO-WA2-3L-L-2010-CENS-BLK	PIWA2-FN3-L-2010-CENSUS-BLOCK	PIWA2_FN3_L_ 2010_CENSUS_ BLOCK
2010 Right Census Tract	P2F3C10R	cen_tract_ 10	GEO-WA2-3L-R-2010-CENS-TRCT	PIWA2-FN3-R-2010-CENSUS-TRACT	PIWA2_FN3_R_ 2010_CENSUS_ TRACT
2010 Right Census Block	P2F3B10R	cen_blk_10	GEO-WA2-3L-R-2010-CENS-BLK	PIWA2-FN3-R-2010-CENSUS-BLOCK	PIWA2_FN3_R_ 2010_CENSUS_ BLOCK

Function 3C:

Fn 3C COW FIELD	BAL P2BAL	C PAC	COBOL P2COB	NATURAL GEOLP2	PL/1 P2PL1
2010 Census Tract	P23CCT10	cen_tract_ 10	GEO-WA2-FN3C-2010-CENS-TRCT	PIWA2-FN3C-2010-CENSUS-TRACT	PIWA2_FN3C_ 2010_CENSUS_ TRACT
2010 Census Block	P23CBL10	cen_blk_10	GEO-WA2-FN3C-2010-CENS-BLK	PIWA2-FN3C-2010-CENSUS-BLOCK	PIWA2_FN3C_ 2010_CENSUS_ BLOCK

TABLE 1 - COW FIELD NAMES FOR CENSUS 2010 Cont'd

Function 3 with Mode Switch set to X:

Fn 3 X COW FIELD	BAL P2BAL	C PAC	COBOL _P2COB	NATURAL GEOLP2	PL/1 P2PL1
2010 Left Census Tract	P23XC10L	cen_tract_ 10	GEO-WA2-FN3X-L-2010-CENS-TRCT	PIWA2-3X-L-2010-CENSUS-TRACT	PIWA2_3X_L_ 2010_CENSUS_ TRACT
2010 Left Census Block	P23XB10L	cen_blk_10	GEO-WA2-FN3X-L-2010-CENS-BLK	PIWA2-3X-L-2010-CENSUS-BLOCK	PIWA2_3X_L_ 2010_CENSUS_ BLOCK
2010 Right Census Tract	P23XC10R	cen_tract_ 10	GEO-WA2-FN3X-R-2010-CENS-TRCT	PIWA2-3X-R-2010-CENSUS-TRACT	PIWA2_3X_R_ 2010_CENSUS_ TRACT
2010 Right Census Block	P23XB10R	cen_tract_ 10	GEO-WA2-FN3X-R-2010-CENS-BLK	PIWA2-3X-R-2010-CENSUS-BLOCK	PIWA2_3X_R_ 2010_CENSUS_ BLOCK

Function 3C with Mode Switch set to X:

Fn 3C X COW FIELD	BAL P2BAL	C PAC	COBOL P2COB	NATURAL GEOLP2	PL/1 P2PL1
2010 Census Tract	P2CXCT10	cen_tract_ 10	GEO-WA2-FN3CX-2010-CENS-TRCT	PIWA2-3CX-2010-CENSUS-TRACT	PIWA2_3CX_2 010_CENSUS_ TRACT
2010 Census Block	P2CXBL10	cen_blk_10	GEO-WA2-FN3CX-2010-CENS-BLK	PIWA2-3CX-2010-CENSUS-BLOCK	PIWA2_3CX_ 2010_CENSUS_ BLOCK

TABLE 2 – MSW FIELD NAMES FOR CENSUS 2010

The following tables represent the MSW field names and the copylib members for Census 2010 by Function:

Function 1/1E:

Fn 1/1E MSW FIELD	BAL W2BAL	C WAC	COBOL W2COB	NATURAL GEOLW2	PL/1 W2PL1
2010 Census Tract	W2F1CT10	cen_tract_ 10	GEO-WA2-FN1-2010-CENS-TRCT **or** GEO-WA2-FN1E-2010-CENS-TRCT	GEO-WA2-FN1-2010-CENSUS-TRACT **or** GEO-WA2-FN1E-2010-CENSUS-TRACT	GEO_WA2_FN1_ 2010_CENSUS_ TRACT **or** GEO_WA2_FN1E_ 2010_CENSUS_ TRACT

Fn 1/1E MSW FIELD	BAL W2BAL	C WAC	COBOL W2COB	NATURAL GEOLW2	PL/1 W2PL1
2010 Census Block	W2F1BL10	cen_blk_10	GEO-WA2-FN1-2010-CENS-BLK **or** GEO-WA2-FN1E-2010-CENS-BLK	GEO-WA2-FN1-2010-CENSUS-BLOCK **or** GEO-WA2-FN1E-2010-CENSUS-BLOCK	GEO_WA2_FN1_ 2010_CENSUS_ BLOCK **or** GEO_WA2_FN1E_ 2010_CENSUS_ BLOCK

Function 1/1E for Long Work Area 2:

Fn 1/1E MSW FIELD	BAL W2BALL	C WAC	COBOL W2COBL	NATURAL GEOLW2L	PL/1 W2PL1L
2010 Census Tract	W21LCT10	cen_tract_ 10	GEO-WA2-1L-2010-CENS-TRCT **or** GEO-WA2-1EL-2010-CENS-TRCT	GEO-WA2-1L-2010-CENSUS-TRACT **or** GEO-WA2-1EL-2010-CENSUS-TRACT	GEO_WA2_1L_ 2010_CENSUS_ TRACT **or** GEO_WA2_1EL_2 010_CENSUS_ TRACT
2010 Census Block	W21LBL10	cen_blk_10	GEO-WA2-1L-2010-CENS-BLK **or** GEO-WA2-1EL-2010-CENS-BLK	GEO-WA2-1L-2010-CENSUS-BLOCK **or** GEO-WA2-1EL-2010-CENSUS-BLOCK	GEO_WA2_1L_ 2010_CENSUS_ BLOCK **or** GEO_WA2_1EL_2 010_CENSUS_ BLOCK

TABLE 2 – MSW FIELD NAMES FOR CENSUS 2010 Cont'd

Function 2:

Fn 2 MSW FIELD	BAL W2BAL	C WAC	COBOL W2COB	NATURAL GEOLW2	PL/1 W2PL1
2010 Census Tract	W2F2CT10	cen_tract_ 10	GEO-WA2-FN2-2010-CENS-TRCT	GEO-WA2-FN2-2010-CENSUS-TRACT	GEO_WA2_FN2_2 010_CENSUS_ TRACT

Function 3: (Note: Census information for Function 3 MSW is only available in the Long Work Area 2)

Fn 3 MSW FIELD	BAL W2BALL	C WAC	COBOL W2COBL	NATURAL GEOLW2	PL/1 W2PL1L
2010 Left Census Tract	W23LT10L	l_cen_tract_ 10	GEO-WA2-3L-L-2010-CENS-TRCT	GEO-WA2-3L-L-2010-CENSUS-TRACT	GEO_WA2_3L_L_20 10_CENSUS_ TRACT

Fn 3 MSW FIELD	**BAL** W2BALL	**C** WAC	**COBOL** W2COBL	**NATURAL** GEOLW2	**PL/1** W2PL1L
2010 Left Census Block	W23LB10L	l_cen_blk _10	GEO-WA2-3L-L-2010-CENS-BLK	GEO-WA2-3L-L-2010-CENSUS-BLOCK	GEO_WA2_3L_L_2010_CENSUS_ BLOCK
2010 Right Census Tract	W23LT10R	r_cen_tract_ 10	GEO-WA2-3L-R-2010-CENS-TRCT	GEO-WA2-3L-R-2010-CENSUS-TRACT	GEO_WA2_3L_R_2010_CENSUS_ TRACT
2010 Right Census Block	W23LB10R	r_cen_blk_ 10	GEO-WA2-3L-R-2010-CENS-BLK	GEO-WA2-3L-R-2010-CENSUS-BLOCK	GEO_WA2_3L_R_2010_CENSUS_ BLOCK

Function 3C:

Fn 3C MSW FIELD	**BAL** W2BAL	**C** WAC	**COBOL** W2COB	**NATURAL** GEOLW2	**PL/1** W2PL1
2010 Census Tract	W23CCT10	cen_tract_ 10	GEO-WA2-FN3C-2010-CENS-TRCT	GEO-WA2-FN3C-2010-CENSUS-TRACT	GEO_WA2_FN3C_2010_CENSUS_TRACT
2010 Census Block	W23CBL10	cen_blk_10	GEO-WA2-FN3C-2010-CENS-BLK	GEO-WA2-FN3C-2010-CENSUS-BLOCK	GEO_WA2_FN3C_2010_CENSUS_BLOCK

APPENDIX E CENSUS 2000 FIELD NAME CHANGES FOR COW AND MSW

The following table contains the old field names and new field names for the Census 2000 COW fields:

DESCRIPTION-COW	FUNCTION	2000 OLD NAME	NEW NAME AS OF REL 11.0
NATURAL GEOLP2	**Func 1**		
2000 Census Tract		PIWA2-FN1-2000-CENSUS-TRACT	PIWA2-FN1-2000-CENS-TRACT
2000 Census Block		PIWA2-FN1-2000-CENSUS-BLOCK	PIWA2-FN1-2000-CENS-BLOCK
2000 Census Block Suffix		PIWA2-FN1-2000-CENSUS-BLOCK-SUF	PIWA2-FN1-2000-CENS-BLK-SUF
NATURAL GEOLP2	**Func 2**		
2000 Census Tract		PIWA2-FN2-2000-CENSUS-TRACT	PIWA2-FN2-2000-CENS-TRACT
NATURAL GEOLP2	**Func 3**		
2000 Left Census Tract		PIWA2-FN3-L-2000-CENSUS-TRACT	PIWA2-FN3-L-2000-CENS-TRACT
2000 Left Census Block		PIWA2-FN3-L-2000-CENSUS-BLOCK	PIWA2-FN3-L-2000-CENS-BLOCK
2000 Left Census Suffix		PIWA2-FN3-L-2000-CENSUS-BLK-SUF	PIWA2-FN3-L-2000-CENS-BLK-SUF
2000 Right Census Tract		PIWA2-FN3-R-2000-CENSUS-TRACT	PIWA2-FN3-R-2000-CENS-TRACT
2000 Right Census Block		PIWA2-FN3-R-2000-CENSUS-BLOCK	PIWA2-FN3-R-2000-CENS-BLOCK
2000 Right Census Suffix		PIWA2-FN3-R-2000-CENSUS-BLK-SUF	PIWA2-FN3-R-2000-CENS-BLK-SUF
NATURAL GEOLP2	**Func 3C**		
2000 Census Tract		PIWA2-FN3C-2000-CENSUS-TRACT	PIWA2-FN3C-2000-CENS-TRACT
2000 Census Block		PIWA2-FN3C-2000-CENSUS-BLOCK	PIWA2-FN3C-2000-CENS-BLOCK
2000 Census Suffix		PIWA2-FN3C-2000-CENSUS-BLK-SUF	PIWA2-FN3C-2000-CENS-BLK-SUF
C PAC	**Func 1, 1E,3C**		
2000 Census Tract		cen_tract_00	cen_tract_2000
2000 Census Block		cen_blk_00	cen_blk_2000
2000 Census Block Suffix		cen_blk_00_sufx	cen_blk_2000_sufx
C PAC	**Func 3**		
2000 Left Census Tract		l_cen_tract_00	l_cen_tract_2000
2000 Left Census Block		l_cen_blk_00	l_cen_blk_2000
2000 Left Census Block Suffix		l_cen_blk_00_sufx	l_cen_blk_2000_sufx

DESCRIPTION-COW	FUNCTION	COW 2000 OLD NAME	NEW NAME AS OF REL 11.0
C PAC	**Func 3 Cont'd**		
2000 Right Census Tract		r_cen_tract_00	r_cen_tract_2000
2000 Right Census Block		r_cen_blk_00	r_cen_blk_2000
2000 Right Census Block Suffix		r_cen_blk_00_sufx	r_cen_blk_2000_sufx
PL/1 P2BAL	**Func 1**		
2000 Census Tract		P2F1CT00	P2F1T00
2000 Census Block		P2F1BL00	P2F1B00
2000 Census Block Suffix		P2F1BLS0	P2F1S00
PL/1 P2BAL	**Func 2**		
2000 Census Tract		P2F2CT00	P2F2T00
PL/1 P2BAL	**Func 3**		
2000 Left Census Tract		P2F3C00L	P2F3T00L
2000 Left Census Block		P2F3B00L	P2F3B00L
2000 Left Census Suffix		P2F3BS0L	P2F3S00L
2000 Right Census Tract		P2F3C00R	P2F3T00R
2000 Right Census Block		P2F3B00R	P2F3B00R
2000 Right Census Suffix		P2F3BS0R	P2F3S00R
PL/1 P2BAL	**Func 3C**		
2000 Census Tract		P23CCT00	P23CT00
2000 Census Block		P23CBL00	P23CB00
2000 Census Block Suffix		P23CBL0S	P23CS00
COBOL P2COB	**Func 1**		
2000 Census Tract		GEO-WA2-FN1-2000-CENS-TRCT	GEO-WA2-FN1-2000-CENS-TRACT
2000 Census Block		GEO-WA2-FN1-2000-CENS-BLK	GEO-WA2-FN1-2000-CENS-BLOCK
2000 Census Block Suffix		GEO-WA2-FN1-2000-CENS-BLK-SFX	GEO-WA2-FN1-2000-CENS-BLK-SUF
COBOL P2COB	**Func 2**		
2000 Census Tract		GEO-WA2-FN2-2000-CENS-TRCT	GEO-WA2-FN2-2000-CENS-TRACT
COBOL P2COB	**Func 3**		
2000 Left Census Tract		GEO-WA2-3L-L-2000-CENS-TRCT	GEO-WA2-3L-L-2000-CENS-TRACT

COBOL P2COB	Func 3 Cont'd		
2000 Left Census Block		GEO-WA2-3L-L-2000-CENS-BLK	GEO-WA2-3L-L-2000-CENS-BLOCK
2000 Left Census Suffix		GEO-WA2-3L-L-2000-CENS-BLK-SFX	GEO-WA2-3L-L-2000-CENS-BLK-SUF
2000 Right Census Tract		GEO-WA2-3L-R-2000-CENS-TRCT	GEO-WA2-3L-R-2000-CENS-TRACT
2000 Right Census Block		GEO-WA2-3L-R-2000-CENS-BLK	GEO-WA2-3L-R-2000-CENS-BLOCK
2000 Right Census Block Suffix		GEO-WA2-3L-R-2000-CENS-BLK-SFX	GEO-WA2-3L-R-2000-CENS-BLK-SUF
COBOL P2COB	**Func 3C**		
2000 Census Tract		GEO-WA2-FN3C-2000-CENS-TRCT	GEO-WA2-FN3C-2000-CENS-TRACT
2000 Census Block		GEO-WA2-FN3C-2000-CENS-BLK	GEO-WA2-FN3C-2000-CENS-BLOCK
2000 Census Block Suffix		GEO-WA2-FN3C-2000-CENS-BLK-SFX	GEO-WA2-FN3C-2000-CENS-BLK-SUF
PL/1 P2PL1	**Func 1**		
2000 Census Tract		PIWA2_FN1_2000_CENSUS_TRACT	PIWA2_FN1_2000_CENS_TRACT
2000 Census Block		PIWA2_FN1_2000_CENSUS_BLOCK	PIWA2_FN1_2000_CENS_BLOCK
2000 Census Suffix		PIWA2_FN1_2000_CENSUS_BLOCK_SUF	PIWA2_FN1_2000_CENS_BLOCK_SUF
PL/1 P2PL1	**Func 2**		
2000 Census Tract		PIWA2_FN2_2000_CENSUS_TRACT	PIWA2_FN2_2000_CENS_TRACT
PL/1 P2PL1	**Func 3**		
2000 Left Census Tract		PIWA2_FN3_L_2000_CENSUS_TRACT	PIWA2_FN3_L_2000_CENS_TRACT
2000 Left Census Block		PIWA2_FN3_L_2000_CENSUS_BLOCK	PIWA2_FN3_L_2000_CENS_BLOCK
2000 Left Census Suffix		PIWA2_FN3_L_2000_CENSUS_BLK_SUF	PIWA2_FN3_L_2000_CENS_BLK_SUF
2000 Right Census Tract		PIWA2_FN3_R_2000_CENSUS_TRACT	PIWA2_FN3_R_2000_CENS_TRACT
2000 Right Census Block		PIWA2_FN3_R_2000_CENSUS_BLOCK	PIWA2_FN3_R_2000_CENS_BLOCK
2000 Right Census Suffix		PIWA2_FN3_R_2000_CENSUS_BLK_SUF	PIWA2_FN3_R_2000_CENS_BLK_SUF
PL/1 P2PL1	**Func 3C**		
2000 Census Tract		PIWA2_FN3C_2000_CENSUS_TRACT	PIWA2_FN3C_2000_CENS_TRACT
2000 Census Block		PIWA2_FN3C_2000_CENSUS_BLOCK	PIWA2_FN3C_2000_CENS_BLOCK
2000 Census Suffix		PIWA2_FN3C_2000_CENSUS_BLK_SUF	PIWA2_FN3C_2000_CENS_BLK_SUF

The following table contains the old field names and new field names for Census 2000 MSW:

DESCRIPTION-MSW	FUNCTION	OLD NAME	NEW NAME AS OF REL 11.0
NATURAL GEOLW2	**Func 1**		
2000 Census Tract		GEO-WA2-FN1-2000-CENSUSTRACT	N/A (Moved to Long Wa 2 - See GEOLW2L - Field GEO-WA2-1L-2000-CENS-TRACT)
2000 Census Block		GEO-WA2-FN1-2000-CENSUSBLOCK	N/A (Moved to Long Wa 2 - See GEOLW2L - Field GEO-WA2-1L-2000-CENS-BLOCK)
2000 Census Suffix		GEO-WA2-FN1-2000-CENSUSBLK-SFX	N/A (Moved to Long Wa 2 - See GEOLW2L - Field GEO-WA2-1L-2000-CENS-BLK-SUF)
NATURAL GEOLW2	**Func 2**		
2000 Census Tract		GEO-WA2-FN2-2000-CENSUSTRACT	GEO-WA2-FN2-2000-CENS-TRACT
NATURAL GEOLW2	**Func 3C**		
2000 Census Tract		GEO-WA2-FN3C-2000-CENSUSTRACT	GEO-WA2-FN3C-2000-CENS-TRACT
2000 Census Block		GEO-WA2-FN3C-2000-CENSUSBLOCK	GEO-WA2-FN3C-2000-CENS-BLOCK
2000 Census Suffix		GEO-WA2-FN3C-2000-CENSUSBLK-SF	GEO-WA2-FN3C-2000-CENS-BLK-SUF
NATURAL GEOLW2L	**Fn 1 Long WA2**		
2000 Census Tract		GEO-WA2-1L-2000-CENSUSTRACT	GEO-WA2-1L-2000-CENS-TRACT
2000 Census Block		GEO-WA2-1L-2000-CENSUSBLOCK	GEO-WA2-1L-2000-CENS-BLOCK
2000 Census Suffix		GEO-WA2-1L-2000-CENSUSBLK-SF	GEO-WA2-1L-2000-CENS-BLK-SUF
NATURAL GEOLW2L	**Fn 1E Long WA2**		
2000 Census Tract		GEO-WA2-1EL-2000-CENSUSTRACT	GEO-WA2-1EL-2000-CENS-TRACT
2000 Census Block		GEO-WA2-1EL-2000-CENSUSBLOCK	GEO-WA2-1EL-2000-CENS-BLOCK
2000 Census Suffix		GEO-WA2-1EL-2000-CENSUSBLK-SF	GEO-WA2-1EL-2000-CENS-BLK-SUF
NATURAL GEOLW2L	**Func 3 Long WA2**		
2000 Left Census Tract		GEO-WA2-3L-L-2000-CENSUSTRACT	GEO-WA2-3L-L-2000-CENS-TRACT
2000 Left Census Block		GEO-WA2-3L-L-2000-CENSUSBLOCK	GEO-WA2-3L-L-2000-CENS-BLOCK
2000 Left Census Suffix		GEO-WA2-3L-L-2000-CENSUSBLK-SF	GEO-WA2-3L-L-2000-CENS-BL-SUF
2000 Right Census Tract		GEO-WA2-3L-R-2000-CENSUSTRACT	GEO-WA2-3L-R-2000-CENS-TRACT
2000 Right Census Block		GEO-WA2-3L-R-2000-CENSUSBLOCK	GEO-WA2-3L-R-2000-CENS-BLOCK
2000 Right Census Suffix		GEO-WA2-3L-R-2000-CENSUSBLK-SF	GEO-WA2-3L-R-2000-CENS-BL-SUF
C WAC	**All Funcs but Fn 3**		
2000 Census Tract		cen_tract_00	cen_tract_2000
2000 Census Block		cen_blk_00	cen_blk_2000
2000 Census Block Suffix		cen_blk_00_sufx	cen_blk_2000_sufx

DESCRIPTION-MSW	FUNCTION	OLD NAME	NEW NAME AS OF REL 11.0
C WAC	**Func 3**		
2000 Left Census Tract		l_cen_tract_00	l_cen_tract_2000
2000 Left Census Block		l_cen_blk_00	l_cen_blk_2000
2000 Left Census Block Suffix		l_cen_blk_00_sufx	l_cen_blk_2000_sufx
2000 Right Census Tract		r_cen_tract_00	r_cen_tract_2000
2000 Right Census Block		r_cen_blk_00	r_cen_blk_2000
2000 Right Census Block Suffix		r_cen_blk_00_sufx	r_cen_blk_2000_sufx
BAL W2BAL	**Func 1**		
2000 Census Tract		W2F1CT00	N/A (Moved to Long Wa 2 – See W2BALL - Field W21LT00)
2000 Census Block		W2F1CB00	N/A (Moved to Long Wa 2 – See W2BALL - Field W21LB00)
2000 Census Block Suffix		W2F1CBS0	N/A (Moved to Long Wa 2 – See W2BALL - Field W21LS00)
BAL W2BAL	**Func 2**		
2000 Census Tract		W2F2CT00	W2F2T00
BAL W2BAL	**Func 3C**		
2000 Census Tract		W23CCT00	W23CT00
2000 Census Block		W23CCB00	W23CB00
2000 Census Suffix		W23CCBS0	W23CS00
BAL W2BALL	**Func 1 Long WA2**		
2000 Census Tract		W21LCT00	W21LT00
2000 Census Block		W21LCB00	W21LB00
2000 Census Block Suffix		W21LCBS0	W21LS00
BAL W2BALL	**Func 3 Long WA2**		
2000 Left Census Tract		W23LT00L	W23L00TL
2000 Left Census Block		W23LB00L	W23L00BL
2000 Left Census Suffix		W23LBS0L	W23L00SL
2000 Right Census Tract		W23LT00R	W23L00TR
2000 Right Census Block		W23LB00R	W23L00BR
2000 Right Census Suffix		W23LBSOR	W23L00SR

DESCRIPTION-MSW	FUNCTION	OLD NAME	NEW NAME AS OF REL 11.0
COBOL W2COB	**Func 1**		
2000 Census Tract		GEO-WA2-FN1-2000-CENS-TRCT	N/A (Moved to Long Wa 2 - See W2COBL - Field GEO-WA2-1L-2000-CENS-TRACT)
2000 Census Block		GEO-WA2-FN1-2000-CENS-BLK	N/A (Moved to Long Wa 2 - See W2COBL - GEO-WA2-1L-2000-CENS-BLOCK)
2000 Census Block Suffix		GEO-WA2-FN1-2000-CENS-BLK-SFX	N/A (Moved to Long Wa 2 - See W2COBL - GEO-WA2-1L-2000-CENS-BLK-SUF)
COBOL W2COB	**Func 1E**		
2000 Census Tract		GEO-WA2-FN1E-2000-CENS-TRCT	N/A (Moved to Long Wa 2 - See W2COBL Field GEO-WA2-1EL-2000-CENS-TRACT)
2000 Census Block		GEO-WA2-FN1E-2000-CENS-BLK	N/A (Moved to Long Wa 2 - See W2COBL Field GEO-WA2-1EL-2000-CENS-BLOCK)
2000 Census Block Suffix		GEO-WA2-FN1E-2000-CENS-BLK-SFX	N/A (Moved to Long Wa 2 - See W2COBL Field GEO-WA2-1EL-2000-CENS-BLK_SUF)
COBOL W2COB	**Func 2**		
2000 Census Tract		GEO-WA2-FN2-2000-CENS-TRCT	GEO-WA2-FN2-2000-CENS-TRACT
	Func 3C		
2000 Census Tract		GEO-WA2-FN3C-2000-CENS-TRCT	GEO-WA2-FN3C-2000-CENS-TRACT
2000 Census Block		GEO-WA2-FN3C-2000-CENS-BLK	GEO-WA2-FN3C-2000-CENS-BLOCK
2000 Census Block Suffix		GEO-WA2-FN3C-2000-CENS-BLK-SFX	GEO-WA2-FN3C-2000-CENS-BLK-SUF
COBOL W2COBL	**Func 1 Long WA2**		
2000 Census Tract		GEO-WA2-1L-2000-CENS-TRCT	GEO-WA2-1L-2000-CENS-TRACT
2000 Census Block		GEO-WA2-1L-2000-CENS-BLK	GEO-WA2-1L-2000-CENS-BLOCK
2000 Census Block Suffix		GEO-WA2-1L-2000-CENS-BLK-SFX	GEO-WA2-1L-2000-CENS-BLK-SUF
COBOL W2COBL	**Func 1E Long WA2**		
2000 Census Tract		GEO-WA2-1EL-2000-CENS-TRCT	GEO-WA2-1EL-2000-CENS-TRACT
2000 Census Block		GEO-WA2-1EL-2000-CENS-BLK	GEO-WA2-1EL-2000-CENS-BLOCK
2000 Census Block Suffix		GEO-WA2-1EL-2000-CENS-BLK-SFX	GEO-WA2-1EL-2000-CENS-BLK-SUF
COBOL W2COBL	**Func 3 Long WA2**		
2000 Left Census Tract		GEO-WA2-3L-L-2000-CENS-TRCT	GEO-WA2-3L-L-2000-CENS-TRACT
2000 Left Census Block		GEO-WA2-3L-L-2000-CENS-BLK	GEO-WA2-3L-L-2000-CENS-BLOCK
2000 Left Census Suffix		GEO-WA2-3L-L-2000-CENS-BLK-SFX	GEO-WA2-3L-L-2000-CENS-BLK-SUF
2000 Right Census Tract		GEO-WA2-3L-R-2000-CENS-TRCT	GEO-WA2-3L-R-2000-CENS-TRACT
2000 Right Census Block		GEO-WA2-3L-R-2000-CENS-BLK	GEO-WA2-3L-R-2000-CENS-BLOCK
2000 Right Census Block Suffix		GEO-WA2-3L-R-2000-CENS-BLK-SFX	GEO-WA2-3L-R-2000-CENS-BLK-SUF

DESCRIPTION-MSW	FUNCTION	OLD NAME	NEW NAME AS OF REL 11.0
PL/1 W2PL1	**Func 1**		
2000 Census Tract		GEO_WA2_FN1_2000_CENSUS_TRACT	N/A (Moved to Long Wa 2 - See W2PL1L - Field GEO_WA2_1L_2000_CENS_TRACT)
2000 Census Block		GEO_WA2_FN1_2000_CENSUS_BLOCK	N/A (Moved to Long Wa 2 - See W2PL1L - Field GEO_WA2_1L_2000_CENS_BLOCK)
2000 Census Suffix		GEO_WA2_FN1_2000_CENSUS_BLK_SFX	N/A (Moved to Long Wa 2 - See W2PL1L - Field GEO_WA2_1L_2000_CENS_BLK_SUF)
PL/1 W2PL1	**Func 1E**		
2000 Census Tract		GEO_WA2_FN1E_2000_CENSUS_TRACT	N/A (Moved to Long Wa 2 - See W2PL1L Field GEO_WA2_1EL_2000_CENS_TRACT)
2000 Census Block		GEO_WA2_FN1E_2000_CENSUS_BLOCK	N/A (Moved to Long Wa 2 - See W2PL1L - Field GEO_WA2_1EL_2000_CENS_BLOCK)
2000 Census Suffix		GEO_WA2_FN1E_2000_CENSUS_BL_SFX	N/A (Moved to Long Wa 2 - See W2PL1L - Field GEO_WA2_1EL_2000_CENS_BLK_SUF)
PL/1 W2PL1	**Func 2**		
2000 Census Tract		GEO_WA2_FN2_2000_CENSUS_TRACT	GEO_WA2_FN2_2000_CENS_TRACT
	Func 3C		
2000 Census Tract		GEO_WA2_FN3C_2000_CENSUS_TRACT	GEO_WA2_FN3C_2000_CENS_TRACT
2000 Census Block		GEO_WA2_FN3C_2000_CENSUS_BLOCK	GEO_WA2_FN3C_2000_CENS_BLOCK
2000 Census Suffix		GEO_WA2_FN3C_2000_CENSUS_BL_SFX	GEO_WA2_FN3C_2000_CENS_BLK_SUF
PL/1 W2PL1L	**Func 1 Long WA2**		
2000 Census Tract		GEO_WA2_1L_2000_CENSUS_TRACT	GEO_WA2_1L_2000_CENS_TRACT
2000 Census Block		GEO_WA2_1L_2000_CENSUS_BLOCK	GEO_WA2_1L_2000_CENS_BLOCK
2000 Census Suffix		GEO_WA2_1L_2000_CENSUS_BLK_SUF	GEO_WA2_1L_2000_CENS_BLK_SUF
PL/1 W2PL1L	**Func 1E Long WA2**		
2000 Census Tract		GEO_WA2_1EL_2000_CENSUS_TRACT	GEO_WA2_1EL_2000_CENS_TRACT
2000 Census Block		GEO_WA2_1EL_2000_CENSUS_BLOCK	GEO_WA2_1EL_2000_CENS_BLOCK
2000 Census Suffix		GEO_WA2_1EL_2000_CENSUS_BLK_SUF	GEO_WA2_1EL_2000_CENS_BLK_SUF

	Func 3 Long WA2		
2000 Left Census Tract		GEO_WA2_3L_L_2000_CENSUS_TRACT	GEO_WA2_3L_L_2000_CENS_TRACT
2000 Left Census Block		GEO_WA2_3L_L_2000_CENSUS_BLOCK	GEO_WA2_3L_L_2000_CENS_BLOCK
2000 Left Census Suffix		GEO_WA2_3L_L_2000_CENSUS_BL_SUF	GEO_WA2_3L_L_2000_CENS_BL_SUF
2000 Right Census Tract		GEO_WA2_3L_R_2000_CENSUS_TRACT	GEO_WA2_3L_R_2000_CENS_TRACT
2000 Right Census Block		GEO_WA2_3L_R_2000_CENSUS_BLOCK	GEO_WA2_3L_R_2000_CENS_BLOCK
2000 Right Census Suffix		GEO_WA2_3L_R_2000_CENSUS_BL_SUF	GEO_WA2_3L_R_2000_CENS_BL_SUF

APPENDIX F GBAT SUMMARY

I) Mode Switch request in Work Area 1

Control Cards:

- MODE=X
- RECTYPE = 1, 1E, 1A, 3 or 3C
- WORKAREA= COW
- GEOCODE= ALL or YES (MODE=X is invalid when GEOCODE=NO)

LONGWA2 cannot be set to YES for Function 1A with MODE=X. Either do not add a control card for LONGWA2 so it defaults to NO or use the control card LONGWA2=NO.

The following table contains the length of the output for Functions 1, 1E, 1A, 3 and 3C with Mode Switch set to "X". Note: You **must** add the length of your input record to GBAT to each of the output record lengths below.

FUNCTION	GEOCODE = YES	GEOCODE = ALL
1 and 1E	1500	1570
1A	2800	2870
3	1000	1129
3 with Auxiliary Segments	1500	1629
3C	850	979
3C with Auxiliary Segments	1350	1479

II) New Functionality - Function 1B

Control Cards:

- RECTYPE = 1B
- WORKAREA= COW
- GEOCODE= ALL or YES (Function 1B is invalid when GEOCODE=NO) LONGWA2=NO (or defaults to NO)

The following table contains the length of the GBAT output file for Function 1B. Note: You **must** add the length of your input record to GBAT to each of the output record lengths below.

FUNCTION	GEOCODE = YES	GEOCODE = ALL
1B	4300	4370

ERRFIL2: New Output Error File for GBAT.
Record length for ERRFIL2 is the length of the input record + 20.

APPENDIX G TABLES OF NEW FIELD NAMES

The table below contains the names of the new COW fields found in Function 1 and 1E with Mode of "X" for the different programming languages:

Fn 1/1E Field for Mode X	BAL P2BAL1A	C PAC	COBOL P2COB1AL	NATURAL GEOLP2AL	PL/1 P2PL11AL
List of 4 LGCs	P2EXLGCS	int_use	PIWA2-FN1EX-LGCS	PIWA2-1EX-LGCS	PIWA2_1EX_ LGCS
BOE LGC Pointer	P2EXBOEP	boe_lgc	PIWA2-FN1EX-BOE-PTR	PIWA2-1EX-BOE-PTR	PIWA2_1EX_ BOE_PTR
Segment Azimuth	P2EXAZM	seg_azm	PIWA2-FN1EX-AZIMUTH	PIWA2-1EX-AZIMUTH	PIWA2_1EX_ AZIMUTH
Segment Orientation	P2EXORN	seg_orient	PIWA2-FN1EX-ORIENT	PIWA2-1EX-ORIENT	PIWA2_1EX_ ORIENT
X Coordinate, Low End Address	P2EXXCL	seg_coord	PIWA2-FN1EX-X-LOW	PIWA2-1EX-X-LOW	PIWA2_1EX_ X_LOW
Y Coordinate, Low End Address	P2EXYCL	seg_coord	PIWA2-FN1EX-Y-LOW	PIWA2-1EX-Y-LOW	PIWA2_1EX_ Y_LOW
X Coordinate, High End Address	P2EXXCH	seg_coord	PIWA2-FN1EX-X-HI	PIWA2-1EX-X-HI	PIWA2_1EX_ X_HI
Y Coordinate, High End Address	P2EXYCH	seg_coord	PIWA2-FN1EX-Y-HI	PIWA2-1EX-Y-HI	PIWA2_1EX_ Y_HI
X Coordinate of Center of Curvature	P2EXXCC	seg_coord	PIWA2-FN1EX-X-CC	PIWA2-1EX-X-CC	PIWA2_1EX_ X_CC
Y Coordinate of Center of Curvature	P2EXYCC	seg_coord	PIWA2-FN1EX-Y-CC	PIWA2-1EX-Y-CC	PIWA2_1EX_ Y_CC
Radius of Circle	P2EXRAD	radius	PIWA2-FN1EX-RADIUS	PIWA2-1EX-RADIUS	PIWA2_1EX_ RADIUS
Secant Location Related to Curve	P2EXSEC	cc_sos	PIWA2-FN1EX-SECANT	PIWA2-1EX-SECANT	PIWA2_1EX_ SECANT
Angle to From Node	P2EXBETA	node_ angles	PIWA2-FN1EX-ANGLE-FROM	PIWA2-1EX-ANGLE-FROM	PIWA2_1EX_ ANGLE_FROM
Angle to To Node	P2EXALFA	node_ angles	PIWA2-FN1EX-ANGLE-TO	PIWA2-1EX-ANGLE-TO	PIWA2_1EX_ ANGLE_TO
From LION Node Id	P2EXFNOD	nodes	PIWA2-FN1EX-NODE-FROM	PIWA2-1EX-NODE-FROM	PIWA2_1EX_ NODE_FROM
To LION Node ID	P2EXTNOD	nodes	PIWA2-FN1EX-NODE-TO	PIWA2-1EX-NODE-TO	PIWA2_1EX_ NODE_TO
LION Key For Vanity Address	P2EXLVA	LION_ key	PIWA2-FN1EX-VANITY-LION	PIWA2-1EX-VANITY-LION	PIWA2_1EX_ VANITY_LION
Side of Street for Vanity Address	P2EXSVA	LION_sos_ ind	PIWA2-FN1EX-SOS	PIWA2-1EX-SOS	PIWA2_1EX_ SOS
Split Low House Number	P2EXSLH	split_lo_hn	PIWA2-FN1EX-SPLIT-LOHSN	PIWA2-1EX-SPLIT-LOHSN	PIWA2_1EX_ SPLIT_LOHSN

Fn 1/1E Field for Mode X	BAL P2BAL1A	C PAC	COBOL P2COB1AL	NATURAL GEOLP2AL	PL/1 P2PL11AL
Traffic Direction	P2EXTD	traffic_dir	PIWA2-FN1EX-TD	PIWA2-1EX-TD	PIWA2_1EX_ TD
Turn Restrictions	P2EXTR	turn_ restricts	PIWA2-FN1EX-TR	PIWA2-1EX-TR	PIWA2_1EX_ TR
Roadway Type	P2EXRT	roadway_type	PIWA2-FN1EX-ROADWAY-TYPE	PIWA2-1EX-ROADWAY-TYPE	PIWA2_1EX_ ROADWAY_ TYPE
Physical ID	P2EXPID	physical_ id	PIWA2-FN1EX-PHYSICAL-ID	PIWA2-1EX-PHYSICAL-ID	PIWA2_1EX_ PHYSICAL_ID
Generic ID	P2EXGID	generic_ id	PIWA2-FN1EX-GENERIC-ID	PIWA2-1EX-GENERIC-ID	PIWA2_1EX_ GENERIC_ID
Blockface ID	P2EXBFID	blkface_ id	PIWA2-FN1EX-BLOCKFACE-ID	PIWA2-1EX-BLOCKFACE-ID	PIWA2_1EX_ BLOCKFACE_ ID
Street Status	P2EXSTS	status	PIWA2-FN1EX-STREET-STATUS	PIWA2-1EX-STREET-STATUS	PIWA2_1EX_ STREET_ STATUS
Street Width	P2EXSTW	str_width	PIWA2-FN1EX-STREET-WIDTH	PIWA2-1EX-STREET-WIDTH	PIWA2_1EX_ STREET_ WIDTH
Street Width Irregular	P2EXSTWI	str_width_ irregular	PIWA2-FN1EX-STREET-WIDTH-IRR	PIWA2-1EX-STREET-WIDTH-IRR	PIWA2_1EX_ STREET_ WIDTH_IRR
Bike Lane	P2EXBLN	bike_lane	PIWA2-FN1EX-BIKE-LANE	PIWA2-1EX-BIKE-LANE	PIWA2_1EX_ BIKE_LANE
Federal Classification Code	P2EXFCC	fcc	PIWA2-FN1EX-FED-CLASS-CODE	PIWA2-1EX-FED-CLASS-CODE	PIWA2_1EX_ FED_CLASS_ CODE
ROW Type	P2EXTOW	row_type	PIWA2-FN1EX-ROW-TYPE	PIWA2-1EX-ROW-TYPE	PIWA2_1EX_ ROW_TYPE
List of Second Set of LGCs	P2EXSLGC	lgc5 lgc6 lgc7 lgc8 lgc9	PIWA2-FN1EX-LGC-LIST-2	PIWA2-1EX-LGC-LIST-2	PIWA2_1EX_ LGC_LIST_2
Legacy Segment ID	P2EXLSID	legacy_ segid	PIWA2-FN1EX-LEGACY-SEG-ID	PIWA2-1EX-LEGACY-SEG-ID	PIWA2_1EX_ LEGACY_SEG_ID
From Preferred LGCs First Set of 5	P2EXFPL1	from_ preferred_ lgcf	PIWA2-FN1EX-LGC-LIST-FROM-1	PIWA2-1EX-LGC-LIST-FROM-1	PIWA2_1EX_ LGC_LIST_ FROM_1
To Preferred LGCs First Set of 5	P2EXTPL1	to_ preferred_ lgcf	PIWA2-FN1EX-LGC-LIST-TO-1	PIWA2-1EX-LGC-LIST-TO-1	PIWA2_1EX_ LGC_LIST_TO_1
From Preferred LGCs Second Set of 5	P2EXFPL2	from_ preferred_ lgcs	PIWA2-FN1EX-LGC-LIST-FROM-2	PIWA2-1EX-LGC-LIST-FROM-2	PIWA2_1EX_ LGC_LIST_ FROM_2
To Preferred LGCs Second Set of 5	P2EXTPL2	to_ preferred_ lgcs	PIWA2-FN1EX-LGC-LIST-TO-2	PIWA2-1EX-LGC-LIST-TO-2	PIWA2_1EX_ LGC_LIST_TO_2
Reason Code	P2EXRC	reason_ code	PIWA2-FN1EX-REASON-CODE	PIWA2-1EX-REASON-CODE	PIWA2_1EX_ REASON_ CODE
GRC (Return Code)	P2EXGRC	ret_code	PIWA2-FN1EX-RETURN-CODE	PIWA2-1EX-RETURN-CODE	PIWA2_1EX_ RETURN_ CODE
Number of Cross Streets at Low	P2EX#SL	nbr_names_lo	PIWA2-FN1EX-NUM-X-STS-LO-	PIWA2-1EX-NUM-X-STS-LO-	PIWA2_1EX_NUM_ X_STS_LO_END

Fn 1/1E Field for Mode X	BAL P2BAL1A	C PAC	COBOL P2COB1AL	NATURAL GEOLP2AL	PL/1 P2PL11AL
Address End			END	END	
List of Cross Streets at Low End (up to 5 B7SCs)	P2EX7SL	B7SC_lo	PIWA2-FN1EX-LO-B7SC	PIWA2-1EX-LO-B7SC	PIWA2_1EX_ LO_B7SC
Number of Cross Streets at High Address End	P2EX#SH	nbr_names_hi	PIWA2-FN1EX-NUM-X-STS-HI-END	PIWA2-1EX-NUM-X-STS-HI-END	PIWA2_1EX_ NUM_X_STS_ HI_END
List of Cross Streets at High End (up to 5 B7SCs)	P2EX7SH	B7SC_hi	PIWA2-FN1EX-HI-B7SC	PIWA2-1EX-HI-B7SC	PIWA2_1EX_HI_ B7SC
List of Cross Street Names at Low Address End (up to 5 32-byte Street Names)	P2EXSNL	st_names_lo	PIWA2-FN1EX-LO-ST-NAMES	PIWA2-1EX-LO-ST-NAME	PIWA2_1EX_ LO_ST_NAME
List of Cross Street Names at High Address End (up to 5 32-byte Street Names)	P2EXSNH	st_names_hi	PIWA2-FN1EX-HI-ST-NAMES	PIWA2-1EX-HI-ST-NAME	PIWA2_1EX_HI_ST _NAME
BOE Preferred B7SC	P2EXBPC	BOE_ B5SC	PIWA2-FN1EX-BOE-B7SC	PIWA2-1EX-BOE-B7SC	PIWA2_1EX_ BOE_B7SC
BOE Preferred Street Name	P2EXBPN	BOE_st_ name	PIWA2-FN1EX-BOE-ST-NAME	PIWA2-1EX-BOE-ST-NAME	PIWA2_1EX_ BOE_ST_NAME

The table below contains the names of the new COW fields found in Function 1A with Mode of “X” for the different programming languages:

Fn 1A Field for Mode X	BAL P2BAL1A	C PAC	COBOL P2COB1AL	NATURAL GEOLP2AL	PL/1 P2PL11AL
Reason Code	P2AXRC	reason_ code	PIWA2-1AX-REASON-CODE	PIWA2-1AX-REASON-CODE	PIWA2_1AX_ REASON_ CODE
GRC (Return Code)	P2AXGRC	ret_code	PIWA2-1AX-RETURN-CODE	PIWA2-1AX-RETURN-CODE	PIWA2_1AX_ RETURN_ CODE
# of Addresses in Address List	P2AX#ADR	nbr_addr	PIWA2-1AX-NUM-OF-ADDR	PIWA2-1AX-NUM-OF-ADDR	PIWA2_1AX_ NUM_OF_ADDR
Low House Number	P2AXLOW#	lo_hse_nbr	PIWA2-1AX-LIST-LOW-HOUSENUM	PIWA2-1AX-LIST-LOW-HOUSENUM	PIWA2_1AX_LIST_ LOW_ HOUSENUM

Fn 1A Field for Mode X	BAL P2BAL1A	C PAC	COBOL P2COB1AL	NATURAL GEOLP2AL	PL/1 P2PL11AL
High House Number	P2AXHI#	hi_hse_nbr	PIWA2-1AX-LIST-HI-HOUSENUM	PIWA2-1AX-LIST-HI-HOUSENUM	PIWA2_1AX_ LIST_HI_ HOUSENUM
Borough	P2AXBCDE	B5SC	PIWA2-1AX-LIST-BORO	PIWA2-1AX-LIST-BORO	PIWA2_1AX_LIST_ BORO
5-Digit-Street Code	P2AXCODE	B5SC	PIWA2-1AX-LIST-5SC	PIWA2-1AX-LIST-5SC	PIWA2_1AX_ LIST_5SC
Preferred LGC	P2AXPLGC	lgc	PIWA2-1AX-LIST-LGC	PIWA2-1AX-LIST-LGC	PIWA2_1AX_ LIST_LGC
BIN	P2AXLBIN	bld_id	PIWA2-1AX-LIST-BIN	PIWA2-1AX-LIST-BIN	PIWA2_1AX_ LIST_BIN
Side Of Street	P2AXLSOS	sos_ind	PIWA2-1AX-LIST-SOS	PIWA2-1AX-LIST-SOS	PIWA2_1AX_ LIST_SOS
Address Type	P2AXATP	adr_type	PIWA2-1AX-ADDR-TYPE	PIWA2-1AX-ADDR-TYPE	PIWA2_1AX_ ADDR_TYPE
TPAD Status	P2AXATPS	TPAD_ bin_status	PIWA2-1AX-TPAD-STATUS	PIWA2-1AX-TPAD-STATUS	PIWA2_1AX_ TPAD_STATUS
Street Name	P2AXSTN	st_name	PIWA2-1AX-ST-NAME	PIWA2-1AX-ST-NAME	PIWA2_1AX_ ST_NAME

The table below contains the COW names of the new fields found in Function 3 with Mode of "X" for the different programming languages:

Fn 3 Field for Mode X	BAL P2BAL	C PAC	COBOL P2COB	NATURAL GEOLP2	PL/1 P2PL1
List of 4 LGCs	P23XLGCS	lgc_list	PIWA2-3X-LGCS	PIWA2-3X-LGCS	PIWA2_3X_ LGCS
List of 4 From LGCs	P23XLGCF	from_lgcs	PIWA2-3X-LGCS-FROM	PIWA2-3X-LGCS-FROM	PIWA2_3X_ LGCS_FROM
List of 4 To LGCs	P23XLGCT	to_lgcs	PIWA2-3X-LGCS-TO	PIWA2-3X-LGCS-TO	PIWA2_3X_ LGCS_TO
Left Health Center District	P23XLHCD	left_hcd	PIWA2-3X-L-HEALTH-CTR-DIST	PIWA2-3X-L-HEALTH-CTR-DIST	PIWA2_3X_L_ HEALTH_CTR_ DIST
Right Health Center District	P23XRHCD	right_hcd	PIWA2-3X-R-HEALTH-CTR-DIST	PIWA2-3X-R-HEALTH-CTR-DIST	PIWA2_3X_R_ HEALTH_CTR_ DIST
Traffic Direction	P23XTF	traffic_dir	PIWA2-3X-TRAFFIC-DIR	PIWA2-3X-TRAFFIC-DIR	PIWA2_3X_ TRAFFIC_ DIR
Roadway Type	P23XRTP	roadway_type	PIWA2-3X-ROADWAY-TYPE	PIWA2-3X-ROADWAY-TYPE	PIWA2_3X_ ROADWAY_ TYPE
Physical ID	P23XPID	physical_ id	PIWA2-3X-PHYSICAL-ID	PIWA2-3X-PHYSICAL-ID	PIWA2_3X_ PHYSICAL_ ID

Fn 3 Field for Mode X	BAL P2BAL	C PAC	COBOL P2COB	NATURAL GEOLP2	PL/1 P2PL1
Generic ID	P23XGID	generic_ id	PIWA2-3X-GENERIC-ID	PIWA2-3X-GENERIC-ID	PIWA2_3X_ GENERIC_ID
Street Status	P23XSTST	street_ status	PIWA2-3X-STR-STATUS	PIWA2-3X-STR-STATUS	PIWA2_3X_ STR_STATUS
Street Width	P23XSTW	street_ width	PIWA2-3X-STR-WIDTH	PIWA2-3X-STR-WIDTH	PIWA2_3X_ STR_WIDTH
Street Width Irregular	P23XSTWI	street_ width_irr	PIWA2-3X-STR-WIDTH-IRREG	PIWA2-3X-STR-WIDTH-IRREG	PIWA2_3X_ STR_WIDTH_ IRREG
Bike Lane	P23XBL	bike_lane	PIWA2-3X-BIKE-LANE	PIWA2-3X-BIKE-LANE	PIWA2_3X_ BIKE_LANE
Federal Classification Code	P23XFCC	fcc	PIWA2-3X-FED-CLASS-CODE	PIWA2-3X-FED-CLASS-CODE	PIWA2_3X_ FED_CLASS_ CODE
ROW Type	P23XROW	row_type	PIWA2-3X-ROW-TYPE	PIWA2-3X-ROW-TYPE	PIWA2_3X_ ROW_TYPE
LGC List	P23XLGC5	lgc5 lgc6 lgc7 lcg8 lgc9	PIWA2-3X-LGC-LIST	PIWA2-3X-LGC-LIST	PIWA2_3X_ LGC_LIST
Legacy ID	P23XLGID	legacy_id	PIWA2-3X-LEGACY-ID	PIWA2-3X-LEGACY-ID	PIWA2_3X_ LEGACY_ID

The table below contains the COW names of the new fields found in Function 3C with Mode of “X” for the different programming languages:

Fn 3C Field for Mode X	BAL P2BAL	C PAC	COBOL P2COB	NATURAL GEOLP2	PL/1 P2PL1
List of 4 LGCs	P23XLGCS	lgc_list	PIWA2-3CX-LGCS	PIWA2-3CX-LGCS	PIWA2_3CX_ LGCS
List of 4 From LGCs	P23XLGCF	from_lgcs	PIWA2-3CX-LGCS-FROM	PIWA2-3CX-LGCS-FROM	PIWA2_3CX_ LGCS_FROM
List of 4 To LGCs	P23XLGCT	to_lgcs	PIWA2-3CX-LGCS-TO	PIWA2-3CX-LGCS-TO	PIWA2_3CX_ LGCS_TO
Left Health Center District	P23XLHCD	left_hcd	PIWA2-3CX-L-HEALTH-CTR-DIST	PIWA2-3CX-L-HEALTH-CTR-DIST	PIWA2_3CX_L_ HEALTH_CTR_ DIST
Right Health Center District	P23XRHCD	right_hcd	PIWA2-3CX-R-HEALTH-CTR-DIST	PIWA2-3CX-R-HEALTH-CTR-DIST	PIWA2_3CX_R_ HEALTH_CTR_ DIST
Traffic Direction	P23XTF	traffic_dir	PIWA2-3CX-TRAFFIC-DIR	PIWA2-3CX-TRAFFIC-DIR	PIWA2_3CX_ TRAFFIC_ DIR
Roadway Type	P23XRTP	roadway_type	PIWA2-3CX-ROADWAY-TYPE	PIWA2-3CX-ROADWAY-TYPE	PIWA2_3CX_ ROADWAY_ TYPE

Physical ID	P23XPID	physical_ id	PIWA2-3CX-PHYSICAL-ID	PIWA2-3CX-PHYSICAL-ID	PIWA2_3CX_ PHYSICAL_ ID
Generic ID	P23XGID	generic_ id	PIWA2-3CX-GENERIC-ID	PIWA2-3CX-GENERIC-ID	PIWA2_3CX_ GENERIC_ID
Street Status	P23XSTST	street_ status	PIWA2-3CX-STR-STATUS	PIWA2-3CX-STR-STATUS	PIWA2_3CX_ STR_STATUS
Street Width	P23XSTW	street_ width	PIWA2-3CX-STR-WIDTH	PIWA2-3CX-STR-WIDTH	PIWA2_3CX_ STR_WIDTH
Street Width Irregular	P23XSTWI	street_ width_irr	PIWA2-3CX-STR-WIDTH-IRREG	PIWA2-3CX-STR-WIDTH-IRREG	PIWA2_3CX_ STR_WIDTH_ IRREG
Bike Lane	P23XBL	bike_lane	PIWA2-3CX-BIKE-LANE	PIWA2-3CX-BIKE-LANE	PIWA2_3CX_ BIKE_LANE
Federal Classification Code	P23XFCC	fcc	PIWA2-3CX-FED-CLASS-CODE	PIWA2-3CX-FED-CLASS-CODE	PIWA2_3CX_ FED_CLASS_ CODE
Row Type	P23XROW	row_type	PIWA2-3CX-ROW-TYPE	PIWA2-3CX-ROW-TYPE	PIWA2_3CX_ ROW_TYPE
LGC List	P23XLGC5	lgc5 lgc6 lgc7 lcg8 lgc9	PIWA2-3CX-LGC-LIST	PIWA2-3CX-LGC-LIST	PIWA2_3CX_ LGC_LIST
Legacy ID	P23XLGID	legacy_id	PIWA2-3CX-LEGACY-ID	PIWA2-3CX-LEGACY-ID	PIWA2_3CX_ LEGACY_ID

Glossary of CSCL Data

Bike_lane
Defines which segments are part of the bicycle network as defined by the Department of Transportation. Values are as follows:

1	Class I:	Separated Greenway
2	Class II:	Striped Bike Lane
3	Class III:	Signed Bicycle Route
4	Links	Connecting segments
5	Class I,II:	Combination of Class I and II
6	Class II, III	Combination of Class II and III
7	Stairs	Step streets, bridge stairs, etc.

FDNY_ID
A unique ID assigned for FDNY's use in order to aggregate granular geometry for their administrative purposes.

Generic_ID
A unique ID assigned in order to aggregate granular geometry to represent a Generic View of the city's street network. Streets that contain multiple carriageways or roadbeds (such as Queens Boulevard in Queens and Park Ave in Manhattan) are represented by multiple centerlines corresponding to each roadbed as well as an imaginary 'single' generic centerline.

Legacy_ID
LION 09C Segment IDs which were migrated for the initial population of the CSCL. This data is captured in order to help users migrate legacy data. New geometry in the CSCL will not have this field populated, however existing CSCL segments will retain the legacy ID when split.

NYPD_ID
A unique ID assigned for NYPD's use in order to aggregate granular geometry for administrative purposes.

Physical_ID
A unique ID assigned in order to aggregate granular geometry to represent a Physical View of the city's street network. In CSCL, segmentation is very granular in order to accommodate many types of physical and non-physical geometry. The Physical ID is a unique number used to identify a physically existing piece of geometry that may or may not be comprised of several Segment IDs. For example, E 28 Street between 2nd Ave and 3rd Ave in Manhattan would have 1 Physical ID although there are 3 segments defining that block face, with 3 separate Segment IDs.

Roadway_Type

1	Street
2	Highway
3	Bridge
4	Tunnel
5	Boardwalk
6	Path/Trail
7	StepStreet
8	Driveway
9	Ramp
10	Alley
11	Unknown
12	Non-Physical Street Segment
13	U Turn
14	Ferry Route

ROW_Type

Right-of-Way Type (refers only to subway and rail segments):

1	Subterranean
2	Elevated
3	Surface
4	Hidden
5	Open Cut Depression
6	Embankment

Street_Status

Refers to the construction status of a street segment as follows:

1	Planned Private
2	Constructed
3	Paper
4	Under Construction
5	Demapped
9	Paper Street Coincident with Boundary

Str_width (not implemented)
Street width in feet

Str_width_irr (not implemented)

Indicates whether a street segment has an irregular street width