

**Annual CASS™ Meeting Minutes
Cycle L 2007–2008
February 6th 2006**

IMAQ CORE FUNCTION and IMAQ CORPORATE VISION

The core function of Intelligent Mail & Address Quality (IMAQ) is to provide value added product and service offerings. These offerings enable the USPS customers to better manage the quality of their mail while maximizing USPS' field operations ability to efficiently deliver mail as addressed.

IMAQ CORPORATE VISION

The IMAQ corporate vision is the “ability to meet new challenges, solve problems of today and anticipate the needs of the future.”

CASS™ CYCLE L 2007 - 2008

The annual CASS™ meeting was hosted by the National Customer Support Center (NCSC) in Memphis TN on February 6th 2006. Ruth Jones opened the meeting welcoming everyone and provided a brief overview of initiatives to be discussed. The following minutes constitute a record of the discussions held during the CASS Web Cast for 2007-2008 Cycle L.

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ANNUAL MEETING

The annual CASS™ meeting has been moved from August to February in order to allow software developers/vendors to get their software into the hands of their customers no later than May 1st of each year.

OVERVIEW

The United States Postal Service, in cooperation with the mailing industry, developed the certification programs to evaluate the accuracy of software and equipment - Five Digit, ZIP+4®, Carrier Route, and Delivery Point code. Address management has a long standing tradition of developing new addressing tools. CASS is following this tradition. As address matching technology evolves, CASS™ continues to evolve.

In the past a CASS merge test consisted of:

- o Carrier Route
- o 5-digit ZIP Code
- o ZIP+4
- o Delivery Point Code (DPC)

Today a merge test contains all of the above plus:

- o eLOT™
- o DPV™
- o DSF2™
- o RDI™
- o LACS^{Link™}

We also offer:

- o State Tests (*including Puerto Rico*)
- o Z4Change Certification
- o RDI Utility
- o LACS^{Link™} Utility
- o eLOT Utility
- o Online Ordering - <http://ribbs.usps.gov/files/cass/orders>

The Certification Department in conjunction with the Link Development group and Engineering will add the following tests for 2007-2008 Cycle L.

NEW CYCLE TEST

- ❖ ZIP+4 certification required
- ❖ Tighter restrictions on street name spelling variations (Optional for Cycle L)
- ❖ Last Line Matching Logic
- ❖ LACS^{Link™} certification required
- ❖ Suite^{Link™} (Optional for Cycle L)

CASS™ ONLINE ORDERING

CASS online ordering is available; for access go to <https://ribbs.usps.gov/files/cass/orders>. We encourage you to use the online ordering process. In the near future the only way to order a Stage II test will be through the online ordering process.

The current format is undergoing a transformation; when completed, it will be similar to the CASS order form.

Some required fields will include – product name/version, acknowledgement statement, as well as the name of the person ordering the test.

CASS CYCLE L REQUIREMENTS

REQUIREMENT FOR ZIP+4® & DPV™/DSF2™

For Cycle L, a ZIP+4 can only be assigned when the primary number DPV confirms. This means software can only make a ZIP+4 match when the confirmation code is Y, S or D. Software must continue to return footnote codes.

DPV/DSF2 FOOTNOTE CODES:

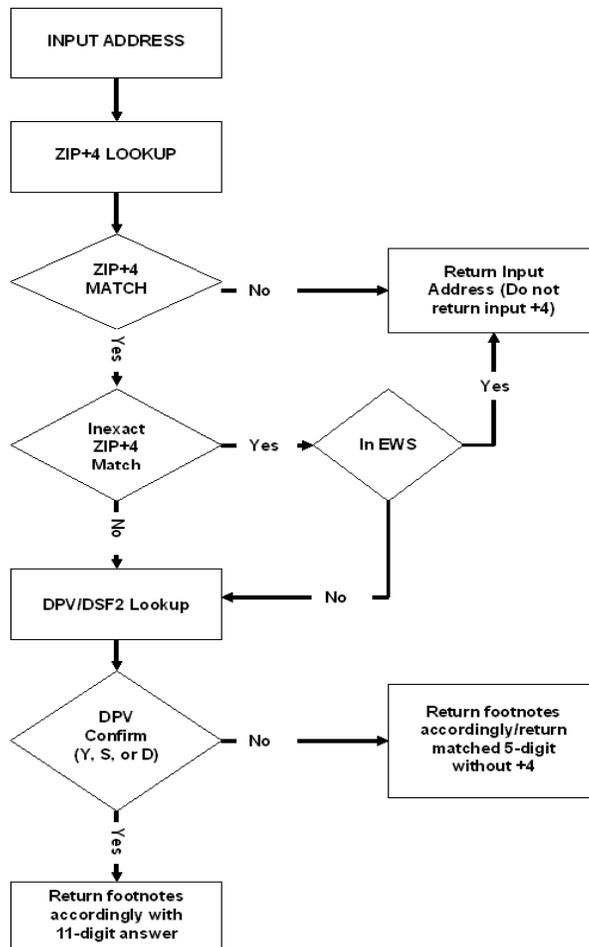
AA	Input Address Matched to the ZIP+4 file	P1	Input Address RR or HC Box number invalid
A1	Input Address Not Matched to the ZIP+4 file	P3	Input Address PO, RR, or HC Box number invalid
BB	Input Address Matched to DPV (<i>all components</i>)	RR	Input Address Matched to CMRA and PMB designator present (PMB 123 or #123)
CC	Input Address Primary Number Matched to DPV but Secondary Number not Matched (<i>present but invalid</i>)	R1	Input Address Matched to CMRA but PMB designator present (PMB 123 or #123)
N1	Input Address Primary Number Matched to DPV™ but Address Missing Secondary Number	F1	Input Address Matched to a Military Address
M1	Input Address Primary Number Missing	G1	Input Address Matched to a General Delivery Address
M3	Input Address Primary Number Invalid	U1	Input Address Matched to a Unique ZIP Code

On footnotes of F1, G1 and U1 move “Y” to the DPV return code and spaces to all other flags.

Note: This is ONLY an example of the process; your software may have an alternate flow.

ZIP+4® PROCESSING FLOWCHART

- Start with an input address; Perform ZIP+4 lookup - software will return a match or a no match.
- If software returns a no match – return the input address. Do not return the +4.
- If software returns a match, check to see if it is an inexact match (*an inexact match means you changed one of your street components*)
- If it is an inexact match – search the EWS file.
- If the EWS file shows a match, return the input address and consider this a no match (*this is the current process*)
- If there is no inexact match or if the address is not in the EWS file, perform a DPV™ lookup.
- If DPV™ returns a Y, S, or D, return the match. Return the 11-digit and the footnote.
- If the DPV™ returns a no match, return the DPV™ footnote and the 5-digit only.



(Recap)

When the address matches to ZIP+4®, but the primary number does not DPV confirm, software must return only the 5-digit ZIP Code and Carrier Route code. When there is a no match on ZIP+4®, software should continue to return the input. If the input contains an add-on, do not return the add-on in the answer field.

REQUIREMENT FOR ZIP+4® & DPV™/DSF2™

EXAMPLE #1 (When to assign ZIP+4 Code)

The address-matching software parses the input address. The primary street name is **West Loop**, post directional is **S**, and the secondary information is **Ste 410**. The address-matching software searches the ZIP+4® file for all addresses in ZIP Code **77401** with the primary street name of **West Loop**, post directional **S**, and secondary information of **Ste 410**. A match is made with the 5-digit ZIP Code, street name, post directional, secondary information and primary number. The address-matching software will now go to the DPV file with the primary and secondary number. If the primary number DPV confirms, software will then be able to assign the ZIP+4 Code; and return DPV flag and DPV footnote codes.

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG-NATOR	SEC RANGE	ZIP CODE	+4 CODE	REC TYPE	DPV
	6750	WEST	LOOP	S	STE	410	77401	4197		Y

INPUT:	6750 WEST LOOP S STE 410
	BELLAIRE TX 77401

MATCH:	6750 WEST LOOP S STE 410 (ALL COMPONENTS DPV CONFIRM)
	BELLAIRE TX 77401-4197

FOOTNOTE CODE:	AA BB
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- Current Rule: Required Match
- Cycle L Rule: No Change
- DPV Return Code: Y
- Delivery Point Validated/Primary Valid and Secondary Number (when present) valid

EXAMPLE #2 (When to assign ZIP+4 Code)

On the ZIP+4 file RR, HC and PO Box are in the street name field, the box number is in the primary range field (low and high). The address-matching software parses the input address. The procedure is the same for RR addresses and other addresses. In this example the primary street name contains **RR 4**, with primary number **347C**. A match is made on the ZIP+4 file to a single rural route box with the input 5-digit ZIP Code, street name, and box number. The address-matching software will now go to the DPV file with the primary number. If the primary number DPV confirms, software will then be able to assign the ZIP+4 Code; set the DPV flag to "Y" and return footnote codes of AA and BB. Again, there is no change to current requirements.

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG-NATOR	SEC RANGE	ZIP CODE	+4 CODE	REC TYPE	DPV
	347C	RR4					40456	8748		Y

INPUT:	RR4 BOX 347C
	MOUNT VERNON KY 40456

MATCH:	RR 4 BOX 347C (ALL COMPONENTS DPV CONFIRM)
	MOUNT VERNON KY 40456-8748

FOOTNOTE CODE:	AA BB
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REQUIREMENT FOR ZIP+4® & DPV™/DSF2™

- Current Rule: Required Match
- Cycle L Rule: No Change
- DPV Return Code: Y
- Delivery Point Validated/Primary Valid and Secondary Number (when present) valid

EXAMPLE #3 (When NOT to assign ZIP+4 Code)

If the ZIP+4® file contains an address range of **201 – 299** but **211** does not DPV™ confirm; no match should be made to the address inside the ZIP+4 range. The ZIP+4 certification will not allow software to return the +4 Code from the ZIP+4 file. The address-matching software can only return the 5 digit from the ZIP+4 file – the DPV flag is set to 'N'. In this example the **state does not agree** with ZIP Code **35674**; software should correct the state to Alabama. Footnote codes are AA and M3. Input address matched to ZIP+4 file; however, the primary number did not DPV confirm.

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG-NATOR	SEC RANGE	ZIP CODE	+4 CODE	REC TYPE	DPV
	201 - 299	ANDREWS	DR				35674	5840		N

INPUT:	211 ANDREWS DR
	TUSCUMBIA TX 35674

MATCH:	211 ANDREWS DR <i>(PRIMARY # DOES NOT DPV CONFIRM)</i>
	TUSCUMBIA AL 35674

FOOTNOTE CODE:	AA M3
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- Current Rule: Required Match
- Cycle L Rule: Correct State and Return 5-Digit from ZIP+4
- DPV Return Code: N
- No Delivery Point Validated

REQUIREMENT FOR ZIP+4® & DPV™/DSF2™

EXAMPLE #4 (When NOT to assign ZIP+4 Code)

On the ZIP+4® file RR, HC and PO Box are in the street name field, the box number is in the primary range field (low and high). The address-matching software parses the input address. The procedure is the same for RR addresses and other addresses. In this example the primary street name contains **RR 4**; however the **primary box number is missing**. The absence of the primary number (box number) means no DPV™ confirmation. Software can only return 5-digit from the ZIP+4 file or from the input address. Footnote code is AA and P1.

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG-NATOR	SEC RANGE	ZIP CODE	+4 CODE	REC TYPE	DPV
		RR4					40456	9804	R	N

INPUT:	RR 4
	MOUNT VERNON KY 40456

MATCH:	RR4 (PRIMARY # DOES NOT DPV CONFIRM)
	MOUNT VERNON KY 40456

FOOTNOTE CODE:	AA P1
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- Current Rule: Required Match
- Cycle L Rule: Return 5-Digit from ZIP+4
- DPV Return Code: N
- No Delivery Point Validated

EXAMPLE #5 (When NOT to assign ZIP+4 Code)

If the ZIP+4 file contains an address range of **400 – 498** but **462** does not DPV confirm; no match should be made. The ZIP+4 certification will not allow software to return the +4 Code from the ZIP+4 file. The address-matching software can only return the 5-digit from the ZIP+4 file; the input did not contain a 5-digit ZIP Code – the DPV flag is set to 'N'. Footnote codes are AA and M3.

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG-NATOR	SEC RANGE	ZIP CODE	+4 CODE	REC TYPE	DPV
	400 – 498	RUSSELL	ST				76108	1619		N

INPUT:	462 RUSSELL ST
	LAKESIDE TX

MATCH:	462 RUSSELL ST (PRIMARY # DOES NOT DPV CONFIRM)
	LAKESIDE TX 76108

FOOTNOTE CODE:	AA M3
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- Current Rule: Required Match
- Cycle L Rule: Return 5-Digit from ZIP+4
- DPV Return Code: N
- No Delivery Point Validated

REQUIREMENT FOR ZIP+4® & DPV™/DSF2™

EXAMPLE #6 (When to assign ZIP+4 Code)

The ZIP+4® file contains records that may be used to identify a commercial building, apartment complex, highrise, wing or floor of a building, group of apartment mail boxes, or physical location other than a street. Highrise/building records are identified on the ZIP+4 file as record type H. A default highrise/building contains the building street address in the primary range field and spaces in the secondary range filed.

If multiple records of type H exist for this address, the default code is the only record with blank secondary fields.

The address-matching software parses the input address. The primary street name is **Washington**, suffix is **Ave**, and the secondary information is **# 8909**. The address-matching software searches the ZIP+4 file for all addresses in ZIP Code **07712** with the primary street name of **Washington**, suffix **Ave**, and secondary information of **# 8909**. A match is made with the 5-digit ZIP Code, and street name, however the secondary number is invalid and does not match. The address-matching software will now go to the DPV™ file with the primary number and secondary number. The new ZIP+4 certification will allow the +4 to be assigned from the ZIP+4 file since the primary number **1266** DPV confirmed. Software returned code 'S' to let the end user know that the primary number was valid, but the secondary number did not DPV confirm. Footnote code is set to AA and CC.

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG-NATOR	SEC RANGE	ZIP CODE	+4 CODE	REC TYPE	DPV
	1266	WASHINGTON	AVE				07712	6381	H	S
	1266	WASHINGTON	AVE		APT	1 – 17	07712	6366	H	

INPUT:	1266 WASHINGTON AVE # 8909
	ASBURY PARK NJ 07712

MATCH:	1266 WASHINGTON AVE # 8909 (PRIMARY # DOES DPV CONFIRM)
	ASBURY PARK NJ 07712-6381

FOOTNOTE CODE:	AA CC
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- Current Rule: Required Match
- Cycle L Rule: No Change
- DPV Return Code: S
- Valid Primary Number; but Secondary (primary for Rural Route) present and is not confirmed

REQUIREMENT FOR ZIP+4® & DPV™/DSF2™

EXAMPLE #7 (When to assign ZIP+4 Code)

As in the previous example, a default highrise/building contains the building street address in the primary range field and spaces in the secondary range field.

The address-matching software parses the input address. In this example, **25 Nesbit St** in ZIP Code **07103** matches to a high-rise default on ZIP+4 and the primary number does DPV™ confirm. Software will return 'D' to indicate that the input is missing secondary information; however, primary number **25** did DPV confirm. Footnote code AA is added to show that the input address matches to ZIP+4. N1 is added to show that the primary number matched to DPV, but the address is missing the secondary number. Software will return the +4 Code of **3628** from the high-rise default record.

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG-NATOR	SEC RANGE	ZIP CODE	+4 CODE	REC TYPE	DPV
	25	NESBIT	ST				07103	3628	H	D
	17 – 53	NESBIT	ST				07103	3622	S	

INPUT:	25 NESBIT ST
	NEWARK NJ 07103

MATCH:	25 NESBIT ST (PRIMARY # DOES DPV CONFIRM)
	NEWARK NJ 07103-3628

FOOTNOTE CODE:	AA N1
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- Current Rule: Required Match
- Cycle L Rule: No Change
- Valid Primary; Input Missing Secondary (primary for rural route)
- Note: Return Code "D" is applicable to all record types but street

REQUIREMENT FOR ZIP+4® & DPV™/DSF2™

EXAMPLE #8 (When NOT to assign ZIP+4 Code)

The address-matching software parses the input address. The software searches the ZIP+4 file for all addresses in ZIP Code **56180** with the primary street name of **Fox Run**, and suffix **Rd**. The input address of **1 Fox Run Rd** in ZIP Code **56180** **does not match** to the ZIP+4 file. Software can only return the input 5-digit and A1 (input address NOT matched to the ZIP+4 file) footnote code.

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG-NATOR	SEC RANGE	ZIP CODE	+4 CODE	REC TYPE	DPV

INPUT:	1 FOX RUN RD
	WALNUT GROVE MN 56180

MATCH:	1 FOX RUN RD (DID NOT ZIP+4 MATCH)
	WALNUT GROVE MN 56180

FOOTNOTE CODE:	A1
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- Current Rule: No Match Return Input
- Cycle L Rule: No Change

EXAMPLE #9 (When NOT to assign ZIP+4 Code)

The address-matching software parses the input address. **J312 Huntington Ave** has an input ZIP+4 of **02136-5555**. The software searches the ZIP+4 file for all addresses in ZIP Code **02136** with the primary street name of **Huntington**, and suffix **Ave**. The input address of **J312 Huntington Ave** in ZIP Code **02136** and the input ZIP+4, **02136-5555** **does not match** to the ZIP+4 file. The ZIP+4 Code is invalid. Software can only return the input 5-digit along with A1 footnote code. **DO NOT** return the input +4.

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG-NATOR	SEC RANGE	ZIP CODE	+4 CODE	REC TYPE	DPV

INPUT:	J312 HUNTINGTON AVE
	HYDE PARK MA 02136-5555

MATCH:	J312 HUNTINGTON AVE (DID NOT ZIP+4 MATCH)
	HYDE PARK MA 02136

FOOTNOTE CODE:	A1
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- Current Rule: No Match Return Input
- Cycle L Rule: Return Input 5-Digit only

REQUIREMENT FOR ZIP+4® & DPV™/DSF2™

DPV TIEBREAKER

In the past, software could optionally use DPV™ to resolve multiple responses. In Cycle L, this is no longer optional.

EXAMPLE #10 (When to assign ZIP+4 Code)

Address-matching software **must use** DPV™ to resolve multiple responses. Only when **one** candidate record DPV confirms will software be required to make the match. In this example, address-matching software is required to make the match to “WEST” since it is the only one that DPV confirms. If neither address DPV confirms – follow existing Cardinal Rule.

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG-NATOR	SEC RANGE	ZIP CODE	+4 CODE	REC TYPE	DPV
	300 – 398	7 TH	AVE	W			58078	1648	Y	
	300 – 398	7 TH	AVE	E			58078	2731	N	

INPUT:	300 7 TH AVE
	WEST FARGO ND 58078

MATCH:	300 7 TH AVE W (ALL COMPONENTS DPV CONFIRM)
	WEST FARGO ND 58078-1648

FOOTNOTE CODE:	AA BB
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- Current Rule: Optional Match
- Cycle L Rule: Required Match

STREET NAME SPELLING VARIATIONS

CASS™ has been testing minor street name misspellings. In Cycle L, street name misspellings will be more complex. CASS will only test street name spelling variations on long street names.

The common practice to all address-matching software is the treatment of the input address as a collection of separate elements: house number, pre-direction, street name, suffix, etc. This practice allows the independent comparison of the separate elements of the input address to the ZIP+4 database, which is structured in the same format. Because the addressing practices used by customers are so varied (correction of misspellings and phonetic determination) and because the ZIP+4 database is structured to facilitate database management, simply comparing the input address elements to the ZIP+4 database may not be possible. Therefore, the number of insertions/deletions in the street name will be a developmental business decision and not a USPS policy.

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EXAMPLE #11 (When to assign ZIP+4 Code)

Developers are expected to correct the street name misspelling and assign the ZIP+4® code within the input ZIP Code based on the ZIP+4 certification requirements.

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG-NATOR	SEC RANGE	ZIP CODE	+4 CODE	REC TYPE	DPV
	1	SCHOOLHOUSE	RD				01002	9603		Y

INPUT:	1 CCHOOLHOUSE RD
	AMHERST MA 01002

MATCH:	1 – 99 SCHOOLHOUSE RD (ALL COMPONENTS DPV CONFIRM)
	AMHERST MA 01002-9603

FOOTNOTE CODE:	AA BB
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➤ Cycle L Rule: Optional Match

EXAMPLE #12 (When to assign ZIP+4 Code)

Developers are expected to correct the street name misspelling and assign the ZIP+4 code within the input ZIP Code based on the ZIP+4 certification requirements.

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG-NATOR	SEC RANGE	ZIP CODE	+4 CODE	REC TYPE	DPV
	1 – 87	WASHINGTON	AVE				01060	2822		Y

INPUT:	33 ASHINGTON AVE
	NORTHAMPTON MA 01060

MATCH:	33 WASHINGTON AVE (ALL COMPONENTS DPV CONFIRM)
	NORTHAMPTON MA 01060-2822

FOOTNOTE CODE:	AA BB
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➤ Cycle L Rule: Optional Match

LAST LINE LOGIC

The W5 category will now change from a no-match to a match category. Software will be allowed to make an exact match in the input ZIP code.

Last Line Matching Policy: When input ZIP and City/State are from a different finance number,

- Exact match within the ZIP Codes associated with the input City/State,
- Inexact match within ZIP Codes associated with the input City/State (*An inexact match means that you changed one of your street components*).
- Exact match within the ZIP Code.

EXAMPLE #13 (When to assign ZIP+4 Code)

Addresses maybe presented that have a City/State that is associated with one finance number and a ZIP Code that is associated with a different finance number. This can easily result from data entry errors, where one miskey of the ZIP Code or state can mean a significant change. When the address-matching software attempts to match the address, it must give preference to the input city name and search for an exact match within ZIP Codes associated with the input City/State. If it does not find a match software can search for an inexact match within ZIP Codes associated with the input city name. If a match is still not found, software can search for an exact match within the input ZIP Code.

This is an example where the input ZIP Code and City/State have different finance numbers: an **exact match** is made to the ZIP+4 file in the **input ZIP Code** and the City/State is changed to **Union Grove AL**. The ZIP+4 assignment is based on ZIP+4 certification requirements.

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG-NATOR	SEC RANGE	ZIP CODE	+4 CODE	REC TYPE	DPV
	300 – 398	HIGHLANDS					35175	7804		Y

INPUT:	302 HIGHLANDS
	BOYNTON BEACH FL 35175

MATCH:	302 HIGHLANDS (ALL COMPONENTS DPV CONFIRM)
	UNION GROVE AL 35175-7804

FOOTNOTE CODE:	AA BB
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- Cycle L Rule: Required Match

REQUIREMENT FOR LACS^{Link™} (Locatable Address Conversion System)

In Cycle J, LACS^{Link} was mandatory for CASS developers only. Beginning with Cycle L, LACS^{Link} will be required for all CASS/MASS customers.

LACS data has been gathered since 1988. In 1994, LACS was put in AMS. In 1995, application improvements lead to increase LACS input from filed offices.

LACS will provide a new address when an address has been converted due to changes by government and municipalities.

- Most records in LACS reflect changes from rural box addressing to street style addressing for E911 conversions.
EX: Old address: RR 1 Box 127A New Address: 17255 Scenic RD
- Some records in LACS represent changes to street-style addresses
EX: Old address: 905 France Ave New Address: 1125 Freedom Dr
- Some LACS records reflect PO Box renumbering
EX: Old Address: PO Box 123 New Address: PO Box 555123

LACS^{Link™}

1. ZIP+4 file displays the LACS indicator for old LACS records as long as the records live in the AMS database.
2. CASS certified software is required to recognize the LACS indicator in the ZIP+4 file.
3. LACS processing of address lists have been a function of NCOA. These licensees were authorized to process addresses for LACS conversion.
4. LACS^{Link} provides LACS data as a secure hash table.
5. LACS^{Link} will allow the USPS to distribute LACS address conversion information as a separate product.
6. The input to the LACS lookup is a display of the address, 50 characters in length, and a five-digit ZIP Code.
7. The address must be in standardized unparsed format, but not necessarily ZIP+4 coded. Keeping in mind that a change in one letter or space creates a different SHA value, the standardized address and numbers that are to be an input must exactly match the SHA value that was SHA'd to make the list. To aid in the standardizing of street style addresses, a table will be provided that will include a 5-digit ZIP Code and the Indicia (Pre-directional, Street Name, Suffix, and Post-directional) as it appears in the USPS LACS database. If the process verifies that the input address exists in the LACS table, the 11-digit ZIP Code + a hint byte of the new address will be returned. The 11-digit look-up and the hint byte table will provide the new address.

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System Requirements:

5 LACSLink data table 33MB each
 Binary Hash Table 16MB
 Subtotal 181 MB

Street Name Table 4MB
 1 Hint Byte Table 33MB
 RV9 Table 112MB (max)
 Total 330MB

EXAMPLE #1 Match to “Exact” Non-LACS Record

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG-NATOR	SEC RANGE	ZIP CODE	+4 CODE	LACS IND	DPV
	10 – 21	RR 1					62818	9704		Y

INPUT:	RR 1 BOX 21
	BROWNS IL 62818

LACSLink™: Not Needed

EXAMPLE #2 LACS Indicated Record Match

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG-NATOR	SEC RANGE	ZIP CODE	+4 CODE	LACS IND	DPV
	1348 –1350	RR 1					74901	9761	L	

INPUT:	RR 1 BOX 1348
	ARKOMA OK 74901

LACSLink™: YES

EXAMPLE #3 Rural Route Default Match

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG-NATOR	SEC RANGE	ZIP CODE	+4 CODE	LACS IND	DPV
		RR 1					62818	9801		

INPUT:	RURAL ROUTE 1 BOX 1348
	BROWNS IL 62818

LACS^{Link™}: YES

EXAMPLE #4 ZIP + 4[®] No-Match

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG-NATOR	SEC RANGE	ZIP CODE	+4 CODE	LACS IND	DPV

INPUT:	1705 S JORDAN RD
	BRIGGS TN 38405

ZIP + 4 Match: NO

“Fuzzy” Match to Street Name Table

Street Name Table: 38405 S Jordan Rd

LACS^{Link™}: YES

INPUT:	1708 S JORDAN DR
	BRIGGS TN 38405

ZIP + 4[®] Match: NO

“Fuzzy” Match to Street Name Table

Street Name Table: 38405 S Jordan Rd

LACS^{Link™}: YES

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EXAMPLE #5 No Match to RR, HC, PO Box

If the input street name is a RR or HC type street name or PO Box and **is not** present in the street name table, **do not** do a fuzzy name comparison and there is no need to perform a LACS^{Link™} lookup.

ZIP+4 FILE:	PRIMARY RANGE	STREET NAME	SUF FIX	POST DIR	DESIG- NATOR	SEC RANGE	ZIP CODE	+4 CODE	LACS IND	DPV

INPUT:	RR 11
	BRIGGS TN 38405

ZIP + 4[®] Match: NO

Street Name Table: 38405 RR1

LACS^{Link™}: NO

FEE SCHEDULE

Fees are applied to certification period from August 1 – July 31

Fee Based Certification	Aug/Oct New Cycle	Nov/ Dec	Jan	Feb	Mar	Apr	May	June	July	After July 31, for Current Cycle
CASS FEES	\$200	\$200	\$200	\$500	\$500	\$600	\$700	\$800	\$900	\$1000
MASS MFG (MLOCR)		\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$1500
MASS END USERS (MLOCR)					\$500	\$500	\$500	\$500	\$500	\$1500
MASS MFG (ENCODER)		\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$1000
MASS END USERS (ENCODER)					\$300	\$300	\$300	\$300	\$300	\$1000

NEW PRODUCTS

Suite^{Link}™ (optional for Cycle L)

The purpose of the Suite^{Link} product is to improve business addressing by adding known secondary (suite) numbers to allow delivery sequencing where it would otherwise not be possible. Given a business name and an associated ZIP+4[®] coded address that matches to a high-rise default, the Suite^{Link} process will return the appropriate suite number when available.

Keys will be built using the significant words in a business name and the building's Enhanced Modified Delivery Point (EMDP).

Each key that successfully returns a suite number is used to build confidence in the match.

Building an Enhanced Snapp Modified Delivery Point (EMDP)

The EMDP is a numeric representation of a delivery point. It is created using the "street level" 9-digit ZIP Code and the primary number. You should not use the secondary number or descriptor when building EMDP for Suite^{Link}.

Sample EMDP:

5-DIGIT ZIP CODE	4-DIGIT ADD-ON	7 DIGITS OF PRIMARY #	2 ALPHAS FROM PRIMARY #
12345	6759	0000123	A

Example of Keys	SuiteLink™ Example (Cont.)
<p>Input record: Investment Bank of America 123 Main St 12345-6789</p> <p>Businesses at 123 Main St: Poplar Medical Sales Ste 212 Polar Auto Sales Memphis Ste 214 Poplar Auto Repair Ste 216 Wilson Law Firm Ste 218 Boyce's Kayaks Ste 220</p> <p>Keys that will be built to probe the Suite^{Link}™ product: EMDP-America Bank Investment EMDP-America EMDP-Bank EMDP-Investment</p> <p><small>*Note that "of" will be omitted because it appears in the noise word table.</small></p>	<p>Input: Poplar Auto Sales 123 Main St (Suite Missing) 12345-6790 (High-rise Default)</p> <p>Lookup key: SHA of EMDP-Auto Poplar Sales Returns: No Matches Lookup Key: SHA of EMDP-Poplar Returns: 212, 214, 216 Lookup Key: SHA of EMDP-Auto Returns: 214, 216 Lookup Key: SHA of EMDP-Sales Returns: 212, 214</p> <p>Output: 214</p>

Current Plan

- Alpha testing completed as of March 1, 2006
- Beta testing has begun and will run through April 30, 2006
- Product rollout mid May 2006.

NEW PRODUCTS

Z4INFO

Overview

- The Z4Info file is an add-on utility to the ZIP+4® address matching file
- It is provided free of charge to Address Matching Engine Developers
- May be integrated into their current products and processes to improve address quality
- When the pattern of the primary and secondary attributes does not match explicitly to the ZIP+4 file, Z4Info provides a code describing the acceptable formats for the primary and secondary information in a particular ZIP+4 block face
- There may be more than one pattern indicated for a single ZIP+4 range

Process

- Establish the pattern of the input address
- Does this pattern exist on the ZIP+4® product?
- If it does not, check for this pattern in Z4Info
- If the pattern exists in Z4Info, use the attribute
- If it does not exist, quarantine the attribute
 - Quarantine means isolate this extraneous information and do not include it in the standardized address
 - Disposition of the quarantined information is discretionary
 - Move it, Hide it, Discard it

NEW PRODUCTS cont'd

Z4INFO

Example 5200 Park Ave Ste B
 Memphis TN 38119-3500

- The pattern for this address is numeric primary and alpha secondary (numeric alpha).
- The pattern is not revealed by the ZIP+4® product.
- The Z4Info file returns a letter code for both the primary and secondary address attributes.
- The letter code B is returned for the primary and the letter code J for the secondary.

5200 Park Ave Ste B
 Memphis TN 38119-3500

Code	Definition
A	Only a Fraction
<u>B</u>	<u>Numeric only</u>
C	Numeric + Fraction
D	Numeric-Alpha
E	Numeric-Alpha + Fraction
F	Numeric-Alpha-Numeric
G	Numeric-Alpha-Numeric + Fraction
H	Numeric-Alpha-Numeric-Alpha
I	Numeric-Alpha-Numeric-Alpha + Fraction
<u>J</u>	<u>Alpha Only</u>
K	Alpha + Fraction
L	Alpha-Numeric
M	Alpha-Numeric + Fraction
N	Alpha-Numeric-Alpha
O	Alpha-Numeric-Alpha + Fraction
P	Alpha-Numeric-Alpha-Numeric
Q	Alpha-Numeric-Alpha-Numeric + Fraction
R	Alpha-Numeric-Alpha-Numeric-Alpha
S	Alpha-Numeric-Alpha-Numeric-Alpha + Fraction

- Z4Info confirms that numeric primary and alpha secondary is the correct pattern.
- Include Ste B in the standardized address.

- **Utility Add-on**
- **Use is optional**
- **Free to Engine Developers**
- **Built Weekly**
- **Available on RIBBS in April 2006**

SIGNIFICANT MILESTONES

ANNUAL MEETING	<u>FEB 2006</u>
OFFICIAL RULES RELEASE	<u>MAR 2006</u>
OneCode ^{SOLUTION} BARCODE TESTING MASS™	<u>APR 2006</u>
STAGE I FILE RELEASE	<u>JUN 2006</u>
STAGE II FILE RELEASE	<u>AUG 2006</u>
MASS™ TEST DECKS AVAILABLE	<u>NOV 2006</u>
DEVELOPERS/MANUFACTURERS CERTIFICATION COMPLETED	<u>MAR 2007</u>
BEGIN SOFTWARE RELEASE.....	<u>APR 2007</u>
DEADLINE SOFTWARE RELEASED TO END-USERS	<u>MAY 1, 2007</u>

The Address Quality Symposium will be held at the National Postal Forum April 2 – 5, 2006. An Address Quality Specialist Certificate is given if you attend certain sessions. We encourage all of you to attend.



APRIL 2-5, 2006 ORLANDO, FLORIDA

Brand New!

Address Quality Symposium

Address Quality Specialist Certificate



NPF[®]
NATIONAL POSTAL FORUM

*Where knowledge
and innovation connect.*

Address Quality Symposium

Recognizing the critical role that addressing plays in effective mailings, this event emphasizes the need to identify and establish operational disciplines the routinely correct and improve database accuracy. All new workshops and special sessions will give attendees an opportunity to hear direct from Postal executives, vendors, and industry leaders about strategies and tools that meet the addressing challenges of today.

- 4 in-depth Address Quality Symposium sessions
- 4 all new Address Management workshops
- 9 additional workshops in the Address Accuracy & Intelligent Mail Track



NPF[®] *Where knowledge
and innovation connect.*
NATIONAL POSTAL FORUM

Address Quality Specialist Certificate

Mailers will be able to take their companies to the next level in Address Quality after completing the requirements of the AQS certificate. To be awarded an AQS certificate, recipients will need to:

- attend both of the NPF Address Quality Symposium sessions Wednesday afternoon on April 5th
- attend any two of the workshops listed from the Addressing Accuracy & Intelligent Mail Track
- complete an online survey about addressing and database practices

Successful participants will be recognized industry wide as specialists in Address Quality.

CASS™ QUESTIONS & ANSWERS

Q & A's

1. Question: Is ZIP+4 Certification going to be required for all CASS™ End-Users?

Answer: ZIP+4 Certification will be required for anyone who takes a CASS test.

2. Question: What are the rules regarding ZIP+4 for false positive testing; and are End Users going to be allowed to by-pass the security issue?

Answer: CASS End Users who get a false positive should shut down same as in production batch mode.

3. Question: Regarding ZIP+4 Certification – if the input street name had a misspelling and was corrected, and the primary number did not validate; what do we return?

Answer: Return the standardized street name.

4. Question: Customer wants clarification on section E of the 3553. The DPV count that is required there now is only for DPV or for records given a Y. Would that change so that it would include counts for records with Y, S, and D?

Answer: The current description states - entries in this box show the number of records delivery point confirmed. Descriptions will be added for DPV flags; “Y”, “S” and “D”.

5. Question: Will RDI be optional within a merge test?

Answer: Yes

6. Question: Will Stage I reflect the DPV Tie Breaker?

Answer: Yes

7. Question: Street Name Misspellings – how many insertions/deletions in the street name are allowed?

Answer: The number of insertions/deletions in the street name is a developmental business decision and not a USPS policy.

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8. Question: How is the Suite^{Link} file being built?
Answer: Suite^{Link} is currently being built from the Delivery Point File and the NCOA file.
9. Question: Suite^{Link} - How do you handle words that come in abbreviated?
Answer: We have a normalization file of known common abbreviations.
10. Question: Is Suite^{Link} going to be a required process and is it going to be a part of the CASS™ product?
Answer: It is optional for CASS...It will be offered as part of the merge test or as a Suite^{Link} stand-alone test.
11. Question: Suite^{Link} – What happens when it is greater than 7-bytes?
Answer: When building the EMDP, you take the last 7 or the first 7- digits of the primary number – just like you currently go to the EMDP for DPV/DSF2.
12. Question: With product rollout in mid-May, Suite^{Link} will not be available in time to incorporate within the existing CASS cycle K initially, will we be able to implement in Cycle K? Will you be ready for testing in May
Answer: Licensing and testing for Suite^{Link} will roll out in June.
13. Question: Will Suite^{Link} data have to be in synchronization with ZIP+4 databases? If so, will the data be released on same schedule as ZIP+4 or come in separate shipment where vendors will need to wait for all of the data to arrive.
Answer: Yes
14. Question: For Suite^{Link} - Will there be any seed / false positive tracking?
Answer: There will be no seed and no false positive records.
15. Question: Will there be any monthly reporting required?
Answer: That will be determined by the Licensing Department.
16. Question: Z4Info – How does Z4Info work if we are not allowed to drop secondary information for CASS?
Answer: You may retain it or move it to the 2nd address line; do not use for calculating EMDP.

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17. Question: Z4Info - Are the Puerto Rico primary numbers going to be properly identified in the File?
- Answer: Information will be identified based on what is in the Delivery Point File.
18. Question: How can we get started using Z4Info?
- Answer: Z4Info will be posted to RIBBS weekly.
19. Question: Would the policy changes regarding ZIP+4 certification require all automation rate mail to be processed through DPV? If that is the case, we would object to that requirement as overly burdensome to most of our customers. Without a substantial investment in high performance computer equipment, the DPV lookup process is very slow compared to the ZIP+4 matching process. The majority of our customers, which are predominately service bureaus who prepare mail for third parties, would only be able to process one fourth the number of lists they process now.
- Answer: Address-matching software can only assign a ZIP+4 code when the primary number DPV confirms.
20. Question: Will the CASS™/ MASS™ Guidelines CD be updated?
- Answer: The CASS web site <http://ribbs.usps.gov/files/cass> will continue to be updated with the latest information.

ADDITIONAL QUESTIONS & ANSWERS (not covered in the first posting)

21. Question: Would the policy changes regarding ZIP+4 certification require all automation rate mail to most of our customers. Without a substantial investment in high performance computer equipment, the DPV lookup process is very slow compared to the ZIP+4 matching process. The majority of our customers, which are predominately service bureaus who prepare mail for third parties, would only be able to process one fourth the number of lists they process now.
- At the same time, we encourage the Postal Service to develop policies that promote the use of the DPV process. One approach would be to add a new discount for DPV qualified mail. Such a discount would help volume mailers offset the additional cost of DPV processing.
- Answer: Yes; DPV & ZIP+4 certification will be required for discounted mail (excluding 5-digit presorted mail). To maximize performance time we would recommend using DPV Flat file for mainframe users. A suggestion for PC users would be loading hash tables to RAM instead of the hard drive.

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22. Question: How will end users test DPV locking (as a developer we do not want to give out our security?)
- Answer: That is no longer the method of testing. We test now as if it is a live site; you simply send in the email. There is no requirement for sending in the source code.
23. Question: The rule of when there is no match on the ZIP+4 file, software should continue to return input. However if the input contains a ZIP+4 add-on do not return the add-on in the answer field. How does this affect unique ZIP Codes? This question was asked in the Web Cast and the answer was that rule did not apply to unique ZIP Codes and would like to get this in writing.
- Answer: This requirement does not apply to unique ZIP Codes.
24. Question: Can we correct delivery (street) address information like appending/correcting a suffix (standardize) during the match process when we do not make a DPV match?
- Answer: Street address matching requirements have not changed. If you failed to find an exact match in the lastline or finance number; you should add, change, or delete that component if the result is unique. If the results of the match fails to DPV confirm; only the Zip Code from the ZIP+4 file can be returned with the address.
25. Question: Deadline to release software is May 1st how is the USPS going to enforce this? Can the USPS define end-user?
- Answer: We will hold the software developer or manufacturer accountable and not provide any extensions or reduced certification fees. An end-user is defined as a vendor, service bureau, or mailer (other than the developer/manufacturer) who uses address-matching software or hardware.
26. Question: Can you verify that the DRS software will not be required to LACS^{Link™} certify because it is only used in MLOCR?
- Answer: LACS^{Link™} will be required for both CASS and MASS customers.
27. Question: How can we get started using Z4Info?
- Answer: Effective 3/31/2006, Z4Info is now being posted weekly (Thursday) at <http://ribbs.usps.gov/files/cass/z4info.zip>.
28. Question: Clarify normalization rules for DPV=N.
- Answer: There is no normalization process in DPV

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29. Question: On testing with LACS^{Link™} – will you continue to have Stage I and Stage II testing?
- Answer: Stage I and Stage II can be requested for LACS^{Link™} Utility. We will continue to post CASS Stage I file on RIBBS at <http://ribbs.usps.gov/files/cass/natlstg1.zip>. The Stage II file can be requested via the Online Ordering screen. CASS testing can be done with live or fake LACS^{Link™} data.
30. Question: When matching to a highrise default, if it does not DPV confirm; is software to code to the DPV confirmed street level match?
- Answer: No; software must return the input address and 5-digit ZIP Code from the ZIP+4. A street level default make is made when you are unable to make your normal match to a highrise default record (due to the fact that the input secondary is incorrect/missing).
31. Question: Please review the DPV footnote codes; e.g., recommend an A2 for coded, but could not return because did not DPV confirm.
- Answer: You can not return the ZIP+4 Code if the primary number did not DPV confirm. Adding an additional footnote code would not be necessary.
32. Question: Please permit a Suite^{Link} utility / stand-alone test.
- Answer: It is under review.
33. Question: Any information on Interface agreement and distribution agreement? What are the plans for data distribution – will the USPS have CASS vendors send like DPV and LACS or subscription directly from USPS by end-users?
- Answer: Users of AMS API must abide by the license agreement. All other developers and manufacturers would supply the data through the CASS certified product.
34. Question: Are there any plans to review and re-iterate the CASS rule on User-Defined drivers must being certified by the client and not permitted to ride on the manufacturer certification?
- Answer: CASS Terms and Conditions for Cycle K reiterate the CASS requirement that all user modifications, such as new drivers or API to an existing CASS certified product must be certified separately by the end-user. End-Users must not incorporate any other processing methods (such as an override switch) into the CASS processing that will alter the intended output for automation discounts. Any modifications to the product void the CASS certification, and if re-certification is not made, mail processed by the changed software will not be eligible for automation discounts.
35. Question: We understand the QSS area of the PS-3553 file has changed. Can there be a confirmation and stated requirement to change to the new the QSS section of the form?
- Answer: Changes made to the 3553 in the current cycle would be required for the next cycle.

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36. Question: Has there been any refinement of the Vanity or Non-mailing City Name issues? Does the USPS see any sense in re-statement of the existing use of non-mailing city name?
- Answer: No
37. Question: Is Z4Info a Hash-table?
- Answer: No, it is a clear text file.
38. Question: Can the Z4Info and EWS files be loaded to an FTP site for automated downloads? If not, can a software vendor load on an FTP site for re-distribution?
- Answer: Both Z4Info and EWS files can be downloaded from <http://ribbs.usps.gov/files/cass>.
39. Question: The diagram on page 6 of the MASS Meeting Minutes shows EWS as a part of ZIP+4 processing. EWS is currently not required for MASS users. Please verify that EWS will NOT be a requirement for MASS vendors/end-users in Cycle L.
- Answer: EWS is not a requirement.
40. Question: Can you clarify what is the expected timeframe to update the DPV/ZIP+4 directories? Currently the ZIP+4 directories data expiration is 105 days. DPV requires monthly updates.
- Answer: For AMS API users – DPV product is distributed bi-monthly, but can be requested monthly for an additional charge. All other users receive monthly updates.