

GUIDANCE ON THE USE OF ITO! WARNINGS AND OBSERVATIONS

Version 4 : 8 June 2009

Version control :

Version 2 issued on 6 June 2008 includes changes in

- **Definitions and Actions of “stop names with illegal capitals” and “stop indicators with illegal capitals”**
- **Definitions and Actions of “stop names with illegal characters” and “stop indicators with illegal characters”**
- **Objective for “stop names with illegal characters”**

Version 3 issued on 22 December 2008 includes definitions for four new tests

- **Stop with bearing missing**
- **Stop with wrong bearing**
- **Stop road unknown**
- **Locality not unique**

In addition “Stop Indicators With Illegal Characters” was corrected to include (and) as illegal characters. And “Locality with Geocode outside” was modified to report this condition correctly for single-stop localities.

Version 4 issued on 8 June 2009 includes definitions for a further six new tests

- **Stops with Wrong Type**
- **Stops In Different Admin Area**
- **Stop with Multiple Road Names**
- **Hail and Ride Invalid**
- **Hail and Ride Section Length**
- **Stop Proximity**

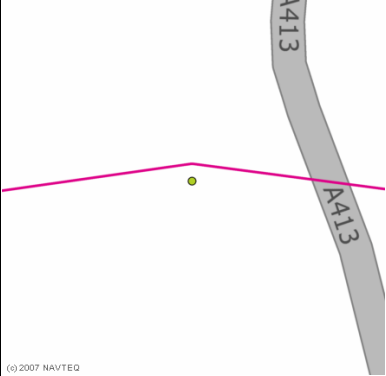
Definitions of the warnings and observations

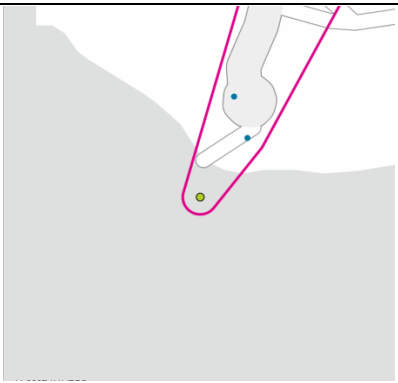
Stop road distance	StopPoint geocode is more than 200 metres from a road.
Stops In Water	StopPoint geocode is more than 50 metres away from land.
Stop Names Containing Locality Name	Stops with CommonNames containing the Locality name. Names containing the following strings are ignored : Academy, Arms, Avenue, Bridge, Centre, Church, Close, Club House, College, Common, Corner, Cottages, Crescent, Cross Roads, Cross, Crossroads, Dock, Drive, Estate, Farm, Ferry, Gardens, Green, Hall, Health Centre, Hill, Hospital, Hotel, House, Hoverport, Industrial Area, Inn, Island, Junction, Landing, Lane, Lodge, Main Street, Manor, Metrolink, Mill, Park, Pier, Place, Post Office, Rail, Railway, Rd, Road, Roundabout, School, Square, Station, Street, Supertram, Terminal, Terrace, Tramlink, Tramway, Turn, Underground, Village, Way
Stop Names Too Long	StopPoint has a full name [Locality, CommonName (Indicator)] that is more than 80 characters in length.
Stop Names With High Risk Words	StopPoint has a CommonName that contains one of the following high risk words: DELETE, DELETED, N/A, N/K, OBSOLETE, UNUSED (case-insensitive).
Stop Names With Illegal Capitals	StopPoint has a CommonName that has at least three capital letters, two of which are adjacent (or are separated by a space). Exceptions are where two capitals immediately follow a digit (assumed to be a postcode) and the following phrases: AFC, ASDA, BBC, BP, CE, DHSS, DLR, FC, GMEX, HMP, HQ, HSBC, II, III, IKEA, IV, IX, MFI, MOD, NCP, NE, NR, NW, PH, PO, RAF, RC, RSPCA, SE, SPT, SW, VI, VII, VIII, WMC, XI, XII, YMCA, YWCA. CommonNames should not contain acronyms as single capitals separated by spaces or full stops – with the exception of ‘R C’, ‘P.H.’, and ‘P.O.’. CommonNames should not contain a sequence of lowercase letter followed by uppercase letter – with the exceptions of 'McX' and 'MacX'.
Stop Names With Illegal Characters	StopPoint has a CommonName that contains one of the following illegal characters: . ? ! [] , / \. Exceptions: O/S, NO. , P.H., P.O., and St. (case-insensitive).
Stops Names With Incorrect Spaces	StopPoint has a text field (CommonName, Indicator, Street, Landmark, Town, Suburb, Locality) with spaces at the start or end, or double spaces in any position. (spaces are replaced with “=” character in the report for clarity).
Stop Names With Repeating Words	StopPoint has a full name [Locality, CommonName (Indicator)] containing three or more occurrences of any single word.

Stop Indicators With High Risk Words	StopPoint has an Indicator that contains one of the following high risk words: DELETE, DELETED, N/A, N/K, OBSOLETE, UNUSED (case-insensitive).
Stop Indicators With Illegal Capitals	StopPoint has an Indicator that contains at least three capital letters, two of which are adjacent (or are separated by a space). Exceptions are where two capitals immediately follow a digit (assumed to be a postcode) and the following phrases: AFC, ASDA, BBC, BP, CE, DHSS, DLR, FC, GMEX, HMP, HQ, HSBC, II, III, IKEA, IV, IX, MFI, MOD, NCP, NE, NR, NW, PH, PO, RAF, RC, RSPCA, SE, SPT, SW, VI, VII, VIII, WMC, XI, XII, YMCA, YWCA. Indicators should not contain acronyms as single capitals separated by spaces or full stops – with the exception of 'R C', 'P.H.' and 'P.O.'. Indicators should not contain a sequence of lowercase letter followed by uppercase letter – with the exceptions of 'McX' and 'MacX'.
Stop Indicators With Illegal Characters	StopPoint has an indicator that contains one of the following illegal characters: . ? ! [] , / \ () Exceptions : O/S, NO., N/A, P.H., P.O., and St. (case-insensitive).
Stops Area Members Without Identical Names	StopArea containing StopPoints that do not have identical CommonNames
Stop Area Members With Different Localities	StopAreas with members that are not all associated with the same Locality
Stops In Different Authority	The AtcoCode prefix for the StopPoint represents an AdminArea other than the one associated with the stop's Locality
Locality with unusual shape	Locality with an unusually elongated shape
Stops in Parent Locality	Locality has StopPoints more than 150 metres inside the outline of a child Locality.
Localities Contained By Non-Parent	Locality encloses more than 90% of another locality which is not its child .
Localities Overlapped	Locality overlaps between 40% and 90% of another locality.
Localities With Identical Stops	Locality contains StopPoints with identical CommonNames and Indicators.

Top Level Localities With Identical Stops	Locality contains StopPoints within child localities with identical CommonNames and Indicators.
Locality with Geocode Outside	Locality has geocode more than 100 metres outside the area bounding stops associated with the Locality.
Unused Locality Near Stops	Locality has no stops or child Localities, but is within 100 metres of a StopPoint associated with a different Locality.
Stops in Alternate Localities	Stops associated with a Locality that is classed as “Alternate” in NPTG.
Exchanges Without Localities	Trunk Exchange Point is not associated with any Localities.
Localities Without Exchanges	Locality is not associated with Trunk Exchange Point.
Stop with bearing missing	The data does not include a value for “bearing” for all BCT stops except those in the FLX (flexible zone) sub-type.
Stops with wrong bearing	The bearing shown in the data does not correspond with the bearing as calculated by reference to the orientation of the road at the location of the stopping point.
Stop Road unknown	The “street” shown in the data does not correspond with the name attached to the road segment to which the stop is snapped in the Navteq mapping data used by Ito.
Locality not unique	The name of the locality with its qualifier (if any) is not unique nationally
Stops with Wrong Type	StopPoint has a 'BCS' Stop Type but is not in a Bus Station StopArea
Stops in Different Admin Area	The AtcoCode prefix for the StopPoint represents an AdminArea which does not correspond with the AdminArea in which the stop is physically situated
Stop with Multiple Road Names	StopPoint has a common name that contains more than one of the following "Road Type" words: ROAD, STREET, AVENUE, GARDENS, LANE, DRIVE, WAY
Hail and Ride Invalid	Hail and Ride Bus Stops that do not have a valid entry, centroid or exit record.
Hail and Ride Section Length	Hail and Ride Bus Stop where total length of section is greater than 1km in length

Stop Proximity	Stop is too close to another stop. Any stops within 4 metres of another stop will flag as a warning. For stops of type BCS this threshold is reduced to 2 metres. Only stops of type BCT, BCS and BCQ are included in this test.
-----------------------	--

Stop road distance	StopPoint geocode is more than 200 metres from a road.
Objective	Stops should normally be adjacent to a public road – and this test seeks to identify those stops which are not. In many cases the warning may be incorrect, because the stop is on a private road not held in the Navteq base maps.
Action	Review the reports and correct the coordinates for those stops which are incorrectly geo-referenced.
Example	 <p><small>© 2007 NAVTEQ</small></p> <p>In this example, the question is whether the stop is in the wrong position or whether the base map is not up to date (and it is, in fact, that the base mapping is not up to date –the stop is in a new development not shown on the map). Had this not been the case, then the coordinates of the stop should have been edited to place it in the correct location – adjacent to the road on which it is situated.</p>

Stops In Water	StopPoint geocode is more than 50 metres away from land.
Objective	One generally reliable test of incorrect coordinates is that a stop appears to be in water – this test identifies any stops which appear to be in an area of water, as identified on Navteq mapping. The 50m buffer avoids most “false negative” reports – but may also conceal some genuine errors that are not reported.
Action	Review each case and make any necessary correction to coordinates. Most examples relate to Ferry ports – where the NaPTAN entries should always be on land.
Example	 <p>In this example, the coordinate of the FTD entry in the database should be corrected to place it on the land rather than in the water.</p>

Stop Names Containing Locality Name	<p>Stops with CommonNames containing the Locality name. Names containing the following strings are ignored :</p> <p>Academy, Arms, Avenue, Bridge, Centre, Church, Close, Club House, College, Common, Corner, Cottages, Crescent, Cross Roads, Cross, Crossroads, Dock, Drive, Estate, Farm, Ferry, Gardens, Green, Hall, Health Centre, Hill, Hospital, Hotel, House, Hoverport, Industrial Area, Inn, Island, Junction, Landing, Lane, Lodge, Main Street, Manor, Metrolink, Mill, Park, Pier, Place, Post Office, Rail, Railway, Rd, Road, Roundabout, School, Square, Station, Street, Supertram, Terminal, Terrace, Tramlink, Tramway, Turn, Underground, Village, Way</p>
Objective	<p>When stop names are presented in public information systems they are generally shown with the locality. If the CommonName also includes the name of the locality, then the result is duplication in the concatenated stopname, which makes the name longer than is necessary. However, there are situations where the name of the stop legitimately will include the locality name – such as “Rugby School” – because “Rugby, School” could refer to any one of many schools, only one of which is “Rugby School”.</p>
Action	<p>Review each example on its merits. Where appropriate remove the locality name – but remember that the resultant stop name must be unique within the highest-order locality (ie: within the Parent or even GrandParent locality where these exist). So in an area such as Milton Keynes, where there are several rail stations – each associated with a different child of Milton Keynes – a stop called “Railway Station” would be ambiguous as there are several possible locations in Milton Keynes ... and the name of the railway station should be included, even if it is the same as the child locality with which that station is associated.</p>

<p>Example</p>	<p>In many cases these will not be errors, such as in the following example :</p> <p>ST_030050440001 Beedon Hill House Locality included in name 'Beedon Hill': Beedon Hill House</p> <p>Beedon Hill House is clearly the correct name for the stop – there is no option not to use “Beedon Hill ...” in that name – so this example is not an error.</p> <p>However</p> <p>ST_030050780001 Bradfield Playing Fields Locality included in name 'Bradfield': Bradfield Playing Fields</p> <p>It would look as if, in this second example, the stop could well be called “Bradfield, Playing Fields” and the word “Bradfield” is redundant at the start of the Common Name – in which case it should be removed.</p>
-----------------------	--

Stop Names Too Long	StopPoint has a full name [Locality, CommonName (Indicator)] that is more than 80 characters in length.
Objective	There is a standard minimum content for the unique identification of stops in downstream systems – which comprises “Locality (without qualifier), Common Name (indicator)” – and for practical reasons it is necessary to limit the length of this concatenation to a maximum of 80 characters. Note that it is expected that the maximum character length for stop names will be reduced progressively over time to 60 characters or even less.
Action	Review the examples and consider where best the reduction in the length of stop names can be achieved. This may involve an edit of the locality name, or the common name – but in a lot of cases the problem lies in the use of inappropriate content for the indicator field. “Indicator” is a qualifier of the “CommonName” and should be brief and to the point ... typical values should be “opp”, “o/s” (possibly followed by a house number), “nr”, “bay 3”, “stop B” – and should work in combination with the CommonName. Indicator values which are longer than these are inappropriate and should be replaced with appropriate short values.
Example	<p>ST_4400CH0285 Chichester High School for Girls Length 82 chars: Chichester, Chichester High School for Girls, opp Chichester High School for Girls</p> <p>In this example there is only one “High School for Girls” in Chichester so it does not need Chichester in the common name – and the indicator should be just “opp” – which results in the much neater and simpler: Chichester, High School for Girls, opp. When making an edit in response to this test, always make sure that the result is less than 60 characters to avoid the problem arising again as the limit is reduced to that level or less.</p>

Stop Names With High Risk Words	StopPoint has a CommonName that contains one of the following high risk words: DELETE, DELETED, N/A, N/K, OBSOLETE, UNUSED (case-insensitive).
Objective	The high risk words are ones that should never appear in a public display – and generally indicate that the database has not been updated correctly.
Action	If the stop is not in use then it should be marked as DELETED in the database (this will exclude it from the Ito! tests). If there is data missing (represented by N/K or N/A) then complete the data as necessary.
Example	<p>ST_3200YNA04865 Obsolote High risk word 'obsolete' in name: Obsolote</p> <p>Restore the appropriate common name for the stop, and then change its modification to DELETED if the stop is no longer available for use.</p>

Stop Names With Illegal Capitals	StopPoint has a CommonName that has at least three capital letters, two of which are adjacent (or are separated by a space). Exceptions are where two capitals immediately follow a digit (assumed to be a postcode) and the following phrases: HMP, PO, PH, RAF, FC, RC, CE, HQ, SW, SE, NW, NE, HSBC, ASDA, YMCA, YWCA, RSPCA, NCP, MFI, IKEA, DHSS, MOD, BBC, DLR, NR, II, III, IV, VI, VII, VIII, IX, XI, XII, GMEX, SPT, AFC, WMC, RSPCA, BP. CommonNames should not contain acronyms as single capitals separated by spaces or full stops – with the exception of ‘R C’, ‘P.O’. and ‘P.H.’. CommonNames should not contain a sequence of lowercase letter followed by uppercase letter – with the exceptions of 'McX' and 'MacX'.
Objective	The Stop Names are used extensively in public facing information systems – and Title Case characters are more easily readable in all media. The standard, therefore, requires all names in the database to be in Title Case. The test identifies situations where this may not be the case – but will include some examples which are correct.
Action	Review all examples and make the appropriate changes to the database entries. Where this is an observation which applies to large numbers of entries within a single database, seek advice from database system suppliers or local IT specialists about ways in which a bulk-change routine can be applied to your whole database to remove the problems without manual intervention – but note that this may generate some inappropriate conversions which will need to be reversed. Although R C, P.O. and P.H. have been excluded from this test, the preferred format for these are RC, PO, and PH (without full stops or spaces).
Example	Some examples will be perfectly valid : ST_0380D209K203 TRL Main Gate Name in capitals: TRL Main Gate The above refers to the Transport Research Laboratory, well known as TRL, and therefore should remain unchanged. But other examples should be corrected : <div>ST_1800AMIC0G1 ALTRINCHAM INTERCHANGE STAND G</div> <div>Name in capitals: ALTRINCHAM INTERCHANGE STAND G</div> This should be “Altrincham Interchange” – or even just “Interchange” (and “Stand G” should be an indicator, not in the Common Name)

Stop Names With Illegal Characters	StopPoint has a CommonName that contains one of the following illegal characters: . ? ! [] , / \. Exceptions: O/S, NO. , P.H., P.O., and St. (case-insensitive).
Objective	The characters in this test should not be used in stop indicators. They are not currently excluded by the XML validation because there are too many of them – but the guidance indicates that they should not be used.
Action	Edit the data to remove the offending characters in whatever way is appropriate in each case. Note that the preferred format of P.H., P.O. and St. is without spaces or punctuation (PH, PO, St).
Example	<p>ST_0380D455G564 Beehive Road / London Road Illegal character in name '/': Beehive Road / London Road Beehive Road / London Road</p> <p>Probably the most common problem is the use of / or other separators between two elements in a common name. The NaPTAN guidance asks for all stop names to be “simple” and not “compound” – and should be based normally on a landmark or cross-street near the stop, or (if the road is short and only has one set of stops on it) the name of the street on which the stop is located. Two-part names such as this one should be revised to be a single simple name – in this case the cross-street near the stop is Beehive Road, and this should be used as the CommonName. The indicator almost certainly also needs to be reviewed when a CommonName is changed – in this case it would be changed to “opp” and “nr” respectively for the two stop points involved.</p>

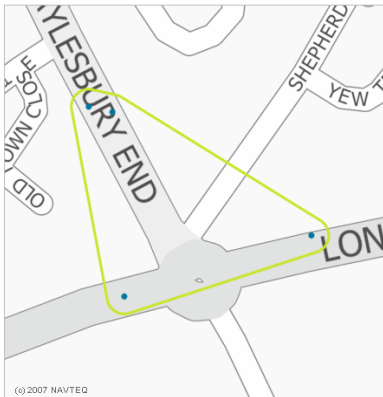
Stops Names With Incorrect Spaces	StopPoint has a text field (CommonName, Indicator, Street, Landmark, Town, Suburb, Locality) with spaces at the start or end, or double spaces in any position. (spaces are replaced with “=” character in the report for clarity).
Objective	To ensure that the data is clean when it is presented and searched. Additional spaces not only make the presentation of the data look odd, but they can also prevent search engines find the string that may have been asked for.
Action	Correct the errors listed by making sure there is no prefix space, no following space after the final word, and no extra spaces between words
Example	<div> ST_150033028003 Fuchsia Avenue Name contains double space: Fuchsia==Avenue ... remove the extra space! </div> <div> ST_340000044G War Memorial Name ends with a space: War=Memorial= ... remove the space after the word “Memorial” </div>

Stop Names With Repeating Words	StopPoint has a full name [Locality, CommonName (Indicator)] containing three or more occurrences of any single word.
Objective	There is a standard minimum content for the unique identification of stops in downstream systems – which comprises “Locality (without qualifier), Common Name (indicator)”. Downstream systems using the data do not want unnecessary duplication of words within this formulation of stop names (on timetables, for instance) ... this test identifies situations in which the same word appears three or more times in the concatenated stopname.
Action	Review the examples and consider how the duplication appears in the stop names can be avoided. This may involve an edit of the locality name, or the common name. There are two very common causes of repetition – unnecessary inclusion of the locality name within the CommonName, or the use of inappropriate content for the indicator field. “Indicator” is a qualifier of the “CommonName” and should be brief and to the point ... typical values should be “opp”, “o/s” (possibly followed by a house number), “nr”, “bay 3”, “stop B” – and should work in combination with the CommonName. Indicator values which are longer than these are inappropriate and should be replaced with appropriate short values.
Example	<p>ST_4400AD0056 Lancing Business Pk Word 'Lancing' repeated 3 times in: Lancing Lancing Business Pk o/s Lancing Business Park</p> <p>In this example it is probably necessary to retain “Lancing” in “Lancing Business Pk” – but the indicator only needs to be “o/s”.</p> <p>ST_4400CH0051 Sidlesham Primary School Word 'Sidlesham' repeated 3 times in: Sidlesham Sidlesham Primary School adj Sidlesham Primary School</p> <p>In this example, there is only one Primary School in Sidlesham so the common name should be changed to “Primary School” and the indicator to “adj”, leaving the stop name reduced to Sidlesham, Primary School, adj</p>

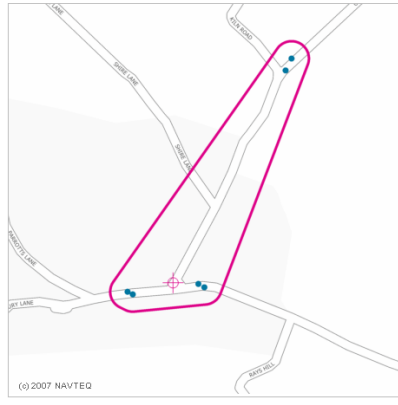
Stop Indicators With High Risk Words	StopPoint has an Indicator that contains one of the following high risk words: DELETE, DELETED, N/A, N/K, OBSOLETE, UNUSED (case-insensitive).
Objective	The high risk words are ones that should never appear in a public display – and generally indicate that the database has not been updated correctly.
Action	If the stop is not in use then it should be marked as DELETED in the database (this will exclude it from the Ito! tests). If there is data missing (represented by N/K or N/A) then complete the data as necessary.
Example	Self-explanatory from the definition of this test.


Stop Indicators With Illegal Capitals	<p>StopPoint has an Indicator that contains at least three capital letters, two of which are adjacent (or are separated by a space). Exceptions are where two capitals immediately follow a digit (assumed to be a postcode) and the following phrases: AFC, ASDA, BBC, BP, CE, DHSS, DLR, FC, GMEX, HMP, HQ, HSBC, II, III, IKEA, IV, IX, MFI, MOD, NCP, NE, NR, NW, PH, PO, RAF, RC, RSPCA, SE, SPT, SW, VI, VII, VIII, WMC, XI, XII, YMCA, YWCA.</p> <p>Indicators should not contain acronyms as single capitals separated by spaces or full stops – with the exception of ‘R C’, ‘P.H.’ and ‘P.O.’.</p> <p>Indicators should not contain a sequence of lowercase letter followed by uppercase letter – with the exceptions of 'McX' and 'MacX'.</p>
Objective	<p>Indicators are used extensively in public facing information systems – and lower-case or Title Case characters are more easily readable in all media. The standard, therefore, requires all names in the database to be in lower-case or Title Case. The test identifies situations where there are more Capital letters than may be reasonable – but will include some examples which are correct.</p>
Action	<p>Review all examples and make the appropriate changes to the database entries. Where this is an observation which applies to large numbers of entries within a single database, seek advice from database system suppliers or local IT specialists about ways in which a bulk-change routine can be applied to your whole database to remove the problems without manual intervention – but note that this may generate some inappropriate conversions which will need to be reversed. Although R C, P.O. and P.H. have been excluded from this test, the preferred format for these are RC, PO, and PH (without full stops or spaces).</p>
Example	<p>ST_035081320001 Bradmore Way Indicator in capitals: Bus stop labelled SETTING DOWN ONLY</p> <p>This indicator, if appropriate, should be in lower case text. However the specific text itself should be questioned as the usage of a stop is something that should be given in the timetable data and not normally in the indicator value of its record in NaPTAN.</p>

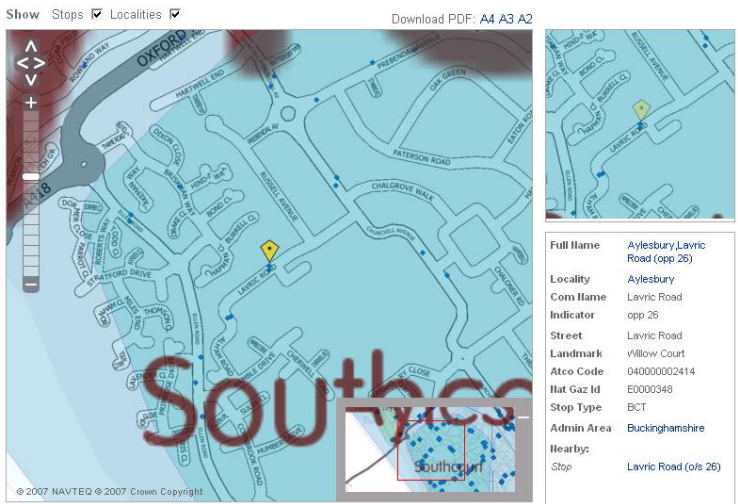
Stop Indicators With Illegal Characters	<p>StopPoint has an indicator that contains one of the following illegal characters: . ? ! [] , / \ ()</p> <p>Exceptions : O/S, NO., N/A, P.H., P.O., and St. (case-insensitive).</p>
Objective	The characters in this test should not be used in stop indicators. They are not currently excluded by the XML validation because there are too many of them – but the guidance indicates that they should not be used.
Action	Edit the data to remove the offending characters in whatever way is appropriate in each case. Note that the preferred format of P.H., P.O. and St. is without spaces or punctuation (PH, PO, St).
Example	<p>ST_240098565 Target Firs Illegal character in indicator '/': o/s No 37/39</p> <p>Not an error – but might be better to use only a single house number (and also remove “No”), so change this to “o/s 37”</p> <p>ST_2400A001640A Ashford Road Gyratory Illegal character in indicator '\': O\S Haynes Garage</p> <p>The back slash is not allowed – change to “o/s”</p> <p>ST_035075340001 Oxford Road Illegal character in indicator '/': Adj metal/concrete fence</p> <p>The use of slash (/) as a separator is not allowed – but is this a relevant “indicator” anyway? A fundamental change in the value of the indicator is required for this stop.</p>

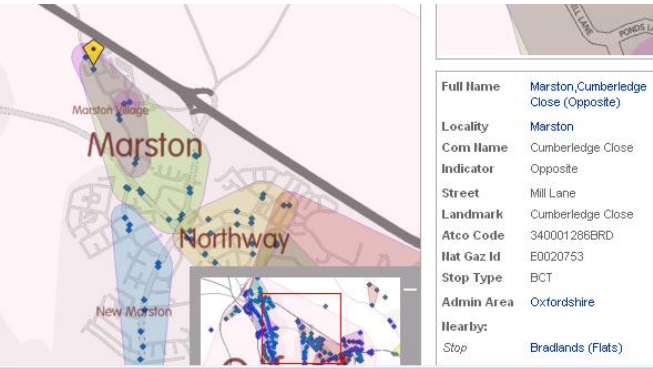
Stops Area Members Without Identical Names	StopArea containing StopPoints that do not have identical CommonNames
Objective	The CommonName of stops within a single stoparea should be the same as each other (and the same as the name of the stoparea) wherever possible. This test identifies examples where the stopnames are not identical. At present this test does not identify cases where the stoparea name is different from any one or more of the individual stop's CommonName – but this may be added.
Action	Review the evidence in each case and determine what the shared CommonName (and name of stoparea) should be – and amend those records which are not consistent with this. Remember that the CommonName chosen must be unique within the (parent) locality associated with the stop.
Example	<p>SA_00374201 The Saracen's Head PH</p> <p>Stop area stops with non-identical names: The Saracen's Head PH and Aylesbury End</p> <hr/> <p>stop area</p> <p>Name The Saracen's Head PH Containing Aylesbury End (Stop G) Aylesbury End (Stop H) The Saracen's Head PH (Stop J) The Saracen's Head PH (Stop K)</p>  <p>In this example the report refers to two pairs of stops which are in a single stoparea. The preferred method of handling this is to create two stopareas, one for each pair of stops – and then a “super-group” record to contain the two stopareas – and the super-group can have an arbitrary name (which may be one or other of the stoparea names – but could be completely different).</p>


Stops Area Members With Different Localities	StopAreas with members that are not all associated with the same Locality
Objective	It is good practice for all stops within a stoparea to be associated with the same locality – this test shows those which do not comply with this requirement.
Action	<p>Review the locality association of all stops within the stopareas that have been listed and edit these so that they are all associated with the same appropriate locality.</p> <p>If the observation concerns a “national” data item which is considered to be in the wrong locality, then e-mail Transport Direct (TDPortal.Feedback@dft.gsi.gov.uk) with details to agree the change before implementing any changes locally.</p>
Example	<p>SA_00447609 The Maypole Stop area stops with different localities: The Maypole and The Maypole</p> <p>Clicking the link to each of the listed stop points gives the details for each – check the location to make sure they should be in one stoparea, and confirm which locality association should be changed so that they are both in the same locality.</p>

Stops In Different Authority	The AtcoCode prefix for the StopPoint represents an AdminArea other than the one associated with the stop's Locality
Objective	This test highlights those stops which are associated with a locality that is itself not in the same administrative area. This is often not wrong – but in some cases it indicates a stop that is incorrectly located, or associated with the wrong locality.
Action	Check each example and confirm that each represents a stop close to the boundary of your authority's area – and consider whether the locality association with each stop is reasonable, even if it is with a locality that is in the adjacent admin area. Check that the coordinates of the stop are right, and correct them if not. The adminarea boundary can be toggled to display on the ItoBrowser map.
Example	 <p>The County Boundary in this example (not currently shown) goes across the middle of the locality. The stops logically would all be considered by the public to be part of the same locality – it's just that the two at the top of the bounded area are in a different admin area from the core of the locality. No change is required.</p>

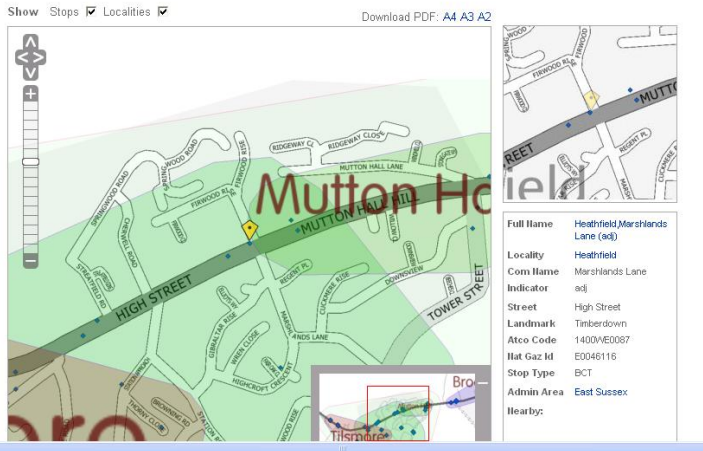
Locality with unusual shape	Locality with an unusually elongated shape
Objective	There is no objective way of describing the area of each locality in NPTG, so this test is based on each locality being described by an area bounding all of the stops that are associated with it. The shape of the bounding area can indicate where a stop may be associated incorrectly with a particular locality, as the shape of that locality's bounding area is distended.
Action	Typically this test highlights localities which have a long thin shape, often going almost to a point. This generally gives a clue about the offending stop, as it is likely to be the one that has created the pointed shape – and this should be confirmed by the list of stops in the locality concerned. Correct the locality association of the offending stop.
Example	 <p>In this case it is necessary to correct the locality associated with the highlighted stop at the top of the elongated locality – the stops at the bottom are in the correct locality.</p>

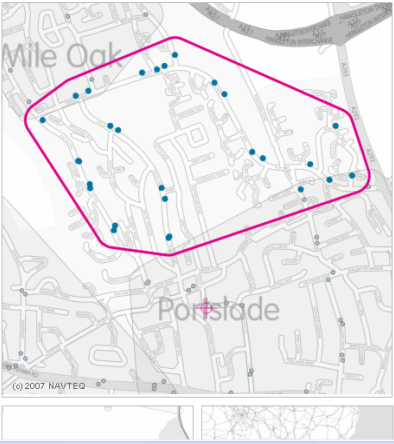
Stops in Parent Locality	Locality has StopPoints more than 150 metres inside the outline of a child Locality.
Objective	Consistent allocation of stops to localities is important in some gazetteer searches. This test identifies situations in which a stop is apparently associated with a parent locality rather than a more “local” child locality that is a child of that parent locality. The 150m buffer around the area seeks to reduce “false negatives” – but of course will also hide some “real negatives”.
Action	Review the reported locations. Be careful – the report MAY indicate that the boundary of the locality suggested is incorrect because an inappropriate stop has been associated with the locality .. so make sure any change of locality association is appropriate (and follow up any other issue that you become aware of that needs attention). Also consider whether the child locality suggested is one which should exist at all ... does it meet the criteria for a locality to be included in NPTG? If not, then review and amend all stops that are associated with that locality – once the locality has no associated stops (and only once that it the case in the database at Thales) then the unwanted locality can be made inactive in NPTG. (note : stops which have the Modification attribute of DELETED will also have to be moved to a different locality before the locality can be made inactive).
Example	<div data-bbox="411 1182 1152 1684">  <p>Full Name: Aylesbury, Lavric Road (opp 26) Locality: Aylesbury Com Name: Lavric Road Indicator: opp 26 Street: Lavric Road Landmark: Willow Court Atco Code: 04000002414 Nat Gaz Id: E0000348 Stop Type: BCT Admin Area: Buckinghamshire Nearby: Stop: Lavric Road (ols 26)</p> </div> <p>In this example the highlighted stop is clearly in the middle of the “Southcourt” area – and apparently should be associated with that locality rather than the parent locality of “Aylesbury”. The locality association should be changed. Reviewing adjacent stops shows that there are three other stops that need to be changed – two of which are not reported by Ito! because they are in the 150m “buffer” at the edge of Southcourt.</p>

Localities Contained By Non-Parent	Locality encloses more than 90% of another locality which is not its child .
Objective	Generally a locality should not overlap another locality – but the way that the boundaries are created in Ito! (by putting a band around the stops which are on the edge of the locality shape) may ignore quite logical indentations in locality boundaries. This test alerts editors to situations in which there is a very significant overlap (more than 90% of a non-child locality lies within the boundary of another locality).
Action	Careful review of the evidence is required with these reports as they may indicate a natural boundary which cannot be represented on the Ito! system ... or they may indicate that the boundary of one or other of the localities is distorted by a stop being incorrectly allocated to the locality. But the test may indicate that there should be a parent/child relationship between the two localities – or that some stops are incorrectly associated with one of the two localities.
Example	<p>Encloses 93% of LO_E0020753 Marston Marston Village but is not a parent</p>  <p>The highlighted stop is associated with the locality “Marston” rather than “Marston Village” – should there be two localities here, or just one called “Marston”? If there should be two, then the highlighted stop should be associated with “Marston Village”.</p>

Localities Overlapped	Locality overlaps between 40% and 90% of another locality.
Objective	Generally a locality should not overlap another locality – but the way that the boundaries are created in Ito! (by putting a band around the stops which are on the edge of the locality shape) may ignore quite logical indentations in locality boundaries. This test alerts editors to situations in which there is a significant overlap (more than 40% of a non-child locality lies within the boundary of another locality).
Action	Careful review of the evidence is required with these reports as they may indicate a natural boundary which cannot be represented on the Ito! system ... or they may indicate that the boundary of one or other of the localities is distorted by a stop being incorrectly allocated to the locality. But the test may indicate that there should be a parent/child relationship between the two localities – or that some stops are incorrectly associated with one of the two localities.
Example	 <p>The locality associations of all three stops which are associated with this locality should be reviewed as all of them appear to be adjacent to stops in other localities – and the marked Centre of Locality (for Woodend) lies significantly outside the boundary based on the locations of the stops associated with it (but with other stops nearer). A careful review of data in this area is necessary before actions can be decided.</p>

Localities With Identical Stops	Locality contains StopPoints with identical CommonNames and Indicators.
Objective	Each stoppoint within a locality should have a unique name based on the combination of “CommonName” and “indicator”. This test identifies situations where two or more stops have the same CommonName and Indicator – and therefore they are not unique
Action	Review each example to establish where the problem lies. Either modify the CommonName of one or more of the stops (if the stops are not in a stoparea with matching CommonNames) ... or modify the Indicator of one or more of the stops to give a unique value for each stop point.
Example	<p>LO_E0051803 Limpsfield Stops with identical names and indicators: Limpsfield School [Opp]</p> <p>It would appear that there are two stops at this location which are opposite Limpsfield School – local knowledge is needed to consider how best to revise the data (a change in the CommonName of one of them, or a change in the indicator value) to make each stop unique when referenced by common name and indicator within the locality of Limpsfield (and within any parent of Limpsfield, if one exists).</p>

Top Level Localities With Identical Stops	Locality contains StopPoints within child localities with identical CommonNames and Indicators.
Objective	Maintaining unique stop names within a single locality is relatively easy – but it is also easy to miss the fact that the same name is already in use in another child locality of the same parent. In an area such as Milton Keynes, where there are several rail stations – each associated with a different child of Milton Keynes – a stop called “Railway Station” would be ambiguous as there are several possible locations in Milton Keynes.
Action	Where two or more stops with the same CommonName are identified within a single parent locality, then those CommonNames should be edited so that the stops in each relevant stoparea have different names (the stoppoints in a stoparea are expected to have the same names as each other, and these are not reported as an error – they should be differentiated by separate indicators for each stop point. It is possible that this test will identify stops that should be associated with the same child locality but are not – in which case amend the locality association as necessary.
Example	 <p>The marked stop is one of four called “Marshlands Lane” – two with indicator “opp” and two “adj”. The ones east of the marked one are in the locality of Mutton Hall – whereas the marked one (and its pair) is in Heathfield, which is also the parent of Mutton Hall. One or other of these pairs of stops needs to be renamed.</p>

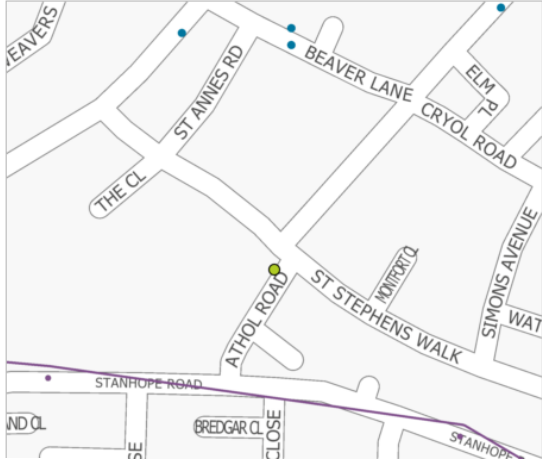
Locality with Geocode Outside	Locality has geocode more than 100 metres outside the area bounding stops associated with the Locality.
Objective	To ensure that the representation of each locality is in the appropriate geographic location, this test highlights the situation where the centre of a locality (taken from NPTG) lies outside the area defined by the bus stops associated with that locality. NOTE : the boundary with which the comparison is being made is formed by the straight lines joining the stops on the extremity of the locality – and this boundary falls inside the boundary that is visualised on the maps. So centres which are a few metres outside the boundary according to the test may appear to be within the boundary on the map display.
Action	<p>Review each of the reports. In many rural areas in particular there will be circumstances in which this test will report an error, but where inspection of the data shows that the stops for a village are on the main road to the edge of the village ... so the Centre of Locality in NPTG naturally falls well outside the bounding area of the locality's stops. Do not make changes unless there is a clear error. The Centre of a Locality should be</p> <ul style="list-style-type: none"> • Near the commercial centre of the locality • On a road accessible to all forms of transport • As close as is reasonable to the public transport stops serving the centre of the locality
Example	<p>locality</p> <p>Name Portslade Village</p> <p>Stops Brasslands Drive (Mile Oak Road - NW) Brasslands Drive (Mile Oak Road - S) Bush Cottage Close (Fox Way - NW) Chalky Road (Community Centre) Community Centre (Chalky Road - W) Drove Crescent (Valley Road - NW) Drove Crescent (Valley Road - SE) Edgehill Way (Mile Oak Road - NW) Edgehill Way (Mile Oak Road - S) Foredown Road (Anvil Close) Henge Way (Fox Way - NW) Henge Way (Fox Way - SE) Hole in the Wall (Mile Oak Road - NW) Langridge Drive (Fox Way - NW) Langridge Drive (Fox Way - SE) New Barn Close (Fox Way - SE) Portslade Community College (Chalky Road - E) Portslade Community College (Chalky Road - W) Sycamore Close (Bush Farm Drive - NW) The Rise (Mile Oak Road - NW) The Rise (Mile Oak Road - S) Thornhill Rise (Chalky Road - W) Thornhill Rise (Chalky Road) Valley Road Shops (Valley Road - NW) Valley Road Shops (Valley Road - SE) Warrior Close (Fox Way - SE) Wickhurst Road (Valley Road - NW) Wickhurst Road (Valley Road - SE)</p> <p>Nat Gaz Id E0035538</p>  <p>The bounded area in this example is “Portslade Village” but its Centre of Locality is marked well outside the area in which stops are associated with this locality – and appears to have been confused with Portslade. The Centre of Locality in this case should be moved to a point within the bounded area that meets the criteria – which would appear to be on Chalky Road (where the Community Centre and Community College are located).</p>

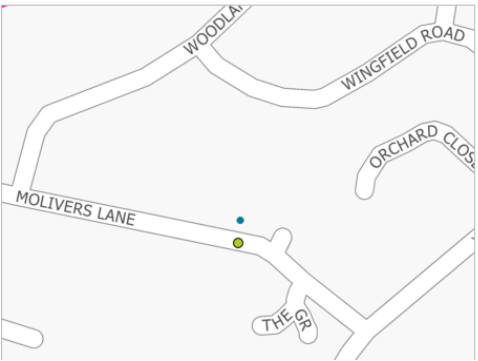
Unused Locality Near Stops	Locality has no stops or child Localities, but is within 100 metres of a StopPoint associated with a different Locality.
Objective	NPTG contains a large number of localities which are not associated with bus stops. Not all of these localities are inappropriate because NPTG must include ALL localities which are relevant for journey planning, whether or not they have bus stops in them – remember NPTG is also used for car journey planning, too. But NPTG does include some localities which do not meet the requirement of being “a place which someone would refer to when they are asked by a stranger where they live or work”.
Action	Consider these reports carefully. Does the locality which currently have no stops associated with it deserve to be in NPTG? If not, seek to make it inactive in NPTG. But if it does deserve to exist, consider whether the stop(s) identified as nearer this locality than the one with which they are already associated should be associated with the currently unused locality. Then check whether there are other stops in the neighbourhood which also should be associated with the previously unused locality. If the previously unused locality is not already a child of another locality, should the parent/child relationship be established in NPTG – this is ONLY appropriate if the previously unused locality is geographically contained by the proposed “parent” locality ... proximity is not a reason for a parent/child relationship.
Example	<p>The highlighted stop is associated with the locality of “Brook” (the larger darker green area) – but there is a locality of “Brook Chine” (the smaller lighter green area) covering the stops. In this case it would be suggested that “Brook Chine” is an unnecessary locality and should be deleted from NPTG.</p>

Stops in Alternate Localities	Stops associated with a Locality that is classed as “Alternate” in NPTG.
Objective	An alternate locality is intended only to be an alternative way of searching for the main locality – and all stops should have a primary association only with the main locality and not with its alternate.
Action	Change the locality association for the affected stops so that they are associated with the main locality and not its alternate.
Example	Details awaited

Exchanges Without Localities	Trunk Exchange Point is not associated with any Localities.
Localities Without Exchanges	Locality is not associated with Trunk Exchange Point.
Objective	These two tests are designed for use only by Transport Direct in relation to the way that JourneyWeb seamlessly links solutions from different regional journey planners.


Stop with bearing missing	The data does not include a value for “bearing” for all BCT stops except those in the FLX (flexible zone) sub-type.
Objective	The bearing is information that can be useful for display to the public and can also help to validate other data in the stop record. The objective is to have a value which is credible – but a tolerance of 22.5deg is allowed either side of the “precise” bearing.
Action	Add the correct bearing value for all relevant stops which do not have this already in the data
Example	There are no examples in the data at present – but the tests currently do not include HAR stops for which the bearing (at the centroid stop) is missing in many areas.

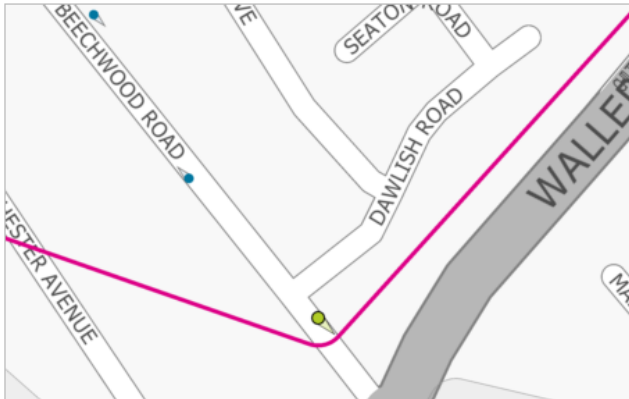
Stops with wrong bearing	The bearing shown in the data does not correspond with the bearing as calculated by reference to the orientation of the road at the location of the stopping point.				
Objective	The bearing is information that can be useful for display to the public and can also help to validate other data in the stop record. The objective is to have a value which is credible – but the test allows a tolerance of 22.5deg either side of the “appropriate” 8-point compass bearing.				
Action	Review each case by looking at the map browser and/or satellite map imagery to consider whether the error is in the bearing in NaPTAN , or in the way in which the Navteq cartography may have distorted the representation of the bearing of the road link.				
Example	<div> <div> <div>bus stop Watch</div> <div> <div>Full Name</div> <div>Ashford South, Athol Road (To Stanhope)</div> </div> <div> <div>Location</div> <div>599682, 141115</div> </div> <div> <div>Locality</div> <div>Ashford South</div> </div> <div> <div>Common Name</div> <div>Athol Road</div> </div> <div> <div>Indicator</div> <div>To Stanhope</div> </div> <div> <div>Stop Area</div> <div>Athol Rd</div> </div> <div> <div>Street</div> <div>Cryal Ln</div> </div> <div> <div>Landmark</div> <div>2400A026430A</div> </div> <div> <div>Atco Code</div> <div>E0014497</div> </div> <div> <div>Stop Type</div> <div>BCT - MKD</div> </div> <div> <div>Admin Area</div> <div>Kent</div> </div> <div> <div>Road Link</div> <div>ATHOL ROAD</div> </div> <div> <div>Road Distance</div> <div>8.6m</div> </div> <div> <div>Bearing</div> <div>E</div> </div> </div> <div>  </div> </div> <div> <div>live warnings</div> <table> <tr> <th>Test</th><th>Description</th></tr> <tr> <td>Stop with Wrong Bearing</td><td>Stop Bearing of E not calculated bearings of NE or SW (Calculated bearing 32 degrees)</td></tr> </table> <p>The bearing of the highlighted stop on the map is clearly north of north-east – yet the value in NaPTAN is “E” ... it should be changed to “NE” as indicated in the warning.</p> </div>	Test	Description	Stop with Wrong Bearing	Stop Bearing of E not calculated bearings of NE or SW (Calculated bearing 32 degrees)
Test	Description				
Stop with Wrong Bearing	Stop Bearing of E not calculated bearings of NE or SW (Calculated bearing 32 degrees)				

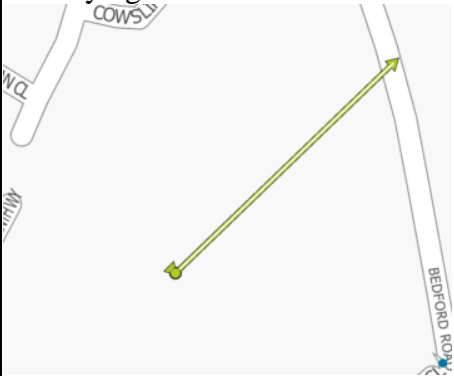
Stop Road unknown	The “street” shown in the data does not correspond with the name attached to the road segment to which the stop is snapped in the Navteq mapping data used by Ito.
Objective	The “street” on which a stop is located is important for the traveller, and is shown in many journey planner outputs. The objective is to ensure that the name given in NaPTAN is correct.
Action	Review the warnings. Many of the examples listed will refer to roads which are not named in the Navteq mapping database – and if those names are correct (or at least appropriate), then the warning should be suppressed. Many roads in the Navteq database are referenced only by their road classification number (A or B road number) – whereas with local knowledge you may be able to use the real name of the street if so, check that NaPTAN refers to the real street name (and correct it if necessary) – and then suppress the warning if this name will not match the name in Navteq.
Example	<div> <div> <p>Full Name Bromham, Mollivers Lane (W-bound)</p> <p>Location 500826, 251416</p> <p>Locality Bromham</p> <p>Common Name Mollivers Lane</p> <p>Indicator W-bound</p> <p>Stop Area</p> <p>Street Mollivers Lane</p> <p>Atco Code 020037401</p> <p>Nat Gaz Id E0043622</p> <p>Stop Type BCT - CUS</p> <p>Admin Area Bedfordshire</p> <p>Road Link MOLIVERS LANE</p> <p>Road Distance 1.4m</p> <p>Bearing W</p> </div> <div>  </div> </div> <p>The “street” in NaPTAN is shown as “Mollivers Lane” – whilst the Navteq map shows that the spelling should be “Molivers Lane”. If you are unsure, check against Google Maps, or Multimap, or any of the other “view” options on the Ito system. In this case the “street” should be corrected by changing its spelling.</p>


Locality not unique	The name of the locality with its qualifier (if any) is not unique nationally
Objective	To ensure that a search for a locality based on the National Gazetteer (NPTG) will differentiate between localities that may be identically named, by applying an appropriate qualifier to each ambiguous entry.
Action	Ensure that the appropriate qualifier is added to a locality which is ambiguous (generally this action should be undertaken by Thales on behalf of DfT, who will qualify any ambiguous entries they become aware of).
Example	There are no examples to show at present.

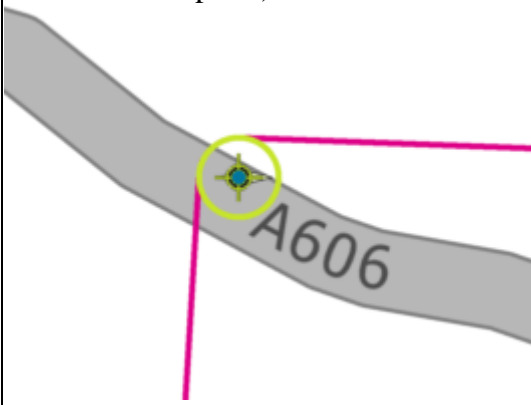
Stops with Wrong Type	StopPoint has a 'BCS' Stop Type but is not in a Bus Station StopArea
Objective	To ensure consistency with the schema, stops of type BCS should be in a stoparea of type GBCS. The test does not show an error for BCS stops which are not in any stoparea.
Action	Review whether the stoptype is correct and change it from BCS if this is not correct (in many NaPTAN editors this will require marking the existing stop as DELETED and the creation of a new stop record with new AtcoCode and NaptanCode values). If the stop is type BCS, then review the stoparea type and correct it to GBCS (again this may require marking the existing stoparea as DELETED and creating a new one)
Example	<p>There are two main circumstances in which this appears. The first is where the stop is in an inappropriate type of stoparea – as in the examples below. A BCS should always be in a GBCS stoparea. So these two stops probably should be of stop type BCT (which can be in a stoparea type GPBS)</p> <p>Cross Street Stop Type of "BCS" associated with a Stop Area of Type "GPBS"</p> <p>Cross Street Stop Type of "BCS" associated with a Stop Area of Type "GPBS"</p> <p>The other type is</p> <p>Burns Close Stop Type of "BCS" but not associated with a Stop Area</p> <p>Bus Shelter Stop Type of "BCS" but not associated with a Stop Area</p> <p>Whilst a BCS must be a stop in a bus station it does not have to be in an explicit stoparea within NaPTAN. However these two examples are almost certainly cases where the stoptype should be BCT and not BCS as they do not appear to be stops in any bus station.</p>

Stops in Different Admin Area	The AtcoCode prefix for the StopPoint represents an AdminArea which does not correspond with the AdminArea in which the stop is physically situated
Objective	To ensure that the ownership of stops is correctly shown in the coding of the stops by referencing the appropriate authority that “owns” the stop. Stops immediately adjacent to a boundary may be “owned” by the adjacent authority – normally on the basis that the road itself is maintained by that authority; this allows pairs or clusters of stops which straddle an adminarea boundary to be in the ownership of one authority.
Action	Review the location of the stop and its relationship with the authority’s boundary (if the two are in close proximity) or check the coordinates of the stop if they should not be close to the authority’s boundary
Example	<p>With the warning</p> <p>March Road Stop physically located in authority "Cambridgeshire" but in authority "Norfolk"</p> <p>You need to click the stop name and then go to the ItoBrowser – and click “boundaries” in the top menu bar to show the different local authority areas in separate colours. This example shows a pair of stops on the boundary – one of which is “over” the boundary. But it is logical in such cases to hold the pair of stops together in a single authority – associating them both with the authority that maintains the road.</p> 

Stop with Multiple Road Names	StopPoint has a common name that contains more than one of the following "Road Type" words: ROAD, STREET, AVENUE, GARDENS, LANE, DRIVE, WAY
Objective	CommonNames in NaPTAN should be simple and not composite. Most examples of commonnames which include two of the designated words are ones where two road names are used in a composite name, contrary to NaPTAN guidance
Action	Where the warning indicates a composite commonname, then revise the commonname to follow the guidance. Make the same change to all stoppoints in the same stoparea – to comply with the guidance that stops within a stoparea should have the same commonname. And then make sure the indicators for all affected stops are appropriate to go with the new commonname (remember than an indicator qualifies the commonname)
Example	<p> Addington Way Oakley Road More than one "Road Type" word in stop name: Addington Way Oakley Road Addington Way Oakley Road More than one "Road Type" word in stop name: Addington Way Oakley Road Barton Road Grasmere Road More than one "Road Type" word in stop name: Barton Road Grasmere Road Beechwood Road Dawlish Road More than one "Road Type" word in stop name: Beechwood Road Dawlish Road Beechwood Road Dunstable Road More than one "Road Type" word in stop name: Beechwood Road Dunstable Road Beechwood Road Waller Avenue More than one "Road Type" word in stop name: Beechwood Road Waller Avenue Beechwood Road Waller Avenue More than one "Road Type" word in stop name: Beechwood Road Waller Avenue </p> <p>All of these examples are ones where commonnames have been created as a composite of two “road” names – and the names for each stop need to be reviewed and corrected to use the cross-street or landmark as appropriate, with the relevant indicator.</p>  <p>In this example (4th in the list above) the stop should be named “Dawlish Road” and the indicator should be “adj”. The stop data will also show this stop as “on Beechwood Road”.</p>

Hail and Ride Invalid	Hail and Ride Bus Stops that do not have a valid entry, centroid or exit record.
Objective	For a Hail-and-Ride stop to be valid within NaPTAN it should have coordinates for a centroid location in the main stop record, and it should have coordinates for an entry point and an exit point in the separate Hail-and-Ride supplementary record. The warning indicates that one or more of these is either not present or is not valid.
Action	Review and correct the coordinates, or create the supplementary Hail-and-Ride record if it is missing
Example	<p>Circumstances will differ. In the case shown below, it would appear that the HAR section is in an area of new development for which Ito has no underlying road data :</p>  <p>In other cases the problem may be a simple error in coordinates, or the lack of relevant roads on the Navteq base maps used by Ito.</p>

Hail and Ride Section Length	Hail and Ride Bus Stop where total length of section is greater than 1km in length
Objective	Separate Hail-and-Ride sections of route should be defined for each road on which Hail-and-Ride operation takes place – and the length of each section should not exceed 1000m. This warning calculates the distance as being the sum of “entry to centroid” and “centroid to exit” straight-line distances, so can under-estimate the real length. The reason for the 1000m limit is that most journey planners will calculate the journey on the basis of the centroid location – so the 1000m represents a pragmatic limit on the range over which the stop might be relevant.
Action	Check that the coordinates for all three points within the Hail-and-Ride section are appropriate – making sure that the entry and exit coordinates are a short distance from road junctions for safety. If correcting these does not reduce the length below 1000m, then consider how best to split the stop into two or more sections which are each below 1000m
Example	<div> <div> <h3>hail and ride bus stop <small>Watch</small></h3> <p>Full Name Mountsorrel, Walton Way (adj)</p> <p>Location 457646, 313842</p> <p>Locality Mountsorrel</p> <p>Common Name Walton Way</p> <p>Indicator adj</p> <p>Stop Area Walton Way Mountsorrel</p> <p>Street Walton Way</p> <p>Landmark Halstead Road & Mountsorrel Road</p> <p>Atco Code 260007527</p> <p>Nat Gaz Id E0047619</p> <p>Stop Type BCT - HAR</p> <p>NaPTAN Code leidwdpw</p> <p>Admin Area Leicestershire</p> <p>Road Link WALTON WAY</p> <p>Road Distance 6.7m</p> <p>Bearing SE</p> <p>HAR Start 457526, 314259</p> <p>HAR End 458288, 313809</p> <p>live warnings</p> </div> <div>  </div> </div> <p>The total length of this HAR stop is shown on the warning as Walton Way Hail and Ride Section Length too long (1237 metres)</p> <p>This stop needs to be split into two parts – at Cross Lane. Careful examination of the map shows that there are two HAR stops in the other direction, separated at Cross Lane.</p>

Stop Proximity	<p>Stop is too close to another stop. Any stops within 4 metres of another stop will flag as a warning.</p> <p>For stops of type BCS this threshold is reduced to 2 metres.</p> <p>Only stops of type BCT, BCS and BCQ are included in this test.</p>
Objective	<p>Each stoppoint should be physically separate. So stops across the road from each other or adjacent to each other would be expected to be at least 4m apart (but this is reduced in the case of BCS stops to 2m to allow for the close-spacing of bays in a bus station).</p>
Action	<p>Review and correct the coordinates of one or both stops that are referenced in the warning.</p>
Example	<div> <div> Noel Arms Stop 0.00 metres from Noel Arms </div> <div> Noel Arms Stop 0.00 metres from Noel Arms </div> <p>In this example there are two stops which share the same commonname and which are located with exactly the same coordinates. The map confirms that there are two stops (there are two direction arrows coming from the same point)</p>  <p>The relevant stop's coordinates should be corrected so that it is shown on the south side of the road, heading NW bound (so the bearing of N is also inappropriate for that stop).</p> </div>