Release Notes

TMPA – Traffic Management Plan Automation

Version 1.0.0

13 December 2021

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1 Introduction

1.1 Scope

The release notes detail the capabilities introduced by this release. They also document any known issues or limitations in the product and any administrative instructions that are specific to this release and not recorded elsewhere.

1.2 Purpose of Release

This release is the first release of TMPA and is intended to be a Minimum Viable Product.

1.3 System Requirements

TMPA is accessed securely over the internet via HTTPS. The role *Platform Administrator* (reserved for use by 1Spatial) will create a tenant with a specific subdomain URL upon formal request.

At the time of release, and by way of example, the demonstration environment can be found at:

https://developer1.tmpa-app-demo.1spatial.com/

1.3.1 1Integrate

The version of 1Integrate that it has been tested against is listed below

1Integrate Version	1Integrate Operating System
1Integrate 3.0.1	Not applicable, as 1Integrate is deployed in 1Spatial's Azure cloud instance.

1.3.2 Operating Systems

This version of TMPA – Traffic Management Plan Automation has been tested on the following platforms:

Data Gateway Supported Operating System
Not applicable, as 1Integrate is deployed in 1Spatial's Azure cloud instance.

1.3.3 Web Browsers

This product works with most of the recent versions of Chrome, Firefox and Edge. The specific versions that have been tested for this release are:

Browser
Microsoft Edge 96

Google Chrome 96

Other browsers or versions can be used, but support requests will only be progressed if the issue can be replicated on a supported browser.

Note that TMPA has **not** been tested against Apple Safari.

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2 Release details

2.1 New functionality in this release

This is the first full release.

Intended to be a Minimum Viable Product, this release focuses on:

- Finding and displaying previously generated and accepted traffic management plans
- Generating traffic management plans for low-speed, single-carriageway roads, specifically the "red book" layouts listed in the tables in 2.2. that are green font colour
- Generating PDFs of accepted traffic management plans
- Providing the capability to add and remove and edit a list of organisations created from the SWA Code List
- Providing platform and tenant administrators with tenant and user administration capabilities
- Providing platform and tenant administrators with a dashboard of plans that have been generated and accepted

Intended to be a Minimum Viable Product, this release does not yet provide:

- The ability to identify whether a road is limited to one-way traffic direction
- The ability to generate plans where there are complex road structures (e.g. roundabouts, directly on T-junctions)
- The ability to generate plans for dual carriageways
- The ability to generate plans for "red book" layouts listed in the tables in 2.2. that are purple or red font colour
- Editing capabilities

2.2 Status of "red book" layouts implemented in TMPA

The following tables lists the idealised layouts as presented graphically as a layout in the *Safety at Street Works and Road Works – A Code of Practice*, known generally as the "red book".

Legend of text colours:

Green	Implemented in v1.0
Purple	Planned for next release. Where status is "Determined", it means the logic for identifying the road layout and conditions that require this layout have been determined and the outstanding rules are specifically for generating the required equipment.
Red	Longer term implementation intentions.

2.2.1 Basic layout elements

Layouts and layout elements	Status	Planned release	Notes	A layout in the Red Book?	Red Book page
Basic layout with a works vehicle	Built	v1.0		Layout	21
Information board	Not implemented by rules	v1.1	Requires editing capabilities, not rules	Described	23

2.2.2 Footway and footpath works

Layouts and layout elements	Status	Planned release	Notes	A layout in the Red Book?	Red Book page
Works entirely on the footway	Built	v1.0		Layout	33
Works on footway with pedestrian diversion into carriageway	Built	v1.0		Layout	34
Close area required and advise route and warn of Pedestrian / cycle conflict (Task 5)	Determined	v1.1		?	?
Temporary footway obstruction (Task 8)	Determined	v1.1		Described	32
Footway closure and local diversion (Task 12)	Determined	v1.1		Described	32
Footway closure and pedestrian crossing (Task 13)	Determined	v1.1		Described	33

2.2.3 Carriageway works

Layouts and layout elements	Status	Planned release	Notes	A layout in the Red Book?	Red Book page
Works on single carriageway roads: Works between parked vehicles with a speed limit of 30 mph or less		Backlog	Not in MVP - impossible to code for where parked vehicles might be	Layout	38
Works on single carriageway roads: Works in the centre of a two-way road		Backlog	Not in MVP - unless time allows, this is quite complex so will be deferred to post-MVP	Layout	39
Works on dual carriageway roads: Dual carriageway with a speed limit of 40 mph, works in right lane		Backlog	Dual carriageway roads are post-MVP	Layout	41
Works on dual carriageway roads: Dual carriageway with a speed limit of 40 mph, works in left lane		Backlog	Dual carriageway roads are post-MVP	Layout	42
Works at road junctions: At signal-controlled junctions	Built	v1.0		Described	43
Works at road junctions: Works in a side road at a T-junction	Built	v1.0		Layout	44
Works at road junctions: Works in both roads at a T-junction		Backlog	Complex road structures are post-MVP	Layout	45
Works at road junctions: Works on a signal island at a T-junction		Backlog	Complex road structures are post-MVP	Layout	46
Works at roundabouts: Works at the entrance to or exit from a roundabout		Backlog	Complex road structures are post-MVP	Layout	48, 49

Works at roundabouts: Works in the circulatory area of a roundabout		Backlog	Complex road structures are post-MVP	Layout	48, 49
Works at pedestrian, cycle and equestrian crossings: Works obstructing a signal-controlled pedestrian crossing		Backlog	Not in MVP - OS and NSG data does not reliably identify crossings	Layout	51
Works in a bus lane: Works that require diversion into a bus lane	Determined	v1.1		Described	52

2.2.4 Traffic control

Layouts and layout elements	Status	Planned release	Notes	A layout in the Red Book?	Red Book page
Traffic control - Unobstructed widths	Built	v1.0	v1.0 for low-speed single carriageway roads. In longer term backlog for dual carriageways and complex structures on low speed network	Described	52
Traffic control by 'give and take' for roads of 30 mph or less	Built	v1.0	v1.0 for low-speed single-carriageway roads. In longer term backlog for dual carriageways and complex structures on low speed network	Layout	57
Traffic control by priority signs		Backlog		Layout	59
Traffic control by Stop/Go boards	Built	v1.0	v1.0 for low-speed single-carriageway roads. In longer term backlog for dual carriageways and complex structures on low speed network	Layout	61
Traffic control by portable traffic signals	Built	v1.0	v1.0 for low speed single carriageway roads. In longer term backlog for dual carriageways and complex structures on low speed network	Layout	65
Traffic control by speed reduction (including possible use of chicanes)		Backlog	Not in MVP	Described	67
Traffic control by convoy working		Backlog	Not in MVP	Described	68
Traffic control by road closure: Temporary closure of a carriageway to traffic	Determined	v1.1	v1.1 for low speed single-carriageway roads. In longer term backlog for dual carriageways and complex structures on low speed network	Described	70
Traffic control by road closure: Traffic control by one-way traffic flow	Determined	v1.1	v1.1 for low speed single-carriageway roads. In longer term backlog for dual carriageways and	Described	71

Layouts and layout elements	Status	Planned release	Notes	A layout in the Red Book?	Red Book page
			complex structures on low speed network		
Traffic control by road closure: Temporary closure of a footway	Determined	v1.1	v1.1 for low speed single-carriageway roads. In longer term backlog for dual carriageways and complex structures on low speed network	Described	72
Traffic control for temporary obstruction of the carriageway: Traffic control by 'Stop - works' sign	Determined	v1.1	v1.1 for low speed single-carriageway roads. In longer term backlog for dual carriageways and complex structures on low speed network	Described	72
Traffic control for temporary obstruction of the carriageway: Traffic control by 'Temporary obstruction' sign	Determined	v1.1	v1.1 for low speed single-carriageway roads. In longer term backlog for dual carriageways and complex structures on low speed network	Described	73
Narrow Lane Scheme	Built	v1.0	v1.0 for low speed single-carriageway roads. Not yet for dual carriageways and complex structures on low speed network	Described	52, 53
Road Closure	Built	v1.0	v1.0 for low speed single-carriageway roads. Not yet for dual carriageways and complex structures on low speed network	Described	70
Road Closure except certain traffic	Built	v1.0	v1.0 for low speed single-carriageway roads. Not yet for dual carriageways and complex structures on low speed network	Described	70

2.2.5   Tramways and railways

Layouts and layout elements	Status	Planned release	Notes	A layout in the Red Book?	Red Book page
Works next to tramways	Determined	Backlog	Complex road structures are post-MVP. We will not allow works within 200 metres of tramway	Layout	75
Works at a level crossing using Stop/Go boards	Determined	Backlog	Complex road structures are post-MVP. We will not allow works within 200 metres of level crossing	Layout	80

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2.2.6 Mobile works and short-duration works

Layouts and layout elements	Status	Planned release	Notes	A layout in the Red Book?	Red Book page
Mobile works on a single carriageway road		Backlog	Not in MVP	Layout	84
Mobile works on a dual carriageway with a speed limit of 40 mph of less		Backlog	Not in MVP	Layout	85
Short duration stops less than 15 minutes on a single carriageway road	Determined	v1.1		Layout	87
Short duration stops less than 15 minutes on a dual carriageway with a speed limit of 40 mph of less		Backlog	Not in MVP	Layout	88
Short duration stops more than 15 minutes on a single carriageway road	Determined	v1.1		Layout	89
Short duration stops more than 15 minutes on a dual carriageway with a speed limit of 40 mph of less		Backlog	Not in MVP	Layout	90

2.3 Capabilities in this release

This is the list of the JIRA stories, spikes, and tasks completed for this release.

Issue Type	Components	Issue key	Summary
Story	App	TMPA-1004	PDF Generator Microservice
Task	App	TMPA-1097	Always use "StyleProps" when passing arguments into useStyles
Story	App	TMPA-1102	Case insensitive behaviour for user email addresses
Story	App	TMPA-1103	Suspend Tenant
Story	App	TMPA-1104	Add Platform Role Support
Story	App	TMPA-1105	Customize Mail Templates
Story	App	TMPA-1106	Job Runner - Data Schema Versioning
Task	App	TMPA-1107	UI Tidyups
Task	App	TMPA-1115	Acceptance Test -add new tenant and update settings
Task	App	TMPA-1127	Rename "/me" endpoints to "/account" for clarity in documentation
Task	App	TMPA-1129	De-dupe components where possible
Task	App	TMPA-1130	Acceptance Test - add mail templates test
Task	App	TMPA-1134	SWA Organisations - Mock Up
Story	App	TMPA-1146	Manage list of SWA organisations
Spike	App	TMPA-1147	Create Draft Plan - Mockups
Task	App	TMPA-1162	Acceptance Test - My accounts Test
Story	App	TMPA-1167	Add RestrictedRoute component for permission based restriction
Story	App	TMPA-1172	Implement WMTS and Name Service Proxy (including auditing)
Task	App	TMPA-1173	Acceptance Test - Tenant user filtering test

Task	App	TMPA-1174	Acceptance tests need to be able to embed and run the application
Task	App	TMPA-1175	Build and tag PDF generator pre-release docker image
Task	App	TMPA-1177	Acceptance Test - create and delete SWA organisations
Task	App	TMPA-1189	Acceptance Test - user permissions verification
Task	App	TMPA-1212	Acceptance Test - my account signout feature
Task	App	TMPA-1213	Acceptance Test - close and reopen app left menu
Task	App	TMPA-1214	Acceptance Test - Search for swa orgnisation and edit
Task	App	TMPA-1215	Use test containers for all tmpa-rest tests
Task	App	TMPA-1222	Acceptance Tests - Suppress warnings about no assertions
Task	App	TMPA-1243	Acceptance Test - investigate session test framework
Task	App	TMPA-1245	Acceptance Test - Gazetteer search, toggle location and Map zoom feature
Story	App	TMPA-1267	Build SNAPSHOT Docker images
Task	App	TMPA-1270	Add id's to the various components for acceptance test selectors
Story	App	TMPA-1282	Validate size of extent is when creating plan
Story	App	TMPA-1283	App assembly submodule (deployable artefact)
Task	App	TMPA-1293	Acceptance Test - create plan
Spike	App	TMPA-1345	Maplibre Investigation
Task	App	TMPA-1352	National Street Gazetteer - check service works in app
Task	App	TMPA-1354	Complete conversion from OpenLayers to Maplibre/Deck.gl
Story	App	TMPA-1361	Deploy & configure master session
Task	App	TMPA-1386	Update 1Integrate REST client to 1.1.3
Task	App	TMPA-1387	Schema improvements - Non-critical
Task	App	TMPA-1390	Acceptance Test - create plan and draw works areas
Task	App	TMPA-1392	Acceptance Test -add selectors
Spike	App	TMPA-1394	Investigate leader election & polling
Task	App	TMPA-1396	Add propper selectors to buttons on the map
Spike	App	TMPA-1398	Spike - Render plan data on map
Story	App	TMPA-1419	App - Add scalebar
Story	App	TMPA-1420	App - Add north arrow
Task	App	TMPA-1425	Acceptance Test - Auto draft parameters forms
Story	App	TMPA-1428	Make it clear there is a validation issue on the auto-draft parameter forms
Task	App	TMPA-1432	Create Plan Map Changes
Task	App	TMPA-1433	Auto Draft Form - Refinements
Task	App	TMPA-1434	Create Plan Form - Refinements
Task	App	TMPA-1435	Reset pitch as well as bearing when north arrow is pressed
Story	App	TMPA-1436	Identify the speed limits data density
Task	App	TMPA-1438	Remove payload from restore client logging on success response
Task	App	TMPA-1439	TD: Shared "tmpa-spring" module for shared spring configuration
Task	App	TMPA-1443	Fix rule deployment on startup
Story	App	TMPA-1447	Use SWA Organisation references for plan

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Story	App	TMPA-1448	Don't allow user to create duplicate SWAs
Task	App	TMPA-1449	Add manual tests cases for map verification
Spike	App	TMPA-1451	Experiment with UX and Layout for Map View / Spatial Filtering
Task	App	TMPA-1455	Update PDF Generator app tests to use okhttp instead of mockserver
Spike	App	TMPA-1456	Investigate a better map extent constraint function using WebMercatorViewport instance
Task	App	TMPA-1458	Acceptance Test - Create plan, search location draw works areas and auto draft parameters
Story	App	TMPA-1479	Rework start and state endpoints to return plan detail
Task	App	TMPA-1481	Build images for plan runner and app and provide sample CI config
Story	App	TMPA-1503	Drop X-Forwarded-* headers in incoming proxy requiests (OS Data Hub)
Story	App	TMPA-1522	Information Page (page 3 of 3 of PDF)
Task	App	TMPA-1525	Add updatable=false to all immutable keys
Story	App	TMPA-1528	Filter by SWA organisation in plan browser
Spike	App	TMPA-1530	PDF Layout Experiments
Task	App	TMPA-1531	Acceptance Test - update id's to selectors
Task	App	TMPA-1538	Acceptance Test - delete SWA organisation
Story	App	TMPA-1539	Auto draft cleanup service & scheduler
Story	App	TMPA-1540	Update Rules
Task	App	TMPA-1542	Acceptance Test - create plan list verification test
Task	App	TMPA-1555	Acceptance Test - work details validation test
Task	App	TMPA-1561	Acceptance Test - save auto draft parameters and start auto draft job
Task	App	TMPA-1562	Acceptance Test - add plans display on map tests
Story	App	TMPA-1579	Update Rules to 0.0.14
Task	App	TMPA-1582	Chat about portable traffic signals
Story	App	TMPA-1584	Accept Draft Plan
Story	App	TMPA-1585	Return to auto draft from results screen
Task	App	TMPA-1586	Extend palette with highlight
Spike	App	TMPA-1588	Investigate collapsible side panel and map resizing
Story	App	TMPA-1591	Remove final pause task for sessions running in production
Spike	App	TMPA-1593	PDF Spike #2
Story	App	TMPA-1594	Add missing sign types
Story	App	TMPA-1595	Allow downloading of debug data to aid reporting of problematic plans
Story	App	TMPA-1596	Provide rules team with a utility for writing debug output into local database
Story	App	TMPA-1598	Acceptance Test - cancel plan and Go back to the plan test
Task	App	TMPA-1601	Update docker-dev compose file to include 1Integrate
Task	App	TMPA-1614	Automate build of PDF generator docker containers on release tag
Task	App	TMPA-1615	Release PDF generator
Task	App	TMPA-1628	Acceptance Test - Auto draft results page tests
Task	App	TMPA-1630	Acceptance Test - Accept Draft plan
Task	App	TMPA-1632	Plan Runner - Rename "/auto_draft" service to "/auto_draft_job"
Story	App	TMPA-1633	PDF Page 1 - Revisions

Story	App	TMPA-1636	PDF Generator App - Return timeout exceptions as 400 code responses
Story	App	TMPA-1641	Do we need to restrict geographic coverage to England & Wales only?
Task	App	TMPA-1646	Possibly rename "AutoDraftLoader" -> "AutoDraft" and have a "View" component
Story	App	TMPA-1651	Plan PDF - Revisions
Task	App	TMPA-1652	Acceptance Test -cancel or accept draft plan test
Story	App	TMPA-1653	Display works area dimentions in a table on digitization screen
Story	App	TMPA-1654	Filter by user in plan browser
Story	App	TMPA-1655	Return map to last geographic extents after viewing a plan (instead of reseting to the max extents)
Story	App	TMPA-1656	Debounced filter field (search as you type)
Story	App	TMPA-1657	Option to search nationally when filtering plans in plan browser
Story	App	TMPA-1658	Highlight feature on map when selected on Auto Draft Results panel
Task	App	TMPA-1659	Acceptance Test - accept plan and verify plan details,Inventory and PDF tabs
Story	App	TMPA-1663	Visual indicator for filter groups which have applied filters to the query
Story	App	TMPA-1664	Navigate to inventory when feature selected
Spike	App	TMPA-1667	Design of dashboards for usage (plans accepted by tenant by time window)
Story	App	TMPA-1672	Attribution on app UI - Crown copyright and database rights
Task	App	TMPA-1673	Greenmail tests have large delay on sending mail
Task	App	TMPA-1674	Acceptance Test - Restrict results to Visible region checkbox and Filter plans by SWA tests
Task	App	TMPA-1675	Acceptance Test - set screen resolution and run tests
Task	App	TMPA-1676	Fix code smells in UI
Story	App	TMPA-1677	Re-calculate plan center when editing works areas
Story	App	TMPA-1678	PDF revisions
Story	App	TMPA-1679	Usage Dashboard
Task	App	TMPA-1680	Manual Test - Write tests for Jump To and Pdf Functionality
Story	App	TMPA-1681	Disable documentation of error controller - plan runner
Task	App	TMPA-1682	standardise API filenames in ui
Task	App	TMPA-1683	Standardise const to use all uppercase format
Task	App	TMPA-1684	Acceptance Test - add works areas dimesions Test
Story	App	TMPA-1689	Restricted Route Component
Task	App	TMPA-1690	Acceptance Test - Browse plans by user
Task	App	TMPA-1691	Re-assess router components for AuthenticatedRoute and UnauthenticatedRoute - can we use FC?
Task	App	TMPA-1692	Update docker-dev container and hostnames
Task	App	TMPA-1693	Normalize logo sizes & create SWA logo component
Story	App	TMPA-1695	Download Usage Dashboard as CSV
Story	App	TMPA-1696	Enter lat/lon coordinates to centre map
Task	App	TMPA-1699	Acceptance Test - debounced filter test
Task	App	TMPA-1700	Acceptance Test - Restricted root component test
Task	App	TMPA-1708	Flyway Schema
Story	App	TMPA-1709	Release v0.7.0

Story	App	TMPA-1710	Remove placeholder data in app
Spike	App	TMPA-1711	Investigate speed limits data density querying
Spike	App	TMPA-1712	How do we highlight selected feature on map
Story	App	TMPA-1713	Rename submodules
Spike	App	TMPA-1714	How do convert lat/lon to OSGB 1km gridrefs
Task	App	TMPA-1715	Acceptance Test - Usage dashboard
Story	App	TMPA-1719	Fix map performance issues
Task	App	TMPA-1720	Update UI tests for ruleset 0.0.13
Task	App	TMPA-1723	Add short-lived token endpoint
Task	App	TMPA-1727	Update SWA Code List
Task	App	TMPA-1728	Upgrade async validator
Task	App	TMPA-1729	Acceptance Test - use coordinates to centre map
Story	App	TMPA-1730	Support new signs
Story	App	TMPA-1738	Add red and white plate
Story	App	TMPA-1739	Descide on token usage for downloads
Story	App	TMPA-1740	Jump to coordinates OSGB extensions
Story	App	TMPA-1741	Render inventory list in determistic order (auto draft results/inventory table)
Story	App	TMPA-1745	Debug Import tool for Auto Draft
Spike	App	TMPA-1753	Investigate rules testing
Task	App	TMPA-1758	Add "no through route" sign
Task	App	TMPA-1759	Acceptance Test - Usage dashboard plan report download test
Task	App	TMPA-1760	Ensure ConstraintViolationException always returns 400 response
Task	App	TMPA-1771	Acceptance Test - Jump to coordinates test extensions
Task	App	TMPA-1772	Tag nightly build with "latest" in registry
Story	App	TMPA-1773	Extend debug output to include plan features (as an option?)
Task	App	TMPA-1775	Rename createEvent and updateEvent in plan to match User and Tenant model
Task	App	TMPA-1776	Convert AuthenticatedRouting to FC
Task	App	TMPA-1777	Ensure consistant use of enums in URL parameters
Task	App	TMPA-1778	Reassess API design around one-shot mutator endpoints
Task	App	TMPA-1780	Upper case the first letter of each inputs label
Task	App	TMPA-1797	Update Rules 0.0.14
Task	App	TMPA-1801	Acceptance Test - add debug import and export test
Task	App	TMPA-1804	Update acceptance tests to use 'jump-to' feature for drawing works areas
Task	App	TMPA-1806	Acceptance Test - view and manage tenant status
Story	App	TMPA-1807	Release 0.7.1 with latest rules (0.0.14)
Story	App	TMPA-1816	Unselect a selected feature on the map
Story	App	TMPA-1824	Update rules to 0.1.0
Story	App	TMPA-1827	Add rules version and app version to application endpoint
Task	App	TMPA-1835	Acceptance Test - run all acceptance tests
Story	App	TMPA-1836	Show debug button on accepted plan

Story	App	TMPA-1843	Release TMPA v1.0.x
Task	App	TMPA-1844	Integrate rules 1.0.0
Story	App	TMPA-1858	Cancel ongoing browse requests
Spike	App	TMPA-620	Wireframe - Initial Map UI
Story	App	TMPA-621	Identify area of interest
Story	App	TMPA-627	PDF template
Story	App	TMPA-629	Development framework
Story	App	TMPA-630	Test Framework - Unit Testing
Story	App	TMPA-631	Testing Framework - Acceptance Testing
Story	App	TMPA-632	CD configuration
Story	App	TMPA-633	CI configuration
Story	App	TMPA-634	Coding standards and static analysis
Story	App	TMPA-635	Suspend User
Story	App	TMPA-637	Admin UI Framework
Story	App	TMPA-711	Restrict the amount of OS Data Hub premium map tiles that the user can use when browsing to the location for a plan
Task	App	TMPA-764	UI Wireframes - Organisation Management
Story	Data	TMPA-1085	OS Acknowledgements - copyright, logo, branding
Task	Platform	TMPA-1337	Set up an automated session testing framework
Story	Platform	TMPA-1744	Deploy speed limits density data alongside speed limits data
Story	QMS	TMPA-615	QMS - Consultancy - Rules Catalogue
Story	Rules	TMPA-1002	Action - Traffic Light Placement
Story	Rules	TMPA-1012	Action - Signage Construction Feature Creation
Story	Rules	TMPA-1013	Action - Single Carriageway - Amend ROAD_CENTRE_LINE
Story	Rules	TMPA-1014	Action - Work Space Barriers
Story	Rules	TMPA-1015	Action - Create Red and White Safety Barrier
Story	Rules	TMPA-1016	Action - Single Carriageway - Create Road Works Ahead Sign
Story	Rules	TMPA-1019	Action - Single Carriageway - Create End of Road Works Sign
Story	Rules	TMPA-1022	Action - Directional Arrows
Story	Rules	TMPA-1023	Action - Direction of Road Works
Story	Rules	TMPA-1024	Action - Cones - Lead-in Taper
Story	Rules	TMPA-1025	Action - Cones - Edge of Safety Zone
Story	Rules	TMPA-1026	Action - Cones - Exit Taper
Story	Rules	TMPA-1035	Filter Rule - Determine Task 34 Layout
Story	Rules	TMPA-1036	Action - Create working space
Story	Rules	TMPA-1037	Action - Road Closed Signs
Story	Rules	TMPA-1038	Action - Create Road Closed Cones
Story	Rules	TMPA-1039	Testing of output
Story	Rules	TMPA-1040	Filter Rule - Determine Task 38 Layout
Story	Rules	TMPA-1041	Action - Signage Construction Feature Creation
Story	Rules	TMPA-1042	Action - Single Carriageway - Amend ROAD_CENTRE_LINE

Story	Rules	TMPA-1043	Action - Work Space Barriers
Story	Rules	TMPA-1044	Action - Create Red and White Safety Barrier
Story	Rules	TMPA-1045	Action - Single Carriageway - Create Road Works Ahead Sign
Story	Rules	TMPA-1046	Action - Single Carriageway - Road Narrows Ahead
Story	Rules	TMPA-1047	Action - Single Carriageway - Create End of Road Works Sign
Story	Rules	TMPA-1048	Action - Directional Arrows
Story	Rules	TMPA-1049	Action - Direction of Road Works
Story	Rules	TMPA-1050	Action - Cones - Lead-in Taper
Story	Rules	TMPA-1051	Action - Cones - Edge of Safety Zone
Story	Rules	TMPA-1052	Action - Cones - Exit Taper
Story	Rules	TMPA-1053	Testing of output
Story	Rules	TMPA-1054	Action - Signage Existence Rule
Story	Rules	TMPA-1057	Action - Signage Existence Rule
Story	Rules	TMPA-1061	Action - Signage Existence Rule
Story	Rules	TMPA-1062	Action - Signage Existence Rule
Story	Rules	TMPA-1063	Action - Signage Existence Rule
Story	Rules	TMPA-1064	Action - Signage Existence Rule
Story	Rules	TMPA-1068	Action - Signage Existence Rule - 34
Story	Rules	TMPA-1069	Action - Signage Existence Rule
Story	Rules	TMPA-1071	NGN Connections
Story	Rules	TMPA-1075	Filter Rule - Determine T-Junction layout
Story	Rules	TMPA-1116	Action - Assign Layout
Story	Rules	TMPA-1117	Action - Assign Layout
Story	Rules	TMPA-1118	Action - Assign Layout
Story	Rules	TMPA-1119	Action - Assign Layout
Story	Rules	TMPA-1120	Action - Assign Layout
Story	Rules	TMPA-1121	Action - Assign Layout
Story	Rules	TMPA-1122	Action - Assign Layout
Story	Rules	TMPA-1131	Action - Create Works Van Width
Story	Rules	TMPA-1132	Action - Create Works Van Width
Story	Rules	TMPA-1137	Action - Create Edge of Safety Zone - Walkway
Story	Rules	TMPA-1138	Action - Create Lead-in taper - Give & Take
Story	Rules	TMPA-1139	Action - Create Exit Taper - Normal
Story	Rules	TMPA-1140	Action - Create Safety Zone Path Edge
Story	Rules	TMPA-1141	Action - Create Safety Zone Polygon
Story	Rules	TMPA-1142	Action - Create Safety Zone Points
Story	Rules	TMPA-1143	Action - Pass Width 1 - Road
Story	Rules	TMPA-1144	Action - Populate CONED_AREA_LENGTH attribute
Story	Rules	TMPA-1145	Action - Create Lead-in taper - Two-Way Working
Story	Rules	TMPA-1149	Action - Calculate coned_area_length

Story	Rules	TMPA-1151	Temp Values Structure
Story	Rules	TMPA-1159	QMS - Consultancy - Rules Catalogue
Story	Rules	TMPA-1170	Test Case - Attribute assignment script
Story	Rules	TMPA-1176	Local Rules Schema Changes
Story	Rules	TMPA-1178	Populate 'Depth' attribute
Story	Rules	TMPA-1180	Load new speed limits data into local postgres environment - new schema
Story	Rules	TMPA-1181	Load new speed limits data into local postgres environment - new schema
Story	Rules	TMPA-1182	Load new speed limits data into local postgres environment - new schema
Story	Rules	TMPA-1183	Load new speed limits data into local postgres environment - new schema
Story	Rules	TMPA-1185	Local Rules Schema Changes
Story	Rules	TMPA-1186	Local Rules Schema Changes
Story	Rules	TMPA-1187	Local Rules Schema Changes
Story	Rules	TMPA-1190	Walkway and standard road layout logic
Story	Rules	TMPA-1192	Create rear of working space based on 'depth'
Story	Rules	TMPA-1193	Python script to run test cases from REST API
Story	Rules	TMPA-1194	Python script to run test cases from REST API
Story	Rules	TMPA-1195	Python script to run test cases from REST API
Story	Rules	TMPA-1196	Python script to run test cases from REST API
Story	Rules	TMPA-1205	Document TM Operators and Depth attributes on wiki
Story	Rules	TMPA-1206	Creation of master test cases in postgres
Story	Rules	TMPA-1207	Creation of master test cases in postgres
Story	Rules	TMPA-1208	Creation of master test cases in postgres
Story	Rules	TMPA-1218	Installation of local 1Integrate 2.8.2 SNAPSHOT
Story	Rules	TMPA-1219	Installation of local 1Integrate 2.8.2 SNAPSHOT
Story	Rules	TMPA-1220	Installation of local 1Integrate 2.8.2 SNAPSHOT
Story	Rules	TMPA-1221	Installation of local 1Integrate 2.8.2 SNAPSHOT
Story	Rules	TMPA-1224	Pass Width - Documentation
Story	Rules	TMPA-1232	Traffic Signals and Low Traffic Count
Story	Rules	TMPA-1233	Extend working space not achievable then extend in opposite direction
Story	Rules	TMPA-1237	Cone Spacing - Lead-in taper
Story	Rules	TMPA-1238	Cone Spacing - Edge of Safety Zone
Story	Rules	TMPA-1239	Cone Spacing - Exit Taper
Story	Rules	TMPA-1244	Traffic Signal - Guide Islands
Story	Rules	TMPA-1246	Creation Master 1Integrate Session
Story	Rules	TMPA-1247	1Integrate Sync Session
Story	Rules	TMPA-1248	1Integrate Sync Session
Story	Rules	TMPA-1249	1Integrate Sync Session
Story	Rules	TMPA-1250	1Integrate Sync Session
Story	Rules	TMPA-1253	Test Case - Speed limit > 40mph
Story	Rules	TMPA-1254	Test Case - Invalid Form of Way

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Story	Rules	TMPA-1255	Remove - Working space intersects the road centre line
Story	Rules	TMPA-1256	Test Case - Working space too close to the T-junction intersection
Story	Rules	TMPA-1257	Remove - Change of Speed Limit
Story	Rules	TMPA-1258	Change 'Future Multiple Scenario' to 'Separate Plans Required'
Story	Rules	TMPA-1259	Test Case - Unable to extend the working space
Story	Rules	TMPA-1260	Test Case - Unique Road Layout
Story	Rules	TMPA-1261	Test Case - Sc 6 - Unique road layout
Story	Rules	TMPA-1262	Install of 1Integrate 2.9 and new Sync tool
Story	Rules	TMPA-1263	Install of 1Integrate 2.9 and new Sync tool
Story	Rules	TMPA-1264	Install of 1Integrate 2.9 and new Sync tool
Story	Rules	TMPA-1265	Install of 1Integrate 2.9 and new Sync tool
Story	Rules	TMPA-1269	1Integrate Sync Session
Story	Rules	TMPA-1271	Remove - Working space intersects the road centre line (no longer required)
Story	Rules	TMPA-1272	Remove - Insufficient minimum width (no longer required)
Story	Rules	TMPA-1273	Test Case - Missing Construction Feature
Story	Rules	TMPA-1274	Test Case - Missing signage
Story	Rules	TMPA-1275	Test Case - End of Road Works Signage cannot be placed
Story	Rules	TMPA-1276	Test Case - Road works signage cannot be placed as the approach road is too short
Story	Rules	TMPA-1277	Test Case - Road Works Signage can not be placed as RCL is too short
Story	Rules	TMPA-1289	Test Framework Configuration Session
Story	Rules	TMPA-1290	Test Framework Configuration Session
Story	Rules	TMPA-1291	Test Framework Configuration Session
Story	Rules	TMPA-1292	Test Framework Configuration Session
Story	Rules	TMPA-1298	Rules - sync session
Story	Rules	TMPA-1299	Rules - sync session
Story	Rules	TMPA-1300	Rules - sync session
Story	Rules	TMPA-1301	Rules - sync session
Story	Rules	TMPA-1305	Pass Width 1 - <15minutes should not be assigned path closed but temporary obstruction
Story	Rules	TMPA-1306	Reduced Pass Width based on traffic count
Story	Rules	TMPA-1307	Reduce Traffic Count on master test cases
Story	Rules	TMPA-1308	Safety Zone does not compromise Line of sight
Story	Rules	TMPA-1309	Reduce Traffic Count on master test cases
Story	Rules	TMPA-1310	T-Junction Guide islands
Story	Rules	TMPA-1341	Road Narrows Ahead - Looping Required
Story	Rules	TMPA-1342	Traffic Lights Ahead - Looping Required
Story	Rules	TMPA-1343	Wait Here Signage - Looping Required
Story	Rules	TMPA-1344	Traffic Control Ahead - Looping Required
Story	Rules	TMPA-1346	UK Trip - Matt Mumford
Task	Rules	TMPA-1348	National Street Gazetteer - check service works
Story	Rules	TMPA-1349	1Integrate Sync Session

Story	Rules	TMPA-1350	1Integrate Sync Session
Story	Rules	TMPA-1351	1Integrate Sync Session
Story	Rules	TMPA-1355	TMPA Testing continued
Story	Rules	TMPA-1356	TMPA Testing continued
Story	Rules	TMPA-1357	TMPA Testing continued
Story	Rules	TMPA-1358	TMPA Testing continued
Story	Rules	TMPA-1359	Signs List
Story	Rules	TMPA-1369	1Integrate Sync Session
Story	Rules	TMPA-1370	1Integrate Sync Session
Story	Rules	TMPA-1371	1Integrate Sync Session
Story	Rules	TMPA-1372	1Integrate Sync Session
Story	Rules	TMPA-1395	Line of sight - roadlink not merged
Story	Rules	TMPA-1397	Pedestrian Barriers - Count and Type
Story	Rules	TMPA-1399	Signage - Change of speed limits
Story	Rules	TMPA-1400	Guide Island Cones
Story	Rules	TMPA-1401	Guide Island Direction Signs
Story	Rules	TMPA-1408	1Integrate Sync Session
Story	Rules	TMPA-1409	1Integrate Sync Session
Story	Rules	TMPA-1410	1Integrate Sync Session
Story	Rules	TMPA-1411	1Integrate Sync Session
Task	Rules	TMPA-1414	Update master tables
Task	Rules	TMPA-1415	Update master tables
Story	Rules	TMPA-1416	GIT tool - Indexing Errors
Story	Rules	TMPA-1417	Update Geometry columns & Script
Story	Rules	TMPA-1464	Upgrade 1Integrate v3.01
Story	Rules	TMPA-1465	Upgrade 1Integrate v3.01
Story	Rules	TMPA-1466	Upgrade 1Integrate v3.01
Story	Rules	TMPA-1467	Upgrade 1Integrate v3.01
Story	Rules	TMPA-1468	Bitbucket Dev Branch Session
Story	Rules	TMPA-1469	Bitbucket Dev Branch Session
Story	Rules	TMPA-1470	Bitbucket Dev Branch Session
Story	Rules	TMPA-1471	Bitbucket Dev Branch Session
Story	Rules	TMPA-1482	Signage Matrix
Story	Rules	TMPA-1484	Filter Rule/Questions Matrix
Story	Rules	TMPA-1485	No Layout - works area not on highway
Story	Rules	TMPA-1487	Further Test Cases
Story	Rules	TMPA-1488	Rules Catalogue - Restructure
Story	Rules	TMPA-1489	Rules Catalogue - Descriptions
Story	Rules	TMPA-1490	Rules Catalogue - Descriptions
Story	Rules	TMPA-1491	Rules Catalogue - Descriptions

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Story	Rules	TMPA-1492	Rules Catalogue - Descriptions
Story	Rules	TMPA-1493	Wiki - Documentation
Story	Rules	TMPA-1494	Wiki - Documentation
Story	Rules	TMPA-1495	Wiki - Documentation
Story	Rules	TMPA-1496	Wiki - Documentation
Story	Rules	TMPA-1497	Create 'equipment_point' table
Story	Rules	TMPA-1498	Create 'equipment_point' table
Story	Rules	TMPA-1499	Create 'equipment_point' table
Story	Rules	TMPA-1500	Create 'equipment_point' table
Story	Rules	TMPA-1504	No layout enumeration table for app team
Story	Rules	TMPA-1505	RW - Front end Test Case
Story	Rules	TMPA-1507	TMPA rules - Test Framework
Story	Rules	TMPA-1508	TMPA rules - Test Framework
Story	Rules	TMPA-1510	TMPA rules - Test Framework
Story	Rules	TMPA-1511	TMPA rules - Test Framework
Story	Rules	TMPA-1512	equipment_table update rules
Story	Rules	TMPA-1534	Populate equipment size attribute
Story	Rules	TMPA-1535	Populate equipment_point bearing attribute
Story	Rules	TMPA-1536	Populate works_area.layout_type attribute
Story	Rules	TMPA-1544	Update Pedestrian Barrier Size
Story	Rules	TMPA-1546	Action - Delete Safety Zone
Story	Rules	TMPA-1547	Action - No Through Route Signs
Story	Rules	TMPA-1548	Action - Access Only Signs
Story	Rules	TMPA-1549	Action - Diversion Signs
Story	Rules	TMPA-1551	Test Case Framework Session
Story	Rules	TMPA-1552	Test Case Framework Session
Story	Rules	TMPA-1553	Test Case Framework Session
Story	Rules	TMPA-1554	MM - Half a day for Tom
Story	Rules	TMPA-1556	Action - Delete Safety Zone
Story	Rules	TMPA-1557	Action - No Through Route Signs
Story	Rules	TMPA-1558	Action - Access Only Signs
Story	Rules	TMPA-1559	Action - Diversion Signs
Story	Rules	TMPA-1583	Check that National Street Gazetteer WFS works
Story	Rules	TMPA-1611	Barrier Line Length
Story	Rules	TMPA-1612	Red and White Plate
Story	Rules	TMPA-1613	TMPA Rules pack first release trial - 0.0.8
Story	Rules	TMPA-1640	Identify 1-way streets and then warn user that these are not yet implemented
Story	Rules	TMPA-1644	No Layout - One way streets
Task	Rules	TMPA-1666	Do a 0.9 release to the Gaia team
Task	Rules	TMPA-1671	Do a 0.10 release to the Gaia team

Story	Rules	TMPA-1716	Do a release and ensure it includes a commit task
Task	Rules	TMPA-1718	Update rules 0.0.12
Task	Rules	TMPA-1721	Rules release 0.0.13
Task	Rules	TMPA-1742	Add 'density' attribute to works_area
Task	Rules	TMPA-1743	Add 'density' attribute to works_area
Task	Rules	TMPA-1747	Add 'density' attribute to works_area
Task	Rules	TMPA-1749	Load OS density data
Task	Rules	TMPA-1750	Load OS density data
Task	Rules	TMPA-1751	Load OS density data
Task	Rules	TMPA-1755	Create 1Integrate action to populate 'density' attribute
Task	Rules	TMPA-1756	Do a release TMPA rules 0.0.14
Task	Rules	TMPA-1818	End of Road Works - Road Closures
Task	Rules	TMPA-1845	Rules release v1.0
Story	Rules	TMPA-257	Task 81 - Issue - Can the footway be diverted onto the carriageway?
Story	Rules	TMPA-258	Task 82 - Issue - Footway diverted on carriageway plus
Story	Rules	TMPA-287	Task 4 - Create Pass Width - Can a minimum of 1.2m past the works be provided plus 0.5m lateral safety?
Story	Rules	TMPA-288	Create 1Integrate Action to Populate Pass Width - Path
Story	Rules	TMPA-289	Task 4 - Subtask - Testing of 1Integrate looping action in order to scale down lateral safety
Story	Rules	TMPA-291	Task 5 - Subtask - Create 1Integrate action to check pass width
Story	Rules	TMPA-295	Task 6 - Subtask - Create 1Integrate action to check pass width
Story	Rules	TMPA-299	Task 8 - Test working space - Temporary footway obstruction
Story	Rules	TMPA-305	Task 11 - Test working space - Footway Closure
Story	Rules	TMPA-312	Task 12 - Test working space - Footway closure and local diversion
Story	Rules	TMPA-319	Task 13 - Test working space - Footway closure and pedestrian crossing
Story	Rules	TMPA-347	Task 22 - Test working space - (<15 minutes) Can the work be undertaken with lateral safety zone plus 3.25m-3.5m of open carriageway?
Story	Rules	TMPA-349	Action - Pass Width 1 - Road
Story	Rules	TMPA-352	Task 23 - Test working space - (<1 working period) Can the work be undertaken with lateral safety zone plus 3.25m-3.5m of open carriageway?
Story	Rules	TMPA-354	Task 23 - Subtask - Create looping 1Integrate action to check correct pass width
Story	Rules	TMPA-357	Task 24 - Test working space - (Greater than 1 working period) Can the work be undertaken with lateral safety zone plus 6.75m
Story	Rules	TMPA-359	Task 24 - Subtask - Create looping 1Integrate action to check correct pass width
Story	Rules	TMPA-362	Task 25 - Test working space - (Greater than 1 working period) Can the work be undertaken with lateral safety zone plus 3.25m-3.5m of open carriageway?
Story	Rules	TMPA-364	Task 25 - Subtask - Create looping 1Integrate action to check correct pass width
Story	Rules	TMPA-406	Task 36 - Test working space - (<1 working period) Can the work be undertaken with lateral safety zone plus 2.5m,Äì2.75m of open carriageway?
Story	Rules	TMPA-408	Task 36 - Subtask - Create looping 1Integrate action to check correct pass width
Story	Rules	TMPA-411	Task 37 - Test working space - (Greater than 1 working period) Can the work be undertaken with lateral safety zone plus 5.5m of open carriageway?
Story	Rules	TMPA-413	Task 37 - Subtask - Create looping 1Integrate action to check correct pass width

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Story	Rules	TMPA-417	Task 38 - Test working space - Narrow Lane Scheme
Story	Rules	TMPA-419	Task 38 - Subtask - Create looping 1Integrate action to check correct pass width
Story	Rules	TMPA-424	Task 39 - Subtask - Create looping 1Integrate action to check correct pass width
Story	Rules	TMPA-539	Task 82 - Create working space - Footway diverted on carriageway plus
Story	Rules	TMPA-643	Jobs Table Creation
Story	Rules	TMPA-644	1Integrate Session Design
Story	Rules	TMPA-647	1Integrate Datastore - Connection to OS data from TMPA PoC
Story	Rules	TMPA-648	1Integrate Datastore - Output tables for MM
Story	Rules	TMPA-652	Task 39 - Test working space - (Greater than 1 working period) Can the work be undertaken with lateral safety zone plus 2.5m
Story	Rules	TMPA-653	Breakdown of action - Extend Working Space - Parallel - Curb
Story	Rules	TMPA-654	Breakdown of action - Extend Working Space - Parallel - Path
Story	Rules	TMPA-655	Breakdown of action - Extend Working Space - Parallel - Road
Story	Rules	TMPA-657	Create Works Van Width
Story	Rules	TMPA-659	Local Installation of 1Integrate SNAPSHOT
Story	Rules	TMPA-660	Local Installation of 1Integrate SNAPSHOT
Story	Rules	TMPA-661	Local Installation of 1Integrate SNAPSHOT
Story	Rules	TMPA-662	Create 1Integrate Datastore to read OS Features API
Story	Rules	TMPA-663	Create 1Integrate Datastore to read OS Features API
Story	Rules	TMPA-664	Create 1Integrate Datastore to read OS Features API
Story	Rules	TMPA-665	Create TMPA output tables in local Postgres
Story	Rules	TMPA-666	Create TMPA output tables in local Postgres
Story	Rules	TMPA-667	Create TMPA output tables in local Postgres
Story	Rules	TMPA-668	Create 1Integrate Datastore to read postgres OUTPUT tables
Story	Rules	TMPA-669	Create 1Integrate Datastore to read postgres OUTPUT tables
Story	Rules	TMPA-670	Create 1Integrate Datastore to read postgres OUTPUT tables
Story	Rules	TMPA-671	Install 1Integrate Sync Tool
Story	Rules	TMPA-672	Install 1Integrate Sync Tool
Story	Rules	TMPA-673	Install 1Integrate Sync Tool
Story	Rules	TMPA-674	Upload and test of previous 1Integrate SSLG session
Story	Rules	TMPA-675	Upload and test of previous 1Integrate SSLG session
Story	Rules	TMPA-676	Upload and test of previous 1Integrate SSLG session
Story	Rules	TMPA-677	JIRA backlog - Organise 1Integrate Rules tasks
Story	Rules	TMPA-678	Configure old 1Integrate session to use OS API
Story	Rules	TMPA-679	Task 8 - Temporary footway obstruction - Test Pass Width attribute
Story	Rules	TMPA-680	Task 11 - Footway Closure - Test Pass Width attribute
Story	Rules	TMPA-681	Create 1Integrate Action to Populate Pass Width - Single Carriageway
Story	Rules	TMPA-682	Test 1Integrate Action to Populate Pass Width - Path
Story	Rules	TMPA-683	Test 1Integrate Action to Populate Pass Width - Single Carriageway
Story	Rules	TMPA-685	Local Installation of 1Integrate SNAPSHOT

Story	Rules	TMPA-686	Create TMPA output tables in local Postgres
Story	Rules	TMPA-687	Create 1Integrate Datastore to read postgres OUTPUT tables
Story	Rules	TMPA-688	Install 1Integrate Sync Tool
Story	Rules	TMPA-689	Upload and test of previous 1Integrate SSLG session
Story	Rules	TMPA-690	Create 1Integrate Datastore to read OS Features API
Story	Rules	TMPA-693	Charlotte issue - practice 1
Story	Rules	TMPA-694	Charlotte issue - practice 2
Story	Rules	TMPA-696	Create Walk Way
Story	Rules	TMPA-697	Create Edge of Safety Zone - Walkway
Story	Rules	TMPA-698	Create Edge of Safety Zone - Normal
Story	Rules	TMPA-699	Create Lead-in Taper - Give & Take
Story	Rules	TMPA-700	Create Lead-in Taper - Two-Way Working
Story	Rules	TMPA-701	Create Lead-in Taper - T-Junction
Story	Rules	TMPA-703	Create Exit Taper - Normal
Story	Rules	TMPA-704	Create Exit Taper - T-Junction
Story	Rules	TMPA-707	Populate T-Junction attribute
Story	Rules	TMPA-708	Create Safety Zone Path Edge
Story	Rules	TMPA-709	Create Safety Zone Polygon
Story	Rules	TMPA-710	Populate CONED_AREA_LENGTH attribute
Story	Rules	TMPA-712	Populate 'Line of Sight' attribute
Story	Rules	TMPA-713	Populate T-Junction 'Sub-Scenario' attribute
Story	Rules	TMPA-716	Extend Safety Zone
Story	Rules	TMPA-717	Create Safety Zone Points
Story	Rules	TMPA-718	Populate JOB_ID attribute
Story	Rules	TMPA-719	Populate 'ID' attribute
Story	Rules	TMPA-720	Populate Traffic Count attributes
Story	Rules	TMPA-721	Populate 'Bus Lane' attribute
Story	Rules	TMPA-722	Populate 'Number of lanes' attribute
Story	Rules	TMPA-724	Create Working Space Segments
Story	Rules	TMPA-725	Create Direction Lines
Story	Rules	TMPA-726	Create working space - Multiple Excavations
Story	Rules	TMPA-728	Signage Construction Feature Creation
Story	Rules	TMPA-729	Create Red and White Safety Barrier
Story	Rules	TMPA-730	Single Carriageway - Amend ROAD_CENTRE_LINE
Story	Rules	TMPA-732	Single Carriageway - Create Road Works Ahead Sign
Story	Rules	TMPA-734	Single Carriageway - Create End of Road Works Sign
Story	Rules	TMPA-736	Single Carriageway - Road Narrows Ahead
Story	Rules	TMPA-737	Single Carriageway - Traffic Lights Ahead
Story	Rules	TMPA-738	Single Carriageway - Wait Here Signage
Story	Rules	TMPA-739	Road Narrows Ahead - Left or Right

Story	Rules	TMPA-742	Scenario 6 - Create Datum Point
Story	Rules	TMPA-743	Traffic Light Placement
Story	Rules	TMPA-744	Directional Arrows
Story	Rules	TMPA-745	Direction of Road Works
Story	Rules	TMPA-746	Pedestrian Direction
Story	Rules	TMPA-747	Work Space Barriers
Story	Rules	TMPA-748	Pedestrian Barriers
Story	Rules	TMPA-749	Cones - Lead-in Taper
Story	Rules	TMPA-750	Cones - Edge of Safety Zone
Story	Rules	TMPA-751	Cones - Exit Taper
Story	Rules	TMPA-752	Signage Existence Rule
Story	Rules	TMPA-755	Filter Rule - Works Area intersects Path
Story	Rules	TMPA-756	Action - Populate Works Area Pass Width attribute - Path
Story	Rules	TMPA-757	Action - Create working space - Path
Story	Rules	TMPA-758	Filter Rule - Determine 'Path Open' Layout
Story	Rules	TMPA-760	Action - Extend working space
Story	Rules	TMPA-761	Action - Pedestrian Barriers
Story	Rules	TMPA-763	Filter Rule - Works Area is on path and cycleway
Story	Rules	TMPA-765	Action - Extend working space - Path
Story	Rules	TMPA-766	Action - Populate Works Area Pass Width attribute - Cycleway
Story	Rules	TMPA-768	Filter Rule - Determine Task 5 Layout
Story	Rules	TMPA-775	Action - Extend working space - Temporary footway obstruction
Story	Rules	TMPA-777	Testing of output
Story	**Rules**	**TMPA-778**	**Testing of output**
Story	Rules	TMPA-779	Testing of output
Story	Rules	TMPA-784	Filter Rule - Determine Task 82 Layout
Story	Rules	TMPA-785	Action - Extend working space - Path Closed
Story	Rules	TMPA-786	Action - Create Walkway
Story	Rules	TMPA-787	Action - Pedestrian Direction Signs
Story	Rules	TMPA-788	Action - Pedestrian Barriers
Story	Rules	TMPA-789	Testing of output
Story	Rules	TMPA-797	Filter Rule - Determine Task 12 Layout
Story	Rules	TMPA-804	Filter Rule - Determine Task 13 Layout
Story	Rules	TMPA-811	Filter Rule - Determine Task 32 Layout
Story	Rules	TMPA-812	Action - Create working space
Story	Rules	TMPA-813	Action - Create Road Closed Cones
Story	Rules	TMPA-814	Action - Road Closed Signs
Story	Rules	TMPA-817	Filter Rule - Determine Task 22 Layout
Story	Rules	TMPA-818	Action - Create working space
Story	Rules	TMPA-819	Action - Create Edge of Safety Zone - Normal

Story	Rules	TMPA-820	Action - Assign layout - Footway diverted on carriageway plus
Story	Rules	TMPA-821	Action - Create Edge of Safety Zone - Walkway
Story	Rules	TMPA-822	Action - Create Lead-in taper - Give & Take
Story	Rules	TMPA-823	Action - Create Exit Taper - Normal
Story	Rules	TMPA-824	Action - Create Safety Zone Path Edge
Story	Rules	TMPA-825	Action - Create Safety Zone Polygon
Story	Rules	TMPA-826	Action - Create Safety Zone Points
Story	Rules	TMPA-827	Action - Construction Existence Rule
Story	Rules	TMPA-828	Action - Extend Safety Zone
Story	Rules	TMPA-829	Action - Populate CONED_AREA_LENGTH attribute
Story	Rules	TMPA-830	Action - Populate 'Line of Sight' attribute
Story	Rules	TMPA-832	Filter Rule - Determine Task 23 Layout
Story	Rules	TMPA-833	Action - Create working space
Story	Rules	TMPA-834	Action - Create Edge of Safety Zone - Normal
Story	Rules	TMPA-835	Action - Create Edge of Safety Zone - Walkway
Story	Rules	TMPA-836	Action - Create Lead-in taper - Give & Take
Story	Rules	TMPA-837	Action - Create Exit Taper - Normal
Story	Rules	TMPA-838	Action - Create Safety Zone Path Edge
Story	Rules	TMPA-839	Action - Create Safety Zone Polygon
Story	Rules	TMPA-840	Action - Create Safety Zone Points
Story	Rules	TMPA-841	Action - Construction Existence Rule
Story	Rules	TMPA-842	Action - Pass Width 1 - Road
Story	Rules	TMPA-843	Action - Extend Safety Zone
Story	Rules	TMPA-844	Action - Populate CONED_AREA_LENGTH attribute
Story	Rules	TMPA-845	Action - Populate 'Line of Sight' attribute
Story	Rules	TMPA-846	Action - Pass Width 2 - Road
Story	Rules	TMPA-847	Action - Pass Width 2 - Road
Story	Rules	TMPA-849	Filter Rule - Determine Task 24 Layout
Story	Rules	TMPA-850	Action - Create working space
Story	Rules	TMPA-851	Action - Create Edge of Safety Zone - Normal
Story	Rules	TMPA-852	Action - Create Edge of Safety Zone - Walkway
Story	Rules	TMPA-853	Action - Create Lead-in taper - Two-Way Working
Story	Rules	TMPA-854	Action - Create Exit Taper - Normal
Story	Rules	TMPA-855	Action - Create Safety Zone Path Edge
Story	Rules	TMPA-856	Action - Create Safety Zone Polygon
Story	Rules	TMPA-857	Testing of output
Story	Rules	TMPA-858	Testing of output
Story	Rules	TMPA-859	Testing of output
Story	Rules	TMPA-860	Action - Create Safety Zone Points
Story	Rules	TMPA-861	Action - Construction Existence Rule

Story	Rules	TMPA-862	Action - Pass Width 1 - Road
Story	Rules	TMPA-863	Action - Create Works Van Width
Story	Rules	TMPA-864	Action - Create Works Van Width
Story	Rules	TMPA-865	Test - Extend Working Space Parallel - Curb
Story	Rules	TMPA-866	Test - Extend Working Space - Parallel - Path
Story	Rules	TMPA-867	Test - Extend Working Space - Parallel - Road
Story	Rules	TMPA-869	Filter Rule - Determine Task 25 Layout
Story	Rules	TMPA-870	Action - Create working space
Story	Rules	TMPA-871	Action - Create Works Van Width
Story	Rules	TMPA-872	Action - Create Edge of Safety Zone - Normal
Story	Rules	TMPA-873	Action - Create Edge of Safety Zone - Walkway
Story	Rules	TMPA-874	Action - Create Lead-in taper - Give & Take
Story	Rules	TMPA-875	Action - Create Exit Taper - Normal
Story	Rules	TMPA-876	Action - Create Safety Zone Path Edge
Story	Rules	TMPA-877	Action - Create Safety Zone Polygon
Story	Rules	TMPA-878	Action - Create Safety Zone Points
Story	Rules	TMPA-879	Action - Construction Existence Rule
Story	Rules	TMPA-880	Action - Pass Width 1 - Road
Story	Rules	TMPA-881	Action - Extend Safety Zone
Story	Rules	TMPA-882	Action - Pass Width 2 - Road
Story	Rules	TMPA-883	Action - Populate CONED_AREA_LENGTH attribute
Story	Rules	TMPA-884	Action - Populate 'Line of Sight' attribute
Story	Rules	TMPA-885	Testing of output
Story	Rules	TMPA-887	Filter Rule - Determine Task 36 Layout
Story	Rules	TMPA-888	Action - Create working space
Story	Rules	TMPA-889	Action - Create Edge of Safety Zone - Normal
Story	Rules	TMPA-890	Action - Create Edge of Safety Zone - Walkway
Story	Rules	TMPA-891	Action - Create Works Van Width
Story	Rules	TMPA-892	Action - Create Lead-in taper - Give & Take
Story	Rules	TMPA-893	Action - Create Exit Taper - Normal
Story	Rules	TMPA-894	Action - Create Safety Zone Path Edge
Story	Rules	TMPA-895	Action - Create Safety Zone Polygon
Story	Rules	TMPA-896	Action - Create Safety Zone Points
Story	Rules	TMPA-897	Action - Construction Existence Rule
Story	Rules	TMPA-898	Action - Pass Width 1 - Road
Story	Rules	TMPA-899	Action - Extend Safety Zone
Story	Rules	TMPA-900	Action - Pass Width 2 - Road
Story	Rules	TMPA-901	Action - Populate CONED_AREA_LENGTH attribute
Story	Rules	TMPA-902	Action - Populate 'Line of Sight' attribute
Story	Rules	TMPA-903	Testing of output

Story	Rules	TMPA-905	Filter Rule - Determine Task 37 Layout
Story	Rules	TMPA-906	Action - Create working space
Story	Rules	TMPA-907	Action - Create Edge of Safety Zone - Normal
Story	Rules	TMPA-908	Action - Create Edge of Safety Zone - Walkway
Story	Rules	TMPA-909	Action - Create Lead-in taper - Two-Way Working
Story	Rules	TMPA-910	Action - Create Exit Taper - Normal
Story	Rules	TMPA-911	Action - Create Safety Zone Path Edge
Story	Rules	TMPA-912	Action - Create Safety Zone Polygon
Story	Rules	TMPA-913	Action - Create Safety Zone Points
Story	Rules	TMPA-914	Action - Construction Existence Rule
Story	Rules	TMPA-915	Action - Pass Width 1 - Road
Story	Rules	TMPA-916	Testing of output
Story	Rules	TMPA-918	Filter Rule - Determine Task 39 Layout
Story	Rules	TMPA-919	Action - Create working space
Story	Rules	TMPA-920	Action - Create Works Van Width
Story	Rules	TMPA-921	Action - Create Edge of Safety Zone - Normal
Story	Rules	TMPA-922	Action - Create Edge of Safety Zone - Walkway
Story	Rules	TMPA-923	Action - Create Lead-in taper - Give & Take
Story	Rules	TMPA-924	Action - Create Exit Taper - Normal
Story	Rules	TMPA-925	Action - Create Safety Zone Path Edge
Story	Rules	TMPA-926	Action - Create Safety Zone Polygon
Story	Rules	TMPA-927	Action - Create Safety Zone Points
Story	Rules	TMPA-928	Action - Construction Existence Rule
Story	Rules	TMPA-929	Action - Pass Width 1 - Road
Story	Rules	TMPA-930	Action - Extend Safety Zone
Story	Rules	TMPA-931	Action - Pass Width 2 - Road
Story	Rules	TMPA-932	Action - Populate CONED_AREA_LENGTH attribute
Story	Rules	TMPA-933	Action - Populate 'Line of Sight' attribute
Story	Rules	TMPA-934	Testing of output
Story	Rules	TMPA-936	Filter Rule - Determine Task 28 Layout - Traffic Lights
Story	Rules	TMPA-937	Action - Signage Construction Feature Creation
Story	Rules	TMPA-938	Action - Single Carriageway - Amend ROAD_CENTRE_LINE
Story	Rules	TMPA-939	Action - Create Red and White Safety Barrier
Story	Rules	TMPA-940	Action - Single Carriageway - Create Road Works Ahead Sign
Story	Rules	TMPA-941	Action - Single Carriageway - Create End of Road Works Sign
Story	Rules	TMPA-942	Action - Single Carriageway - Road Narrows Ahead
Story	Rules	TMPA-943	Action - Single Carriageway - Traffic Lights Ahead
Story	Rules	TMPA-944	Action - Single Carriageway - Wait Here Signage
Story	Rules	TMPA-945	Action - Directional Arrows
Story	Rules	TMPA-946	Action - Direction of Road Works

Story	Rules	TMPA-947	Action - Stop/Go boards
Story	Rules	TMPA-948	Action - Cones - Lead-in Taper
Story	Rules	TMPA-949	Action - Work Space Barriers
Story	Rules	TMPA-950	Action - Cones - Edge of Safety Zone
Story	Rules	TMPA-951	Action - Cones - Exit Taper
Story	Rules	TMPA-952	Testing of output
Story	Rules	TMPA-953	Installation of OS Highways Speed limit data on local Postgres
Story	Rules	TMPA-954	Installation of OS Highways Speed limit data on local Postgres
Story	Rules	TMPA-955	Installation of OS Highways Speed limit data on local Postgres
Story	Rules	TMPA-956	Installation of OS Highways Speed limit data on local Postgres
Story	Rules	TMPA-957	Filter Rule - Determine Layout - Give and Take
Story	Rules	TMPA-959	Action - Assign Traffic Control
Story	Rules	TMPA-960	Action - Signage Construction Feature Creation
Story	Rules	TMPA-961	Action - Single Carriageway - Amend ROAD_CENTRE_LINE
Story	Rules	TMPA-962	Action - Work Space Barriers
Story	Rules	TMPA-963	Action - Create Red and White Safety Barrier
Story	Rules	TMPA-964	Action - Single Carriageway - Create Road Works Ahead Sign
Story	Rules	TMPA-965	Action - Single Carriageway - Road Narrows Ahead
Story	Rules	TMPA-966	Action - Single Carriageway - Create End of Road Works Sign
Story	Rules	TMPA-967	Action - Directional Arrows
Story	Rules	TMPA-968	Action - Direction of Road Works
Story	Rules	TMPA-969	Action - Cones - Lead-in Taper
Story	Rules	TMPA-970	Action - Cones - Edge of Safety Zone
Story	Rules	TMPA-971	Action - Cones - Exit Taper
Story	Rules	TMPA-972	Testing of output
Story	Rules	TMPA-974	Filter Rule - Determine Task 27 Layout
Story	Rules	TMPA-975	Action - Assign Traffic Control
Story	Rules	TMPA-976	Action - Assign Traffic Control
Story	Rules	TMPA-977	Action - Delete Previous Safety Zone
Story	Rules	TMPA-978	Action - Assign Traffic Control
Story	Rules	TMPA-979	Action - Assign Traffic Control
Story	Rules	TMPA-980	Action - Assign Traffic Control
Story	Rules	TMPA-981	Action - Delete Previous Safety Zone
Story	Rules	TMPA-982	Action - Assign Traffic Control
Story	Rules	TMPA-985	Action - Signage Construction Feature Creation
Story	Rules	TMPA-986	Action - Single Carriageway - Amend ROAD_CENTRE_LINE
Story	Rules	TMPA-987	Action - Work Space Barriers
Story	Rules	TMPA-988	Action - Create Red and White Safety Barrier
Story	Rules	TMPA-989	Action - Single Carriageway - Create Road Works Ahead Sign
Story	Rules	TMPA-990	Action - Single Carriageway - Traffic Control Ahead

Story	Rules	TMPA-991	Action - Single Carriageway - Road Narrows Ahead
Story	Rules	TMPA-992	Action - Single Carriageway - Wait Here Signage
Story	Rules	TMPA-993	Action - Directional Arrows
Story	Rules	TMPA-994	Action - Direction of Road Works
Story	Rules	TMPA-995	Action - Cones - Lead-in Taper
Story	Rules	TMPA-996	Action - Cones - Edge of Safety Zone
Story	Rules	TMPA-997	Action - Cones - Exit Taper
Story	Rules	TMPA-998	Testing of output
Story	Testing	TMPA-600	Performance testing
Story	Testing	TMPA-601	Security testing
Story	Testing	TMPA-602	Usability testing
Story	Testing	TMPA-603	Resilience testing
Story	Testing	TMPA-604	Integration testing

2.4 Bugs fixed in this release

This is the list of the bugs raised during internal testing and subsequently completed for this release.

Issue Type	Components	Issue key	Summary
Bug	App	TMPA-1123	On creating Tenant with long username the canot see the tenant logo on card
Bug	App	TMPA-1128	Acceptance Tests - File upload tests break if run from directory containing spaces
Bug	App	TMPA-1188	Make Swa code mandatory on creating Swa organisation
Bug	App	TMPA-1280	Unexpected error on searching for some locations
Bug	App	TMPA-1320	Swagger docs include user principal
Bug	App	TMPA-1418	Measurement tool is in KM
Bug	App	TMPA-1421	Measure tool in US english (meters)
Bug	App	TMPA-1430	ValidatedNumberField inputs are missing the name attribute
Bug	App	TMPA-1457	FullContentLoader component
Bug	App	TMPA-1463	ValidatedNumberfield - cant enter 'zero' as a value
Bug	App	TMPA-1509	Plan list items render as blue links
Bug	App	TMPA-1516	Duplicate bean defintions starting plan-runner-app in Azure
Bug	App	TMPA-1580	Plan runner does not detect task errors
Bug	App	TMPA-1589	Clipping lines on the icon layers
Bug	App	TMPA-1597	Use spring @Async for distributed lock service - use in job expiry service
Bug	App	TMPA-1662	Intermittent build failures in Bitbucket pipelines
Bug	App	TMPA-1668	"Accept draft" checkbox not cleared when dialog closes
Bug	App	TMPA-1722	Address missing inline-block styles for logo image
Bug	App	TMPA-1726	Fix layout of logo component

Bug	App	TMPA-1803	Plate scaling on map view
Bug	App	TMPA-1833	SWA logo does not use correct subdomain domain on dashboard page
Bug	App	TMPA-1838	Tenant User - Unable to save mail template
Bug	App	TMPA-1841	Map sprite proxies return 404
Bug	Rules	TMPA-1284	End of Road Works Sign - Minimum distance
Bug	Rules	TMPA-1294	Run all master test cases with new session
Bug	Rules	TMPA-1295	Run all master test cases with new session
Bug	Rules	TMPA-1296	Run all master test cases with new session
Bug	Rules	TMPA-1297	Run all master test cases with new session
Bug	Rules	TMPA-1311	Road Closed - Should be road closure except certain classes of traffic
Bug	Rules	TMPA-1313	Traffic Count - footway diverted onto carriageway plus
Bug	Rules	TMPA-1315	Multiple Excavation - No safety zone created & working space creation
Bug	Rules	TMPA-1316	No Walkway or Safety Zone created - Test Case 35
Bug	Rules	TMPA-1317	Safety Zone extended when pass width compromised
Bug	Rules	TMPA-1318	Path Open instead of path closed
Bug	Rules	TMPA-1319	Incorrect working space - Test Case 26
Bug	Rules	TMPA-1321	Additional barriers
Bug	Rules	TMPA-1322	Line of Sight
Bug	Rules	TMPA-1323	Work Space Front line
Bug	Rules	TMPA-1324	Test Case 2 - No Signage
Bug	Rules	TMPA-1325	Test Case 17 - No Signage
Bug	Rules	TMPA-1326	Test Case 4 - No Signage
Bug	Rules	TMPA-1327	Test Case 18 - No Signage
Bug	Rules	TMPA-1328	Test Case 14 - Missing Signage
Bug	Rules	TMPA-1329	Test Case 2/35 - Misplaced signage
Bug	Rules	TMPA-1330	Test Case 12 - No Layout' & Unique Road Layout
Bug	Rules	TMPA-1331	Test Case 10 - Incorrect traffic control
Bug	Rules	TMPA-1332	Test Case 19/6 - Missing Road Narrows Ahead sign
Bug	Rules	TMPA-1333	Test Case 29/47 - Missing cones on lead in taper
Bug	Rules	TMPA-1334	Extend Pass Width segments - review
Bug	Rules	TMPA-1335	Red and White Safety Barrier in wrong place
Bug	Rules	TMPA-1340	Test Case 10 - Missing Road works ahead and End of roadworks
Bug	Rules	TMPA-1360	Footway diverted on carriageway plus - 15 min duration
Bug	Rules	TMPA-1362	Test Case 36/16 - Missing traffic signals
Bug	Rules	TMPA-1363	Test Case 4 - End of roadworks sight not appropriately placed
Bug	Rules	TMPA-1364	Test Case 16 - Wait here Signage not appropriately placed
Bug	Rules	TMPA-1365	Test Case 9 - missing signage - 'End of Road Works Signage cannot be placed'
Bug	Rules	TMPA-1366	Test Case 28 - Extra signage
Bug	Rules	TMPA-1367	Test Case 30/36 - missing signage on approach side

Bug	Rules	TMPA-1368	Test Case 6 - Traffic Lights Ahead - Missing direction sign
Bug	Rules	TMPA-1374	1Integrate/Postgres commit issue
Bug	Rules	TMPA-1375	1Integrate/Postgres commit issue
Bug	Rules	TMPA-1376	1Integrate/Postgres commit issue
Bug	Rules	TMPA-1377	1Integrate/Postgres commit issue
Bug	Rules	TMPA-1393	Postgres Integrate Commit/Copy_to error investigation
Bug	Rules	TMPA-1402	Test Case 30 - Traffic Signals Placed Incorrectly
Bug	Rules	TMPA-1404	Test Case 16 - Missing Signage at T-junction
Bug	Rules	TMPA-1407	Test Case 26 - Missing Signage
Bug	Rules	TMPA-1450	Wait Here - Decription and Stop Go required
Bug	Rules	TMPA-1461	Wait Here - Decription and Stop Go required
Bug	Rules	TMPA-1478	Test Case 16 - working space van width
Bug	Rules	TMPA-1537	Zoomstack_Rail class no longer necessary in the datastores
Bug	Rules	TMPA-1545	Bus duration - <1 per hour per direction
Bug	Rules	TMPA-1563	Inflated Guide Island - Cone on point
Bug	Rules	TMPA-1564	Missing Road Narrow Ahead Sign
Bug	Rules	TMPA-1565	Road Narrows Ahead not placed before traffic Lights
Bug	Rules	TMPA-1566	Guide Island Cones misplaced
Bug	Rules	TMPA-1567	No footway created
Bug	Rules	TMPA-1568	Stop-Go Sign placed in the middle of the road
Bug	Rules	TMPA-1569	Missing Signage - Test Case 70
Bug	Rules	TMPA-1570	Wait Here sign placed in the middle of the road
Bug	Rules	TMPA-1571	Missing traffic signals - Test Case 73
Bug	Rules	TMPA-1572	Missing Signage - Test Case 74
Bug	Rules	TMPA-1573	Path Closed but no walkway created
Bug	Rules	TMPA-1574	Safety Zone merged with topo road geometry
Bug	Rules	TMPA-1575	No traffic control assigned - No signage
Bug	Rules	TMPA-1576	Missing Signage - Test Case 80
Bug	Rules	TMPA-1577	Multiple Excavation on curb
Bug	Rules	TMPA-1578	'Unique Road Layout' - test case 83
Bug	Rules	TMPA-1581	Create human-readable names for tasks displayed on progress reporter
Bug	Rules	TMPA-1599	Cones duplicates
Bug	Rules	TMPA-1600	Road closure except certain traffic - test case 75
Bug	Rules	TMPA-1602	Duplicate cones - Lead in taper
Bug	Rules	TMPA-1603	Keep Left sign near guide island off set from curb
Bug	Rules	TMPA-1604	Lead in taper is built with wrong angle
Bug	Rules	TMPA-1605	Stop go board error
Bug	Rules	TMPA-1606	Both set of traffic light on the same side of the road
Bug	Rules	TMPA-1607	Safety zone errors when commit - multipart geometry?
Bug	Rules	TMPA-1608	Road closure except certain traffic - offset error

Bug	Rules	TMPA-1609	Road closure except certain traffic - duplicate
Bug	Rules	TMPA-1610	Implement Road Closure except certain traffic for layout on path and curb
Bug	Rules	TMPA-1616	No End of front work space ext created - affects Rd Cloasure layout
Bug	Rules	TMPA-1617	Adjust offset
Bug	Rules	TMPA-1618	Missing Traffic Signals on one road in T-Junction?
Bug	Rules	TMPA-1620	Safety Zone not created correctly
Bug	Rules	TMPA-1621	Test Case Framework Session
Bug	Rules	TMPA-1624	Road Narrows Sign placed on path edge
Bug	Rules	TMPA-1724	Add bearings to TRAFFIC_LIGHTS and STOP_GO features
Bug	Rules	TMPA-1725	Missing cones on second creation of a layout
Bug	Rules	TMPA-1731	Job does not fail, but no features are output
Bug	Rules	TMPA-1732	No bearing on pedestrian signs - footpath in carriageway
Bug	Rules	TMPA-1733	Red and white plate should be set as plate_type on direction sign
Bug	Rules	TMPA-1734	Task error - no geometry failure
Bug	Rules	TMPA-1735	Cast error in task
Bug	Rules	TMPA-1736	Verify road closure signage - road closed except certain traffic
Bug	Rules	TMPA-1737	Road closure - unique road layout
Bug	Rules	TMPA-1754	Multiple Excavation fatal error - Builtin 'point_at_projection' failed; input argument 3 was unexpectedly null
Bug	Rules	TMPA-1782	Road Narrows Sign placed on path edge - Test case 55
Bug	Rules	TMPA-1783	Lead in taper not intersecting the toporoads - Test case 73
Bug	Rules	TMPA-1784	Multiple Excavations - multiple traffic control - Test case 82-13
Bug	Rules	TMPA-1785	Layout with signs for traffic lights but no traffic lights - Test case FE6
Bug	Rules	TMPA-1786	Missing Signage - Test case 3
Bug	Rules	TMPA-1787	Missing Signage - Test case 9
Bug	Rules	TMPA-1788	Missing Signage - Test case 11
Bug	Rules	TMPA-1789	Missing Signage - Test case 13
Bug	Rules	TMPA-1790	Missing Signage - Test case 17
Bug	Rules	TMPA-1791	Missing Signage - Test case 35
Bug	Rules	TMPA-1792	Missing Signage - Test case 53
Bug	Rules	TMPA-1793	Missing Signage - Test case 60
Bug	Rules	TMPA-1794	Traffic control not assigned - Test case 38
Bug	Rules	TMPA-1795	Errors in Traffic Signals folder - Test case 40
Bug	Rules	TMPA-1796	Incorrect signage - Test case 80
Bug	Rules	TMPA-1798	Second run of same plan= different output
Bug	Rules	TMPA-1799	Traffic Signals Task Error
Bug	Rules	TMPA-1800	Duplicate Traffic Signals
Bug	Rules	TMPA-1802	Layout_type not populated
Bug	Rules	TMPA-1805	Task Errors and Missing Signage output - Test Case 74
Bug	Rules	TMPA-1808	Duplicate Traffic Signals sign on approach

Bug	Rules	TMPA-1809	Road Narrows Ahead wrong place - test case 16
Bug	Rules	TMPA-1810	Duplicate cones on Guide Island - Test Case 4/5
Bug	Rules	TMPA-1811	Traffic Lights in safety zone
Bug	Rules	TMPA-1814	Duplicate set of traffic lights
Bug	Rules	TMPA-1815	Rules Release 0.1.0
Bug	Rules	TMPA-1821	Extention of workspace wrong incorrect
Bug	Rules	TMPA-1822	Vertex construction lines created from an incorrect point
Bug	Rules	TMPA-1823	Missing Signage - Test case 30
Bug	Rules	TMPA-1825	Road Closure - Missing signage and wrong working space
Bug	Rules	TMPA-1826	Footway diverted on carriageway plus - No footway
Bug	Rules	TMPA-1828	Missing Traffic Lights
Bug	Rules	TMPA-1829	No Layout - Unique Road Layout
Bug	Rules	TMPA-1830	Wait Here incorrect on inflated Guide Island
Bug	Rules	TMPA-1831	Wait Here 3 way control
Bug	Rules	TMPA-1834	Task error - recreating one.network task error
Bug	Rules	TMPA-1837	Duplicate Traffic Signals sign on approach - Test Case 4
Bug	Rules	TMPA-1839	Second commit differences

2.5 Known bugs outstanding in this release

This is the list of the known bugs raised during internal testing and currently outstanding at this release. These are intended to be addressed in the subsequent release. Although classed as bugs, many are refinements to the rules logic to handle extraordinary road layouts.

Issue Type	Components	Issue key	Summary
Bug	App	TMPA-1128	Acceptance Tests - File upload tests break if run from directory containing spaces
Bug	App	TMPA-1589	Clipping lines on the icon layers
Bug	App	TMPA-1803	Plate scaling on map view
Bug	Rules	TMPA-1403	Test Case 11 - Safety Zone Extent and Pass Width incorrect
Bug	Rules	TMPA-1619	T junction box assignment
Bug	Rules	TMPA-1825	Road Closure - Missing signage and wrong working space
Bug	Rules	TMPA-1826	Footway diverted on carriageway plus - No footway
Bug	Rules	TMPA-1828	Missing Traffic Lights
Bug	Rules	TMPA-1830	Wait Here incorrect on inflated Guide Island
Bug	Rules	TMPA-1831	Wait Here 3 way control
Bug	Rules	TMPA-1847	Test Case 93/94 - Unique Road Layout
Bug	Rules	TMPA-1848	Test Case 26 - Missing Road Works Narrows Ahead
Bug	Rules	TMPA-1849	Test Case 36 - Working Space Pedestrian Barriers in wrong place
Bug	Rules	TMPA-1850	Test Case 77 - Lead in taper not created correctly
Bug	Rules	TMPA-1851	Test Case 78 - Missing Signage

Bug	Rules	TMPA-1852	Test Case 81 - Multiple layout assigned different traffic control
Bug	Rules	TMPA-1853	Test Case 82 - Wrong Traffic Control and Missing Signage
Bug	Rules	TMPA-1860	Test Case 70 - Stop/Go - Task Error
Bug	Rules	TMPA-1861	Test Case 52 - No Layout - Unique Road Layout
Bug	Rules	TMPA-1862	Test Case 47 - Task Error and Missing Signage
Bug	Rules	TMPA-1863	Test Case 10 - Task Error
Bug	Rules	TMPA-1864	Test Case 27 - Missing Signage
Bug	Rules	TMPA-1865	Test Case 14 - Missing traffic lights ahead sign

2.6 Other items and refinements outstanding in this release

This is the list of other items and refinements that are currently outstanding at this release. These are intended to be addressed in the subsequent release.

Issue Type	Components	Issue key	Summary
Task	App	TMPA-1444	Share spring code between modules where possible
Task	App	TMPA-1757	Upgrade TypeScript to 4.4.4
Story	Platform	TMPA-1705	Define observability requirements for the full solution
Story	Platform	TMPA-1706	Implement observability in Platform
Story	Platform	TMPA-1774	Align 1Integrate TMPA Deployment scripts with Product 1Integrate Deployment scripts
Story	QMS	TMPA-610	QMS - Consultancy - Design Specification
Story	QMS	TMPA-611	QMS - Consultancy - Costing Spreadsheet
Story	QMS	TMPA-612	QMS - Consultancy - Data Quality Baseline Assessment Audit
Story	QMS	TMPA-613	QMS - Consultancy - Data Audit Catalogue
Story	QMS	TMPA-614	QMS - Consultancy - Data Review Document
Story	QMS	TMPA-616	QMS - Consultancy - User Procedure Document
Story	QMS	TMPA-617	QMS - Consultancy - Test Case Design
Story	Rules	TMPA-1642	Create and populate works_area.USRN
Story	Rules	TMPA-1643	Create and populate works_area.road_name
Spike	Rules	TMPA-1665	Identifying WorksAreas in Scotland
Task	Rules	TMPA-1707	Test NSG services and identify changes to rules that need to be made
Task	Rules	TMPA-1819	No Layout required for large areas
Story	Rules	TMPA-1846	Restricted Access Roads
Task	Testing	TMPA-1209	Disable Sonarcloud issue java:S2699 for ui-tests module

2.7 Candidate backlog items for next release

This is the list of items intended to be addressed in the subsequent release, subject to backlog refinement and prioritisation.

Issue Type	Components	Issue key	Summary
Story	App	TMPA-1126	Anonymise User
Story	App	TMPA-1136	SWA Codes and private developers
Story	App	TMPA-1431	Default SWA Organisation
Task	App	TMPA-1587	Verify barrier length calculation is correct
Story	App	TMPA-1626	Sign orientation aligned to road/approaches
Story	App	TMPA-1631	Check that underlying feature is a valid one for street works excavation
Story	App	TMPA-1650	Upgrade MUI to v5
Story	App	TMPA-1832	Review redundant signs and plates
Story	App	TMPA-625	Add Permit/Information Board
Story	App	TMPA-649	View Special Designations
Story	App	TMPA-650	View Special Designations on PDF output
Story	Data	TMPA-1079	OS Data Hub APIs - terms & conditions review
Story	Data	TMPA-1080	OS Data Hub APIs - terms & conditions pass-through
Story	Data	TMPA-1081	OS Printed Products - terms & conditions review
Story	Data	TMPA-1082	OS Printed Products - terms & conditions pass-through
Story	Data	TMPA-1083	OS Speed Limits - terms & conditions review
Story	Data	TMPA-1084	OS Speed Limits - terms & conditions pass-through
Story	Rules	TMPA-1007	Filter Rule - Determine Task 29 Layout
Story	Rules	TMPA-1008	Action - Traffic control by Stop works sign
Story	Rules	TMPA-1009	Action - Traffic control by Temporary obstruction sign
Story	Rules	TMPA-1010	Testing of output
Story	Rules	TMPA-1011	Filter Rule - Determine Task 30 Layout
Story	Rules	TMPA-1017	Action - Single Carriageway - Traffic Lights Ahead
Story	Rules	TMPA-1018	Action - Single Carriageway - Road Narrows Ahead
Story	Rules	TMPA-1020	Action - Single Carriageway - Wait Here Signage
Story	Rules	TMPA-1021	Action - Traffic Light Placement
Story	Rules	TMPA-1027	Action - Stop/Go boards
Story	Rules	TMPA-1028	Action - Single Carriageway - Traffic Control Ahead
Story	Rules	TMPA-1029	Testing of output
Story	Rules	TMPA-1030	Filter Rule - Determine Task 31 Layout
Story	Rules	TMPA-1031	Action - Create working space
Story	Rules	TMPA-1032	Action - Road Closure Signs
Story	Rules	TMPA-1033	Action - Road Closure Barriers
Story	Rules	TMPA-1034	Testing of output

Story	Rules	TMPA-1055	Action - Signage Existence Rule
Story	Rules	TMPA-1056	Action - Signage Existence Rule
Story	Rules	TMPA-1058	Action - Signage Existence Rule
Story	Rules	TMPA-1059	Action - Signage Existence Rule
Story	Rules	TMPA-1060	Action - Signage Existence Rule
Story	Rules	TMPA-1065	Action - Signage Existence Rule
Story	Rules	TMPA-1066	Action - Signage Existence Rule
Story	Rules	TMPA-1067	Action - Signage Existence Rule
Story	Rules	TMPA-1153	Test Case Quantity Output CSV
Story	Rules	TMPA-1154	Define list of works area 'Descriptions' attribute
Story	Rules	TMPA-1155	Define list of works area 'Layout' attribute
Story	Rules	TMPA-1168	Traffic Control - Documentation
Story	Rules	TMPA-1179	Extend working space rear based on 'Depth' attribute
Story	Rules	TMPA-1191	Extend front of working space based on more than 1 works vehicle
Story	Rules	TMPA-1223	Working Space Creation - Documentation
Story	Rules	TMPA-1225	Edge of Safety Zone - Documentation
Story	Rules	TMPA-1226	Create Lead-in taper - Documentation
Story	Rules	TMPA-1227	T-Junction - Documentation
Story	Rules	TMPA-1228	Create exit taper - Documentation
Story	Rules	TMPA-1229	Preparation of Roadways - Documentation
Story	Rules	TMPA-1230	Square Works Area - Documentation
Story	Rules	TMPA-1231	No Layout - 'separate plan required'
Story	Rules	TMPA-1234	Safety Zone Create - Access to properties
Story	Rules	TMPA-1235	Cul-de-Sac/End of Terrace Creation
Story	Rules	TMPA-1236	Amend lead-in taper around corner
Story	Rules	TMPA-1240	Unable to extend working space
Story	Rules	TMPA-1252	No Layout - Documentation
Story	Rules	TMPA-1278	Test Case - Road Centre Line is less than 110m (Dual Carriageway)
Story	Rules	TMPA-1279	Test Case - Road Centre Line for End of Road Works is less than 30m (Dual Carriageway)
Story	Rules	TMPA-1281	Construction Feature - Documentation
Story	Rules	TMPA-1336	Pass Width 5 - Correct T-Junction
Story	Rules	TMPA-1483	Test case 11 - 02. Single Carriageway - Amend road_centre_line
Story	Rules	TMPA-1550	Documentation
Story	Rules	TMPA-1560	Documentation
Story	Rules	TMPA-1622	Creation of layouts using barrier length
Story	Rules	TMPA-1623	Road Closure on a T-junction when layout is on the bend
Story	Rules	TMPA-1625	4-way traffic lights
Story	Rules	TMPA-1639	Ability to cope with 1-way streets
Story	Rules	TMPA-1717	Put names on the session tasks that are more meaningful to end-users
Story	Rules	TMPA-1746	Check 4-way traffic control works

Task	Rules	TMPA-1748	Add 'density' attribute to works_area
Task	Rules	TMPA-1752	Load OS density data
Story	Rules	TMPA-1779	Extend working space in opposite direction
Task	Rules	TMPA-1820	Triangular T-Junction
Story	Rules	TMPA-605	Framework for Action testing automation
Story	Rules	TMPA-715	Construction Existence Rule
Story	Rules	TMPA-723	Populate 'Lane width' attribute
Story	Rules	TMPA-759	Action - Pedestrian Direction Signs
Story	Rules	TMPA-769	Action - Extend working space - Path Open
Story	Rules	TMPA-770	Action - Pedestrian Direction Signs
Story	Rules	TMPA-771	Action - Pedestrian Barriers
Story	Rules	TMPA-772	Action - Pedestrian/Cycle Conflict Signs
Story	Rules	TMPA-774	Filter Rule - Determine Task 8 Layout
Story	Rules	TMPA-776	Action - Signage - Temporary footway obstruction
Story	Rules	TMPA-780	Testing of output
Story	Rules	TMPA-781	Testing of output
Story	Rules	TMPA-791	Filter Rule - Determine Task 11 Layout
Story	Rules	TMPA-792	Action - Extend working space - Path Closed
Story	Rules	TMPA-793	Action - Pedestrian Barriers
Story	Rules	TMPA-794	Action - Path Closure Signs
Story	Rules	TMPA-795	Testing of output
Story	Rules	TMPA-798	Action - Extend working space - Path Closed
Story	Rules	TMPA-799	Action - Pedestrian Barriers
Story	Rules	TMPA-800	Action - Path Closure Signs
Story	Rules	TMPA-801	Action - Create local diversion
Story	Rules	TMPA-802	Testing of output
Story	Rules	TMPA-805	Action - Extend working space - Path Closed
Story	Rules	TMPA-806	Action - Pedestrian Barriers
Story	Rules	TMPA-807	Action - Pedestrian Direction Signs
Story	Rules	TMPA-808	Action - Create Pedestrian Crossing
Story	Rules	TMPA-809	Testing of output
Story	Rules	TMPA-815	Testing of output

2.8 Backlog for subsequent releases

This is the list of items intended to be addressed in future releases, subject to backlog refinement and prioritisation.

Issue Type	Components	Issue key	Summary
Story	App	TMPA-1112	one.network integration

Story	App	TMPA-1165	Identify map feature
Story	App	TMPA-1634	Store user's organisation details for later use on output plan
Story	App	TMPA-1635	User's organisation details on output plan
Story	App	TMPA-1645	Layout generated description
Story	App	TMPA-1647	Show/report dimensions when digitising a Works Area
Story	App	TMPA-1648	Specify dimensions for a Works Area before placing it on the map
Story	App	TMPA-1762	DfT Street Manager integration
Story	App	TMPA-1765	Augmented reality view
Story	App	TMPA-1767	Fixed size barriers rather than barrier length
Story	App	TMPA-1768	What3Words integration for finding locations
Story	App	TMPA-1769	Viewports in PDF
Story	App	TMPA-1770	Identify the local highways authority in the interface, on the plan, on the PDF
Story	App	TMPA-1781	Generate PDF asynchronously and store historical copies with metadata
Story	App	TMPA-626	Reject Plan
Story	App	TMPA-636	View credit ledger for organisation
Story	Data	TMPA-1502	Investigate potential of Geolytix UK Road and Traffic dataset
Story	Rules	TMPA-1108	Rules to handle layouts on T-Junction
Story	Rules	TMPA-1109	Rules to handle roundabouts
Story	Rules	TMPA-1110	Rules to handle layouts containing traffic calming
Story	Rules	TMPA-1111	Rules to handle layouts containing railways and tramways level crossings
Story	Rules	TMPA-1113	Rules - Low Speed: Diversions & Routing
Story	Rules	TMPA-1114	Rules - High Speed: Diversions & Routing
Story	Rules	TMPA-1761	Cycle Routes
Story	Rules	TMPA-1763	Hazard identification for diversions and routing
Story	Rules	TMPA-1764	Lane rental schemes
Story	Rules	TMPA-1766	Hazard identification - curbs and ironworks
Story	Rules	TMPA-1840	TfL Purple book
Story	Rules	TMPA-235	Task 58 - Issue - Is the road a motorway
Story	Rules	TMPA-237	Task 60 - Issue - Convoy working with 10mph speed limit required using and Emergency TTRO
Story	Rules	TMPA-238	Task 61 - Issue - Road closure required using an Emergency TTRO
Story	Rules	TMPA-240	Task 63 - Issue - Lane closure with 3.3m past works and greatest lateral safety zone provided
Story	Rules	TMPA-242	Task 65 - Issue - Can the work be undertaken in <2-3 minute bursts and maintain a 3.3m when not
Story	Rules	TMPA-243	Task 66 - Issue - Lane closure with 3.3m past works with traffic signals and all red periods
Story	Rules	TMPA-244	Task 67 - Issue - Short term closure with IPV implemented with RRB or SfR
Story	Rules	TMPA-245	Task 68 - Issue - Is there a full hardshoulder
Story	Rules	TMPA-246	Task 69 - Issue - Mobile Lane Closure

Story	Rules	TMPA-250	Task 73 - Issue - Standard cross-sectionStandard lane width system work not restricted to off peak periods
Story	Rules	TMPA-253	Task 76 - Issue - Standard cross-sectionStandard narrow lane width system work not restricted to off peak periods
Story	Rules	TMPA-255	Task 78 - Issue - Split cross-section Standard narrow lane system with lane closures off peak to facilitate work
Story	Rules	TMPA-256	Task 79 - Issue - Split cross-section Standard narrow lane system with lane closures off peak to facilitate work
Story	Rules	TMPA-259	Task 83 - Issue - Does the road have a hard shoulder?
Story	Rules	TMPA-260	Task 84 - Issue - Is it a full hard shoulder
Story	Rules	TMPA-264	Task 88 - Issue - Relaxation lane closure with cones normally
Story	Rules	TMPA-265	Task 89 - Issue - Relaxation lane closure with cones normally
Story	Rules	TMPA-267	Task 91 - Issue - Standard relaxation lane closure with cones placed online
Story	Rules	TMPA-268	Task 92 - Issue - Is the road subject to a mandatory speed limit of 20 30 40
Story	Rules	TMPA-269	Task 93 - Issue - Is the road a motorway
Story	Rules	TMPA-271	Task 95 - Issue - Convoy working with 10mph Speed limit required using a TTRO
Story	Rules	TMPA-272	Task 96 - Issue - Road closure required using a TTRO
Story	Rules	TMPA-276	Task 100 - Issue - Can the work be undertaken in <2-3 minute bursts and maintain a 3.3m when not
Story	Rules	TMPA-277	Task 101 - Issue - Lane closure with 3.3m past works with traffic signals and all red periods
Story	Rules	TMPA-702	Create Lead-in Taper - Dual Carriageway
Story	Rules	TMPA-714	Populate Dual Carriageway 'Sub-Scenario' attribute
Story	Rules	TMPA-731	Dual Carriageway - Amend ROAD_CENTRE_LINE
Story	Rules	TMPA-733	Dual Carriageway - Create Road Works Ahead Sign
Story	Rules	TMPA-735	Dual Carriageway - Create End of Road Works Sign
Story	Rules	TMPA-740	Dual Carriageway - Lane closure - 100 Yards & 200 Yards
Story	Rules	TMPA-741	Lane Closure - Left or Right

2.9 Third Party data usage in TMPA

The following data products are used in TMPA:

Supplier	Product(s)	Licence
Ordnance Survey	1. OS Data Hub APIs • OS OpenData • OS Names API • OS Maps API • OS Features API • OS Linked Identifiers API • OS Vector Tile API 2. Speed Limits	OS licence 100041549
GeoPlace LLP	1. National Street Gazetteer 2. SWA Code List	TBC

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3 Documentation and Administration

At this release, no documentation for users and administrators has been produced.

 Commercial-in-confidence

4 1Spatial Product Assistance

If assistance is required relating to this release, contact either the TMPA Product Manager or 1Spatial Support.

To contact 1Spatial Support, please visit our website: http://www.1spatial.com/services/support

Maximise the value of this release with 1Spatial training courses. For training enquiries please contact your Account Manager or email training@1spatial.com