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The Scottish Road Worker Consultation Consultation Analysis 2024

Contents

Executive Summary 3

Profile of respondents 4

Analysis and reporting 6

Conclusion..... 21

Next Steps..... 22

Executive Summary

This report summarises responses that were received through a Scottish Government public consultation, primarily on the use of 'apparatus plans' with three questions on the 'Street Works Qualification' regime.

The consultation, which was published on the Scottish Government's Citizenspace web portal and Transport Scotland's website, ran for a twelve-week period between 11 July and 3 October 2024. The Roads Authority and Utility Committee (Scotland) ("RAUCS") and the office of Scottish Road Works Commissioner were contacted prior to launch to make them aware of the upcoming consultation. Also invited to provide their views were relevant trade unions, the HSE and other industry related interest groups.

Fifteen questions were asked as part of the consultation. The questions were a mix of closed and open with some providing a multiple choice of answers to choose from. Respondents were also asked to provide details to explain their views. The response to these questions in relation to the experience of using 'apparatus plans' will inform the guidance that will refine the process for road authorities and utility firms supplying information to the Scottish 'Vault' system and ensure it is fit for purpose. The additional questions on the 'Street Works Qualification' regime will be taken into consideration when shaping the future of this regime in Scotland.

For the purposes of supporting the legal requirement to supply information to Vault, a Scottish Statutory Instrument is required to help refine the specific data required for a 'Vault submission'. While the legal keeper of the Scottish Road Works Register ("SRWR"), which houses Vault, is the Scottish Road Works Commissioner, it is important that there are clear requirements in statute that cover the minimum requirements. As in other areas within the Scottish road works sector, we anticipate that the road works community will act collaboratively and continue to submit information voluntarily as with the previous twelve years of voluntary operation.

Profile of respondents

A total of fifty-three responses were received to the consultation, of which around twenty-four came from current managerial/supervisory staff working within the industry. In terms of operatives, individuals working for both utility firms, roads authorities and their supply chain provided responses. There were also three responses from organisations responsible for setting best practice, the direct provision of plans (“others”), or informing policy making, including Scotland’s regulator of road works, the Scottish Road Works Commissioner. One response was received after the deadline but has been included in the analysis in the interests of representing as wide a set of views as possible.

Throughout this report the below groups will be referred to:

Roads Authorities and Utilities Committee of Scotland (RAUC(S))

This group consists primarily of roads authorities and undertakers. They provide support and advice to the Commissioner to improve the planning, co-ordination and quality of road works in Scotland. They are a key stakeholder group representing the road works sector in Scotland.

Policy Development Group

This group consists of representatives from RAUC(S), SCOTS (The Scottish Collaboration of Transportation Specialists), Streetworks UK (formerly known as the National Joint Utilities Group), the SRWR Steering Group, the Scottish Government and the Commissioner. It has a remit to take a strategic overview of road works in Scotland and advises particularly on the need for the development of new legislation or Codes of Practice.

Direct Engagement/Focus group

This group was made up of Operatives and Supervisors working within the road works industry. They provided one to one feedback on the draft question bank before it was finalised to ensure questions were accessible and fit for purpose. During the feedback they also provided responses to the questions. To allow for open and honest discussion, the identity of those who took part were kept anonymous.

Feedback was received from both site-based respondents and focus group members that advised they were grateful for the opportunity to be included in the policy development process.

“I’m glad that I was given the opportunity to give my views.”

- A road authority representative

Responses were received from operatives, road inspectors, designers, administrators, supervisors and individuals with split functions e.g. jobs that include some site supervision responsibility and some office-based reporting responsibility. In terms of day-to-day duties, respondents fell into the categories displayed on the below table.

Job Type	Percentage	Number
Works within industry in a predominately site-based role	40%	21
Works within industry in a predominately office-based role	55%	29
Other	5%	3

Table 1 - Respondent Categories

In terms of background twenty-seven respondents worked in the road authority sector, while twenty-one responses were received from utility workers. One telecoms firm and one roads authority gave organisational level responses but informed by the views of the lived experience of their direct workforce. Five responses were received from outside of the traditional authority/utility sector split. Within traditional sector categories a total of thirty-three respondents advised that they were speaking from direct site experience within the last five years.

Analysis and reporting

Question 1-3

These questions relate to the identity and experience of the respondents directly. A summary of the information gathered and analysed from these questions have been covered in the above 'profile of respondents' section.

Question 4

Thinking about your most recent experience with site work, can you tell us how you read the plans onsite when carrying out excavations?

For this question we focused on the sectoral split between respondents. For the purposes of this consultation, we were specifically seeking individual experiences of life on site. In order to analyse the information fully, we have classified that information based on site type, specifically if the individual has experience in working on utility sites or on roads authority sites (or both). In total thirty responses were received from 'individuals' and twenty-three from 'organisations', twenty-one of which were roads authority or utility organisations, with a further two from the office of the Scottish Road Works Commissioner and one platform provider for plans. We therefore are looking at the roads authority and utility sectors via a mixture of collated, organisational responses covering the views of their site-based staff, organisation approved responses of individuals, and direct individual responses categorised by the sector they predominantly work within.

Within the utility sector, two organisations talked about having mixed access, where the plans were available electronically but also provided in paper format. In addition, five responses provided both electronic and paper versions of the plans as standard. We have considered this information in this analysis. In total, 15 of 48 utility and roads authority organisations used more than one method, indicating that these sectors are content to provide information in several formats. One example of 'electronic not on an app' would be information pulled from a system like Vault, which is then provided via electronic device as a PDF.

Utility response	Percentage	Number
Paper	40%	8
Electronic not on an app	50%	10
App e.g. Vault	5%	1
Other	5%	1

Table 2 - Formats of Plans used by utilities

Roads Authority response	Percentage	Number
Paper	54%	15
Electronic not on an app	21%	6
App e.g. Vault	18%	5
Other	7%	2

Table 3 - Formats of Plans used by road authorities

For both sectors, we have noted that a large number of organisations still use paper plans, making it important that paper-based methods continue to be provided for, despite the rise in the use of electronic systems. More roads authorities than utilities appear to rely on paper systems, based on a mixture of organisational responses and individual responses by roads authority workers.

Question 5

If you use an electronic device which allows you to view apparatus information (such as email, the vault app etc.), can you tell us how you access this whilst on site?

There was no significant difference between utility device use and roads authority device use, which were broadly aligned with the exception of 'tablet' use which was marginally higher for utility respondents (nine responses vs seven responses for roads authorities). It would appear that a number of technology types are in use, with mobile phone use being the single most used category, alongside laptop and tablet use.

What type of device	Percentage	Number
Mobile Phone	37%	19
Tablet	31%	16
Laptop	17%	9
N/A	13%	7
Other	2%	1

Table 4 - Device used to access plans onsite

Question 6

Is the device you use to access the plans a company issued device or your own personal device?

From the responses to question six, it is clear that for all organisation types, organisation provided devices are the most common means of accessing plant information, as shown in table below:

Device used	Percentage	Number
Company issued device	51%	27
Personal device	4%	2
No device (paper only)	11%	6
Did not answer	34%	18

Table 5 - Device origin

Question 7

When using electronic plans, do you use 'filters' that allow you to switch layers on and off?

This question received mixed responses. Twenty-three respondents either did not use electronic plans at all or their electronic plans did not allow an ability to filter, and two respondents did not answer. For this question we focused on the respondents who used electronic plans with ability to filter. Only 17% of respondents did not utilise filter functionality.

Question 8

When using electronic apparatus information, would you prefer to click on/select individual objects to read more information about them in a separate box, or would you prefer to have all the information (size, owners, pressure etc.) about the apparatus on screen by default?

In terms of data visualization, responses from all respondents were reviewed, and there was no significant difference between site-based and non-site-based respondents. Overall, there was no overwhelmingly strong preference for either a pop-up box or constant display, with comments from all sectors supporting both methods. This being the case it is therefore unlikely to be an area suitable to be set in legislation, and the lack of clear preference within the sector indicates that a degree of flexibility must be incorporated as systems and requirements change.

Those with utility experience gave supporting statements for use of the filters, including: *“Filters are essential, providing an increased opportunity to zoom in for additional information...”*

Display Format Preference	Percentage	Number
Pop-up box	47%	25
On screen by default	40%	21
No answer/view	13%	7

Table 6 – Asset Information Display Preference from all responses

Responses & job type of responses	Pop-Up	On Screen	No answer/view	Total
Site-based	14 (42%)	14 (42%)	5 (16%)	33
Non-site based	11 (55%)	7 (35%)	2 (10%)	20
Total	25 (47%)	21 (40%)	7 (13%)	53

Table 7 – Asset Information Display Preference by job type

Question 9

What specific type of information do you think is key to be able to carry out a road excavation safely?

Attributes	Percentage	Number
Ownership	87%	46
Supplier of information	43%	23
Type of asset	92%	49
Material of asset	60%	32
Voltage and/or Pressure	85%	45
Depth	91%	48
Diameter	55%	29
Location (line on map)	87%	46
Position in road	89%	47
Position of asset when in another asset	60%	32
Age of asset	34%	18
Colour of asset	47%	25
Identifier code	28%	15
Other	15%	8

Table 8 - Key Attributes from all responses

When analysed separately, there was no significant difference in the views of site-based vs non-site-based respondents, nor between the utility and road works sectors. Respondents from the 'others' category provided additional views for other information types which will be considered alongside the views of the community itself.

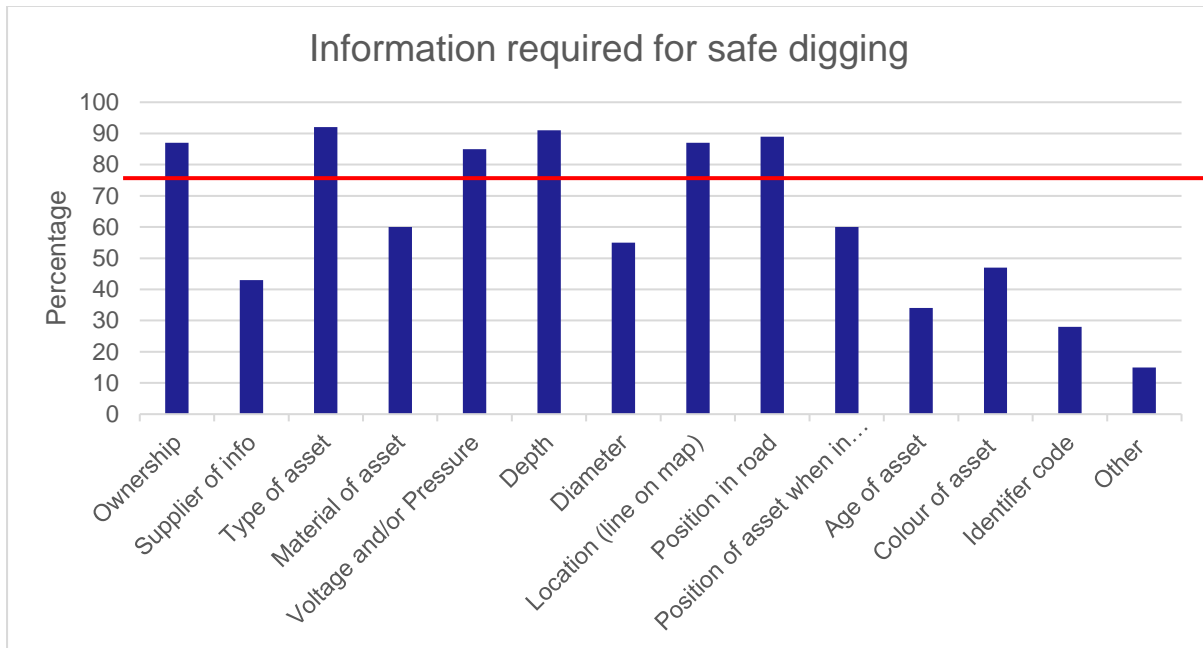


Figure 1 - Key attributes from all responses displayed in graph format

Attributes which were considered necessary by over 75% will be considered 'essential' for safe digging. While we support fully the supply of as much information as possible, which echoes the general view of the community, there is clearly a subset of assets agreed by all to be 'essential' with a wider group not considered to be necessary in all situations.

"All of the above is a requirement, the more information the better..." – A utility manager.

Based on these findings, our direct engagement with our road worker focus group, and the long-standing road works policy development group, we propose to include the following in the resulting legislation:

- Ownership
- Asset Type (e.g. cabinet, pipe, duct etc)
- Voltage/Pressure etc.
- Depth
- Location (line on map)
- Position in road
- Position of asset when in another asset (PDG discussion)

Whilst the position of asset when in another asset is not an attribute that came out strongly in the consultation, discussion took place with the road works Policy Development Group on this topic and there was agreement from members that there was an issue of visibility when an asset is installed within an already existing asset.

It is not uncommon for an asset to be installed into an existing asset that has been put out of commission by the asset owner. However, as these assets tend to be historic, they are not always on Vault. This can result in a piece of the network appearing to have a 'gap' where it enters the other asset, before reappearing at the exit point. Also highlighted by the PDG was the risk that the asset may be misinterpreted or falsely appear to show as two independent cables, however the general consensus was that for safe digging purposes, an asset shown twice would be preferable to an asset not shown at all. We will therefore specifically require a declaration confirming if the asset in question is housed within another undertaker's asset, or not. The group discussed potential ways this may look but agreed this development work should be remitted to the symbology working group (a subgroup within RAUC(S)) to lead on. The Commissioner was content with this approach.

In each case, a supporting explanation of what is required by each term will be developed, with the intention of having a 'plain English' definition in an appropriate Code of Practice, where relevant.

Question 10a

Is the traditional measure of 500 mm an appropriate degree of accuracy for you to feel safe when excavating?

Responses	Percentage	Number
Yes	75%	40
No	19%	10
No answer/view	6%	3

Table 9 - Views on the 500 mm measurement from all responses

Respondents overwhelmingly supported the current industry standard of 500 mm accuracy, only ten responses were not content with this approach, two believing greater accuracy is technically feasible, two made general comments on depth and the dangers of shallow apparatus, one response reconfirmed the general position that trial holes and safe digging techniques should always be used to compliment plans, and five responses did not give a reason for their position.

Question 10b

In your experience, how common are asset strikes, both minor and serious during site work?

Frequency	Utility Response	Road Authority Response
Rarely	10 (77%)	12 (44%)
Now and again	2 (15%)	14 (52%)
Frequently	1 (8%)	1 (4%)

Table 7 - Frequency of strikes from utilities and road authorities

As there is currently no separate regime which covers the reporting of strikes which take place during Scottish road works specifically, it is difficult to draw conclusions around the potential under or over reporting of strikes. The Road Works Commissioner has supplied the following information on strike reporting through the register

“The following number of Damage Notices were recorded on the SRWR:

1 April 2021- 31 March 2022- 27

1 April 2022- 31 March 2023-19

1 April 2023- 31 March 2024- 30”

The UK Government estimated in their publication ‘NUAR economic benefits paper Nov 2021’ that there are an estimated 60,000 utility strikes annually UK wide, with an average combined cost to the UK economy of £202 million. Although the UK Government does not further break down the costs by nation, we reasonably believe that the Scottish contribution to this overall figure reflects the length of utility network present in Scotland, and that strikes happen no more or less frequently, as a percentage of network length, here than in the wider UK.

From this we believe that strikes are likely to be under reported, and that strikes pose a tangible threat to those working at sites.

Question 11

Do you think service connections should be included in plans?

Respondents strongly supported service connections to be included in the plans. There were three “no” responses, however one response provided a supporting statement in favour of including the service connections, so it has been included in the yes category. For the remaining “no” responses, one provided no comment on the reason behind the no decision, whilst the other advised they did not carry out work relevant to the question.

Both Road authorities and utilities with recent site experience gave supporting statements including:

“The general response is yes; any and all available information ought to be provided. Any ‘asset’ in the public road space should be mapped and available...” – An individual with a utility background

“The more information available prior to works, the better planned they can be and unexpected encountered with services avoided. Risks can be managed out, only if they are known / assessed by having detail in the plans.” – A utility manager

“...this would be a good thing as no excuses.” – A Road Authority

There is clear support from the responses for service connections to be included in plans, and based on these findings there is no supporting evidence to exclude service connection information in Vault. The Vault requirements will only apply to assets of any description newly laid in ‘roads’ (including footpaths) that are in the ownership of the body. It will not be expected that connections in gardens or private grounds are to be included unless the asset owner feels it necessary. The asset owner will only be mandated to supply information about assets they are responsible for (for example a water network installed by Scottish Water under its legal remit) or in the case of roads authorities specifically, assets they are responsible for or have permitted, such as those under installed under Section 109 of New Roads and Street Works Act 1991.

Question 12a

Do you have any views on the current “Street Works Card” or any changes you would make to this?

A large majority of respondents either did not respond to the question or advised they had no views.

One theme identified from the comments was for there to be an online option to renew the Street Works “card”. Currently you can renew your card by undertaking a re-assessment at a Centre up to five years before the card expiration date.

Another common theme identified was the instances where there are workers who in practice only require knowledge of the Signing Lighting and Guarding (SLG) module to carry out works that are not defined as requiring excavation, such as grass cutting. However, due to legislative requirements around the prescribed qualification, it is not currently possible to only hold an SLG module to carry out such jobs. The comments supported workers only obtaining modules relevant to the work they are going to carry out.

“There should be a card just for signing, lighting and guarding that does not involve any form of road excavation. Some operatives will be mobile and short duration works without excavation but this is currently not included within the existing card requirements. This means that we are not training operatives in the required activities they will actually be carrying out just to gain a card...” - A road authority manager

“The majority of modules currently offered are not relevant to roads authorities. The requirement introduced by the T(S)A 2019 for RAs to have qualified operatives and supervisors means that they now have to complete at least one module which is not likely to be relevant to the works they are carrying out. This could be addressed by introduction of a RA specific module, or making amendments to the secondary legislation covering the qualification requirement. For instance, this could be reduced to a minimum of the Signing, Lighting and Guarding module. A similar situation exists with utilities and consideration should be given to addressing this.” - The Scottish Road Works Commissioner

Transport Scotland intends to review the relevant legislation regarding qualifications required in the future.

Question 12b

Do you have any views on training (for the “Streets Works Card”) or any changes you would make to this?

In total there were 16 responses that provided their view on the training for the Street Works Card and/or suggested changes. 50% of those responses provided, showed support for the training to include a focus on the practical training candidates have received, and/or how the candidate follows best practice in a real-life environment. Statements included.

“...A lack of real-life (live) sites (during training) does not readily set up Operatives for safely Signing/Guarding sites...” An individual with a utility background

“Theoretical side of training is found to be rather difficult for some of our operatives, these men are good on the practical side of training, but struggle with some of the theory tests although they have years of combined experience.” – A road authority supervisor

Currently candidates will obtain units under the Street Works qualification regime through sitting theory assessments at statutory assessment centres. Whilst there are no imminent plans to revise the training, these comments will be considered in future policy decision-making.

Question 13

Do you hold a “Street Works card” (any level)?

In total, 50 respondents responded to this question. Thirty-two out of the 50 hold a Street Works Card, which is in line with the profile of respondents and the number of respondents with recent site experience. When split by sector there was no significant number difference between utility and roads authority card holders. However, majority of card holders were site-based.

Question 14

Is it important for you to be able to work anywhere in the UK with your Street Works card?

Responses	Percentage	Number
Yes	67%	31
No	33%	15

Table 11 - Importance that card allows for Inter-UK Working

In total there was 46 responses. All responses were reviewed, and the overall preference was for the card to allow for Inter-UK working. Whilst support for this was largely from those working within the utility sector, there was a 39% show of support from those working within the road authority sector. Two responses in support of Inter-UK working highlighted that the industry have experienced a skills shortage, which could be further contributed to should the card be ‘regional’ only. Some respondents from those who felt it was not important to hold an Inter-UK card, commented that this was due to only carrying out work for one local authority area.

Question 15

Are there any other comments you want to make in relation to the road works sector and wish for us to consider in the future?

This question allowed respondents to enter any other comments in relation to the road works sector for future consideration. There were 12 responses total across all respondent types. One response commented their view on Vault, saying:

“I would like VAULT to become the single source of truth moving forward and become the method of showing plans on site for Operatives.” – A road authority senior manager

However, there were contrasting views to this statement as two respondents talked about not using solely Vault and the importance of continuing to work collaboratively with other asset owners.

The policy does not put an obligation on road authorities or utility companies to use Vault as their source of access plans. The legislation only requires information is supplied to Vault. Road authorities and utility companies can still use third party plan providers or directly request plans from utility companies alongside Vault, or exclusively if they wish.

In addition, there was a variety of views on other roadworks related topics provided, which have been gathered and will inform future policy.

Conclusion

In parallel with the consultation, discussions on Vault considerations were held with the PDG.

Depth which came out very strongly in the consultation and with the focus group, was discussed. The group members raised concerns over this attribute being mandated as currently it is not something that commonly captured by the industry. Additionally, there has never been a prescribed depth before, only industry guidance.

As such a stage approached will be proposed in relation to depth, which will allow the industry to develop procedures for capturing the required data and put them into common practice. The first stage will require asset owners to choose from a standard engineering list of assumed locations and advise if it will be found in that arrangement or not. The second stage will be to provide a band of ranges to select from and then finally it will be the how deep the asset is in mm from the surface of the road.

Another concern was around the liability for the damage that is caused to assets. The Vault legislation is around duty to supply and level of information to provide to protect assets. Vault is not replacement for safe digging techniques, and these should continue to be used. As Vault is intended to compliment a range of site-based safety measures and not replace them, a long-term view of quality with a 500mm accuracy requirement will form part of future policy considerations in this area.

The findings from the consultation, direct engagement with our road worker focus group, and the PDG show there are seven key attributes that would road workers and asset owners should benefit from being recorded. These are:

- Ownership
- Asset Type (e.g. cabinet, pipe, duct etc)
- Voltage/Pressure etc.
- Depth
- Location (line on map)
- Position in road
- Position of asset when in another asset

In addition, we anticipate additional fields being supplied on a voluntary basis as is currently the case, and we will seek to require that bodies provide any additional information their organisation feels essential to include for the purposes of working safely around their asset.

Next Steps

The feedback from both the consultation and the policy development group, together with other evidence, will inform the development of the guidance that will refine the process for road authorities and utility firms supplying information to our 'Vault' system and ensure it is fit for purpose.



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