PAS 128:

Improving Utility discovery and effective Site Remediation?

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Plan Design Enable

At a glance

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Introduction & Agenda

- The problem and the need for a standard
- What is in place at the moment?
- Current practice / standards in the United States
- PAS 128
  - What it is
  - What it purports to do
  - What are the implications?
  - What are the benefits?
- Questions

PAS 128 & Utility Management

The current state of play

PAS 128 Timeline

- Atkins is part of the Steering Group that includes key players in the utility and utility detection industry
- Draft document has been circulated for public consultation
- Expected to be published early 2014

Why is there a need for a standard?

- Most projects encounter existing underground utilities
  - Highway / infrastructure works
  - New build development projects
  - Refurbishment projects
- Projects may require
  - New Connections / supplies
  - New substations and associated works
  - Diversionary works
  - Protection
  - Lowering

Why is there a need for a standard?

- Not holding sufficient information can lead to
  - Costly delays
  - Abortive work
  - Damage to third party assets
  - Health and Safety Risks
- There is a lack of agreed best practice or published standards for the detection, recording and exchange of utility data.

What standards exist at present in the UK?

- There are various guidance notes / codes of practice for utility detection practitioners, however there is no agreed industry standard for the recording and exchange of information that is universal across the sector.
- The Survey Association's Essential Guide to Utility Surveys
- HSG47 – Avoiding Danger from Underground Services

What about elsewhere?

- In the United States, ASCE have published a standard guideline (ASCE 38) for the collection and depiction of subsurface utility data.
- The standard uses the principle of SUE (Subsurface Utility Engineering) and enables classification of the accuracy or “quality” of existing subsurface utility data.
- There is a resultant burgeoning market in the U.S. for utility detection services, as developers aim to achieve higher accuracy of utility information through the latest technologies and utility discovery techniques.
- The result is an informed project manager who can take necessary steps to manage risks imposed by existing utility constraints.

PAS 128

A new standard

PAS 128

- Builds on the standards used in the US (ASCE 38) as well as in Canada and more recently, Australia
- Utilises range of utility discovery surveys and techniques, taking inspiration from ASCE 38 and The Survey Association's guide
- Introduces a methodology for locating and recording buried services information and classifying its accuracy / quality, through
  - Classifying "Survey Categories"
  - Classifying "Detection Methods"
  - Ascribing Survey Quality and Confidence Levels

Survey Category Types

- Range of survey techniques deployed
- Depends largely on the level of confidence required in the data
- Ranges from desktop (utility records collection) through to on site intrusive exposure of services (verification)
  - Desktop
  - Site reconnaissance
  - Detection - TSA
  - Verification

Confidence Levels

- Derived from the type of survey carried out
- Enables a standard and commonly understood reliability rating for the data
- Will ascribe a confidence level post survey, depending on the methodology and other on site variables

Outputs / Deliverables

- Computer Aided Drawing
- Building Information Modelling
- Metadata
- Common standards and methodology will lead to more efficiency in the market as everybody understand what each other is doing
- Increased confidence will lead to more certainty in decision making in utility conflict management
- Better decision making will lead to lower industry costs in diversions and remediating sites

Implications for House Builders

What does it mean for developers and their contractors?

- Developer Savings in managing the utilities more effectively
- De-risking the utility aspect
- Significantly more program certainty and associated cost benefits
- Common standards and methodology will lead to more efficiency in the market as a result of a common understanding
- Assists HSG 0047 in directing proper utility discovery
- Could be used increasingly as a tool to manage best standards in utility discovery for Health & Safety management, and possibly in court

In Summary

- Lack of standard approach in the UK
- ASCE have set the bar in the US
- PAS 128 is being drafted
- Benefits include more certainty from a cost, planning and Health and Safety perspective
- De-risking the utility aspect of a project
- More effective and productive utility conflict management and negotiations

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Any questions?

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