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Our Ref: ULE90130-SW-LET-01333

15th January 2009

tie Limited
CityPoint, 1st Floor
65 Haymarket Terrace
Edinburgh
EH12 5HD

Attention: Frank McFadden

Dear Frank

MUDFA – As-Built Drawings

You tasked PB to provide a brief synopsis of requirements on utility diversion As-Built and the necessary documentation required by Infracore to carry out safe and secure ongoing construction activities, following the completion of the MUDFA works. The completed MUDFA works should include the appropriate As-Built records and test certificates etc along with the necessary information, satisfactory to provide closure and acceptance from the tie CDM Co-ordinator within the CDM Recommendations and Regulations and in particular "The Construction (Design and Management) Regulations 2007" which came into force on 6th April 2007.

As agreed and confirmed with you on 4th December 2008 representatives of SDS (Dolan/Kelly/Fell) met with MUDFA Representatives on 5th December 2008 (Mann/Lynn) to go through the present As-Built work scope practices by MUDFA, in order to establish the shortfall in As-Built production and the information required for tie and the Infracore future needs.

This topic has been an ongoing discussion for some two years and PB enclose our recent correspondence on the matter (see letters ref ULE90130-01-LET-00885, ULE90130-SW-LET-01234, ULE90130-01-LET-00850, ULE90130-SW-LET-01175, ULE90130-SW-LET-01155, ULE90130-01-LET-00885, ULE90130-06-LET-00119, ULE90130-SW-LET-00846, and ULE90130-06-LET-00045, enclosed with Report).

In short, PB did advise tie of the shortfall in utilities As-built information requirement prior to the procurement of the MUDFA Contract and were instrumental in having tie install a clause in the MUDFA contract to provide "all necessary As-Built Drawings and Manuals in respect of the MUDFA works" which is an overarching and all encompassing statement within a Schedule of Rate Contract such as the MUDFA Contract. SDS were not party to the financial close-out negotiations between tie/MUDFA (for obvious reasons) and we are not party to what eventually was procured for "As all necessary As-Built Drawings and Manuals in respect of the MUDFA works" within the MUDFA Contract. We did however denote reluctance at our meeting with MUDFA on 5th December 2008 to provide anything other than the absolute minimum of red-line drawings. SDS can only assume there is a financial/contractual reason for MUDFA not wishing to produce anything other than this inadequate minimum. Again, under The Construction (Design and Management) Regulations 2007 the Contractor has safety obligations to meet with information for the H & S File.

History will show that tie, recognising there was a shortfall in the correct sufficiency and provision of As-Built information from the MUDFA Contractor, took an appropriate action in 2007 to appoint an Independent Surveyor to commence the recording of installed works by the MUDFA Contractor. It should be understood that this action was late and not to any written brief (known by PB). This has automatically lead to:

1. Shortfalls in definitive information provided. Some of the As-built records for backfilling being non-existent. Post-recording and documentation was carried out following utility installation for trench

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closure and road backfilling. Co-ordinate indication of utility position is not included for start and completion of amendments.

2. Work scope shortages, as the work being carried out by L & M (Surveyor) is not to any written brief or scope -- (NOTE: As known by SDS).
3. There appears to be a step mismatch between the As-Built recording mechanisms being practised by MUDFA and the work being carried out by L & M. One would assume these two operations would be complimentary to each other but from discussions with MUDFA (5th December 2008, see minutes enclosed -- Report Appendix A) this is clearly not the case.
4. Poor recording (if any) of backfilling materials used, tested or checked in accordance with 20.1.4 of Schedule 2 and 2.1.1 and 2.1.2 of Schedule 3.

SDS have assisted **tie** in the provision of Blank Plate background drawings in order to have the correct As-Built information overlaid by L & M on to them. This would form primarily the initial base information to Infraco. To date SDS have not received any correctly marked-up As-Built drawings from MUDFA, L & M or **tie** which utilises the Blank Plates provided. Plates were issued to **tie** on 10th October 2008 as requested and instructed.

SDS discussed with **tie** the mechanisms/protocols necessary to get the required information from MUDFA **tie** in November 2007 (meeting Johnston/Sharp/Dolan). We enclose the original protocol flow chart proposed by **tie** at this meeting (see Report Appendix B). The flow chart attempts to capture the information necessary for As-Built information from the MUDFA Contract Works. From this Flow Chart came the procurement of L & M to commence the correct record keeping (although a backlog of installed work existed without detailed record). This is a project weakness and may lead to incorrect assumption of utility positions and trench/road make-up being estimated or at best guesstimated by L & M.

There does appear to be a shortfall of information in the close out of MUDFA works, prior to handover back to the relevant SJJC's and CEC Roads Authority. **Tie** Management are aware of this and have prepared papers on this subject for **tie** Management consideration. To date, SDS is not aware of instructions to MUDFA to augment or bolster the Handover Packs. **PB** take care here, as we do not have full visibility of the MUDFA Handover Packs to the Authorities, once a section of utility work is completed. **PB** have, on occasion, requested copies of the MUDFA H & S File inputs for certain Sections of work (In accordance with current CDM Regulations) and to date this information has never been forwarded to SDS by **tie**. This does leave SDS with the opinion that these H & S Files are not available or at least incomplete. SDS would advise **tie** that this be looked into immediately in order that **tie** are comfortable with their responsibilities in accordance with the relevant CDM Guidelines and regulatory obligations, as there are legal requirements within the Construction (Design and Management) Regulations 2007. The new CDM 2007 Regulations are divided into 5 parts:

1. Part 1 deals with the application of the Regulations and definitions.
2. Part 2 covers general duties that apply to all construction projects.
3. Part 3 contains additional duties that only apply to notifiable construction projects, i.e. those lasting more than 30 days or involving more than 500 person days of construction work. The ETN Project falling into an NCP by this description.
4. Part 4 contains practical requirements that apply to all construction sites.
5. Part 5 contains the transitional arrangements and revocations.

The new CDM 2007 regulations are supported by an Approved Code of Practice (ACoP). These regulations being prepared and legislated due to the HSE belief that construction remains a disproportionately



dangerous industry where improvements in health and safety are urgently needed. The improvements require significant and permanent changes in dutyholder attitudes and behaviour. Since the original CDM Regulations were introduced in 1994, concerns were raised that their complexity and the bureaucratic approach of many duty holders frustrated the Regulations' underlying health and safety objectives. These views were supported by an industry-wide consultation in 2002 which resulted in the decision to revise the Regulations.

The new CDM 2007 Regulations revise and bring together the CDM Regulations 1994 and the Construction (Health Safety and Welfare) Regulations 1996 into a single regulatory package. The Approved Code of Practice (ACoP) has special legal status and gives practical advice for all those involved in construction work. The ACoP explains, along with other items:

1. **The legal duties placed on clients, CDM co-ordinators, designers, principal contractors, contractors, self-employed and workers.**
2. **What essential information needs to be recorded in construction health and safety plans and files, as well as what shouldn't be included. All pertinent to this letter and subject.**

Point 2 above is a primary reason that SDS cannot accept any responsibility for the As-Built Drawings from MUDFA, who have the obligation as the P. C. (as covered by CDM) to deposit the H & S files and inputs to the CDM Co-ordinator at the end of their "Phase" of construction.

The enclosed Report Statement ref ULE90130-SW-REP-00673 prepared as requested indicates the following:

1. Meeting discussion and findings following As-Built Meeting with MUDFA on 5th December 2006.
2. Synopsis advice of detailed information required by tie to be handed over to Infracore (taking on board CDM Guidelines and Regulations 2007 which came into force on 6th April 2007).
3. Recommendation of As-Built requirements within Handover Packs for MUDFA Sectional Completions
4. As-built information (as a minimum) to be prepared and formulated by tie, which should be handed over to Infracore for their use.
5. Indication of man-hour timescales to prepare As-Built information and the associated CSD drawings which would match together the information being provided by MUDFA with the existing SUC Utility Services (As known by SDS and to be based on SUC Approvals Information accepted by the SUC's on SDS IFA drawings).
6. SDS rates in accordance with the Novation Agreement dated 19th May 2008.

Following the meeting with tie/MUDFA on 4th December 2008, we have reviewed the As-Built information supplied to date to SDS and cannot find a completed co-ordinated pack of As-Built information from which we could commence providing assistance to tie in this matter yet. We are obviously available to meet with the tie/MUDFA Manager supervising the As-Built and go through the shortfalls described in the enclosed report.

SDS hope that your requirements for an As-Built appraisal has been satisfied with the above letter and enclosed Report ref ULE90130-SW-REP-00673 dated 7th January 2009 and ask that you contact the author for any further information or discussion on the above subjects. SDS understand, following discussion with our Mr. Jason Chandler that there may be a requirement to utilise additional CAD/Engineering resource to prepare a shortfall of As-Built/CSD information. We would be happy to discuss a resource requirement with tie at your convenience, in accordance with the Infracore Agreement Schedule 24-Collateral Warranty in

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favour of tie from the SDS Provider (Schedule Part 3 -- Appendix C). Note -- See Appendix C in the enclosed report.

Yours sincerely



Alan Dolan
Deputy Project Manager
Parsons Brinckerhoff

Cc: S. Reynolds D. Sharp (tie)
J. Chandler C. Brady (BSC)
C. Reid S. Rothaus (BSC)
T. Kelly
M. Fell