

Contracts for New Construction Projects

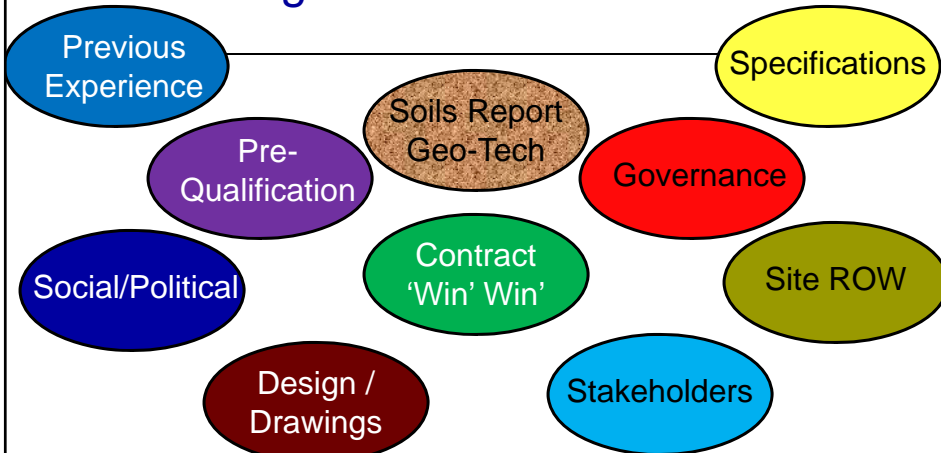
Gene Woodbridge
Earth Boring Co. Limited
www.earthboring.ca



Earth Boring Co. Limited – 1576 Ifield Road Mississauga, ON L5H 3W1
(905) 277-9632 fax (905) 274-9040

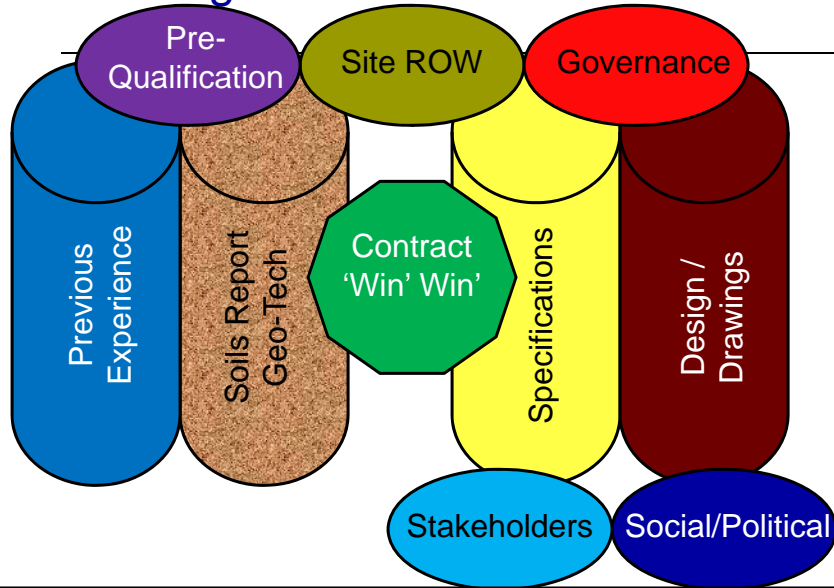


Contracting to Win for all Stakeholders



- amicable settlement is possible notwithstanding the complex procedural requirements

Contracting to Win for all Stakeholders



Who are the Stakeholders?

- Owner
- Designer
- Contract Admin
- General Contractor
- Subcontractor
- Suppliers
- Public
- Other projects

The answer is project centric...
...but 'it' matters



PMI Defines a Stakeholder as...

*Person or organization that is actively involved in the project, or whose interests may be positively or negatively affected by execution or completion of the project.
[one who] may also exert influence over the project and deliverables*

What Really Counts?

Balancing Stakeholder Needs

- Safe
- Public Interest
- Affordable
- Reputation
- Hi Value for Low Investment
- Cutting Edge
- Effective
- Efficient
- Practical
- Warranted
- Realistic
- Fair



CONSTRUCTABILITY

How Does the Contract Look?

- Imagine you as the stakeholder
- How does the 'ideal' contract look from you perspective?
- It will likely be slanted to your favor... our your legal counsels favor... Two for me...
- Its only human nature



How Should It Look?

- Put on your fair, equitable and reasonable hats...
 - Details, Details, Details, more is better
 - Expectations of the work
 - Consult current, potential stakeholders time spent here saves \$\$\$
- Mechanism for issue resolution
- Clearly stated conditions, specifications
- If you used it to design, include it in the bid doc
- Clearly stated Document Governance
- Balanced Risk
- Not like it came directly from the Lawyer's Office



How Should It Look?

- Engineering vs Legal Procurement
 - Aside from the usual aspects (payment, etc.)
- Well thought out
- Avoid being vague – avoid general terms
'Trenchless' – Be specific (HDD, Auger Boring, Pipe Ram)
 - Vague means Risk means increased price
- Owner and agent left to resolve issues long after completion
- Avoid 'Tender Irregularities'



Critical Elements to your New Trenchless Contract Documents

- Soils Report*
- Design / Drawings*
- Specifications*
- Experience – Previous Projects*



Critical Elements to your Trenchless Contract Documents

- Soils Report*
 - Key element of any Trenchless Design/Quotation
 - Money spent here will save time later on
 - If there is a trenchless review, **read it**, use best judgment in utilizing or dismissing it



Critical Elements to your Trenchless Contract Documents

Soils Report

- It was used to develop the drawings and the required trenchless method – don't haphazardly exclude with a few words... for information purposes only, contractor is responsible for... that 'smacks' of a future problem –**downloading risk** – not sharing it
- Include the soils report in the dwg – provides clarity!
- You paid for it – use it to the benefit of the job
- No contractor ever is going to satisfy themselves with their own soils report



Critical Elements to your Trenchless Contract Documents

Design / Drawings

- Clear
- Detailed
 - Restraints What Kind???, spacers, flex restraints, soil report
- Specific
- Balance 'getting it all down' vs. obscuring details with clutter – notes can be lost in the chaos...



Trenchless Since 1947

Critical Elements to your Trenchless Contract Documents

Design / Drawings

- Ideal – industry wide standard scale size

- Do the design – just don't throw out 'trenchless'
 - HDD, Auger Bore, Pipe Ram
 - In a bridge contract it does not read "span the roadway"



Trenchless Since 1947

Critical Elements to your Trenchless Contract Documents

Design / Drawings

- Trenchless on single page – at least don't split the critical areas (avoid elevation change – immediate match line to chamber/MH etc)
- Look at the actual site (go there!) – don't design where there are obvious utility conflicts (O/H wires, phone demarques, gas, etc) w/ construction or ROW
- If unsure, carry extra over plus cost to make the determination – engineering fee (i.e. Pipe size and loading capacity –DR 9 vs DR 7.3)



Critical Elements to your Trenchless Contract Documents

Specifications

- Whatever you do,

DON'T COPY AND PASTE, DON'T COPY AND PASTE ,
DON'T COPY IMPORTANT AND PASTE , DON'T
COPY AND PASTE , DON'T COPY AND PASTE ,
DON'T COPY AND DETAILS PASTE , DON'T COPY
AND PASTE , DON'T COPY AND PASTE , DON'T
COPY AND PASTE , DON'T GET COPY AND PASTE ,
DON'T COPY AND LOST PASTE , DON'T COPY AND
PASTE , DON'T COPY AND IN PASTE , DON'T COPY
AND THE PASTE , DON'T CLUTTER COPY AND THE
PASTE , DON'T COPY AND PASTE ,



Critical Elements to your Trenchless Contract Documents

Specifications

- Whatever you do,

DON'T COPY AND PASTE, DON'T COPY AND PASTE ,
DON'T COPY **IMPORTANT** AND PASTE , DON'T
COPY AND PASTE , DON'T COPY AND PASTE ,
DON'T COPY AND **DETAILS** PASTE , DON'T COPY
AND PASTE , DON'T COPY AND PASTE , DON'T
COPY AND PASTE , DON'T **GET** COPY AND PASTE ,
DON'T COPY AND **LOST** PASTE , DON'T COPY AND
PASTE , DON'T COPY AND **IN** PASTE , DON'T COPY
AND **THE** PASTE , DON'T **CLUTTER** COPY AND THE
PASTE , DON'T COPY AND PASTE ,



Critical Elements to your Trenchless Contract Documents

Specifications

- Whatever you do, DON'T COPY AND PASTE
- Redundancy, confusion
- If you can't be bothered to review and define your specifications, how can you expect other stakeholders to reasonably assume that risk? The tender period is not the time to discover these shortfalls/mistakes/errors – **INCREASED COST**
- Skewed tender results, was it all captured in the price?



Critical Elements to your Trenchless Contract Documents

Specifications

- Recently
 - 1.5 pages on the 762mm HDPE feeder main product
 - 4.5 pages on the tracer wire
- In three separate sections, three slightly varying submittal requirements 'variations on a theme'
- Verification wells for a trenchless project, in an environmentally sensitive wetland. 5, in a span of 127m. Quite certain the Conservation Authority has no idea this is in the specification – 5 in a span of 762m.



Critical Elements to your Trenchless Contract Documents

Specifications

■ Recently

- Submittals to be stamped by an Engineer with minimum experience of 5 years. How much experience did the designer have? **Downloaded risk**

- Written sign off from the utility service provider that the utilities have been staked out and that drilling may commence – Pretty sure Bell and Enbridge are never giving me this letter...

- Vague reference that a trenchless method to be utilized – Who is the designer then? **Downloaded Risk**



Critical Elements to your Trenchless Contract Documents

Specifications

■ Recently

- Access to the instrumentation – this one is agreeable,
 - but do you understand the context of what you are looking at
- Carried extra over – went with the pipe even though it was overbuilt because they had an item for it...
- Verification of the pilot bore outside of sending and receiving shafts (vac down a well within 5m of entry and exit – creates artificial fracture point) –
 - and they expected a credit...



Critical Elements to your Trenchless Contract Documents

- Previous Experience / Previous Projects*
 - Do your homework
 - Lessons Learned
 - Information, technical sessions (CATT etc)
 - Sr. project team / stakeholder for historical experience
 - There is an old force main here... I know because I put it in...
 - The soils look good on paper, but...
 - The neighborhood has had a lot of construction over the past several years



Critical Elements to your Trenchless Contract Documents

- Previous Experience / Previous Projects*
 - Communication
 - More than just email – phone call, on site visit, one on one
 - Call the supplier, talk to the industry leaders
 - Pre-qualification
 - Many of you already do this and don't realize (i.e. list of proposed subs and suppliers)
 - You expect a certain level of quality out of your materials – this is based on pre-defined criteria – your critical project contractors and subs should be as well
 - Stabilize pricing in your quotation – know what you are getting



Trenchless Since 1947

Critical Elements to your New Trenchless Contract Documents

- Soils Report*
- Design / Drawings*
- Specifications*
- Experience – Previous Projects*



Trenchless Since 1947

Your Stakeholder Responsibility....

- Extends beyond your own wants and needs
- Responsible contracting necessarily seeks a 'Win' 'Win' in all aspects of the work
- This 'Win' 'Win' ensures continued success
 - As a responsible owner, designer, CA, GC, SC, etc
- Future stakeholders seek you out for their projects

- Do your contracts foster a sense of 'Win' 'Win'... or C.Y.A.?



**EARTH BORING
COMPANY LIMITED**

TRENCHLESS SINCE 1947

*AUGER BORING
DIRECTIONAL DRILLING
PIPE RAMMING*

1947

60
YEARS

2007

Gene Woodbridge
Earth Boring Co. Ltd.
www.earthboring.ca
(905) 277-9632



Earth Boring Co. Limited – 1576 Ifield Road Mississauga, ON L5H 3W1
(905) 277-9632 fax (905) 274-9040