

TENDERING & CONTRACTUAL RELATIONSHIPS FOR D&C POST TENSIONING PROJECTS

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AUSTRALIAN PRESTRESSING SERVICES



- Post Tensioning
- Steel Fixing
- Engineering Design
- Concrete Remediation
- Carbon Fibre Reinforcement
- Waterproofing

TYPES OF PT CONTRACT

- Supply and Install (S&I)
- Design and Construct (D&C)

D&C Tender Information

- Post Tensioning Price
- Conventional Reinforcement Quantities
- Concrete Properties and Profiles
- Structural Design Criteria
- Detailed Scope of Work
- Client Responsibilities
- Contract Conditions

Post Tensioning D&C Price

- Anywhere from \$5,000 to \$12,000 Per Tonne
- 5-15% Design
- 30-50% Materials
- 30-50% Labour
- 15-25% Overheads and Profit

Design Considerations for PT Price

- Pour Size
- Strand Diameter
- Number of Strand per Tendon
- Couplers
- Efficient Approval Process

Conventional Reinforcement

- Steel Volume needs to be provided with PT price for client to determine total cost of solution.
- Absolute clarification of what's included and excluded in the price is required.

Concrete Properties and Profiles

- Concrete Volume and Grade needs to be provided with PT price for client to determine total cost of solution.

Structural Design Criteria

- Loads
- Durability Requirements
- Deflection Criteria
- Analysis Assumptions

Detailed Scope of Work

- Design Deliverables
- Construction Services

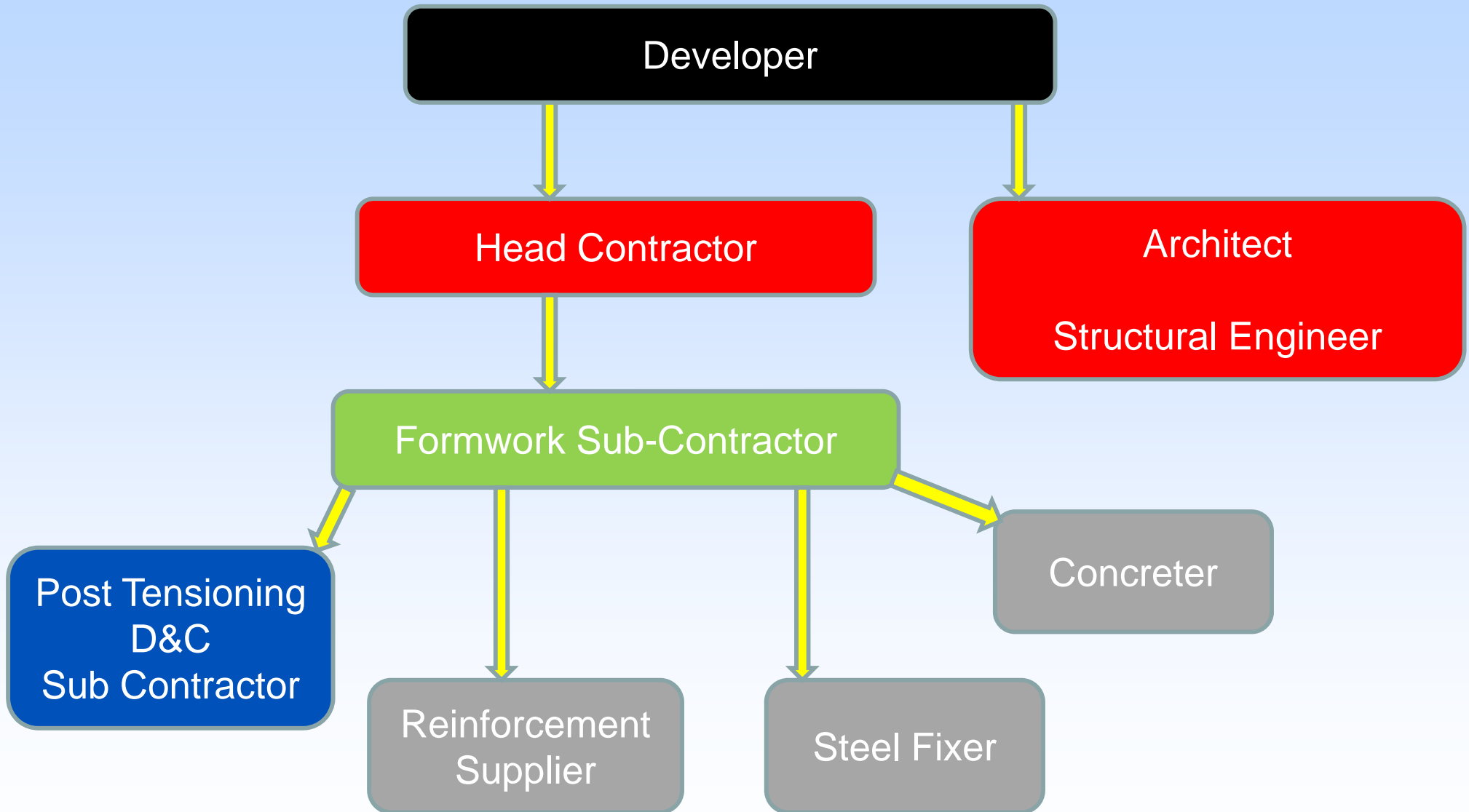
Client Responsibilities

- Site Amenities
- Supply of Power and Water
- Lifting of our Materials on to the decks
- Supply of Conventional Reinforcement
- Concrete infill of Top Surface Stressing Pans
- Anything else deemed a risk to our costs.

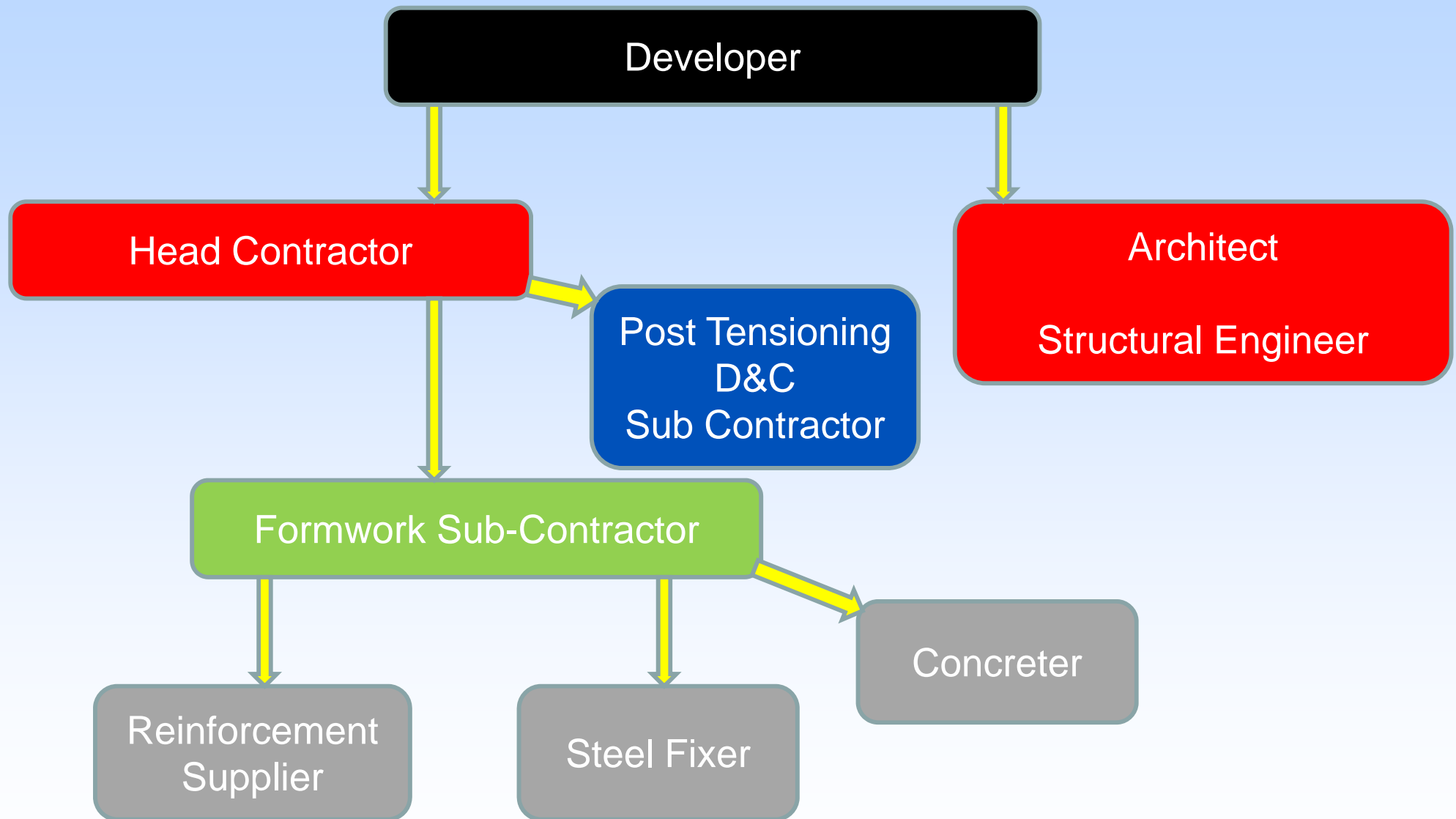
Contract Conditions

- Reference to Standard Conditions of Contract
- Reference to EBA
- Variation Rates
- Payment Terms
- Retentions
- Liquidated Damages
- Insurances

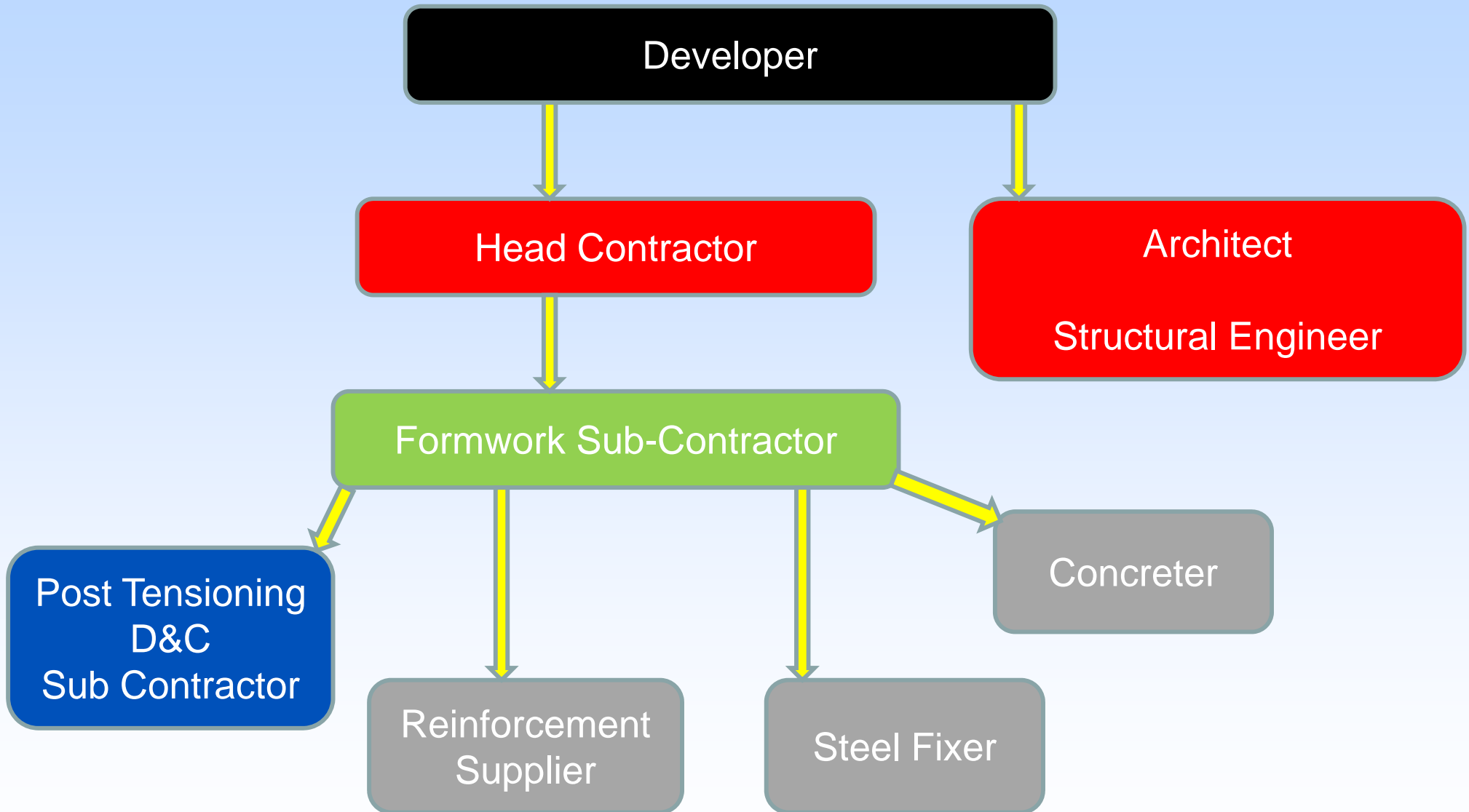
Project Relationships



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Structural Engineers General Notes

PT1 The tendon spacing and number of tendons indicated on the structural drawings are provided as a guide only for estimation purposes only.

PT2 The reinforcement (other than post-tensioned) shown on the structural drawings are provided as a guide only for estimation purposes only.

Structural Engineers General Notes

PT3 The head contractor shall engage a specialist post tensioning contractor to undertake the detailed design and shop drawing of the post-tensioned slabs.

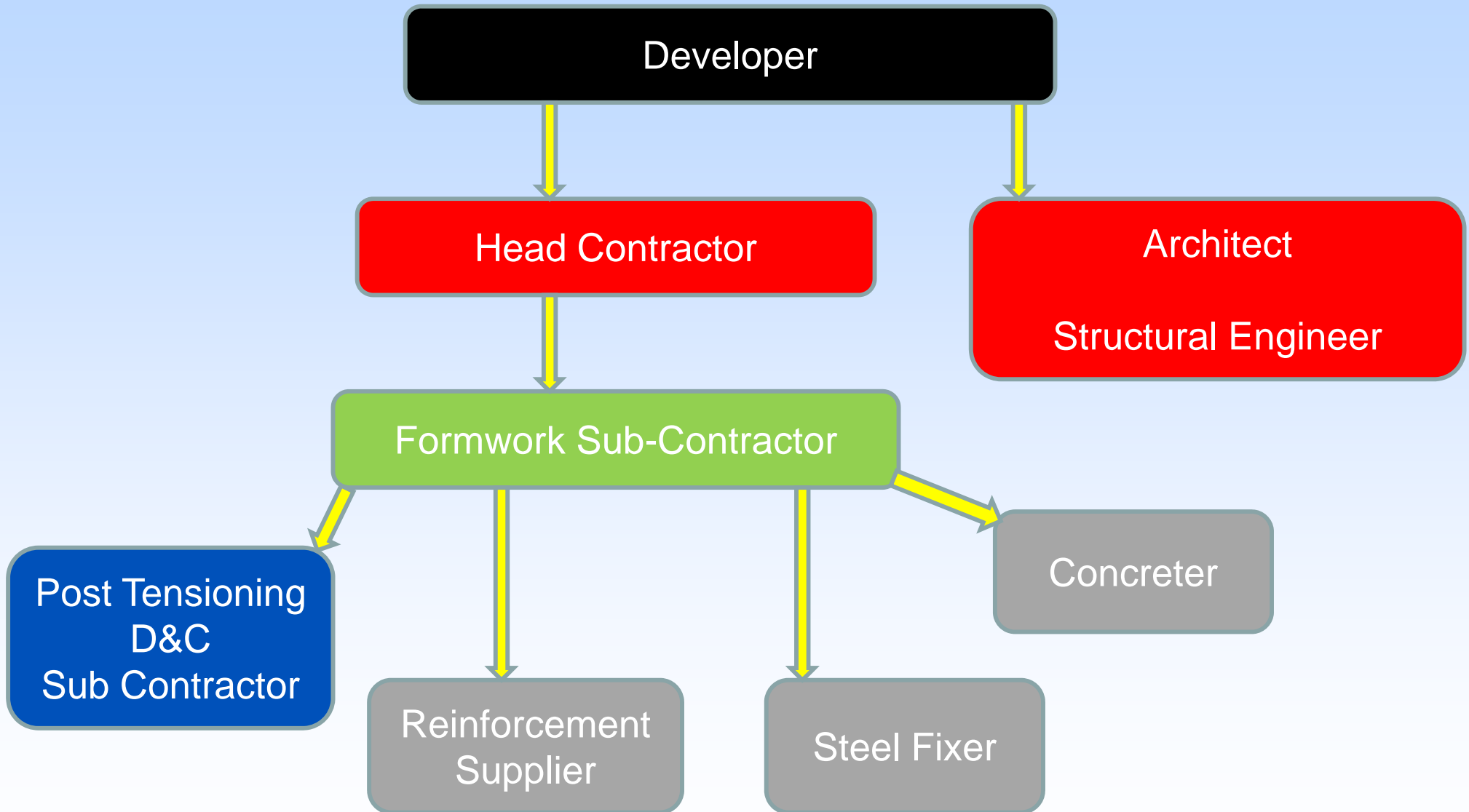
Structural Engineers General Notes

PT4 All PT Design Drawings are to be submitted to the Structural Engineer for review prior to certification. The Structural Engineer reserves the right after review to reject any design it deems unsatisfactory. Any redesign and redocumentation resulting from such a review will be undertaken by the specialist post-tensioning contractor at no additional cost.

PT Contractors Tender Letter

“The design criteria that follows sets out the basic materials specification, design parameters and performance criteria that will be used by APS in the design of the project. It forms the absolute basis for our commercial offer. Generally, design will conform to any given specification received. Where it is judged necessary, however, the criteria will differ to the specification as set out in this document. APS have not allowed for any design development driven by the Project Structural Engineer. Specifically, APS exclude the requirements of notes PT1 to PT4 of the Project Structural Engineers General Notes.”

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