**STANDARD OPERATING PROCEDURES**

**OF**

**PROJECT MANAGEMENT DEPARTMENT**

**2017-18**

(Version 1)



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**SOP OF PURCHASE ORDERS FOR CONSTRUCTION PROJECTS**

**Purpose:** Provide guidelines on the use of purchase orders for construction projects that are under Rs 1,50,000 when other project delivery methods are unavailable, i.e., Job Order Contracts, TIPs, or other pre-qualified procurement methods and to ensure vendor adherence to CSCPL requirements on wage rates, safety, insurance, and trade licensure. It is preferred by Business and Financial Services that the selected vendor agrees to a one-time, lump sum payment.

**Actions (Chronological Order)**

Construction Projects Up To & Including Rs 3,00,000.

1. Project Manager identifies vendor to provide services and sends the attached Exhibit A of requirements to vendor.
2. Vendor submits proposal to Project Manager along with copy of Insurance Certificate evidencing adequate coverage as stated in Exhibit A.
3. Project Manager accepts proposal and submits vendor proposal, insurance certificate, and sufficiently-detailed scope of work to Business and Financial Services, Procurement and Warehousing.
4. Procurement and Warehousing issues Purchase Order that includes verification of vendor’s acceptance of Exhibit A requirements.

Construction Projects Rs 3,00,000 Up To & Including Rs 15,00,000

1. Project Manager submits sufficiently-detailed scope of work to Business and Financial Services, Procurement and Warehousing.
2. Procurement and Warehousing submits Request for Qualifications to at least three acceptable vendors that include Exhibit A requirements and notice of vendor’s acceptance of a one-time, lump sum payment.
3. Procurement and Warehousing receives bids and insurance certificate from vendors and verifies adequate insurance coverage.
4. Procurement and Warehousing issues Purchase Order to vendor with lowest bid that includes verification of vendor’s acceptance of Exhibit A requirements.

**EXHIBIT A**

**Construction Purchase Order Requirements**

**Article 1. Wage Rates**

* 1. Wage Rates. Contractor shall not pay less than the wage scale of the various classes of labor as shown on the prevailing wage schedule provided. The specified wage rates are minimum rates only. Owner is not bound to pay any claims for additional compensation made by any Contractor because the Contractor pays wages in excess of the applicable minimum rate contained in the Contract. The prevailing wage schedule is not a representation that qualified labor adequate to perform the Work is available locally at the prevailing wage rates.
  2. Wage Rate Determination. The prevailing wage schedule is determined by Owner in compliance with Govt’s norms. Should Contractor at any time become aware that a particular skill or trade not reflected on Owner’s prevailing wage schedule will be or is being employed in the Work, whether by Contractor or by Subcontractor, Contractor shall promptly inform ODR of the proposed wage to be paid for the skill along with a justification for same and ODR shall promptly concur with or reject the proposed wage and classification. Contractor is responsible for determining the most appropriate wage for a particular skill in relation to similar skills or trades identified on the prevailing wage schedule. In no case, shall any worker be paid less than the wage indicated for laborers.

1.3 It is the responsibility of the Contractor to classify the worker in accordance with the published classifications, and demonstrate that workers are paid commensurate with determined rates.

**Article 2. Insurance Requirements**

2.1 Insurance Requirements. Contractor shall carry insurance in the types and amounts indicated in this Article for the duration of the Contract. Failure to maintain insurance coverage, as required, is grounds for suspension of Work for cause.

**Article 3. Construction Safety**

3.1 It is the duty and responsibility of Contractor and all of its Subcontractors to be familiar with, enforce and comply with all requirements of Public Law.

3.2 In the event of an incident or accident involving outside medical care for an individual on or near the Work, Contractor shall notify ODR and other parties as may be directed promptly, but no later than twenty-four (24) hours after Contractor learns that an event required medical care.

**Article 4. Licensing of Trades.**

Contractor shall comply with all applicable provisions of State law related to license requirements for skilled tradesmen, Contractors, suppliers and or labourers, as necessary to accomplish the Work. In the event Contractor, or one of its Subcontractors, loses its license during the term of performance of the Contract, Contractor shall promptly hire or contract with a licensed provider of the service at no additional cost to Owner.

**SOP for Draw requests/inspections**:

A draw request is a legal instrument in which the General Contractor requests payment for completion of a portion of the construction to-date. The key here is completion.

The Developer and the General Contractor (GC) must agree prior to the signing of the contract if the Developer is going to pay for materials delivered to the construction site but not installed. The Construction Contract will also state the percentage of each draw that will be withheld until the end of the project when completion, approval, and sign-off by the regulatory agency(s) have occurred. For the sake of this Policies Manual we do not recommend paying for materials that are not installed, and 10% withholding is standard.

When draws are submitted by the GC, the Architect will inspect and sign-off on the installation of materials and that portion of the construction included in the draw. When draws have been signed, copies are sent to the regulatory agency (government) overseeing the project for approval. When the regulatory agency approves the draw the original is sent to the Title Company for disbursement. It is important for the developer to be “on top” of the draws to insure that the GC receives timely payment for his work. Partial lien waivers for work completed to-date by subcontractors should accompany the draw. (Copies of the draw may also be requested by other lenders or financial partners involved in the project. Their approval of the draw request may also be required.)

**Draw request from General Contractor**

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**Architect reviews and approves and signs**

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**Developer/owner reviews and approves and signs**

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**Regulatory Agency reviews and approves and signs**

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**Title Company reviews and approves and disburses funds**

**Flow chart for new construction/upliftment of building into student housing:**

Structure of construction/renovating a building into student housing

Create Foundation plan, bar drawing, Slab cast drawing, column/beam drawing for Structure of building.

For interior plan the following steps should be followed

Based on Electrical drawing make conducting and filing

Create plumbing drawing

POP punning, false ceiling

Wooden frame work

Flooring (PCC/tile work)

Painting

Electrical & Plumbing fixtures

At last connect main electrical power supply, install DG set, R.O water system, boilers, A.C system, C.C T.V’s, L.C.D, Fire extinguishers, cots, wardrobes etc.,

**Structural Information**

* Note uniform design loads and any special loading.
* Scaled and dimensioned foundation plans. Show ventilation and access openings as required.
* Scaled and dimensioned floor and roof framing plans. Indicate all beam sizes, headers, ledgers, posts and columns. Note species and grade of lumber, or manufactured structural members performance grade.
* Sections and details properly referenced to plans
* Reinforcing steel, if used, for slabs, retaining walls, grade beams, foundations and foundation walls
* For additions and renovations, detail the existing structure and footings that provide bearing for new work.
* Structural calculations, signed and sealed by a structural design professional, licensed in the Commonwealth of Virginia, for those structural elements that exceed the tabular values set forth in the code, and for retaining walls with a difference in grade of greater than two feet.
* General notes and construction notes

**Mechanical Plans**

* New dwellings require:  
  – heating/cooling load calculations  
  – duct layout  
  – complete mechanical layout and the equipment list (type and size) including exhaust system for kitchen, baths and dryer, venting systems and combustion make up air for fuel-burning appliances prepared and signed by a licensed contractor, or architect or mechanical engineer with sealed drawings.
* For alterations or additions to existing dwellings, the same requirements apply. However, the applicant has the option of attaching the [Mechanical Plan Requirement Waiver form](http://building.arlingtonva.us/resource/mechanical-plan-review-waiver-form-2/), signed by the property owner, to all sets of drawings. This allows the required information to bypass mechanical plan review and be reviewed at a later date by the field inspector at the time of the mechanical inspection.
* When adding or replacing exterior units, a scaled, certified plat is required. It must clearly indicate the location of the new or replacement unit(s).

**Plumbing**

* New projects will show the water service location and pipe size on the site/grading plan.
* Renovations and additions to existing dwellings may continue to use the existing water service.
* Plumbing riser diagrams are not required, except for unusual features such as solar water heating systems.
* All projects will show plumbing fixture layouts as part of the architectural plans.

**Electrical**

* Compliance with the IRC for electrical is by field inspection only.
* We need to review any boxes, devices, switches, towers, conduit, etc. that will be installed within the right of way. Plans shall show the riser diagram and a profile of purposed equipment.

**Architectural Drawings**

* Name and address of project
* Scaled and dimensioned floor plans with all room names labelled; doors and windows shown; and special features clearly noted
* Exterior elevations, showing all openings
* All door and window sizes noted either on elevations, plans or door and window schedules referenced to plans. Indicate sleeping room and basement egress.
* Complete sections and details for foundations, floors, walls and roofs, with components of assemblies completely noted, properly cross-referenced, with floor-to-floor heights dimensioned
* Indicate compliance with braced wall requirements, indicating the specific methods used and details of the method(s) in the construction documents. (See below for additional information)
* Indicate compliance with Energy Code. Show insulation values plus mechanical drawings as required below.
* Indicate stair dimensions, tread and riser dimensions, handrail and guardrail information.
* For additions and renovations, make clear the distinction between existing construction, alterations to existing, and new work.

**SOP for Warranty Management**

**Purpose:** To effectively oversee and manage the Warranty Period for all CSCPL capital projects through the project warranty period to ensure items under warranty are properly documented and warranted items are functioning as intended and to provide a smooth transition after Warranty to the Facilities Maintenance Department.

**Actions (Chronological Order)**

1. The Warranty period begins at Substantial Completion (SC) Acceptance and typically lasts for a one year period from the date of SC.

\* NOTE: Warranty periods for roofs and equipment may have extended periods

2. Project Specialists sends an electronic copy of the Substantial Completion letter with the attached list of deficiencies to the Construction Coordinator, the Project Manager and the Manager of the Construction Coordinators.

3. The Coordinator will schedule any corrective actions with the building manager and the occupant and building manager to expedite Final Acceptance. Coordinator will enter an Outlook Calendar Follow-Up Date ten months (10- months) after the date of Substantial Completion documented on the letter.

4. At the beginning of the tenth month, the Coordinator will schedule a Warranty walk of the work area with the Building Manager, the PM, the Contractor’s representative and the Client to conduct a final Warranty walk. Zone Maintenance Shop Manager for the affected zone; or their representative; must be included in the Final Warranty Walk.

5. Any deficiencies in workmanship or materials identified during this warranty walk will be documented by the team and included on the ‘Warranty Failure Notice’. Copies will be forwarded to all attendees of the Warranty walk with a copy to the project file.

6. The Coordinator will set up a schedule between the client and the contractor to make necessary corrections within 30 days from the inspection of the project.Coordinator will schedule any relevant testing or field observation by technical team members or the Zone representative if required for Warranty acceptance.

7. Coordinator will monitor progress and when work is completed, the coordinator will document acceptance on the bottom of the Warranty Failure Notice along with the date of acceptance and file in the project ‘Construction/Reports’ folder and send an electronic notification the Zone, Building Manager, client and contractor that work has been satisfactorily completed. An electronic note will be sent to the building manager, client, contractor and Zone Manager that any future concerns should be directed through the One-Stop call centre.

8. Coordinator will charge their time to the CP to the non-billed Warranty however if it is for an Auxiliary, the coordinator will need to open a CP for billing to the Auxiliary for compensation of time and materials if needed.

9. If work is not completed within the 30 day period, the Contracting Manager will send out a non-conformance notice providing the contractor one more 30 day period to complete and notifying the contractor that if they do not complete within this period, the work will be assigned to others and a bill will be sent to the contractor and the failure to complete the project will be noted in the Contractor’s file with a copy to the Contract Manager and the Project Manager