

Part 1 GENERAL

1.1 SUBMITTALS

- .1 Upon award of contract and prior to commencement of work, submit to Departmental Representative the following work management documents:
 - .1 Work Schedule as specified herein.
 - .2 Shop Drawing Submittal Schedule
 - .3 Waste Management Plan.
 - .4 Health and Safety Plan.
 - .5 Hot Work Procedures.
 - .6 Lockout Procedures.
 - .7 Dust Control Plan.
 - .8 List of workers requiring security clearance and those to be placed on Site Security Control list.
 - .9 Site Specific Safety Plan

1.2 WORK SCHEDULE

- .1 Upon acceptance of bid submit:
 - .1 Detailed work schedule submitted within 7 calendar days.
- .2 Schedule to indicate all calendar dates from commencement to completion of all work within the time stated in the accepted bid. Schedule to include Tenant operations outlined in Section 01 10 10.
- .3 Provide sufficient details in detailed schedule to clearly illustrate entire implementation plan, depicting efficient coordination of tasks and resources, to achieve completion of work on time and permit effective monitoring of work progress in relation to established milestones.
- .4 Detailed work schedule content to include as a minimum the following:
 - .1 Bar (GANTT) Charts, indicating all work activities, tasks and other project elements, their anticipated durations, planned dates for achieving key activities and major project milestones supported with;
 - .2 Written narrative on key elements of work illustrated in bar chart, providing sufficient details to demonstrate a reasonable implementation plan for completion of project within designated time.
 - .3 Generally Bar Charts derived from commercially available computerized project management system are preferred but not mandatory.
- .5 Schedule work in cooperation with the Departmental Representative. Incorporate within Detailed Work Schedule, items identified by Departmental Representative during review of preliminary schedule.

- .6 Completed schedule shall be approved by Departmental Representative. When approved, take necessary measures to complete work within scheduled time. Do not change schedule without Departmental Representative's approval.
- .7 Ensure that all subtrades and subcontractors are made aware of the work restraints and operational restrictions specified.
- .8 Schedule Updates:
 - .1 Submit on a monthly basis.
 - .2 Provide information and pertinent details explaining reasons for necessary changes to implementation plan.
 - .3 Identify problem areas, anticipated delays, impact on schedule and proposed corrective measures to be taken.
- .9 Departmental Representative will make interim reviews and evaluate progress of work based on approved schedule. Frequency of such reviews will be as decided by Departmental Representative. Address and take corrective measures on items identified by reviews and as directed by Departmental Representative. Update schedule accordingly.
- .10 In every instance, change or deviation from the Work Schedule, no matter how minimal the risk or impact on safety or inconvenience to tenant or public might appear, will be subject to prior review and approval by the Departmental Representative.

1.3 PROJECT PHASING

- .1 Be aware that Facility must be kept operational for the full duration of work of this contract.
- .2 Unless indicated or approved otherwise, complete all work of a particular phase prior to commencement of another phase. Obtain Departmental Representative's permission prior to moving between phases

1.4 OPERATIONAL RESTRICTIONS

- .1 The Contractor must recognize that building occupants will be affected by implementation of this Contract. The Contractor must perform the work with utmost regard to the safety and convenience of building occupants and users. All work activities must be planned and scheduled with this in mind. The Contractor will not be permitted to disturb any portion of the building without providing temporary facilities as necessary to ensure safe and direct passage through disturbed or otherwise affected areas.
- .2 Contractor to ensure locations of underground services are identified and prevent impact by heavy equipment.
- .3 Contractor to meet with the Departmental Representative on a weekly basis to identify intended work areas, activities and scheduling for the coming week.
- .4 Limited Maneuvering Space on Site:

- .1 Contractor is to provide exterior access to roofs using scaffold stairs or other adequate means. Locations of exterior access to be coordinated with Departmental Representative.
- .2 The Contractor's access to building will be limited to area of work.
- .3 Area of work may be isolated with pass cards from rest of building.
- .4 Control points to be relocated/ installed as part of this project.
- .5 Facility circulation maintained:
 - .1 Ensure that entrances, corridors, stairwells, fire exits and other circulation routes are maintained free and clear providing safe and uninterrupted passage for Facility users and public at all times during the entire work.
 - .2 Maintain those areas clean and free of construction materials and equipment. Provide temporary dust barriers and other suitable enclosures to ensure users are not exposed to construction activities and are protected from exposure to dust, noise, and hazardous conditions.
 - .3 Provide temporary corridors, walkways, passageways, access to offices, etc. when required due to nature of work. Such circulation routes must be constructed to barrier free requirements unless approved otherwise by Departmental Representative.
 - .4 Maintain fire escape routes accessible and fire fighting access open all times for the duration of the project.
 - .5 Do not under any circumstances block fire exit doors. Do not leave construction materials or debris in corridors, stairwells building entrances and exits.
- .6 To assure that construction work may proceed productively without risk to safety of building occupants, be aware that certain work of this contract must be carried out during "Off-Hours".
- .7 The following work, if necessary, shall be performed during Off-Hours:
 - .1 Any work undertaken in the corridor.
 - .2 Erection and dismantling of dust barriers, hoarding or other protective devices to separate areas of Facility occupied and under use by public and tenants from work areas;
 - .3 Erection of site enclosure fencing and temporary hoarding at building entrances and fire exits to keep them operational during work;
 - .4 Asbestos abatement;
 - .5 Demolition of any masonry or concrete inside building;
 - .6 All work involving saw cutting or boring of openings through masonry and concrete walls, floors, ceilings or roof;
 - .7 Work which requires the use of products controlled by WHMIS and for which MSDS sheets indicate toxic or hazardous materials requiring special handling and application procedures;
 - .8 Use of materials having high solvent content or other content emitting strong noxious fumes or odours;
 - .9 Painting;
 - .10 Removal of demolition debris from the building [including cleaning of premises];

- .11 Cleaning and preparing of occupied areas for daytime use by tenants immediately following an off-hour work shift;
 - .12 Work within a tenant occupied area including corridors, stairwells and other circulation routes under use;
 - .13 Work which requires the temporary disconnection of power and communication services to occupied areas;
 - .14 Testing of fire alarms and other emergency annunciating system;
 - .15 Delivery of materials and equipment from exterior to the interior of building when access routes are located in tenant occupied spaces.
 - .16 Work which creates excessive noise or vibration creating interference with tenant operations.
- .8 Off Hours: for the purposes of this contract, "off-hours" are defined as follows:
- .1 Weeknight Hours: between the hours of 18:00 and 07:00 for each weekday Monday to Friday inclusive.
 - .2 Weekend Hours: between the hours of 18:00 Friday evening to 07:00 Monday morning.
 - .3 Dependent on the nature and location of the construction activity, the day of the week and the time of the year, "off-hours" could be subject to redefinition to start or end at adjusted time periods. Scheduling of "off-hours" work will be subject to approval by the Departmental Representative.
- .9 Traffic Signage:
- .1 Provide road signage as required to facilitate heavy equipment movement and traffic.
- .10 Safety Signage:
- .1 Provide on site, and erect as required during progress of work, proper bilingual signage, mounted on self-supporting stands, warning the public and building occupants of construction activities in progress and alerting need to exercise caution in proceeding through disturbed areas of the facility, and directing building occupants through any detours which may be required.
 - .2 Signage to be professionally printed and mounted on wooden backing, coloured and to express messages as directed by the Departmental Representative.
 - .3 Generally maximum size of sign should be in the order of 1.0 square metres. Number of signs required will be dependent on number of areas in facility under renovation at any one time.
 - .4 Include costs for the supply and installation of these signs in the bid price.
- .11 Dust and Dirt Control:
- .1 See Section 01 50 00 and 01 74 11 for dust control and cleaning requirements.
 - .2 Effectively plan and implement dust control measures and cleaning activities as an integral part of all construction activities. Review all measures with the Departmental Representative before undertaking work, especially for major dust generating activities.

- .3 Do not allow demolition debris and construction waste to accumulate on site and contribute to the propagation of dust.
- .4 As work progresses, maintain construction areas in a tidy condition at all times. Remove gross dust accumulations by cleaning and vacuuming immediately following the completion of any major dust generating activity.
- .5 Immediately remove all debris and dust from within occupied areas as generated by work therein during a given workshift.
- .6 Disconnect and seal-off ductwork of HVAC servicing the construction area to stop spread of dust into other areas of Facility.
- .7 Avoid situations and practices which results in dust and dirt being brought from the construction areas or from the exterior and tracked into occupied areas used by tenants and the public.
- .8 Stop workers with soiled footwear from entering building. This includes roofing mechanics and heavy civil workers.
- .9 Inform workers and make them sensitive to the need for dust and dirt control. Stringently enforce rules and regulations, immediately address non-compliance.
- .10 Keep access doors to work areas closed at all times. Use only designated doors for entry or egress.
- .12 Work in Occupied Areas:
 - .1 Where work must be carried out in an occupied area beyond the boundaries of the enclosed construction site, perform such work during the non-operational off-hour periods of the Facility.
 - .2 Ensure that all dust, dirt, debris, construction waste, materials, tools and equipment are completely removed at the end of each workshift. Clean and reinstate area ready for daytime use by tenant.
 - .3 Provide temporary dust barriers around immediate work areas and place fabric drop sheets over workstations, equipment and other furnishings located immediately adjacent to such work.
 - .4 Conduct work in such a way as to minimize the creation of dust and to avoid contaminating areas beyond the immediate location.
 - .5 Discuss and obtain Departmental Representative's approval beforehand on the type and extent of dust barriers, protective devices and measures needed.
 - .6 Be responsible for temporarily moving office furnishings, workstations, computer equipment and other objects as needed to gain access and conduct work. Reinstall all dislocated items at end of each workshift making the area operational again.
 - .7 Disconnect and reconnect any power and communications systems feeding workstations as required.
 - .8 Clean such areas as well as those corridors and routes used to gain entry and access.
- .13 Cleaning of tenant occupied areas used by Contractor:
 - .1 Clean lobbies, corridors, stairs, and other circulation routes used by workers to gain access to work by conducting cleaning, vacuuming and washing of floors, walls and other soiled surfaces.

- .2 Meager attempts at controlling dust and ineffective unprofessional cleaning procedures will not be tolerated.
- .3 Failure to provide effective dust control, allowing construction dust and dirt to escape beyond construction areas and contaminate occupied areas and building circulation areas will result in Contractor being ordered to immediately provide professional cleaning services without delay to remedy the situation and conduct all cleaning to the extent as determined by Departmental Representative. Alternatively, Departmental Representative may, at certain times and at own discretion; obtain the services of an independent building cleaning agency when cleaning being provided by Contractor is ineffective or tardy in response. Costs of such services will be charged against Contractor in the form of financial penalties or holdback assessments against the Contract.
- .14 Ensure that all sub-trades are made aware of and abide by the contents of this section and in particularly the work restrictions specified herein due to tenant operational requirements.

1.5 PROGRESS MEETINGS

- .1 Refer to Section 01 31 19 – Progress Meetings.

1.6 WORK COORDINATION

- .1 The General Contractor is responsible for coordinating the work of the various trades and predetermining where the work of such trades interfaces with each other.
 - .1 Designate one person from own employ having overall responsibility to review contract documents and shop drawings, plan and manage such coordination.
- .2 The General Contractor shall convene meetings between trades whose work interfaces and ensure that they are fully aware of the areas and the extent of where interfacing is required.
 - .1 Provide each trade with the plans and specs of the interfacing trade, as required, to assist them in planning and carrying out their respective work.
 - .2 Develop coordination drawings when deemed required illustrating potential interference between works of various trades and distribute to all affected parties including structural trade.
 - .1 Pay particularly close attention to overhead work above ceilings and within or near to building structural elements.
 - .2 Coordination drawings to identify all building elements, services lines, rough-in points and indicate from where various services are coming.
 - .3 Review coordination drawings at purposely called meetings. Have subcontractors sign-off on drawings and publish minutes of each meeting.
 - .4 Plan and coordinate work in such a way to minimize quantity of service line offsets.
 - .5 Submit copy of coordination drawings and meeting minutes to Departmental Representative for information purposes.

- .3 Submission of shop drawings and ordering of prefabricated equipment or prebuilt components shall only occur once coordination meeting for such items has taken place between trades and all conditions affecting the work of the interfacing trades has been made known and accounted for.
- .4 Work Cooperation:
 - .1 Ensure cooperation between trades in order to facilitate the general progress of the work and avoid situations of spatial interference.
 - .2 Ensure that each trade provides all other trades reasonable opportunity for the completion of the work and in such a way as to prevent unnecessary delays, cutting, patching and the need to remove and replace completed work.
- .5 No extra costs to the Contract will be considered by the Departmental Representative as a result of Contractor's failure to effectively coordinate all portions of the Work. Disputes between the various trades as a result of their not being informed of the areas and extent of interface work shall be the sole responsibility of the General Contractor to be resolved at own cost.

END OF SECTION