SECTION 01 51 00 - TEMPORARY UTILITIES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Temporary Utilities: Provision of electricity, lighting, heat, ventilation, and water.

1.02 RELATED REQUIREMENTS

A. Section 01 50 00 - Temporary Facilities and Controls:

1.03 USE CHARGES - ALL CONTRACTS

A. General: Installation and removal of temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities engaged in the Project to use temporary services and facilities without cost, including, but not limited to, Architect, testing agencies, and authorities having jurisdiction.

B. Usage Charges: All temporary utility usage charges will be incurred by owner.

1.04 QUALITY ASSURANCE – ALL CONTRACTS

A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.05 PROJECT CONDITIONS – ALL CONTRACTS

A. Temporary Use of Permanent Facilities: Engage installers of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

B. Conservation: Coordinate construction and use of temporary facilities with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1.06 TEMPORARY ELECTRICITY - CONTRACT F

A. Provide main service disconnect and over-current protection at convenient location and meter.

B. Provide 200 amp Temporary Electrical Service for the building during construction operations. Electrical service will be fed from light pole near the north east corner of the property. Contractor will need to provide distribution panels as required. Provide necessary distribution and safety equipment and panel board, service to be extended in a safe manner from panel board to new building. Final direction of work will be in coordination with Construction Manager.

C.   Provide 100 amp temporary electrical service to CM office trailer. Service will come from temp power service for construction operations.

D. Permanent convenience receptacles may be utilized during construction.

E. Provide adequate distribution equipment, wiring, and outlets to provide single phase branch circuits for power and lighting.

F.     Temporary Trailers: Electrical contractor to include hookup of up to (4) four office / storage trailers of other Prime Contractors. Hookup location TBD.

1.07 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES - CONTRACT F

A. Provide and maintain lighting for construction operations to achieve a minimum lighting level of 2 watt/sq ft ( to achieve a minimum lighting level of 21 watt/sq m).

B. Provide and maintain 0.25 watt/sq ft H.I.D. lighting to interior work areas after dark for security purposes.

C. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.

D. Maintain lighting and provide routine repairs.

E. Permanent building lighting may be utilized during construction.

1.08   TEMPORARY HEATING - CONTRACT E

A.    Provide heating devices and heat as needed to maintain specified conditions for construction operations.

B.    Maintain minimum ambient temperature of 50 degrees F (10 degrees C) in areas where construction is in progress, unless indicated otherwise in specifications.

C.   HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil system, similar to a Babfar system to maintain temperatures as specified inside the building.

E.    Contractor to provide equipment, material and labor to temporarily protect all return air ducts and change out all HVAC equipment filters prior to building opening. This will allow for permanent heating and cooling systems to be operational during construction operations if necessary.

F.     Temporary heating equipment, material and labor is to be billed out of the Temporary Heating Allowance for Contract C. Refer to Section 01 21 00 – Allowances for details. Contractor markup for this allowance is limited to 7.5% total.

1.09 TEMPORARY WATER SERVICE – CONTRACT G

A. Provide and maintain suitable quality water service for construction operations at time of project mobilization.

B. Cost of Water Used; By Contractor

1.10 TEMPORARY FIRE PROTECTION – CONTRACT D

A. Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.

1. Prohibit smoking in construction areas. Comply with additional limits on smoking specified in other Sections.

2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.

3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 TEMPORARY UTILITY INSTALLATION - ALL CONTRACTS

A. General: Install temporary service or connect to existing service.

1. Arrange with utility company, owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.

B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully.

1. Connect temporary sewers to municipal system as directed by authorities having jurisdiction.

C. Water Service: Install water service and distribution piping in sizes and pressures adequate for construction.

D. Temporary Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.

1. Provide temporary dehumidification systems when required to reduce ambient and substrate moisture levels to level required to allow installation or application of finishes and their proper curing or drying.

E. Electric Power Service: Provide electric power service and distribution of sufficient size, capacity, and power characteristics required for construction operations.

1. Install electric power service underground unless otherwise indicated.

F. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations inspections, and traffic conditions.

1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.

END OF SECTION