Section 01500 – TEMPORARY FACILITIES

1. WATER. Water in reasonable amounts required for an in connection with the Work to be performed will be furnished at locations as approved by Owner at rates specified by Owner and in accordance with the federal, state and local regulations, ordinances and policies. Contractor shall furnish necessary pipe, hose, reduced pressure zone back flow device, as approved by the Owner and meter approved by Owner, nozzles, and tools and shall perform all necessary labor. Contractor shall ensure that the equipment has been inspected by and approved by the Owner and has obtained the applicable permits and certifications prior to water system connection. Contractor shall make arrangements with the Owner (who will fix the location, time, rate, and duration of each withdrawal from the distribution system) as to the amount of water required and the time when the water will be needed. Unnecessary waste of water will not be tolerated. Special hydrant wrenches shall be used for opening and closing fire hydrants. In no case shall pipe wrenches be used for this purpose.

If Contractor wastes water, as determined by Owner, Contractor shall be required to obtain all remaining water necessary for completion of the Work measured through a meter and at the Contractor's expense.

2. POWER. Contractor shall provide all power for any other use by Contractor. This service shall be installed by a licensed electrical contractor. Lighting shall be provided by the Contractor in all spaces as times necessary for good and proper workmanship, for inspection, and for safety. Contractor must obtain all necessary permits and provide copies of the permits to the Owner prior to initiating the work.

3. SANITARY FACILITIES. Contractor shall furnish temporary sanitary facilities at the site, as provided herein, for the needs of all construction workers and others performing work or furnishing services on the Project, in compliance with the state health department regulations.

Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view to the greatest practical extent. If toilets of the chemically treated type are used, at least one toilet will be furnished for each 20 men. Contractor shall enforce the use of such sanitary facilities by all personnel at the site.

4. MAINTENANCE OF TRAFFIC. Contractor shall obtain the required approvals encroachments, and permits from State of North Carolina Department of Transportation and or the Owner as applicable prior to initiating any work within highway or road rights-of-ways or in Owner streets. Contractor shall conduct his work to interfere as little as possible with public travel, whether vehicular or pedestrian. Whenever it is necessary to cross, obstruct, or close roads, driveways, and walks, whether public or private, Contractor shall provide and maintain suitable and safe bridges, detours, or other temporary expedients for the accommodation of public and private travel, and shall give reasonable notice to owners of private drives before interfering with them. Such maintenance of traffic will not be required when Contractor has obtained permission from the owner and tenant of private property, or from the authority having

jurisdiction over public property involved, and submit written documentation of such agreements to the Owner prior to obstruct traffic at the designated point.

In making open-cut street crossings, Contractor shall not block more than one half of the street at a time. Whenever possible, Contractor shall widen the shoulder on the opposite side to facilitate traffic flow. Temporary surfacing shall be provided as necessary on shoulders.

All work performed within the highway rights-of-way or in Owner streets shall be in accordance with the State of North Carolina Department of Transportation "Policies, North Carolina State Traffic Control Guidelines", OSHA Regulations, and Procedures for Accommodating Utilities on Highway Rights-of-Way and shall be approved by Owner.

4.01. Temporary Bridges. Contractor shall obtain the required plan approvals, encroachments, and permits from State of North Carolina Department of Transportation, NCDENR, OSHA and/or the Owner, as applicable prior to initiating the construction of substantial bridges at all points where it is necessary to maintain traffic across pipeline construction. Contractor shall submit written documentation of such plan approvals, encroachments, and permits from State of North Carolina Department of Transportation, NCDENR and OSHA to the Owner prior initiating work. Bridges in public streets, roads, and highways shall be acceptable to the authority having jurisdiction thereover. Bridges erected in private roads and driveways shall be adequate for the service to which they will be subjected. Bridges shall be provided with substantial guardrails and with suitably protected approaches. Foot bridges shall be not less than 4 feet wide, provided with handrails and uprights of dressed lumber. Bridges shall be maintained in place as long as the conditions of the Work require their use for safety of the public. When necessary for the proper prosecution of the Work in the immediate vicinity of a bridge, the bridge may be relocated or temporarily removed for such period as Engineer may permit.
All work performed within the highway rights-of-way or in Owner streets shall be in accordance with the State of North Carolina Department of Transportation "Policies, North Carolina State Traffic Control Guidelines", OSHA Regulations, and Procedures for Accommodating Utilities on Highway Rights-of-Way and shall be approved by Owner.

4.02. Detours. Where required by the authority having jurisdiction thereover that traffic be maintained over any construction work in a public street, road, or highway, and the traffic cannot be maintained on the alignment of the original roadbed or pavement, Contractor shall, at his own expense, construct and maintain a detour around the construction work. Each detour shall include a bridge across the pipe trench and all necessary barricades, guardrails, approaches, lights, signals, signs, and other devices and precautions necessary for protection of the Work and safety of the public.
All work performed within the highway rights-of-way or in Owner streets shall be in accordance with the State of North Carolina Department of Transportation "Policies, North Carolina State Traffic Control Guidelines", OSHA Regulations, and Procedures for Accommodating Utilities on Highway Rights-of-Way and shall be approved by Owner.

5. BARRICADES AND LIGHTS. All streets, roads, highways, and other public thoroughfares which are closed to traffic shall be protected by effective barricades on which shall be placed

acceptable warning signs. Barricades shall be located at the nearest intersecting public highway or street on each side of the blocked section.

All open trenches and other excavations shall have suitable barricades, signs, and lights to provide adequate protection to the public. Obstructions such as material piles and equipment shall be provided with similar warning signs and lights.

All barricades and obstructions shall be illuminated with warning lights from sunset to sunrise. Material storage and conduct of the work on or alongside public streets and highways shall cause the minimum obstructions and inconvenience to the traveling public.

All barricades, signs, lights, and other protective devices shall be installed and maintained in conformity with applicable statutory requirements and, where within railroad and highway rights-of-way, as required by the authority having jurisdiction thereover.

All work performed within the highway rights-of-way shall be in accordance with the state of North Carolina Department of Transportation "Policies, North Carolina State Traffic Control Guidelines, OSHA Regulations, and Procedures for Accommodating Utilities on Highway Rights-of-Way."

6. FENCES. All existing fences affected by the Work shall be maintained by Contractor until completion of the Work. Fences which interfere with construction operations shall not be relocated or dismantled until written permission is obtained from the owner of the fence, and the period the fence may be left relocated or dismantled has been agreed upon. Where fences must be maintained across the construction easement, adequate gates shall be installed. Gates shall be kept closed and locked at all times when not in use.

On completion of the work across any tract of land, Contractor shall restore all fences to their original or to a better condition and to their original location.

All work performed within the highway rights-of-way shall be in accordance with the State of North Carolina Department of Transportation "Policies, North Carolina State Traffic Control Guidelines, OSHA Regulations, and Procedures for Accommodating Utilities on Highway Rights-of-Way."

7. PROTECTION OF PUBLIC AND PRIVATE PROPERTY. Contractor shall protect, shore, brace, support and maintain all underground pipes, conduits, drains, and other underground construction uncovered or otherwise affected by his construction operations. All pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, fences, and other surface structures affected by construction operations, together with all sod and shrubs in yards, parkways, and medians, shall be restored to their original condition, whether within or outside the easement. All replacements shall be made with new materials.

No trees shall be removed outside of the permanent easement, except where authorized by Engineer. Hand excavation shall be employed as necessary to prevent injury to trees. Trees left standing shall be adequately protected against damage by construction operations.

Contractor shall be responsible for all damage to streets, roads, highways, shoulders, ditches, embankments, culverts, bridges, and other public or private property, regardless of location of character, which may be caused by transporting equipment, materials, or men to or from the Work or any part or site thereof, whether by him or his Subcontractors. Contractor shall make satisfactory and acceptable arrangements with the owner of, or the agency or authority having jurisdiction over, the damaged property concerning its repair or replacement or payment of costs incurred in connection with the damage.

All fire hydrants and water control valves shall be kept free from obstruction and available for use at all times.

All property irons/monuments distributed during construction shall be replaced by a North Carolina Registered Land Surveyor at the Contractor's expense. The Contractor shall maintain reasonable cleanliness of all streets which are being used in the construction of the project.

8. TREE AND PLANT PROTECTION. No trees shall be removed outside of excavated or fill areas, unless their removal is authorized by Owner. All trees and other vegetation which must be removed to perform the Work shall be removed and disposed of by Contractor; however, no trees or cultured plants shall be unnecessarily removed unless their removal is indicated on the Drawings. All trees and plants not removed shall be protected against injury from construction operations.

Contractor shall take extra measures to protect trees designated to be preserved, such as erecting barricades, trimming to prevent damage from construction equipment, and installing pipe and other Work by means of hand excavation or tunneling methods. Such trees shall not be endangered by stockpiling excavated material or storing equipment against the trunk.

When the injury or removal of trees designated to be preserved cannot be avoided, or when removal and replacement is indicated on the Drawings, each tree injured beyond repair or removed shall be replaced with a similar tree of the nearest size possible.

All trimming, repair, and replacement of trees and plants shall be performed by qualified nurserymen or horticulturists.

All damaged areas on trees to be left standing shall be made smooth and then covered completely with asphaltum base tree paint. Damaged roots are to be pruned-back to healthy tissues and then treated and backfilled as soon as possible. Air pockets shall not be left in root system backfill areas. Canopy area is to be selectively pruned (NOT TOPPED) to match the area of remaining root system up to 50 percent if the total area.

9. SECURITY. Contractor shall be responsible for protection of the site, and all Work, materials, equipment, and existing facilities thereon, against vandals and other unauthorized persons.

No claim shall be made against Owner by reason of any act of any employee or trespasser, and Contractor shall make good all damage to Owner's property resulting from his failure to provide security measures as specified.

10. ACCESS ROADS. If access roads are required by Contractor, Contractor shall obtain rights to access roads from property owners at no additional cost to Owner. Contractor shall establish and maintain temporary access roads to various parts of the site as required to complete the Project. Such roads shall be available for the use of Owner and all others performing work or furnishing services in connection with the Project.

11. PARKING. Contractor shall provide and maintain suitable parking areas for the use of the Owner, all construction workers and others performing work or furnishing services in connection with the Project, as required to avoid any need for parking personal vehicles where they may interfere with public traffic, Owner's operations, or construction activities.

12. NOISE CONTROL. Contractor shall taken all necessary measure to comply with and abide by the applicable federal, state and local regulations, ordinances regarding noise pollution and control. Contractor shall take reasonable measures to avoid unnecessary noise. Such measures shall be appropriate for the normal ambient sound levels in the area during working hours. All construction machinery and vehicles shall be equipped with practical sound-muffling devices, and operated in a manner to cause the least noise consistent with efficient performance of the Work.

During construction activities on or adjacent to occupied buildings, and when appropriate, Contractor shall erect screens or barriers effective in reducing noise in the building and shall conduct his operations to avoid unnecessary noise which might interfere with the activities of building occupants.

13. SEDIMENTATION AND EROSION CONTROL. Contractor shall taken all necessary measure to comply with and abide by the applicable federal, state and local regulations, ordinances regarding pollution, sedimentation and erosion control, including but not limited to sedimentation control, dust reduction, temporary diversions, pollution control and erosion control.
Contractor shall take reasonable measures to prevent unnecessary dust. Earth surfaces to dusting shall be kept moist with water or by application of a chemical dust suppressant. When practicable, dusty materials in piles or in transit shall be covered to prevent blowing.

Buildings or operating facilities which may be affected adversely by dust shall be adequately protected from dust. Existing or new machinery, motors, instrument panels, or similar equipment shall be protected by suitable dust screens. Proper ventilation shall be included with dust screens.

Contractor shall provide for the drainage of storm water and such water as may be applied or discharged on the site in performance of the Work and in accordance with the applicable regulations, permits and approved plans. Contractor shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris, and other substances resulting from construction activities. No sanitary wastes will be permitted to enter any drain or watercourse other than sanitary sewers. No sediment, debris, or other substance will be permitted to enter sanitary sewers, and reasonable measures will be taken to prevent such materials from entering any drain or watercourse.

END OF SECTION