

### Demolition Notes

- CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL ABOVE AND UNDERGROUND UTILITIES WITHIN THE WORK AREA, INCLUDING, BUT NOT LIMITED TO, GAS, ELECTRIC, SEWER, WATER, FIBER OPTIC, STORM DRAINAGE, ETC.
- CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANIES PRIOR TO BEGINNING DEMOLITION.
- BUILDINGS NOT SHOWN AS BEING DEMOLISHED IN THIS PHASE SHALL REMAIN OPEN AND OPERATIONAL.
- CONTRACTOR SHALL INCLUDE THE REMOVAL OF ALL VEGETATION AND LANDSCAPING WITHIN THE WORK AREA IN BID PRICE.
- CONTRACTOR TO VERIFY THE UTILITIES TO BE REMOVED ONLY SERVE THE BUILDING TO BE DEMOED PRIOR TO DEMOLITION. ALL SURROUNDING BUILDINGS TO REMAIN FULLY OPERATIONAL.

### Asphalt Paving

1. The Contractor or Subcontractor performing the paving operation will be responsible for performing the following:

#### A. Surface Tolerance

Surface tolerance requirements for smoothness must be checked in the presence of an inspector using a "Rolling Straightedge" for checking surface tolerance. A variation of more than 1/8" in 10 feet will be considered unacceptable and must be corrected in an acceptable manner which will also meet item (B and H) below.

#### B. Surface Texture

Care shall be taken to insure that a smooth dense texture is achieved with no segregation, tearing, cracking, etc. Areas discovered which are not uniform in appearance and texture shall be reheated and rerolled, replaced, or if required by the Engineer, resurfaced at no additional cost to the Owner. Seams and edges shall be straight, true, and smooth.

#### C. Plant Tickets

To verify depth for payment, plant tickets shall be submitted to the Engineer.

#### D. Payment of Asphalt

No payment for paving will be made until the surface texture and smoothness has been inspected, satisfactorily repaired, if necessary, and approved by the Engineer and the Owner.

#### E. Paving Subcontractors

The General Contractor in charge of the Paving Contractor shall be responsible for assuring that his paving Contractor has read these requirements if paving is to be subcontracted. Failure to inform a Subcontractor does not relieve the Prime Contractor of these requirements.

#### F. Paving Condition

No paving of asphalt shall take place until the Utility Contractor and the Paving Contractor have mutually agreed that all valve boxes and manholes have been set to finished grade and that it is the Paving Contractor's responsibility to make minor adjustments prior to paving, as applicable.

#### G. Asphalt Specifications

Asphalt and CABC shall meet the NCDOT "Standard Specifications for Roads and Structures", latest revision. Asphalt mix and placement shall meet Division 6 of the State Specifications. CABC shall meet Section 520 of the State Specifications and graded in accordance with Table 620-1. Placement and compaction shall meet Section 520.

#### H. Asphalt Patching

Asphalt Patching WILL NOT BE ALLOWED. In the event that Asphalt is unsatisfactory to Engineer, the contractor shall mill entire section of asphalt and resurface a minimum depth of one and one-half inch and at minimum length of one hundred feet for the entire width of section in question. This area is to be determined by field inspection with the contractor and sub contractor and the Engineer present.

2. All asphalt prices in this proposal shall be based on the NCDOT Monthly Terminal F.O.B. If the asphalt binder price fluctuates from this stated price more than 10 % at any time during the performance of the asphalt work, the contractor will adjust the asphalt prices in accordance with the newly published NCDOT Monthly Terminal F.O.B. Asphalt Binder Prices. These prices are located at the following web address:

<https://connect.ncdot.gov/projects/construct/Lists/Monthly%20Terminal%20Asphalt%20Binder%20Fuel%20FOB%20Prices/AllItems.aspx>

### Drainage Notes

- Boxes may be reinforced masonry, masonry, precast concrete or cast-in-place reinforced concrete.
- The maximum height of an un-reinforced masonry drainage structure with 8-inch walls shall be limited to 8-foot from invert of the outlet pipe to the top of the casting. Depths greater than 8-feet shall have walls 12-inches thick. Basins over 12-feet in total depth shall be designed by a P.E. Professional Engineer. Four-inch walls are not allowed on drainage structures.
- Stops are to be provided on all basins deeper than 42".
- Stops are to be VUL-FF as manufactured by M. A. Industries or an approved equal. Locate on non-pipe walls.
- Masonry masonry boxes are to be type M. Clay brick structures are not allowed.
- Concrete building bricks to meet ASTM C-55, Grade N, and Type 1.
- Iron castings are to be drilled and lagged to the drainage structure. The drainage structure as well is to be drilled.
- All cast iron pipes or precast concrete drainage structures located in paved areas accessible to truck loadings to be designed to meet AASHTO HS 20-44 loading. See manufacturer's details for wall, top and bottom thickness.
- All catch basins grates and frames are to be Vulcan or approved equal. Verify dimensions heights on castings are not exceeded in critical areas before ordering castings!
- All concrete pipe is to be ASTM C-76, Class III with ram-net.
- All cast iron frame and grates to receive bituminous coating.

### Grading Notes

- Site Contractor to inform Building Contractor to verify finished grade at building before digging footings. Some portions of the building foundation wall may, of necessity, need to retain building pad fill to allow exterior grades to be dropped. In this case, step footings may be necessary to achieve the desired grade variations.
- New finished contours shown are top of future paving in areas to receive pavement and top of topsoil in areas to be seeded.
- Areas outside of the parking lot perimeters shall receive 4 inches of topsoil. This topsoil to be placed and leveled by the Contractor.
- Dimensions on buildings are for grading purposes only and are not to be used to lay-off footings. See Architectural Plans.
- Contractor shall notify and cooperate with all utility companies or firms having facilities on or adjacent to the site before disturbing, altering, removing, relocating, adjusting or connecting to said facilities. Contractor shall raise or lower tops of existing manholes, as required, to match finished grades.
- All catch basin grate and frames are to be Vulcan or approved equal. Verify that dimension heights on castings are not exceeded in critical areas before ordering substitute castings!
- All areas not covered by building or paving are to be seeded and mulched.
- Unusable excavated materials and all waste resulting from clearing and grubbing and demolition shall be disposed of off-site by Contractor.
- All excavation is unclassified and shall include all materials encountered.
- Before any machine work is done, Contractor shall stake out and mark the items established by the Site Plan. Control points shall be preserved at all times during the course of the project. Lack of proper working points and grade stakes may require cessation of operations until such points and grades have been placed to the Owner's satisfaction.
- Contractor to ensure all portions of the site have positive drainage. This must be verified prior to paving or pouring concrete.
- Refer to soils report for directions on earthwork and subgrade preparation, if available.

### Concrete Notes

- All construction, placing, pouring and curing concrete is to conform to the latest edition of ACI 318.
- All reinforcing steel is to be cold cut and bent.
- Portland cement concrete shall have a minimum 28 day compressive strength of 4,000 PSI.
- Do not use chloride in any concrete which has reinforcing steel or wire fabric.
- Reinforcing steel shall meet ASTM A-615, Grade 60. Welded wire fabric shall meet ASTM A-185. The wire shall conform to ASTM A-82.
- Lap welded wire fabric a minimum of one mesh. Lap all bars a minimum of 24". Alternate adjacent bar splices a minimum of 48".
- Use only approved chairs with sand plates to support reinforcing on grade.
- All crossings of reinforcement are to be tied. Supports for reinforcing to hold bars against movement during pour and finish operation. Supports for reinforcing bars to be a minimum of 48 inches apart.
- Concrete shall be only plant-mixed, transit-mixed or ready-mixed concrete. The time elapsing from mixing to placing the concrete shall not exceed ninety (90) minutes.
- Concrete shall not be deposited on frozen subgrade and shall not be poured when the air temperature for the succeeding 24-hour period is less than 32 degrees F.
- All concrete when placed in forms shall have a temperature between 50 degrees F and 90 degrees F and shall be maintained at a temperature of not less than 50 degrees F for at least 72 hours for normal concrete and 24 hours for high early strength concrete.
- Do not place fresh concrete during summer on a dry subgrade. Moisture subgrade before placing concrete.
- Subgrade is to be firm, free of water and/or silt and undisturbed or compacted properly. Consult Engineer if soft or yielding subgrade is encountered for improvement directions. If ground water is entering subgrade, consult Engineer for instructions.
- Areas of concrete to be removed shall be saw cut before removing. The saw cut shall provide a smooth, straight edge approximately two (2) inches deep before breaking away the adjacent concrete.
- Immediately after curbs have been removed and all honeycombed areas are repaired, backfill to prevent underwash.
- Brooming of the concrete surface shall be done transverse to the direction of traffic for all pedestrian areas.
- Joint spacing shall be no less than 8-feet. Where existing sidewalks are being widened, transverse joints shall be located so as to align with existing joints in the adjacent existing sidewalk. Grooved joints shall not be sealed. Seal all others.
- Concrete shall be responsible for all saw cuts and expansion joints. A preliminary score joint pattern and expansion joint pattern shall be submitted to the project engineer for review prior to pouring concrete.
- Expansion joints shall be one-half (1/2) inch in width and shall be placed between all rigid objects at a distance of no more than thirty (30) feet apart and shall extend the full depth of the concrete with the top of the filler one-half (1/2) inch above the finished surface.
- Edges of the concrete sidewalk shall be finished with an approved edging tool one-half (1/2) inch radius. Joints shall be straight finished immediately after templates have been removed.
- Saw control joints as soon as fresh concrete will retain coarse aggregate against the sawing action.
- Contractor SHALL NOT POUR any concrete before forms are inspected by the project engineer and/or the architect. Any concrete that has not been approved by the engineer and/or owner will be the responsibility of the contractor.

### Concrete Testing Requirements

#### Initial Test

The initial test (from first ready-mix truck) is to be taken after the second yard is dispatched from the mixer and is to consist of the following:

- One slump test
- Pull, prepare and store 3 cylinders on-site for 24 hours.
- Temperature

#### Subsequent Tests

After the above tests are pulled from the initial truck, every 5th truck thereafter is to be tested in the same manner as noted above.

#### Asphalt Testing Requirements

Compaction : Testing for asphalt density is to follow NCDOT "Standard Specifications for Roads and Structures", Section 609-9, "Field Compaction Quality Management," latest revision.

Thickness : The minimum frequency of coring for thickness testing shall be on the basis of test sections consisting of not more than 1500 linear feet of lay down width, exclusive of intersections and irregular areas. The test sample is to be a 6-inch cored sample. The sample is to be numbered and lagged for identification purposes.

Contractor's Quality Control System :

Follow NCDOT "Standard Specifications for Roads and Structures", Section 609-5, "Contractor's Quality Control System," latest revision.

Mixture and Job Mix Formula Adjustments :

Follow NCDOT "Standard Specifications for Roads and Structures", Section 609-4, "Field Verification of Mixture and Job Mix Formula Adjustments", latest revision.

General : All other applicable sections of Section 609 of the NCDOT "Standard Specifications for Roads and Structures" shall apply relating to Quality Control Plan, mix design, control limits, corrective action, equipment and measurement.

Testing Cost : Contractor is responsible for cost of testing asphalt and concrete.

### Parking, Street or Building Subgrade Preparation

#### A. Subgrade on Precompacted Original Soil

- Remove all the topsoil and all questionable organic soil and extend a minimum of four (4) feet beyond the outside edge of the pavement.
- Precompact the exposed grade with a vibratory roller weighing a minimum of ten (10) tons (static load) or equal to stabilize the initial settlement of the top strata of the soil. The stability of the subgrade will be considered adequate when the total settlement after the last four (4) complete passes by the vibratory roller does not exceed 1/8". Any area that settles excessively and fails to stabilize under continued rolling should be further undercut and replaced with properly compacted select granular fill.

#### B. Subgrade on Certified Compacted Fill

- Prepare the site following the same procedures as outlined in Items 1 and 2 above.
- Using the same compaction equipment as outlined above, compact new fill soil in +/-8-inch layers to a minimum 98-percent of the maximum dry density at its optimum moisture content in accordance with the Standard Proctor Method, ASTM Standard D 698-78 and field controlled in accordance with ASTM Standard D 2167-84, or equal. The top one (1) foot of the prepared fill subgrade should be compacted to 100-percent of the maximum dry density using the Standard Proctor Method.
- The end of the fill should be terminated at the minimum slope of two (2) horizontal to one (1) vertical measured from three (3) feet beyond the outside edge of the pavement to the toe of the fill. The fill soil is to be select granular soil weighing a minimum of 110 pct at its optimum moisture content.



Order Plans

STOCKS ENGINEERING INC. P.O. BOX 1108 NASHVILLE, N.C. 27856 WWW.STOCKSENGINEERING.COM

BLN-C-1874

HARDEE'S at U.S. 117 & N.C. 53 BURGAW, N.C.

BOOKE-NOELL ENTERPRISES, INC. P.O. BOX 1908 ROCKY MOUNT, N.C. 27602-9008 (252) 387-2800

Professional Engineer Seal for Michael Stocks, No. 19843, State of North Carolina, dated 7/14/17.

SITE NOTES

REVISIONS

FILE NO. 2017-013  
HORIZ. SCALE: NONE  
VERT. SCALE: NONE

D-02