



# Airport Area Industrial Sites Due Diligence Study

Kingsport, TN

*Kingsport Economic Development Board*

*June 2021*



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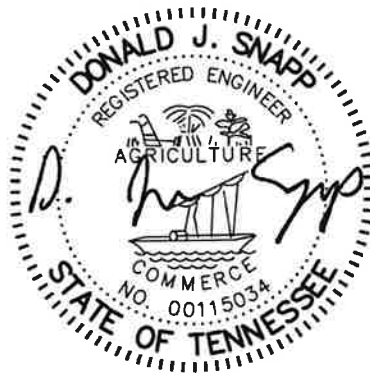
# City of Kingsport Airport Area Industrial Sites Due Diligence Study

**Prepared for:**

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## I. EXECUTIVE SUMMARY & RECOMMENDATIONS

The Kingsport Economic Development Board has commissioned a Due Diligence Study for three (3) separate areas, consisting of parcels 14.50, 14.65, and 15.00, along S.R. 357 near Tri-Cities Airport in Sullivan County, TN. The purpose of this study is to collect the analysis and input of various consultants/utilities and summarize the economic viability and potential for the development of said parcels. Contents of this study constitute a basis for the marketing of the parcels, associated development costs, as well as the basis for future grant and loan opportunities.

Three separate areas were investigated, referred to as “Area #1”, “Area #2”, and “Area #3” respectively, to best service any prospective tenant’s property needs. Estimated development costs are as follows: Area #1 (Option #1) - \$1,627,000 for 10.01 acres of pad ready site, Area #2 (Option #1) - \$1,890,000 for 15.13 acres of pad ready site, Area #2 (Option #2) - \$2,522,000 for 20.56 acres of pad ready site, Area #3 has been determined to be undevelopable as far as industrial clients are concerned due to accessibility and the slope of the terrain. Area #3 provides limited developable space for even residential type development and is discussed further in the following report. Due to the ability to utilize partially constructed existing entrances, median openings, and the availability of required utilities we recommend Areas #1 and #2 as the most economical and favorable sites for development of pad ready sites. The proximity of these sites to Tri-Cities Regional Airport and Interstate 81 provide many economic benefits to any future tenants.

In conclusion, Mattern & Craig recommends pursuing funding opportunities to develop the pad ready sites included in Area #1 – Option #1 (\$1,627,000) and Area #2 – Option #2 (\$2,522,000) conceptually shown and discussed in the following report. These activities would enhance the usability of Areas #1 and #2 and create several developable sites along the S.R. 357 corridor. Developable industrial sites of this size are in high demand by small to medium sized industrial tenants which could directly support other larger industrial clients located at the newly constructed Aerospace Park at Tri-Cities Regional Airport.

Project Exhibits, including conceptual layouts and cost itemizations accompany this study.



## II. INTRODUCTION AND BACKGROUND

Areas #1, #2, and #3, located along the S.R. 357 corridor in Kingsport, Sullivan County, Tennessee, between the Interstate 81 (approximately 1.5 miles) and the Tri-Cities Regional Airport (approximately 0.5 miles), has been owned since 1988 by The Industrial Development Board of Kingsport, TN “KEDB”, or some subsidiary thereof.

In years past the areas of study have been developed to some extent with utility upgrades to service other industrial park clients in the area. These developments have some implied benefits to the current areas of study in the fact that needed utilities are readily available near the said properties. There was a previous grading plan completed for portions of Areas #1 and #2 in 1991 titled “Construction Plans for Northeast Tennessee Business Park (Phase 2)”. These plans were never implemented and in 1997 a new grading/development plan for “Cofap”, currently LeClerc Foods, included various grading activities completed on portions of Area #1 to obtain one existing pad ready site as well as multiple stormwater management facilities that serve the existing industrial clients in the area. These activities have encumbered portions of Area #1 with the associated stormwater management facilities and required easements.

The entire study area consists of approximately 152 acres divided over the three areas. With Area #1 including 48 acres, Area #2 including 42 acres, and Area #3 including 62 acres.

The study herein provides basic information on the costs to upgrade and/or improve the existing infrastructure within the study area to accommodate future tenants. **Please be aware that the cost estimate assumptions and information should be considered as a very conservative estimate given the preliminary nature of the study and for those reasons a 20% contingency has been included in the cost estimates.**



### III. AREA #1 EVALUATION

#### A. AREA #1 EVALUATION AND CONCEPTUAL LAYOUT DISCUSSION

Area #1 was evaluated and a conceptual plan (Section VIII, Exhibits EX 1 – EX 1C) and associated costs developed to quantify the efforts to grade the site to usable property as well as provide industrial roadway access and preliminary utility services. Due diligence associated with Area #1 for the purposes of this report, includes; gathering existing data related to utilities, easements, and previous studies, preliminary utility service due diligence, conceptual pad/grading layouts, and conceptual industrial access. Site visits were conducted on Tuesday, February 23<sup>rd</sup> and Thursday, April 15<sup>th</sup> to investigate the site and grading scope.

Area #1 - Conceptual Layout (Section VIII, Exhibits EX 1-EX 1C) shows existing easements, buildings, stormwater management areas, utilities, existing pad ready sites, as well as proposed features, preliminarily sized stormwater management areas, and grading required to develop the site into useable property for the purposes of industrial development.

The existing pad ready site on the western end of the property is somewhat encumbered due to an existing 10' wide stormwater easement that serves the Leclerc Foods facility as well as a 15' wide drainage easement that serves the Bimbo Bakeries facility. These easements convey stormwater to the existing detention pond and stormwater management facility to the east of said industries.

Gammon Creek bisects the eastern side of the property near S.R. 75 rendering a portion of the site undevelopable due to setbacks required by TDEC. Various sanitary sewer utilities also encumber portions of Area #1. Two City of Kingsport gravity sewer lines bisect the property, one in the east/west direction and one in the north/south direction. It is recommended these sewer lines be relocated to allow full development of the pad ready site as shown on Exhibit EX 1C. Johnson City Sewer also owns a sewer line that traverses the eastern section of the property, this line is not considered an encumbrerment in itself as it appears to be located adjacent to Gammon Creek in an area unsuitable for development. The City of Kingsport also operates a sanitary sewer pump station and associated force main that traverses the eastern portion of the property, this line is also not considered an encumbrerment itself as it appears to be located adjacent to Gammon Creek as well. All existing utilities are shown in assumed locations per GIS mapping and various design plans for previously constructed utility and development projects. Full survey of the site is recommended to verify all utility locations.

Utilities contacted and coordinated with for Area #1 include Bristol Tennessee Essential Services (Power), Kingsport Water Services Division (Water & Sewer), Charter Communications (all communications), and Atmos Energy (Natural Gas). All utilities are readily available, including 3-phase power, near the site, but would have to be extended to the newly graded pad ready sites. Power and communications have both indicated the desire to only run conduits for future use during the initial stage of development due to the unknown nature of any perspective tenants. Once a tenant developed a particular site then actual calculated power and communications required could be addressed and needed cables loaded in the previously installed conduits. Power, natural gas, water, and communications would all provide service from their "backbone" infrastructure along S.R. 357 for Area #1. Sanitary sewer would provide service along the relocated gravity line that would traverse the southern edge of the proposed pad.



Industrial access to Area #1 is proposed to utilize the current entrance to the property located on S.R. 75. This entrance is proposed to be extended as a “frontage road” along the south side of S.R. 357 as shown in Exhibit EX 1C to serve one larger or multiple separate industrial clients within the overall pad ready site. A modified industrial access typical section that only has sidewalk on one side of the road is proposed (Section VIII, Exhibit EX-4) as compared to the City of Kingsport’s standard industrial access typical section due to the fact there will be no possibility of future development on the north side of the industrial access road. This modified typical section will also allow the pad ready site acreage for Area #1 to be maximized and development cost minimized. All industrial access roadway grades are limited to a 5% maximum within Area #1.

Additional access points to the site along S.R. 357 were investigated with the TDOT Region 1 Traffic Office. A new industrial access road was proposed for consideration near the existing gravel median crossing approximately 200’ west of the S.R. 75 off ramp on S.R. 357. Due to the controlled access along S.R. 357 and the proximity of the off ramp to the proposed industrial access road, TDOT denied a request for initial approval of such alternative. This limits the access to the property to include entrances from either S.R. 75 to the east or Harry Steadman Drive to the west. Access from Harry Steadman Drive is deemed uneconomical and not feasible due to the elevation differences between the proposed pad site and access road tie points. Access from Harry Steadman Drive is also blocked by the existing pad ready site on the western end of Area #1 and the Bimbo Bakeries Property.

#### **B. OPTION #1 (MASS GRADING WITH LIMITED UTILITES)**

The total developable area obtained with the conceptual grading plan presented for Area #1 – Option #1 (Section VIII, Exhibit EX 1C) consist of 10.01 acres. It is noted this area could be increased somewhat with the use of retaining walls to suit the specific needs of future industrial clients. The access road proposed with Option #1 consist of extending the existing entrance approximately 1,080 feet to the eastern edge of the pad ready site (the access road with this option would stop where the blue shading starts as shown on Exhibit EX 1C). The terminus of the access road would be left “open” without a cul-de-sac to allow for flexibility with future final development of Area #1.

Option #1 leaves maximum flexibility for the future development of the Area to specifically suit a particular tenant. Water, natural gas, communications, and 3-phase power utilities would not be installed to the pad ready site with this option. Needed utilities could be extended with minimal additional effort from their current locations along S.R. 357 on an as needed basis once a tenant commits to fully develop the site for their use. The access roadway with this option would only provide access to the overall area of Pad #1 and not interfere with any future utility extensions to serve future tenants.

All grading activities associated with Area #1 were developed to obtain a “balanced site” within the boundaries of the area. A fill factor of 1.1 was utilized to account for shrink and swell of excavated earth material. Although there have been no geotechnical investigations carried out on the area at this time, it was assumed that rock excavation would account for 5% of the total excavations on the site for planning purposes. 5% is deemed a reasonable estimate due to the fact there is little visible rock within Area #1.





Additional areas outside of the conceptual grading plan shown do exist within Area #1, labeled “Potential Pad Site #2” (Section VIII, Exhibit EX 1C). This area is on the south side of the property and adjacent to Bimbo Bakeries. The potential developable area for this site approaches 4.4 acres +/- . However, access to this potential site is severely restricted and cost prohibitive due to the terrain and adjacent developed areas. Any industrial access to this potential site from either S.R. 75 or Harry Steadman Drive would require the concession of developable area from either “Pad #1” or the “Existing Pad Ready Site” along Harry Steadman Drive.

It is recommended that a hydrologic/wetland determination be carried out in the Gammon Creek vicinity to determine the extents of the stream and potential wetland features. Other recommended engineering tasks outside of “basic engineering” include site geotechnical investigations and traffic impact studies once clients are determined/projected.

The estimated cost for development of Area #1 – Option #1 is \$1,627,000 and the estimated time of construction is 12 months. A detailed quantity and cost estimate can be found in Section VII, Table 1.

### **C. OPTION #1A (FULL ACCESS ROADWAY, CUL-DE-SAC, AND INITIAL UTILITIES TO PAD SITES)**

The total developable area obtained with the conceptual grading plan presented for Area #1 – Option #1A (Section VIII, Exhibits EX 1 - EX 1C) consist of 9.07 acres. It is noted this area could be increased somewhat with the use of retaining walls to suit the specific needs of future industrial clients. The “extension” of the industrial access roadway, shown as the area shaded in blue on Exhibit EX 1C was developed with the insight that three (3) approximately 3-acre sites would be available for KEDB marketing purposes. The roadway extension is approximately 510 feet in length as shown and could be adjusted as needed to best serve any perspective clients.

Option #1A also includes additional utility development to each of the perspective 3 individual pad ready sites. These utilities would include water and gas stubbed out to the assumed property line of each lot from their current locations along the south side of S.R. 357 as well as the installation of conduits stubbed out to the assumed property line of each lot to be utilized for the future installation of 3-phase power and communications upon final development of the lots.

The estimated cost for development of Area #1 – Option #1A is \$2,191,000 and the estimated time of construction is 12 months. A detailed quantity and cost estimate can be found in Section VII, Table 2.



## IV. AREA #2 EVALUATION

### A. AREA #2 EVALUATION AND CONCEPTUAL LAYOUT DISCUSSION

Area #2 was evaluated and conceptual plans (Section VIII, Exhibits EX 2 – EX 2F) and associated costs developed to quantify the efforts to grade the site to usable property as well as provide industrial roadway access and preliminary utility services. Due diligence associated with Area #2 for the purposes of this report, includes; gathering existing data related to utilities, easements, and previous studies, preliminary utility service due diligence, conceptual pad/grading layouts, and conceptual industrial access. Site visits were conducted on Tuesday, February 23<sup>rd</sup> and Thursday, April 15<sup>th</sup> to investigate the site and grading scope.

Area #2 - Conceptual Layouts (Section VIII, Exhibits EX 2-EX 2F) shows existing easements and utilities, as well as proposed features, preliminarily sized stormwater management areas, and grading required to develop the site into useable property for the purposes of industrial development.

Area #2 is bisected by various utilities and associated easements which partially encumber the site.

These utilities consist of the following:

- A 24" high pressure natural gas line owned and operated by Enbridge. Associated easement is 50' in width.
- A 8" high pressure natural gas line owned and operated by Enbridge. Associated easement is 50' in width.
- Primary underground electrical service to a residential adjacent property owner, owned and operated by AEP. Associated easement is 20' in width.
- Communication services to a residential adjacent property owner, owned and operated by Charter Communications. Installed in same utility easement as electrical service.

Relocation of these utilities would allow greater flexibility with the site; however, relocation is deemed cost prohibitive due to the high-pressure natural gas transmission line's criticality to natural gas service in northeast Tennessee and southwest Virginia.

Other encumbrances on the site include an unnamed tributary to Fort Patrick Henry Reservoir. This tributary begins at the southern corner of Area #2 near the proposed stormwater management facility. It is recommended that a hydrologic/wetland determination be carried out on the unnamed tributary to determine the extents or existence of the assumed stream feature.

Utilities contacted and coordinated with for Area #2 include Appalachian Power (Power), Kingsport Water Services Division (Water & Sewer), Charter Communications (all communications), Enbridge (high-pressure natural gas transmission lines), and Atmos Energy (Natural Gas). All utilities are readily available, including 3-phase power, near the site, but would have to be extended to the newly graded pad ready sites. Power has indicated the desire to initially run a 3-phase "backbone" loop system throughout the needed service footprint of Area #2, and then actual service connections once specific tenant's needs are determined and a specific pad site occupied. Communications has indicated the desire to only run conduits for future use during the initial stage of development due to the unknown nature of any perspective tenants. Once a tenant developed a



particular site then actual calculated communications required could be addressed and needed cables loaded in the previously installed conduits. Power, natural gas, water, sewer, and communications would all provide service from their “backbone” infrastructure along S.R. 357 for Area #2. Sanitary sewer services will also require the installation of a new lift station and associated force main near the proposed stormwater management facility to serve the entire industrial park contained within Area #2 as shown for any option. All existing utilities are shown in assumed locations per GIS mapping and various design plans for previously constructed utility and development projects. Full survey of the site is recommended to verify all utility locations.

Some existing aerial electrical infrastructure owned and operated by AEP along S.R. 357 will have to be relocated due to the Area #2 entrance and grading plans. Cost for these relocations are separated out in the cost estimate for Area #2 - Option #1 (Section VII, Table 3).

Access to Area #2 will require various coordination with TDOT. S.R. 357 in this particular area has controlled access which will require any potential roadway connection to obtain a TDOT permit to “break” the controlled access/ROW fence. Other requirements for the new entrance will include a traffic impact analysis as well as varies median opening upgrades and the installation of deceleration lanes along S.R. 357, see Section VIII, Exhibit EX 2B.

Any construction carried out within the easement for the high-pressure natural gas transmission lines would have to first be approved by Enbridge. It is our understanding that a certain amount of fill material can be placed on top of the high-pressure gas lines for road crossings. Additional investigations, to verify locations and constructability will need to be carried out during the actual site design phase for Area #2 in regards to the transmission lines. Enbridge’s “Requirements for Construction Near Company Pipelines” (Section IX, Appendix A) has been included for reference.

## **B. OPTION #1 (MASS GRADING WITH LIMITED UTILITES)**

The total developable area obtained with the conceptual grading plan presented for Area #2 – Option #1 (Section VIII, Exhibit EX 2 – EX 2B) consist of 15.13 acres, encompassing four (4) separate pads. It is noted this area could be increased somewhat with the use of retaining walls to suit the specific needs of future industrial clients. Industrial access to Area #2 – Option #1 is proposed to utilize the existing median openings on S.R. 357. An entrance is proposed to be extended into the site from S.R. 357 and terminate approximately 70’ inside the ROW line for S.R. 357 and will provide limited access to Pads 2-4. The terminus of this access road would be left “open” without a cul-de-sac to allow for flexibility with future final development of Area #2. “rough graded” access to Pads 2 and 4 is included in the mass grading associated with this option, actual paved roadway would not be constructed to Pads 2 and 4. Cost for deceleration/turn lanes are included in the cost estimate (Section VII, Table 3) for Area #2 – Option #1.

An industrial access roadway to Pad #1 currently exist and no improvements are recommended to this access roadway at this time. However, it is noted that deceleration/turn lanes may be required on S.R. 357 at the entrance to Pad #1 once a tenant commits to the site and the Traffic Impact Analysis is completed.

All industrial access roadway grades are limited to a 5% maximum, with the exception of access to Pad #2. 5% grades are deemed reasonable for heavy industrial type developments. Due to the



limited size of Pad #2 which tends to draw clients more in line with “Business Park” type developments or smaller industrial clients a 7% maximum grade was deemed reasonable to access this pad. “Roadway Extensions” as shown in the red and blue shaded areas on Exhibit EX 2B would not be constructed with Option #1, but will be discussed with Area #2 - Options #1A and #1B.

Utilities including water, natural gas, and communications (conduit only) would be stubbed out to the terminus of the proposed constructed industrial access road. This will allow future final development efforts to not have to obtain an additional TDOT permit to extend utilities to each individual pad. All needed utility work at the time of full development of each site would be encompassed within the boundaries of Area #2. 3-phase power could be installed during any phase of Option #1 due to it being installed in a “loop” throughout Area #2 rather than following the general access road layout. The required sanitary sewer pump station and associated sewer lines and force main could also be installed during any phase of Option #1. Both the sanitary sewer pump station and associated sewer lines and force main and 3-phase power have been included in the cost estimate (Section VII, Table 5) for Area #2 – Option #1B for the purposes of this report. This allows the most flexibility for initial development of the site financially.

All grading activities associated with Area #2 – Option #1 were developed to obtain a “balanced site” within the boundaries of the area. A fill factor of 1.1 was utilized to account for shrink and swell of excavated earth material. Although there have been no geotechnical investigations carried out on the area at this time, it was assumed that rock excavation would account for 10% of the total excavations on the site for planning purposes. 10% is deemed a reasonable estimate due to the fact there is various areas of visible rock within Area #2 as well as the major “cut” excavations involved with the site.

Additional areas outside of the conceptual grading plan shown do exist within Area #2 – Option #1, labeled “Potential Pad Site #5” (Section VIII, Exhibit EX 2B). This area is in the northern corner of Area #2. The potential developable area for this site approaches 3.4 acres +/- . However, access to this potential site is restricted due to the terrain and roadway slopes that would be required to access it from the proposed industrial access roadway as shown. Any industrial access to this potential site is recommend to begin with conversations concerning purchasing a portion of the adjacent property currently owned by Summers Taylor, Inc. This would allow for an additional entrance to Area #2, specifically “Potential Pad Site #5” at the existing median opening located directly in front of the potential site.

Other recommended and/or required engineering tasks outside of “basic engineering” include site geotechnical investigations, traffic impact studies, turn lane/median opening design, and stream/wetland determinations as mentioned above.

The estimated cost for development of Area #2 – Option #1 is \$1,890,000 and the estimated time of construction is 12 months. A detailed quantity and cost estimate can be found in Section VII, Table 3.



### **C. OPTION #1A (ROADWAY EXTENSION #1, CUL-DE-SAC, AND INITIAL UTILITIES TO PAD #2)**

Similar to Area #1, there is opportunity to add to the scope of development for Area #2. The total developable area obtained with the conceptual grading plan presented for Area #2 – Option #1A (Section VIII, Exhibit EX 2B) remains at 15.13 acres overall. The pad layout remains consistent as well. The “extension” of the industrial access roadway, shown as the area shaded in red on Exhibit EX 2B and labeled “Roadway Extension #1” provides full industrial access as well as water, natural gas, street lighting, and communications utilities to Pad #2. It is noted 3-phase power and sanitary sewer infrastructure could be installed with Option 1A as needed, but are not included in the cost estimate (Section VII, Table 4) to maintain flexibility financially. The roadway extension is approximately 620 feet in length as shown and could be adjusted as needed to best serve any perspective clients.

The estimated cost for development of Area #2 – Option #1A is \$2,478,000 and the estimated time of construction is 18 months. A detailed quantity and cost estimate can be found in Section VII, Table 4.

### **D. OPTION #1B (ROADWAY EXTENSION #1 & #2, CUL-DE-SAC, AND INITIAL UTILITIES TO PAD #2 & #4)**

There is opportunity to further add to the scope of development for Area #2. The total developable area obtained with the conceptual grading plan presented for Area #2 – Option #1B (Section VIII, Exhibits EX 2B) remains at 15.13 acres overall. The pad layout remains consistent as well. The “extension” of the industrial access roadways, shown as the areas shaded in red and blue on Exhibit EX 2B and labeled “Roadway Extension #1” and “Roadway Extension #2” provides full industrial access as well as water, sanitary sewer, natural gas, street lighting, 3-phase power, and communications utilities to Pads 1-4. Roadway Extension #1 is approximately 620 feet in length and Roadway Extension #2 is approximately 850 in length.

Option #1B includes additional utility development to each of the perspective four (4) individual pad ready sites. These additional utility developments would allow full utility service access to any perspective tenants at their respective lot line, in other words, all needed utilities would be available to each pad site within Area #2. This option is considered to be “full” infrastructure development of Area #2 and any future development of the site would be the sole responsibility of the tenant when they fully develop a pad site for their ultimate use.

The estimated cost for development of Area #2 – Option #1B is \$3,808,000 and the estimated time of construction is 18 months. A detailed quantity and cost estimate can be found in Section VII, Table 5.

### **E. OPTION #2 (MASS GRADING WITH LIMITED UTILITIES)**

All existing utilities, easements, and observations remain the same for Area #2 – Option #2. Option #2 proposes an alternate conceptual grading plan to maximize pad area and minimize initial development cost. The total developable area obtained with the conceptual grading plan presented for Area #2 – Option #2 (Section VIII, Exhibits EX 2C – EX 2E) consist of 20.56 acres



encompassing two (2) separate pads. Pad #1 consist of 5.38 acres of useable area and Pad #2 consist of 15.18 acres of usable space.

Industrial access to Area #2 – Option #2 is proposed to utilize the existing median openings on S.R. 357. An entrance is proposed to be extended into the site from S.R. 357 and terminate at the current ROW line for S.R. 357 and will provide limited access to Pad #2. The terminus of this access road would be left “open” without a cul-de-sac to allow for flexibility with future final development of Area #2. Cost for the required deceleration/turn lanes along S.R. 357 as shown on Exhibit EX 2E are included in the cost estimate (Section VII, Table 6) for Area #2 – Option #2.

Industrial access for Pad#1 will remain as it currently exists with Area #2 – Option #2, However, it is noted that deceleration/turn lanes may be required on S.R. 357 at this entrance once a tenant commits to the site and the Traffic Impact Analysis is completed. All industrial access roadway grades are limited to a maximum grade of 5% with this option.

Utilities including water, 3-phase power (conduit only), natural gas, and communications (conduit only) would be stubbed out to the terminus of the proposed constructed industrial access road. This will allow future final development efforts to not have to obtain an additional TDOT permit to extend utilities to each individual pad. All needed utility work at the time of full development of each site would be encompassed within the boundaries of Area #2. The required sanitary sewer pump station and associated sewer lines and force main could be installed during the initial “mass grading” phase or at final development of the site for Option #2, but, have not been included in the cost estimate (Section VII, Table 6) for Area #2 – Option #2 for the purposes of this report. This allows the most flexibility for initial development of the site financially. The total cost of the sanitary sewer infrastructure to serve Area #2 in its entirety is estimated at \$250,000.

All grading activities associated with Area #2 – Option #2 were developed to obtain a “balanced site” within the boundaries of the area. A fill factor of 1.1 was utilized to account for shrink and swell of excavated earth material. Although there have been no geotechnical investigations carried out on the area at this time, it was assumed that rock excavation would account for 10% of the total excavations on the site for planning purposes. 10% is deemed a reasonable estimate due to the fact there is various areas of visible rock within Area #2 as well as the major “cut” excavations involved with the site.

Other recommended and/or required engineering tasks outside of “basic engineering” include site geotechnical investigations, traffic impact studies, turn lane/median opening design, and stream/wetland determinations.

The estimated cost for development of Area #2 – Option #2 is \$2,522,000 and the estimated time of construction is 18 months. A detailed quantity and cost estimate can be found in Section VII, Table 6.

#### **F. OPTION #2A (PAD #1 ONLY)**

It is noted there is also the possibility of partial development of Area #2. This would involve only grading Pad #1 initially (Section VIII, EX 2D). This option will involve the construction of stormwater management facilities for the entirety of Area #2 which would be required due to the



overall topography of Area #2. Grading only Pad #1 will also require approximately 21,000 cubic yards of borrow material to be utilized from the vicinity of Pads #3 and #4. Utility infrastructure costs are not included in this option due to the fact that all utilities are readily available from their current locations along the south side of S.R. 357, with the exception of sanitary sewer which would require the installation of the previously mentioned sanitary sewer pump station and associated sewer lines. It is also noted that relocations of AEP power poles along S.R. 357 would be required for this option and cost are included in the cost estimate.

The estimated cost for development of Area #2 – Option #2A (Pad #1 Only) is \$859,000 and the estimated time of construction is 12 months. A detailed quantity and cost estimate can be found in Section VII, Table 7.

### **G. OPTION #3 (BUSINESS PARK)**

All existing utilities, easements, and observations remain the same for Area #2 – Option #3 (Section VIII, Exhibit EX 2F). Option #3 proposes an alternate “Business Park” style lot layout for Pad #2. This option would require the construction of additional roadway and cul-de-sac as well as utilities as shown shaded in blue and labeled “Optional Roadway Extension”. The total developable area obtained with the conceptual business park plan presented for Area #2 – Option #3 consist of 19.71 acres encompassing two (2) separate pads with 5 total lots. Pad #1 contains one larger lot and Pad #2 contains four (4) lots varying in size from 1.44 acres to 5.31 acres.

The estimated cost for development of Area #2 – Option #3 is \$3,462,000 and the estimated time of construction is 18 months. A detailed quantity and cost estimate can be found in Section VII, Table 8.



## V. AREA #3 EVALUATION

Area #3 was evaluated and a slope analysis developed (Section VIII, Exhibits EX 3 – EX 3C) to determine the property's constructability for both industrial and residential development as well as timber harvesting. Due diligence associated with Area #3 is more cursory in nature and for the purposes of this report, includes; gathering existing data related to utilities, easements, and previous studies, preliminary utility service due diligence, and site slope analysis. Site visits were conducted on Tuesday, February 23<sup>rd</sup>, Thursday, April 15<sup>th</sup> to investigate the site and its constructability as well as Tuesday, April 27<sup>th</sup> during which the entire site was walked.

Area #3 is considered to have minimal value in respects to timber harvesting. Upon the site investigation carried out on Tuesday, April 27<sup>th</sup> it was determined timber contained within Area #3 is of little value due to the immaturity and sparseness of the harvestable timber stand. It appears the site had been cleared in the past 50 years or so and used as pasture land. At some point since that time maintenance of that pasture land most likely stopped allowing the property to grow into its current state where it contains minimal mature timber.

Access to the site is confined to a small area on the southern end of the property that is adjacent to S.R. 357 and limited access through a residential neighborhood to the west of the property by way of Piercy Street. Both of these access points are not ideal for development of the property as any perspective access roadways would have extremely steep grades due to the topography in the immediate areas and have to traverse large portions of the overall site to get to any developable property.

Utilities including power, natural gas, communications, water, and sewer are available on the southern side of Area #3, although all utilities in this area would have to cross S.R. 357 to serve the site. The same utilities are available along Centenary Rd. with the exception of sanitary sewer. With any residential development on the north side of the property sanitary sewer service options would need to be investigated.

Developable property within Area #3 is limited and confined to the northeastern corner of the parcel. There are two (2) existing dilapidated barns in this portion of the property as well as what appears to be a small pond or water feature. There is approximately 15 acres +/- (approximately 25% of the overall parcel) that is considered suitable for residential development in this vicinity with shallow to moderate slopes as noted by the red, yellow, and green areas on the slope analysis (Section VIII, Exhibit EX 3C). Approximately 55% percent of the parcel is considered "steep" as noted by the darker purple colors, with slopes in excess of 24%. Cost tends to increase significantly with associated steep slopes due to the risk and more difficult work involved in developing the land. The remaining approximately 20% of the parcel consist of shallow to moderate slopes that are constrained by adjacent steep slopes which renders the vast majority of the site undevelopable.

The northeastern portion of Area #3 identified for residential development currently has no access from the north side of the property along Centenary Rd. It is recommended KEDB investigate options to purchase adjacent property along Centenary Rd. to acquire access to the potential residential development area. There are several possible occupied residential lots that would require residents to be bought out to access the site as well as one vacant property where access could possibly be obtained with a willing seller. If efforts to purchase access are not economically





feasible or unsuccessful it is recommended KEDB sale the property described and shown as Area #3 (Section VIII, Exhibit EXI) and utilize the proceeds for further development of Area #1 and Area #2.



## VI. UTILITY CONTACTS

Various utility service providers were contacted to determine the availability of services to the areas of study. Coordination efforts were conducted with the below contacts for each respective utility:

### **City of Kingsport Water & Sewer**

Chris Alley, PE  
Utilities Engineering Manager  
Water Services Division  
423-224-2546  
[ChrisAlley@KingsportTN.gov](mailto:ChrisAlley@KingsportTN.gov)

### **Appalachian Power**

Robert W. Arnold  
Manager Distribution System  
423-578-2226  
[RWArnold@AEP.com](mailto:RWArnold@AEP.com)

Thomas D. Hensley  
Customer Design Supervisor NE  
423-578-2249  
[TDHensley@AEP.com](mailto:TDHensley@AEP.com)

### **Enbridge (High Pressure Natural Gas)**

Nelson Sharp  
Kingsport Area Operations  
423-349-4121 EXT. 2025 (office)  
423-817-1613 (cell)  
[Nelson.sharp@enbridge.com](mailto:Nelson.sharp@enbridge.com)

### **Bristol TN Essential Services (Power)**

David M. Hacker  
Supervisor of Electrical Engineering  
423-793-5548 (office)  
[dhacker@btes.net](mailto:dhacker@btes.net)

### **Charter Communications**

Mark A. Taylor  
[Mark.Taylor2@charter.com](mailto:Mark.Taylor2@charter.com)

### **Atmos Energy (Natural Gas)**

Isaiah Greer  
[Isaiah.Greer@atmosenergy.com](mailto:Isaiah.Greer@atmosenergy.com)



# SECTION VII (COST ESTIMATES)

**TABLE 1  
QUANTITY AND COST ESTIMATE**

PROJECT: **AIRPORT AREA INDUSTRIAL SITES DUE DILIGENCE**  
**AREA #1 - Option #1**  
**Mass Grading with Limited Utilities**  
 LOCATION: SR 357 NEAR TRI-CITIES AIRPORT  
 SUMMARY BY: DJS

COMM. NO: 4146  
 PAGE NO: 1  
 DATE: 21-May-21  
 CHECKED BY: RWB

PRICES BY: DJS

ITEM	DESCRIPTION	UNIT	QUAN.	UNIT COST	TOTAL
<b>ONSITE CONSTRUCTION IMPROVEMENTS</b>					
1	Mobilization 5%	LS	1	62,000.00	\$ 62,000
2	Clearing and Grubbing	AC	16.25	2,500.00	\$ 40,625
3	Earthwork	CY	73,320	3.00	\$ 219,960
4	Rock Excavation <sup>(2)</sup>	CY	3,860	8.00	\$ 30,880
5	Erosion and Sediment Control	AC	16.25	2,500.00	\$ 40,625
6	Seeding/Restoration	AC	16.25	2,500.00	\$ 40,625
7	Stormwater Management Facility (Pond/Outlet)	LS	1	75,000.00	\$ 75,000
8	Full Depth Asphalt Pavement	SY	3,370	60.00	\$ 202,200
9	Curb & Gutter	LF	2,170	25.00	\$ 54,250
10	Sidewalk	SY	590	65.00	\$ 38,350
11	Storm Sewer	LF	1,200	100.00	\$ 120,000
12	Storm Sewer Structures	EA	8	4,000.00	\$ 32,000
13	Sanitary Sewer Line Relocation	LF	2,000	120.00	\$ 240,000
14	Waterline <sup>(1)</sup>	LF	-	45.00	\$ -
15	Natural Gas <sup>(1)</sup>	LF	-	30.00	\$ -
16	Communications <sup>(1)</sup>	LF	-	30.00	\$ -
17	Electrical (Industrial Park 3-Phase) <sup>(1)</sup>	LF	-	50.00	\$ -
18	Electrical (Street Lighting)	LS	1	40,000.00	\$ 40,000
19	Building Demo	LS	1	50,000.00	\$ 50,000
<b>ROUNDED SUBTOTAL</b>					<b>\$ 1,237,000</b>
<b>RELATED COSTS</b>					
20	Contingency 20%	LS	1	\$ 248,000	\$ 248,000
21	Basic Engineering 9%	LS	1	\$ 112,000	\$ 112,000
22	Other Engineering (Geotech, Traffic Study, Hydrologic Determination)	LS	1	\$ 30,000	\$ 30,000
23	Construction Inspection <sup>(3)</sup>	LS	1	\$ -	\$ -
<b>SUBTOTAL RELATED COSTS</b>					<b>\$ 390,000</b>
<b>TOTAL ESTIMATED ONSITE IMPROVEMENTS PROJECT COSTS</b>					<b>\$ 1,627,000</b>

(1) Not installed in mass grading phase (Option #1)  
 (2) Rock Excavation assumed at 5% of total Excavation  
 (3) Assumed City of Kingsport will perform inspection services

**TABLE 2**  
**QUANTITY AND COST ESTIMATE**

PROJECT: **AIRPORT AREA INDUSTRIAL SITES DUE DILIGENCE**  
**AREA #1 - Option #1A**  
**Full Access Roadway, Cul-de-sac, and Initial Utilities to Pad Sites**

LOCATION: SR 357 NEAR TRI-CITIES AIRPORT

SUMMARY BY: DJS

COMM. NO: 4146  
PAGE NO: 1

DATE: 21-May-21  
CHECKED BY: RWB

ITEM	DESCRIPTION	UNIT	QUAN.	UNIT COST	TOTAL
<b>ONSITE CONSTRUCTION IMPROVEMENTS</b>					
1	Mobilization 5%	LS	1	83,000.00	\$ 83,000
2	Clearing and Grubbing	AC	16.25	2,500.00	\$ 40,625
3	Earthwork	CY	73,320	3.00	\$ 219,960
4	Rock Excavation <sup>(2)</sup>	CY	3,860	8.00	\$ 30,880
5	Erosion and Sediment Control	AC	16.25	2,500.00	\$ 40,625
6	Seeding/Restoration	AC	16.25	2,500.00	\$ 40,625
7	Stormwater Management Facility (Pond/Outlet)	LS	1	75,000.00	\$ 75,000
8	Full Depth Asphalt Pavement	SY	5,890	60.00	\$ 353,400
9	Curb & Gutter	LF	3,280	25.00	\$ 82,000
10	Sidewalk	SY	980	65.00	\$ 63,700
11	Storm Sewer	LF	1,700	100.00	\$ 170,000
12	Storm Sewer Structures	EA	14	4,000.00	\$ 56,000
13	Sanitary Sewer Line Relocation	LF	2,000	120.00	\$ 240,000
14	Waterline	LF	880	45.00	\$ 39,600
15	Natural Gas	LF	980	30.00	\$ 29,400
16	Communications <sup>(1)</sup>	LF	1,000	30.00	\$ 30,000
17	Electrical (Industrial Park 3-Phase) <sup>(1)</sup>	LF	400	50.00	\$ 20,000
18	Electrical (Street Lighting)	LS	1	60,000.00	\$ 60,000
19	Building Demo	LS	1	50,000.00	\$ 50,000
<b>ROUNDED SUBTOTAL</b>					<b>\$ 1,675,000</b>
<b>RELATED COSTS</b>					
20	Contingency 20%	LS	1	\$ 335,000	\$ 335,000
21	Basic Engineering 9%	LS	1	\$ 151,000	\$ 151,000
22	Other Engineering (Geotech, Traffic Study, Hydrologic Determination)	LS	1	\$ 30,000	\$ 30,000
23	Construction Inspection <sup>(2)</sup>	LS	1	\$ -	\$ -
<b>SUBTOTAL RELATED COSTS</b>					<b>\$ 516,000</b>
<b>TOTAL ESTIMATED ONSITE IMPROVEMENTS PROJECT COSTS</b>					<b>\$ 2,191,000</b>

(1) Conduit only

(2) Rock Excavation assumed at 5% of total excavation

(3) Assumed City of Kingsport will perform inspection services

**TABLE 3  
QUANTITY AND COST ESTIMATE**

PROJECT: AIRPORT AREA INDUSTRIAL SITES DUE DILIGENCE  
 AREA #2 - Option #1  
 Mass Grading with Limited Utilities  
 LOCATION: SR 357 NEAR TRI-CITIES AIRPORT  
 SUMMARY BY: DJS

COMM. NO: 4146  
 PAGE NO: 1

DATE: 21-May-21  
 CHECKED BY: RWB

ITEM	DESCRIPTION	UNIT	QUAN.	UNIT COST	TOTAL
<b>ONSITE CONSTRUCTION IMPROVEMENTS</b>					
1	Mobilization 5%	LS	1	68,000.00	\$ 68,000
2	Clearing and Grubbing	AC	28.04	2,500.00	\$ 70,100
3	Earthwork	CY	216,890	3.00	\$ 650,670
4	Rock Excavation <sup>(2)</sup>	CY	24,100	8.00	\$ 192,800
5	Erosion and Sediment Control	AC	28.04	2,500.00	\$ 70,100
6	Seeding/Restoration	AC	28.04	2,500.00	\$ 70,100
7	Stormwater Management Facility (Pond/Outlet)	LS	1	75,000.00	\$ 75,000
8	Full Depth Asphalt Pavement	SY	540	60.00	\$ 32,400
9	Curb & Gutter	LF	180	25.00	\$ 4,500
10	Sidewalk	SY	-	65.00	\$ -
11	Storm Sewer	LF	200	100.00	\$ 20,000
12	Storm Sewer Structures	EA	2	4,000.00	\$ 8,000
13	Sanitary Sewer <sup>(5)</sup>	LF	-	120.00	\$ -
14	Sanitary Sewer Force Main <sup>(5)</sup>	LF	-	30.00	\$ -
15	Sanitary Sewer Pump Station <sup>(5)</sup>	LS	-	150,000.00	\$ -
16	Waterline	LF	150	45.00	\$ 6,750
17	Natural Gas	LF	150	30.00	\$ 4,500
18	Communications <sup>(1)</sup>	LF	150	30.00	\$ 4,500
19	Electrical (SR 357 Pole Relocations)	LS	1	65,000.00	\$ 65,000
20	Electrical (Industrial Park 3-Phase "Backbone") <sup>(5)</sup>	LS	-	200,000.00	\$ -
21	Electrical (Street Lighting) <sup>(3)</sup>	LS	-	60,000.00	\$ -
22	SR 357 Turn/Decel Lanes	LS	1	75,000.00	\$ 75,000
<b>ROUNDED SUBTOTAL</b>					<b>\$ 1,418,000</b>
<b>RELATED COSTS</b>					
23	TDOT Controlled Access Break/Driveway Permit	LS	1	\$ 10,000	\$ 10,000
24	Contingency 20%	LS	1	\$ 284,000	\$ 284,000
25	Basic Engineering 9%	LS	1	\$ 128,000	\$ 128,000
26	Other Engineering (Geotech, Traffic Study, Hydrologic Determination, Turn Lane Design)	LS	1	\$ 50,000	\$ 50,000
27	Construction Inspection <sup>(4)</sup>	LS	1	\$ -	\$ -
<b>SUBTOTAL RELATED COSTS</b>					<b>\$ 472,000</b>
<b>TOTAL ESTIMATED ONSITE IMPROVEMENTS PROJECT COSTS</b>					<b>\$ 1,890,000</b>

(1) Conduit only

(2) Rock Excavation assumed at 10% of total Excavation

(3) City would be charged a monthly fee of \$46.42 per light pole by AEP

(4) Assumed City of Kingsport will perform insection services

(5) Can be installed during any phase of Option #1 (est. cost to install all sewer infrastructure = \$250,000+/-)

**TABLE 4  
QUANTITY AND COST ESTIMATE**

PROJECT:	<b>AIRPORT AREA INDUSTRIAL SITES DUE DILIGENCE</b>	COMM. NO:	4146
	<b>AREA #2 - Option #1A</b>	PAGE NO:	1
	<b>Full Access Roadway, Cul-de-sac, and Initial Utilities to Pad #2</b>		
LOCATION:	SR 357 NEAR TRI-CITIES AIRPORT	DATE:	21-May-21
SUMMARY BY:	DJS	PRICES BY:	DJS
		CHECKED BY:	RWB

ITEM	DESCRIPTION	UNIT	QUAN.	UNIT COST	TOTAL
<b>ONSITE CONSTRUCTION IMPROVEMENTS</b>					
1	Mobilization 5%	LS	1	90,000.00	\$ 90,000
2	Clearing and Grubbing	AC	28.04	2,500.00	\$ 70,100
3	Earthwork	CY	216,890	3.00	\$ 650,670
4	Rock Excavation <sup>(2)</sup>	CY	24,100	8.00	\$ 192,800
5	Erosion and Sediment Control	AC	28.04	2,500.00	\$ 70,100
6	Seeding/Restoration	AC	28.04	2,500.00	\$ 70,100
7	Stormwater Management Facility (Pond/Outlet)	LS	1	75,000.00	\$ 75,000
8	Full Depth Asphalt Pavement	SY	3,400	60.00	\$ 204,000
9	Curb & Gutter	LF	1,560	25.00	\$ 39,000
10	Sidewalk	SY	480	65.00	\$ 31,200
11	Storm Sewer	LF	1,000	100.00	\$ 100,000
12	Storm Sewer Structures	EA	8	4,000.00	\$ 32,000
13	Sanitary Sewer <sup>(5)</sup>	LF	-	120.00	\$ -
14	Sanitary Sewer Force Main <sup>(5)</sup>	LF	-	30.00	\$ -
15	Sanitary Sewer Pump Station <sup>(5)</sup>	LS	-	150,000.00	\$ -
16	Waterline	LF	750	45.00	\$ 33,750
17	Natural Gas	LF	750	30.00	\$ 22,500
18	Communications <sup>(1)</sup>	LF	750	30.00	\$ 22,500
19	Electrical (SR 357 Pole Relocations)	LS	1	65,000.00	\$ 65,000
20	Electrical (Industrial Park 3-Phase "Backbone") <sup>(5)</sup>	LS	-	200,000.00	\$ -
21	Electrical (Street Lighting) <sup>(3)</sup>	LS	1	30,000.00	\$ 30,000
22	SR 357 Turn/Decel Lanes	LS	1	75,000.00	\$ 75,000
<b>ROUNDED SUBTOTAL</b>					<b>\$ 1,874,000</b>
<b>RELATED COSTS</b>					
23	TDOT Controlled Access Break/Driveway Permit	LS	1	\$ 10,000	\$ 10,000
24	Contingency 20%	LS	1	\$ 375,000	\$ 375,000
25	Basic Engineering 9%	LS	1	\$ 169,000	\$ 169,000
26	Other Engineering (Geotech, Traffic Study, Hydrologic Determination, Turn Lane Design)	LS	1	\$ 50,000	\$ 50,000
27	Construction Inspection <sup>(4)</sup>	LS	1	\$ -	\$ -
<b>SUBTOTAL RELATED COSTS</b>					<b>\$ 604,000</b>
<b>TOTAL ESTIMATED ONSITE IMPROVEMENTS PROJECT COSTS</b>					<b>\$ 2,478,000</b>

- (1) Conduit only
- (2) Rock Excavation assumed at 10% of total Excavation
- (3) City would be charged a monthly fee of \$46.42 per light pole by AEP
- (4) Assumed City of Kingsport will perform insection services
- (5) Can be installed during any phase of Option #1 (est. cost to install all sewer infrastructure = \$250,000+/-)

**TABLE 5  
QUANTITY AND COST ESTIMATE**

PROJECT: **AIRPORT AREA INDUSTRIAL SITES DUE DILIGENCE**  
**AREA #2 - Option #1B**  
**Full Access Roadway, Cul-de-sac, and Initial Utilities to Pads #2 & #3**

LOCATION: SR 357 NEAR TRI-CITIES AIRPORT

SUMMARY BY: DJS

COMM. NO: 4146  
PAGE NO: 1

DATE: 21-May-21  
CHECKED BY: RWB

ITEM	DESCRIPTION	UNIT	QUAN.	UNIT COST	TOTAL
<b>ONSITE CONSTRUCTION IMPROVEMENTS</b>					
1	Mobilization 5%	LS	1	139,000.00	\$ 139,000
2	Clearing and Grubbing	AC	28.04	2,500.00	\$ 70,100
3	Earthwork	CY	216,890	3.00	\$ 650,670
4	Rock Excavation <sup>(2)</sup>	CY	24,100	8.00	\$ 192,800
5	Erosion and Sediment Control	AC	28.04	2,500.00	\$ 70,100
6	Seeding/Restoration	AC	28.04	2,500.00	\$ 70,100
7	Stormwater Management Facility (Pond/Outlet)	LS	1	75,000.00	\$ 75,000
8	Full Depth Asphalt Pavement	SY	6,980	60.00	\$ 418,800
9	Curb & Gutter	LF	3,390	25.00	\$ 84,750
10	Sidewalk	SY	1,070	65.00	\$ 69,550
11	Storm Sewer	LF	1,900	100.00	\$ 190,000
12	Storm Sewer Structures	EA	15	4,000.00	\$ 60,000
13	Sanitary Sewer <sup>(5)</sup>	LF	700	120.00	\$ 84,000
14	Sanitary Sewer Force Main <sup>(5)</sup>	LF	400	30.00	\$ 12,000
15	Sanitary Sewer Pump Station <sup>(5)</sup>	LS	1	150,000.00	\$ 150,000
16	Waterline	LF	1,600	45.00	\$ 72,000
17	Natural Gas	LF	1,600	30.00	\$ 48,000
18	Communications <sup>(1)</sup>	LF	1,600	30.00	\$ 48,000
19	Electrical (SR 357 Pole Relocations)	LS	1	65,000.00	\$ 65,000
20	Electrical (Industrial Park 3-Phase "Backbone") <sup>(5)</sup>	LS	1	200,000.00	\$ 200,000
21	Electrical (Street Lighting) <sup>(3)</sup>	LS	1	60,000.00	\$ 60,000
22	SR 357 Turn/Decel Lanes	LS	1	75,000.00	\$ 75,000
<b>ROUNDED SUBTOTAL</b>					<b>\$ 2,905,000</b>
<b>RELATED COSTS</b>					
23	TDOT Controlled Access Break/Driveway Permit	LS	1	\$ 10,000	\$ 10,000
24	Contingency 20%	LS	1	\$ 581,000	\$ 581,000
25	Basic Engineering 9%	LS	1	\$ 262,000	\$ 262,000
26	Other Engineering (Geotech, Traffic Study, Hydrologic Determination, Turn Lane Design)	LS	1	\$ 50,000	\$ 50,000
27	Construction Inspection <sup>(4)</sup>	LS	1	\$ -	\$ -
<b>SUBTOTAL RELATED COSTS</b>					<b>\$ 903,000</b>
<b>TOTAL ESTIMATED ONSITE IMPROVEMENTS PROJECT COSTS</b>					<b>\$ 3,808,000</b>

(1) Conduit only

(2) Rock Excavation assumed at 10% of total Excavation

(3) City would be charged a monthly fee of \$46.42 per light pole by AEP

(4) Assumed City of Kingsport will perform inspection services

(5) Can be installed during any phase of Option #1



**TABLE 6  
QUANTITY AND COST ESTIMATE**

PROJECT: AIRPORT AREA INDUSTRIAL SITES DUE DILIGENCE  
 AREA #2 - Option #2  
 Mass Grading with Limited Utilities  
 LOCATION: SR 357 NEAR TRI-CITIES AIRPORT  
 SUMMARY BY: DJS

COMM. NO: 4146  
 PAGE NO: 1

DATE: 21-May-21  
 CHECKED BY: RWB

PRICES BY: DJS

ITEM	DESCRIPTION	UNIT	QUAN.	UNIT COST	TOTAL
<b>ONSITE CONSTRUCTION IMPROVEMENTS</b>					
1	Mobilization 5%	LS	1	91,000.00	\$ 91,000
2	Clearing and Grubbing	AC	30.15	2,500.00	\$ 75,375
3	Earthwork	CY	334,690	3.00	\$ 1,004,070
4	Rock Excavation <sup>(2)</sup>	CY	37,190	8.00	\$ 297,520
5	Erosion and Sediment Control	AC	30.15	2,500.00	\$ 75,375
6	Seeding/Restoration	AC	30.15	2,500.00	\$ 75,375
7	Stormwater Management Facility (Pond/Outlet)	LS	1	75,000.00	\$ 75,000
8	Full Depth Asphalt Pavement	SY	330	60.00	\$ 19,800
9	Curb & Gutter	LF	220	25.00	\$ 5,500
10	Sidewalk	SY	80	65.00	\$ 5,200
11	Storm Sewer	LF	200	100.00	\$ 20,000
12	Storm Sewer Structures	EA	2	4,000.00	\$ 8,000
13	Sanitary Sewer <sup>(5)</sup>	LF	-	120.00	\$ -
14	Sanitary Sewer Force Main <sup>(5)</sup>	LF	-	30.00	\$ -
15	Sanitary Sewer Pump Station <sup>(5)</sup>	LS	-	150,000.00	\$ -
16	Waterline	LF	100	45.00	\$ 4,500
17	Natural Gas	LF	100	30.00	\$ 3,000
18	Communications <sup>(1)</sup>	LF	100	30.00	\$ 3,000
19	Electrical (SR 357 Pole Relocations)	LS	1	65,000.00	\$ 65,000
20	Electrical (Industrial Park 3-Phase "Backbone") <sup>(1)</sup>	LF	100	50.00	\$ 5,000
21	Electrical (Street Lighting) <sup>(3)</sup>	LS	-	60,000.00	\$ -
22	SR 357 Turn/Decel Lanes	LS	1	75,000.00	\$ 75,000
<b>ROUNDED SUBTOTAL</b>					<b>\$ 1,908,000</b>
<b>RELATED COSTS</b>					
23	TDOT Controlled Access Break/Driveway Permit	LS	1	\$ 10,000	\$ 10,000
24	Contingency 20%	LS	1	\$ 382,000	\$ 382,000
25	Basic Engineering 9%	LS	1	\$ 172,000	\$ 172,000
26	Other Engineering (Geotech, Traffic Study, Hydrologic Determination, Turn Lane Design)	LS	1	\$ 50,000	\$ 50,000
27	Construction Inspection <sup>(4)</sup>	LS	1	\$ -	\$ -
<b>SUBTOTAL RELATED COSTS</b>					<b>\$ 614,000</b>
<b>TOTAL ESTIMATED ONSITE IMPROVEMENTS PROJECT COSTS</b>					<b>\$ 2,522,000</b>

(1) Conduit only

(2) Rock Excavation assumed at 10% of total Excavation

(3) City would be charged a monthly fee of \$46.42 per light pole by AEP

(4) Assumed City of Kingsport will perform inspection services

(5) Can be installed during any phase of Option #2 (est. cost to install all sewer infrastructure = \$250,000+/-)

**TABLE 7  
QUANTITY AND COST ESTIMATE**

PROJECT: AIRPORT AREA INDUSTRIAL SITES DUE DILIGENCE  
 AREA #2 - Option #2A (Pad #1 Only)  
 Mass Grading with Limited Utilities  
 LOCATION: SR 357 NEAR TRI-CITIES AIRPORT  
 SUMMARY BY: DJS

COMM. NO: 4146  
 PAGE NO: 1

DATE: 21-May-21  
 CHECKED BY: RWB

PRICES BY: DJS

ITEM	DESCRIPTION	UNIT	QUAN.	UNIT COST	TOTAL
<b>ONSITE CONSTRUCTION IMPROVEMENTS</b>					
1	Mobilization 5%	LS	1	30,000.00	\$ 30,000
2	Clearing and Grubbing	AC	9.04	2,500.00	\$ 22,600
3	Earthwork	CY	96,720	3.00	\$ 290,160
4	Rock Excavation <sup>(2)</sup>	CY	10,750	8.00	\$ 86,000
5	Erosion and Sediment Control	AC	9.04	2,500.00	\$ 22,600
6	Seeding/Restoration	AC	9.04	2,500.00	\$ 22,600
7	Stormwater Management Facility (Pond/Outlet)	LS	1	75,000.00	\$ 75,000
8	Full Depth Asphalt Pavement	SY	-	60.00	\$ -
9	Curb & Gutter	LF	-	25.00	\$ -
10	Sidewalk	SY	-	65.00	\$ -
11	Storm Sewer	LF	-	100.00	\$ -
12	Storm Sewer Structures	EA	-	4,000.00	\$ -
13	Sanitary Sewer <sup>(5)</sup>	LF	-	120.00	\$ -
14	Sanitary Sewer Force Main <sup>(5)</sup>	LF	-	30.00	\$ -
15	Sanitary Sewer Pump Station <sup>(5)</sup>	LS	-	150,000.00	\$ -
16	Waterline	LF	-	45.00	\$ -
17	Natural Gas	LF	-	30.00	\$ -
18	Communications <sup>(1)</sup>	LF	-	30.00	\$ -
19	Electrical (SR 357 Pole Relocations)	LS	1	65,000.00	\$ 65,000
20	Electrical (Industrial Park 3-Phase "Backbone")	LS	-	200,000.00	\$ -
21	Electrical (Street Lighting) <sup>(3)</sup>	LS	-	20,000.00	\$ -
22	SR 357 Turn/Decel Lanes	LS	-	75,000.00	\$ -
<b>ROUNDED SUBTOTAL</b>					<b>\$ 614,000</b>
<b>RELATED COSTS</b>					
23	TDOT Controlled Access Break/Driveway Permit	LS	1	\$ 10,000	\$ 10,000
24	Contingency 20%	LS	1	\$ 123,000	\$ 123,000
25	Basic Engineering 10%	LS	1	\$ 62,000	\$ 62,000
26	Other Engineering (Geotech, Traffic Study, Hydrologic Determination, Turn Lane Design)	LS	1	\$ 50,000	\$ 50,000
27	Construction Inspection <sup>(4)</sup>	LS	1	\$ -	\$ -
<b>SUBTOTAL RELATED COSTS</b>					<b>\$ 245,000</b>
<b>TOTAL ESTIMATED ONSITE IMPROVEMENTS PROJECT COSTS</b>					<b>\$ 859,000</b>

- (1) Conduit only
- (2) Rock Excavation assumed at 10% of total Excavation
- (3) City would be charged a monthly fee of \$46.42 per light pole by AEP
- (4) Assumed City of Kingsport will perform insection services
- (5) Can be installed during any phase of Option #2 (est. cost to install all sewer infrastructure = \$250,000+/-)