

**April 16, 2024**

**City of Alexandria Planning and Zoning Commission**  
Staff Comments, Findings, and Recommendations

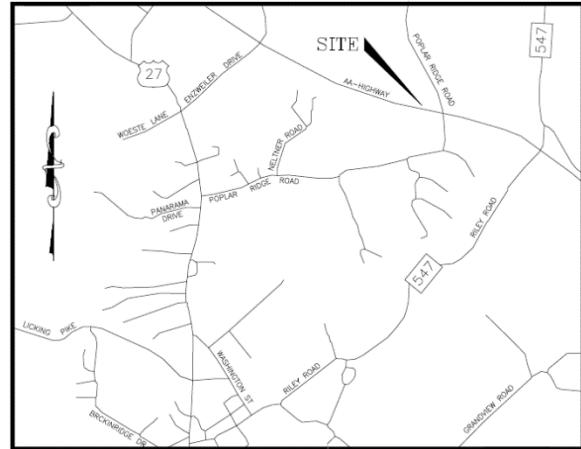
Issue to be heard: Tuesday May 7, 2024 at 7:00 PM (EST)  
8236 W. Main St.  
Alexandria, KY 41001

The Alexandria Planning and Zoning Commission will hold a Public Hearing for the following case:

**Case:** PZ-24-011  
**Applicant:** KTT PROPERTIES, LLC

**Location:** AN APPROXIMATELY 10 ACRE PARCEL LOCATED AT THE INTERSECTION OF POPLAR RIDGE ROAD AND THE AA HWY

**Request:** APPROVAL OF SITE DEVELOPMENT PLANS FOR KUBOTA DEALERSHIP WITH A VARIANCE FOR A GRAVEL EQUIPMENT LOT



Information concerning this case was available for review at the Campbell County & Municipal Planning & Zoning Office, 1098 Monmouth Street, Suite 343, Newport, KY. Monday-Friday during normal business hours.

**Overview:**

The applicant intends to construct a Kubota Dealership on a ten (10) acre site located at the intersection of AA Highway (SR 9) and Poplar Ridge Road. Additionally, they are requesting a variance to allow for a rear equipment/service lot to be paved with gravel.

## **Regulatory Considerations:**

### Alexandria Zoning Ordinance - ARTICLE 2 DEFINITIONS

**SITE PLAN:** A plan prepared to scale showing accurately and with complete dimensions, the location of all proposed uses and all site development features for a specific site. A site plan addresses physical design, location of structures, access management, interior vehicular and pedestrian access, stormwater management, landscaping, signage, provision of all required improvements, and the interrelationship of the various site plan components. A site plan is typically reviewed and approved prior to the issuance of a permit for construction.

### Alexandria Zoning Ordinance - ARTICLE 3 GENERAL REGULATIONS

#### **Section 3.14 EXCEPTIONS AND MODIFICATIONS**

D. Request for Variances for Subdivisions - An applicant for approval of a subdivision plat may elect to have the Planning Commission hear any requests for variances proposed in the development. The request for the planning commission to consider the variance and the application for the variance shall be submitted at the time of filing the preliminary subdivision plat. In such cases, the Planning Commission is hereby empowered to hear and finally decide applications for variances pursuant to KRS 100.281 (6). The planning commission in such circumstances shall assume all powers and duties otherwise exercised by the board of adjustment pursuant to KRS 100.281 (7) and Article 15 of the Alexandria Zoning Ordinance. The application for a variance shall be considered at the same public hearing set for the subdivision.

**Section 3.18 SCREENING AREA** - Screening areas shall be provided for the purpose of minimizing the friction between incompatible land uses and improving the aesthetic and functional quality of new development. All screening areas shall be approved and inspected by the Zoning Administrator (or Planning Commission, where required by this ordinance) for compliance with a submitted development or site plan as regulated by the applicable requirements of SECTIONS 3.20 and 3.21 of this ordinance.

A. Screening areas shall be designed, provided, and maintained according to the following:

1. Where natural vegetation and/or topographical conditions exist prior to development, every effort shall be made to retain said condition, particularly where it provides a natural screening or buffer from adjacent properties. In such cases, additional screening may not be required, provided that provision is made for maintenance of such condition to the satisfaction of the City of Alexandria.
2. Wherever vegetative screening is required, the specific requirements contained in Article 10 shall be followed.
3. Whenever structural screening is required, the specific requirements contained in Article 8 shall be followed.

**Section 3.20 DEVELOPMENT PLAN REQUIREMENTS** - All applications for zoning map amendments shall require the submission of a development plan. In accordance with the applicable provisions of KRS 100, the development plan shall be followed. The planning commission, at its discretion, may waive the requirement for the

*submission of a development plan, if the commission finds that the proposed development poses a minimal impact to the subject property and adjacent properties.*

**This site does not include a zone map amendment.**

**Section 3.21 SITE PLAN REQUIREMENTS** - No building shall be erected or structurally altered nor shall any grading take place on any lot or parcel in zones where a site plan is required, except in accordance with the regulations of this Section and an approved site plan as hereinafter required. Before a permit is issued for construction, one (1) copy of the site plan of the area at a scale no smaller than one (1) inch to one hundred (100) feet shall be filed with the Building Inspector, and two (2) copies with the Zoning Administrator. The site plan shall identify and locate, where applicable, the following:

- A. Total area in development project including legal description.
- B. Present zoning of property in question and adjacent properties.
- C. All public and private rights-of-way and easement lines.
- D. The existing and proposed finished topography.
- E. All housing units.
- F. Location, height, arrangement and identification of all non-residential buildings and uses.
- G. All common open space areas, including recreational facilities.
- H. Landscaping features.
- I. Location of signs indicating their orientation, size and height.
- J. All utility lines and easements: Water, Sanitary Sewer, Storm Sewer, Other
- K. Location of all off-street parking, loading and/or unloading, and driveway areas
- L. Circulation System
- M. Provisions for control of erosion, hillside slippage and sedimentation
- N. Lighting plan
- O. Dumpster and/or refuse storage locations
- P. Name, address, and telephone number of owner/developer/engineer/architect.
- Q. The date of preparation of such plan
- R. A schedule of development
- S. Exterior elevations of all proposed buildings

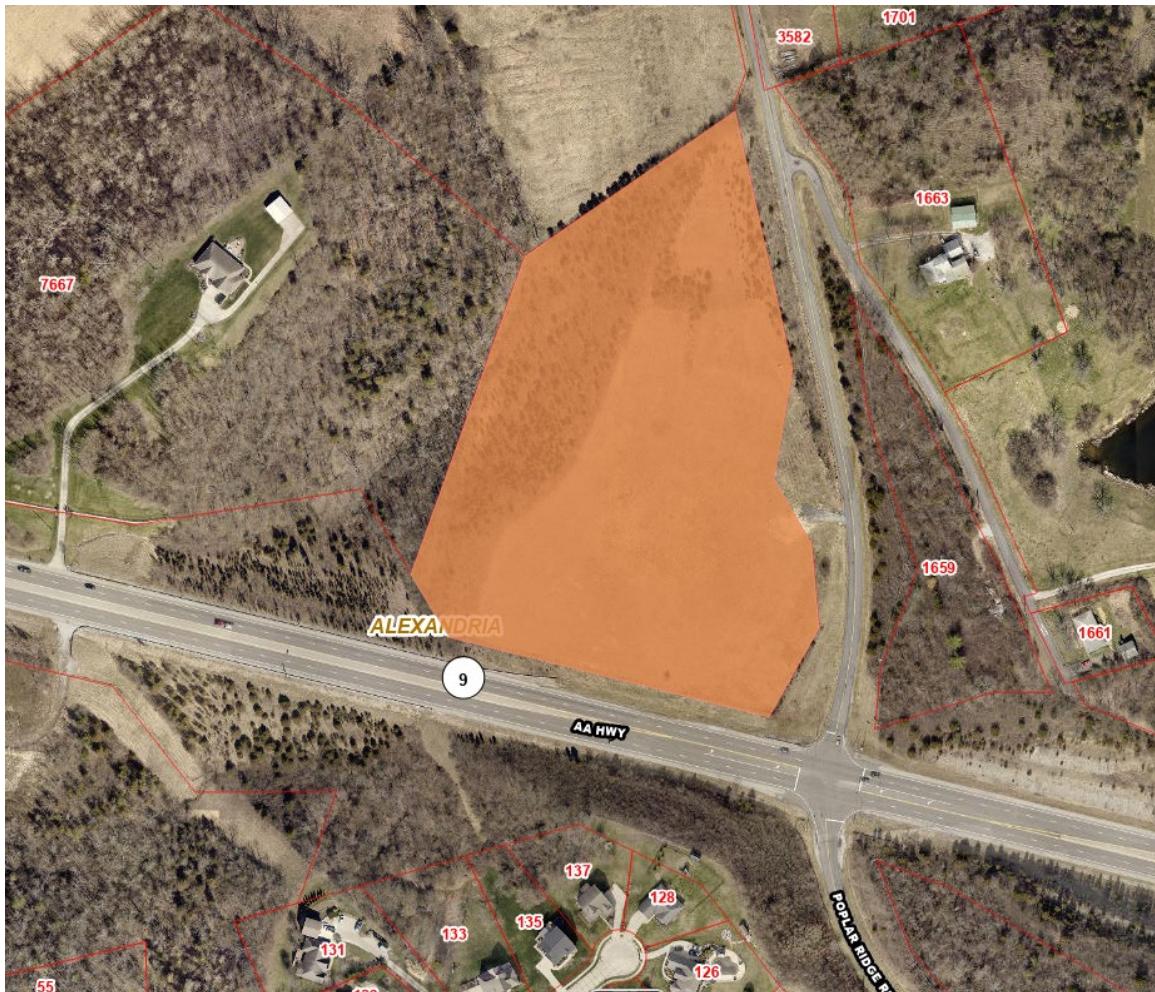
#### Kentucky Revised Statutes (KRS)

**KRS 100.243 Findings necessary for granting variances.** (1) Before any variance is granted, the board must find that the granting of the variance will not adversely affect the public health, safety or welfare, will not alter the essential character of the general vicinity, will not cause a hazard or a nuisance to the public, and will not allow an unreasonable circumvention of the requirements of the zoning regulations. In making these findings, the board shall consider whether: (a) The requested variance arises from special circumstances which do not generally apply to land in the general vicinity, or in the same zone; (b) The strict application of the provisions of the regulation would deprive the applicant of the reasonable use of the land or would create an unnecessary hardship on the applicant; and (c) The circumstances are the result of actions of the applicant taken subsequent to the adoption of the zoning regulation from which relief is sought. (2) The board shall deny any request for a variance arising from circumstances that are the result of willful violations of the zoning regulation by the applicant subsequent to the adoption of the zoning regulation from which relief is sought.

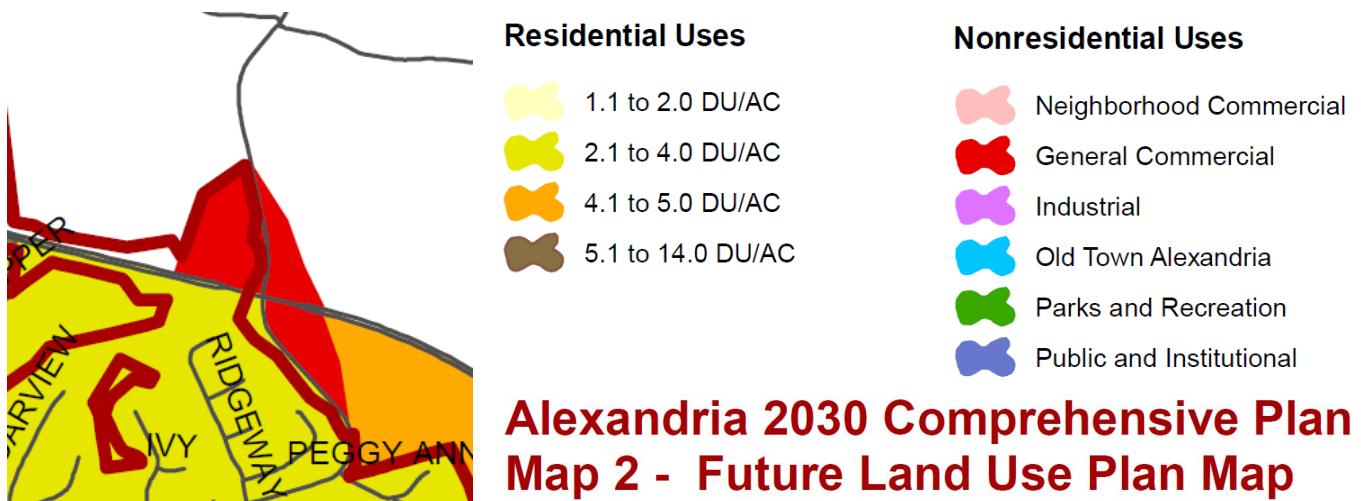
## Site Overview:

The site is currently undeveloped. In 2004, fly-ash fill was placed on the site to prepare it for future development. The site was annexed into the City of Alexandria and changed to the Highway Commercial (HC) Zone.

The property directly to the east and west on the north side of the AA Highway are within unincorporated Campbell County and zoned Rural Residential Estate (R-RE). Property to the south of AA Highway is zoned R-1D.



The Existing Land Use Map within the Alexandria 2030 Comprehensive Plan shows the area as undeveloped. The Future Land Use Map indicates a projected future use of the site as "General Commercial".



The City of Alexandria Zoning Ordinance, Section 4.18 (HC) HIGHWAY COMMERCIAL ZONE identifies relevant permitted uses including (excerpted):

2. Automobile, motorcycle, and truck sales, new or used
3. Automobile and Truck Rental
4. Automotive and Truck Service and Repair
8. Boat and other marine equipment sales and service, new and used
9. Building supplies
25. Garden and Landscaping Supplies
28. Hardware Stores
55. Tool and Equipment Rental

The AREA AND HEIGHT REGULATIONS for the HC Zone includes:

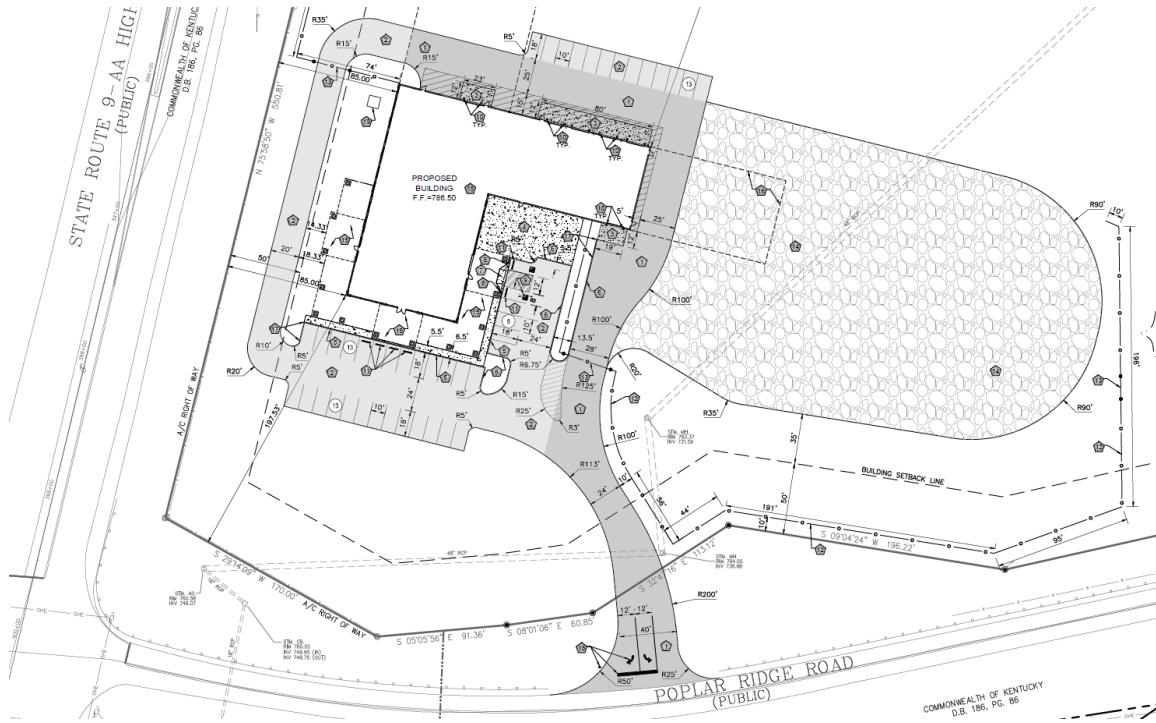
1. Minimum Lot Area – Ten thousand (10,000) square feet.
2. Minimum Lot Width at Building Setback Line – Seventy (70) feet.
3. Minimum Front Yard Depth – Fifty (50) feet.
4. Minimum Side Yard Width on Each Side of Lot – No restrictions except when adjacent to street, road, highway, or other right-of-way when required width shall be the same as required for a minimum front yard depth in this zone.
5. Minimum Rear Yard Depth – Fifteen (15) feet.
6. Maximum Building Height – Forty (40) feet.

Relevant OTHER DEVELOPMENT CONTROLS with the HC Zone include:

2. No outdoor storage of any objectionable material (Useable or waste) shall be permitted in this zone, except within enclosed containers, and all dumpsters, etc. shall be screened from adjacent property.
3. No lighting shall be permitted which would glare from this zone onto any street, road, highway, deeded right-of-way or into any adjacent property.
4. No motor vehicle which is abandoned, nonfunctional, in a state of disrepair, or lacking in a valid license, shall be stored in excess of seventy-two (72) hours unless it is in a completely enclosed building. Any trailer with three (3) or more axles; any commercial, industrial, and/or similar type trailer used for storage; and heavy, industrial, and/or similar type equipment which is abandoned, nonfunctional, or in a state of disrepair shall not be permitted outside of a completely enclosed building on any lot or parcel of land. Any agricultural implement and/or similar type equipment or apparatus which is abandoned, nonfunctional, or in a state of disrepair shall not be permitted outside of a completely enclosed building on any lot or parcel of land.
5. Where any yard of any use permitted in this zone abuts property in a residential zone, a minimum of at least a ten (10') foot wide screening area as regulated by SECTION 3.18 of this ordinance shall be required.
6. A development and/or site plan shall be required of any use permitted in this (HC) zone.
7. No use producing objectionable odors, noise, or dust shall be permitted within five hundred (500) feet from the boundary of any residential zone.
8. Off-street parking and loading and/or unloading areas, located in front and side yard areas in this (HC) zone provided that no off-street parking areas shall be closer than fifteen (15) feet to the street, road, highway or right-of-way line or the boundary line of any adjacent district. This fifteen (15) foot area shall remain open and unobstructed except by items specifically permitted in yard areas in this ordinance.
10. All business activities permitted within this zone shall be conducted within a completely enclosed building with the exception of the following:
  - a. Off-Street parking and loading and/or unloading areas,
  - b. Gasoline pumps,
  - c. New and used car sales,
  - d. Car washes,
  - e. Sidewalk sales and displays as regulated by Section 3.31 of this Official Zoning Ordinance,
  - f. Vending machines, and
  - g. Outdoor merchandising and display and regulated by Section 3.32 of this Official Zoning Ordinance. Provided, however, that the outdoor merchandising and display area for any business may occupy no more square feet of space than an area equal to ten percent (10%) of the square feet of space of the interior, under-roof, enclosed section of the business premises....; but the ten percent (10%) outdoor merchandising and display area limitation does not apply to an Agricultural Equipment, Supplies and Services ...

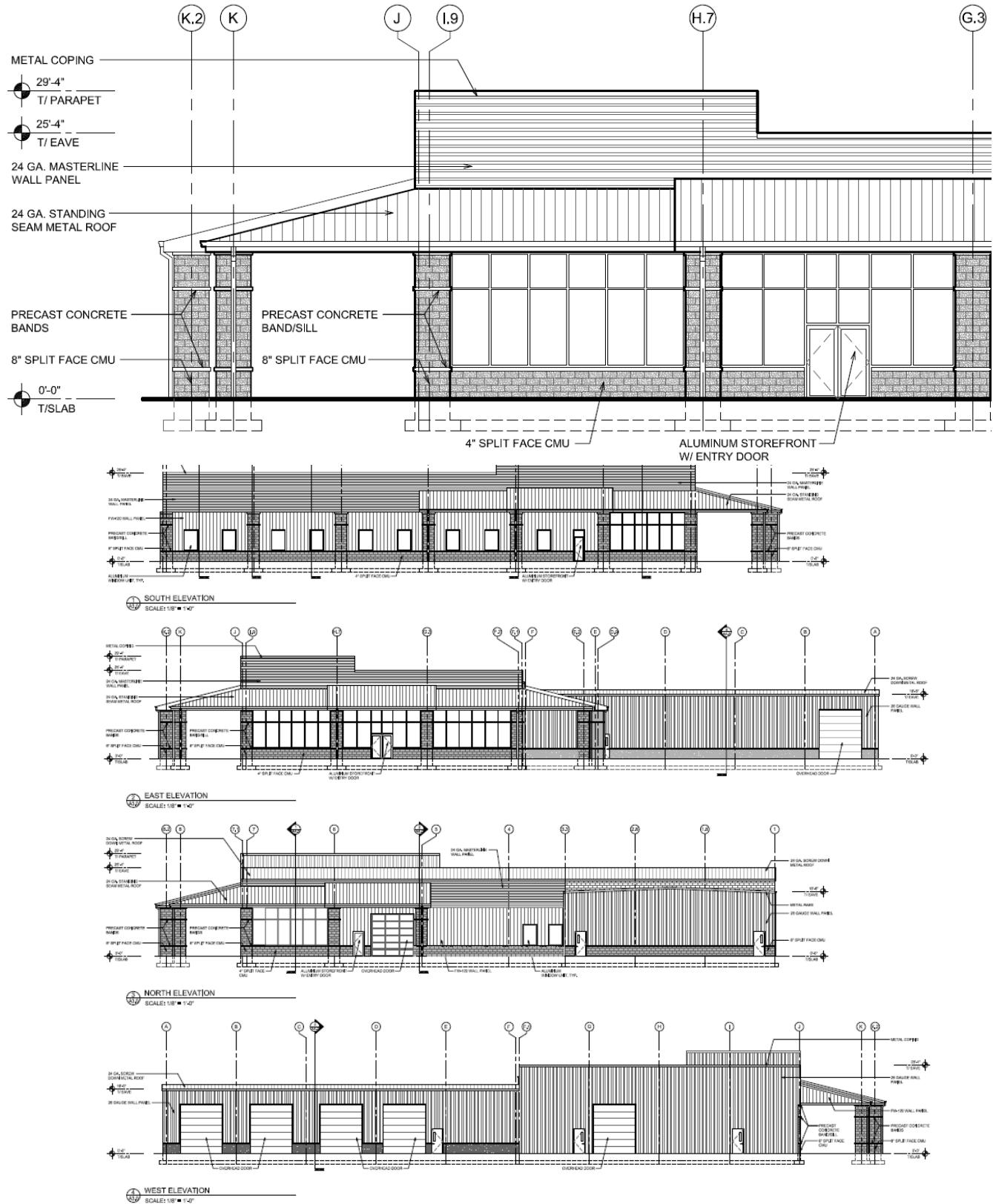
## Site Development Plan:

The site development plan was reviewed for consistency with Section 3.21 of the Zoning Ordinance. Plans were submitted both in paper and electric form and comply with the minimum scale. A copy of the plans is attached for your reference. Larger sizes are available upon request.



- A. Total area in development project is ten (10) acres. Survey data is included on the plan. The corresponding legal description of the parcel was obtained from the Campbell County Clerk records.
- B. Present zoning of the property is Highway Commercial (HC) as indicated on the plan. Adjacent parcels were verified from City / County zoning records.
- C. The proposed site plan meets Highway Commercial (HC) zone dimensional requirements;
- D. All public and private rights-of-way and easement lines located on and adjacent to the property which are proposed to be continued, created, relocated or abandoned are indicated within the site plans. The KYTC access control limits are indicated.
- E. Existing topography and the proposed finish grade of the development area shown by contours with intervals not larger than two (2) feet is indicated.
- F. No housing is proposed on the site.
- G. A 17,800 square-foot building is proposed as the primary use of the site. Uses will include office space, showroom / retail, service bays and supporting areas.

Exterior elevations of all proposed buildings including exterior facade materials have been provided.



- H. No common open space or recreation areas are proposed.
- I. A landscape plan was included.
- J. Signage is anticipated but not included in the plan. This must be permitted separately.
- K. All existing and proposed water lines, sanitary sewer lines, and stormwater facilities are shown and are subject to review by the applicable agency. Sanitary sewer is proposed to be extended under the AA Highway.
- L. A drainage plan of the area is provided. The existing stormwater detention is under review by SD1.
- M. Location and dimension of all curb cuts, driving lanes, off-street parking and loading and/or unloading areas are shown on the plans. Pavement types vary per plan.



#### SITE PLAN LEGEND

A gravel is proposed for the equipment lot, located to the north of the building.

The surface of this lot will require a variance.

	PROPOSED HEAVY DUTY ASPHALT PAVEMENT (SEE DETAIL 3/C-500)
	PROPOSED LIGHT DUTY ASPHALT PAVEMENT (SEE DETAIL 2/C-500)
	PROPOSED HEAVY DUTY CONCRETE (SEE DETAIL 1/C-500)
	PROPOSED GRAVEL AREA (SEE DETAIL 13/C-500)

- N. The required parking was determined based upon the use of the structure. Forty-four (44) spaces are required. Forty-five (45) spaces will be provided exclusive of the equipment lot.

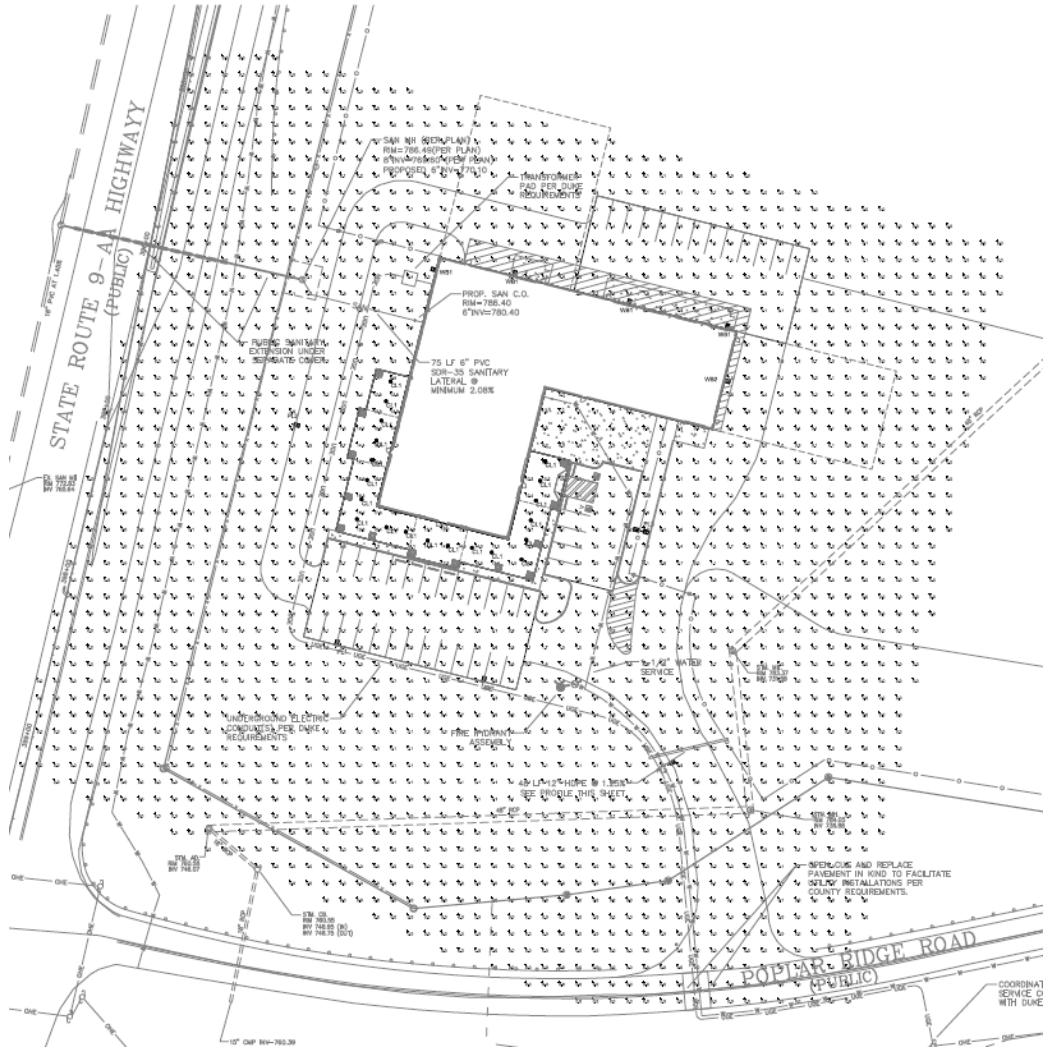
#### O. Circulation System:

BUILDING AREA	S.F.	STALLS	REQUIRED PER CODE
OFFICE SPACE	970	4	1 STALL PER 250 S.F.
SHOWROOM/RETAIL	5,900	6	1 STALL PER 1,000 S.F.
SERVICE AREA (4 BAYS, 20 EMPLOYEES)	5,350	28	2 STALLS PER BAY PLUS 1 PER EMPLOYEE LARGEST
STORAGE/HALL/RESTROOM/MECHANICAL	5,580	6	1 STALL PER 1,000 S.F.
TOTAL SQUARE FOOTAGE		44 STALLS	TOTAL STALLS REQUIRED
STALLS PROVIDED: ADA ACCESSIBLE PARKING SPACES REGULAR PARKING SPACES TOTAL SPACES PROVIDED:		2 43 45	ADA ACCESSIBLE PARKING NOTES: 2 ACCESSIBLE SPACES REQUIRED AND PROVIDED 1 OF WHICH MUST BE VAN ACCESSIBLE

1. Pedestrian walkways are indicated along the building as indicated on the plan.
2. No new streets are proposed. Parking area layout is indicated on the plans.

P. An erosion and sediment control plan is indicated on sheet C-401.

Q. A lighting plan has been provided.



*Lighting Plan excerpt. Complete plans available by request.*

R. Dumpster storage location with provisions for screening were not indicated on the site plan. Staff recommends reinforced pavement and enclosed dumpster area be identified.

S. Contact information for civil engineer and developer is provided.

T. The date of preparation of the plan is shown as 03/08/2024.

U. A schedule of development is not provided, but utility and building plans are under review.

**Request for Variance:** The applicant is requesting variance on the pavement type for an enclosed equipment lot. The need is for a gravel lot as compared to a concrete or asphalt lot. The applicant offers the following statement:

*Supporting Information for Variances:*

- A. *That the proposed use at this location is necessary or desirable to provide a service or facility that will contribute to the general well-being of the neighborhood or community. Based upon feedback received, we believe this will be a very desirable facility for this neighborhood and community.*
- B. *That the proposed use will NOT be detrimental to the health, safety or overall welfare of persons residing or working in the vicinity, or injurious to property or improvements in the vicinity. The proposed facility provides a desired product to the neighborhood and will not be detrimental to health, safety or overall welfare of persons or property.*
- C. *That such use will comply with any regulations in the Zoning Ordinance and Subdivision Regulations for such use. The proposed use complies with the regulations in the Zoning Ordinance.*
- D. *That the requested variance/waiver arises from special existing circumstance, which does not generally apply to land in the general vicinity. The requested variance is to utilize a gravel pavement area within the fenced area of the property (not open to customers/public) due to the varying weights of vehicles that will use this area, we would like the flexibility of being able to easily repair this area as needed.*
- E. *That the manner in which the application of the provisions of the Zoning Ordinance would deprive the applicant of a reasonable use of the land, or would create unnecessary hardship for the applicant. The requirement to pave this non-public area would be a hardship for us as we would have to design the entire pavement area to withstand the large vehicles that may not use the entire area.*
- F. *That the variance will not allow unreasonable conditions of the requirements of zoning regulations and will not alter the essential character of the neighborhood. The requested variance to use a gravel pavement in this non-public area will not allow unreasonable conditions nor alter the essential character of the neighborhood as we plan to keep this area in a good maintainable condition for our business use.*
- G. *That granting the waiver/variance will not confer on the applicant any special privilege that is not conferred by this ordinance to other land, structures or buildings in the same zone. Granting this request will not confer any special privileges as several other local businesses utilize a gravel paved area within fenced areas like storage yards for the varying sized vehicle loads for the flexibility of use and easy repairs.*

Staff concurs with the statements provided by the applicant.

The Planning Commission may assume the powers of the Board of Adjustments when reviewing a site development plan.

Staff concludes that based upon the location, use and enclosure of the lot that granting of a variance for the pavement type to gravel:

- 1) will not adversely affect the public health, safety or welfare,
- 2) will not alter the essential character of the general vicinity,
- 3) will not cause a hazard or a nuisance to the public, and
- 4) will not allow an unreasonable circumvention of the requirements of the zoning regulations.

Staff also concludes that the requested pavement variance arises from special circumstances which do not generally apply to land in the general vicinity, or in the same zone; (b) The strict application of the provisions of the regulation would create an unnecessary hardship on the applicant through excess maintenance and pavement strength; and (c) The circumstances are the result of actions of the applicant taken subsequent to the adoption of the zoning regulation from which relief is sought.

#### **Summary of Applicant's Request:**

The applicant has submitted a request for approval of site plan with a variance for an enclosed gravel equipment lot.

#### **Staff Recommendation:**

To approve the proposed site development plans with a variance for an enclosed gravel equipment lot subject to final engineering reviews from the city engineer, utility agencies and KYTC.

#### **Supporting Information / Basis for Recommendation:**

1. The plan has been reviewed and found to be in general compliance with Article IX, Section 9.19.
2. The proposed site development plan is consistent with the Zoning Ordinance Article X, Section 10.8.
3. Proper legal notice has been given for a site development plan.
4. The authorization of the variances would not adversely affect the public health, safety or welfare, will not alter the essential character of the general vicinity, will not cause a hazard or nuisance to the public, and will not allow an unreasonable circumvention of the requirements of the zoning regulations.
5. Planning commission shall assume all powers and duties otherwise exercised by the board of adjustment pursuant to KRS 100.231, 100.233, 100.237, 100.241, 100.243, 100.247, and 100.251.

If you have any questions concerning this report, please feel free to contact Campbell County Planning and Zoning at 859-292-3880. Thank you.

Respectfully submitted,

*Cindy Minter*  
Cindy Minter, AICP CFM  
Director

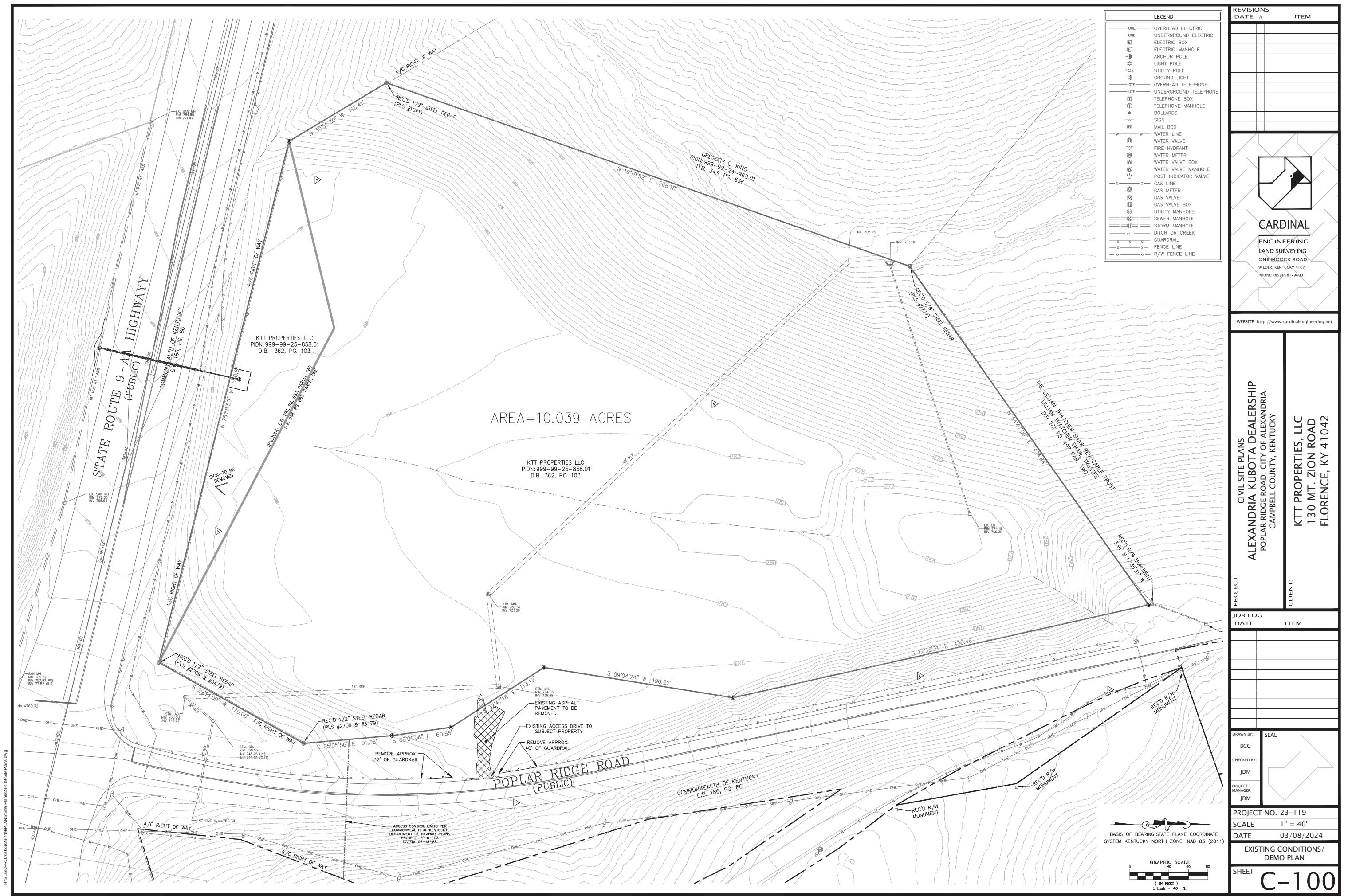
# ALEXANDRIA KUBOTA DEALERSHIP

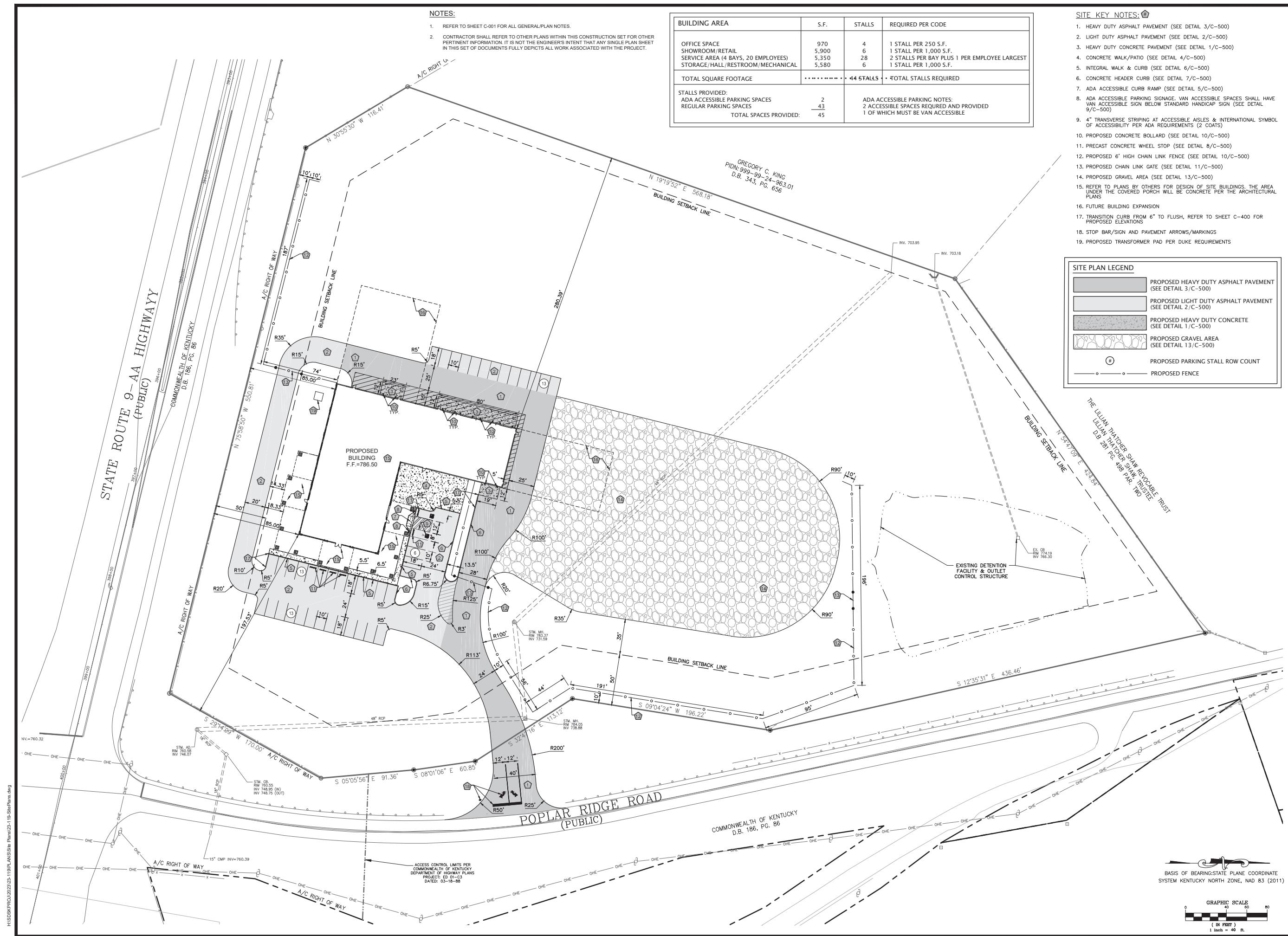
# CIVIL SITE PLANS

POPLAR RIDGE ROAD, CITY OF ALEXANDRIA  
CAMPBELL COUNTY, KENTUCKY

# CONTACTS

<p><b>GENERAL NOTES</b></p> <ol style="list-style-type: none"> <li>ALL WORK TO BE DONE IN ACCORDANCE WITH THE COMMONWEALTH OF KENTUCKY DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATION (AND THE CITY OF ALEXANDRIA THERETO).</li> <li>VERIFY EXISTENCE AND LOCATION OF ALL UTILITIES BEFORE STARTING CONSTRUCTION. INFORM OWNER OF ANY DISCREPANCIES.</li> <li>APPROPRIATE UTILITY COMPANIES SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO BREAKING GROUND FOR THE PURPOSE OF VERIFYING BY FIELD INSPECTION THE EXACT LOCATION OF UNDERGROUND UTILITIES.</li> <li>COMPACTED FILLS ARE TO BE MADE A MINIMUM OF THREE (3) FEET ABOVE THE CROWN OF ANY PROPOSED SEWER PRIOR TO CUTTING OF TRENCHES FOR PLACEMENT OF SAID SEWERS. ALL FILLS SHALL BE CONTROLLED, COMPACTED, AND INSPECTED BY AN APPROVED TEST LABORATORY, OR AN INSPECTION FROM THE APPROPRIATE GOVERNMENTAL AGENCY. A COPY OF THESE TESTING REPORTS SHALL BE SUBMITTED TO THE SANITATION DISTRICT NO. 1 AND THE ENGINEER'S OFFICE.</li> <li>NO PART OF ANY DRIVEWAY OR DRIVEWAY APPROACH WITHIN THE STREET EASEMENT SHALL BE INSTALLED CLOSER THAN FIVE (5) FEET TO ANY INLET, UTILITY POLE, OR GUY WIRE ANCHOR AND FIVE (5) FEET FROM ANY FIRE HYDRANT.</li> <li>NOT USED.</li> <li>NOT USED.</li> <li>UNLESS OTHERWISE SPECIFIED, STORM SEWER MANHOLES ARE SANITATION DISTRICT NO. 1 DETAIL NO. 1 DETAIL STM-012.</li> <li>ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF CONSTRUCTION AND ARE TO FINAL GRADE, AND ARE TO REMAIN SO, SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL IN ACCORDANCE WITH SANITATION DISTRICT NO. 1'S BEST MANAGEMENT PRACTICES.</li> <li>NOT USED.</li> <li>ALL UNDERGROUND UTILITIES MUST BE INSTALLED PRIOR TO INSTALLATION OF PAVEMENT AND CURB AND GUTTER.</li> <li>CLSM (CONTROLLED LOW STRENGTH MORTAR) SHALL BE PER KYTC SPECIFICATIONS-SECTION 601.</li> <li>CONTRACTOR TO VISIT SITE &amp; BECOME FAMILIAR WITH EXISTING CONDITIONS PRIOR TO SUBMITTING BIDS.</li> <li>CONTRACTOR SHALL NOTIFY KENTUCKY UTILITIES PROTECTION SERVICE AND ALL ENTITIES NOT COVERED BY UTILITY PROTECTION SERVICE AT LEAST (2) DAYS PRIOR TO THE START OF CONSTRUCTION OR ANY EARTHWORK OPERATIONS.</li> <li>CONTRACTOR SHALL PERFORM ALL WORK PER APPLICABLE REQUIREMENTS OF OSHA, LOCAL CODES &amp; ORDINANCES. COMPLY WITH ALL REQUIREMENTS FOR PERMITS, LICENSES, FEES &amp; TAXES AND PAY ALL ASSOCIATED COSTS.</li> <li>CONTRACTOR SHALL COORDINATE CONSTRUCTION WITH OWNER. PROVIDE BARRICADES, LIGHTING, SIGNS &amp; MARKERS AS REQUIRED TO PROTECT VEHICULAR &amp; PEDESTRIAN TRAFFIC. MAINTAIN FACILITY SECURITY AS DIRECTED BY OWNER.</li> <li>ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.</li> <li>BOUNDARY INFORMATION BASED ON A SURVEY PREPARED BY CARDINAL ENGINEERING CORPORATION ON 4/20/2020.</li> <li>TOPOGRAPHIC INFORMATION BASED ON A FIELD SURVEY PERFORMED BY CARDINAL ENGINEERING CORPORATION/GIS INFORMATION ON 5/23/2023.</li> </ol> <p><b>STORM SEWER NOTES</b></p> <ol style="list-style-type: none"> <li>PIPES 4", 6", AND 8" IN DIAMETER: PVC PIPE AND FITTINGS, SDR 35, EXCEPT WHERE NOTED OTHERWISE ON THE PLAN. 4" HDPE USED FOR DRAINAGE TUBING (PERFORATED AS AN UNDERDRAIN, SOLID AS AN OUTLET PIPE) SHALL CONTAIN A SOCK WRAP WHEN USED AS UNDERDRAINS.</li> <li>PIPE 12 INCHES IN DIAMETER OR LARGER, UNLESS NOTED OTHERWISE ON THE PLANS, MAY BE ANY OF THE FOLLOWING:       <ol style="list-style-type: none"> <li>PVC CORRUGATE EXTERIOR, SMOOTH INTERIOR PIPE, EXCEPT WHERE NOTED OTHERWISE ON THE PLAN.</li> <li>PVC PROFILE WALL SMOOTH FLOW SEWER PIPE, EXCEPT WHERE NOTED OTHERWISE ON THE PLAN.</li> <li>FOR OUTSIDE THE BUILDING ONLY, CORRUGATED POLYETHYLENE SMOOTH LINED PIPE WITH GASKETED SILT TIGHT JOINTS MEETING ASTM F-477, HANCOR SURE-LOK OR ADS PRO LINX OR EQUIVALENT. NO SOIL TIGHT SPLIT COUPLINGS SHALL BE USED.</li> </ol> </li> <li>ALL CATCH BASIN GRATES TO BE HEAVY DUTY AND BICYCLE SAFE.</li> <li>ALL PIPES (EXCEPT UNDERDRAINS) SHALL HAVE A SMOOTH INTERIOR</li> <li>FURNISH AND INSTALL ALL FITTINGS NECESSARY TO COMPLETE STORM INSTALLATION ON THE PLANS.</li> <li>INLETS, MANHOLES AND DRAINS - PROVIDE CONCRETE FLOW SHAPING IN THE BOTTOM OF BOTH CAST IN PLACE AND PRECAST STRUCTURES TO IMPROVE HYDRAULICS AND AVOID STANDING WATER.</li> <li>PIPE COLLARS - ALL PIPE CONNECTIONS TO DISSIMILAR MATERIALS SHALL REQUIRE A STANDARD KDOT CONCRETE COLLAR.</li> <li>PIPE SILTING - CONTRACTOR SHALL DELIVER STORM SYSTEM IN CLEAN CONDITION TO OWNER AT END OF PROJECT. ANY CLEANING OF STRUCTURES (PIPE, NEW OR EXISTING DOWNSTREAM) SHALL BE THE CONTRACTOR'S RESPONSIBILITY UNDER THIS PROJECT CONTRACT.</li> <li>ALL MANHOLES AND CATCH BASINS TO BE PRECAST, EXCEPT WHERE NOTED OTHERWISE ON THE PLAN.</li> </ol> <p><b>PROHIBITED CONSTRUCTION ACTIVITIES:</b></p> <ol style="list-style-type: none"> <li>INDISCRIMINATE OR ARBITRARY OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, ANY SURFACE WATER, OR OUTSIDE THE EASEMENT LIMITS IS PROHIBITED.</li> <li>CLEAR CUTTING, CLEARING AND GRUBBING SHALL BE PHASED TO MAINTAIN COVER UNTIL ACTUAL CONSTRUCTION HAS PROGRESSSED TO THE AREA. IN PARTICULAR, CLEARING TO ALLOW PIPE STRINGING MORE THAN 500 FEET IN ADVANCE OF INSTALLATION IS NOT PERMITTED.</li> <li>PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATION DIRECTLY INTO ANY SURFACE WATERS, ANY STREAM CORRIDORS, OR STORM SEWERS IS PROHIBITED; ALL SUCH WATER SHALL BE PROPERLY FILTERED OR SETTLED TO REMOVE SILT PRIOR TO DISCHARGING INTO ANY DRAIN OR WATERCOURSE.</li> </ol> <p><b>STORM WATER POLLUTION PREVENTION PLAN NOTES:</b></p> <ol style="list-style-type: none"> <li>CONTRACTOR IS RESPONSIBLE FOR OBTAINING BORROW MATERIAL ON SITE AND/OR DISPOSING OF EXCESS EXCAVATED MATERIAL OFF SITE AS REQUIRED TO MEET INDICATED DESIGN ELEVATIONS.</li> <li>COMPACTION REQUIREMENTS, FILL AND BACKFILL, AND GENERAL EARTHWORK/GRADING REQUIREMENTS ARE PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.</li> <li>ALL EROSION AND SEDIMENTATION CONTROL SHALL BE PERFORMED AS SHOWN ON THE PLANS, AND SHALL BE IN COMPLIANCE WITH THE CURRENT SD1 BEST MANAGEMENT PRACTICES &amp; "NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM" RULES AND REGULATIONS.</li> <li>A COPY OF THE "STORM WATER POLLUTION PREVENTION PLAN" (SWPPP), A COPY OF THE "NOTICE OF INTENT" (NOI), AND A COPY THE SD1 LAND DISTURBANCE PERMIT SHALL BE KEPT ON-SITE.</li> <li>AN AMENDMENT OF THE SWPPP IS REQUIRED WHENEVER A CHANGE IN DESIGN, CONSTRUCTION, AND OPERATION OR MAINTENANCE HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS, OR IF THE SWPPP PROVES TO BE INEFFECTIVE IN ACHIEVING THE GENERAL OBJECTIVES OF THE SWPPP.</li> <li>THE CONTRACTOR SHALL ALSO MAINTAIN THE FOLLOWING RECORDS ON-SITE:       <ol style="list-style-type: none"> <li>GENERAL CONTRACTOR AND/OR SUBCONTRACTOR SWPPP CERTIFICATIONS.</li> <li>THE DATE, TIME, AND EXACT LOCATION OF THE INSPECTION, AND THE NAME OF THE INSPECTOR.</li> <li>AN ASSESSMENT OF THE CONDITION OF THE EROSION CONTROLS.</li> <li>A DESCRIPTION OF ANY EROSION CONTROL IMPLEMENTATION AND MAINTENANCE PERFORMED.</li> <li>A DESCRIPTION OF THE PRESENT PHASE OF CONSTRUCTION AT THE SITE.</li> </ol> </li> <li>A SILT BARRIER FENCE SHALL BE PLACED AROUND THE DOWNSTREAM PERIMETER OF THE SITE AS SHOWN ON THE PLANS. SEE SILT FENCE DETAIL AND CHAPTER 7 OF OHIO'S 2006 EDITION OF THE RAINWATER AND LAND DEVELOPMENT MANUAL. SEDIMENT CONTROL STRUCTURES SHALL BE FUNCTIONAL AT THE END OF EACH DAY AND SHALL BE INSPECTED WEEKLY OR WITHIN 24 HOURS AFTER A STORM EVENT, WHERE THEY ARE INTENDED TO PROVIDE SEDIMENT CONTROL SILT FENCES MUST BE PLACED ON LEVEL CONTOUR.</li> <li>PERIMETER SEDIMENT BARRIERS SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING WITHIN SEVEN (7) DAYS FROM THE START OF CLEARING AND GRUBBING, AND SHALL CONTINUE TO FUNCTION UNTIL THE SLOPE DEVELOPMENT AREA IS RESTABILIZED.</li> <li>SOIL DISTURBING ACTIVITIES WILL INCLUDE: (1) CLEARING AND GRUBBING; (2) PERIMETER AND OTHER EROSION/SEDIMENT CONTROL MEASURES; (3) GRADING AS SHOWN ON THE PLANS.</li> <li>THE ORDER OF ACTIVITIES WILL BE: (1) CLEAR AND GRUB PROPOSED CONSTRUCTION AREA; (2) INSTALL SILT FENCING AS INDICATED ON THE SITE PLAN; (3) GRADING OPERATIONS.</li> <li>TEMPORARY SOIL STABILIZATION OF DISTURBED AREAS AND TEMPORARY SEEDING SHALL BE COMPLETED PER THE CURRENT SD1 BEST MANAGEMENT PRACTICES.</li> <li>THE FOLLOWING ARE THE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE REQUIRED OF THE CONTRACTOR. THE FOLLOWING WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS: (1) ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST ONCE EACH WEEK AND FOLLOWING ANY STORM EVENT (2) ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT; (3) BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE; (4) SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND; (5) TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH; (6) INSPECTION REPORTS TO BE CREATED BY THE CONTRACTOR AND SENT TO SD1 ON A MONTHLY BASIS.</li> <li>PETROLEUM PRODUCTS</li> <li>ALL ON-SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCES OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS, WHICH ARE CLEARLY LABELED. EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES OR STORM DRAINS, IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SEALS. SECONDARY CONTAINERS SHALL BE PROVIDED FOR OIL AND FUEL. STORAGE TANKS, AND AREAS MUST BE INSPECTED EVERY SEVEN DAYS AND WITHIN 24 HOURS OF A 0.5 INCH OR GREATER RAIN EVENT TO ENSURE THERE ARE NO EXPOSED MATERIALS WHICH WOULD CONTAMINATE STORM WATER. SITE OPERATORS MUST BE AWARE THAT SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) REQUIREMENTS MAY APPLY. AN SPCC PLAN IS REQUIRED AND SHALL BE PREPARED BY THE PROVIDED BY THE CONTRACTOR IF FOR ONE SINGLE ABOVEGROUND TANK OF 660 GALLONS OR MORE, ACCUMULATIVE ABOVEGROUND STORAGE OF 1330 GALLONS OR MORE, OR 42,000 GALLONS OF UNDERGROUND STORAGE. SOILS THAT HAVE BECOME CONTAMINATED MUST BE DISPOSED OF PROPERLY.</li> <li>ANY ASPHALT SUBSTANCES USED ON-SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.</li> <li>FERTILIZERS</li> <li>FERTILIZERS USED WILL ONLY BE APPLIED IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL WORK DOWN INTO THE SOIL TO THE EXPOSURE TO STORM WATER. STORAGE OF SAID FERTILIZER WILL BE COMPLETELY COVERED. THE CONTENTS OF ANY PARTIALLY USED BAGS OR CONTAINERS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC CONTAINER TO AVOID SPILLS.</li> <li>DEBRIS</li> <li>DEBRIS SHALL BE COLLECTED WITHIN PROPERTY LIMITS WEEKLY OR AS NEEDED FOR PUBLIC SAFETY. SURROUNDING STREETS AFFECTED BY THE CONSTRUCTION SHALL BE CLEANED DAILY OR AS NEEDED FOR PUBLIC SAFETY.</li> <li>CONSTRUCTION ENTRANCE</li> <li>THE CONSTRUCTION ENTRANCES SHALL BE CONSTRUCTED PER THE DETAIL AND MAINTAINED.</li> <li>BEST MANAGEMENT PRACTICES</li> <li>BEST MANAGEMENT PRACTICES (BMPs) AS PRESENTED IN THE CURRENT SD1 BEST MANAGEMENT PRACTICES MANUAL SHALL BE FOLLOWED ON THE SITE AT ALL TIMES. A COPY OF THIS MANUAL SHALL BY ONSITE AT ALL TIMES.</li> <li>TRAFFIC CONTROL</li> <li>THE CONTRACTOR IS REQUIRED TO PROVIDE TRAFFIC CONTROL FOR THE EXPORTING OF MATERIAL FROM THE SITE.</li> <li>KENTUCKY EPA NOTICE OF INTENT</li> <li>THE OWNER HAS FILED A "NOTICE OF INTENT" WITH THE KENTUCKY EPA'S OFFICE PRIOR TO CONSTRUCTION.</li> </ol> <p><b>OSHA NOTE</b></p> <ol style="list-style-type: none"> <li>OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA): IT SHALL BE THE FULL AND COMPLETE RESPONSIBILITY OF THE CONTRACTOR TO MEET AND COMPLY WITH SAFETY REQUIREMENTS AND REGULATIONS AS ESTABLISHED BY OSHA OR ANY OTHER REGULATORY BODY. THE OWNER AND ENGINEER WILL NOT PERFORM ANY SAFETY COMPLIANCE INSPECTIONS, AS THE CONTRACTOR HAS ACCEPTED FULL AND COMPLETE RESPONSIBILITY FOR PERFORMING SUCH INSPECTIONS FOR COMPLIANCE TO THESE REGULATIONS. THE CONTRACTOR SHALL INDEMNIFY AND PROTECT AND HOLD HARMLESS THE OWNER AND ENGINEER FROM ANY LOSS, EXPENSE, FINE, DAMAGE, OR SUIT, INCLUDING ATTORNEY'S FEES, ARISING OUT OF ANY SAFETY VIOLATION SUITS BROUGHT BY INJURED PERSONS AND/OR FINES LEVIED BY OSHA OR ANY OTHER REGULATORY BODY, AS A RESULT OF THE CONTRACTOR'S WORK.</li> </ol> <p><b>EARTHWORK AND GRADING NOTES</b></p> <ol style="list-style-type: none"> <li>CONTRACTOR IS RESPONSIBLE FOR PROVIDING BORROW MATERIAL &amp; DISPOSING OF EXCESS EXCAVATED MATERIAL AS REQUIRED TO MEET INDICATED DESIGN ELEVATIONS.</li> <li>EMPLOY A POSITIVE METHOD TO PREVENT MUD &amp; DEBRIS FROM BEING DEPOSITED ON PUBLIC STREETS &amp; OWNER'S PROPERTY ADJACENT TO CONSTRUCTION AREA.</li> <li>PERFORM WORK IN COMPLIANCE WITH APPLICABLE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.</li> <li>LOCATE EXISTING UNDERGROUND UTILITIES. PROVIDE ADEQUATE SUPPORT AND PROTECTION DURING EARTHWORK OPERATIONS. REPAIR DAMAGED UTILITIES TO SATISFACTION OF UTILITY OWNER. NOTIFY UTILITY OWNER OF ANY UNCHARTED OR INCORRECTLY CHARTED UTILITIES IF ENCOUNTERED DURING EXCAVATION.</li> <li>REMOVE TREES, GRASS, OTHER VEGETATION, EXISTING ABOVE AND BELOW GRADE IMPROVEMENTS AND OTHER OBSTRUCTIONS INTERFERING WITH PROPOSED CONSTRUCTION. PROTECT UTILITIES, PAVEMENTS, AND OTHER STRUCTURES TO REMAIN FROM DAMAGE CAUSED BY SETTLEMENT, UNDERMINING AND OTHER HAZARDS CREATED BY EARTHWORK OPERATIONS.</li> <li>STRIP TOPSOIL TO DEPTHS ENCOUNTERED PREVENTING INTERMINGLING WITH UNDERLYING SUBSOIL. STOCKPILE SUFFICIENT TOPSOIL FOR SPREADING TO 6" DEPTH OVER NON-IMPROVED AREAS. REMOVE EXCESS AND UNACCEPTABLE TOPSOIL FROM SITE. SUPPLEMENT STOCKPILED TOPSOIL WITH ADDITIONAL MATERIAL AS REQUIRED.</li> <li>EXCAVATION IS UNCLASSIFIED AND INCLUDES EXCAVATION TO INDICATED SUBGRADE ELEVATIONS, REGARDLESS OF CHARACTER OF MATERIALS AND OBSTRUCTIONS ENCOUNTERED.</li> <li>BARRICADE OPEN EXCAVATIONS AND POST WITH WARNING LIGHTS, SLOPE SIDES OF EXCAVATIONS TO COMPLY WITH LOCAL CODES, ORDINANCES AND REQUIREMENTS OF AGENCIES HAVING JURISDICTION. SHORE AND BRACE WHERE SLOPING IS NOT POSSIBLE DUE TO SPACE RESTRICTIONS OR STABILITY OF MATERIAL EXCAVATED.</li> <li>DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS OR ON PREPARED SUBGRADES.</li> <li>PROFILLOFF AREAS TO RECEIVE FILL. RECOMPACT OR UNDERCUT &amp; REPLACE ANY SOFT OR YIELDING AREAS PRIOR TO PLACING FILL. DO NOT PLACE FILL ON SUBGRADES THAT ARE MUDDY, FROZEN OR REQUIRING ADDITIONAL COMPACTION.</li> <li>CONTROL SOIL COMPACTION, PROVIDING 98 PERCENT MINIMUM DRY DENSITY PER ASTM D-698. PLACE FILL MATERIAL AT OPTIMUM MOISTURE CONTENT IN 8" LOOSE LIFTS WHERE COMPACTED BY HEAVY EQUIPMENT AND NOT MORE THAN 4" LOOSE LIFTS WHERE COMPACTED BY HAND OPERATED TAMERS.</li> <li>PLACE FILL AND BACKFILL MATERIALS EVENLY ADJACENT TO STRUCTURES, PIPING AND CONDUITS TO PREVENT WEDGING ACTION.</li> <li>USE GRANULAR BACKFILL BENEATH ALL FLOOR SLABS, PAVEMENTS AND OTHER SLAB ON GRADE CONSTRUCTIONS.</li> <li>GRADE AREAS ADJACENT TO BUILDINGS TO DRAIN AWAY FROM STRUCTURES AND TO PREVENT PONDING. FINISH SURFACES FREE FROM IRREGULAR SURFACE CHANGES MEETING INDICATED SUBGRADE AND FINISH GRADE ELEVATIONS.</li> <li>PROVIDE AND MAINTAIN EROSION CONTROL METHODS IN ACCORDANCE WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.</li> <li>REMOVE WASTE MATERIALS AND EXCESS EXCAVATED MATERIAL. UNSATISFACTORY SOIL MATERIAL, TRASH AND DEBRIS AND DISPOSE OF IT OFF OWNER'S PROPERTY.</li> <li>COMPACT: ALL AREAS, 98% OF MAXIMUM DRY DENSITY AS DEFINED BY ASTM D-698.</li> <li>SPREAD 6" OF TOP SOIL, FERTILIZE SEED AND MULCH ALL GRADED &amp; DISTURBED AREAS AS SOON AS THEY WILL NOT BE AFFECTED BY SUBSEQUENT CONSTRUCTION. CONFORM TO THE APPLICABLE REQUIREMENTS OF ODOT ITEM 659, SEEDING &amp; MULCHING.</li> </ol> <p><b>GEOTECHNICAL NOTES</b></p> <ol style="list-style-type: none"> <li>THE CONTRACTOR SHALL ADHERE TO ALL GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.</li> <li>IT IS THE CONTRACTOR'S RESPONSIBILITY TO EMPLOY TRENCHING, SHORING, BACKFILLING, AND GENERAL CONSTRUCTION METHODS AS NECESSARY TO PREVENT DAMAGE TO PROPERTY, PAVEMENT, STRUCTURES, AND INFRASTRUCTURE ADJACENT TO THE SITE. UNBACKFILLED TRENCH LENGTHS SHALL BE KEPT TO A MINIMUM AND/OR SHORING SHOULD BE EMPLOYED AS NEEDED TO PREVENT SOIL MOVEMENTS ADJACENT TO UNBACKFILLED TRENCHES. ALL BEDDING AND GRANULAR BACKFILL MATERIAL SHALL BE COMPACTED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.</li> </ol> <p><b>SANITARY SEWER NOTES:</b></p> <ol style="list-style-type: none"> <li>TAP PERMITS AND FEES ARE REQUIRED BY THE SANITATION DISTRICT NO. 1 (SD1) AND SHALL BE PAID BY THE CONTRACTOR WITH THE EXCEPTION OF THE TAP-IN FEE, WHICH SHALL BE PAID BY OWNER.</li> <li>SEWER CONTRACTORS PERFORMING TAPS SHALL BE PREQUALIFIED WITH SD1.</li> <li>NO CLEAN WATER (DOWNSPOUTS, CATCH BASINS, FOOTING AND FOUNDATION DRAINS, ETC.) ARE TO BE CONNECTED TO THE SANITARY SEWER SYSTEM.</li> <li>SANITARY LATERAL PIPING SHALL BE PVC, ASTM D 3034, SDR 35 WITH GASKETED JOINTS.</li> </ol> <p><b>TOPSOIL, SEEDING, MULCHING, AND FERTILIZING</b></p> <ol style="list-style-type: none"> <li>ALL DISTURBED AREAS WITHIN THE LIMITS OF CONSTRUCTION THAT ARE NOT PAVED OR LANDSCAPED SHOULD BE SEADED.</li> <li>TACK ALL SLOPES STEEPER THAN 5:1 WITH STAPLES AND PLASTIC NET.</li> <li>CONTRACTOR TO REDISTRIBUTE THE TOPSOIL AND/OR IMPORT FOR A DEPTH OF 4"-7" IN ALL AREAS THAT ARE NOT TO BE PAVED.</li> </ol> <p><b>SITE CONCRETE</b></p> <ol style="list-style-type: none"> <li>ALL SITE CONCRETE (OUTSIDE THE BUILDINGS) SHALL BE CONCRETE FOR PAVEMENT: 4000 PSI AT 28 DAYS, 6% +/- 1% ENTRAINED AIR, 4" MAX. SLUMP, MAX. WATER TO CEMENT RATIO = 0.45, 5-1/2 BAG MIX.</li> <li>FIELD QUALITY CONTROL:       <ol style="list-style-type: none"> <li>TESTING AGENCY: OWNER WILL ENGAGE A QUALIFIED TESTING AND INSPECTION AGENCY TO SAMPLE MATERIALS, PERFORM TESTS, AND SUBMIT TEST REPORTS DURING CONCRETE PLACEMENT. SAMPLING AND TESTING FOR QUARTZ CONCRETE MAY INCLUDE THOSE SPECIFIED IN THIS ARTICLE. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE TESTING AGENCY 48 HOURS PRIOR TO STARTING WORK. REQUIREMENT FOR MATERIAL TESTING, FAILURE TO PROVIDE PROPER NOTIFICATION AS PER ABOVE WILL REQUIRE THE CONTRACTOR TO STOP WORK UNTIL PROPER ARRANGEMENTS HAVE BEEN MADE WITH THE TESTING AGENCY.</li> <li>TESTING SERVICES: TESTING SHALL BE PERFORMED ACCORDING TO THE FOLLOWING REQUIREMENTS:           <ol style="list-style-type: none"> <li>SAMPLING FRESH CONCRETE: REPRESENTATIVE SAMPLES OF FRESH CONCRETE SHALL BE OBTAINED ACCORDING TO ASTM C 172, EXCEPT MODIFIED FOR SLUMP TO COMPLY WITH ASTM C 94.</li> <li>SLUMP: ASTM C 143; ONE TEST AT POINT OF PLACEMENT FOR EACH COMPRESSIVE-STRENGTH TEST, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH TYPE OF CONCRETE. ADDITIONAL TESTS WILL BE REQUIRED WHEN CONCRETE CONSISTENCY CHANGES.</li> <li>AIR CONTENT: ASTM, C 231. PRESSURE METHOD; ONE TEST FOR EACH COMPRESSIVE-STRENGTH TEST, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH TYPE OF AIR-ENTRAINED CONCRETE.</li> <li>COMPRESSIVE TEST SPECIMENS: ASTM C 31/C 31 M; ONE SET OF FIVE STANDARD CYLINDERS FOR EACH COMPRESSIVE-STRENGTH TEST, UNLESS OTHERWISE INDICATED. CYLINDERS SHALL BE MOLED AND STORED FOR LABORATORY-CURED TEST SPECIMENS UNLESS FIELD-CURED TEST SPECIMENS ARE REQUIRED.</li> <li>COMPRESSIVE-STRENGTH TEST: ASTM C 39; ONE SET FOR EVERY 50 CUBIC YARDS OF CONCRETE WITH A MINIMUM OF ONE SET FOR EACH CASTING OF CONCRETE, NO MATTER WHAT THE SIZE. TWO SPECIMENS SHALL BE TESTED AT 7 DAYS AND TWO SPECIMENS AT 28 DAYS; ONE SPECIMEN SHALL BE RETAINED IN RESERVE FOR LATER TESTING IF REQUIRED.</li> <li>STRENGTH LEVEL OF CONCRETE WILL BE CONSIDERED SATISFACTORY IF AVERAGES OF SETS OF THREE CONSECUTIVE COMPRESSIVE-STRENGTH TEST RESULTS EQUAL OR EXCEED SPECIFIED COMPRESSIVE STRENGTH AND NO INDIVIDUAL COMPRESSIVE-STRENGTH TEST RESULT FALLS BELOW SPECIFIED COMPRESSIVE STRENGTH BY MORE THAN 500 PSI (3.4 MPa).</li> </ol> </li> <li>TEST RESULTS SHALL BE REPORTED IN WRITING TO OWNER, CONCRETE MANUFACTURER, AND CONTRACTOR WITHIN 24 HOURS OF TESTING. REPORTS OF COMPRESSIVE-STRENGTH TESTS SHALL CONTAIN PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING AGENCY, CONCRETE TYPE AND CLASS, LOCATION OF CONCRETE BATCH IN PAVEMENT, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIX PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7 AND 28-DAY TESTS.</li> <li>NONDESTRUCTIVE TESTING: IMPACT HAMMER, SONOSCOPE, OR OTHER NONDESTRUCTIVE DEVICE MAY BE PERMITTED BY ROBERTSON BUT WILL NOT BE USED AS THE SOLE BASIS FOR APPROVAL OR REJECTION.</li> <li>ADDITIONAL TESTS: TESTING AGENCY SHALL MAKE ADDITIONAL TESTS OF THE CONCRETE WHEN TEST RESULTS INDICATE SLUMP, AIR ENTRAINMENT, CONCRETE STRENGTHS, OR OTHER REQUIREMENTS HAVE NOT BEEN MET, AS DIRECTED BY OWNER. TESTING AGENCY MAY CONDUCT TESTS TO DETERMINE ADEQUACY OF CONCRETE BY CORED CYLINDERS COMPLYING WITH ASTM C 42, OR BY OTHER METHODS AS DIRECTED. ADDITIONAL TESTING WILL BE AT THE CONTRACTOR'S EXPENSE.</li> </ol> </li> </ol> <p><b>DEMOLITION NOTES:</b></p> <ol style="list-style-type: none"> <li>THE LOCATION OF UNDERGROUND PUBLIC OR QUASI-PUBLIC UTILITIES AND SUBSTRUCTURES SHOWN HEREON ARE BASED UPON FIELD LOCATION OF SURFACE AND ABOVE GRADE STRUCTURES AND IMPROVEMENT PLANS PROVIDED TO US, AND MAY NOT BE A COMPLETE ADDRESS THE SUBJECT. LOCATIONS OF UNDERGROUND UTILITIES AND SUBSTRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON, AND ADDITIONAL UTILITIES AND SUBSTRUCTURES MAY BE ENCOUNTERED. TYPE OF MATERIAL AND GRADIENT FOR SEWER PIPES AND WATER LINES IS INDICATED WHERE DISCRIMINABLE, OR AS INDICATED ON UTILITY PLANS (WHEN ACQUIRED).</li> <li>SUBMIT SCHEDULE TO OWNER INDICATING PROPOSED METHODS, SCHEDULE OF WORK AND COORDINATION WITH OWNER'S OPERATIONS.</li> <li>DO NOT BEGIN DEMOLITION WORK IN ANY AREA UNTIL OWNER HAS REMOVED ALL EQUIPMENT AND OTHER APPURTENANCES NOT INCLUDED IN THE SCOPE OF WORK.</li> <li>CONDUCT OPERATIONS IN CONFORMANCE WITH ALL RULES, ORDINANCES AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION.</li> <li>PROVIDE TEMPORARY BARRICADES AND OTHER FORMS OF PROTECTION REQUIRED TO PROTECT OWNER'S PERSONNEL AND GENERAL PUBLIC DURING SELECTIVE DEMOLITION WORK. EMPLOY POSITIVE METHODS TO PREVENT DUST AND DIRT FROM RISING INTO AIR.</li> <li>MAINTAIN ALL UTILITIES AND RELATED ITEMS INDICATED TO REMAIN AND PROTECT AGAINST DAMAGE DURING DEMOLITION OPERATIONS. REMOVE, CAP, ABANDON AND/OR DISCONNECT ALL UTILITIES AS INDICATED. SEQUENCE WORK AS REQUIRED. DO NOT DISRUPT ANY UTILITY SERVICE WITHOUT 48 HOUR NOTICE TO, AND PRIOR APPROVAL FROM OWNER.</li> <li>EXERCISE CARE TO PREVENT DAMAGING EXISTING UTILITIES, STRUCTURES, AND FINISHES TO REMAIN. REPAIR ANY DAMAGED ITEMS TO THE SATISFACTION OF OWNER.</li> <li>COMPLETELY FILL BELOW GRADE AREAS AND VOIDS RESULTING FROM DEMOLITION WORK. PROVIDE SATISFACTORY SOIL MATERIAL AND COMPACTION AS APPROVED BY OWNER'S TESTING AND INSPECTION SERVICE.</li> <li>REMOVE DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION OPERATIONS FROM THE PROJECT SITE.</li> </ol> <p><b>GENERAL MATERIAL &amp; INSTALLATION REQ'S</b></p> <ol style="list-style-type: none"> <li>REINFORCING STEEL: ASTM A615, GRADE 60, DEFORMED STEEL.</li> <li>GRANULAR BACKFILL MATERIAL: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, STONE &amp; SAND, ASTM D2940, WITH AT LEAST 95% PASSING A 1" SIEVE AND NOT MORE THAN 5% PASSING A NO. 200 SIEVE.</li> </ol> <p><b>ELECTRIC AND TELEPHONE NOTES</b></p> <ol style="list-style-type: none"> <li>PROPOSED TELEPHONE, COMMUNICATION AND ELECTRICAL CONDUITS SHALL BE PVC SCHEDULE 40. ALL OF THESE CONDUITS SHALL HAVE PULL STRING AND BURIED UTILITY LOCATOR TAPE FURNISHED AND INSTALLED. DIRECT BURIED ELECTRICAL CONDUITS (NOT CONCRETE ENCASED) SHALL BE SCHEDULE 40 (NEMA TC-2), 90 DEGREE C RATED.</li> <li>ALL CHANGES OF DIRECTION IN CONDUIT TO BE GENTLE SWEEPS (NOT SHARP BENDS).</li> <li>ALL MATERIALS METHODS AND WORKMANSHIP TO COMPLY WITH N.E.C. CODES AND REGULATIONS.</li> </ol> <p><b>GENERAL UTILITY NOTES</b></p> <ol style="list-style-type: none"> <li>UTILITY TAPS: CONTRACTOR TO MAKE ALL ARRANGEMENTS, OBTAIN ALL PERMITS AND PAY ALL FEES IN CONJUNCTION WITH THIS WORK. FURNISH ESTIMATED SIZE/Demand AND LOCATION TO UTILITY OWNER. ALL WORK TO BE PERFORMED IN STRICT ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS. PROVIDE ALL MATERIALS AND INSTALLATIONS NOT FURNISHED BY UTILITY CO.</li> <li>UTILITY CROSSING (VERTICAL) CONFLICTS SHALL BE RESOLVED ACCORDING TO THE FOLLOWING RULES AND HIERARCHY: SANITARY HAS FIRST PRIORITY, STORM HAS SECOND PRIORITY, DUE TO BOTH BEING GRAVITY SYSTEMS. NO OTHER UTILITY SHALL BE INSTALLED TO CONFLICT WITH STORM AND SANITARY. ALL OTHER UTILITIES NEED TO COORDINATE CLEARANCES AND LOCATIONS WITH EACH OTHER, CITY INSPECTOR, AND PUBLIC UTILITY, WITH THE PRIORITY GIVEN TO SPECIFIC PLANS NOTES FOR INDIVIDUAL CROSSINGS. LAST PRIORITY SHALL BE BASED ON ORDER OF INSTALLATION, WITH ALL WORK ADHERING TO MINIMUM COVER AND CLEARANCES. MAINTAIN 18-INCH MINIMUM CLEARANCE TYPICAL BETWEEN ALL UTILITIES AT CROSSINGS.</li> </ol>		<p><b>REVISIONS</b></p> <table border="1"> <tr> <td>DATE #</td> <td>ITEM</td> </tr> </table> <p><b>CARDINAL</b></p> <p>ENGINEERING LAND SURVEYING ONE MOOCH ROAD WILDER, KENTUCKY 41071 PHONE: (859) 581-9600</p> <p>WEBSITE: <a href="http://www.cardinalengineering.net">http://www.cardinalengineering.net</a></p> <p><b>CIVIL SITE PLANS</b></p> <p><b>ALEXANDRIA KUBOTA DEALERSHIP</b></p> <p>POPLAR RIDGE ROAD, CITY OF ALEXANDRIA CAMPBELL COUNTY, KENTUCKY</p> <p><b>KTT PROPERTIES, LLC</b></p> <p>130 MT. ZION ROAD FLORENCE, KY 41042</p> <p><b>PROJECT:</b></p> <p><b>CLIENT:</b></p> <p><b>JOB LOG</b></p> <p><b>DATE</b></p> <p>&lt;</p>	DATE #	ITEM
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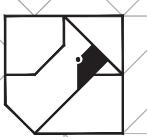




BUILDING AREA	S.F.	STALLS	REQUIRED PER CODE
OFFICE SPACE	970	4	1 STALL PER 250 S.F.
SHOWROOM/RETAIL	5,900	6	1 STALL PER 1,000 S.F.
SERVICE AREA (4 BAYS, 20 EMPLOYEES)	5,350	28	2 STALLS PER BAY PLUS 1 PER EMPLOYEE LARGEST
STORAGE/HALL/RESTROOM/MECHANICAL	5,580	6	1 STALL PER 1,000 S.F.
<b>TOTAL SQUARE FOOTAGE</b>	• • • • •	<b>44 STALLS</b>	<b>TOTAL STALLS REQUIRED</b>
<b>STALLS PROVIDED:</b>			
ADA ACCESSIBLE PARKING SPACES	2		ADA ACCESSIBLE PARKING NOTES:
REGULAR PARKING SPACES	43		2 ACCESSIBLE SPACES REQUIRED AND PROVIDED
<b>TOTAL SPACES PROVIDED:</b>	<b>45</b>		<b>1 OF WHICH MUST BE VAN ACCESSIBLE</b>

SITE KEY NOTES:

1. HEAVY DUTY ASPHALT PAVEMENT (SEE DETAIL 3/C-500)
2. LIGHT DUTY ASPHALT PAVEMENT (SEE DETAIL 2/C-500)
3. HEAVY DUTY CONCRETE PAVEMENT (SEE DETAIL 1/C-500)
4. CONCRETE WALK/PATIO (SEE DETAIL 4/C-500)
5. INTEGRAL WALK & CURB (SEE DETAIL 6/C-500)
6. CONCRETE HEADER CURB (SEE DETAIL 7/C-500)
7. ADA ACCESSIBLE CURB RAMP (SEE DETAIL 5/C-500)
8. ADA ACCESSIBLE PARKING SIGNAGE. VAN ACCESSIBLE SPACES SHALL HAVE VAN ACCESSIBLE SIGN BELOW STANDARD HANDICAP SIGN (SEE DETAIL 9/C-500)
9. 4" TRANSVERSE STRIPING AT ACCESSIBLE AISLES & INTERNATIONAL SYMBOL OF ACCESSIBILITY PER ADA REQUIREMENTS (2 COATS)
10. PROPOSED CONCRETE BOLLARD (SEE DETAIL 10/C-500)
11. PRECAST CONCRETE WHEEL STOP (SEE DETAIL 8/C-500)
12. PROPOSED 6" HIGH CHAIN LINK FENCE (SEE DETAIL 10/C-500)
13. PROPOSED CHAIN LINK GATE (SEE DETAIL 11/C-500)
14. PROPOSED GRAVEL AREA (SEE DETAIL 13/C-500)
15. REFER TO PLANS BY OTHERS FOR DESIGN OF SITE BUILDINGS. THE AREA UNDER THE COVERED PORCH WILL BE CONCRETE PER THE ARCHITECTURAL PLANS
16. FUTURE BUILDING EXPANSION
17. TRANSITION CURB FROM 6" TO FLUSH, REFER TO SHEET C-400 FOR PROPOSED ELEVATIONS
18. STOP BAR/SIGN AND PAVEMENT ARROWS/MARKINGS
19. PROPOSED TRANSFORMER PAD PER DUKE REQUIREMENTS



## CARDINAL

ENGINEERING  
LAND SURVEYING  
ONE MOOCK ROAD

WILDER, KENTUCKY 41071  
PHONE: (859) 581-9600

<http://www.cardinalengineering.net>

**SITE PLAN LEGEND**

PROPOSED HEAVY DUTY ASPHALT PAVEMENT  
(SEE DETAIL 3/C-500)

PROPOSED LIGHT DUTY ASPHALT PAVEMENT  
(SEE DETAIL 2/C-500)

PROPOSED HEAVY DUTY CONCRETE  
(SEE DETAIL 1/C-500)

PROPOSED GRAVEL AREA  
(SEE DETAIL 13/C-500)

PROPOSED PARKING STALL ROW COUNT

PROPOSED FENCE

CIVIC JOURNAL  
**ALEXANDRIA KUBOTA DEALERSHIP**  
POPLAR RIDGE ROAD, CITY OF ALEXANDRIA  
CAMPBELL COUNTY, KENTUCKY

KTT PROPERTIES, LLC  
130 MT. ZION ROAD  
FLORENCE, KY 41042

CLIENT:

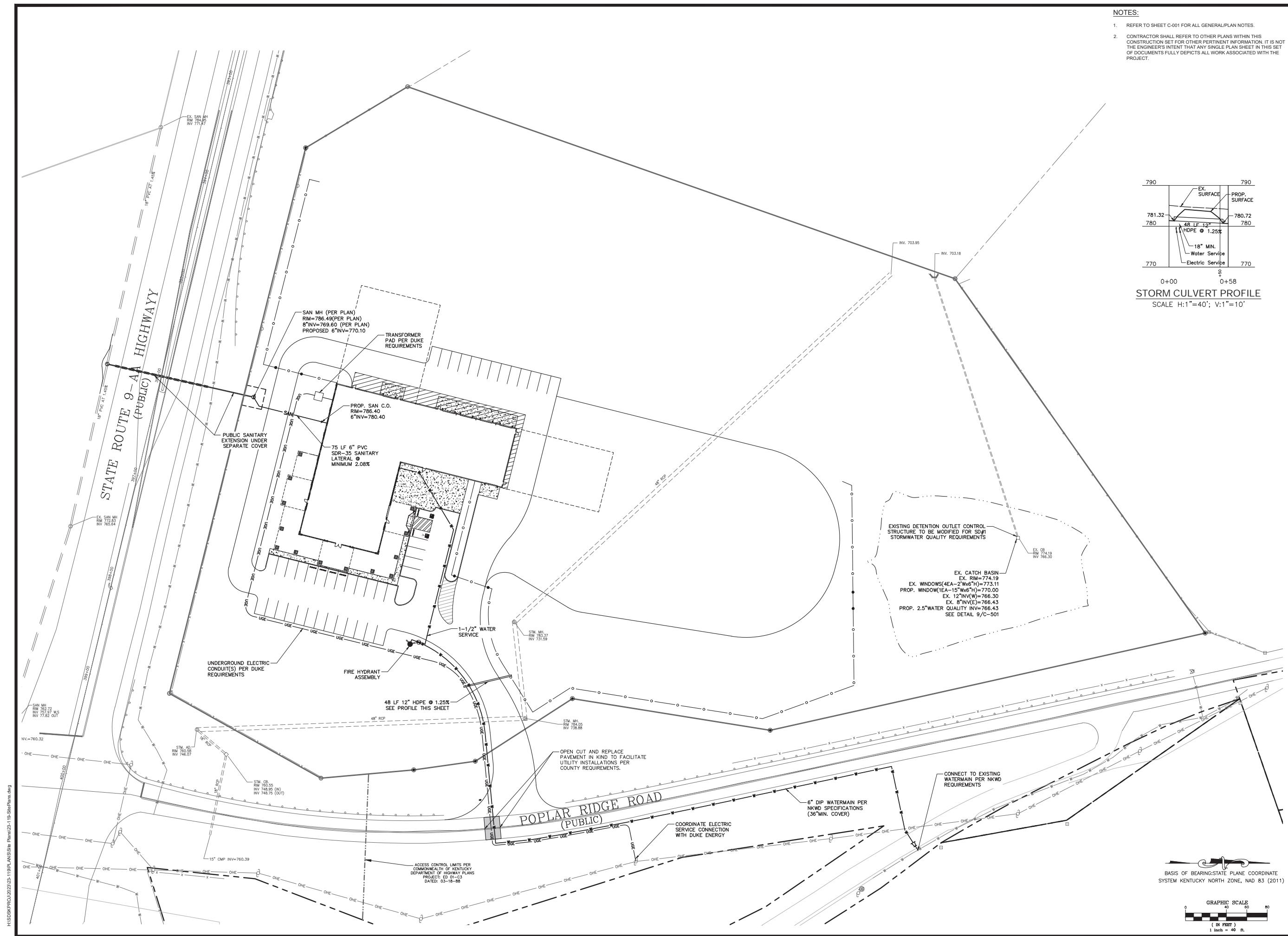
OWN BY:	SEAL
BCC	
SEARCHED BY:	
EDM	
JECT	
AGER:	
DM	
<b>OBJECT NO. 23-119</b>	
CALE	1" = 40'
TF	03/08/2024

SITE PLAN

## SITE PLAN

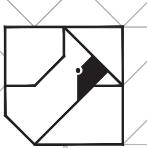
EET C 300

C-200



## NOTES:

1. REFER TO SHEET C-001 FOR ALL GENERAL/PLAN NOTES.
2. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICTS ALL WORK ASSOCIATED WITH THE PROJECT.



## CARDINAL

ENGINEERING

LAND SURVEYING  
ONE MOORCROFT ROAD

WILDER, KENTUCKY 41071

PHONE: (859) 581-9600

<http://www.cardinalengineering.net>

POPLAR RIDGE ROAD, CITY OF ALEXANDRIA  
CAMPBELL COUNTY, KENTUCKY

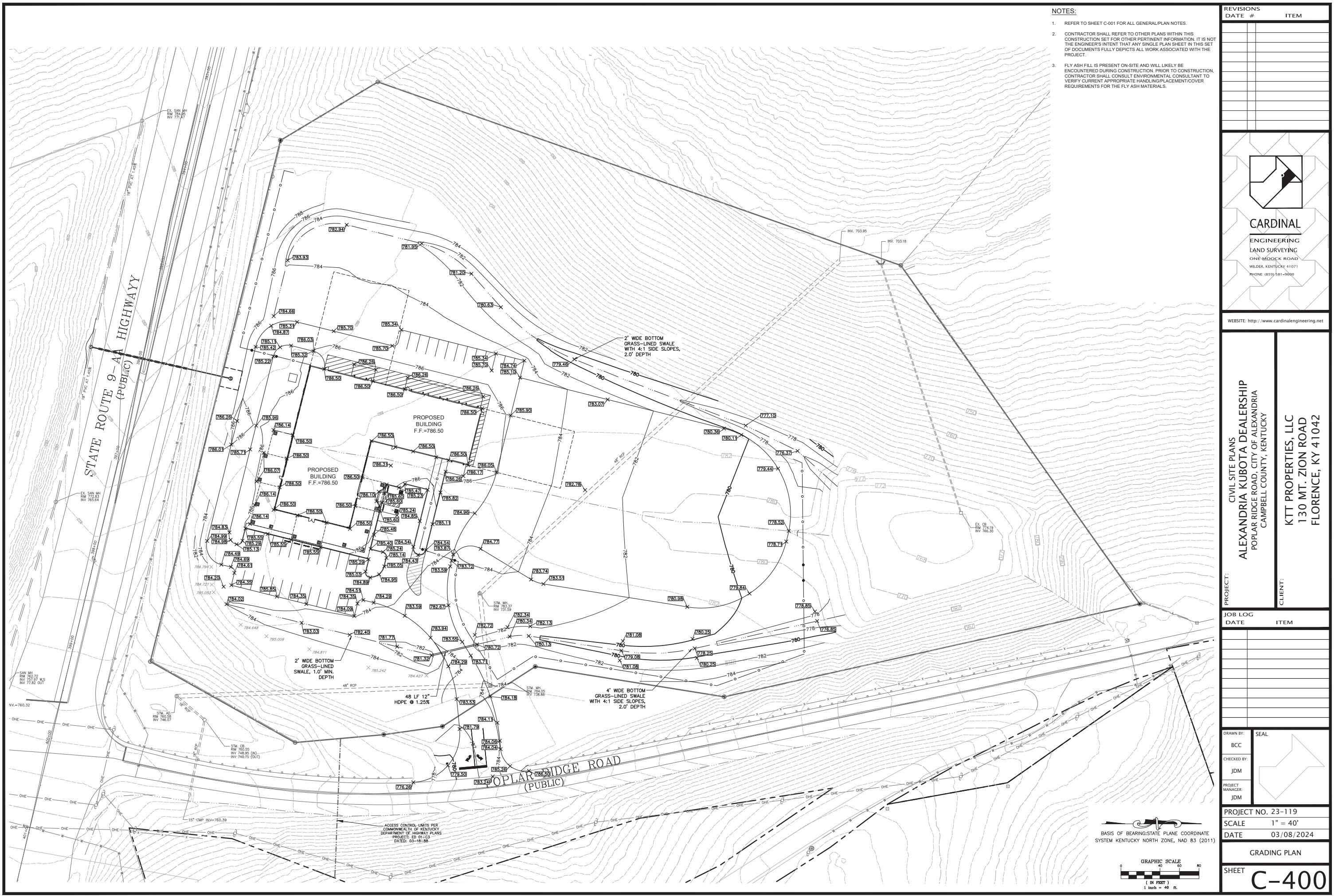
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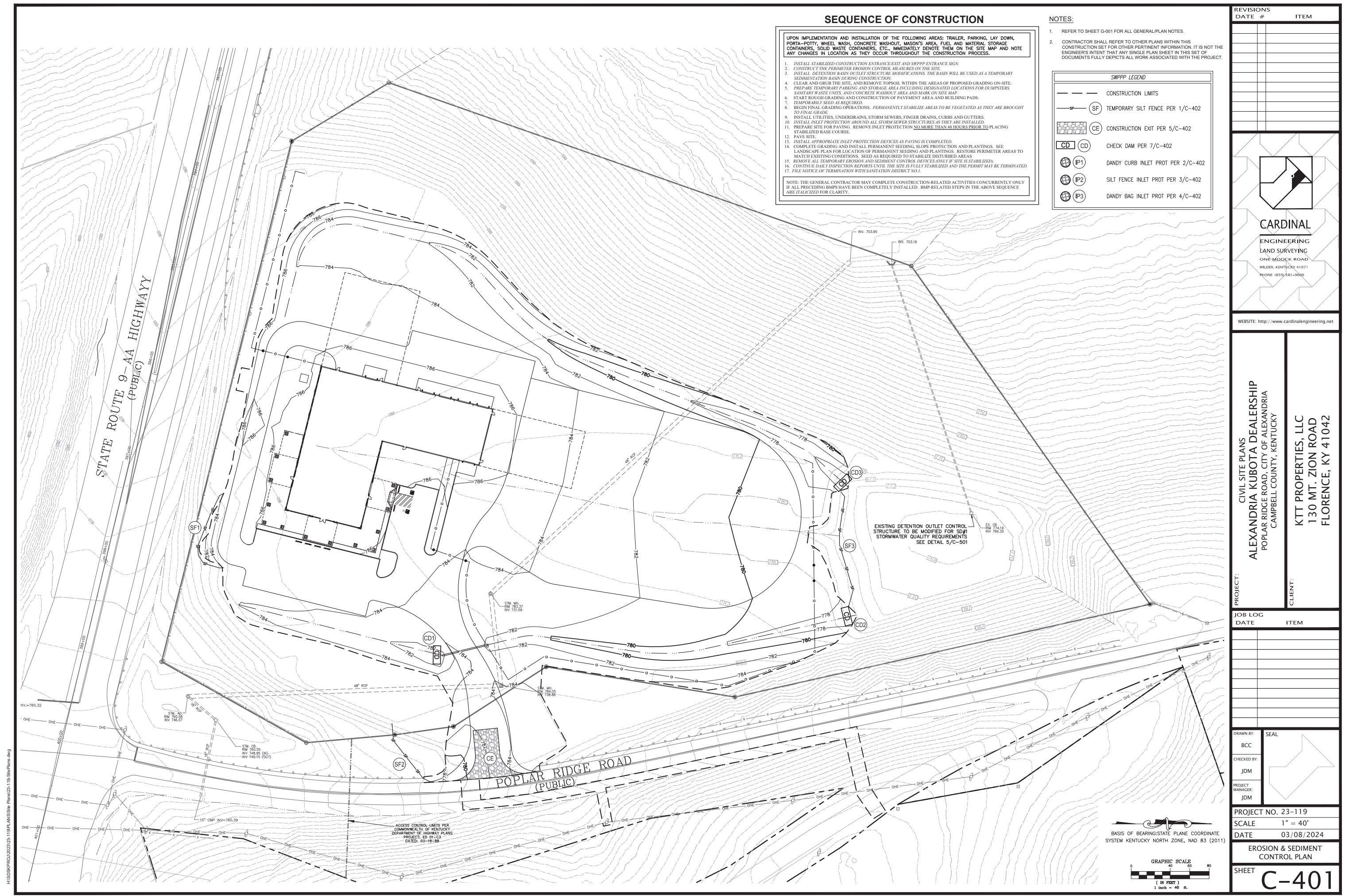
SEAL

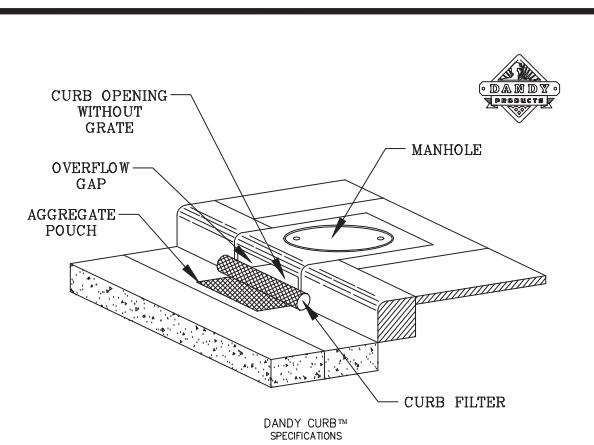
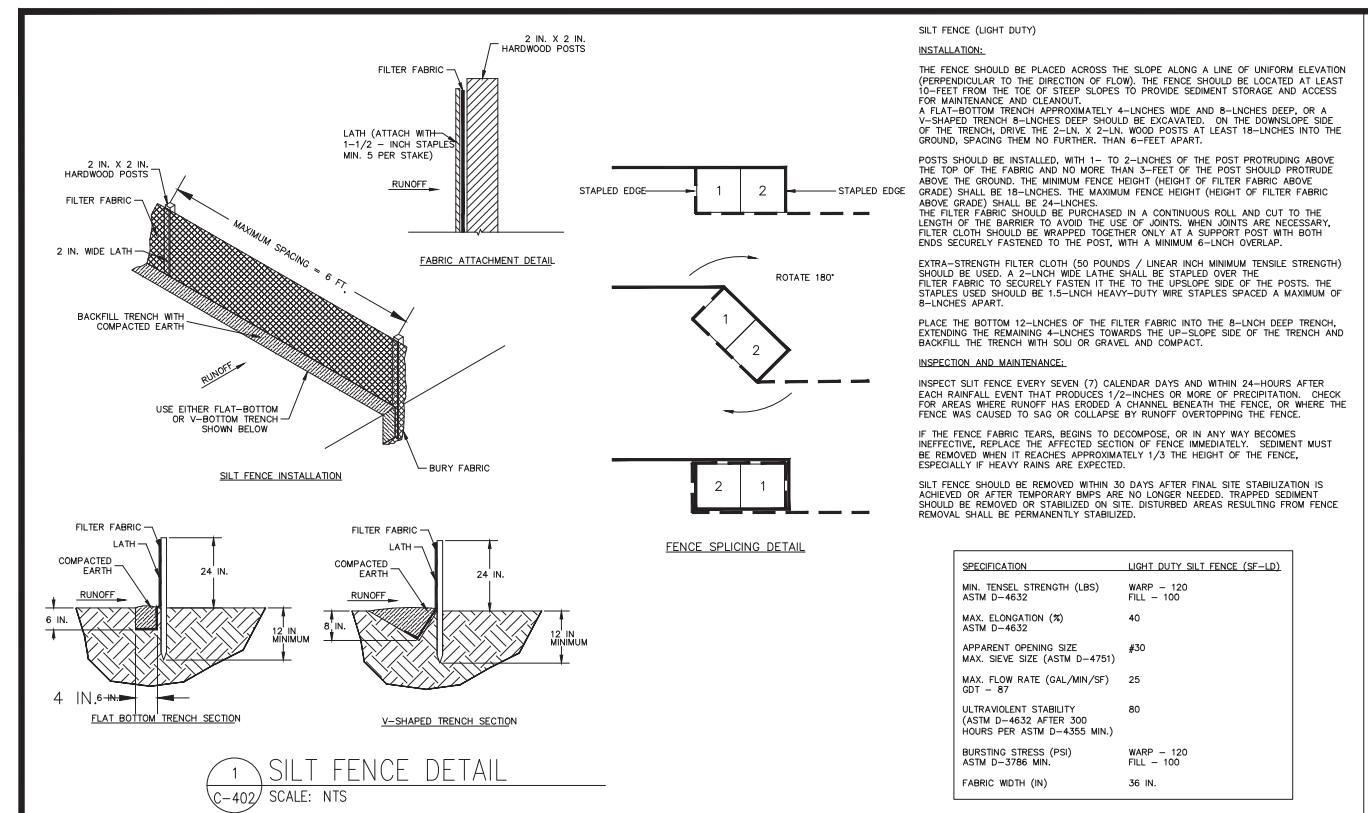
CT NO. 23-119  
1" = 40'  
03/08/2024

## UTILITY PLAN

C-300







NOTE: THE DANDY CURB™ WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

**DANDY CURB™ (SAFETY ORANGE)**

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	1/min/m² (gal/min/ft²)	5907 (145)
Permeability	ASTM D 4491	Sec⁻¹	2.1

\*Note: All Dandy Curbs™ can be ordered with our optional oil absorents

**2 DANDY CURB INLET PROTECTION (IP1)**  
C-402 SCALE: NTS

**3 SILT FENCE INLET PROTECTION (IP2)**  
C-402 SCALE: NTS

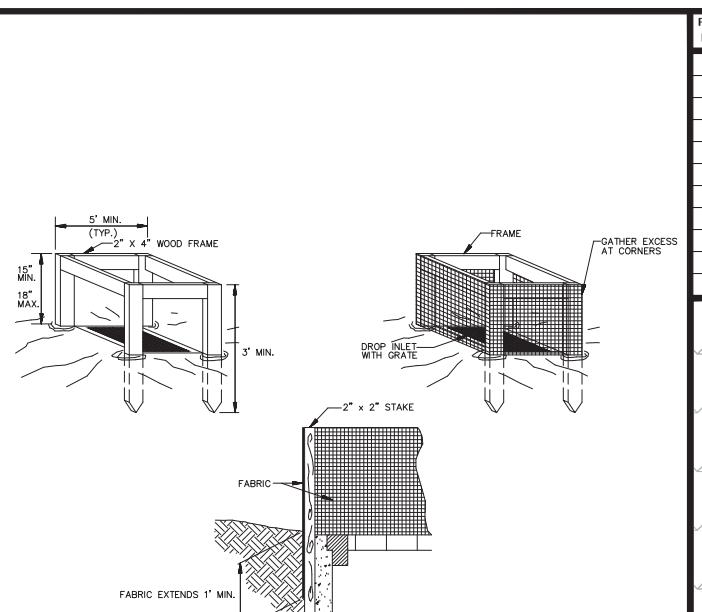
**4 DANDY BAG INLET PROTECTION (IP3)**  
C-402 SCALE: NTS

**5 CONSTRUCTION ENTRANCE DETAIL**  
C-402 SCALE: NTS

**6 CONCRETE WASHOUT**  
C-402 SCALE: NTS

**7 ROCK CHECK DAM DETAIL**  
C-402 SCALE: NTS

**8 STANDARD/STEEP SLOPE OUTLET EROSION PROTECTION**  
C-402 SCALE: NTS



REVISIONS	DATE #	ITEM

**CARDINAL**  
ENGINEERING  
LAND SURVEYING  
ONE MOOCH ROAD  
WILDER, KENTUCKY 41071  
PHONE: (859) 581-9600  
WEBSITE: <http://www.cardinalengineering.net>

CIVIL SITE PLANS	ALEXANDRIA KUBOTA DEALERSHIP	POPLAR RIDGE ROAD, CITY OF ALEXANDRIA CAMPBELL COUNTY, KENTUCKY

PROJECT:	CLIENT:	JOB LOG	DATE	ITEM

**NOTE:** THIS DETAIL APPLIES WHEN THE STORM SEWER DRAIN IS DISPOSED ON A SLOPE OF GREATER THAN OR EQUAL TO 10 PERCENT (5.7 FEET HORIZONTAL TO 1 FOOT VERTICAL).

**D (ft) = PIPE DIAMETER**  
**L<sub>4</sub> (ft) = REFER TO TABLE ON SDI STANDARD DESIGN DATA SHEET 21**  
**L<sub>5</sub> (ft) = ADDITIONAL CHANNEL LENGTH UNTIL REACHING THE SLOPE (VARIABLE)**  
**W (ft) = L<sub>4</sub> + D (ft)**  
**T (in) = 2.0 x D<sub>50</sub> (in)**  
**d (ft) = CHANNEL DEPTH**

**PROJECT NO. 23-119**  
**SCALE AS NOTED**  
**DATE 03/08/2024**  
**EROSION & SEDIMENT CONTROL DETAILS**  
**SHEET C-402**



REVISIONS  
DATE #

ITEM

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**CARDINAL**

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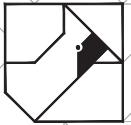
**ENGINEERING**  
**LAND SURVEYING**  
**ONE MÖOCK ROAD**  
**WILDER, KENTUCKY 41071**  
**PHONE (859) 581-9600**

WEBSITE: <http://www.cardinalengineering.net>

PROJECT: CIVIL SITE PLANS

CLIENT: KTT PROPERTIES, LLC  
130 MT. ZION ROAD  
FLORENCE, KY 41042

**ALEXANDRIA KUBOTA DEALERSHIP**  
POPLAR RIDGE ROAD, CITY OF ALEXANDRIA  
CAMPBELL COUNTY, KENTUCKY



## ~~CARDINAL~~

**ENGINEERING  
LAND SURVEYING  
ONE MOOCK ROAD  
WILDER, KENTUCKY 41071  
PHONE: (859) 581-9600**

<http://www.cardinalengineering.net>

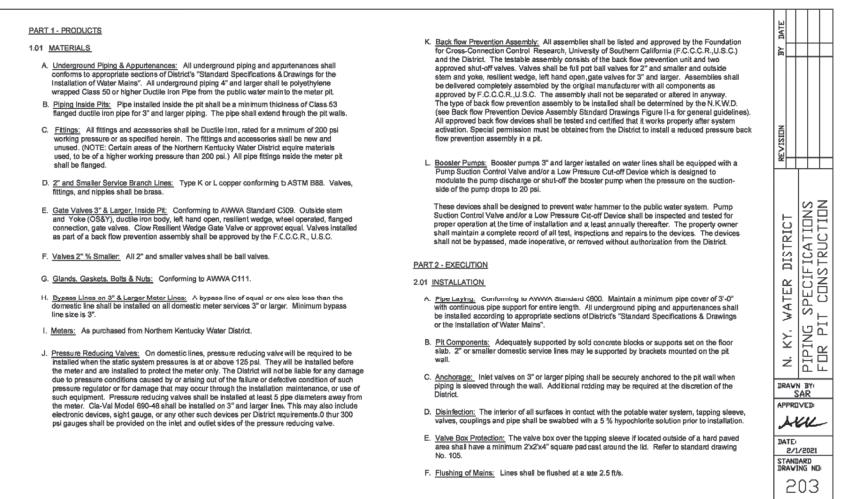
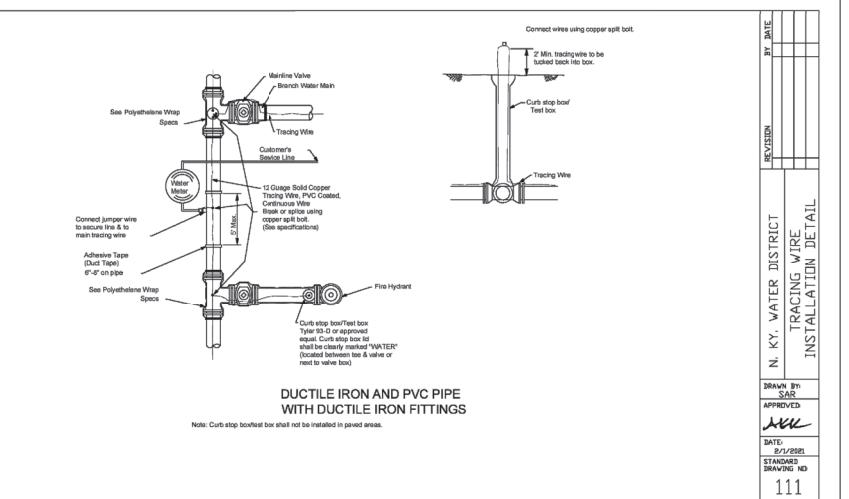
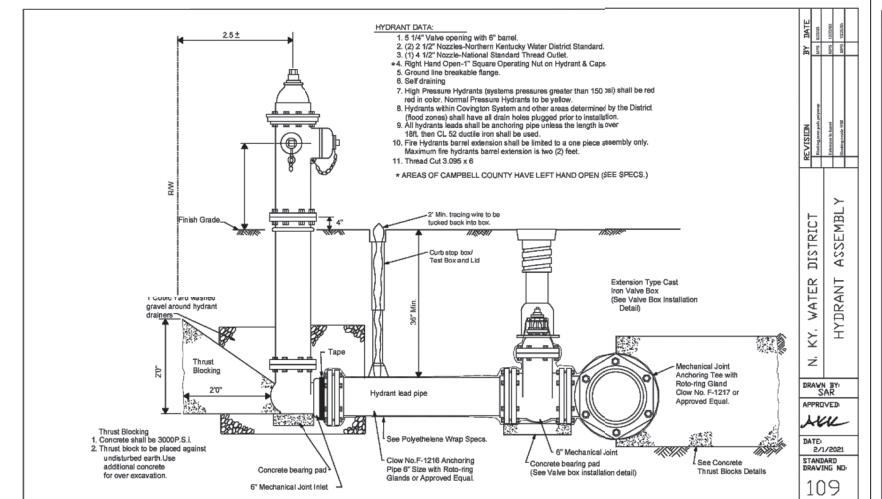
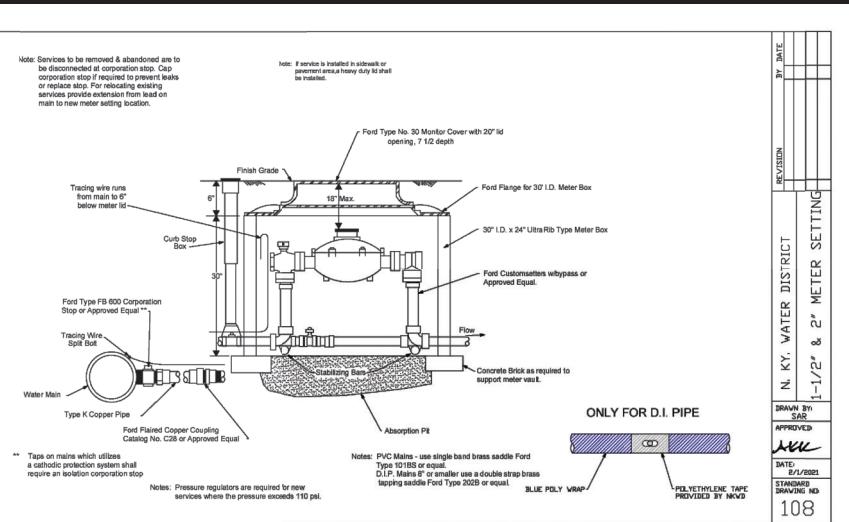
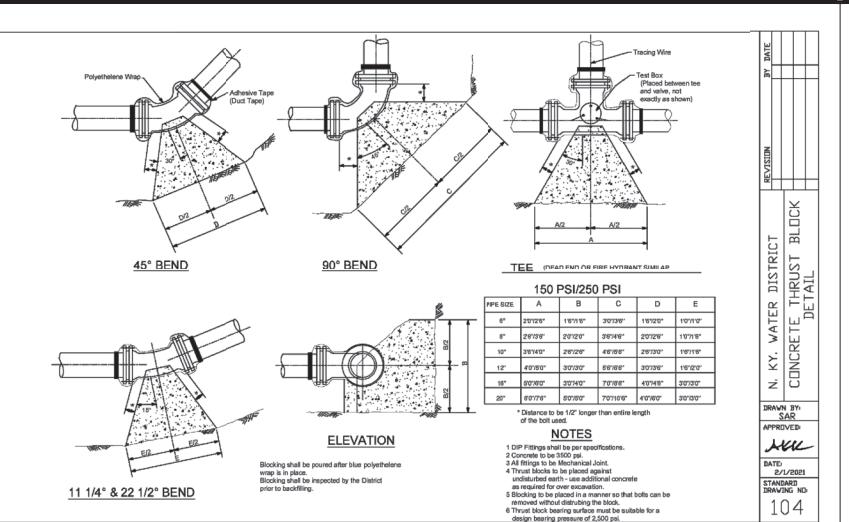
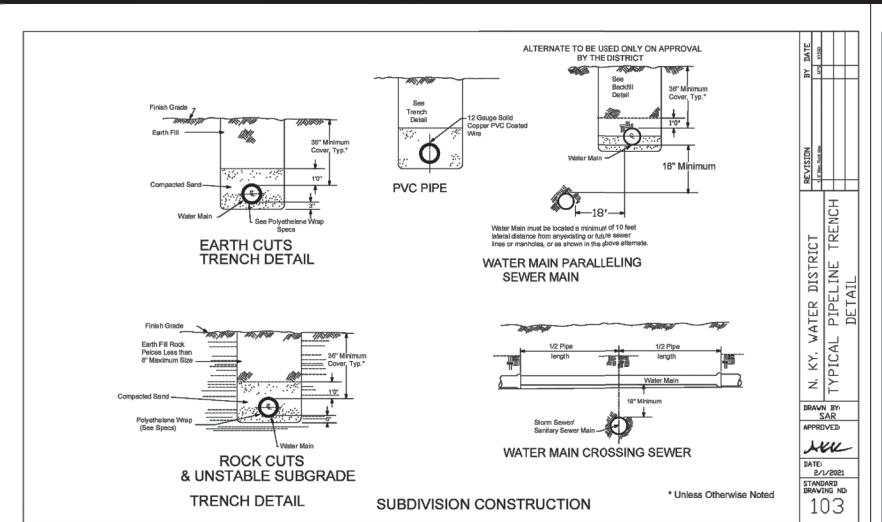
1 TYPICAL PIPELINE TRENCH DETAILS  
C-501 SCALE: NTS

## 2 TYPICAL THRUST BLOCK DETAILS

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-501 SCALE: NTS

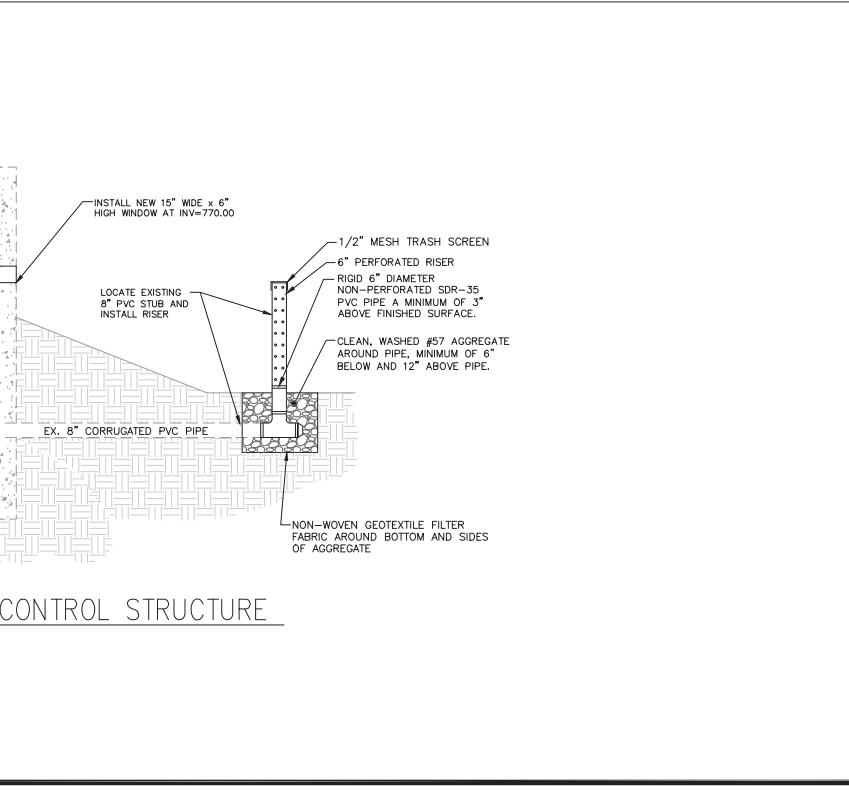
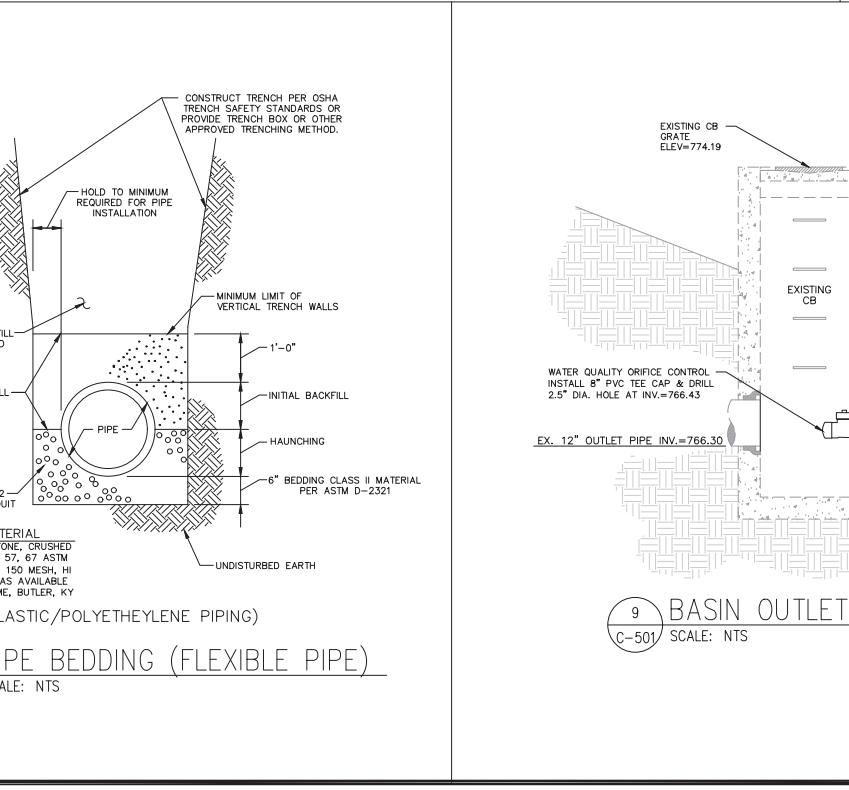
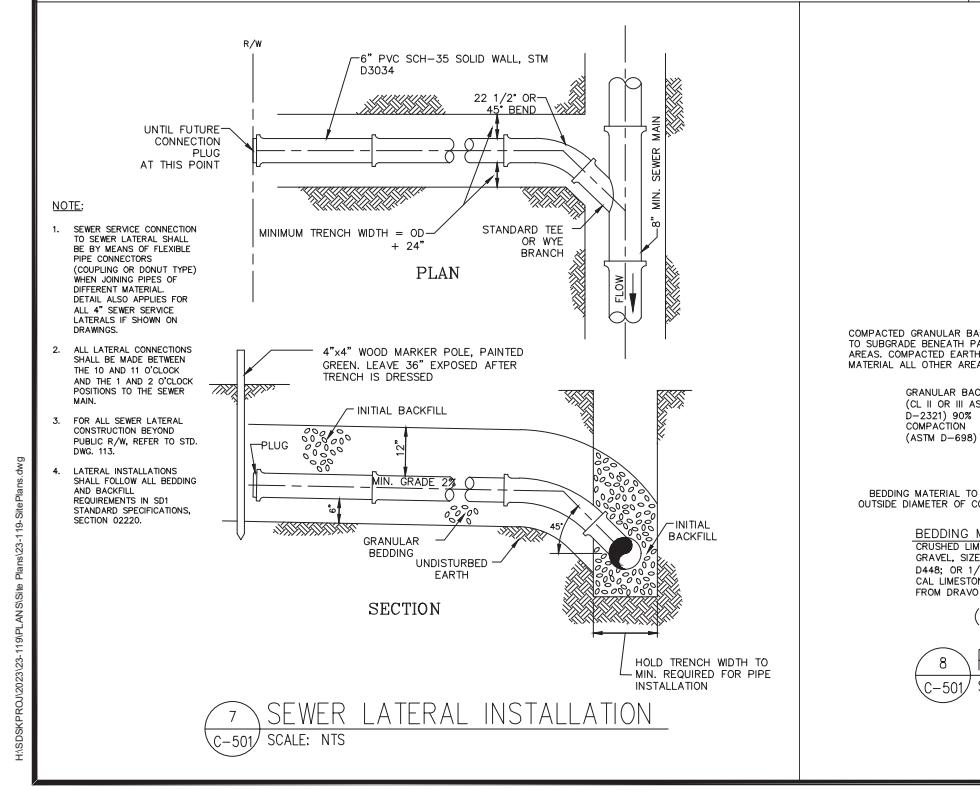
3 1-1/2" WATER METER DETAIL  
C-501 SCALE: NTS



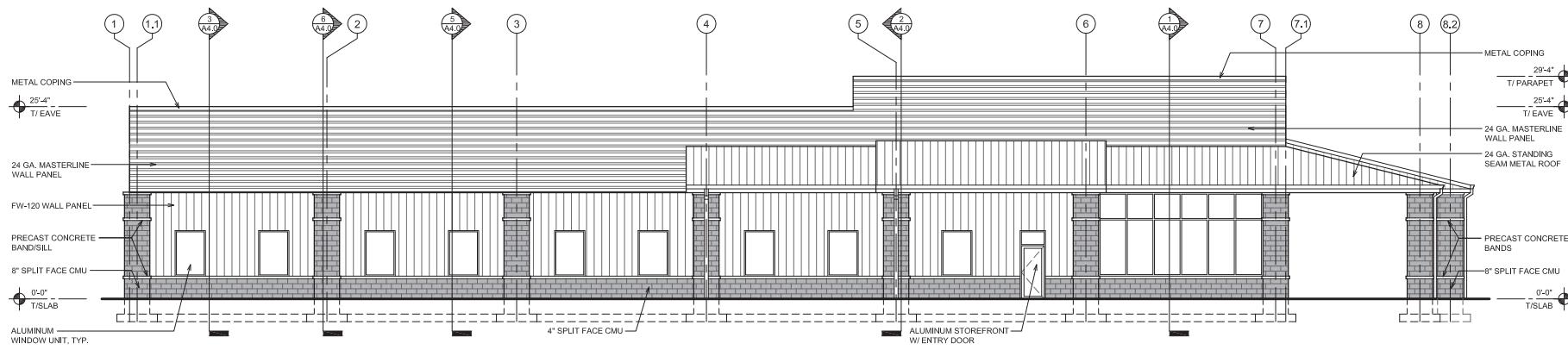
4 FIRE HYDRANT ASSEMBLY  
C-501 SCALE: NTS

5 TRACING WIRE DETAIL  
-501 SCALE: NTS

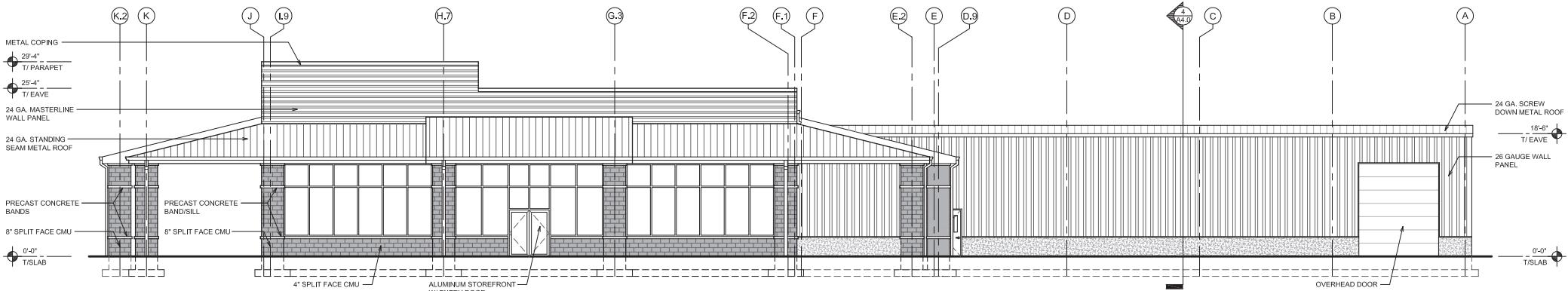
6 WATER PIPING SPECIFICATIONS  
C-501 SCALE: NTS



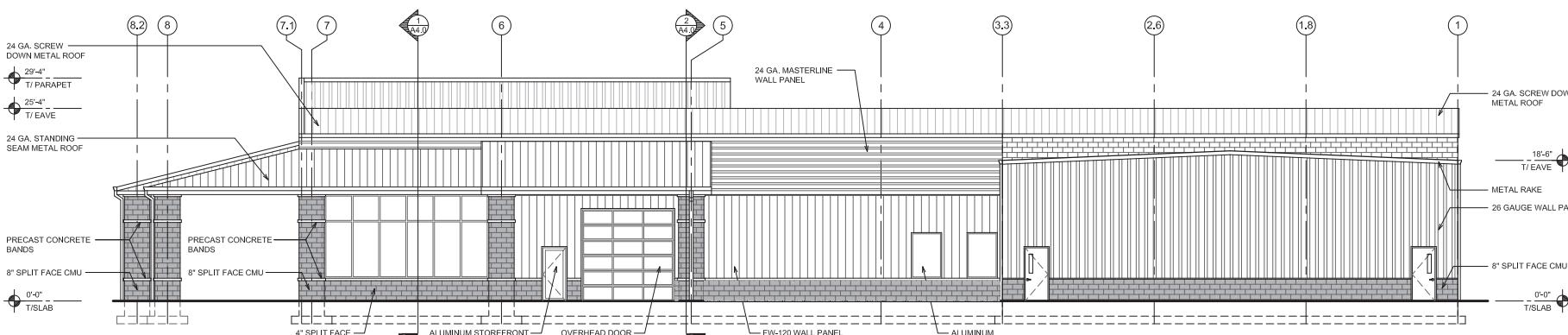
7 SEWER LATERAL INSTALLATION  
C-501 SCALE: NTS



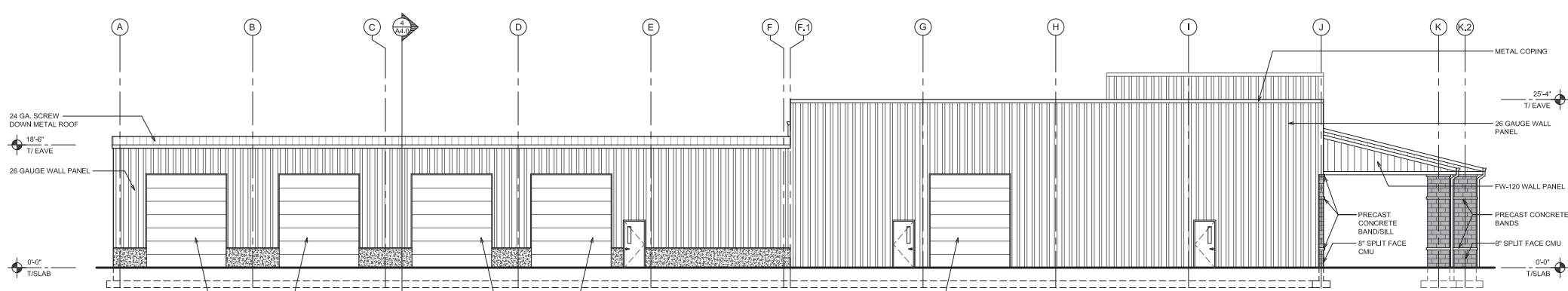
1 SOUTH ELEVATION  
A3.0  
SCALE: 1/8" = 1'-0"



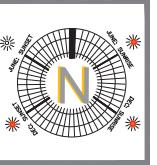
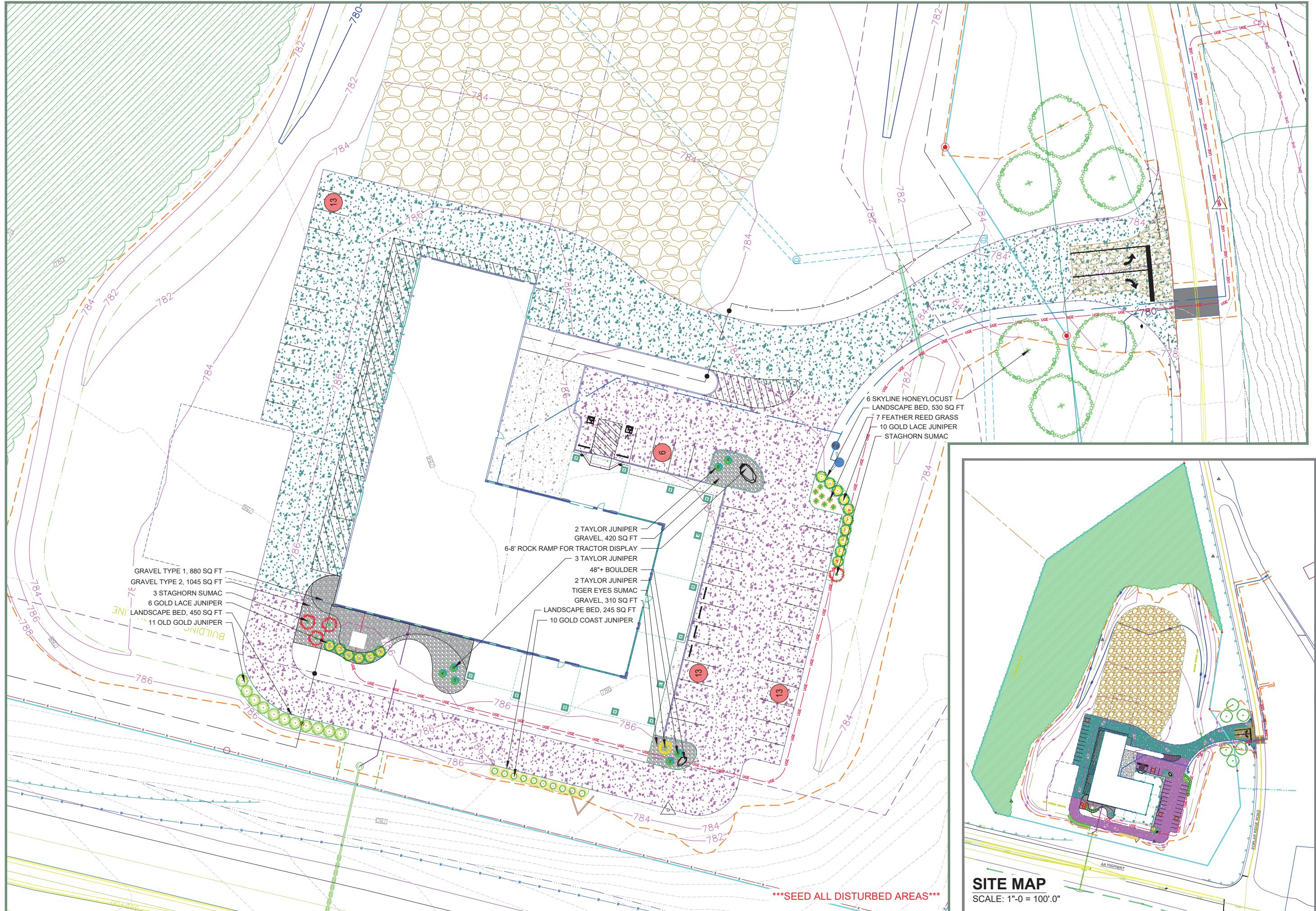
2 EAST ELEVATION  
A3.0  
SCALE: 1/8" = 1'-0"



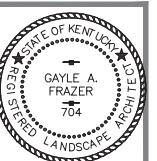
3 NORTH ELEVATION  
A3.0  
SCALE: 1/8" = 1'-0"



4 WEST ELEVATION  
A3.0  
SCALE: 1/8" = 1'-0"



KUBOTA  
POPLAR RIDGE ROAD  
ALEXANDRIA, KY



# LANDSCAPE PLAN

## CALE

CURRENT:  
3/13/2024

REVISED:  
3/13/2024

011

L1

SITE MAP

SCALE: 1"-0 = 100' 0"

ANSWER





# POPLAR RIDGE KUBOTA DEALERSHIP

# SANITARY SEWER IMPROVEMENTS CITY OF ALEXANDRIA CAMPBELL COUNTY, KENTUCKY

# CONTACTS

## ZONING:

ALEXANDRIA PLANNING  
AND ZONING COMMISSION  
8236 WEST MAIN STREET  
ALEXANDRIA, KENTUCKY 41001  
(859) 635-4125

## WATER:

NORTHERN KENTUCKY WATER DISTRICT  
2835 CRESCENT SPRINGS ROAD  
P.O. BOX 18640  
ERLANGER, KY 41018  
(859) 578-9898

**SEWER:**

SANITATION DISTRICT NO. 1  
1045 EATON DRIVE  
FORT WRIGHT, KENTUCKY 41011  
(859) 578-7450

## ELECTRIC:

DUKE ENERGY  
1262 COX ROAD  
ERLANGER, KENTUCKY 41018  
(513) 287-3589

GAS:

DUKE ENERGY  
1262 COX ROAD  
ERLANGER, KENTUCKY 41018  
(859) 287-5408

TELEPHONE:  
CINCINNATI BELL TELEPHONE COMPANY  
201 EAST FOURTH STREET  
103-1175  
CINCINNATI, OHIO 45202  
(513) 566-7185

**CABLE TELEVISION:**  
SPECTRUM COMMUNICATIONS  
7906 DIXIE HIGHWAY  
FLORENCE, KENTUCKY 41076  
(888) 735-0300

OTHER UTILITIES:  
UNITED UTILITIES PROTECTION  
(800) 752-6007



DRAWN BY:  JKT	SEAL  
CHECKED BY:  JDM	
PROJECT MANAGER:  JDM	
<b>PROJECT NO. 23-119</b>	
<b>SCALE</b>	<b>AS NOTED</b>
<b>DATE</b>	<b>09-22-23</b>
<b>TITLE/VICINITY MAP</b>	
<b>SHEET</b>	<b>C-000</b>

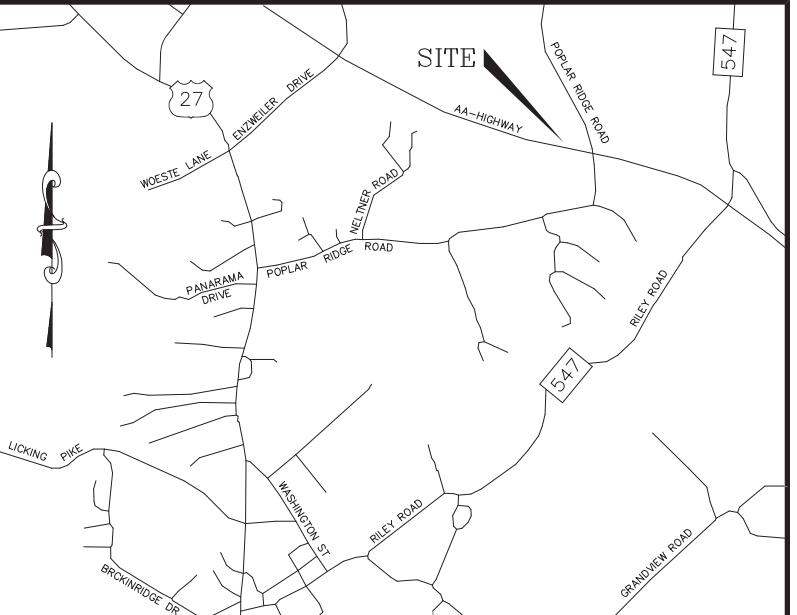
#### GENERAL NOTES

JASON BURLAGE OF SD1 IS TO BE CONTACTED AT 859-578-6892 AT LEAST 72 HOURS PRIOR TO ALL LAND DISTURBING ACTIVITIES.

DOUG MALONE OF SD1 IS TO BE CONTACTED AT 859-578-6749 AT LEAST 72 HOURS PRIOR TO INSTALLATION OF THE PUBLIC SANITARY SEWER.

BEST MANAGEMENT PRACTICES (BMP'S) SHOWN ON THE PLANS ARE MINIMUM. THE CONTRACTOR SHALL REVISE AND PROVIDE ADDITIONAL BMP'S AS DEEMED NECESSARY PER SECTION 700 OF THE SANITATION DISTRICT NO. 1'S RULES AND REGULATIONS.

⊕ BASIS OF ELEVATION:  
THE STATION IS A BRONZE NKAPC CONTROL MARK STAMPED  
"NKC124AZ 2002" SET ON A 12" DIAMETER 3' DEEP CONCRETE  
POST FLUSH WITH THE GROUND. ELEV. 623.80  
STATION IS LOCATED 1.25 MI. SOUTH OF CAMP SPRINGS, EAST OF  
KY-9 (AA HWY.). FROM THE JUNCTION OF NB KY-9 (AA HWY.)  
WITH THE KY-9 OFF/ON RAMP TO/FROM EB KY-547  
(ALEXANDRIA-4 MILE ROAD) GO 0.25 MI. NW ON KY-9 TO THE  
STATION/ON THE RIGHT.



# VICINITY MAP N.T.S.

- TITLE/MICINITY MAP
- SPECIFICATIONS & DETAILS
- PLAN AND PROFILE

COMPANY		<p>PROJECT: SANITARY SEWER IMPROVEMENTS POPLAR RIDGE KUBOTA DEALERSHIP</p>
		<p>CLIENT: KTT PROPERTIES, LLC 130 MT. ZION ROAD FLORENCE, KY 41042</p>

## SANITARY SEWER CONSTRUCTION NOTES:

- WHEN SPECIFIED ON THE PLANS, SANITARY SEWER PIPE SHALL BE PVC, SDR-35 OR SDR-26, WITH GASKETED JOINTS THAT CONFORM TO ASTM D-3034.
- FLEXIBLE THERMOPLASTIC SEWER PIPE INSTALLATION FOR GRAVITY SEWERS SHALL CONFORM TO ASTM D-2321, LATEST REVISION.
- WHERE PRECAST MANHOLE SECTIONS ARE REQUIRED, THEY SHALL CONFORM TO ASTM C478, WITH SUCH ADDITIONAL REQUIREMENTS AS MAY BE SET FORTH ON THE PLANS, DETAILS OR SPECIAL PROVISIONS. JOINTS BETWEEN SECTIONS SHALL BE BELL AND SPICOT OR TONGUE AND GROOVE TYPE WITH O-RING GASKETS CONFORMING TO ASTM C443 OR FLEXIBLE BUTYL RUBBER JOINT SEALANT.
- BASES FOR STANDARD AND DROP MANHOLES SHALL BE PRECAST, REINFORCED CONCRETE SECTIONS. WALL THICKNESS AND REINFORCING SHALL BE THE SAME AS SPECIFIED FOR MANHOLE BARREL SECTIONS. FLOOR THICKNESS SHALL BE A MINIMUM OF EIGHT (8) INCHES WITH MESH REINFORCEMENT OF 0.40 SQUARE INCHES PER SQUARE FOOT, BOTH WAYS. CONCRETE SHALL BE A MINIMUM OF THREE THOUSAND FIVE HUNDRED (3,500) PSI CLASS "A". MANHOLE BASES SHALL BE AS SPECIFIED BY SHERMAN, ENCORE, K.O.I. OR APPROVED EQUAL. WHEN PRECAST MANHOLE BASES ARE USED, THE SEWER INVERT AND BENCH SHALL BE POURED SEPARATELY TO THE DIMENSIONS SHOWN ON THE STANDARD DETAIL SHEET. PRECAST BASES SHALL HAVE RUBBER OR NEOPRENE OPENINGS TO RECEIVE THE SEWER PIPE. JOINTS SHALL BE STANDARD MANUFACTURERS PRODUCTS SPECIFICALLY DESIGNED FOR THIS PURPOSE.
- ALL MANHOLE FRAMES AND COVERS SHALL BE OF CAST IRON, CONFORMING TO ASTM A-48, CLASS 30 OR BETTER. NEENAH FOUNDRY COMPANY R-1733 OR EQUAL SHALL BE CONSIDERED STANDARD, WITH THE WORDS "SANITARY SEWER" CAST IN ALL COVERS, PLAINLY OR ETC. IN ADDITION, EACH FRAME SHALL HAVE FOUR (4) ONE (1) INCH DIAMETER HOLES EQUALY SPACED FOR ATTACHMENT OF THE FRAME TO THE MANHOLE. OTHER TYPES OF FRAMES AND COVERS AND OTHER DETAILS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS. ALL LIDS SHALL BE INTERCHANGEABLE WITH EXISTING FRAMES.
- WHEN WORKING ON EXISTING SEWERS, THE CONTRACTOR SHALL MAKE ARRANGEMENTS TO EFFECTIVELY HANDLE THE SEWAGE IN THE SEWERS WHILE CONSTRUCTION IS UNDERTAKEN. WHEN IT IS NECESSARY TO BLOCK AN EXISTING SEWER SECTION FOR ANY REASON OF CONSTRUCTION, THE CONTRACTOR MUST PROVIDE ADEQUATE PUMPING EQUIPMENT TO HANDLE THE SEWAGE FLOW FROM A POINT IMMEDIATELY UPSTREAM OF THE BLOCKED SECTION TO A POINT IMMEDIATELY DOWNSTREAM OF THE BLOCKED SECTION. UNLESS OTHERWISE CALLED FOR, THE POINTS REFERRED TO ABOVE MAY BE MANHOLES.
- SUBGRADE AND BACKFILL FOR SEWERS SHALL BE COMPAKTED TO NOT LESS THAN 98% OF DENSITY DETERMINED FROM THE STANDARD PROCTOR TEST, (ASTM D698).
- INFILTRATION SHALL NOT EXCEED A RATE OF 200 GALLONS PER DAY PER INCH OF PIPE DIAMETER PER MILE OF SEWER FOR ANY SECTION OF THE SYSTEM.
- ELEVATIONS SHALL BE AS TABULATED HEREON. THE GEOTECHNICAL ENGINEER SHALL APPROVE ALL PIER DEEPS, SUBGRADE, COMPAKCTION, AND BACKFILL. THE GEOTECHNICAL SERVICES SHALL BE COORDINATED BY THE CONTRACTOR.
- CONSTRUCTION SHALL CONFORM TO AT LEAST THE MINIMUM STANDARDS OF THE SANITATION DISTRICT NO. 1 OF NORTHERN KENTUCKY.
- VACUUM TESTING OF MANHOLES: THE CONTRACTOR SHALL TEST FOR WATER TIGHTNESS OF ALL MANHOLES BY MEANS OF SAID VACUUM TEST. NO TEST SHALL BE PERFORMED UNTIL THE BACKFILL IS PLACED AROUND THE MANHOLE AND THE CASTING IS BOLTED TO THE MANHOLE PER THE SANITATION DISTRICT NO. 1 SPECIFICATIONS. THE TEST SHALL INCLUDE THE JOINT BETWEEN THE CASTING AND THE MOUNTING SURFACE. THE VACUUM TEST SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN ASTM C1244-93. ALL MANHOLES ADJUSTED TO GRADE BY EITHER THE ADDITION OR REMOVAL OF MANHOLE SECTIONS OR GRADE RINGS WILL BE TESTED IF REQUIRED BY A REPRESENTATIVE OF THE SANITATION DISTRICT NO. 1. IT IS RECOGNIZED THAT VACUUM TESTING MAY BE IMPRACTICABLE FOR SOME MANHOLES. IN THESE CASES, THE USE OF VACUUM TESTING IS SUBJECT TO LIMITATIONS AND CONSIDERATIONS. MANHOLES BUILT OVER LARGER DIAMETER SEWERS ARE AN EXAMPLE OF THIS SITUATION. MANHOLES EXCEPTED FROM TESTING SHALL BE AT THE SOLE DISCRETION OF THE SANITATION DISTRICT NO. 1 ENGINEER.
- AIR TEST: THE CONTRACTOR SHALL TEST THE TIGHTNESS OF THE PIPE SECTIONS, JOINTS, AND APPURTENANCES OF THE SEWER SYSTEM BY MEANS OF THE LOW PRESSURE AIR TEST. THE LOW PRESSURE AIR TEST SHALL BE CONDUCTED IN ACCORDANCE WITH PROCEDURES OUTLINED IN UNIBELL SPECIFICATION UNI B-6. ANY LEAKS DETERMINED FROM THE AIR TEST SHALL BE SEALED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER, BY BOTH UNCOVERING THE LEAKS AND CORRECTING SAME OR SEALING BY INTERNAL GROUTING CONTROLLED BY TELEVISION OBSERVATION.
- THE SANITATION DISTRICT NO. 1 SHALL INSPECT ALL CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE DISTRICT FOR INSPECTIONS.
- ALL CONCRETE SHALL BE READY-MIXED, MEETING ASTM C94. ALL REINFORCED CONCRETE CONSTRUCTION, MANHOLES, PIERS, AND OTHER SPECIAL ITEMS CALLED FOR ON THE PLANS SHALL BE CLASS "A" CONCRETE AND HAVE A MINIMUM TWENTY-EIGHT (28) DAY COMPRESSIVE STRENGTH OF 3,500 PSI.
- THE LOCATION OF BOTH SURFACE AND SUB-SURFACE STRUCTURES AND UTILITIES ARE SHOWN FROM THE SURVEY PERFORMED BY CARDINAL ENGINEERING CORPORATION AT THE TIME OF BIDDING AND MAY NOT NECESSARILY BE COMPLETE OR CORRECT. AT LEAST THREE (3) DAYS PRIOR TO THE START OF ANY CONSTRUCTION OR EARTHMOVING OPERATIONS, THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES BY CONTACTING THE KENTUCKY UNDERGROUND PROTECTION INC. AND ALL OTHER AGENCIES THAT HAVE UNDERGROUND UTILITIES NOT COVERED BY KENTUCKY UNDERGROUND PROTECTION INC.
- DURING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND STRUCTURES FROM DAMAGE, REGARDLESS OF WHETHER THEY ARE SHOWN ON THE PLANS OR NOT. IF DAMAGE IS CAUSED, THE CONTRACTOR IS RESPONSIBLE FOR THE REPAIR AND/OR RESTORATION OF SAME TO THE SATISFACTION OF THE ENGINEER AND THE UTILITY OWNER.
- BEFORE ORDERING ANY MATERIAL OR PERFORMING ANY WORK, EACH CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AND SHALL BE RESPONSIBLE FOR SAME. NO EXTRA CHARGE WILL BE ALLOWED OR COMPENSATION ALLOWED ON ACCOUNT OF DIFFERENCE TO ACTUAL DIMENSIONS AND THE MEASUREMENTS INDICATED ON THE PLANS AND ANY DIFFERENCE WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE DEVELOPER FOR CORRECTION BEFORE PROCEEDING WITH WORK.
- AS A RESULT OF SUBMITTING PROPOSALS FOR THIS WORK, EACH BIDDER SHALL BE HELD TO HAVE EXAMINED THE PREMISES AND SATISFIED HIMSELF AS TO THE EXISTING CONDITIONS UNDER WHICH HE WILL OPERATE IN PERFORMING HIS PART OF THE WORK, OR THAT WILL IN ANY MANNER AFFECT THE WORK UNDER HIS CONTRACT. NO ALLOWANCE WILL BE MADE SUBSEQUENTLY IN THIS CONTRACT ON BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLIGENCE ON HIS PART.
- UNDERGROUND UTILITIES SHOWN ON THE PLANS FROM VARIOUS UTILITY COMPANIES OR AS FIELD LOCATED BY CARDINAL ENGINEERING CORPORATION.

## GEOTECHNICAL NOTES

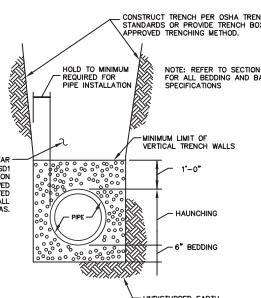
- THE CONTRACTOR SHALL ADHERE TO ALL GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO EMPLOY TRENCHING, SHORING, BACKFILLING, AND GENERAL CONSTRUCTION METHODS AS NECESSARY TO PREVENT DAMAGE TO PROPERTY, PAVEMENT, STRUCTURES, AND INFRASTRUCTURE ADJACENT TO THE SITE. UNBACKFILLED TRENCH LENGTHS SHALL BE KEPT TO A MINIMUM AND/OR SHORING SHOULD BE EMPLOYED AS NEEDED TO PREVENT SOIL MOVEMENTS ADJACENT TO UNBACKFILLED TRENCHES. ALL BEDDING AND GRANULAR BACKFILL MATERIAL SHALL BE COMPAKTED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

## STORM WATER POLLUTION PREVENTION PLAN NOTES:

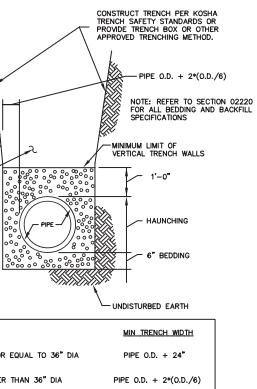
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING BORROW MATERIAL ONSITE AND/OR DISPOSING OF EXCESS EXCAVATED MATERIAL OFF SITE AS REQUIRED TO MEET INDICATED DESIGN ELEVATIONS.
- COMPACTION REQUIREMENTS, FILL AND BACKFILL, AND GENERAL EARTHWORK/GRADE REQUIREMENTS ARE PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
- ALL EROSION AND SEDIMENTATION CONTROL SHALL BE PERFORMED AS SHOWN ON THE PLANS, AND SHALL BE IN COMPLIANCE WITH THE CURRENT SD1 BEST MANAGEMENT PRACTICES & "NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM" RULES AND REGULATIONS.
- A COPY OF THE "STORM WATER POLLUTION PREVENTION PLAN" (SWPPP), A COPY OF THE "NOTICE OF INTENT" (NOI), AND A COPY THE SD1 LAND DISTURBANCE PERMIT SHALL BE KEPT ON-SITE.
- AN AMENDMENT OF THE SWPPP IS REQUIRED WHENEVER A CHANGE IN DESIGN, CONSTRUCTION, AND OPERATION OR MAINTENANCE HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR THE DISCHARGE OF POLLUTANTS, OR IF THE SWPPP PROVES TO BE INEFFECTIVE IN ACHIEVING THE GENERAL OBJECTIVES OF THE SWPPP.
- THE CONTRACTOR SHALL ALSO MAINTAIN THE FOLLOWING RECORDS ON-SITE:
  - GENERAL CONTRACTOR AND/OR SUBCONTRACTOR SWPPP CERTIFICATIONS.
  - THE DATE, TIME, AND EXACT LOCATION OF THE INSPECTION, AND THE NAME OF THE INSPECTOR.
  - AN ASSESSMENT OF THE CONDITION OF THE EROSION CONTROLS.
  - A DESCRIPTION OF ANY EROSION CONTROL IMPLEMENTATION AND MAINTENANCE PERFORMED.
  - A DESCRIPTION OF THE PRESENT PHASE OF CONSTRUCTION AT THE SITE.
- A SILT BARRIER FENCE SHALL BE PLACED AROUND THE DOWNSTREAM PERIMETER OF THE SITE AS SHOWN ON THE PLANS. SEE SILT FENCE DETAIL AND CHAPTER 7 OF OHIO'S 2006 EDITION OF THE RAINWATER AND LAND DEVELOPMENT MANUAL. SEDIMENT CONTROL STRUCTURES SHALL BE FUNCTIONAL AT THE END OF EACH DAY AND SHALL BE INSPECTED WEEKLY OR WITHIN 24 HOURS AFTER A STORM EVENT WHERE THEY ARE INTENDED TO PROVIDE SEDIMENT CONTROL. SILT FENCES MUST BE PLACED ON LEVEL CONTOUR.
- PERIMETER SEDIMENT BARRIERS SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING WITHIN SEVEN (7) DAYS FROM THE START OF CLEARING AND GRUBBING, AND SHALL CONTINUE TO FUNCTION UNTIL THE SLOPE DEVELOPMENT AREA IS RESTABILIZED.
- SOIL DISTURBING ACTIVITIES WILL INCLUDE: (1) CLEARING AND GRUBBING; (2) PERIMETER AND OTHER EROSION/SEDIMENT CONTROL MEASURES; (3) GRADING AS SHOWN ON THE PLANS.
- THE ORDER OF ACTIVITIES WILL BE: (1) CLEAR AND GRUB PROPOSED CONSTRUCTION AREA; (2) INSTALL SILT FENCING AS INDICATED ON THE SITE PLAN; (3) GRADING OPERATIONS.
- TEMPORARY SOIL STABILIZATION OF DISTURBED AREAS AND TEMPORARY SEEDING SHALL BE COMPLETED PER THE CURRENT SD1 BEST MANAGEMENT PRACTICES.
- THE FOLLOWING ARE THE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE REQUIRED OF THE CONTRACTOR. THE FOLLOWING WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS: (1) ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST ONCE EACH WEEK AND FOLLOWING ANY STORM EVENT (2) ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT; (3) BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE; (4) SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND; (5) TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH; (6) INSPECTION REPORTS TO BE CREATED BY THE CONTRACTOR AND SENT TO SD1 ON A MONTHLY BASIS.
- PETROLEUM PRODUCTS
  - ALL ON-SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCES OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS, WHICH ARE CLEARLY LABELED. EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES OR STORM DRAINS, IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SPILLS. SECONDARY CONTAINMENT SHALL BE PROVIDED FOR ALL FUEL OIL STORAGE TANKS. THESE AREAS MUST BE INSPECTED EVERY SEVEN DAYS AND WITHIN 24 HRS. OF A 0.5 INCH OR GREATER RAIN EVENT TO ENSURE THERE ARE NO EXPOSED MATERIALS WHICH WOULD CONTAMINATE STORM WATER. SITE OPERATORS MUST BE AWARE THAT SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) REQUIREMENTS MAY APPLY. AN SPCC PLAN IS REQUIRED AND SHALL BE PREPARED BY THE PROVIDED BY THE CONTRACTOR IF FOR ONE SINGLE ABOVEGROUND TANK OF 660 GALLONS OR MORE, ACCUMULATIVE ABOVEGROUND STORAGE OF 1330 GALLONS OR MORE, OR 42,000 GALLONS OF UNDERGROUND STORAGE. SOILS THAT HAVE BECOME CONTAMINATED MUST BE DISPOSED OF PROPERLY.
  - ANY ASPHALT SUBSTANCES USED ON-SITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
- FERTILIZERS
  - FERTILIZERS USED WILL ONLY BE APPLIED IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE OF SAID FERTILIZER WILL BE COMPLETELY COVERED. THE CONTENTS OF ANY PARTIALLY USED BAGS OR CONTAINERS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC CONTAINER TO AVOID SPILLS.
- DEBRIS
  - DEBRIS SHALL BE COLLECTED WITHIN PROPERTY LIMITS WEEKLY OR AS NEEDED FOR PUBLIC SAFETY. SURROUNDING STREETS AFFECTED BY THE CONSTRUCTION SHALL BE CLEANED DAILY OR AS NEEDED FOR PUBLIC SAFETY.
- CONSTRUCTION ENTRANCE
  - THE CONSTRUCTION ENTRANCES SHALL BE CONSTRUCTED PER THE DETAIL AND MAINTAINED.
- BEST MANAGEMENT PRACTICES
  - BEST MANAGEMENT PRACTICES (BMPs) AS PRESENTED IN THE CURRENT SD1 BEST MANAGEMENT PRACTICES MANUAL SHALL BE FOLLOWED ON THE SITE AT ALL TIMES. A COPY OF THIS MANUAL SHALL BY ONSITE AT ALL TIMES.
- TRAFFIC CONTROL
  - THE CONTRACTOR IS REQUIRED TO PROVIDE TRAFFIC CONTROL FOR THE EXPORTING OF MATERIAL FROM THE SITE.
- KENTUCKY EPA NOTICE OF INTENT
  - THE OWNER HAS FILED A "NOTICE OF INTENT" WITH THE KENTUCKY EPA'S OFFICE PRIOR TO CONSTRUCTION.

## OSHA NOTE

- OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA): IT SHALL BE THE FULL AND COMPLETE RESPONSIBILITY OF THE CONTRACTOR TO MEET AND COMPLY WITH SAFETY REQUIREMENTS AND REGULATIONS AS ESTABLISHED BY OSHA OR ANY OTHER REGULATORY BODY. THE OWNER AND ENGINEER WILL NOT PERFORM ANY SAFETY COMPLIANCE INSPECTIONS, AS THE CONTRACTOR HAS ACCEPTED FULL AND COMPLETE RESPONSIBILITY FOR PERFORMING SUCH INSPECTIONS FOR COMPLIANCE TO THE REGULATIONS. THE CONTRACTOR SHALL INDEMNIFY AND PROTECT AND HOLD HARMLESS THE OWNER AND ENGINEER FROM ANY LOSS, EXPENSE, FINE, DAMAGE, OR SUIT, INCLUDING ATTORNEY'S FEES, ARISING OUT OF ANY SAFETY VIOLATION SUITS BROUGHT BY INJURED PERSONS AND/OR FINES LEVIED BY OSHA OR ANY OTHER REGULATORY BODY, AS A RESULT OF THE CONTRACTOR'S WORK.



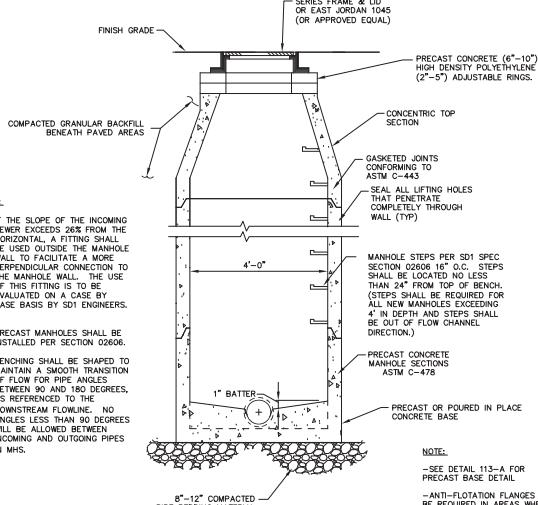
FLEXIBLE PIPE  
PIPE LESS OR EQUAL TO 36" Dia  
PIPE O.D. + 24"  
PIPE GREATER THAN 36" Dia  
PIPE O.D. + 48"



RIGID PIPE  
PIPE LESS OR EQUAL TO 36" Dia  
PIPE O.D. + 24"  
PIPE GREATER THAN 36" Dia  
PIPE O.D. + 24"(O.D./4)

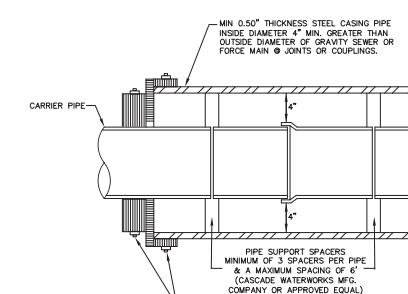
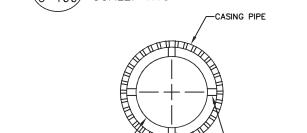
## 1 PIPE BEDDING-FLEXIBLE PIPE

C-100 SCALE: NTS



## 3 STANDARD MANHOLE

C-100 SCALE: NTS

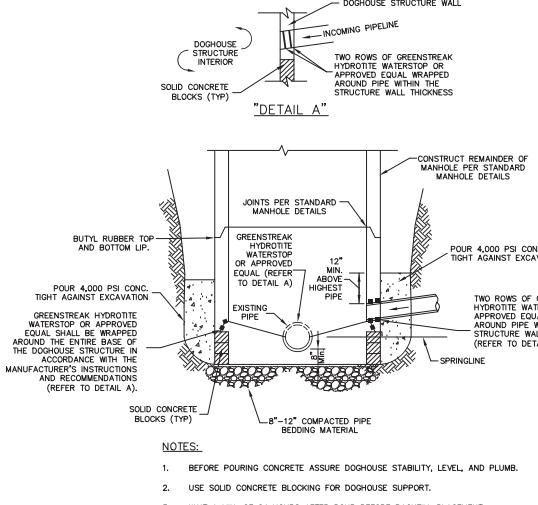


## 5 STEEL CASING PIPE

C-100 SCALE: NTS

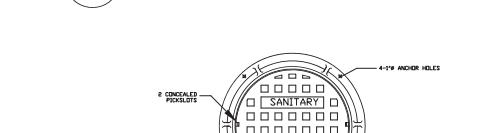
## 2 PIPE BEDDING-RIGID PIPE

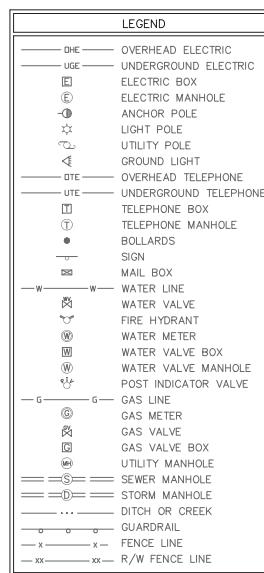
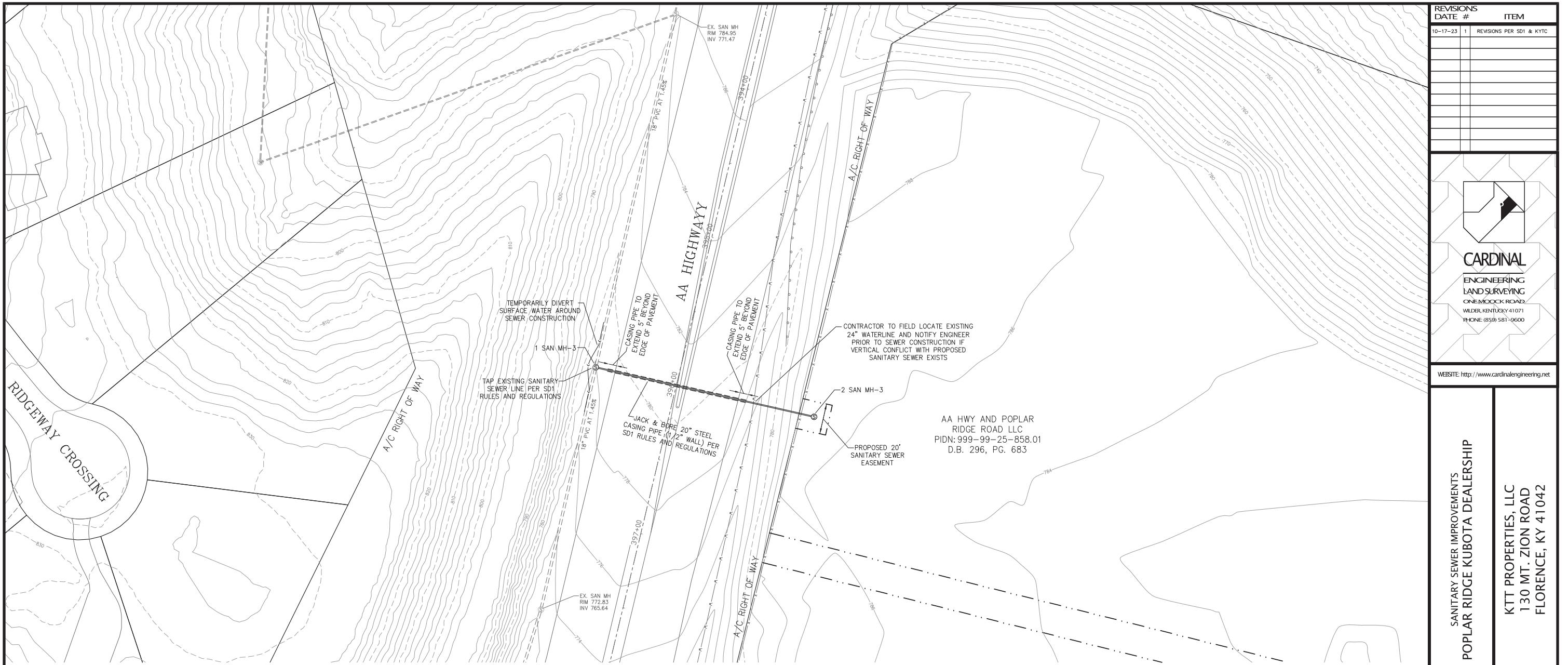
C-100 SCALE: NTS



## 4 MANHOLE CONSTRUCTED ON EXISTING SEWER (DOGHOUSE)

C-100 SCALE: NTS



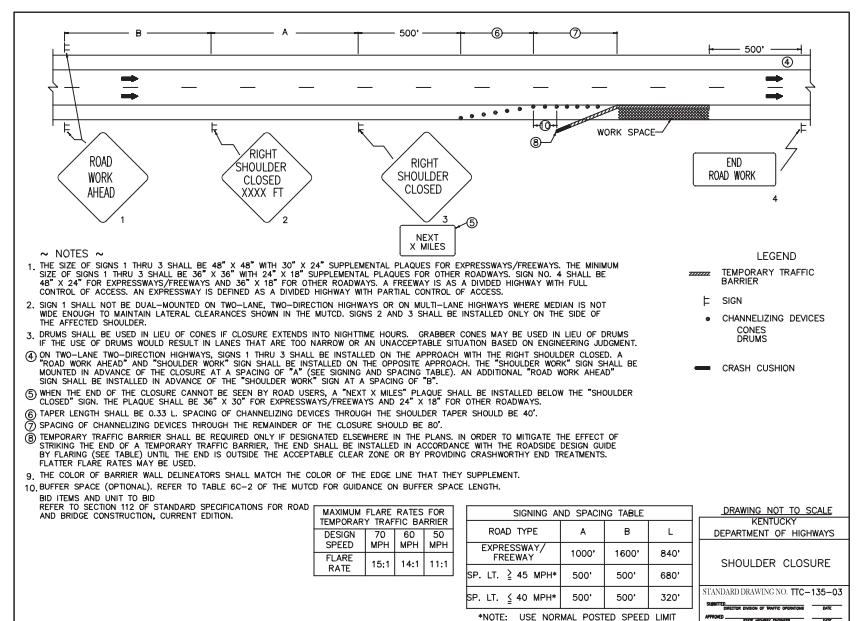
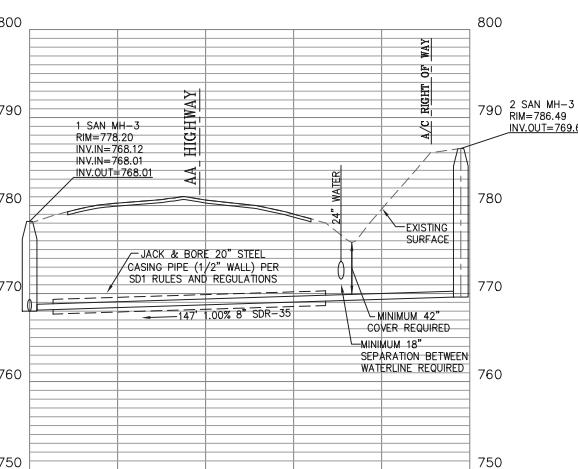


# SANITARY SEWER PROFILE

HORIZONTAL SCALE: 1"=30'  
VERTICAL SCALE: 1"=10'

**NOTES:**

1. PROPOSED MANHOLE 1 SHALL BE A PRECAST MANHOLE BASE UNLESS IT IS DETERMINED THE EXISTING SANITARY FLOWS ARE TOO MUCH TO BYPASS. TO BE VERIFIED BY SD1'S ONSITE INSPECTOR.
2. DOGHOUSE MANHOLE TO BE USED IF PRECAST MANHOLE BASE CANNOT BE UTILIZED. SEE DETAIL 4/C-100.
3. REFER TO SHOULDER CLOSURE DETAIL ON THIS SHEET FOR SHOULDER CLOSURES ALONG A HIGHWAY DURING CONSTRUCTION.



MAXIMUM TRAFFIC RATES FOR TEMPORARY TRAFFIC BARRIER				SIGNING AND SPACING TABLE				DEPARTMENT OF TRANSPORTATION	
DESIGN VEHICLE RATE	70 MPH	60 MPH	50 MPH	ROAD TYPE	A	B	L	DEPARTMENT SIGN	STANDARD SIGN
FLARE RATE	15:1	14:1	11:1	EXPRESSWAY // FREWAY	1000'	1600'	840'		
				SP., LT. $\leq$ 45 MPH*	500'	500'	680'		
				SP., LT. $\leq$ 40 MPH*	500'	500'	320'		

SANITARY SEWER IMPROVEMENTS  
POPLAR RIDGE KUBOTA DEALERSHIP

CLIENT:

SHEET C-200

10/27/2023



Kelly Craddock  
KTT Properties, LLC  
130 Mt. Zion Road, Florence, KY 41042

RE: Poplar Ridge Kubota Dealership - Sanitary Sewers

Kelly Craddock:

Your application for Sanitary Sewer Extension for the above mentioned project has been reviewed and approved by SD1. At this time your application has been forwarded to Kentucky Division of Water for final review. Work may not commence until the approval letter from the Kentucky Division of Water has been received.

In no event shall SD1's issuance of this approval be construed as relieving you from obtaining all other applicable local, state or federal permits and/or licenses prior to performing any work.

Please contact our inspection coordinator, Doug Malone, at 859-578-6749 at least 72 hours prior to the installation of the public sanitary sewers.

Upon completion of the installation of the proposed sewer, SD1 will accept the new infrastructure for ownership and maintenance with the following conditions:

- A passing vacuum test on each new manhole has been performed, and observed by an SD1 inspector.
- Passing air and mandrel tests on all new lines 8" and larger have been performed, and observed by an SD1 inspector.
- An SD1 inspector approves the work and material, based on visual inspection.
- As-built rim and invert elevations, as well as center to center distance to the downstream manhole are submitted to SD1.
- A 20' wide public easement is provided for all publicly dedicated sewers.
- Provide a quit claim of easement for any portion of public sewer being abandoned. SD1 can provide a template for the Easement for Sewer and the Quit Claim of Easement upon request, (if applicable)
- Compaction test results are provided for any areas where new sanitary sewer is constructed on fill.

Kelly Craddock  
Page 2  
10/27/2023

A One Year Warranty period will commence on the date of acceptance.

If you have any questions or comments regarding this notice, please contact me at 859-578-6880 or by email at [aaman@sd1.org](mailto:aaman@sd1.org).

Best Regards,



Jared Ison  
Development Services Coordinator  
SD1 Development Services Group

cc: Josh McIntosh - Cardinal Engineering (*via email only*)