Monroe Planning Commission Agenda

Tuesday, May 18, 2021
6:00 PM
Council Chambers- Hybrid Meeting

Attendees:	**Planning Commissioners:** Robert Routson, Chad Jackson, David Kirkpatrick, Lindsey Pyron, Benjamin Wagner **Director of Development**: Kevin Chesar **Planner:** Kameryn Jones **Planning and Zoning Specialist:** Alaina Hagenseker

The meeting can be viewed live at Facebook.com/MonroeOhio.

Agenda Topics

6:00PM Call to Order	
Roll Call	
Public Hearing	Public hearing regarding Case No. 2021-5-4, Case No. 2021-5-5, Case No. 2021-5-6, Case No. 2021-5-7, and Case No. 2021-5-8
Approval of Minutes	April 20, 2021
Business	
1203.06	Case No. 2021-1-1 (TABLED)—Consideration of a site plan application for Thornton's
1203.03	Case No. 2021-5-4—Consideration of a zoning map amendment regarding property at 860 Holman Avenue to be rezoned from A-1 Large Scale Agricultural to L-1 Light Industrial.
1203.07, 1203.06	Case No. 2021-5-5— Consideration of an application for Texas Gas Transmission LLC regarding a proposed natural gas metering facility locating at Mason Road and Butler-Warren Road.
1203.07, 1203.06	Case No. 2021-5-6— Consideration of an application for Duke Energy regarding a proposed natural gas regulating site locating on property at Mason Road and Butler-Warren Road.
1203.07, 1203.06	Case No. 2021-5-7— Consideration of an application for Tallgrass Energy regarding a natural gas utility development on property located at 598 Todhunter Road
1203.07, 1203.06	Case No. 2021-5-8— Consideration of an application for Duke Energy regarding a proposed natural gas regulator facility on property located at 598 Todhunter Road
1203.06, 1206.06	Case No. 2021-5-9—Consideration of a site plan application for Butler Tech Natural Sciences campus at 640 Hamilton Lebanon Road.
Adjournment	

Monroe Planning Commission Minutes
April 20, 2021 – 6:00 pm
233 South Main Street, Monroe, Ohio

This meeting was held electronically (remotely) pursuant to Ohio Revised Code Section 121.221

The Planning Commission of the City of Monroe met in regular session (Zoom Meeting) at 6:00 pm on April 20th, 2021. The meeting was held at Monroe City Hall (Zoom Meeting).

Call to Order

The meeting was called to order at 6:09 pm by Mr. Chesar.

Roll Call

Members present: David Kirkpatrick, Benjamin Wagner, Lindsey Pyron, Robert Routson

Staff members present: Kevin Chesar, Director of Development; Kameryn Jones, Planner; and William Brock, City Manager.

Other members present: Brad Miller, Kathy Guzik, Todd Smutz, Patrick Thompson, Lenny Robinson.

Motion to excuse Mr. Jackson from the meeting; motioned by Mr. Routson, seconded by Ben Wagner. Voice vote. Motion carried.

Motion to elect a chairperson: Mr. Routson motioned to nominated Mr. Kirkpatrick, Mr. Kirkpatrick accepted, seconded by Lindsey Pyron. Voice vote. Motion carried.

Motion to elect a vice chairperson: Mr. Wagner volunteered. Motioned by Mr. Routson, seconded by Mr. Kirkpatrick. Voice vote. Motion carried.

Mr. Chesar explained the position of the secretary of the Planning Commission, and motioned to have a secretary. Mr. Pyron volunteered. Motioned by David Kirkpatrick, seconded by Mr. Routson. Voice vote. Motion carried.

Mr. Chesar clarified how to approve the minutes from the January meeting to Mr. Kirkpatrick. Mr. Kirkpatrick motioned to approve the minutes from the January Planning Commission meeting. Mr. Routson seconded. Voice vote. Motion carried.

Business

Case No. 2021-1-1— Consideration of a site plan for Thorton's

Mr. Chesar stated that the case was tabled in January. He stated that he had been working with the applicant as well as the property owner of the Thorton's gas station site. The applicant provided a request to continue to table the case to address some of the issues and to motion a request for the

applicant to waive the time period, as well as extend the period for review and determination. Mr. Chesar stated that by untabling this case, more issues can be addressed by the next meeting. Mr. Routson was wondering if it becomes untabled, can it be tabled at the next meeting. Mr. Chesar said that by untabling it, the request can be granted to waive the time limit and extend the period of review and make a determination on the site and then it can be tabled again.

Mr. Kirkpatrick moved to untable Case No. 2020-01-01 Consideration of a site plan for Thorton's; seconded by Mr. Routson. Voice Vote.

Mr. Chesar explained that if there is no one opposed, it can be moved forward to grant the request.

Mr. Kirkpatrick moved to grant the request to waive the time and extend the period, and then put it back on the table for the May 18th. 2021 Planning Commission meeting. Mr. Routson seconded. Voice vote. Motion carried.

Mr. Chesar explained that the Planning Commission recognizes that the applicant submitted updated plans and to provide a reasonable review timeframe and for any changes to be made. Any information already submitted will be viewed and the applicant will try to be met with in the meantime. By waiting until the next meeting, having the time to get true comments back to everyone, including the Planning Commission, where the current stance on the project is. Mr. Chesar asked to make a motion that a site plan come back before the applicant in the May meeting, as long as the applicant submits updated stie plans by April 30th, 2021.

Mr. Kirkpatrick moved to motion that the applicant will submit updated site plans to the Planning Commission to be viewed and addressed again at the May 18th, 2021 meeting, by April 30th, 2021. Seconded by Mr. Pyron. Voice vote. Motion carried.

Mr. Chesar stated that the Development Department will try to meet with the applicant, in person or virtually, to address all the comments and hopefully make progress for the Planning Commission in May. Mr. Smutz agreed.

Case No. 2021-4-3: Consideration of a site plan for Marichron Cultivation

Mrs. Jones stated that Brad Miller with Mosaic Construction has submitted a site plan for Marichron, a medical marijuana cultivation facility locating at 1021 Baker Drive. This will be located directly adjacent to the current Marichron processing facility at 1011 Baker Drive, which is currently under construction. The name will be changing according to the applicant to Ascend Wellness Holding. The property is zone L-1 Light Industrial. The applicant is proposing a 40,000 square foot facility on approximately 7 acres of undeveloped property. The applicant anticipates a late June construction start date and an April 2022 completion date, which would include interior finishes. Mrs. Jones explained the zoning map for the newer members. She stated that the lighter purple pink color is for light industrial zone properties. The blue is a business park, the darker pink purple color is heavy industrial, and the yellow is a single family residential.

Mrs. Jones inquired on the parking situation. Staff comments were that 49 parking stalls were required for the space. With the 10% maximum parking permitted is 54 stalls. The site shows 157 total parking spaces, so the parking would be to accommodate those employees plus visitors. Staff requested further information from the applicant to better understand the facility's operations as it relates to the number of employees anticipated over time, the number of shifts, etc.

Mr. Miller stated that the employer is planning to have 150 total employees. They are currently doing a phase one build out. The interior will have eight grow rooms. The employer anticipates int the first four months having 50 employees, and as they work on phase two of building, they will be adding another 100 employees who will all be day shift, so they won't have multiple shifts to break up the parking. They are willing to forgo some of the parking now for the first phase and only have the East parking lot and leave the North parking lot to be added for additional parking in the future.

Staff recommends the sidewalks be a minimum of 8 feet wide, with sometimes requirements can be 5 feet with limited or no retail/customer component. The applicant proposed 5-foot walks along the building. A 5-foot sidewalk connection from the ROW sidewalk to the building is required. The applicant requests a waiver of this requirement as they have stated the facility has specific security requirements and does not anticipate pedestrian traffic. The site could remain gated/fenced off for security purposes, but for the long-term use of this site, Planning Commission recommends the sidewalk connection that can be closed off with an access point at this time. A minimum of 20% of the required yard area, is required to be landscaped. The applicant requests to keep the landscaping in the currently proposed location. Staff requests that the confirmation of the 6-foot fenced dumpster enclosure proposed at the rear end of the site is a sufficient height to screen the dumpster. A service door on the south side will need to be appropriately screened from view from the right-of-way. Staff recommends installing several evergreen trees strategically along the south side of the site to screen that view.

Fire department, police department, and public works/engineering had no comments.

Mr. Pyron asked about odor from the facility and what systems are in place. Mr. Miller stated that there is an odor mitigation system onsite and can give further information about it if needed.

Staff recommends approval of the site plan with the following conditions. Discussion and decision regarding the applicant's request to waive the requirement for a sidewalk connection from the public walk to the building. Discussion and decision regarding the applicant's proposed 5-foot sidewalk along the building where 8-foot walks are required. The parking plan as it relates to exceeding maximum parking allowances be approved as submitted. The applicant will submit a revised landscape plan for Staff approval to screen service door on the south side of the site. Staff suggests incorporating a number of evergreen trees to better screen the view from the right-of-way. As a reminder, all minimum landscaping size and species requirements must be met. Applicant will submit a revised photometric plan for Staff approval to address the two entrance points on Baker Drive. GIS compatible file be submitted. All other Staff comments be met, including any future review by Engineering.

Mr. Kirkpatrick stated that he thought having the sidewalk connection is needed especially for future use. Mr. Miller stated that he thought from a security standpoint it would not be needed, but the applicant is willing to have the sidewalk connection.

Mr. Chesar stated that having 150 spaces to accommodate their employees is not an issue.

Mr. Routson stated that having adequate lighting around the building for emergency services will be needed.

Mr. Kirkpatrick moved to approve Case No. 2021-4-3 Consideration of a site plan for Marichron Cultivation with the following conditions as discussed. Seconded by Mr. Routson. Voice vote. Motion carried.

Mr. Kirkpatrick moved to adjourn the meeting; seconded by Mr. Routson. Voice vote. Motion carried.

Respectfully submitted by:

Alaina Hagenseker
Planning & Zoning Specialist

CITY OF MONROE
Inter-Office Correspondence

TO: Members of the Monroe Planning Commission
FROM: Kevin Chesar
Director of Development

DATE: May 18, 2021
RE: Information Packet for May 18, 2021 Planning Commission Meeting at 6:00 p.m.

I. Case No. 2021-1-1 (TABLED)—Consideration of a Site Plan for Thornton's

May 18th Case Status Update: Please see below a summary list of outstanding issues as it relates to the Thornton's site plan application. The applicant submitted revised plans on April 30th as required in the previous tabling rendered by Planning Commission at its April 16th meeting. Staff met with the applicant on May 5th to discuss outstanding issues and procedure for any desired waivers or appeals, which are outlined below:

SITE PLAN COMMENTS:

1. **Comment: Per revised civil plans submitted by applicant, semi parking stalls are shown as 'Future Truck Parking'. Stalls and Labeling must be eliminated from the site plan as part of the use requirements is not permitted. (1204.04(D)(15) and (1204.04 (D)(4)** *Response: Semi-Truck parking stalls have been removed from the civil plans*
    a. Comment has been addressed and can be removed from list of outstanding items.
2. **Comment: Regulations state that vehicle use areas shall not encroach upon any buffer required. (1211.03(C)** *Response: The applicant intends to file for a waiver of this requirement along State Route 63*
    a. The code states that Vehicular Use Areas shall not encroach upon and buffer required. Not only is the use areas encroaching, it has eliminated it with the proposed right of way location while proposing landscaping/buffer in the right of way. While staff is not opposed to right of way landscaping, the applicant can request a 1203.10 Alternative Equivalent Compliance permit regarding Landscaping and Bufferyard Standards (for attached)
    b. Additionally, a Right-of-Way permit would be required for this proposed utilization of the public right-of-way.
3. **Comment: Vehicular use area are shown within the right of way and will need to be set back to a minimum of 6 feet wide area from the right of way intended for landscaping. (1211.03(C)** *Response: The applicant intends to file for a waiver of this requirement along State Route 63*
    a. A Right-of-Way permit will need to be completed to locate in the right-of-way. As a note, staff is not aware of vehicular use areas as being permissible in the right of way.
4. **Comment: The fuel canopy is required to be 15 feet from the closest point of right of way. The requirement is not met and will need to be corrected, which may require other site plan adjustments. (1204.04(D) and (1204.04(D)(4)** *Response: The applicant intends to file for a waiver of this requirement along State Route 63*
    a. Based on the most current conversation, our understanding is that the applicant intends to file for a variance for essentially a zero setback (variance form attached). A decision on the variance by the Board of Zoning Appeals will have to be in place prior to any site plan approval by Planning Commission. The standards for a variance will need to be demonstrated by the applicant as outlined in the code, form, and process.
5. **Comment: Right of way sidewalks (5' min width) are required along Gateway Blvd and State Route – 63. Staff is recommending installation of the sidewalks on both roadways. (1208.07)** *Response: The plans have been revised to reflect the sidewalk along State Route 63. The sidewalk along Gateway Blvd. remains as previously shown*
    a. The location of the walk, particularly at the northwest corner of the site, does not meet right of way standards with a 5-foot tree lawn. Any deviation of the standard will be a part of the right of way permit evaluation. It should be noted that safety of pedestrians with the proposed reduction is of concern.
6. **Comment: A solid screen of shrubs at a minimum installation height is required on the west side parking row (1212.07(B)**
    a. **A.) Not enough sea green junipers to meet the requirement** *Response: Revisions will include additional evergreen material to satisfy requirements*
        i. *Revisions show appropriate screening along the west side of the site.*
    b. **B.) Other plantings in this location does not meet height requirement, nor the evergreen requirement. Boxwood meets the evergreen requirements, but not height requirements** *Response: Revisions will include larger material to meet requirements*
        i. *Revisions show appropriate screening along the west side of the site.*

c. **C.) Staff request showing 36" (Min) evergreen species to provide appropriate coverage across the entire parking row.** *Response: Revisions will include specifying the 36" (min) evergreen species*
    i. *Revisions show appropriate screening along the west side of the site.*

7. **Comment: The screen of shrubs proposed on the east side parking row shows the appropriate size and species, however the number of shrubs appears to be insufficient for full screening coverage.** *Response: Revisions will include the require number, size and species to meet the screening coverage*
    a. *Revisions show appropriate screening along the east side of the site.*
8. **Comment: A parking island with associated landscaping is required on the north end of the western parking row. (1212.07(B)** *Response: The island and associated landscaping has been shown*
    a. *Revisions show parking island and associated landscaping.*
9. **Comment: Screening: Full screening of service structures are required. It appears the southern side of the transformer is left open/unscreened. (1212.09(A)** *Response: The transformer has been screened*
    a. *Plans now show 8' tall evergreen trees surrounding the transformer on the south side of the site. This likely meets the screening requirement with the understanding that the transformer structure is less than 8' in height.*
10. **Comment: Screening: Front yard landscaping requires 20% of the required front yard area (20% of 50'=10') be landscape areas with a minimum 6' against the right of way. Applicant has met the 20%, staff request the applicant to show the minimum 6' landscaped area along both Gateway Blvd and SR-63 (1212.08(A)** *Response: The landscape plan has been revised to reflect the 6' landscaped area along Gateway Blvd. The applicant intends to file for a waiver of this requirement along State Route 63*
    a. *It appears the 6' is met along Gateway, but the 6' width is not notated on the landscape plan.*
11. **Comment: The truck entrance on eastbound SR63 does not meet the minimum guidelines for a WB-67.** *Response: Turning radii has been revised to reflect WB-67 minimum guidelines*
    a. *Turning radius is still tight but meets requirement of note. Island shown does not prohibit left turn movements significantly enough. Delineators in median or more substantial island is warranted.*
12. **Comment: The southern entrance / exit does not designate this entrance as being 'Shared' access with the remaining lot.** *Response: Due to the traffic circulation pattern for the use and the location of the stormwater detention basin the entrance can not be positioned in a shared access location. The owner of the residual tract to the south has expressed some reservation of sharing an access at this location due to safety concerns (Trucks vs. Cars)*
    a. *Other options for detention can be considered to meet the requirement. Shared access is required for safe and efficient flow for the balance of the developable land.*
13. **Comment: The southern entrance does not permit a storage area for southbound traffic. Also shows truck radii crossing center lane markings creating traffic issues.** *Response: The current striping of Gateway Blvd incorporate a storage area for south bound traffic. The Autoturn plan submitted indicates a truck (and limits of) turning north onto Gateway Blvd is contained entirely within the north bound traffic pattern*
    a. *Dedicated left turn storage is warranted and must be constructed for efficient flow of south bound traffic. The City does not accept the use of designated through lanes for the purpose of left turn movements on Gateway Blvd.*
14. **Comment: The spacing between the access driveways does not meet code.** *Response: The applicant intends to file for a waiver of this requirement. Entrance uses (trucks vs. cars) require separate locations to minimize interaction for safety*
    a. *Safety concerns for site do not warrant creating safety issues within the public right of way. The comment relates to spacing between access points and the response does not address this conflict.*
15. **Comment: Show existing utilities within the Gateway Blvd. Right of Way** *Response: Existing utility information within Gateway Blvd right of way has been shown*
    a. *Verifying on Site Plan*
16. **Comment: Potential issue with underground storage tanks to property lines with steep grades.** *Response: The underground storage tanks have been relocated*
    a. *Verified on Site Plan*
17. **Comment: All details and specifications will need to meet ODOT 2019 (latest revision) and City of Monroe.** *Response: ODOT and City of Monroe details and specifications will be meet in areas of jurisdiction*
    a. *Verifying on Site Plan*

TIS COMMENTS:

1. Per 1211.05 Gateway Blvd is a major arterial and requires median opening spacing of 650 feet.

a. For Gateway, this measurement would begin at the end of the current north bound left turn lanes. Site plan location is approximately 300 feet. *Response: Per a City of Monroe map used in the June 17, 2019 Steering Committee Meeting 1, Gateway Boulevard is listed as a principal collector. The Warren County Thoroughfare Plan lists Gateway Boulevard as a major collector/distributor. ODOT's TIMS mapping system shows Gateway Boulevard as a major collector. We found no evidence that Gateway Boulevard is a major arterial.*

Also, the 650-foot spacing is not applicable to Gateway Boulevard since Table 1211-12 indicates that it is applicable to unsignalized median openings on divided roadways. Gateway Boulevard is not a divided roadway. Table 1211-13 lists lateral offset distances between intersections and the first driveway. According to the table, the required lateral offset distance is 200 feet. Since the left turn storage length from northbound Gateway Boulevard onto SR 63 exceeds this distance, the northernmost driveway would be limited to right in/right out (as has been proposed). It is requested that the northernmost right-in, right-out driveway be approved at the location shown.

a. *The City defines roadways with center turn lanes as divided highways.*
b. *Note 2 of 1211-13 indicates that if the intersection includes two different roadway types, then the greater of the two distances shall be used, thus the 350 distance for the northernmost drive entrance should be used, even if we were to consider a minor arterial designation on Gateway.*

2. Analysis of Developers TIS under the guidelines of 1211.04 does not warrant Full Access

Location as proposed. The Analysis:

a. Did not include all future traffic in Analysis, and; *Response: As agreed to with City staff, the traffic study performed by the seller of the property (industrial park developer) was to be used to establish the driveway locations. The City has indicated that they are requiring future traffic volumes resulting from the connection of Gateway Boulevard to Butler Warren Road to be included in the traffic analyses. However, it is our understanding that the future extension of Gateway Boulevard to Butler Warren Road is entirely under the discretion of the industrial park developer. The industrial park developer has indicated that he has no intention of connecting Gateway Boulevard to Butler Warren Road and therefore, the traffic volumes from that roadway connection should not be included in the analyses to establish the driveway locations.*

b. Does not disprove that the City's evaluation that warrants the location of a full access point at least 850' south of SR63 *Response: The City's evaluation of the driveway access location was based on the assumption that Gateway Boulevard will connect with Butler Warren Road in the future. The City's evaluation of driveway location is based on the anticipated levels of queuing on northbound Gateway Boulevard approaching SR 63. In accordance with our response to the previous item, since this queuing is significantly impacted by the projected traffic volumes from the connection of Gateway Boulevard to Butler Warren Road, and since the industrial park developer has no intention of connecting Gateway Boulevard to Butler Warren Road, the requirement to locate the full access driveway 850 feet south of SR 63 does not seem to be applicable.*

c. Does not account for the proposed full access point which requires a median cut which is proposed within current north bound left turn lanes. *Response: It is unclear about the median cut reference. The traffic study shows the need for a southbound left turn lane at the full access drive. The full access point should not be located where vehicles turning left into the site would be required to stop in a through lane next to the northbound left turn lanes.*

a. *The current position of the landowner has no bearing on the evaluation required and must include the traffic generated by the future connection of Gateway Blvd to the south with Butler Warren road. Within the last few years, this same landowner had a proposal that would have benefited from that connection and was in favor of it. I would assume that they would be again if another proposal landed in their laps. The connection is currently within the thoroughfare plan of the City, both Counties and the OKI regional council of governments, thus can't be that easily dismissed to benefit the use being considered.*
b. *I agree with the comment that "the full access point should not be located where vehicles turning left into the site would be required to stop in a through lane next to the northbound left turn lanes. But no consideration has been given to create a dedicated left turn lane.*

3. 1211.05 requires first access point along major arterial to be 350 feet from intersection.

a. First proposed access point on Gateway is approximately 100 feet from the SR63intersection. *Response: See response to following item.*

b. Proposed right in right out access on SR63 does not meet the 1211.05 requirement of 350 feet from the Gateway intersection. *Response: As indicated previously, we found no documentation indicating that Gateway Boulevard is classified as a major arterial. Table 1211-13 lists lateral offset distances between intersections and the first driveway. The table indicates that if the intersection includes two different roadway types, the greater of*

the two distances shall be used. In this case, SR 63 is classified as a minor arterial per the ODOT TIMS map and per the map used in the City of Monroe Comprehensive Plan Steering Committee Meeting 1 on June 17, 2019. According to the table, since SR 63 is the higher classified road, the required lateral offset distance is 200 feet. Also per Table 1211-13, since the left turn storage length from northbound Gateway Boulevard onto SR 63 exceeds this distance, the northernmost driveway would be limited to right in/right out (as has been proposed). The 350-foot requirement outlined above is not supported by the zoning code. It is requested that the northernmost right-in, right-out driveway be approved at the location shown.

i. It is also recommended that a tangent section be constructed east of Gateway Boulevard radius return for at least 50 feet prior to beginning the diverging taper for the right turn lane, therefore the right in right out access would be located with the code requirement of 350 feet from Gateway Boulevard. First proposed access point on SR 63 does not meet this requirement. *Response: As indicated previously, the 350-foot offset requirement is not supported by the zoning code. We found no documentation indicating that Gateway Boulevard is classified as a major arterial. Table 1211-13 lists lateral offset distances between intersections and the first driveway. The table indicates that if the intersection includes two different roadway types, the greater of the two distances shall be used. In this case, SR 63 is classified as a minor arterial per the ODOT TIMS map and per the map used in the City of Monroe Comprehensive Plan Steering Committee Meeting 1 on June 17, 2019. According to the table, since SR 63 is the higher classified road, the required lateral offset distance is 200 feet. The driveway on SR 63 will be shifted east to accommodate the recommended 285-foot eastbound right turn lane. A tangent section of a length to be determined will be provided if possible depending on site constraints. At the location dictated by the length of the 285-foot eastbound right turn lane, the 200-foot lateral offset distance is met.*

a. *See note 1b above.*

4. 1211.05 requires spacing between access points on a major arterial (Gateway) to be 350.

a. Proposed spacing between access points on Gateway is 285 feet. *Response: We found no documentation that Gateway Boulevard is classified as a major arterial. Driveway spacingshould be based on Table 1211-11. Since there is no recommended spacing for a major collector with a speed limit of 40 mph, the next higher classification (minor arterial) should be used. For a minor arterial roadway at 40 mph, the spacing should be 350 feet for a high volume driveway, which is in accordance with the City request. The existing submittal depicted a distance of 335' from centerline of the RI/RO entrance and the southern entrance (truck entrance). The entrance will be revised to reflect 350' centerline to centerline. (moved 15' south)*

a. *Assumption from previous response affecting the location of the first access should be considered prior to finalizing spacing requirements between access points. In any case a full access point cannot be approved at the location shown.*

5. Analysis of Site TIS does not warrant approval of site driveways.

a. The 300 ft southbound left-turn lane proposed in the study is not included on the Site Plan. i. Per the applicants own study, the proposed access location should not reduce or impede the required northbound left turn lane storage at full build out. *Response: The final queuing analysis on the northbound approach of Gateway Boulevard at SR 63, which uses the correct assumptions about Gateway Boulevard not connecting to Butler Warren Road, should determine whether the existing northbound left turn lane can be shortened to allow the proposed southbound turn lane at the site driveway to begin farther north. Fueling capacity within each diesel (truck) lane equates to 3 trucks an hour. The four (4) fueling lanes would be able to serve 12 trucks an hour. The site has the space to accommodate an additional 15 trucks in the queuing lanes. The total of 27 trucks on site would eliminate the need for a 300' turn lane at this entrance.*

a. *Spurious assumptions about future traffic connections continue to be used to make invalid decisions. The full access point does not incorporate traffic from the balance of the developable property and is not approved in the location shown.*

The City Engineer has defined the location where a full access point is allowable along Gateway Blvd and will define the location of permissible restricted access points prior to consideration by the Planning Commission.

ARCHITECTURAL COMMENTS:

18. **Comment: The auto refuel canopy, proposed at 14'6" clearance height, exceeds the maximum 14-foot clearance height. Please revise (1204.04(D) (15).** *Response: Acknowledged. Truck canopy height requested to remain at 17'-6" to allow for clearance to provide adequate lighting.*
    a. *Acknowledged. Variance application through the Board of Zoning Appeals would need to occur prior to site plan review by Planning Commission.*
19. **Comment: The truck refuel canopy, proposed at 17'6" clearance height, exceeds the maximum 14-foot clearance height. Please revise (1204.04(D) (15).** *Response: Acknowledged. Variance requested to maintain Truck canopy height at 17'-6" to allow for clearance to provide adequate lighting to trucks while in fueling position.*
    a. *Acknowledged. Variance application through the Board of Zoning Appeals would need to occur prior to site plan review by Planning Commission.*
20. **Comment: Both the auto and truck refuel canopies are flat roof as opposed to gabled as required. Please revise (1204.04(D) (15) and (1204.04(D) (4).** *Response: Acknowledged. Auto and truck canopies revised to reflect gables.*
    a. *Plans now show gabled roof on both canopies. It should be noted that the signage is not permissible on the roof as shown and the applicant has indicated that they would revise to design a flat wall space in combination with gabled roof.*
21. **Comment: In order to maintain consistency across plans, Staff requests revision of the elevation drawings on the truck refuel canopy as it shows 5 fuel pump stations where there are only presently 4 proposed.** *Response: Acknowledged. Elevations revised to reflect 4 fueling positions.*
    a. *Applicant has indicated they will revise.*
22. **Comment: 25% of wall area visible from a right-of-way/public road must contain windows. As the site has visibility from multiple points on Gateway Blvd and State Route 63, this window requirement applies to the south, east, and west sides in addition to the north side. The south side of the building does not meet this code requirement with almost no glass/window area proposed. Please revise (1210.05(D)(5).** *Response: Acknowledged. Additional glazing added to south façade. The applicant can request request a 1203.10 Alternative Equivalent Compliance permit regarding Architectural Standards (for attached) to allow reduced glazing percentage on south façade due to interior plan (coolers and back of house) and architectural elements (entry staple and downspouts).*
    a. *Acknowledged.*
23. **Comment: All walls visible from a public street that are at least 60 feet wide must incorporate offsets of at least 2 feet deep and 20 feet wide at a minimum of every 40 feet. This requirement applies to both the north and south sides of the building (1210.05(D)(4). Please revise to meet this code requirement or provide one of the following alternatives:**
    a. **Façade material changes of the same dimensional standard as the offset requirement. (1210.05(D)(4).**
    b. **Pilasters having a minimum 1-foot depth and width, and minimum 80% height of the building height. (1210.05(D)(4).** *Response: Acknowledged. South Façade revised.*
        i. *Revised plans appear to meet this requirement on the south side.*
24. **Comment: Base-body-cap percentages need to be indicated to show minimum 8% base and 8% cap across the entire building. While it appears the 8% base requirement is met on the majority of the building, it is not met on the north elevation and will require revision. Further, the cap proposed may not meet the 8% minimum required. Please provide accurate percentages that account for the black metal coping, which is the overall cap area and does not include the red and black metal entrance feature as it does span across all or a majority of the building, to ensure these requirements are met (1210.05(D)(1).** *Response: Acknowledged. Base and cap revised to meet 8% requirement throughout.*
    a. *While percentages appear to be met on all sides, it appears the calculations are still inaccurate. The applicant has indicated that they will revise to show calculations.*
25. **Comment: Further evaluation of the proposed metal on the structure as architectural requirements states: (3) Exposed metal panels (such as corrugated metal) shall be prohibited in the C-1, C-2,C-3, and C-4 districts. This subsection shall not be construed to prohibit metal roofs, flashing, aluminum storefront associated with windows, or high-quality metal siding such as copper, bronze, or other decorative metal, which may be used on a case-by-case basis. Please provide more detail, example images, etc. on this metal material (1210.05(D)(3)** *Response: Acknowledged. Sample material provide to the City of Monroe by Jim Vaughn of Luckett and Farley Architects.*
    a. *A sample of base, body, cap has been received but we do not show receipt of the metal material.*

26. Comment: Pole sign is prohibited in the C-2 zoning district. While not discussed in particular at the most recent meeting with the applicant, it is Staff's understanding Thorntons will seek a variance for this signage through the Board of Zoning Appeals. This process will have to occur prior to sign permits being filed. For purposes of site plan approval through Planning Commission, the sign will need to be removed from all plans or otherwise noted on plans as not approved and will need to seek separate Board of Zoning Appeals approval after site plan approval.

April 16th Case Status Update. *Please note that previously updated staff comments from the March 16th meeting are listed in yellow and are still relevant regarding the continued tabling of the case. Additionally, updates since the March 16th meeting, specifically regarding rooftop signage and the architectural comments are highlighted in blue).The applicant requested to continue the tabling and waive the 60 day hearing/decision requirement on March 15th, 2021:*

Kevin,

I respectfully request that our application remain open & tabled on the Planning Commission agenda as we are moving forward in good faith to respond to the City Engineer's comments relating to the TIS & my consultants have addressed most of the Staff comments from the Staff report issued in January. I request the City waive the time requirement in light of the fact that we are prepared to meet whenever our schedules will allow.

Best regards,

Todd Smutz
Senior Development Project Manager
Direct: 502-572-1294 | Cell: 502-693-5874
todd.smutz@mythorntons.com



While Planning Commission subsequently did not meet in March due to a lack of a quorum, the continuance of the tabling was realized based on the request.

The property owner also requested in a 3/15/2021 email to table the case as staff requested concurrence from both the applicant and property owner to ensure all parties were aware of the case status. The property subsequently requested that the case be open no later than the April 20th Meeting to be heard:

Good afternoon, Kevin –

Kevin,

I agree with Todd Smutz and, on behalf of Corridor 75 Park, Ltd., we will concur that the application submitted by Thornton, LLC opened and tabled after much discussion in the January Planning Commission meeting be continued as tabled and remair open until no later than the April 20th planning commission date in order to be heard. I do know that all the parties are working to achieve a development plan that meets the needs of those concerned and we are looking forward to working you and staff to make this proposed development come to fruition. We also agree to waive the 60-day time requirement in order to be heard as stated by Thornton, LLC.

I can understand the difficulties in trying to set up a special meeting time as you have outlined and do appreciate your offer to get the meeting or meetings underway as soon as possible. To help this along, please let me know what you might need from Corridor 75 Park.

Thanks!

Lenny
Lenny Robinson
President & Broker

ROBINSON
Commercial Realtors®

Staff follow up via email with the property owner and the applicant to confirm receipt of the tabling request while reiterating the various site plan issues and the need for updated site plans as well as responses regarding the concurrence to meet or request to vary specific code requirements as listed in the report (For instance, the applicant we would need confirmation if the gas canopy is intended to be moved to meet code requirements or that a variance would be requested. If such is the case, a variance for the setback reduction would need to be sought at the Board of Zoning Appeals prior to any decision permissible by Planning Commission as Planning Commission does not have the authority to do so).

The property owner's representative (Lenny Robinson) also indicated in a March 18th, 2021 email that they are set to meet to discuss the site and access related issues:

Kevin –

received confirmation from Todd earlier today that Thornton, LLC and their architects and engineers are all set to meet with Monroe. We still have not heard from Bill on setting up a meeting with him but, I know you were hopeful to make this one meeting to cover all the bases. Will you be able to check with him and provide some dates, hopefully next week if we can.

Thanks.

Thornton's, as the applicant, indicated in a March 22nd email that "We'll provide responses from the respective consultants to accompany our revised plans, so that it is crystal clear where we have complied & where we are seeking relief via a variance":

Mon 3/22/2021 9:14 AM

Todd Smutz <Todd.Smutz@mythorntons.com>

RE: 3/16 Planning Commission

To: Kevin Chesar

Cc: 'philipcallahanlaw@gmail.com'; ccunningham@keglerbrown.com; Gregg Bennett; Hilary Hubbard; Bill Brock; Kameryn Jones; Lenny Robinson

You forwarded this message on 3/22/2021 9:45 AM.

Kevin,

We'll provide responses from the respective consultants to accompany our revised plans, so that it is crystal clear where we have complied & where we are seeking relief via a variance.

Best regards,

Todd Smutz
Senior Development Project Manager
Direct: 502-572-1294 | Cell: 502-693-5874
todd.smutz@mythorntons.com



<u>To date, we have not received any updated responses or revised plans as indicated by the applicant and as we have previously indicated would be necessary as a precursor for staff to have a productive work session to address the various site issues as well as to lay out the proper approval steps (i.e. Planning Commission versus possible Board of Zoning Appeals variance request)</u>.

<u>Section 1203.06(D)(4) Procedure to Review Site Plans</u> *specifies the Planning Commission Review and Decision requirements regarding tabling as well as a final determination. While the owner has asked for the case to be "heard" no later than April 20th, 2021, it is staff view that the case could remain open/tabled until May 18th, 2021 by virtue of the continuance of a tabling from January in March (60 days) and the presumed continuance via 1203.06(D)(4)(c) below would require some form of action by the May meeting.*

As stated, Staff has not had any updates from the applicant or owner since the request for further information and we do anticipate that as a result of this report update, they will express their desire to either continue the case until May and provide responses/updated plans as indicated or request a removal from the table and decision by Planning Commission at the April 20th, 2021 Meeting.

4) Step 4 – Planning Commission Review and Decision

a) The Planning Commission shall review the site plan at a regular meeting. No special public notice shall be required for Planning Commission review or action on the site plan except for the general notice required for Planning Commission's meeting as required by state law.

b) The Planning Commission shall either approve, approve with conditions, deny, or table the review of the application and site plan within 60 days of the determination of receipt of a complete site plan application by the Code Enforcement Officer.

c) Within the 60 day time period, the Planning Commission, by a majority vote of the members present at the meeting, may extend the period of review for not more than 60 additional days.

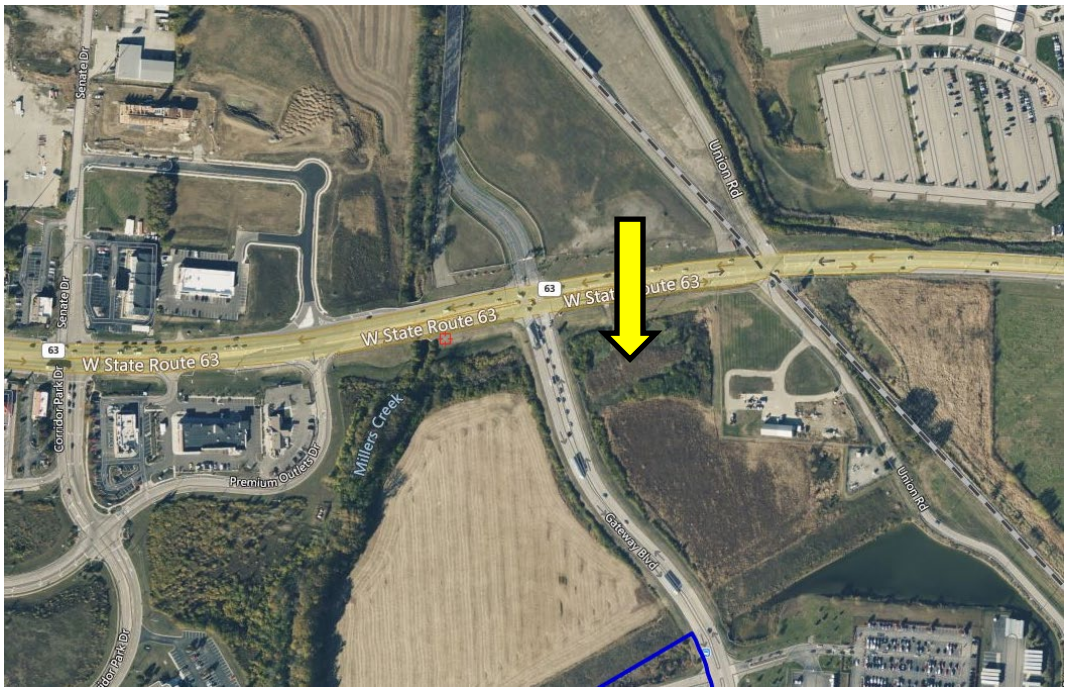
d) If the site plan is denied, the Planning Commission shall make a finding, in writing, justifying the denial of the plan and provide a copy of the findings to the applicant.

e) The Planning Commission may attach conditions to the approval of a site plan as may be reasonably required to promote the public health, safety, and welfare.

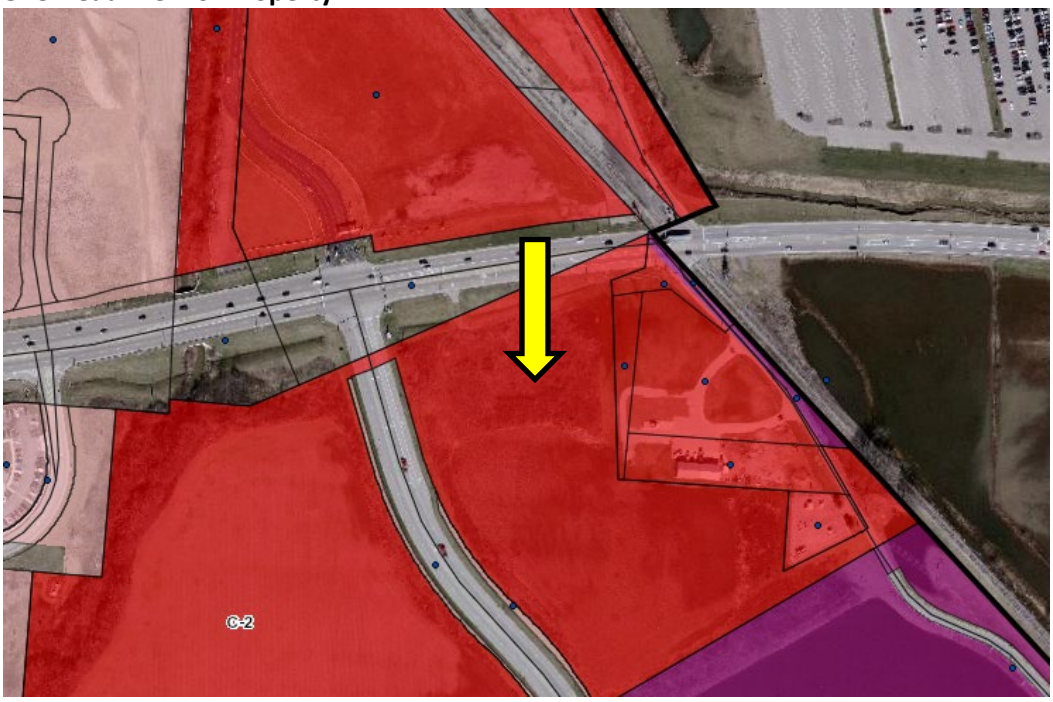
f) Approval of the site plan shall be indicated by a letter from the Code Enforcement Officer. The approved plan will be stamped "Approved" and dated

A. Background

- Gregg Bennett, on behalf of Thornton's LLC, has submitted a site plan application for a gas station and convenience store to be located at the southeast corner of State Route 63 and Gateway Boulevard.
- The applicant is proposing a 5,500 square foot building with convenience store, 10 auto fuel pumps, 4 semi fuel pumps, and CAT scale.
- The site is approximately 6.22 acres currently zoned C-2 General Commercial.
- The applicant anticipates a June construction start date and June 2022 completion date.



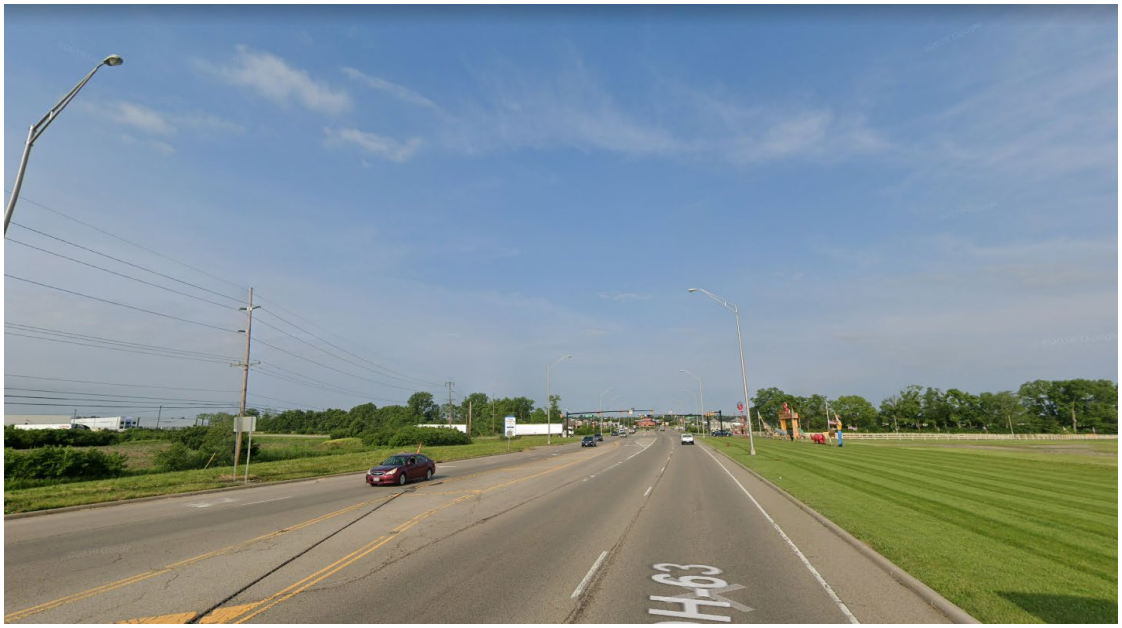
Overhead View of Property



Zoning Map of Proposed Site and Surrounding Properties



Eastbound on State Route 63



Westbound on State Route 63



Northbound on Gateway Boulevard



Facing South at Traders World Entrance at State Route 63

B. Staff Comments *(While all the following comments are still relevant, specific updates since 1/19/21 meeting highlighted in yellow. Updates since the March 16th meeting, specifically regarding rooftop signage and the architectural comments are highlighted in blue)*

- **SIGNAGE:**
    - In regards to the sign package proposed, the site plan application requirements does state to detail all sign locations, sizes, etc. in order to ensure compliance with relevant location, landscaping, and safety issues. The presumption is that all regulatory issues are followed and any requests in the application to vary or alter requirements is not within the authority of Planning Commission to approve. Rather, the Board of Zoning Appeal would hear any variance requests. Further, any commercial signage located within the right-of-way is not permissible **(1214.05)**.
    - While not reviewed during the Planning Commission process, a portion of the sign package proposal is prohibited per code:
        - The 30-foot pole sign shown on the overall site plan is not permitted in the C-2 zoning district and must be removed from all plans as to not indicate/cause confusion with approval authority or process **(1214.10 Table 1214-1)**.
        - Further, the sign is located in the right-of-way, which is prohibited **(1214.05)**.
        - The sign proposed on the roof of the fuel canopy is a prohibited sign type **(1214.06)**.
    - During the administrative review for this sign package, other items such as traffic safety visibility triangle, setbacks, and overall maximum allotments of signage will be evaluated.
    - Until the use/site plan approval is achieved, a sign variance process with the Board of Zoning Appeals cannot occur.

Based on the abovementioned code requirements, the site plan needs to be updated to remove or appropriately reflect area, sign type, and locations for all signs.

- **USE STANDARDS:**

  Retail Fuel Sales is a use permitted with standards in the C-2 General Commercial zoning district. These standards, which are the same as Automotive Service Stations and Parts Sales, are outlined in **1204.04(D) (15)** of the Planning and Zoning Code. See below as it relates to semi-trailer truck parking:

(4) Automotive Service Station and Parts Sales

a) Canopies shall be gabled, set back a minimum of 15 feet from street rights-of-way, and shall not exceed a clearance height of 14 feet.

b) Lubrication, washing, incidental servicing of motor vehicles and all supply and merchandise storage shall be completely within an enclosed building except as otherwise provided herein.

c) Employee vehicles and vehicles awaiting servicing or return to customers following servicing shall be parked in areas indicated for such parking on the approved site plan. Such vehicular use areas shall be set back a minimum of 50 feet from any right-of-way.

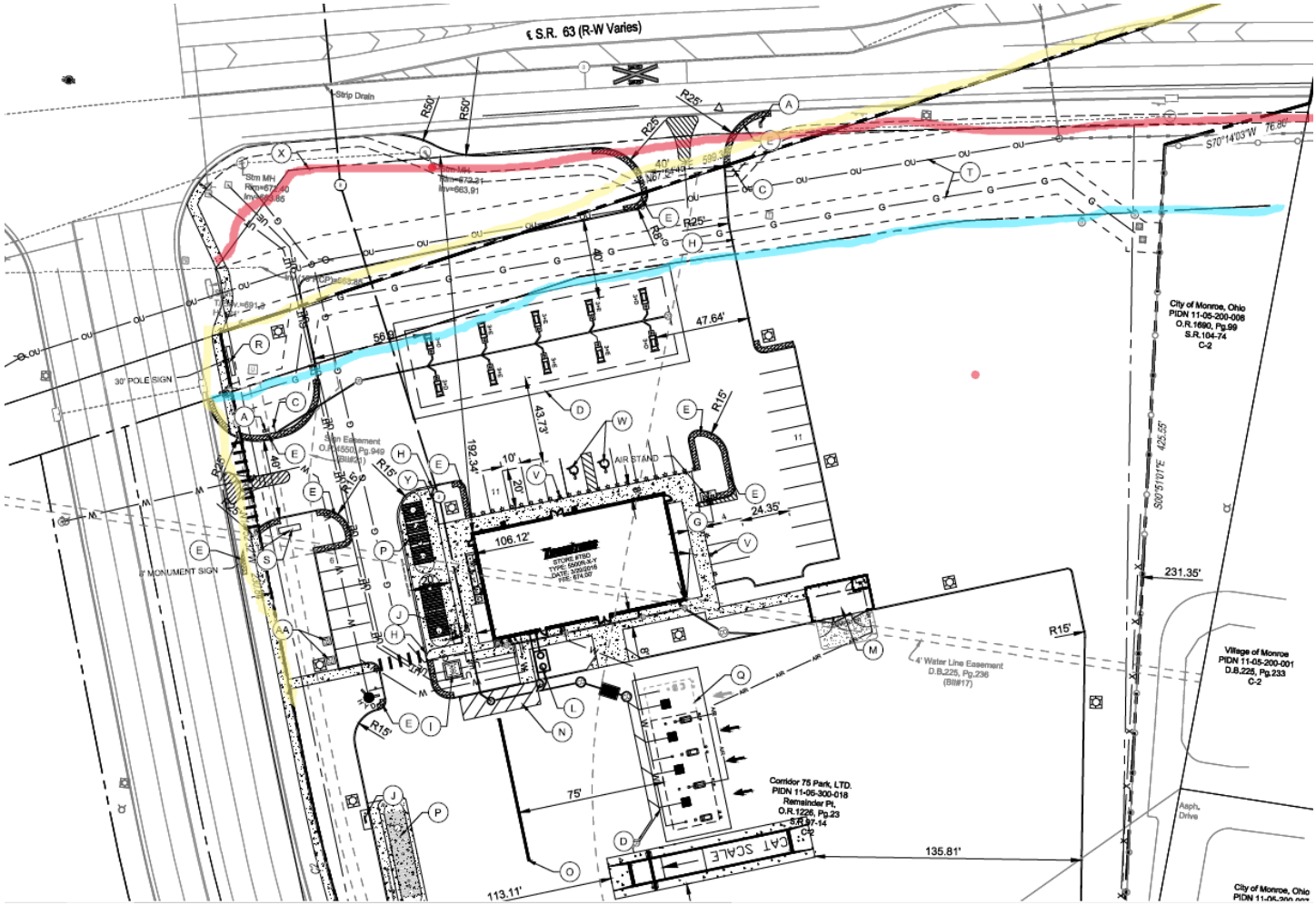
d) The sale of motor vehicles on premises used for automotive service stations shall be prohibited.

e) The storage of non-operational vehicles for longer than a 24-hour period shall only be permitted for automotive body and major repair businesses. Such storage shall be permitted if stored in the rear yard and screened by a solid wall or fence with a minimum height of five feet. No such vehicle shall be stored on-site for more than two weeks.

f) All other outdoor storage shall be subject to the standards of Section 1205.01(G)(15): Outdoor Bulk Storage.

g) No semi-trailer truck parking stalls are permitted other than temporary stacking for refueling

- Per revised civil plans submitted by the applicant, semi parking stalls are now shown as "future truck parking". These stalls and labeling must be eliminated from the site plan as part of the use requirements as it is not permitted. Any reference to "future stalls" can cause confusion with the plan and could be construed as approved via site plan approval **(1204.04(D) (15) and (1204.04(D)(4).**
- Upon further review of the right-of-way line that is not clearly identified in context of the property line location, regulations states that the vehicular use areas shall not encroach upon any buffer required **(1211.03(C)**.
- The issue is further complicated by the location of the vehicular use area within the right of way and will need to be set back to the minimum 6 feet wide area from the right of way intended for required landscaping. It should be noted that the applicant has indicated a new proposed right of way line but, staff is not aware of any right of way changes and the project must be evaluated on current known conditions **(1211.03(C)**.
- The fuel canopy is required to be 15 feet from closest point of right-of-way. While not clearly identified on the site plan, further review has shown the canopy is located partially within the right-of-way as identified generally by the blue highlight on site plan image on the next page (yellow indicates proposed property line and red indicates a proposed right of way line). This requirement is not met and will need to be corrected, which may require other site plan adjustments **(1204.04(D) (15) and (1204.04(D)(4).**

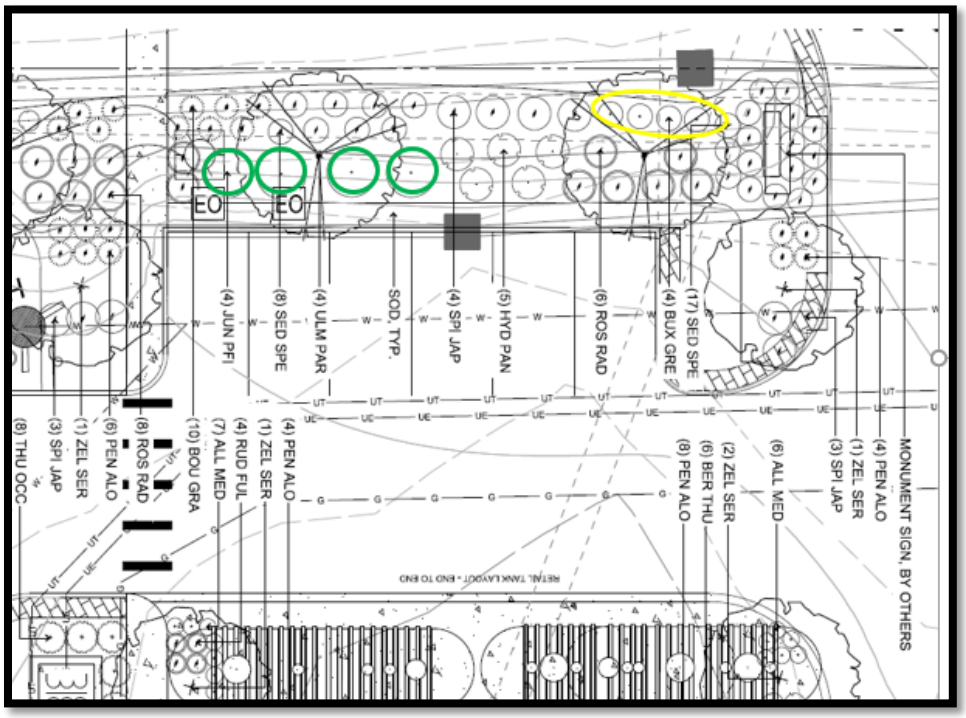


Based on the abovementioned code requirements, Staff recommends denial of the site plan.

- **SIDEWALKS:**
  - Right-of-way sidewalks (5-foot minimum width) are required along on Gateway Boulevard and State Route 63. Though Planning Commission has previously waived this requirement for walks along State Route 63, and while the applicant now shows where a sidewalk could be located for future purposes, it needs to be officially engineered based on the next comment **(1208.07).**
  - As was previously indicated, Planning Commission has periodically delayed the required installation of the sidewalk along the State Route 63 frontage. After further review and research, Staff is recommending installation of the walk concurrently with site development as this property represents the eastern border of the City and a logical starting point for an east-west pedestrian/trail connection which is further bolstered by the Lebanon-Turtlecreek Trail Initiative for connections in this area. **(1208.07).**

Based on the abovementioned code requirements, Staff recommends denial of the site plan.

- **LANDSCAPING:**
    - Staff is not opposed to the landscaping proposed in the right-of-way on the northwest corner of the site, but the applicant will need to work with the City and ODOT to confirm there will be no issues with utilizing right-of-way for this purpose. Should landscaping in this area not be permitted or infeasible, the required landscaping must be moved elsewhere on site **(1212.04(F).**
    - A solid screen of shrubs at a minimum 36" installation height is required on the west side parking row **(1212.07(B).**
        - While it appears the sea green juniper meets the minimum height and species for this requirement, there are only four of these species shown (highlighted in green) which would not create the full screen required along the entire parking row.
        - The other plantings do not meet this height requirement, do not meet the evergreen requirement, or do not meet either requirement (See in yellow the boxwood that meets the species requirement but not the height requirement).
        - While Staff appreciates and encourages a diversity of plantings, please revise to show 36" evergreen species to provide appropriate coverage across the entire parking row.



- The screen of shrubs proposed on the east side parking row shows the appropriate size and species, however, the number of shrubs appears to be insufficient for full screening coverage unless the width of each plant is approximately 5 feet wide. If solid screening is not achieved with the number of shrubs currently shown, additionally plantings will be required at time of zoning compliance inspection.
- A parking island with associated landscaping is required on the north end of the western parking row. Please revise **(1212.07(B).**

Based on the abovementioned code requirements, Staff recommends denial of the site plan.

- **STREET TREES:**
    - Street trees are required every 40’ on center along all streets **(1212.06(E)**.
    - It appears canopy trees are proposed 40’ on center behind the sidewalk on private property along Gateway Boulevard but in the right-of-way along State Route 63. Street trees are typically located in the right-of-way tree lawn area. However existing street trees further south along Gateway Boulevard are behind the right-of-way. For consistency, it may make sense to permit the Gateway Boulevard street trees location as proposed.

    Based on the abovementioned code requirements, Staff recommends approval of the proposed locations.

- **SCREENING:**
    - As a reminder, full screening of service structures is required. This would include any rooftop or ground mounted equipment proposed now or determined necessary during the construction of the development.
        - It appears the southern side of the transformer is left open/unscreened **(1212.09(A).**
    - Front yard landscaping requires 20% of the required front yard area (20% of 50 feet being 10 feet) be landscaped areas with a minimum 6 feet against the right-of-way along the edge of the property.
        - While the applicant has shown the 20% total area is met, Staff requests the applicant show the minimum 6 foot landscaped area along both Gateway Boulevard and State Route 63 **(1212.08(A).**

Based on the abovementioned code requirements, Staff recommends denial of the site plan.

- **ARCHITECTURAL:**

  Revised architectural plans have been submitted, updated comments are highlighted in blue.
  Retail Fuel Sales is a use permitted with standards in the C-2 General Commercial zoning district. These standards, which are the same as Automotive Service Stations and Parts Sales, are outlined in **1204.04(D) (15)** of the Planning and Zoning Code. See below as it relates to canopy design:



(4) Automotive Service Station and Parts Sales

a) Canopies shall be gabled, set back a minimum of 15 feet from street rights-of-way, and shall not exceed a clearance height of 14 feet.

b) Lubrication, washing, incidental servicing of motor vehicles and all supply and merchandise storage shall be completely within an enclosed building except as otherwise provided herein.

c) Employee vehicles and vehicles awaiting servicing or return to customers following servicing shall be parked in areas indicated for such parking on the approved site plan. Such vehicular use areas shall be set back a minimum of 50 feet from any right-of-way.

d) The sale of motor vehicles on premises used for automotive service stations shall be prohibited.

e) The storage of non-operational vehicles for longer than a 24-hour period shall only be permitted for automotive body and major repair businesses. Such storage shall be permitted if stored in the rear yard and screened by a solid wall or fence with a minimum height of five feet. No such vehicle shall be stored on-site for more than two weeks.

f) All other outdoor storage shall be subject to the standards of Section 1205.01(G)(15): Outdoor Bulk Storage.

g) No semi-trailer truck parking stalls are permitted other than temporary stacking for refueling

- The auto refuel canopy, proposed at 14'6" clearance height, exceeds the maximum 14-foot clearance height. Please revise **(1204.04(D) (15).**
- The truck refuel canopy, proposed at 17'6" clearance height, exceeds the maximum 14-foot clearance height. Please revise **(1204.04(D) (15).**
- Both the auto and truck refuel canopies are flat roof as opposed to gabled as required. Please revise **(1204.04(D) (15) and (1204.04(D) (4).**
- In order to maintain consistency across plans, Staff requests revision of the elevation drawings on the truck refuel canopy as it shows 5 fuel pump stations where there are only presently 4 proposed.
- 25% of wall area visible from a right-of-way/public road must contain windows. As the site has visibility from multiple points on Gateway Blvd and State Route 63, this window requirement applies to the south, east, and west sides in addition to the north side. The south side of the building does not meet this code requirement with almost no glass/window area proposed. Please revise **(1210.05(D)(5).**
    - The applicant has updated architectural elevations to show 20% window area on the south side, a change from the last submittal but still noncompliant. Please revise.
- All walls visible from a public street that are at least 60 feet wide must incorporate offsets of at least 2 feet deep and 20 feet wide at a minimum of every 40 feet. This requirement applies to both the north and south sides of the building **(1210.05(D)(4).** Please revise to meet this code requirement or provide one of the following alternatives:
    - Façade material changes of the same dimensional standard as the offset requirement. **(1210.05(D)(4).**
    - Pilasters having a minimum 1-foot depth and width, and minimum 80% height of the building height. **(1210.05(D)(4).**
    - The applicant has updated architectural elevations to appear to comply with this section.
- Base-body-cap percentages need to be indicated to show minimum 8% base and 8% cap across the entire building. While it appears the 8% base requirement is met on the majority of the building, it is not met on the north elevation and will require revision. Further, the cap proposed may not meet the 8% minimum required. Please provide accurate percentages

that account for the black metal coping, which is the overall cap area and does not include the red and black metal entrance feature as it does span across all or a majority of the building, to ensure these requirements are met **(1210.05(D)(1).**

- The applicant has updated architectural elevations that appear to comply with this section. However, as the above comment stated previously, it appears the base-body-cap percentages incorrectly account for the black and red metal entrance features when only the architectural metal cap, which is the overall cap area spanning the majority of the building, should be accounted for as the 8% cap.

- Further evaluation of the proposed metal on the structure as architectural requirements states: *(3) Exposed metal panels (such as corrugated metal) shall be prohibited in the C-1, C-2, C-3, and C-4 districts. This subsection shall not be construed to prohibit metal roofs, flashing, aluminum storefront associated with windows, or high-quality metal siding such as copper, bronze, or other decorative metal, which may be used on a case-by-case basis.* Please provide more detail, example images, etc. on this metal material **(1210.05(D)(3)**.

Based on the abovementioned code requirements, Staff recommends denial of the site plan.

C. Department Comments

- **Fire Department**: Fire has the right to comment during plans review.
- **Police Department**: We are concerned about the exit onto 63. The right turn only going west bound may need some flexible delineator posts on the double yellow on 63 so people don't try to turn east bound.
- **Engineering/Public Works Department**:
    - The truck entrance on Eastbound SR63 does not meet the minimum guidelines for a WB-67 type truck to correctly / safely turn into the SR 63 entrance as currently designed. It shows a right turn crossing over thru (not using the right drop lane) which could create conflicts with standard vehicular traffic using the right drop lane, potentially creating traffic safety issues or malfunctions which "could" potentially block eastbound thru traffic.
    - The northern exit onto Gateway shows the potential on a WB-67 type truck potentially blocking northbound lanes of traffic if turning west toward the interstate. It also does not reflect a WB-67 type truck being able to maneuver a northbound thru or a northbound right turn.
    - The southern entrance / exit does not designate this as being a "shared" access point with the remaining adjacent lot to the south.
    - This entrance does not permit a storage area for SB traffic, it also shows a truck turn issue with existing truck paths (turn radii) crossing the center lane markings creating potential traffic safety issues
    - The spacing between access driveways does not meet our code.
    - The intersection of Gateway and SR63 will require the developer to comply with Federal ADA guidelines and make the entire intersection now ADA compliant due to the extension of the walk being required. This may entail additional pedestrian crossing signals, pedestrian buttons, wiring, timing adjustments, signage, curb removals etc… (As this is an ODOT highway/roadway, they may determine necessity of not only an E-W crossing on the south side but also for an additional northbound crossing to be included).

- Show existing utilities in Gateway right of way.
- Potential issues with underground storage / tanks in close proximity with property lines with steep grades.
- All details and specifications will need to meet ODOT 2019 (latest revision) and City of Monroe.

- **TRAFFIC IMPACT STUDY**
  - Per 1211.05 Gateway Blvd is a major arterial and requires median opening spacing of 650 feet.
    - For Gateway, this measurement would begin at the end of the current north bound left turn lanes. Site plan location is approximately 300 feet.
  - Analysis of Developers TIS under the guidelines of 1211.04 does not warrant Full Access Location as proposed. The Analysis:
    - Did not include all future traffic in Analysis, and;
    - Does not disprove that the City's evaluation that warrants the location of a full access point at least 850' south of SR63
    - Does not account for the proposed full access point which requires a median cut which is proposed within current north bound left turn lanes.
  - 1211.05 requires first access point along major arterial to be 350 feet from intersection.
    - First proposed access point on Gateway is approximately 100 feet from the SR63 intersection.
    - Proposed right in right out access on SR63 does not meet the 1211.05 requirement of 350 feet from the Gateway intersection.
      i. It is also recommended that a tangent section be constructed east of Gateway Boulevard radius return for at least 50 feet prior to beginning the diverging taper for the right turn lane, therefore the right in right out access would be located with the code requirement of 350 feet from Gateway Boulevard. First proposed access point on SR 63 does not meet this requirement.
  - 1211.05 requires spacing between access points on a major arterial (Gateway) to be 350.
    - Proposed spacing between access points on Gateway is 285 feet.
  - Analysis of Site TIS does not warrant approval of site driveways.
    - The 300 ft. southbound left-turn lane proposed in the study is not included on the Site Plan.
      i. Per the applicants own study, the proposed access location should not reduce or impede the required northbound left turn lane storage at full build out.

Since the requirements of 1211 are not met, and based on the abovementioned code requirements, Staff recommends denial of the site plan.

D. Staff Recommendation

- As Planning Commission recalls, Case No. 2021-1-1 was tabled on January 19, 2021 after a recommendation for denial by Staff due to the number of significant zoning and engineering issues that remained unresolved at the time of the meeting.

- Per the Monroe Planning and Zoning Code 1203.06(D)(4), Planning Commission must take action on a site plan application within 60 days:

> **(4) Step 4 – Planning Commission Review and Decision**
>
> **a)** The Planning Commission shall review the site plan at a regular meeting. No special public notice shall be required for Planning Commission review or action on the site plan except for the general notice required for Planning Commission's meeting as required by state law.
>
> **b)** The Planning Commission shall either approve, approve with conditions, deny, or table the review of the application and site plan within 60 days of the determination of receipt of a complete site plan application by the Code Enforcement Officer.
>
> **c)** Within the 60 day time period, the Planning Commission, by a majority vote of the members present at the meeting, may extend the period of review for not more than 60 additional days.
>
> **d)** If the site plan is denied, the Planning Commission shall make a finding, in writing, justifying the denial of the plan and provide a copy of the findings to the applicant.
>
> **e)** The Planning Commission may attach conditions to the approval of a site plan as may be reasonably required to promote the public health, safety, and welfare.
>
> **f)** Approval of the site plan shall be indicated by a letter from the Code Enforcement Officer. The approved plan will be stamped "Approved" and dated.

- Per this section, Planning Commission may choose to approve, approve with conditions, deny, or extend the period of review for an additional 60 days.

- As outlined in this report, over the last two months, there remains significant zoning and engineering noncompliance that has yet to be resolved and/or has not shown forward progress towards compliance. 1203.06(E) outlines the criteria Planning Commission utilizes to decide on site plan applications:

> **(E) SITE PLAN REVIEW CRITERIA**
>
> Recommendations and decisions on a site plan shall be based on consideration of the following criteria:
>
> **(1)** That the proposed development is consistent with all the requirements of this code;
>
> **(2)** That the proposed development is in compliance with the applicable zoning district;
>
> **(3)** That the proposed development meets all the requirements or conditions of any applicable development approvals (e.g. PUD or administrative waivers);
>
> **(4)** Whether the proposed improvements preserve the character and nature of the surrounding area, including the natural characteristics of the area;
>
> **(5)** Whether the proposed improvements are constructed of unsightly, improper, or unsuitable materials;
>
> **(6)** Whether the proposed site and improvements shall have an appearance that will not have an adverse effect upon adjacent residential properties; and
>
> **(7)** Whether the proposed improvements are compatible and in harmony with the existing structures in the surrounding area.

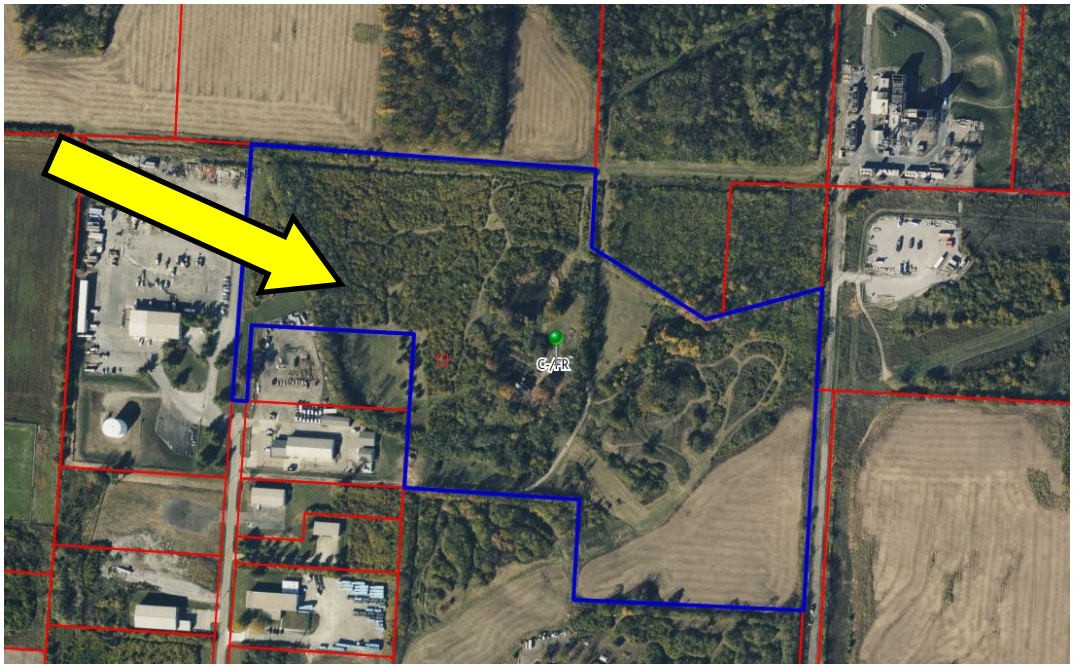
- Of the above listed criteria, 1203.06(E) (1) and 1203.06(E) (2) are most applicable to this case, as the submittal is inconsistent with a number of code requirements and is not in compliance with the zoning district.

Due to the continuing and significant outstanding issues, Staff recommends denial of the site plan application.

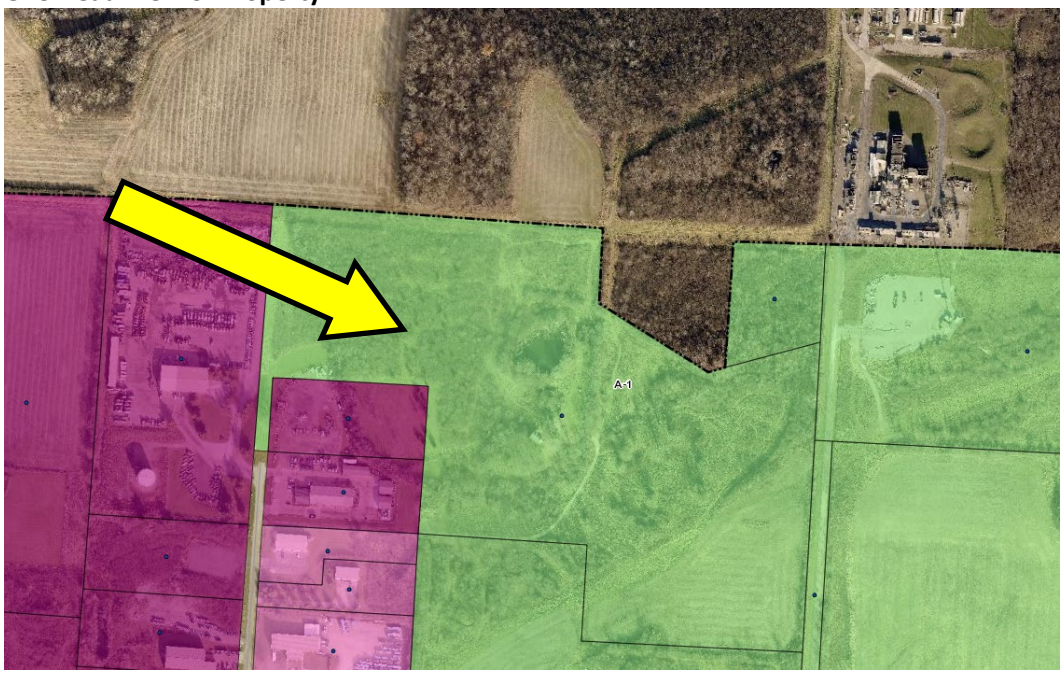
II. Case No. 2021-5-4— Consideration of a zoning map amendment regarding property at 860 Holman Avenue to be rezoned from A-1 Large Scale Agricultural to L-1 Light Industrial.

A. Background

- Thomas Miller, property owner at 860 Holman Avenue, has requested a Zoning Map Amendment for the property from A-1 Large Scale Agricultural to L-1 Light Industrial.
- The property is presently undeveloped and is approximately 35 acres.
- The applicant has stated they seek to return the property to the previous zoning of industrial, which the applicant states is a better fit with the area and existing businesses already on Holman Avenue.
- The applicant states the current zoning is not the highest and best use or the intended use of this site.



Overhead View of Property



Zoning Map of Proposed Site and Surrounding Properties



Northbound on Holman Ave at Property Entrance



Facing East on Holman Ave



Bird's Eye View of Property

B. Staff Comments

Recommendations and decisions on text or map amendments shall be based on consideration of the following criteria. Not all criteria may be applicable in each case, and each case shall be determined on its own facts:

- ***Whether the proposed amendment corrects an error or meets the challenge of some changing condition, trend, or fact since the time that the original text or map designations were established;*** This property, prior to the major Code update/rewrite in 2010-2013, had been zoned industrial. In 2013, the property was rezoned to A-1 Large Scale Agricultural.

- ***Whether the proposed amendment is consistent with the comprehensive plan or other applicable city plans;***
  The current Comprehensive Plan, adopted in 2010, designates this property as Agriculture in the Future Land Use Map.

  However, Staff would consider the timing of the Comprehensive Plan update, which is currently in process and nearing completion and is anticipated to be adopted by the end of summer. That draft plan, while not adopted, has designated this area for light industrial in its Future Land Use Map which is based on the surrounding industrial land uses north in Middletown as well as along Holman Avenue.

- ***Whether the proposed amendment is consistent with the purpose of this code;***

  The Planning and Zoning Code states "the purpose of a text or map amendment is to make adjustments due to changed conditions, changes in public policy, recommendations of the comprehensive plan, or that are necessary to advance the health, safety, and general welfare of the City." With this in mind, the proposed amendment may be consistent with the purpose of the Code in its ability to react to changed conditions over time as well as the comprehensive plan.

- ***Whether, and the extent to which, the proposed amendment addresses a demonstrated community need;***
  The proposed amendment does not necessarily address a demonstrated community need, as there is readily available industrial land elsewhere in the city.

- ***Whether the proposed amendment will protect the health, safety, morals, and general welfare of the public;***

  The proposed amendment does not appear to negatively affect the health, safety, morals, and general welfare of the public. It should be noted that the agriculturally zoned properties to the east are owned and utilized by Duke Energy or its subsidiaries and based on past conversations, it would appear there are no plans to further develop the properties beyond utility usage.

- ***Whether the proposed amendment will result in significant mitigation of adverse impacts on the natural environment, including air, water, noise, storm water management, wildlife, and vegetation;***

  The proposed amendment, should the rezoning result in a new industrial development, would certainly have some impact on the existing natural environment, as any development would. However, City development standards would ensure proper development of any new site.

- ***Whether the proposed amendment will ensure efficient development within the City; and***
  Rezoning for light industrial purposes may be logical as a continuation of the industrial uses already on Holman Avenue.

- ***Whether the proposed amendment will result in a logical and orderly development pattern.***
  The applicant has stated a rezoning to industrial would fit with the area and the existing surrounding business along Holman Avenue. The property to the north in Middletown is AK Steel operations. The property to the east belongs to Duke Energy and is being used for utility development. There is agriculturally zoned property to the south, as well as residential property south of that along Todhunter Road.

C. Department Comments:

- **Fire Department:** No comment.
- **Police Department:** No comment.
- **Public Works Department:** No comment.

D. Public Comment

To date, no public comment has been received.

E. Staff Recommendation:

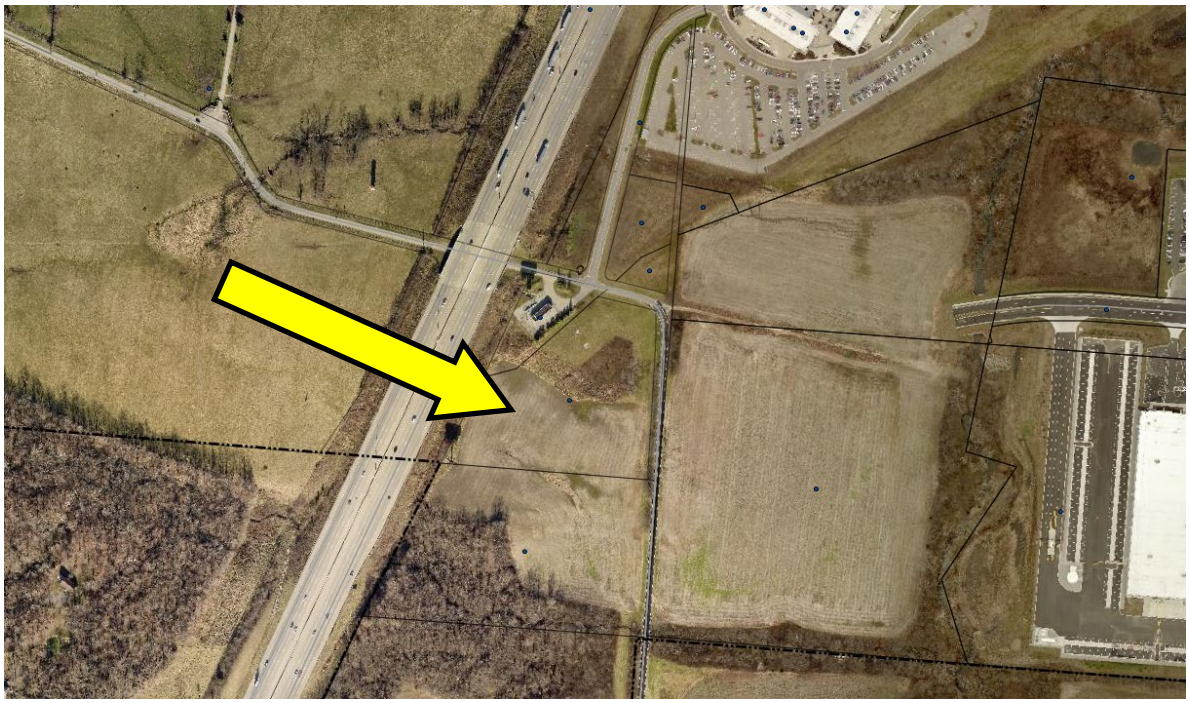
While the current 2010 Comprehensive Plan designates this property for agricultural use, the draft Comprehensive Plan currently under development does indicate industrial as an appropriate future use for this property. While not formally adopted, it may be appropriate to consider this draft comprehensive plan, along with the compatible existing uses to the north, west, and east.

Staff recommends Planning Commission give a favorable recommendation regarding this rezoning request from A-1 to L-1 Light Industrial.

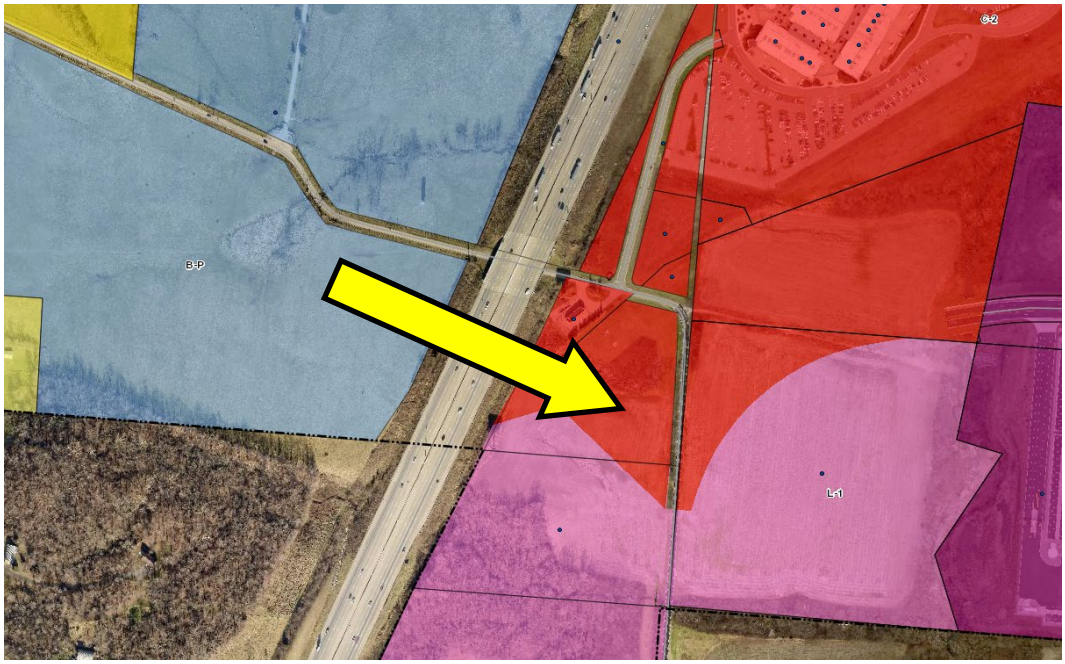
III. Case No. 2021-5-5— Consideration of a site plan application for Texas Gas Transmission LLC regarding a proposed natural gas metering facility locating at Mason Road and Butler-Warren Road.

A. Background

- Ahmad Shaheed of Texas Gas Transmission LLC has submitted a site plan application for a natural gas utility development at the corner of Mason Road and Butler Warren Road.
- The proposed development will locate on the same property as the Duke Energy Mason Station submittal, owned by Duke Energy.
- The proposed development will include a 5,312 square foot utility building housing metering and regulation equipment to serve local gas service.
- The applicant intends on demolishing the majority of current pipeline structures/building closer to Mason Road and relocating the utilities further south adjacent to/in coordination with the proposed Duke Energy substation.
- The current zoning is C-2 General Commercial and with a small portion of L-1 Light Industrial.
- The applicant anticipates an August start date and an October completion date.



Overhead View of Property



Zoning Map of Proposed Site and Surrounding Properties



Northbound on Butler Warren Road



Southbound on Butler Warren Road



Facing West on Butler Warren Road



Eastbound on Mason Road (current brick pipeline structure will be demolished)



Facing South on Premium Outlets Drive

B. Site Plan- Staff Comments

- **GENERAL:**
    - The use of barbed wire fencing is proposed to surround the facility. The applicant has stated they wish to use a black vinyl coated chain-link fence with decorative dark slats for privacy with three strands of barbed wire at the top of the fence to protect the facility from trespassers.
        - The use of barbed wire is prohibited in commercial zoning districts.
        - The use of slats is prohibited.
- **PARKING:**
    - There is no proposed parking for this site. The applicant has stated there is no need for parking at the facility as it is an unmanned facility and there will be very minimal traffic or employee presence at the site. The applicant has stated it is not open to the public and will have occasional visits by company technicians.
    - Gravel is prohibited as a surface material for vehicular use areas. The applicant has proposed the use of gravel within the fenced in area of their facility in order to access below ground piping for assessment, which requires excavation of piping on a periodic basis.
- **SIDEWALKS:**
    - No internal sidewalks connecting the public walk to the building are proposed as required.
- **LANDSCAPING:**
    - The access drive proposed from Mason Road to serve the site would be required one canopy tree every 50 linear feet and three bushes (36" minimum installation height) ever 15 linear feet.
        - No canopy trees or shrubs along the access drive have been proposed.
    - The shrubs proposed on the outside of the fence along the west and north side of the site must be 36 inches at installation.
- **SCREENING:**
    - All rooftop and ground-mounted equipment must be screened from view.
    - Service doors are proposed on both the east and west sides of the site, which may have visibility from Butler Warren Road on the east side. Given the building's location behind the proposed Duke Energy facility, that visibility may be fairly limited. The applicant has stated this in addition to the landscaping proposed by the Duke Energy facility will further obscure the view of the eastern service door.
- **ARCHITECTURAL:**
    - It appears the base-body-cap design requirement is met on the building, but the percentages are not labeled on the elevation drawings. Please revise.
    - Building facades visible from a public right-of-way must incorporate a minimum 25% window area.
        - This requirement does not appear to be met on the north side, with approximately 21% window area.
        - This requirement is not met on the south side, with no windows proposed.
    - Of the required window area, only 20% may be opaque or spandrel glass. The applicant is proposing entirely spandrel glass windows, which they have stated is for security purposes to protect the equipment inside.
    - Building facades visible from a public street 60 feet wide or greater must incorporate wall offsets at least 2 feet deep and 20 feet wide. Material changes of the same dimension may also be utilized.
        - The elevations submitted do not appear to show the required offset requirement.

- **PHOTOMETRIC:**
    - The access drive extending from Mason Road at the north down to the Texas Gas site has no lighting (0.0 footcandles). The required minimum for access drives is 0.3 footcandles. The applicant has stated the access drive will be gated to limit entry to authorized personnel only.
    - The site would be required a minimum of 0.2 footcandles, the minimum required for infrequent use building/development entrances, at the access of Mason Road. It appears to be underlit at that entrance area.

C. Department Comments

- **Fire Department:** Fire reserves the right to comment during plans review.
- **Police Department:** No comment.
- **Public Works/Engineering:** Engineering still under review.
    - Waterline under review and set for approval by Public Works
    - Storm Water review in process by Engineering. Detention Calculations and SWP3 needed

D. Conditional Use- Staff Comments

In considering Conditional Use Permit applications, Planning Commission must consider whether there is adequate evidence that the proposed use is consistent with the following standards:

- ***(1) The conditional use is consistent with the spirit, purpose and intent of the comprehensive plan, will not substantially or permanently injure the appropriate use of neighboring property and will serve the public convenience and welfare.***
  The Comprehensive Plan does discuss the need for the expansion of the City's infrastructure to be managed to meet current needs and future growth. Efficient and effective utility/power capacity is critical to the infrastructure of any community in order to serve the public welfare.

- ***(2) The proposed use will be harmonious with the existing or intended character of the general vicinity, and that such use will not change the essential character of the same area.***
  The applicant has stated their proposed site has been developed with the City of Monroe building and zoning requirements for this commercial zoning district. The applicant has stated the proposed fence line, landscaping, and building façade meet the intent of code requirements with a few exceptions for safety reasons as an essential public utility.

- ***(3) The proposed conditional use is to be located in a district wherein such use may be permitted, subject to the requirements of this chapter.***
  The proposed use, classified as a public utility, is conditionally permitted in the C-2 General Commercial zoning district.

- ***(4) The use complies with all use-specific provisions established in Section 1204.04 Use-Specific Standards.***
  There are no use-specific standards associated with the Public Utilities use category.

- ***(5) The proposed use shall be adequately served by essential public facilities and services such as, but not limited to, roads, public safety forces, storm water facilities, water, sanitary sewer, refuse, and schools or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide adequately any such services.***

The proposed use will be served adequately served by essential public facilities. The applicant has stated this project will expand the existing energy infrastructure to meet the city's future growth and land use requirements.

- ***(6) In the interest of public safety, as a matter of policy, all points of ingress/egress shall be located as far as possible from the intersection of two or more streets.***
  The proposed site will utilize an existing access point from Mason Road.

- ***(7) The proposed use will comply with all applicable development standards, except as specifically altered by the Planning Commission in the approved conditional use.***
  As mentioned in the Site Plan Staff Comments, there are several items to be addressed regarding the proposed site in order to comply with all regulations and standards of the code, including some requested exemptions.

- ***(8) The use will not be hazardous to or have a negative impact on existing or future surrounding uses.***
- Based on the location adjacent to the Interstate and a history of utility supply in the area, it does not appear that a negative impact will occur.

- ***(9) The proposed use will not be detrimental to the economic welfare of the community.***
- Based on the applicant's attempts to screen the structures with various C-2 architectural requirements and when considering the location adjacent to the Interstate and a history of utility supply in the area, it does not appear that a detrimental impact will occur.

- ***(10) The proposed use will not involve uses, activities, processes, materials, equipment and conditions of operations, including, but not limited to, hours of operation, that will be detrimental to any persons, property, or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare, odor or other characteristic not comparable to the uses permitted in the base zoning district.***
  The applicant has stated in their application that the proposed use will produce very little traffic outside the occasional maintenance visit by a technician, which could be considered significantly less than the retail traffic to the north and the industrial uses to the east. Understanding the nature of this particular use, there may be consideration for any odor or noise as a result of its operations.

- ***(11) The proposed use will not be detrimental to property values in the immediate vicinity.***
- Based on the applicant's attempts to screen the structures with various C-2 architectural requirements and when considering the location adjacent to the Interstate and a history of utility supply in the area, it is unknown if a detrimental impact will occur but the architectural screening attempts are an effort coordinate with any future commercial development.

- ***(12) The proposed use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.***
  The proposed use will not impede development of surrounding properties.

E. Public Comment

To date, no public comment has been received.

F. Staff Recommendation

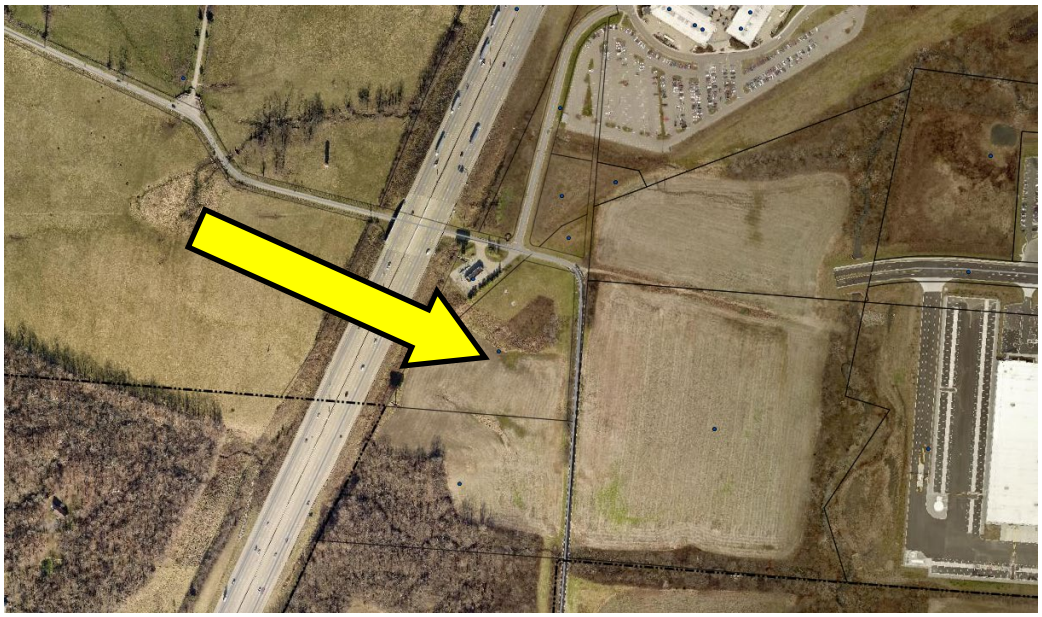
Staff recommends approval of the site plan and conditional use with the following conditions:

- Discussion and decision with Planning Commission regarding the proposed use of gravel within the site.
- Discussion and decision with Planning Commission regarding the proposed use of barbed wire surrounding the site.
- Discussion and decision with Planning Commission regarding the internal sidewalk requirement waiver request.
- The applicant will revise plans to remove slats from the chain link fence.
- A waiver of the parking plan be approved as requested.
- The applicant will revise the photometric plan to meet the minimum lighting required at the Mason Road entrance area.
- The applicant will revise the architectural elevations to address staff comments in regards to building offset requirements and minimum window requirements.
- Discussion and decision with Planning Commission regarding the use of spandrel glass beyond the 20% maximum permitted.
- The applicant will revise the landscape plan to address the access drive landscaping requirements.
- The applicant understands that should the eastern facing service door be visible from Butler-Warren Road, more screening measures (via landscaping and/or fencing) may be required as part of the required Zoning Compliance Inspection.
- As a reminder, minimum size and species requirements related to landscaping must be met.
- As a reminder, if groundmounted or rooftop equipment becomes necessary in the future, screening will be required.
- The photometric plan will be revised to address staff comments regarding lighting at the access point on Mason Road.
- All other Staff comments to be met and any future Engineering review requirements.
- A GIS compatible file of finalized plans be submitted.

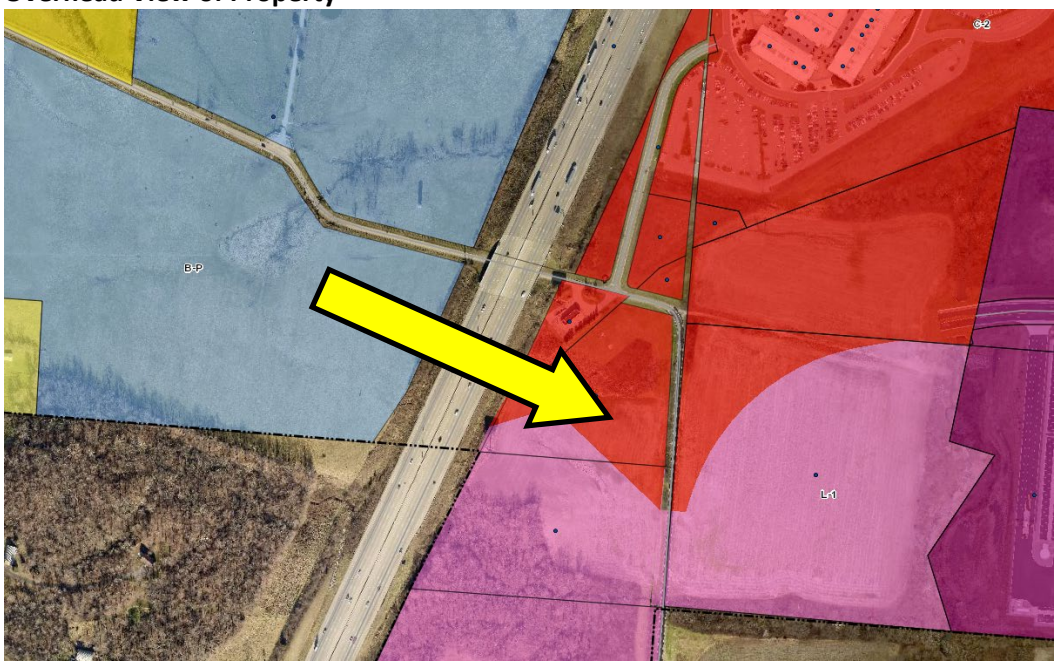
IV. Case No. 2021-5-6— Consideration of a site plan application for Duke Energy regarding a proposed natural gas regulating site locating on property at Mason Road and Butler-Warren Road.

A. Background

- Jeff Schuchter of Duke Energy Ohio has submitted a site plan application for a proposed natural gas regulating site along Butler Warren Road near the corner of Mason Road.
- The site is approximately 7.053 acres and will also contain the Texas Gas Mason Station project, which will be located just west of the Duke Energy site, but on the same parcel.
- The proposed development area is 0.77 acres and will include a 1,740 square foot utility building housing natural gas equipment.
- The current zoning is C-2 General Commercial and with a small portion of L-1 Light Industrial.
- The applicant anticipates a July or August start date and a January 2022 completion date.



Overhead View of Property



Zoning Map of Proposed Site and Surrounding Properties



Northbound on Butler Warren Road



Southbound on Butler Warren Road



Facing West on Butler Warren Road

B. Staff Comments

- **GENERAL:**
    - The use of barbed wire fencing is proposed to surround the facility. The applicant has stated they wish to use a black vinyl coated chain-link fence with barbed wire for safety purposes on the sides and rear of the site.
        - The use of barbed wire is prohibited in commercial zoning districts.
        - Staff would note slats or opaque mesh is not permitted on fencing. The fence elevations provided appear to suggest some sort of slat or overlay on the chain link fence.
- **PARKING:**
    - There is no proposed parking stalls for this site. The applicant has stated this natural gas facility will be unmanned facility with visitation by authorized employees only, not open to the public.
    - Gravel is prohibited as a surface material for vehicular use areas. The applicant has proposed the use of gravel within the fenced in area of their facility in order to access below ground piping for assessment, which requires excavation of piping on a periodic basis. The applicant has stated proper grounding and AC mitigation requires utilization of gravel for property function.
- **SIDEWALKS:**
    - With frontage along Butler-Warren Road, a 5-foot wide public sidewalk would be required. The applicant has not proposed a sidewalk and has indicated this is to prevent suggestion of access to the site as well as future widening plans for Butler-Warren Road.
    - A sidewalk from the public walk is required to provide access to the site itself. The applicant has stated for safety purposes and preventing access or the suggestion of access to the site, a waiver is requested for this requirement.

- **LANDSCAPING:**
    - 20% of the required front yard must be landscaped, with a minimum 6-foot landscaped area adjacent to the right-of-way.
        - The applicant has shown landscaping in the front yard along the right-of-way, but it is unclear whether the 20% requirement has been satisfied.
    - The access drive proposed from Butler Warren Road to serve the site would be required one canopy tree every 50 linear feet and three bushes (36" minimum installation height) ever 15 linear feet.
        - While trees have been proposed along the north side of the access drive, the species proposed are majority evergreen with several smaller flowering trees, as opposed to the canopy tree type required. There are no shrubs required along the access drive.
- **SCREENING:**
    - As a reminder, all rooftop and ground mounted equipment must be screened from view.
        - The applicant has indicated there will be no rooftop equipment and all ground mounted units will be screened by proposed fencing and/or landscaping measures.
- **ARCHITECTURAL:**
    - Building walls visible from a public right-of-way must incorporate a minimum 25% window area.
        - This requirement is met on the east side but is not met on the north or south elevations, which would both have visibility from Butler-Warren Road.
    - Of the required window area, only 20% may be opaque or spandrel glass. The applicant is proposing entirely spandrel glass windows, which they have stated is for security purposes.
- **PHOTOMETRIC:**
    - The access drive from Butler-Warren Road to the east has no lighting (0.0 footcandles). The required minimum for access drives is 0.3 footcandles. The applicant has stated the access drive will be gated to limit entry to authorized personnel only.

C. Department Comments

- **Fire Department:** Fire reserves the right to comment during plans review.
- **Police Department:** No comment.
- **Public Works/Engineering:** Engineering still under review.
    - Waterline under review and set for approval by Public Works
    - Storm Water review in process by Engineering. Detention Calculations and SWP3 needed

D. Conditional Use- Staff Comments

In considering Conditional Use Permit applications, Planning Commission must consider whether there is adequate evidence that the proposed use is consistent with the following standards:

- ***(1) The conditional use is consistent with the spirit, purpose and intent of the comprehensive plan, will not substantially or permanently injure the appropriate use of neighboring property and will serve the public convenience and welfare.***
  The applicant stated in their application that the proposed project aligns with the Comprehensive Plan goal to provide future development that is balanced and compatible with existing adjacent land uses, as well as served by adequate public infrastructure. The applicant has stated it also meets the goal to provide adequate infrastructure to the community and future businesses.

- ***(2) The proposed use will be harmonious with the existing or intended character of the general vicinity, and that such use will not change the essential character of the same area.***
  The applicant has stated their proposed site has been developed with the City of Monroe building and zoning requirements for this commercial zoning district. The applicant has stated the proposed fence line, landscaping, and building façade accommodate the intent of code requirements with several exceptions for safety reasons.

- ***(3) The proposed conditional use is to be located in a district wherein such use may be permitted, subject to the requirements of this chapter.***
  The proposed use, classified as a public utility, is conditionally permitted in the C-2 General Commercial zoning district.

- ***(4) The use complies with all use-specific provisions established in Section 1204.04 Use-Specific Standards.***
  There are no use-specific standards associated with the Public Utilities use category.

- ***(5) The proposed use shall be adequately served by essential public facilities and services such as, but not limited to, roads, public safety forces, storm water facilities, water, sanitary sewer, refuse, and schools or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide adequately any such services.***
  The proposed use will be served adequately served by essential public facilities. The applicant has stated this project supports and expands the existing gas infrastructure.

- ***(6) In the interest of public safety, as a matter of policy, all points of ingress/egress shall be located as far as possible from the intersection of two or more streets.***
  The proposed site will utilize an existing access point from Mason Road.

- ***(7) The proposed use will comply with all applicable development standards, except as specifically altered by the Planning Commission in the approved conditional use.***
  As mentioned in the Site Plan Staff Comments, there are several items to be addressed regarding the proposed site in order to comply with all regulations and standards of the code, including some requested exemptions.

- ***(8) The use will not be hazardous to or have a negative impact on existing or future surrounding uses.***
- Based on the location adjacent to the Interstate and a history of utility supply in the area, it does not appear that a negative impact will occur.

- ***(9) The proposed use will not be detrimental to the economic welfare of the community.***
- Based on the applicant's attempts to screen the structures with various C-2 architectural requirements and when considering the location adjacent to the Interstate and a history of utility supply in the area, it does not appear that a detrimental impact will occur.

- ***(10) The proposed use will not involve uses, activities, processes, materials, equipment and conditions of operations, including, but not limited to, hours of operation, that will be detrimental to any persons, property, or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare, odor or other characteristic not comparable to the uses permitted in the base zoning district.***
  The applicant has stated in their application that the proposed use will produce very little traffic outside the occasional maintenance visit by a technician, which could be considered significantly less than the retail traffic to the north and the industrial uses to the east. Understanding the nature of this particular use, there may be consideration for any odor or noise as a result of its operations.

- ***(11) The proposed use will not be detrimental to property values in the immediate vicinity.***
- Based on the applicant's attempts to screen the structures with various C-2 architectural requirements and when considering the location adjacent to the Interstate and a history of utility supply in the area, it is unknown if a detrimental impact will occur but the architectural screening attempts are an effort coordinate with any future commercial development***.***

- ***(12) The proposed use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.***
  The proposed does not appear to impede development of surrounding properties.

E. Public Comment

To date, no public comment has been received.

F. Staff Recommendation

Staff recommends approval of the site plan and conditional use with the following conditions:

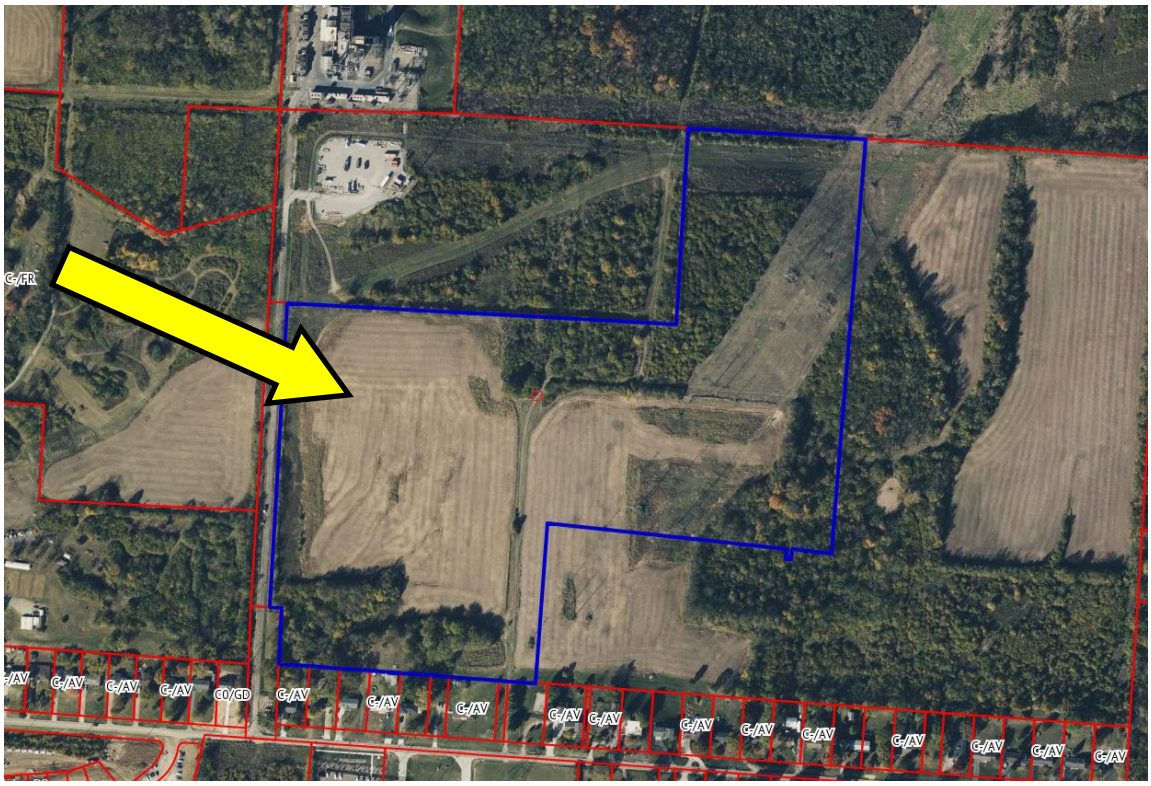
- Discussion and decision with Planning Commission regarding the proposed use of gravel within the site.
- Discussion and decision with Planning Commission regarding the proposed use of barbed wire surrounding the site.
- Discussion and decision with Planning Commission regarding the public sidewalk and internal sidewalk requirement waiver requests.
- The applicant will revise plans to remove any proposed mesh screen or slats from the chain link fence.
- A waiver of the parking plan be approved as requested.
- The applicant will revise the architectural elevations to address staff comments in regards to minimum window requirements on the north and south sides of the building.
- Discussion and decision with Planning Commission regarding the use of spandrel glass beyond the 20% maximum permitted.
- The trees proposed along the access drive do not appear to meet species and spacing requirements in this area, but the utilization of these plantings for screening purposes appears appropriate. Staff recommends approval of the landscape plan as proposed.

- As a reminder, minimum size and species requirements related to landscaping must be met.
- As a reminder, if ground mounted or rooftop equipment becomes necessary in the future, screening will be required.
- All other Staff comments to be met and any future Engineering review requirements.
- A GIS compatible file of finalized plans be submitted.

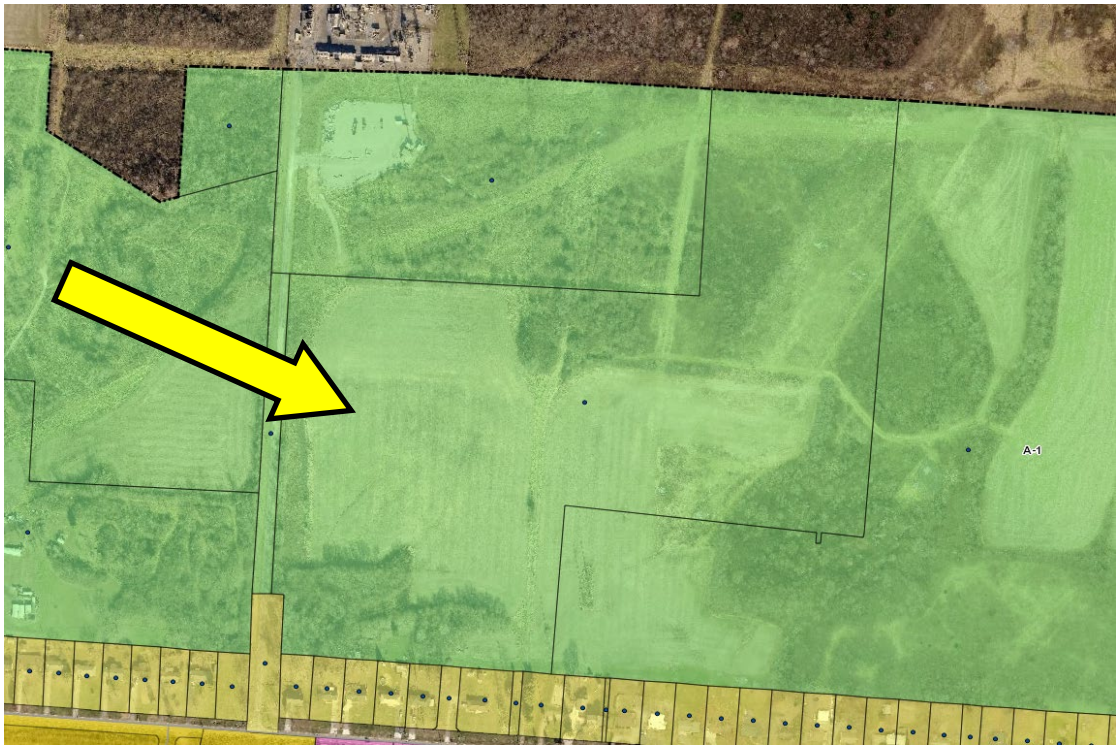
V. Case No. 2021-5-7— Consideration of a site plan application for Tallgrass Energy regarding a natural gas utility development on property located at 598 Todhunter Road

A. Background

- Dustin Beger, Tallgrass Energy, has submitted a site plan application regarding a proposed natural gas utility development located on property off Todhunter Road.
- The proposed metering and regulation station will connect to the Rockies Express Pipeline to provide an additional source of natural gas.
- The property is approximately 48.5 acres total and is presently zoned A-1 Large Scale Agricultural.
- The area to be developed for Tallgrass Energy will be approximately 1.4 acres and will be located alongside the Duke Energy Todhunter development.
- The applicant anticipates a May 2021 start date and October 2021 completion date.



Overhead View of Property



Zoning Map of Proposed Site and Surrounding Properties



Facing North at Entrance Drive off Todhunter Road



Facing North on Access Drive



Facing East on Access Drive

B. Site Plan Staff Comments

- **PARKING:**
    - There is no proposed parking for this use. The applicant has stated this natural gas facility will not be open to the public, there will not be daily employee activity, though crews will visit the facility periodically for preventative maintenance and testing.
- **LANDSCAPING:**
    - No landscape plan is proposed for this development.
    - As an agriculturally zoned property, requirements for landscaping are limited to minimum front yard landscaping. A minimum 20% of the required front yard would be required to be landscaped.
        - There is no proposed landscaping, though the applicant has stated that the existing forested area provides substantial landscaping that would equal 50% of the front yard.
- **SCREENING:**
    - All rooftop and ground mounted equipment is required to be screened from view.
        - The applicant has indicated there is no rooftop equipment, and that all ground mounted equipment is screened by fencing and the existing buffer to the south.
        - Staff would note because the fencing is chain link and is not solid, additional screening via walls and/or landscaping would be necessary. Since their original application, the applicant has provided a rendering showing some trees/shrubs along the south side of the site they would install if necessary. Staff would recommend a combination of evergreen and canopy trees be installed along the south and east side of the site to provide appropriate screening from residential uses to the south.
    - Type B Buffer is required as the proposed use is adjacent to R-1 zoning and A-1 zoning.
        - The applicant has indicated to Staff that the existing farmland will continue to be farmed by the tenant farmer, so Tallgrass does not wish to limit that portion of the property any further. Additionally, they do not wish to install trees that could grow tall enough to fall and present a safety hazard to the site.
        - The applicant has stated the developed portion of this site will be over 900 feet to the closest residential property line. However, the applicant has stated they are willing to discuss line of site issues and address buffering concerns.
        - Staff has outlined below areas that potentially would need to be addressed with buffering measures:



Areas of Potential Visibility

- **PHOTOMETRIC:**
    - No photometric plan has been submitted.
        - The applicant has stated part of the project will be to install 4 collapsible pole lights that will be raised when needed to complete maintenance or service at the site but will not be used on a regular or daily basis.

C. Department Comments

- **Fire Department:** Fire reserves the right to comment during plans review.
- **Police Department:** No comment.
- **Public Works/Engineering:** Engineering still under review.
    - Storm Water Management Plan submitted and under review.

D. Conditional Use- Staff Comments

- ***(1) The conditional use is consistent with the spirit, purpose and intent of the comprehensive plan, will not substantially or permanently injure the appropriate use of neighboring property and will serve the public convenience and welfare.***
  The Comprehensive Plan does discuss the need for the expansion of the City's infrastructure to be managed to meet current needs and future growth. Efficient and effective utility/power capacity is critical to the infrastructure of any community in order to serve the public welfare.
- ***(2) The proposed use will be harmonious with the existing or intended character of the general vicinity, and that such use will not change the essential character of the same area.***

- The property in question has been owned by a utility for a number of years and our understanding is in part to provide future for utility infrastructure. The area while bounded by residential to the south is somewhat remote and will retain much of the natural forested screening and does not appear to change the essential character of the area as an essentially autonomous operation.

- ***(3) The proposed conditional use is to be located in a district wherein such use may be permitted, subject to the requirements of this chapter.***
  The proposed use, classified as a public utility, is conditionally permitted in the A-1 Large Scale Agriculture zoning district.

- ***(4) The use complies with all use-specific provisions established in Section 1204.04 Use-Specific Standards.***
  There are no use-specific standards associated with the Public Utilities use category.

- ***(5) The proposed use shall be adequately served by essential public facilities and services such as, but not limited to, roads, public safety forces, storm water facilities, water, sanitary sewer, refuse, and schools or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide adequately any such services.***
  The proposed use will be served adequately served by essential public facilities.

- ***(6) In the interest of public safety, as a matter of policy, all points of ingress/egress shall be located as far as possible from the intersection of two or more streets.***

- ***(7) The proposed use will comply with all applicable development standards, except as specifically altered by the Planning Commission in the approved conditional use.***
  As mentioned in the Site Plan Staff Comments, there are several items to be addressed regarding the proposed site in order to comply with all regulations and standards of the code, including some requested exemptions.

- ***(8) The use will not be hazardous to or have a negative impact on existing or future surrounding uses.***
- Based on the remote location and a history of utility supply in the area, it does not appear that a negative impact will occur.

- ***(9) The proposed use will not be detrimental to the economic welfare of the community.***
- The property in question has been owned by a utility for a number of years and our understanding is in part to provide future for utility infrastructure. The area while bounded by residential to the south is somewhat remote and will retain much of the natural forested screening and does not appear to be detrimental to the economic welfare of the community.

- ***(10) The proposed use will not involve uses, activities, processes, materials, equipment and conditions of operations, including, but not limited to, hours of operation, that will be detrimental to any persons, property, or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare, odor or other characteristic not comparable to the uses permitted in the base zoning district.***
  The applicant has stated in their application that the proposed use will produce very little traffic outside the occasional maintenance visit. Understanding the nature of this particular use, there may be consideration for any odor or noise as a result of its operations.

- ***(11) The proposed use will not be detrimental to property values in the immediate vicinity.***
- The property in question has been owned by a utility for a number of years and our understanding is in part to provide future for utility infrastructure. The area while bounded by residential to the south is somewhat remote and will retain much of the natural forested screening. Predicting the impact of property values of this use is not known at this time.

- ***(12) The proposed use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.***
  The proposed use will not impede development of surrounding properties.

E. Public Comment

To date, no public comment has been received.

F. Staff Recommendation

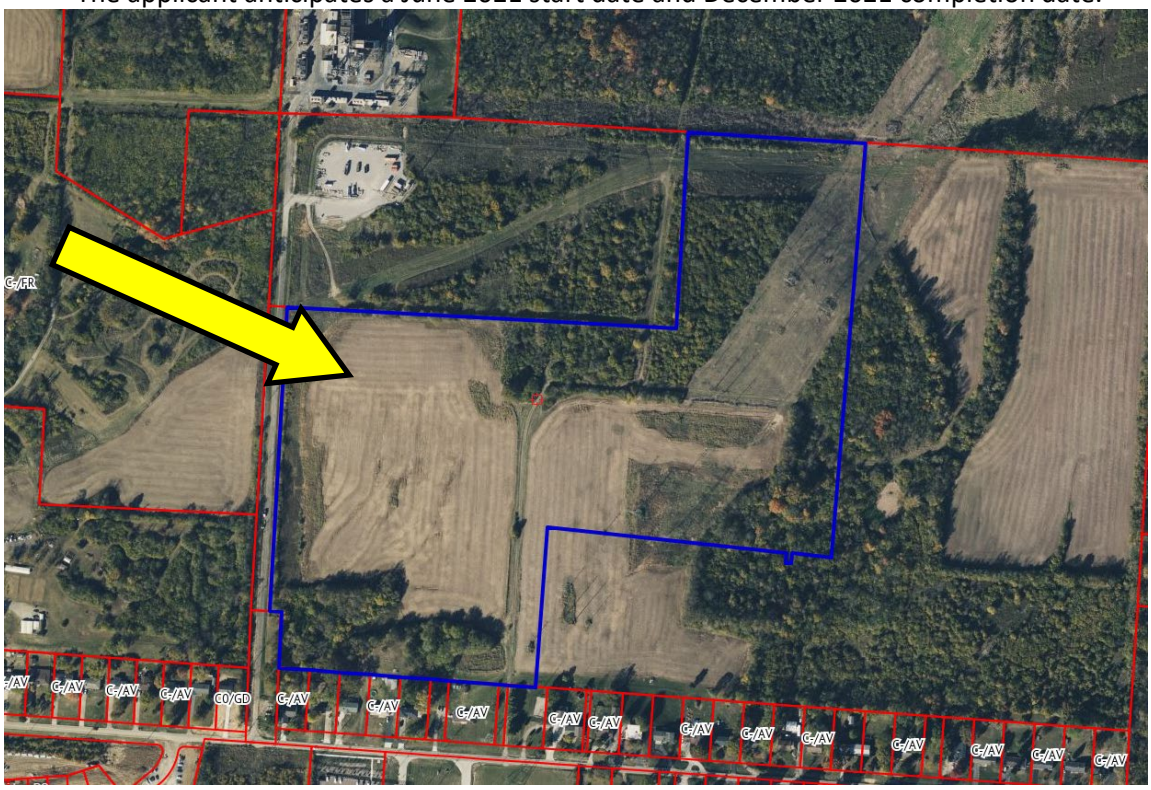
Staff recommends approval of the site plan and conditional use with the following conditions:

- A waiver of the parking plan be approved as proposed.
- Discussion and decision with Planning Commission regarding the proposed use of gravel within the site.
- The applicant will provide a landscape plan to be approved by Staff to address screening of the site from areas visible to the south and southeast of the development.
- As a reminder, minimum size and species requirements related to landscaping must be met.
- As a reminder, if additional ground mounted or rooftop equipment becomes necessary in the future, further screening may be required.
- All other Staff comments to be met and any future Engineering review requirements.
- A GIS compatible file of finalized plans be submitted.

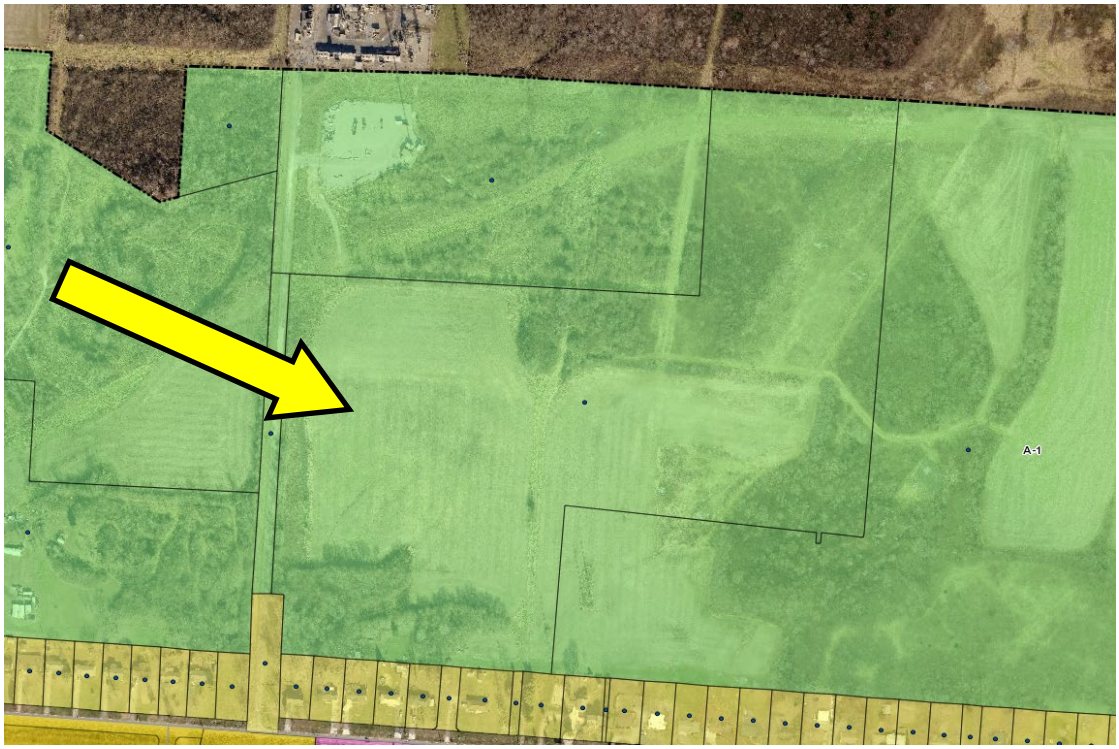
VI. Case No. 2021-5-8— Consideration of a site plan application for Duke Energy regarding a proposed natural gas regulator facility on property located at 598 Todhunter Road Todhunter Road

A. Background

- David Klein, Duke Energy Ohio, has submitted a site plan application regarding a proposed natural gas utility development located on property off Todhunter Road.
- The proposed metering and regulation station will connect to the Rockies Express Pipeline to provide an additional source of natural gas.
- The property is approximately 48.5 acres total and is presently zoned A-1 Large Scale Agricultural.
- The area to be developed for Tallgrass Energy will be approximately 1.8 acres and will be located alongside the Tallgrass Energy Todhunter development.
- The applicant anticipates a June 2021 start date and December 2021 completion date.



Overhead View of Property



Zoning Map of Proposed Site and Surrounding Properties



Facing North at Entrance Drive off Todhunter Road



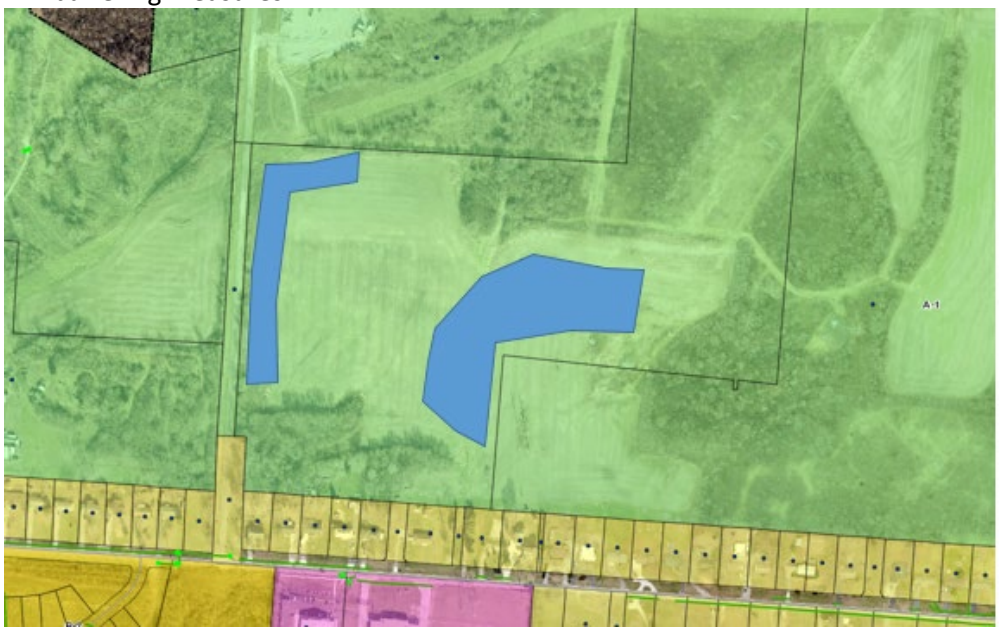
Facing North on Access Drive



Facing East on Access Drive

B. Staff Comments

- **PARKING:**
    - There is no proposed parking for this use. The applicant has stated this natural gas facility will not be open to the public, there will not be daily employee activity, though crews will visit the facility periodically for preventative maintenance and testing.
- **LANDSCAPING:**
    - No landscape plan is proposed for this development.
    - As an agriculturally zoned property, requirements for landscaping are limited to minimum front yard landscaping. A minimum 20% of the required front yard would be required to be landscaped.
        - There is no proposed landscaping, though the applicant has stated that the existing forested area provides substantial landscaping that would equal 50% of the front yard as shared with Tallgrass Energy.
- **SCREENING:**
    - All rooftop and ground mounted equipment is required to be screened from view.
        - The applicant has indicated there is no rooftop equipment, and that all ground mounted equipment is screened by fencing and the existing buffer to the south.
    - Type B Buffer is required as the proposed use is adjacent to R-1 zoning and A-1 zoning.
        - The applicant has indicated to Staff that the existing farmland will continue to be farmed by the tenant farmer, so Duke Energy does not wish to limit that portion of the property any further. Additionally, they do not wish to install trees that could grow tall enough to fall and present a safety hazard to the site.
        - Staff has outlined below areas that potentially would need to be addressed with buffering measures:



Areas of Potential Visibility

- The applicant has further stated that a majority of cleared land highlighted above in blue is located in an existing electrical easement, where Duke Energy would not permit installation of trees or vegetation.
- Similar to the comment mentioned regarding the Tallgrass Energy submittal, Staff would note because the fencing is chain link and is not solid, additional screening via walls and/or landscaping would be necessary. Staff would suggest a combination of evergreen and canopy trees be installed directly/closer along the south and east side of the site (or however necessary to avoid utility easements, to provide

appropriate screening from residential uses to the south. This would also assist in the buffer requirement.

- **PHOTOMETRIC:**
    - No photometric plan has been submitted.

C. Department Comments

- **Fire Department:** Fire reserves the right to comment during plans review.
- **Police Department:** No comment.
- **Public Works/Engineering:** Engineering still under review.
    - Storm Water Management Plan submitted and under review.

D. Conditional Use- Staff Comments

- ***(1) The conditional use is consistent with the spirit, purpose and intent of the comprehensive plan, will not substantially or permanently injure the appropriate use of neighboring property and will serve the public convenience and welfare.***
  The applicant has indicated the development will be situated in an area that is isolated from the surrounding development by distance and natural buffering to assist in maintaining the aesthetics and character of the surrounding area.

- ***(2) The proposed use will be harmonious with the existing or intended character of the general vicinity, and that such use will not change the essential character of the same area.***
  The applicant has stated the character of the area will be minimally impacted due to a majority of the property remaining intact as non-developed. The applicant has stated it is harmonious with the existing Dicks Creek Energy facility to the north.

- ***(3) The proposed conditional use is to be located in a district wherein such use may be permitted, subject to the requirements of this chapter.***
  The proposed use, classified as a public utility, is conditionally permitted in the A-1 Large Scale Agriculture zoning district.

- ***(4) The use complies with all use-specific provisions established in Section 1204.04 Use-Specific Standards.***
  There are no use-specific standards associated with the Public Utilities use category.

- ***(5) The proposed use shall be adequately served by essential public facilities and services such as, but not limited to, roads, public safety forces, storm water facilities, water, sanitary sewer, refuse, and schools or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide adequately any such services.***
  The proposed use will be served adequately served by essential public facilities.

- ***(6) In the interest of public safety, as a matter of policy, all points of ingress/egress shall be located as far as possible from the intersection of two or more streets.***
  The site is located off a long access drive, separated by significant distance from Todhunter Road.

- ***(7) The proposed use will comply with all applicable development standards, except as specifically altered by the Planning Commission in the approved conditional use.***

As mentioned in the Site Plan Staff Comments, there are several items to be addressed regarding the proposed site in order to comply with all regulations and standards of the code, including some requested exemptions.

- ***(8) The use will not be hazardous to or have a negative impact on existing or future surrounding uses.***
- Based on the remote location and a history of utility supply in the area, it does not appear that a negative impact will occur.

- ***(9) The proposed use will not be detrimental to the economic welfare of the community.***
- The property in question has been owned by a utility for a number of years and our understanding is in part to provide future for utility infrastructure. The area while bounded by residential to the south is somewhat remote and will retain much of the natural forested screening and does not appear to be detrimental to the economic welfare of the community.

- ***(10) The proposed use will not involve uses, activities, processes, materials, equipment and conditions of operations, including, but not limited to, hours of operation, that will be detrimental to any persons, property, or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare, odor or other characteristic not comparable to the uses permitted in the base zoning district.***
  The applicant has stated in their application that the proposed use will produce very little traffic outside the occasional maintenance visit. Understanding the nature of this particular use, there may be consideration for any odor or noise as a result of its operations.

- ***(11) The proposed use will not be detrimental to property values in the immediate vicinity.***
- The property in question has been owned by a utility for a number of years and our understanding is in part to provide future for utility infrastructure. The area while bounded by residential to the south is somewhat remote and will retain much of the natural forested screening. Predicting the impact of property values of this use is not known at this time.

- ***(12) The proposed use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.***
  The proposed use will not impede development of surrounding properties.

E. Public Comment

To date, no public comment has been received.

F. Staff Recommendation

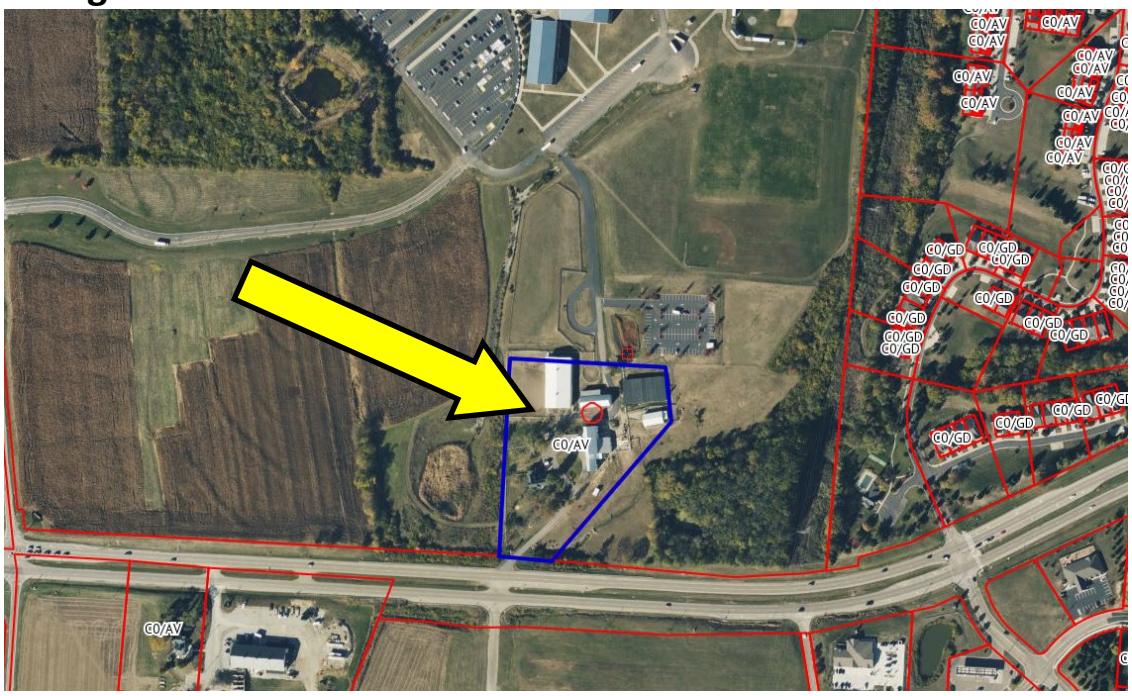
Staff recommends approval of the site plan and conditional use with the following conditions:

- A waiver of the parking plan be approved as proposed.
- Discussion and decision with Planning Commission regarding the proposed use of gravel within the site.
- The applicant will provide a landscape plan to be approved by Staff to address screening of the site from areas visible to the south and southeast of the development.
- As a reminder, minimum size and species requirements related to landscaping must be met.
- As a reminder, if additional ground mounted or rooftop equipment becomes necessary in the future, further screening may be required.

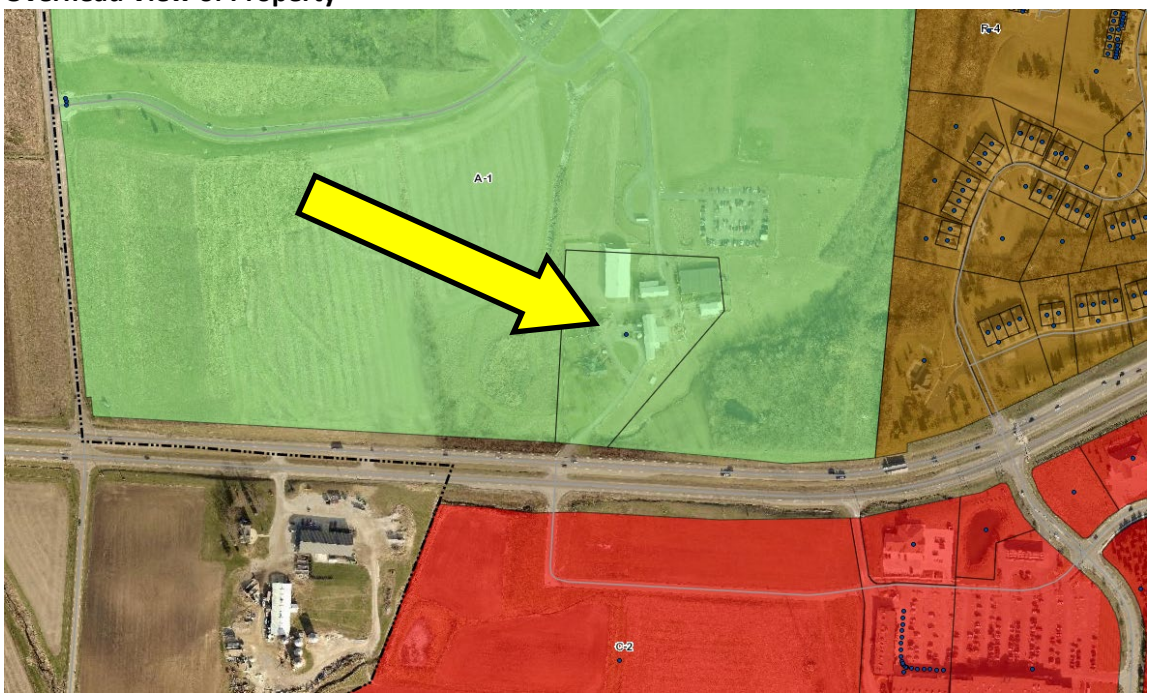
- All other Staff comments to be met and any future Engineering review requirements.
- A GIS compatible file of finalized plans be submitted.

VII. Case No. 2021-5-9— Consideration of a site plan application and Planned Unit Development modification for Butler Tech Natural Sciences campus at 640 Hamilton Lebanon Road.

A. Background



Overhead View of Property



Zoning Map of Proposed Site and Surrounding Properties



Westbound on Hamilton Lebanon Road



Eastbound on Hamilton Lebanon Road



Facing South at Access Drive from Monroe Local Schools Campus

B. Staff Comments

- **STREET TREES:**
    - Street trees are required every 40 feet on center along the public frontage on State Route 63.
        - The applicant has stated as this project does not involve ay work along the State Route 63 frontage, no street trees have been proposed.
        - Staff would note the site's frontage along State Route 63 contains significant existing vegetation.
- **LANDSCAPING:**
    - Due to the size of the expansion to the campus, all landscaping must come into compliance with current code standards. The applicant is not proposing any changes to the existing parking area.
        - Per code, the existing parking area required 10 additional perimeter trees around the parking area.
        - Existing landscape islands would be required to be upgraded with an additional canopy tree. An additional landscape island would be required at the southwest corner of the site.
        - A solid screen of evergreen shrubs at minimum 36" installation height would be required along the perimeter of all parking rows.
        - The applicant has stated they do not wish to disturb established plantings (installed 2010).
        - A minimum 20% of the required front yard would be required to be landscaped. As previously stated regarding street trees, the applicant requests to not install landscaping at the State Route 63 frontage as it is not involved in this project's scope of work.

        - The applicant has stated the owner is open to adding several canopy trees along the existing access drive from Hornet Drive down to the Butler Tech Campus.

- **SCREENING:**
    - As a reminder, all rooftop and ground mounted equipment must be screened from view.
    - Transformers proposed at the south end of the site are partially screened with a 6' wood privacy fence. Staff requests information on the overall height of the transformers to ensure the fence height is adequate. Further, additional fencing and/or landscaping measure are required to ensure the structures are screened from the west side.
    - Transformer proposed outside the new academic building on the east side of the site is required to be fully screened from view.
    - Staff requests to see elevations of required screening for what appears to be a dumpster enclosure towards the west end of the site.
        - The applicant has indicated rooftop and ground units are currently being designed but will comply with screening requirements as approved by the City.
- **PHOTOMETRIC:**
    - Photometric plans submitted show illumination across the entire site. No photometric plan has been provided as required.
        - The applicant has stated a photometric plan is forthcoming, to be provided by a third party consultant.

C. Department Comments

- **Fire Department:** Fire reserves the right to comment during plans review. The access drive needs to be solid surface and 26' wide from the bus turnaround south to the first turn at the barn and able to support 78,000lbs. It appears the plans are attempting to use 18' asphalt and 8' of decorative GrassPave. If the applicant can show it supports this Fire vehicle weight, Fire could potentially approve that configuration. There are general access concerns for our ladder truck on this property as-is.
    - The applicant has stated the Grasspave system has been eliminated and that the road shall be widened and paved with asphalt to match existing condition and support the 78,000 pound load.
- **Police Department:** No comment.
- **Public Works/Engineering:** Engineering review ongoing.

D. Staff Recommendation

Staff recommends approval of the site plan and PUD modification with the following conditions:

- Discussion of the landscape plan as it relates to the existing parking area and front yard landscaping requirements.
- As a reminder, minimum size and species requirements related to landscaping must be met.
- All current and future proposed ground mounted must be fully screened from view. Understanding some items are still under design, the applicant understands an updated plan for screening of these structures will be required to be approved by Staff.
- All other Staff comments to be met and any future Engineering review requirements.
- A GIS compatible file of finalized plans be submitted.

- It should be noted that the current parking lot is illuminated. A future photometric plan be approved by staff with the intent to not necessarily illuminate the whole site but rather to address any safety concerns.

Application for a Zoning Map Amendment

Monroe Development Department
233 South Main Street, Monroe, Ohio 45050
Phone: 513-539-7374
www.monroeohio.org

For Staff Use Only

Submittal Date:	4.14.2021
Date Application Determined Complete:	
Date of Planning Commission Review:	
Fee Paid: $500.00	Staff Initials: DMC
Application/Case Number:	20200881

Zoning Amendment Review Information

1. The zoning map amendment review procedure and review criteria are established in Section 1203.03 of the Monroe Planning and Zoning Code.
2. A pre-application conference is required prior to submission of an application for a zoning map amendment unless the Code Enforcement Officer waives the requirement. Contact the Development Department to set up a time.
3. The application fee for a zoning amendment is $500, due at the time the application is submitted.

Basic Information

Project Address: 860 Holman Ave Monroe, OH 45050

County: [x] Butler [ ] Warren | Total Area of Rezoning: 35 acres

County Tax Parcel ID: C1800001000010

Existing Zoning District: Agricultural

Proposed Zoning District: Light Industrial

Applicant Information

Applicant Name: Thomas Miller

Contact Person: Daryl Dunn

Contact Address: 2214 Greentree Rd Lebanon, OH 45036

Contact Phone Number: 513-238-7702 | Contact Fax Number:

Contact E-Mail: daryl.dunn1955@gmail.com

Property Owner Name: Thomas Miller

The applicant may attach a separate sheet of a paper with contact information for additional people, if necessary (e.g., additional owners, registered engineer, landscape architect, etc.). The same contact information shall be provided for each contact name.

Zoning Map Amendment Information

1) Describe any change in conditions, trends, or other facts that necessitates the proposed zoning amendment. Furthermore, describe how the proposed zoning district will remedy the change in conditions, trends, or other issues.

To return the property back to original zoning of Industrial. The change to agricultural zoning doesn't fit with the area and existing businesses already occupying Holman Ave.

dotloop signature verification:

Project Address or Tax Parcel ID:

Rezoning Information Continued

2) Describe how the proposed amendment furthers the objectives of the Comprehensive Plan.

Sectioning off part of the industrial park and rezoning to agriculture does not fit with the highest and best use of this property or its intended use.

3) Provide any additional information necessary to document how the map amendment meets the review criteria established for zoning map amendments in Section 1203.03.

—

Certification and Signatures

Applicant Signature - I certify that, to the best of my knowledge, the information contained in this form and within any attachments is correct and truthful. I understand that knowingly falsifying this information may be grounds for the denial or revoking of this zoning map amendment application and any subsequent zoning permit or other review applications.

Print Name: Thomas Miller

Signature: Thomas Miller dotloop verified 04/05/21 8:48 AM EDT WTJD-G0XT-VD7R-VVCS

Date: 04/02/21

Property Owner Signature - If the property owner is not the named applicant on this form, the property owner shall sign the form below acknowledging that the applicant is an authorized agent of the property owner as it relates to proposed project. If the proposed rezoning affects multiple properties owned by different property owners, each property owner subject to the rezoning shall be required to sign this form acknowledging consents of the rezoning request. Separate signature sheets or letters acknowledging such consent are acceptable.

Print Name:

Signature:

Date:

Note: A letter signed by the property owner, authorizing the applicant to act on their behalf may be submitted in lieu of the property owner's signature on this form.

docloop signature verification:

Submittal Requirement Checklist	
General Information	
x	Completion of required pre-application conference
	Zoning Map Amendment Review application form
x	Application fee
x	Legal description of the parcels subject to the proposed rezoning.
	Sixteen copies of the plans and maps established below at a scale no smaller than 1 inch = 100 feet, unless otherwise noted – Eight of the copies shall be on pages with a minimum size of 24"x36" and the other eight copies shall be on pages with a minimum size of 11"x17". Additional copies may be required based on project specifics.
	Eight copies of the Traffic Impact Study, if required. See Section 1211.04
	Any additional information determined to be necessary by the Development Department
Vicinity Map (Scale may be smaller than 1" = 100')	
	Date, north arrow, scale, and a legend for all symbols
	Boundary line of the land subject to the proposed rezoning
	All surrounding properties, streets, and corporation limits within a minimum of 500' of the outer boundaries of the project site
Proposed Zoning Map	
	The existing and proposed zoning for all properties that are a part of this application for a zoning map amendment. The map shall also identify the existing zoning for all surrounding properties
	Existing parcel lines for the properties to be rezoned and all parcel lines within 200' of the site
	Existing streets within 200' of site with names and centerlines
	Existing watercourses and bodies of water including any applicable flood hazard areas


TODHUNTER RD
HOLMAN AVE
Monroe
Middletown

PARID: C1800001000010
MILLER THOMAS C &

860 HOLMAN AVE

Parcel

Parcel Id	C1800001000010
Address	860 HOLMAN AVE
Building/Unit #	
Class	AGRICULTURAL
Land Use Code	111, A - CASH GRAIN OR GENERAL FARM
Neighborhood	00001015
Total Acres	35.3670
Taxing District	C18
District Name	LEMON TWP-MON CORP-MONROE LSD
Gross Tax Rate	65.42
Effective Tax Rate	57.904038
Non Business Credit	.099721
Owner Occupied Credit	N/A

Dwelling

Stories	1.5
Gross Living Area	1,279
Construction	ALUM/VINYL
Total Rooms	7
Bedrooms	3
Year Built	1948
Finished Basement	0

Current Value

Land (100%)		$75,970
Building (100%)		$56,720
Total Value (100%)		$132,690
CAUV		$75,970
Assessed Tax Year	2020	
Land (35%)		$26,590
Building (35%)		$19,850
Assessed Total (35%)		$46,440

Incentive District Parcels What is this?

Parcel identifier	Value Type	value
C1800001000010	Base Parcel(before CAUV reduction)	673,780
	Total Value	673,780

Homestead Credits How do I qualify?

Homestead Exemption	NO
Owner Occupied Credit	NO
100% Disabled Veteran Exemption	NO

CAUV & Agricultural District What is this?

CAUV	YES
Agricultural District	NO

Current Year Real Estate Taxes

TAX TYPE	Prior Year	First Half Tax	Second Half Tax	Total
Real Estate	0.00	1,210.44	1,210.44	2,420.88
Tot Payments	0.00	-1,210.44	0.00	-1,210.44
Total:	0.00	0.00	1,210.44	1,210.44

Owner and Legal Future ?

Owner 1	MILLER THOMAS C &
Owner 2	CANDICE NIXON
Legal 1	804 ENT LESS W 549'CTR PT
Legal 2	
Legal 3	
Future	

Taxbill Mailing Address Can I change my mailing address?

Mailing Name 1	THOMAS MILLER
Mailing Name 2	
Address 1	99 E ORCHARD AVE
Address 2	
Address 3	LEBANON OH 45036

Transfers (Date represents time of transfer)

Date	Sale Amount
01-NOV-86	$90,500

Transfers (Date represents time of transfer)

Date	Type	Sale Amount	Trans #	Seller	Buyer
01-NOV-86	LAND & BUILDING	$90,500.00			MILLER THOMAS C &

2214 Greentree Rd

Lebanon, OH 45036

RE: 860 Holman Ave

Monroe, OH 45050

To whom it may concern,

This letter is to explain the history of and the affect the zoning changes have made on the value of this property.

In November of 1986 Thomas C Miller and now Candice Nixon bought the property known as 860 Holman Ave in Monroe Ohio. Bought as an investment opportunity this property was zoned light industrial. All the connecting parcels to this property were sold as light industrial lots and appropriate businesses were constructed on those parcels. Even the city of Monroe bought a parcel and built on it.

In and around 2014 the city of Monroe decided to arbitrarily rezone the remainder of this industrial park acreage as agricultural. In May of 2019 the owners contacted me to list and sell this property for them. As part of the marketing plan we decided to apply for a zoning change to return the property to its light industrial zoning. After meeting with the zoning department we were basically told to wait until the city revised their comprehensive plan for existing and future land uses. The thinking behind this we were told was that the planning commission would probably not want to do this in the middle of their planning. So we waited and then the Covid-19 arrives and everything comes to a halt. There is still not a completed land use plan. So the owners are still stuck with the current zoning.

I have said all of that to say that the change in zoning has drastically affected the value of 860 Holman Ave. The difference between the price of light industrial ground and that of agricultural is hugely significant.

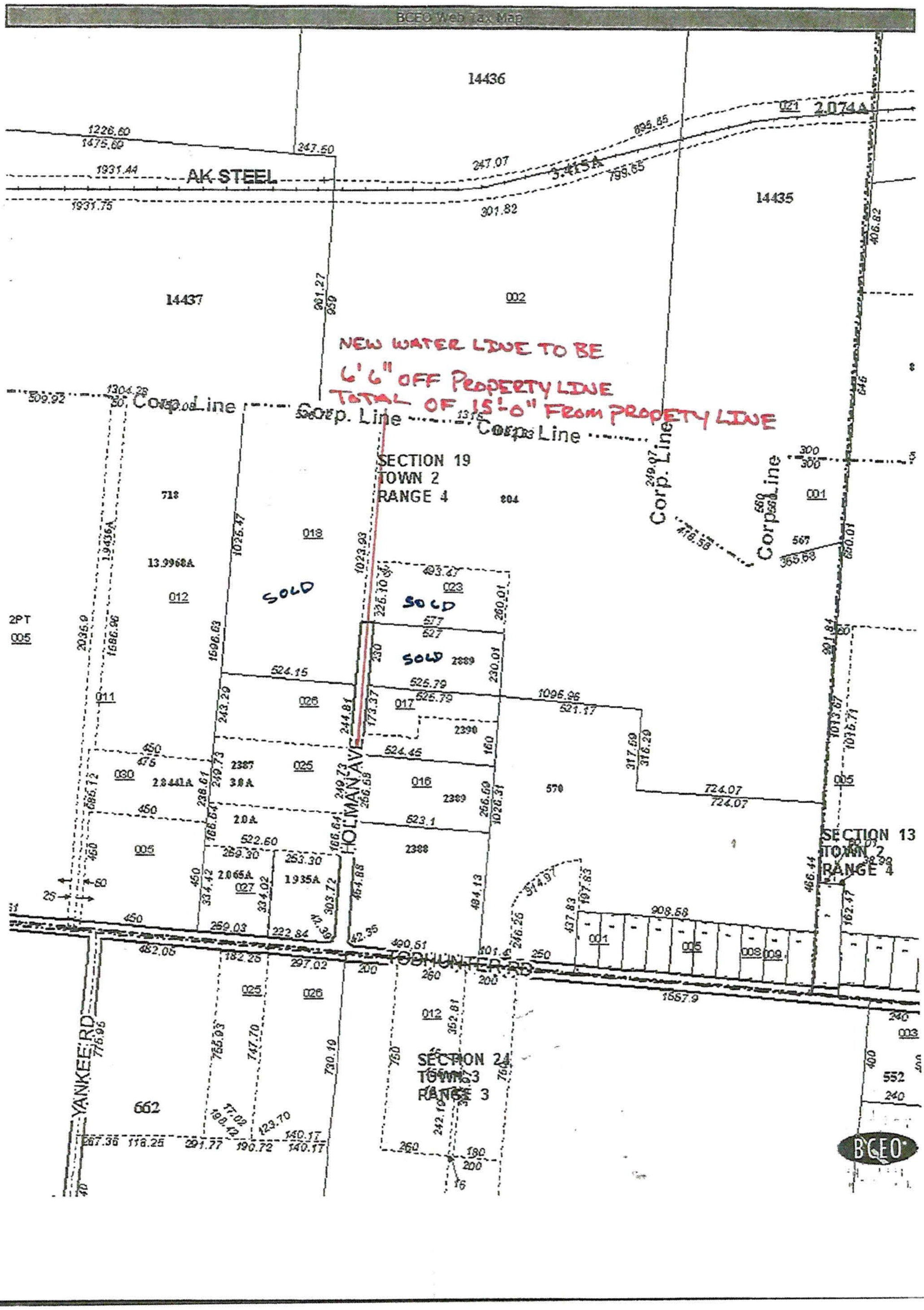
What was an investment in an industrial park has turned out to be a savings account with very low interest and annual penalties (property taxes).

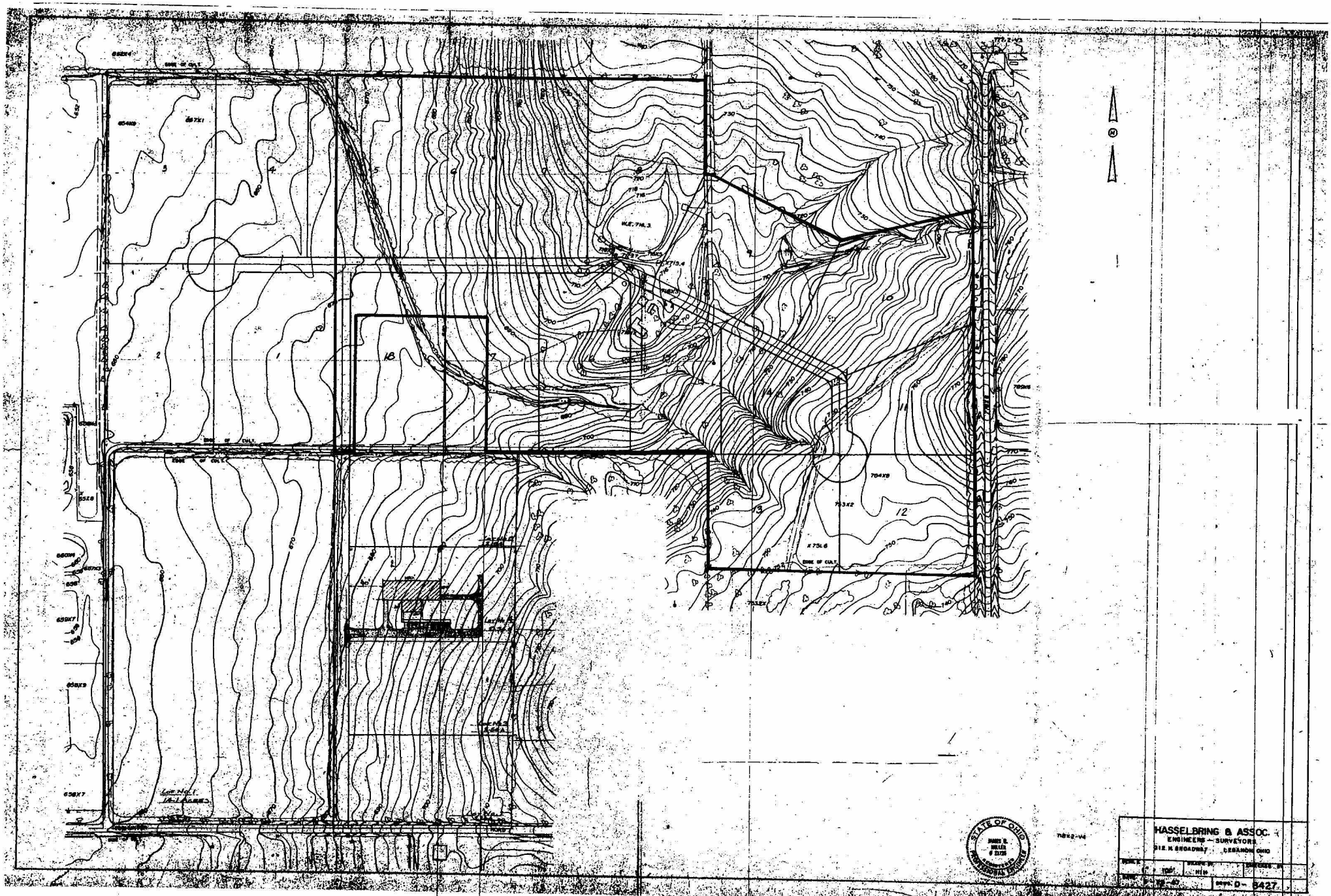
Sincerely,

Daryl Dunn

Broker/Owner

Greentree Realty


BCEO Web Tax Map
14436
14435
14437
AK STEEL
1226.60
1475.69
1931.44
1931.75
247.50
247.07
301.82
895.65
799.65
021
2.074A
3.415A
406.82
261.27
959
002
NEW WATER LINE TO BE
6'6" OFF PROPERTY LINE
TOTAL OF 15'-0" FROM PROPETY LINE
Corp. Line
SECTION 19
TOWN 2
RANGE 4
718
804
018
13.9968A
012
SOLD
023
SOLD
2PT
005
011
026
017
2389
2390
030
2.8441A
3.0A
025
016
2387
2389
570
2.0A
005
2388
027
2.065A
1.935A
HOLMAN AVE
TODHUNTER RD
YANKEE RD
662
025
026
012
SECTION 24
TOWN 3
RANGE 3
SECTION 13
TOWN 2
RANGE 4
001
005
008
009
003
552
BCEO


N
STATE OF OHIO
HASSELBRING & ASSOC.
ENGINEERS — SURVEYORS
312 N. BROADWAY LEBANON OHIO
DWG. D- 8427

PARID: C1800001000010
MILLER THOMAS C &

860 HOLMAN AVE

Parcel

Parcel Id	C1800001000010
Address	860 HOLMAN AVE
Class	AGRICULTURAL
Land Use Code	111, A - CASH GRAIN OR GENERAL FARM
Neighborhood	00001015
Total Acres	35.3670
Taxing District	C18
District Name	MONROE CORP LSD
Gross Tax Rate	69.89
Effective Tax Rate	63.818274
Non Business Credit	.099708
Owner Occupied Credit	N/A

Dwelling

Stories	1.5
Gross Living Area	1,279
Construction	ALUM/VINYL
Total Rooms	7
Bedrooms	3
Year Built	1948
Finished Basement	0

Current Value

Land (100%)		$90,410
Building (100%)		$47,470
Total Value (100%)		$137,880
CAUV		$90,410
Assessed Tax Year	2017	
Land (35%)		$31,640
Building (35%)		$16,610
Assessed Total (35%)		$48,250

Incentive District Parcels What is this?

Parcel Identifier	Value Type	value
C1800001000010	Base Parcel(before CAUV reduction)	612,980
	Total Value	612,980

Homestead Credits How do I qualify?

Homestead Exemption	NO
Owner Occupied Credit	NO
100% Disabled Veteran Exemption	NO

CAUV & Agricultural District What is this?

CAUV	YES
Agricultural District	NO

Current Year Real Estate Taxes

TAX TYPE	Prior Year	First Half Tax	Second Half Tax	Total
Real Estate	0.00	1,386.11	1,386.11	2,772.22
Tot Payments	0.00	-1,386.11	0.00	-1,386.11
Total:	0.00	0.00	1,386.11	1,386.11

Owner and Legal *Future ?*

Owner 1	MILLER THOMAS C &
Owner 2	CANDICE NIXON
Legal 1	804 ENT LESS W 549'CTR PT
Legal 2	
Legal 3	
Future	

dotloop signature verification:

Monroe Development Department
233 South Main Street, Monroe, Ohio 45050
(513) 539-7374 x1020

Zoning Text and Map Amendments

Purpose:

City Council may amend the text of Planning and Zoning Code or the Zoning Map to make adjustments due to changed conditions, changes in public policy, recommendations of the comprehensive plan, or that are necessary to advance the health, safety, and general welfare of the City.

Procedure:

Step 1 – Pre-Application Conference

The applicant shall meet with the Code Enforcement Officer for a pre-application conference before submitting an application to discuss the proposed development, review submittal requirements, and discuss compliance with the provisions of the code and the Comprehensive Plan

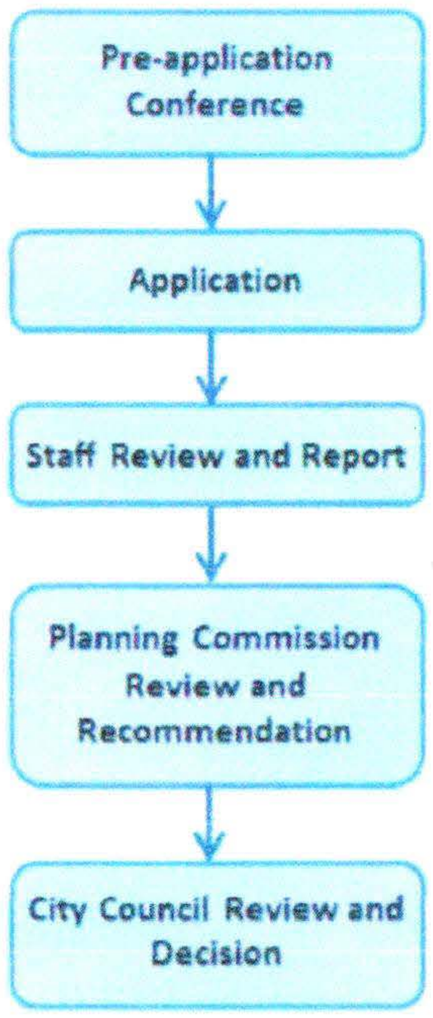
Step 2 – Application

The Code Enforcement Officer shall accept the fee and process the application request, schedule a public hearing and prepare a staff report for review by Planning Commission.

Step 3 – Planning Commission Review and Recommendation

The Planning Commission shall review a text or zoning map amendment application during a public hearing, and shall consider the staff report from the Code Enforcement Officer and the review criteria of this section.

Within 60 days of referral of the application, the Planning Commission shall submit a written recommendation to City Council. The Planning Commission shall recommend approval, approval with some modification, or disapproval.



Step 3 – City Council Review and Decision

Following receipt of the recommendation from the Planning Commission, City Council shall set a time for a public hearing on the proposed amendment.

After the public hearing, City Council shall either adopt or deny the recommendations of the Planning Commission, or adopt some modification thereof.

Time Line:

The overall rezoning process is approximately 160 days. Depending on the submittal and decision timing, an accelerated scheduled is possible.

Pre-Application:	3 Days
Application/Planning Commission Approval:	60 Days
City Council Approval:	60 Days
Referendum Period:	30 Days
Total Timeframe:	153 Days

Applicants are reminded this handout does not serve as a substitute for any of the City of Monroe's adopted ordinances and is intended only as a guide.

docusign signature verification:

Review Criteria:

- Whether the proposed amendment corrects an error or meets the challenge of some changing condition, trend, or fact since the time that the original text or map designations were established;
- Whether the proposed amendment is consistent with the comprehensive plan or other applicable city plans;
- Whether the proposed amendment is consistent with the purpose of this code;
- Whether, and the extent to which, the proposed amendment addresses a demonstrated community need;
- Whether the proposed amendment will protect the health, safety, morals, and general welfare of the public;
- Whether the proposed amendment will result in significant mitigation of adverse impacts on the natural environment, including air, water, noise, storm water management, wildlife, and vegetation;
- Whether the proposed amendment will ensure efficient development within the City; and
- Whether the proposed amendment will result in a logical and orderly development pattern.

Submittal Requirements:

- Items listed on the application but not limited to:
- Zoning Amendment Application with property owner(s) or authorized agent's signature;
- Applicable fee;
- Plat and legal description of the proposed property to be rezoned as well as the existing parcel lines for the property to be rezoned. All parcel lines, streets, watercourses, bodies of water, and flood hazard areas within 200 feet of the site will need to be indicated. The existing zoning for all surrounding parcels shall be identified;
- A excel spreadsheet listing the address, parcel number, property owner, and tax mailing address for all properties within, contiguous, and directly across the street of the subject property;
- Please note that written notice to the surrounding property owners as well as public notice in a local newspaper is required 15 days prior to the public hearing. The applicant shall bear the cost of notification;
- Digital copies of all application materials as well as the number of paper copies as specified by the Development Department

Appeals:

The decision of the City Council may be reviewed by the applicable court of common pleas as provide in ORC Chapters 2505 and 2506.

For more information regarding zoning amendments please refer to ***Section 1203.03: 1203.03 Zoning Text and Map Amendments*** of the Planning and Zoning Code.

4/20/2021
City of Monroe

RE: Texas Gas 861 Mason Road Site Plan Review Application

Dear City of Monroe:

EnSiteUSA, Inc. (EnSiteUSA) is pleased to submit this Site Plan Review Application on behalf of Texas Gas. Inside you fill find the following documents:

- Conditional Use Permit Application
- Owner Letter certifying land easement will be given to Texas Gas
- Storm Water Pollution Prevention Plan
- Storm Water Management Memo with calculations
- Drawings
  - Cover Sheet
  - Vicinity Map
  - Existing Conditions Map
  - Site Layout Plan
  - Plot Plan
  - Grading Plan
  - Erosion Control Plan
  - Erosion Control Details
  - Landscaping Plan
  - (2) Architectural and Building Elevation Plans
  - Lighting Plan
  - Lighting Calculations
  - Lighting Installation Details
  - For Reference Mason Station Capacity Improvement Landscaping Plan
  - For Reference Mason Station Capacity Improvement Lighting Plan
  - Site Renderings

We have prepared these drawings to support our client's permit application.

Sincerely,

EnSiteUSA



Ben Allen, P.E.
Project Manager / Senior Electrical Engineer

Application for a Conditional Use Permit

Monroe Development Department
233 South Main Street, Monroe, Ohio 45050
Phone: 513-539-7374
www.monroeohio.org

For Staff Use Only	
Submittal Date:	
Date Application Determined Complete:	
Date of Planning Commission Review:	
Fee Paid: **$300**	Staff Initials:
Application/Case Number:	

Conditional Use Permit Review Information

1. The conditional use permit review procedure and review criteria are established in Section 1203.07 of the Monroe Planning and Zoning Code.
2. Some conditional uses may be subject to use-specific standards in addition to the general review criteria for all conditional uses. Such use-specific criteria will be identified in Chapter 1204 and, more specifically, Section 1204.04.
3. If the applicant is proposing a development that will also require a site plan review, such review shall occur simultaneously and the applicant shall submit a site plan review application.
4. The Monroe Planning Commission reviews all conditional use permit applications.
5. The application fee for a conditional use is $300, due at the time the application is submitted.

Basic Project and Site Information

Project Address: 861 Mason Road

County: ☑ Butler ☐ Warren | Total Lot Area: 1.07

County Tax Parcel ID:

Project/Development Name: Duke Mason Meter Station

Existing Zoning District: C-2

Proposed Use: ☐ Residential ☐ Commercial ☐ Office ☐ Industrial ☑ Public or Institutional Use ☐ Mixed use

Applicant Information

Applicant Name: Texas gas Transmission, LLC

Contact Person: Ahmad Shaheed

Contact Address: 9 Greenway Plaza Houston, Texas 77043

Contact Phone Number: 713-479-3172 | Contact Fax Number:

Contact E-Mail: Ahmad.Shaheed@bwpipelines.com

Property Owner Name: Duke Energy* see Attached Letter

The applicant may attach a separate sheet of a paper with contact information for additional people, if necessary (e.g., additional owners, registered engineer, landscape architect, etc.). The same contact information shall be provided for each contact name.

Conditional Use Permit Information

1) Will a site plan review be required with the conditional use permit review? See Section 1203.06.

☑ Yes ☐ No

Project Address or Tax Parcel ID:

Conditional Use Permit Information Continued

2) Please describe, in detail, the proposed use of the site.

The proposed project is for a new natural gas metering site to increase capacity and functionality for the growing community. Texas Gas Transmission, LLC will utilize approximately 1.07 acres and a 5808 square foot building to house the metering equipment. The building will be unoccupied and will provide protection for the natural gas equipment inside from the elements. This building will face Mason Road and be setback from the road about 400 feet. The building is divided by the Industrial and Commercial boundary line, but designed to meet the commercial zoning requirements.

3) Describe how the proposed use will be harmonious with the existing or intended character of the general vicinity, and that such use will not change the essential character of the same area.

The proposed site has been developed with the City of Monroe building and zoning code requirements for a C-2 commercial district. The proposed building was designed in collaboration with City Planning Staff to meet the needs of the City for this location. The fence line, landscaping and building facade details meet the intent of the required codes with a few exceptions highlighted for safety reasoning as an essential public utility within this space.

4) Describe how the proposed amendment furthers the objectives of the comprehensive plan.

The Monroe Comprehensive Plan provides a framework for future development that will address the city's growth patterns, changing demographics and land use requirements. This project expands the existing energy infrastructure to meet those future needs. Additionally, this project is being designed to meet the intent of the design standards set forth in the Commercial zoning district.

Certification and Signatures

Applicant Signature - I certify that, to the best of my knowledge, the information contained in this form and within any attachments is correct and truthful. I understand that knowingly falsifying this information may be grounds for the denial or revoking of this conditional use application and any subsequent zoning permit or other review applications.

Print Name: Ahmad Shaheed

Signature:

Date: 4/19/2021

Property Owner Signature - If the property owner is not the named applicant on this form, the property owner shall sign the form below acknowledging that the applicant is an authorized agent of the property owner as it relates to proposed project.

Print Name: See Attached Letter - Texas Gas will receive a permanent Lease from Duke Energy

Signature:

Date: *Per Attached - Duke Energy will close on the property by April 30, 2021

Note: A letter signed by the property owner, authorizing the applicant to act on their behalf may be submitted in lieu of the property owner's signature on this form.

Submittal Requirement Checklist	
Digital Submittal Requirements	
☑	All document applications shall be submitted in an electronic format compatible with the city's computer systems. Adobe PDF files are acceptable.
General Information	
☑	Application fee
☑	Sixteen copies of the plans and maps established below at a scale no smaller than 1 inch = 100 feet, unless otherwise noted – Eight of the copies shall be on pages with a minimum size of 24"x36" and the other eight copies shall be on pages with a minimum size of 11"x17". Additional copies may be required based on project specifics.
☐	Eight copies of the Traffic Impact Study, if required. See Section 1211.04
☑	Any additional information determined to be necessary by the Development Department
☑	Final mylars and digital files of all maps and plans will be required after approval
Note: Any addition or alteration of landscaping, lighting, or parking will require a site plan review and the applicant shall be responsible for completing the site plan review application and submitting the necessary information.	
Existing Conditions Map	
☑	All existing zoning district classifications on the site and adjacent to the site
☑	Parcel boundaries of all parcels adjacent to the site
☑	Names of all subdivisions and property owners of lots adjacent to the site
☑	Location of existing buildings, structures, curb cuts, parking and loading areas, lighting fixtures, outside trash storage facilities, , fences, outdoor display or storage, and other built or impervious surfaces.
☑	Location of existing vegetation (general location) to be maintained

HILLS PROPERTIES

April 15, 2021

Monroe Development Department
233 South Main Street, Monroe, Ohio 45050
Phone: 513-539-7374

Re: ***Duke Energy Ohio, Inc. – Application for Site Plan Review and Conditional Use Permit for 861 Mason Road, Monroe, Butler County, Ohio ("Real Estate")***

To Whom it May Concern:

Corridor 75 Park, Ltd., the current property owner of the above Real Estate, is under contract to sell the Real Estate to Duke Energy Ohio, Inc. ("**Duke**") in a transaction which will close by April 30, 2021. We understand that Duke has filed an Application for a Conditional Use Permit and Application for Site Plan Review for the Real Estate in substantially the form attached to this letter. On before of Corridor 75 Park, Ltd., we hereby approve the applications and consent to the filing thereof.

Very truly yours,

CORRIDOR 75 PARK, LTD.,
an Ohio limited liability company

By: **HILLS DEVELOPERS, INC.,**

an Ohio corporation, its Manager

By: _____
Name: Louis Guttman
Title: President

HILLS PROPERTIES

April 15, 2021

Monroe Development Department
233 South Main Street, Monroe, Ohio 45050
Phone: 513-539-7374

Re: ***Duke Energy Ohio, Inc. – Application for Site Plan Review and Conditional Use Permit for 861 Mason Road, Monroe, Butler County, Ohio ("Real Estate")***

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Very truly yours,

CORRIDOR 75 PARK, LTD.,
an Ohio limited liability company

By: **HILLS DEVELOPERS, INC.,**

an Ohio corporation, its Manager

By: _____
Name: Louis Guttman
Title: President

Application for Site Plan Review

Monroe Development Department
233 South Main Street, Monroe, Ohio 45050
Phone: 513-539-7374
www.monroeohio.org

For Staff Use Only

Submittal Date:	
Date Application Determined Complete:	
Date of Planning Commission Review:	
Fee Paid:	Staff Initials:
Application/Case Number:	

Site Plan Review Information

1. The site plan review procedure and applicability requirements are established in Section 1203.06 of the Monroe Planning and Zoning Code.
2. Prior to submitting this application, you are required to meet with staff from the Development Department for a pre-application conference. Please contact the department to schedule the conference.
3. The Monroe Planning Commission reviews all site plan review applications unless specifically exempted in Section 1203.06(B)(3).
4. Approval of a site plan does not constitute approval to begin construction. Applicants with approved site plans are required to submit all applicable zoning permit and building permit applications.
5. Unless an alternative timeline is approved by the Planning Commission, construction related to the approved site plan must begin within one year of the site plan approval or the approval shall be voided. See Section 1203.06(H) for additional information.

Basic Project and Site Information

Project Address:	861 Mason Road
County: ☑ Butler ☐ Warren	Total Lot Area: 1.07 acres
County Tax Parcel ID:	TBD
Project/Development Name:	Mason Station
Existing Zoning District:	C-2

Project Type: ☑ New Building ☐ Expansion of Existing Structure
☐ Addition to Site (e.g., parking, landscaping, lighting, etc.)

Applicant Information

Applicant Name:	Texas Gas Transmission, LLC
Contact Person:	Ahmad Shaheed
Contact Address:	9 Greenway Plaza Houston, TX 77043
Contact Phone Number:	713-479-3172
Contact Fax Number:	
Contact E-Mail:	Ahmad.Shaheed@bwpipelines.com
Property Owner Name:	Duke Energy Ohio, Inc.

The applicant may attach a separate sheet of a paper with contact information for additional people, if necessary (e.g., additional owners, registered engineer, landscape architect, etc.). The same contact information shall be provided for each contact name.

Project Address or Tax Parcel ID:	861 Mason Road

Additional Project Information

1) Please describe, in detail, any existing uses and/or buildings on the project site.

No existing buildings on site.

2) Please describe, in detail, the proposed uses and the proposed development. Provide a summary of the square footage related to each use and/or the total number of proposed dwelling units.

The development is a utility building that houses metering and regulation equipment that serves local gas service. 5,312 square foot building.

3) What are the anticipated start and completion dates for the project?

Start Date:	8/1/2021	Completion Date:	10/21/2021

4) What is the estimated value (in dollars) of the proposed property improvements?

$3,700,000

5) Check any relevant procedural reviews applicable to this project:

☑ Conditional Use ☐ Variance ☑ Administrative Waiver ☐ Alternative Equivalent Compliance

If you checked any of the above procedures, please provide specific details on what you are seeking to have approved through the applicable review procedure? Provide the application/case numbers for any related applications.

This site will be solely utilized for utility equipment to supply natural gas to the surrounding communities. It will not be an occupied site.

1. Section 5 c) of the "Architectural Standards 2018" specifies that " Only 20 percent of the windows that can be seen from all public rights-of-way, excluding alleys, shall be opaque, including spandrel glass". We are asking for a variance for this request for safety reasons. As a utility provider, for safety reasons and due to the equipment inside of the building, glass windows are a safety concern if they were to be shattered. Spandrel glass windows have been added to the facade of the building but will be for purposes of aesthetics and will not create any safety concerns.
2. Additionally, it is proposed that once entering the facility fenceline, the site ground will be composed of gravel. This will safely accommodate vehicle access for maintenance. Additionally, it is standard in utility stations to accommodate all spill prevention procedures and protocol by limiting the rate with which stormwater runoff away from the facility takes place.
3. Requesting administrative waiver for submitting parking / traffic plans due to lot being not open to the public and located on a private drive.
4. Requesting administrative waiver for submitting signage plans due to no signs being planned. Nearest public road is 400 feet to the West of the site.

Project Address or Tax Parcel ID:	861 Mason Road

Additional Project Information Continued

6) Does the project require any addition permits, licenses, or reviews by outside agencies (e.g., Butler or Warren County, ODNR, OEPA, etc.). ☑ Yes ☐ No If yes, please describe below.

1. City of Monroe Building Permit
2. US Fish and Widlife Permit
3. Ohio State Historic Preservation Office

Certification and Signatures

Applicant Signature - I certify that, to the best of my knowledge, the information contained in this form and within any attachments is correct and truthful. I understand that knowingly falsifying this information may be grounds for the denial or revoking of this application and any subsequent zoning permit or other review applications.

Print Name:	Ahmad Shaheed
Signature:	
Date:	4/19/2021

Property Owner Signature - If the property owner is not the named applicant on this form, the property owner shall sign the form below acknowledging that the applicant is an authorized agent of the property owner as it relates to proposed project. If the site plan review is for multiple properties, a signature from each property owner is required.

Print Name:	Ahmad Shaheed
Signature:	
Date:	4/19/2021

Note: A letter signed by the property owner, authorizing the applicant to act on their behalf may be submitted in lieu of the property owner's signature on this form.

Submittal Requirement Checklist Submittals shall include 8 copies (minimum of 24" x 36"). Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.	
Digital Submittal Requirements	
☑	All document applications shall be submitted in an electronic format compatible (Adobe PDF) with the city's computer systems.
☑	All site plan materials, in map format, shall be submitted in a format compatible with the city's Geographic Information Systems (i.e. shapfile, geodatabase, or dwg) and shall be projected into NAD 1983 Ohio State Plane South - FIPS 3402 coordinate system using US Survey foot units.
General Information	
☑	Site Plan Review Application form
☑	Application fee
☐	Copies of the plans and maps established below at a scale no smaller than 1 inch = 100 feet, on full-sized copies unless on 11" x 17" or otherwise noted
☑	Any additional information determined to be necessary by the Development Department
Vicinity Map (Scale may be smaller than 1" = 100')	
☑	Date, north arrow, scale, and a legend for all symbols
☑	Project location
☑	All surrounding properties, streets, and corporation limits within a minimum of 500' of the outer boundaries of the project site
Existing Conditions Map	
☑	All existing zoning district classifications on the site and adjacent to the site
☑	Parcel boundaries of the site and all parcels adjacent to the site
☑	Names of all subdivisions and land owners owning lots adjacent to the site
☑	Existing streets within 200' of site with names and centerlines
☑	Existing watercourses and bodies of water including any applicable flood hazard areas
☑	Planned road network (including street names if available) within 500' of site (if different from existing streets)
☑	Existing land uses on the site and adjacent parcels (including across any streets)
☑	Railroad infrastructure and rights-of-way
☑	All existing easements (including drainage) with dimensions and designation as to type
☑	Location of existing curb cuts, private streets, parking and loading areas, pedestrian walks, lighting facilities, and outside trash storage facilities
Site Layout Plan	
☑	Lot numbers and sizes
☑	Square footage (gross) of existing buildings to remain and proposed buildings
☑	Required front, side, and rear yard width/setbacks
☑	All existing and proposed easements, including dimensions and type (e.g., drainage, access, public utility, etc.)
☑	Location, width, and classification of all existing and proposed streets in the development
☑	Location of any outdoor storage area(s) that require screening
☑	Locations of all proposed external street connections (including street stubs)
☑	Location, width, and materials of all sidewalks, trails, and paths (including connections to the public sidewalk system and adjacent developments)

Submittal Requirement Checklist Submittals shall include 8 copies (minimum of 24" x 36"). Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.	
Parking Plan and Traffic Control Plan	
☐	Traffic impact study, if required
☐	Notation of total number of parking spaces, loading spaces, and stacking spaces required by ordinance
☐	Total number, dimensions, and location of parking spaces proposed off-street, on-street, and within parking structures, including information on handicapped parking spaces
☐	Total number of parking spaces to be provided through approval of shadow parking, off-site parking, or shared parking alternatives
☐	Number, location, and size of loading spaces provided
☐	Number and location of stacking spaces provided
☐	Location, arrangement, and dimensions of vehicular entrances, exits and parking lot aisles
☐	Location of pedestrian walkways and crossings
☐	Number and location of pervious parking spaces, if provided
☐	Proposed traffic control devices (in accordance with the Manual on Uniform Traffic Control Devices)
☐	Signing and striping plan
☐	Fire lanes and areas of parking prohibition
☐	Location of all sight triangles
Stormwater Management Sheet and Drainage Plan	
☑	Drainage basin(s) where the site is located and drainage patterns
☑	Existing and proposed locations, types, and sizes of drainage structures and calculations demonstrating how post-development runoff will not exceed pre-development runoff
☑	Erosion and siltation control measures and devices with narrative, including location of outfall for stormwater to proper catch basin (indicated sizes and slopes of existing pipes)
☑	Drainage computations from proposed development to proper pickup point
☑	All proposed elevations and slopes for grading
☑	Description of maintenance procedures for stormwater management devices
Utilities Plan (May be included on Site Layout Plan)	
☑	Existing and proposed locations, types, and sizes of all water, sanitary sewer, storm sewer, gas, telephone, power and other utility lines and meters, easements and any other utilities affected by the site (includes above ground utilities and grades and computations where appropriate)
☑	Notation that all new utilities (including cable television, electrical, natural gas, sewer, telephone, and water lines) shall be placed underground
☑	Locations where existing overhead utilities will be relocated underground (if applicable)
☑	Identification of any connections, above or below ground, that are located within the City of Monroe's right-of-way
Landscaping Plan	
☑	Exact locations, dimensions, and counts of existing and proposed landscape materials provided within and around vehicular use areas, including the size of landscaping islands
☑	Exact locations and counts of existing and proposed landscape materials provided within any required buffer areas including the type of buffer used, the buffer width provided, the proposed configuration of trees, shrubs, and screening features
☑	Location, size, and species of all existing and proposed street trees

Submittal Requirement Checklist Submittals shall include 8 copies (minimum of 24” x 36”). Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.	
☑	The total number of trees and shrubs provided, and the total number of different species planted
☑	Notations for any existing landscape within sight triangles indicating maximum shrub height or tree canopy height
☐	Location and amount of credit towards landscape material requirements provided by existing landscaping
☐	Demarcation of existing trees to be removed
☑	Location and amount of all open space set-aside areas by development phase
☑	Details of all open space improvements and common features (e.g., fountains, benches, street furnishings, play equipment, etc.)
Architectural and Building Elevation Plans	
☑	Color elevations for each building side illustrating compliance with the architectural standards of the applicable zoning district
☑	Dimensions, in feet, of all façade recesses or similar fenestration
☐	Preliminary floor plan for principal buildings
☑	Height of all buildings in feet, including number of building stories
☑	Accessory structure size(s), if applicable
☑	Accessory structure height(s), if applicable
☑	Description of the type of material(s) used on each façade elevation
☑	Illustrative elevation of all fencing, walls, and retaining walls visible from a street, open space, or public building that will be used for buffering or screening of adjacent residential uses, dumpsters, service structures, utilities, parking areas, loading areas, and similar activity areas
Lighting Plan	
☑	Location, type, and height of all lighting fixtures (including street lights)
☑	Details on colors and materials for all lighting fixtures
☑	Grid or photometric diagram showing maximum illumination values at the lot line, and uniformity ratios within parking lots, measured in footcandles
Signage Plan	
☐	All sign areas, dimensions and height (including shape)
☐	Position of all signs in relation to the use being advertised (may be identified on the site layout plan)
☐	Location and style of all address numbers, building numbers, or allowable building identifications
☐	Plan of illumination for the sign including information on message timing for electronic message centers
☐	Landscaping around base of sign (may be identified on the landscaping plan)

WOOLPERT

Storm Water Management Memo

To:	Butler County Stormwater 1921 Fairgrove Ave, Hamilton OH 45011
From:	M. Todd Ford, PE & Angelo Bart, EI
Date:	April 19, 2021
Subject:	Proposed Texas Gas Transmission – Mason Road and Butler Warren Road, – Storm Water Management Summary

INTRODUCTION

The existing site area previously farm area which has no exiting structure. The proposed site condition will consist of a 5,600 sq. ft. building, landscaped area and a gravel yard for the technicians.

SITE DESCRIPTION

1. The existing site consist of 1.07 acres of open farmland. The proposed site will consist of a gravel drive off the Duke Energy access drive to the north. The apron will be paved, consisting of 829 sq. ft. of pavement. The gravel yard within the fenced in area will consist of 22,140 sq. ft. of gravel. The precast building will be placed in the center of the pad. The pad will sheet drain to the south where the bio-retenetion basin is located. The basin is lined with bio-retention fill based on the ODNR manual. The basin has an outlet control structure that will outlet into the existing wetlands to the southeast of the site.

2. The site area is 1.07 acres and 0.93 acres will be disturbed.

STORM WATER QUANTITY

Total development area: 1.07 acres

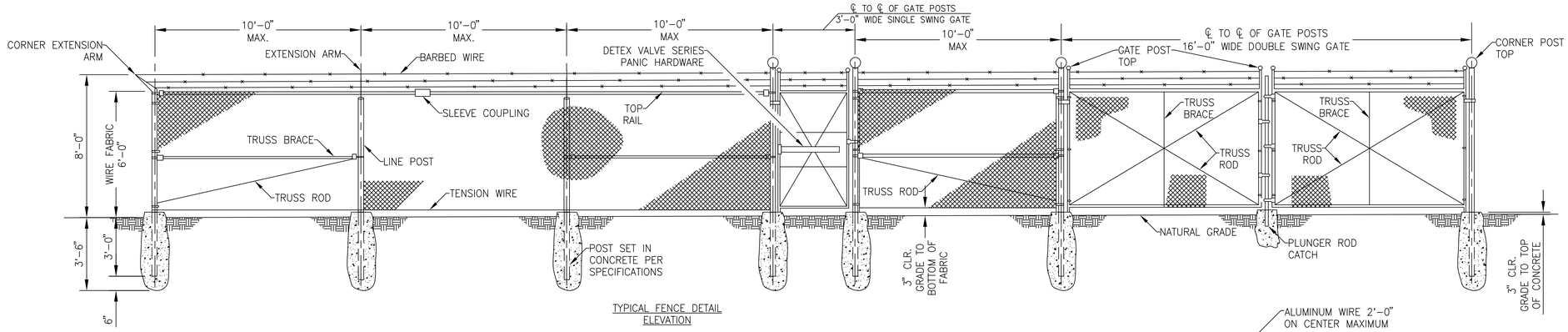
Existing Conditions:		**Proposed Conditions:**	
Existing gravel area:	0.00 acres	Proposed gravel area:	0.51 acres
Existing pervious area:	1.07 acres	Proposed pervious area:	0.15 acres (0.10-acre decrease)

The critical stormwater event for this site was determined to be the 1-year event. The allowable release rate for all storm event after the one-year event will have a release rate no greater than the existing condition for that yeat. The water quality will be determined in accordance with the ODNR manual for bioretention facilities.

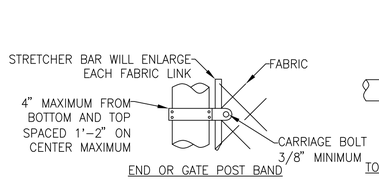
Woolpert, Inc.
4454 Idea Center Boulevard
Dayton, OH 45430-1500
937.461.5660

Table 1: Storm Event Release Rates for Detention Basin

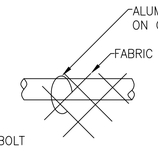
Event	Q pre (cfs)	Q post (cfs)	Q allowable (cfs)	Q Routed (cfs)	Elevation (ft)	Volume (cuft)
1	1.195	1.397	1.195	0.026	704.09	2,555
2	1.570	1.781	1.570	0.028	704.22	3,428
5	2.092	2.309	2.092	0.150	704.27	3,775
10	2.502	2.720	2.502	0.408	704.30	4,011
25	3.047	3.263	3.047	1.236	704.36	4,423
50	3.483	3.696	3.483	1.906	704.40	4,695
100	3.919	4.126	3.919	2.552	704.44	4,952
Hydrograph #	1	2	1	3		



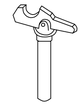
TYPICAL FENCE DETAIL
ELEVATION



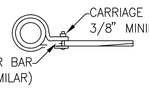
END OR GATE POST BAND



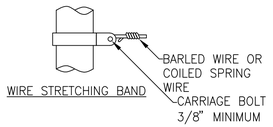
TOP OR BRACE RAIL
WIRE TIES



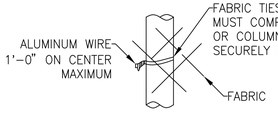
GATE KEEPER
(HOLDS GATE OPEN)



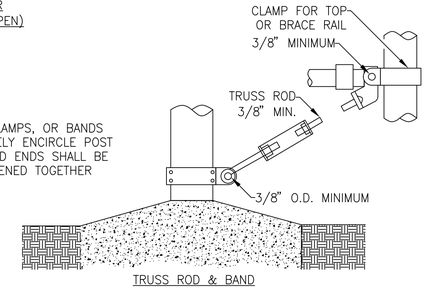
PLAN OF BANDS



WIRE STRETCHING BAND



POST WIRE TIES



TRUSS ROD & BAND

WIRE & POST BANDS

1. INSTALLATION: FENCE ADDITION SHALL BE PLUMB AND TRUE TO LINE. CHAIN LINK FABRIC SHALL BE TAUT AND PROPERLY SECURED. CORNER BRACES AND DIAGONAL BRACES SHALL BE PROPERLY PLACED TO PREVENT SAGGING. THE COMPLETE INSTALLATION SHALL BE INSTALLED BY SKILLED AND EXPERIENCED FENCE ERECTORS, IN A COMMON WORKMANLIKE MANNER, IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND IN ACCORDANCE WITH ALL LOCAL APPLICABLE CODES.

2. MATERIAL:

HOT-DIP GALVANIZED FENCE CHAIN LINK FABRIC:
THE CHAIN LINK FABRIC SHALL BE IN ACCORDANCE WITH ASTM A-392 SPECIFICATIONS AND SHALL BE HOT DIPPED GALVANIZED AFTER WEAVING, HAVING A COATING WEIGHT OF 2 OZ. OF ZINC PER SQUARE FOOT (MINIMUM), OF UNCOATED WIRE SURFACE (CLASS II). FABRIC SHALL BE NO. 9 GAUGE WIRE, WOVEN IN A 2" CHAIN LINK DIAMOND MESH. THE FABRIC SHALL BE FASTENED TO THE LINE POST BY MEANS OF NO. 6 GAUGE ALUMINUM TIE WIRES SPACED 24" ON CENTER. FABRIC SHALL BE ATTACHED TO TERMINAL POST BY MEANS OF A 1/4" X 3/4" TENSION BAR WITH HEAVY GAUGE PRESSED STEEL BAND OR CLIPS SPACED APPROXIMATELY 14" ON CENTER.

BARBED WIRE:
BARBED WIRE TO BE OF 4 POINT PATTER, COMPOSED OF THREE STRANDS OF NO. 11-1/2 GAUGE GALVANIZED WIRE WITH LARGE ALUMINUM BARBS SPACED APPROXIMATELY 4"-5" ON CENTER.

BOTTOM TENSION LINE:
NO. 7 GAUGE GALVANIZED COIL SPRING TENSION WIRE WITH CLASS 1 COATING. WIRE TO BE FASTENED TO CHAIN LINK FABRIC WITH NO. 11 GAUGE HOG RINGS ON 18" CENTERS.

POST AND OTHER APPURTENANCES:
ALL POST AND OTHER APPURTENANCES SHALL BE HOT-DIP GALVANIZED WITH A MINIMUM ZINC COATING OF 2 OZ. PER SQUARE FOOT OF SURFACE (CLASS II COATING ASTM A-392)

LINE POST:
LINE POST SHALL BE 2 1/4" "H" COLUMN WEIGHING 4.1 LB./FT. MINIMUM CARBON CONTENT 0.35%, MINIMUM TENSILE STRENGTH 75,000 PSI OR 2 3/8" O.D. SCHEDULE 40 PIPE, OF SUFFICIENT LENGTH TO ALLOW FOR INSTALLATION TO A DEPTH OF 3'-0" BELOW GROUND LEVEL. THE POSTS SHALL BE SPACED IN THE LINE OF FENCE, NO FURTHER THAN 10'-0".

TERMINAL POST:
ALL END, CORNER, AND PULL POSTS SHALL BE 2 1/2" X 2 1/2" X 3/16" W.T. SQUARE TUBING OR 2 7/8" O.D. SCHEDULE 40 PIPE.

GATE POST:
GATE POST SHALL BE OF THE FOLLOWING SIZE FOR SINGLE SWING GATES OR ONE LEAF OF DOUBLE GATE:

UP TO 6'-0" WIDE	2 1/2" SQ. OR 2 7/8" O.D.	NOM. WT.	SAME AS TERMINAL POST
6'-0" TO 13'-0" WIDE	4" O.D.	NOM. WT.	9.11 LB./FT.
13'-0" TO 18'-0" WIDE	6 5/8" O.D.	NOM. WT.	18.97 LB./FT.
OVER 18'-0"	8 5/8" O.D.	NOM. WT.	24.70 LB./FT.

EACH POST SHALL BE OF SUFFICIENT LENGTH TO ALLOW FOR INSTALLATION TO A DEPTH OF 3'-0" BELOW GROUND LEVEL

LINE POST AND TERMINAL POST ANCHORAGE:
ALL POSTS SHALL BE SET IN CYLINDRICAL CONCRETE FOUNDATIONS WITH TOP OF FINISH CONCRETE SURFACE 3" ABOVE FINISHED GRADE. EXCAVATION SHALL BE 2'-6" DEEP AND NOT LESS THAN 8" IN DIAMETER FOR ALL LINE POSTS, AND NOT LESS THAN 12" IN DIAMETER FOR TERMINAL AND GATE POST. CONCRETE SHALL MEET ACI-318 SPECIFICATION FOR 3000 PSI-28 DAY STRENGTH CONCRETE.

TOP RAIL:
THE FENCE SHALL HAVE A CONTINUOUS TOP RAIL FOR ITS FULL LENGTH OF STANDARD GALVANIZED PIPE, 1 5/8" O.D., THE TOP RAIL SHALL PASS THROUGH THE OPENINGS PROVIDED FOR THAT PURPOSE IN THE POST TOPS AND EACH LENGTH SHALL BE COUPLED WITH A SLEEVE COUPLING, WITH EXPANSION COUPLING EVERY 5TH JOINT.

2. MATERIAL (CONT'D):

BRACES:
TRUSS BRACES OF STANDARD GALVANIZED 1 5/8" O.D. PIPE 2.71 LB./FT., WITH A 3/8" O.D. TRUSS ROD AND TURNBUCKLE ATTACHMENT SHALL BE INSTALLED BETWEEN EACH END OR GATE POST AND THE ADJACENT LINE POST. 2 TRUSS BRACES SHALL BE FURNISHED ON CORNER OR PULL POSTS.

FITTINGS:
ALL FITTINGS USED IN THE COMPLETE FENCE ASSEMBLY SHALL BE OF MALLEABLE, CAST IRON OR PRESSED STEEL AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.

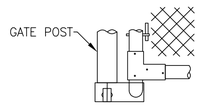
EXTENSION ARMS:
LINE POST SHALL BE EQUIPPED WITH EXTENSION ARMS TO WITHSTAND A MINIMUM PULL-DOWN WEIGHT OF 450 LBS, FROM ARM TO ARM. ARMS TO BE DESIGNED TO EXTEND AT A 45 DEGREE ANGLE WITH LOCKING DEVICE TO SECURELY FASTEN 3 STRANDS OF BARBED WIRE EQUALLY SPACED WITH THE TOP STRAND LOCATED 12" ABOVE FABRIC AND 12" OUT FROM THE FENCE LINE.

GATES:
GATE FRAMES SHALL BE MADE OF 2" X 2" X 0.110" W.T. SQUARE STEEL TUBING OR 1-15/16" O.D. SCHEDULE 40, 2.72 LB./FT. STANDARD WEIGHT PIPE, HOT-DIP GALVANIZED. FRAMES TO BE JOINED AT CORNERS TO FORM A RIGID PANEL AND SHALL BE FILLED WITH CHAIN LINK FABRIC OF SAME GAUGE AS TENSION BARS AND CLIPS. THREE STRANDS OF BARBED WIRE SHALL BE FASTENED TO THE EXTENDED FRAMES OF GATE. EACH FRAME TO BE EQUIPPED WITH 3/8" DIAMETER ADJUSTABLE TRUSS ROD, HINGES, POSITIVE TYPE LATCHING DEVICE WITH PROVISIONS FOR PADLOCKING. ALL DRIVE GATES TO BE PROVIDED WITH CENTER PLUNGER ROD, CATCH, AND SEMI-AUTOMATIC OUTER CATCHES TO SECURE GATES IN OPEN POSITION.

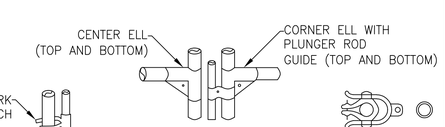
3. FENCE SECTION:

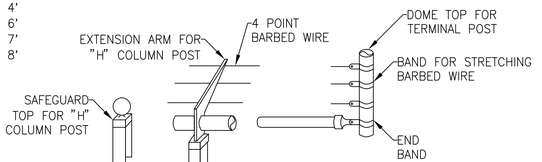
TYPE FENCE HEIGHT	FABRIC HEIGHT	TOTAL
A-4	48"	4'
A-6	60"	6'
A-7	72"	7'
A-8	84"	8'

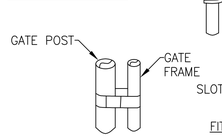
4. MAN GATE:
3" SCH. 40 GALVANIZED GATE POST OR APPROVED EQUAL
GALVANIZED STEEL POST CAP
GALVANIZED STEEL GATE FRAME
GALVANIZED STEEL TENSION BAR
DOUBLE TRUSS ROD ASSEMBLY:
-FOUR (4) GALVANIZED PRESSED STEEL TRUSS TIGHTENERS
-TWO (2) 3/8" DIA. GALVANIZED STEEL TRUSS RODS
12 1/2-GAUGE GALVANIZED STEEL 4-POINT BARBED WIRE
9-GAUGE, ASTM A-392, CLASS 1, 2" MESH, GALVANIZED CHAIN LINK FABRIC
INDUSTRIAL HINGE ASSEMBLY
THE FOLLOWING ITEMS FOR EMERGENCY GATE ONLY:
GALVANIZED STEEL CENTER BRACE
PICK-PROOF BAR
1/4" THK. GALVANIZED STEEL PL W/18" RADIUS BOLTED TO GATE FRAME WITH 1/4" STAINLESS STEEL BOTTOM HEAD ALLEN BOLS
18" LG. GALVANIZED STEEL PL OR ANGLE WELDED TO THE OUTSIDE OF THE VERTICAL GATE FRAME SO THAT IT OVERLAPS THE ADJACENT GATE POST WHEN GATE IS IN THE CLOSED POSITION TO PREVENT INTRUSION OR ACCES TO LATCH ASSEMBLY BETWEEN THE FRAME AND POST
LOCKING LACK ASSEMBLY:
-CAST ALUMINUM BODY
-CAST ALUMINUM PADDLE
-BRONZE AND STAINLESS INTERNALS (OR APPROVED EQUAL)



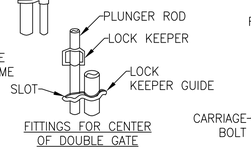
BOTTOM GATE HINGE



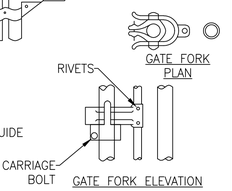




TOP GATE HINGE



FITTINGS FOR CENTER OF DOUBLE GATE



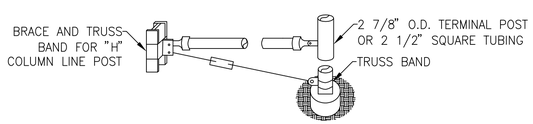
GATE FORK ELEVATION

TYPICAL GATE FITTINGS









TYPICAL TOP POST FITTINGS

MOTT MACDONALD

NO.	DATE	BY	DESCRIPTION	PROJ. ID	CHK.	APP.
0	03 22 19	BVN	ISSUED FOR REVIEW	ISSUED	TRB	

REVISIONS

BOARDWALK PIPELINE PARTNERS®

"CONSTRUCTION FOR PIPELINE"
TYPICAL FACILITY FENCE DETAILS

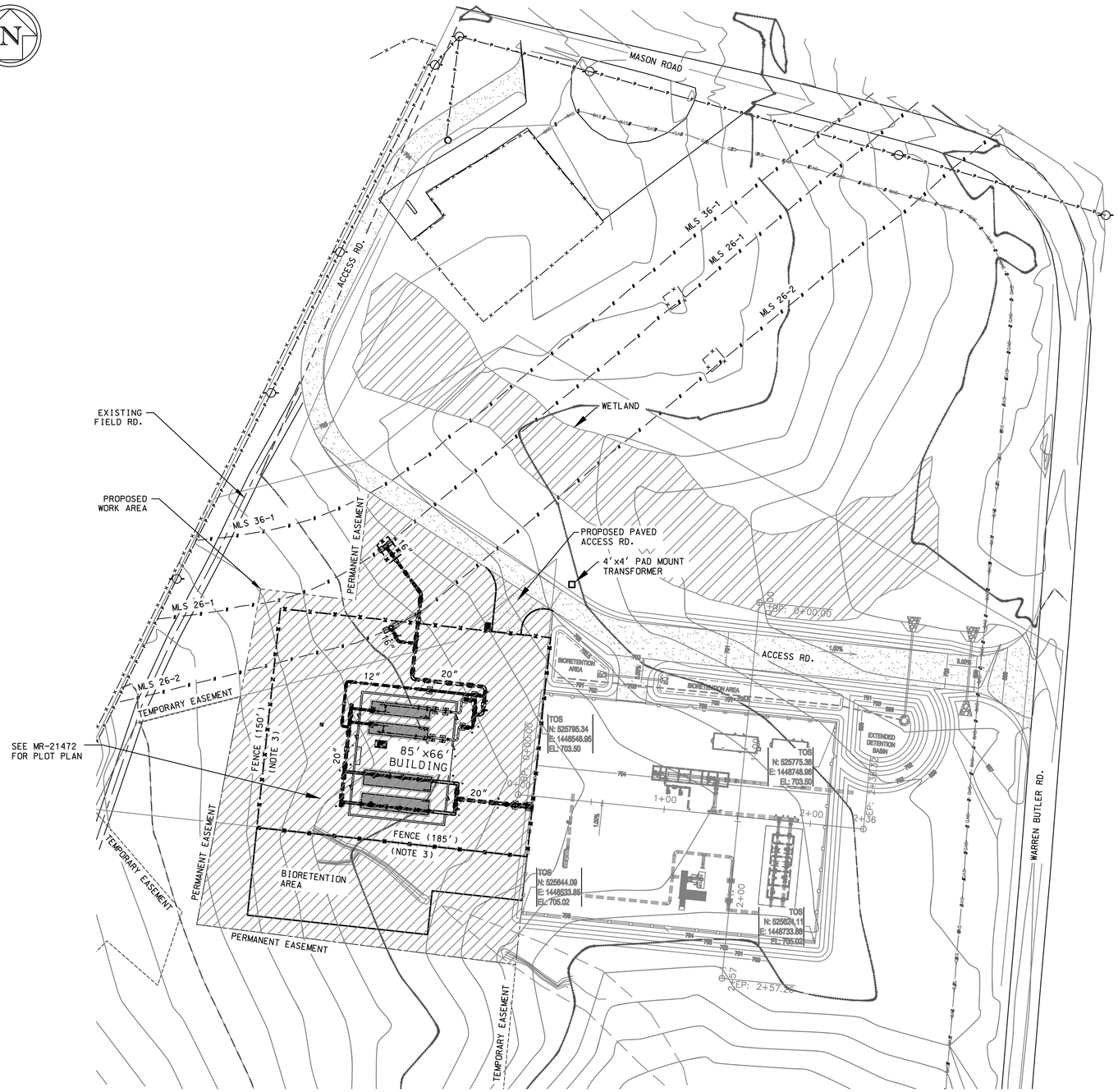
Co./Par.:		State:	
Division:		Op. Area:	
Latitude:		Longitude:	
Section:	Township:	Range:	
Drafter: BVN	Date: 03-22-19	Project ID:	Loc. No.
Chk'd: TRB	Date: 03-22-19	Scale: NOT TO SCALE	
Appr:	Date:	Filename: g3620.dwg	

G-3620 Sheet: 1 of 2 Rev. 0

ISSUE DATE: 08-28-19

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO FABRICATION AND INSTALLATION.
2. CONTRACTOR TO PROVIDE REST BLOCKS AND CONCRETE PIPE SUPPORTS AS SHOWN PER TEXAS GAS STANDARD DRAWING G-3678.
3. PROPOSED FENCE TO BE BLACK VINYL COATED CHAIN-LINK FENCING WITH DECORATIVE DARK COLORED SLAT FOR PRIVACY.



SITE PLAN

REFERENCE DRAWINGS

TEXAS GAS TRANSMISSION, LLC
A subsidiary of Boardwalk Pipelines, LP

DUKE CINERGY MASON ROAD MS
SITE PLAN

Co./Par.:	BUTLER	State:	OH
Division:	TGT NORTH	Op. Area:	7861-LEBANON
Latitude:	39.430056	Longitude:	-84.340366
Section:	11	Township: 3N	Range: 3E
Drafter: TLB	Date: 01/22/2021	Project ID: 12306	Loc. No.
Chk'd: SDC	Date: 01/22/2021	Scale: 1"=40'-0"	
Appr: LBA	Date: 01/22/2021	Filename: MR-21401.DWG	
Dwg. No.	MR-21401	Sheet: 1 of 1	Rev. B

ISSUE DATE:

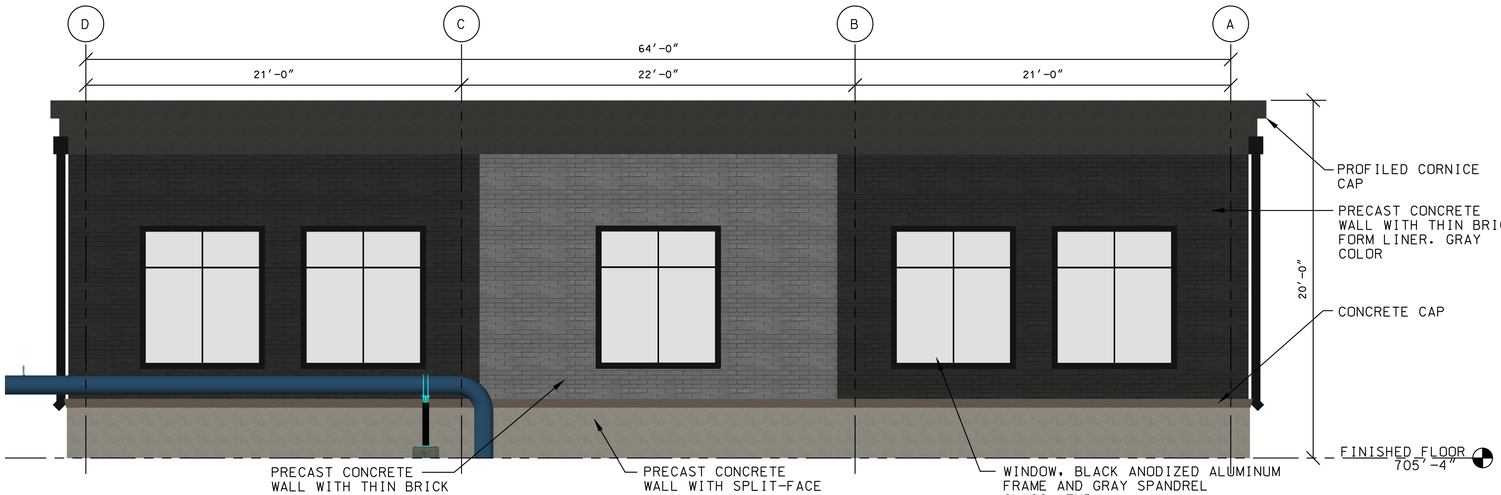
REVISIONS

NO.	DATE	BY	DESCRIPTION	PROJ. ID	CHK	APP.
B	05 10 21	GWH	ISSUED FOR BID	PN 12306	SDC	LBA
A	04 20 21	GWH	ISSUED FOR REVIEW	PN 12306	SDC	LBA

NOTE: WINDOW SURFACE AREA IS 31% OF VISIBLE BLDG. BODY SURFACE AREA.

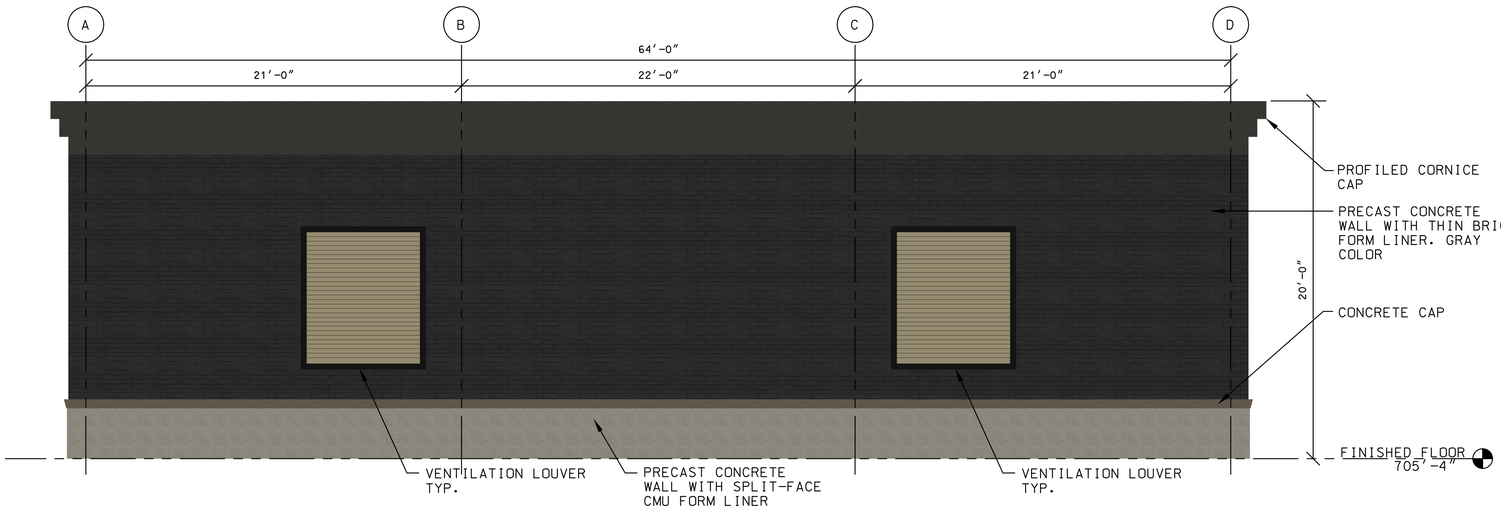
SURFACE AREA

- BLDG. CAP = 201 SQ. FT.
- BLDG. BODY = 902 SQ. FT.
- BLDG. BASE = 220 SQ. FT.
- COMBINED WINDOWS = 280 SQ. FT.
  - BASED ON 8'x7' WINDOW



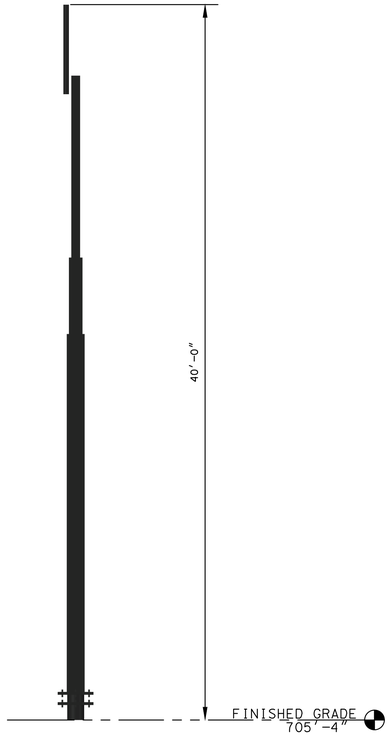
NORTH ELEVATION

0 2' 4' 8'
SCALE IN FEET



SOUTH ELEVATION

0 2' 4' 8'
SCALE IN FEET



COMMUNICATIONS MONO POLE

REFERENCE DRAWINGS

NO.	DATE	BY	DESCRIPTION	PROJ. ID	CHK	APP
C	05 07 21	GWH	ISSUED FOR REVIEW	12306	SDC	LBA
B	04 20 21	GWH	ISSUED FOR REVIEW	12306	SDC	LBA
A	04 02 21	GWH	ISSUED FOR REVIEW	12306	SDC	LBA

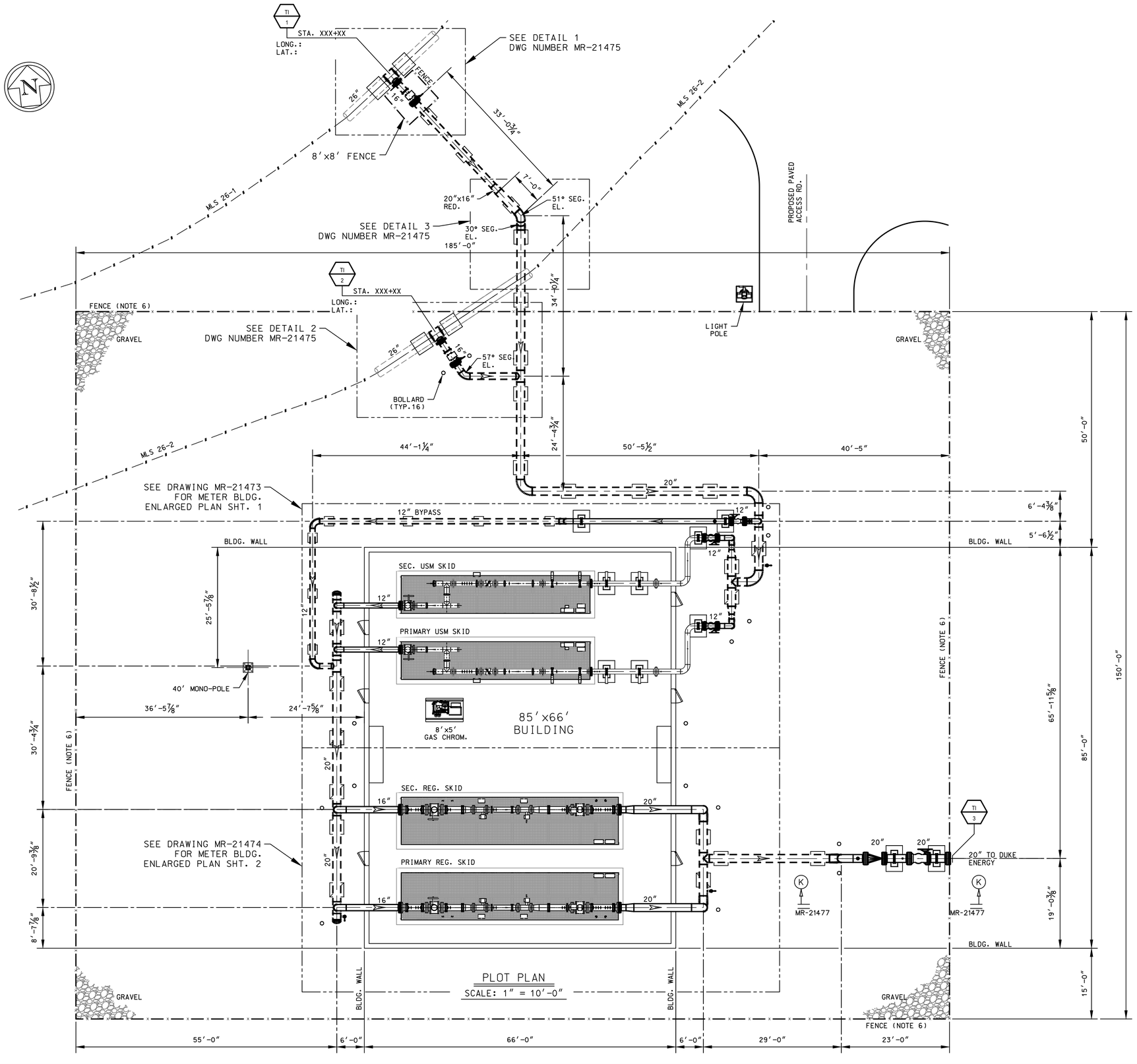
REVISIONS

TEXAS GAS TRANSMISSION, LLC
A subsidiary of Boardwalk Pipelines, LP

DUKE CINERGY MASON ROAD MS METER AND REGULATOR STATION ARCHITECTUAL AND BUILDING ELEV. NORTH AND SOUTH VIEW

Co./Par.: BUTLER		State: OH	
Division: TGT NORTH		Op. Area: 7861-LEBANON	
Latitude: 39.430056		Longitude: -84.340366	
Section: 11	Township: 3N	Range: 3E	
Drafter: GWH	Date: 04/02/2021	Project ID: 12306	Loc. No.
Chk'd: SDC	Date: 04/02/2021	Scale: N.T.S.	
Appr: LBA	Date: 04/02/2021	Filename: MR-21422.DWG	
Dwg. No. MR-21422		Sheet: 1 of 1	Rev. C

ISSUE DATE:



PLOT PLAN
SCALE: 1" = 10'-0"

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO FABRICATION AND INSTALLATION.
2. CONTRACTOR TO PROVIDE RANDOM LENGTHS IN VERTICAL AND HORIZONTAL DIRECTIONS FOR FIELD WELDS.
3. CONTRACTOR TO FIELD ROUTE AND TO PROVIDE ALL TUBING MATERIALS FOR THE GAS CHROMATOGRAPH.
4. CONTRACTOR TO PROVIDE ALL TUBING MATERIALS NOT PROVIDED BY THE SKID MANUFACTURER. ALL VENT TUBING SHALL TERMINATE OUTSIDE OF BUILDING AT LEAST 3 FT ABOVE BUILDING EAVE AND SHALL BE A MIN. OF 15 FT AWAY FROM ANY BUILDING AIR INTAKE LOUVERS, DOORWAYS, WINDOWS, FENCE, OR NEARBY EQUIPMENT.
5. CONTRACTOR TO PROVIDE REST BLOCKS AND CONCRETE PIPE SUPPORTS AS SHOWN PER TEXAS GAS STANDARD DRAWING G-3678.
6. PROPOSED FENCE TO BE BLACK VINYL COATED CHAIN-LINK FENCING WITH DECORATIVE DARK COLORED SLAT FOR PRIVACY.

*SKIDS ARE DESIGNED TO 1480 PSIG AND TESTED BY OTHERS.

PRESSURE DATA	
CLASS: 3	MAOP: 875
DESIGN FACTOR: 0.5	MOP: ____
DESIGN PRESSURE: *1480/875 PSIG	
VALVE SECTION: ____	
HYDROSTATIC TEST PRESSURE:	1313 PSI MINIMUM
TEST DURATION: 8 HOURS @	____ PSI MAXIMUM
COMPLIANCE SERVICES:	DATE:

REFERENCE DRAWINGS

MR-21473	BLDG. ENLARGED PLAN SHEET 1
MR-21474	BLDG. ENLARGED PLAN SHEET 2
MR-21401	SITE PLAN
MR-21472	PLOT PLAN
MR-21400	P&ID

NO.	DATE	BY	DESCRIPTION	PROJ. ID	CHK	APP
B	05 10 21	GWH	ISSUED FOR BID	PN 12306	SDC	LBA
A	04 20 21	GWH	ISSUED FOR REVIEW	PN 12306	SDC	LBA

REVISIONS

TEXAS GAS TRANSMISSION, LLC
A subsidiary of Boardwalk Pipelines, LP

DUKE CINERGY MASON ROAD MS
PLOT PLAN

Co./Par.:	BUTLER	State:	OH
Division:	TGT NORTH	Op. Area:	7861-LEBANON
Latitude:	39.430056	Longitude:	-84.340366
Section:	11	Township:	3N
Range:	3E		
Drafter: TLB	Date: 01/22/2021	Project ID: 12306	Loc. No.
Chk'd: SDC	Date: 01/22/2021	Scale: 1"=10'-0"	
Appr: LBA	Date: 01/22/2021	Filename: MR-21472.DWG	
Dwg. No.	MR-21472	Sheet: 1 of 1	Rev. B

ISSUE DATE:

TEXAS GAS
TRANSMISSION, LLC

A subsidiary of **Boardwalk Pipelines, LP**

DUKE CINERGY MASON ROAD MS

BUTLER COUNTY, OHIO

PN 12306

ISSUED FOR REVIEW

CITY OF MONROE

PRELIMINARY PLANS APPLICATION

04/19/2021

Dwg. No.	Rev.
MR-241415	A

ISSUE DATE:

CIVIL		
DRAWING NUMBER	DRAWING TITLE	REV.
MR-21415	COVER SHEET	A
MR-21416	VICINITY MAP	A
MR-21417	EXISTING CONDITIONS MAP	A
MR-21401	SITE LAYOUT PLAN	A
MR-21472	PLOT PLAN	A
MR-21419	GRADING PLAN	A
MR-21420	EROSION CONTROL PLAN	A
MR-21420A	EROSION CONTROL DETAILS	A
MR-21421	LANDSCAPING PLAN	A
MR-21422	ARCHITECTURAL AND BUILDING ELEVATION PLANS	A
MR-21423	ARCHITECTURAL AND BUILDING ELEVATION PLANS	A
MR-21424	LIGHTING PLAN	A
MR-21470	LIGHTING CALCULATIONS	A
MR-21471	LIGHTING INSTALLATION DETAIL	A
PNG -C-042-0001138	MASON STATION CAPACITY IMPORVEMENT LANDSCAPING PLAN	A
PNG -E-042-0001099	MASON STATION CAPACITY IMPORVEMENT SITE PHOTOMETRIC	A
	SITE RENDERINGS	
	TEXAS GAS SWPP STORM WATER PREVENTION PLAN "ATTACHED SEPARATELY"	
	STORM WATER MANAGEMENT MEMO "ATTACHED SEPARATELY"	

Mason Ave

Butler-Warren Rd

Gallaher St

75

SITE
PARCEL ID
C1800009000030

SITE LOCATION MAP

1" = 100'

REFERENCE DRAWINGS

NO.	DATE	BY	DESCRIPTION	PROJ. ID	CHK	APP
A	04 02 21	GKS	ISSUED FOR REVIEW	12306	SDC	LBA

REVISIONS

TEXAS GAS TRANSMISSION, LLC
A subsidiary of Boardwalk Pipelines, LP

DUKE CINERGY MASON ROAD MS
VICINITY MAP

Co./Par.: BUTLER		State: OH	
Division: TGT NORTH		Op. Area: 7861-LEBANON	
Latitude: 39.430056		Longitude: -84.340366	
Section: 11	Township: 3N	Range: 3E	
Drafter: GKS	Date: 03/29/2021	Project ID: 12306	Loc. No.
Chk'd: SDC	Date: 04/19/2021	Scale: 1" = 100'	
Appr: LBA	Date: 04/19/2021	Filename: MR-21416.DWG	
Dwg. No. MR-21416		Sheet: 1 of 1	Rev. A

ISSUE DATE:



EXISTING CONDITIONS

REFERENCE DRAWINGS

TEXAS GAS TRANSMISSION, LLC
A subsidiary of Boardwalk Pipelines, LP

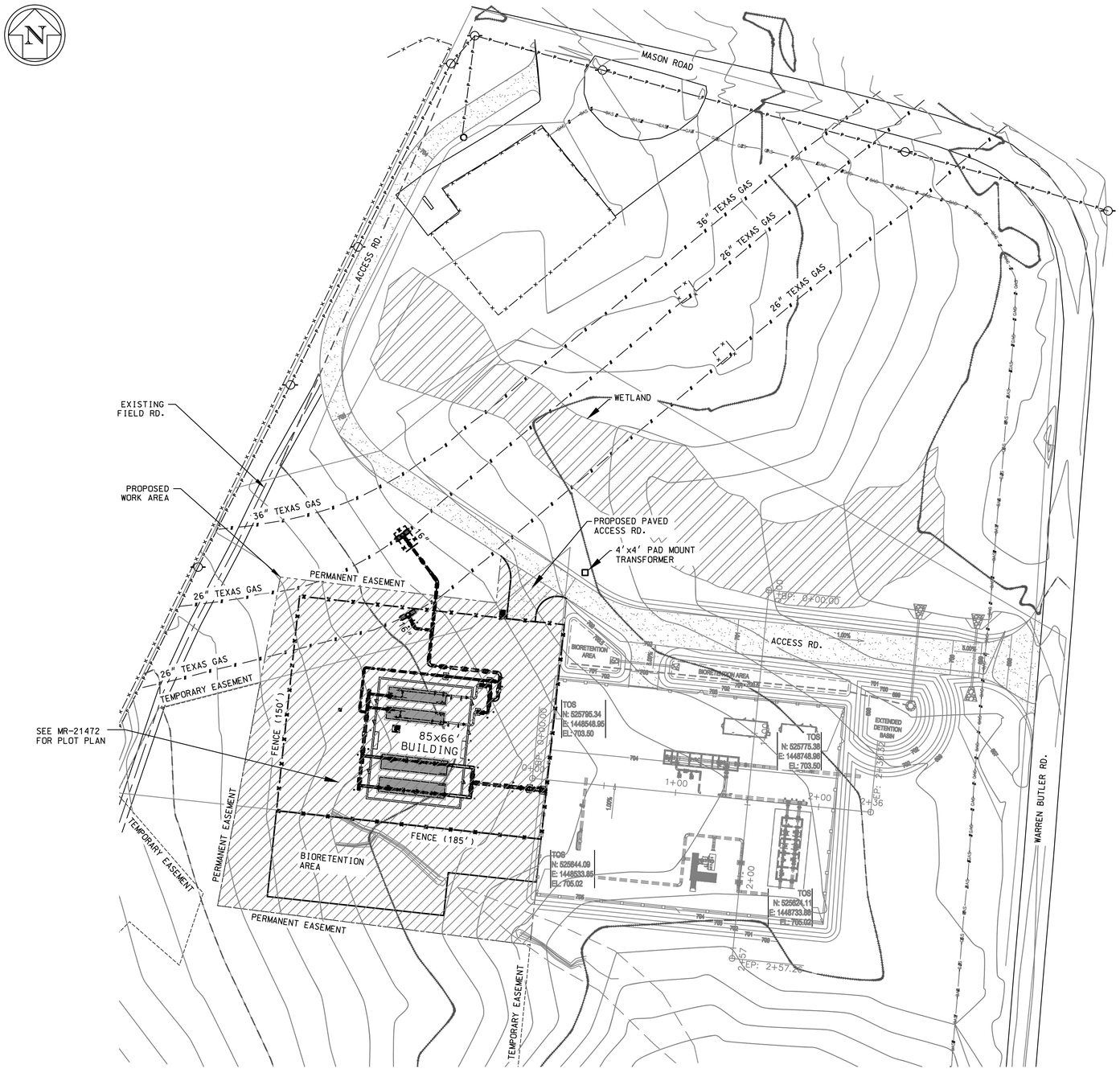
DUKE CINERGY MASON ROAD MS EXISTING CONDITIONS

Co./Par.:	BUTLER	State:	OH
Division:	TGT NORTH	Op. Area:	7861–LEBANON
Latitude:	39.430056	Longitude:	–84.340366
Section:	11	Township: 3N	Range: 3E
Drafter: GKS	Date: 03/30/2021	Project ID: 12306	Loc. No.
Chk'd: SDC	Date: 04/19/2021	Scale: 1"=60'	
Appr: LBA	Date: 04/19/2021	Filename: MR-21417.DWG	
Dwg. No. MR-21417		Sheet: 1 of 1	Rev. A

ISSUE DATE:

REVISIONS

NO.	DATE	BY	DESCRIPTION	PROJ. ID	CHK	APP.
A	04 02 21	GKS	ISSUED FOR REVIEW	PN 12306	SDC	LBA



SITE PLAN

REFERENCE DRAWINGS

TEXAS GAS TRANSMISSION, LLC
A subsidiary of Boardwalk Pipelines, LP

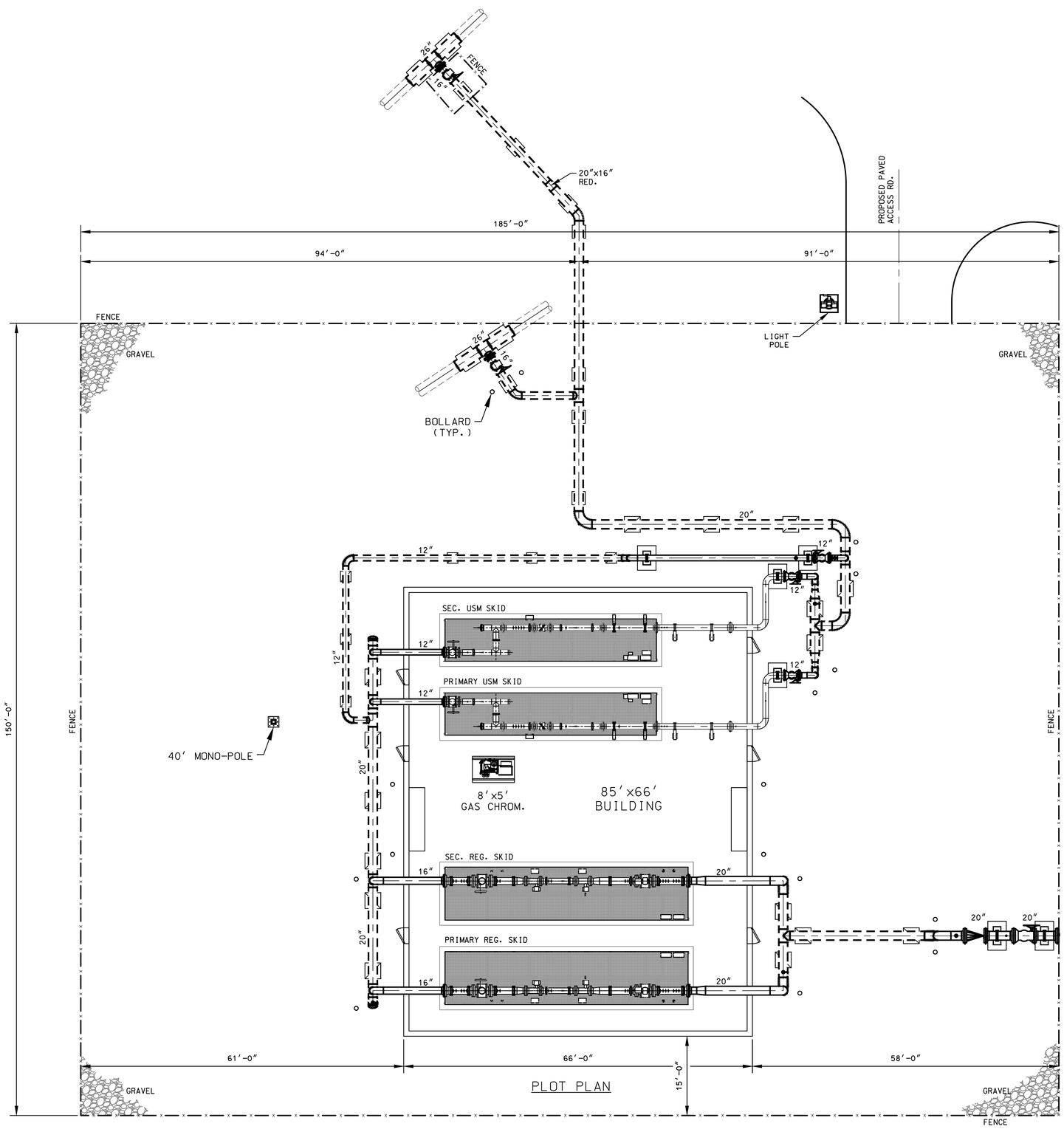
DUKE CINERGY MASON ROAD MS
SITE PLAN

Co./Par.:	BUTLER	State:	OH
Division:	TGT NORTH	Op. Area:	7861-LEBANON
Latitude:	39.430056	Longitude:	-84.340366
Section:	11	Township: 3N	Range: 3E
Drafter: TLB	Date: 01/22/2021	Project ID: 12306	Loc. No.
Chk'd: SDC	Date: 01/22/2021	Scale: 1"=40'-0"	
Appr: LBA	Date: 01/22/2021	Filename: MR-21401.DWG	
Dwg. No.	MR-21401	Sheet: 1 of 1	Rev. A

NO.	DATE	BY	DESCRIPTION	PROJ. ID	CHK	APP.
A	04 20 21	GWH	ISSUED FOR REVIEW	PN 12306	SDC	LBA

REVISIONS

ISSUE DATE:



REFERENCE DRAWINGS

TEXAS GAS TRANSMISSION, LLC
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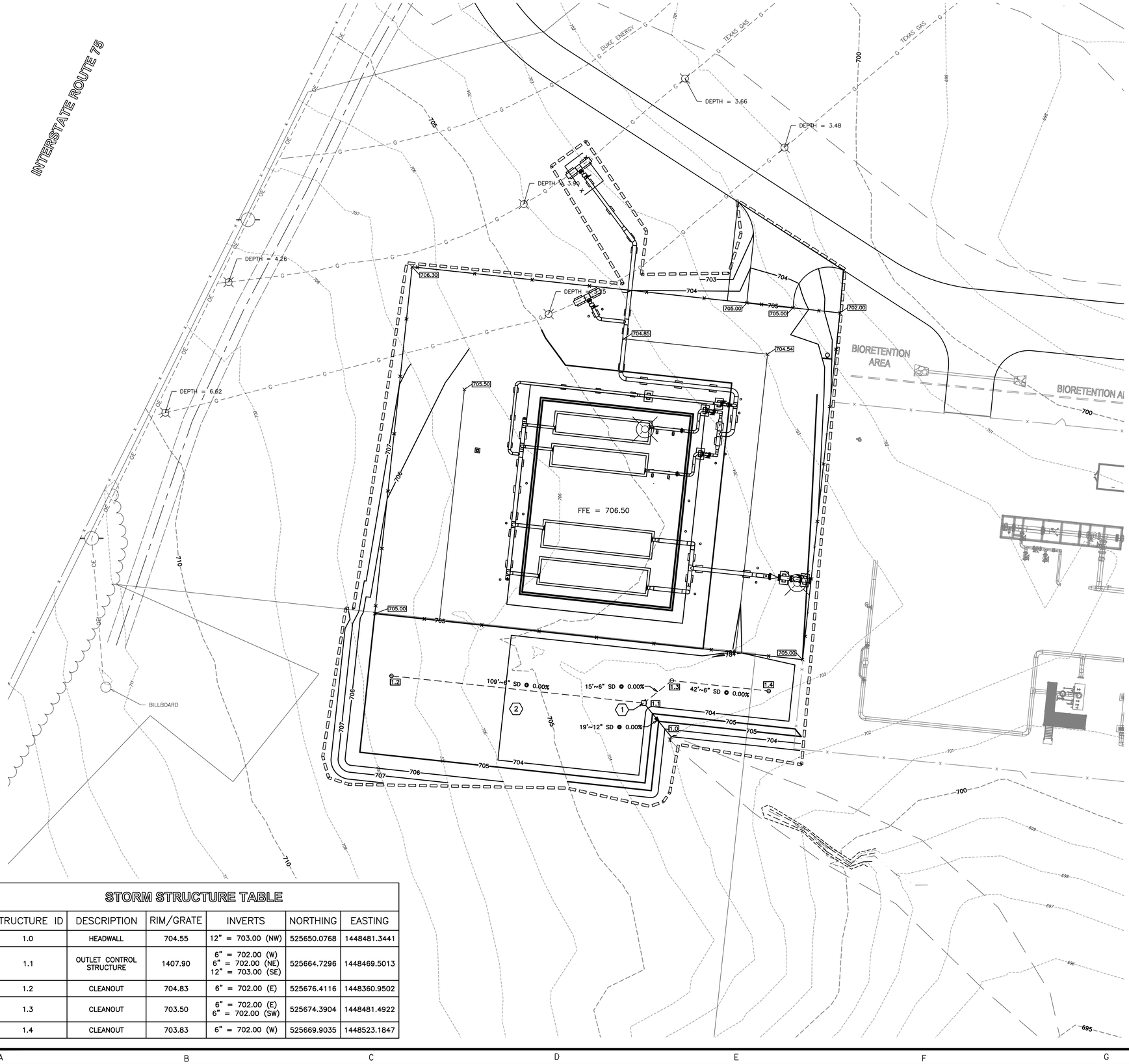
DUKE CINERGY MASON ROAD MS
PLOT PLAN

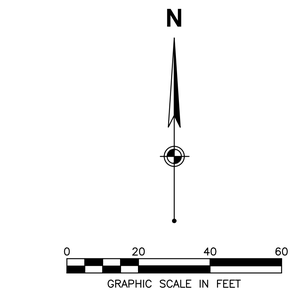
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Division:	TGT NORTH	Op. Area:	7861-LEBANON
Latitude:	39.430056	Longitude:	-84.340366
Section:	11	Township: 3N	Range: 3E
Drafter: TLB	Date: 01/22/2021	Project ID: 12306	Loc. No.
Chk'd: SDC	Date: 01/22/2021	Scale: 1"=10'-0"	
Appr: LBA	Date: 01/22/2021	Filename: MR-21472.DWG	
Dwg. No.	MR-21472	Sheet: 1 of 1	Rev. A

NO.	DATE	BY	DESCRIPTION	PROJ. ID	CHK	APP
A	04 20 21	GWH	ISSUED FOR REVIEW	PN 12306	SDC	LBA

REVISIONS

ISSUE DATE:





LEGEND

- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- 1' CONTOUR
- 5' CONTOUR
- STORM SEWER
- UNDERDRAIN
- EXISTING STORM SEWER
- CONSTRUCTION LIMITS
- CATCH BASIN
- STORM CLEANOUT
- STORM STRUCTURE ID
- SPOT ELEVATION

NOTES

1. SEE SHEET C001 FOR GENERAL 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 WITHIN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
3. PROVIDE POSITIVE DRAINAGE AT ALL TIMES TO ENSURE NO STANDING WATER WITHIN PAVEMENT, BUILDING PAD OR GREEN AREAS.

KEYNOTES

1. DETENTION OUTLET CONTROL STRUCTURE. SEE DETAIL, SHEET C-80X
2. WATER QUALITY BASIN.

Ohio Utilities Protection Service
Call 811 before you dig

REFERENCE DRAWINGS

STORM STRUCTURE TABLE

STRUCTURE ID	DESCRIPTION	RIM/GRATE	INVERTS	NORTHING	EASTING
1.0	HEADWALL	704.55	12" = 703.00 (NW)	525650.0768	1448481.3441
1.1	OUTLET CONTROL STRUCTURE	1407.90	6" = 702.00 (W) 6" = 702.00 (NE) 12" = 703.00 (SE)	525664.7296	1448469.5013
1.2	CLEANOUT	704.83	6" = 702.00 (E)	525676.4116	1448360.9502
1.3	CLEANOUT	703.50	6" = 702.00 (E) 6" = 702.00 (SW)	525674.3904	1448481.4922
1.4	CLEANOUT	703.83	6" = 702.00 (W)	525669.9035	1448523.1847

NO.	DATE	BY	DESCRIPTION	PROJ. ID	CHK	APP
A	04 19 21		ISSUED FOR REVIEW	PN 12306		

REVISIONS

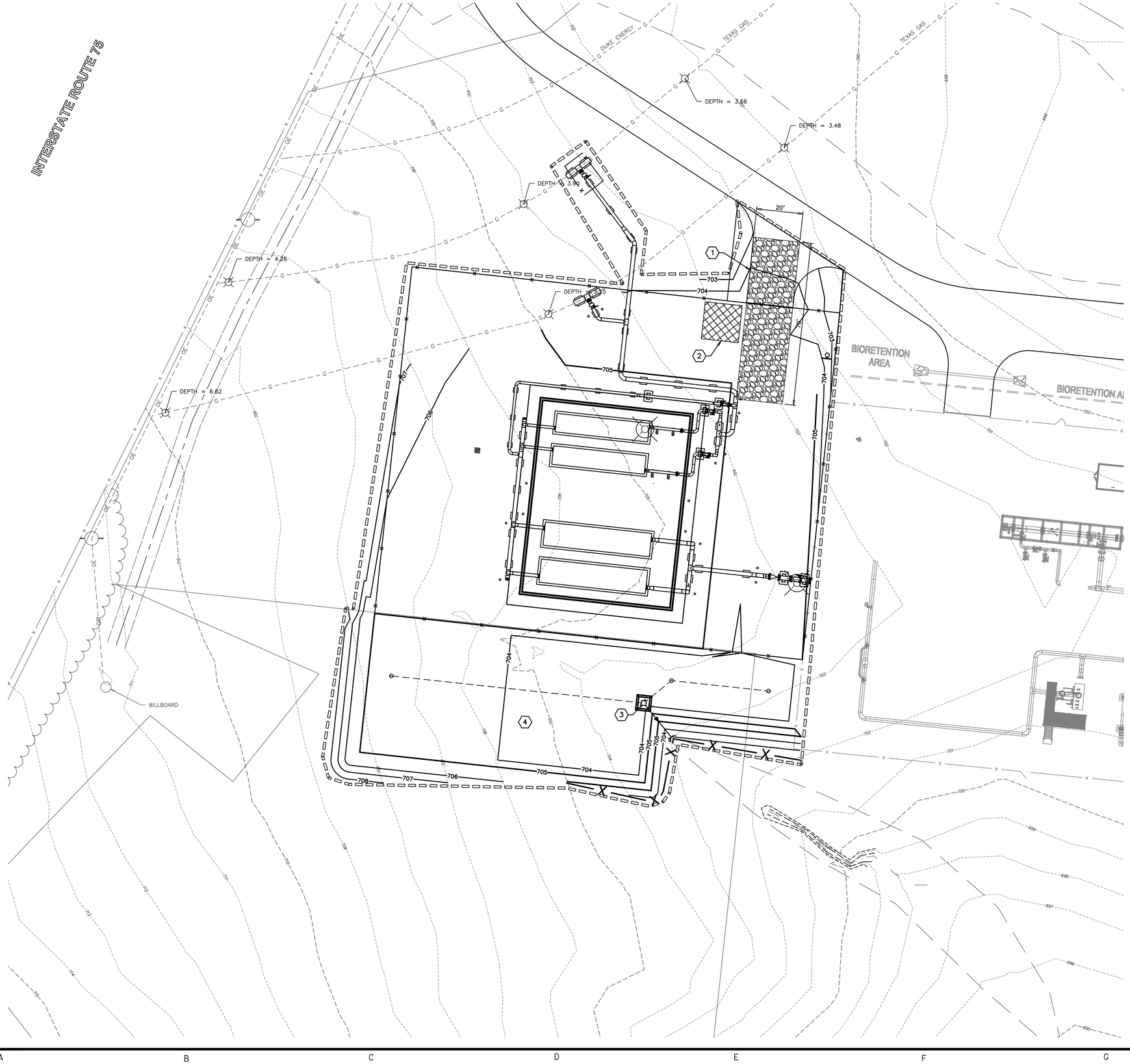
TEXAS GAS TRANSMISSION, LLC
A subsidiary of Boardwalk Pipelines, LP

DUKE CINERGY MASON ROAD MS
GRADING PLAN

Co./Par.:	BUTLER	State:	OH
Division:	TGT NORTH	Op. Area:	7861-LEBANON
Latitude:	39.430056	Longitude:	-84.340366
Section:	11	Township: 3N	Range: 3E
Drafter: AB	Date: 04/19/2021	Project ID: 12306	Loc. No.
Chk'd: MTF	Date: 04/19/2021	Scale: 1"=20'-0"	
Appr:	Date:	Filename: 81990-GRA.DWG	
Dwg. No.	MR-21419	Sheet: 1 of 3	Rev. A

ISSUE DATE:

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Layout Tab Name: C-300 GRADING PLAN
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N

0 20 40 60

GRAPHIC SCALE IN FEET

LEGEND

- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- 1' CONTOUR
- 5' CONTOUR
- STORM SEWER
- UNDERDRAIN
- EXISTING STORM SEWER
- CONSTRUCTION LIMITS
- CATCH BASIN
- STORM CLEANOUT
- STORM STRUCTURE ID
- INLET PROTECTION
- TEMPORARY CONSTRUCTION ENTRANCE
- TEMPORARY CONCRETE WASHOUT

KEYNOTES (#)

1. TEMPORARY CONSTRUCTION ENTRANCE.
2. TEMPORARY CONCRETE WASHOUT.
3. OUTLET CONTROL STRUCTURE.
4. STORMWATER MANAGEMENT FACILITY.

NOTES

1. 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 WITHIN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
2. SEE SHEET C-311 FOR EROSION CONTROL NOTES AND DETAILS.

SEQUENCING NOTES

1. INSTALL SILT FENCE AND INLET PROTECTION ON THE SITE.
2. INSTALL STABILIZED CONSTRUCTION EXIT.
3. BEGIN DEMOLITION WORK.
4. BEGIN UTILITY CONSTRUCTION.
5. BEGIN CONSTRUCTION OF BUILDING PAD AND PARKING LOT GRADING.
6. INSTALL PERMANENT PAVEMENT AREAS.
7. PERMANENTLY STABILIZE AREAS TO BE VEGETATED AS THEY ARE BROUGHT TO FINAL GRADE. TEMPORARILY SEED, THROUGHOUT CONSTRUCTION, AREAS THAT WILL BE INACTIVE FOR 14 DAYS OR MORE.
8. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER ALL AREAS ARE STABILIZED. REPAIR ANY AREAS DISTURBED BY THE REMOVAL OF THE BMP.
9. CONTINUE DAILY MAINTENANCE AND INSPECTIONS UNTIL APPROVED BY OWNER AND/OR ENGINEER TO TERMINATE PERMIT COVERAGE.

Ohio Utilities Protection Service
Call 811 before you dig

REFERENCE DRAWINGS

NO.	DATE	BY	DESCRIPTION	PROJ. ID	CHK	APP.
A	04 19 21		ISSUED FOR REVIEW	PN 12306		

REVISIONS

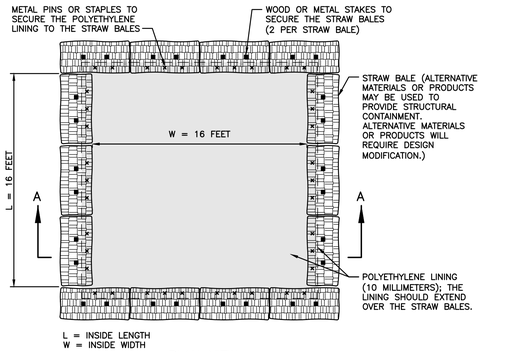
TEXAS GAS TRANSMISSION, LLC
A subsidiary of Boardwalk Pipelines, LP

DUKE CINERGY MASON ROAD MS EROSION CONTROL PLAN

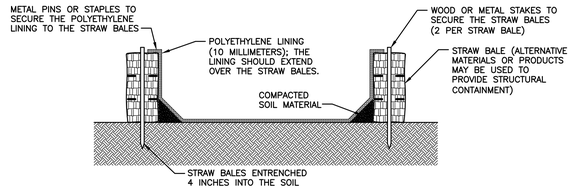
Co./Par.:	BUTLER	State:	OH
Division:	TGT NORTH	Op. Area:	7861-LEBANON
Latitude:	39.430056	Longitude:	-84.340366
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Drafter: AB	Date: 04/19/2021	Project ID: 12306	Loc. No.
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Appr:	Date:	Filename: 81990-ERO.DWG	
Dwg. No.	MR-21420	Sheet: 2 of 3	Rev. A

ISSUE DATE:

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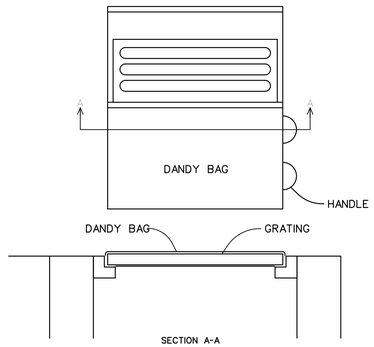
PLAN VIEW



SECTION A–A

CONCRETE WASHOUT DETAIL

NO SCALE



INSTALLATION : STAND GRATE ON END. PLACE DANDY BAG OVER GRATE. FLIP GRATE OVER SO THAT OPEN END IS UP. PULL UP SLACK. TUCK FLAP IN. BE SURE END OF GRATE IS COMPLETELY COVERED BY FLAP OR DANDY BAG WILL NOT FIT PROPERLY. HOLDING HANDLES, CAREFULLY PLACE DANDY BAG WITH GRATE INSERTED INTO CATCH BASIN FRAME SO THAT RED DOT ON THE TOP OF THE DANDY BAG IS VISIBLE.

MAINTENANCE : AFTER SILT HAS DRIED, REMOVE IT FROM THE SURFACE OF DANDY BAG WITH BROOM.

DANDY BAG

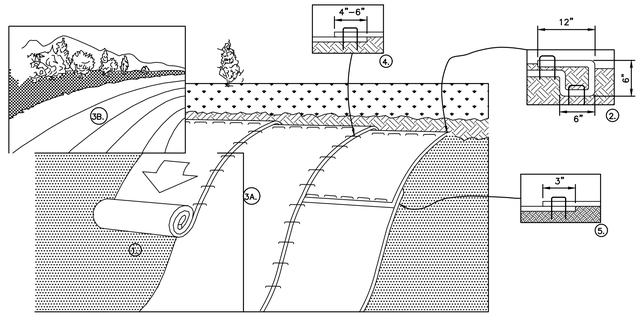
NO SCALE

REQUIREMENTS FOR COMPLIANCE WITH OEPA'S GENERAL PERMIT FOR CONSTRUCTION

1. THE EROSION CONTROL MEASURES INCLUDED IN THIS PLAN SHALL BE INSTALLED PRIOR TO INITIAL LAND DISTURBANCE ACTIVITIES OR AS SOON AS PRACTICAL. SEDIMENT SHALL BE PREVENTED FROM DISCHARGING FROM THE PROJECT SITE BY INSTALLING AND MAINTAINING SILT FENCE, CHECK DAMS, SEDIMENT BASINS, ETC. AS SHOWN ON THIS PLAN. IF SHOWN ON THIS PLAN, ENERGY-DISSIPATION DEVICES OR EROSION CONTROL AT THE OUTFALL OF THE STORM SEWER SYSTEM SHALL BE INSTALLED AT THE TIME OF THE CONSTRUCTION OF THE OUTFALL. STRUCTURAL PRACTICES SHALL BE USED TO CONTROL EROSION FROM ALL SITES REMAINING DISTURBED FOR MORE THAN FOURTEEN (14) DAYS.
2. THE CONTRACTOR SHALL CONTROL WASTES, GARBAGE, DEBRIS, WASTEWATER, AND OTHER SUBSTANCES ON THE SITE IN SUCH A WAY THAT THEY SHALL NOT BE TRANSPORTED FROM THE SITE BY THE ACTION OF WINDS, STORM WATER RUNOFF, OR OTHER FORCES. PROPER DISPOSAL OR MANAGEMENT OF ALL WASTES AND UNUSED BUILDING MATERIALS APPROPRIATE TO THE NATURE OF THE WASTE OR MATERIAL IS REQUIRED. COMPLIANCE IS REQUIRED WITH ALL STATE OR LOCAL REGULATIONS REGARDING WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC SYSTEMS.
3. PUBLIC OR PRIVATE ROADWAYS SHALL BE KEPT CLEARED OF ACCUMULATED SEDIMENT. BULK CLEARING OF ACCUMULATED SEDIMENT SHALL NOT INCLUDE FLUSHING THE AREA WITH WATER. CLEARED SEDIMENT SHALL BE RETURNED TO THE POINT OF LIKELY ORIGIN OR OTHER SUITABLE LOCATION.
4. ALL ON-SITE STORM DRAIN INLETS SHALL BE PROTECTED AGAINST SEDIMENTATION WITH FILTER FABRIC, OR EQUIVALENT BARRIERS AS SHOWN ON THIS PLAN.
5. THE EROSION CONTROL PLAN SHALL BE IMPLEMENTED ON ALL DISTURBED AREAS WITHIN THE CONSTRUCTION SITE. ALL MEASURES INVOLVING EROSION CONTROL PRACTICES SHALL BE INSTALLED UNDER THE GUIDANCE OF QUALIFIED PERSONNEL EXPERIENCED IN EROSION CONTROL AND FOLLOWING THE PLANS AND SPECIFICATIONS INCLUDED HEREIN.
6. DURING THE PERIOD OF CONSTRUCTION ACTIVITY, ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR. AT THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE THE TRANSFER OF MAINTENANCE RESPONSIBILITIES, IF REQUIRED, WITH THE OWNER. MAINTENANCE SHALL BE IN ACCORDANCE WITH THE SOIL CONSERVATION SERVICE MANUAL "RAIN WATER AND LAND DEVELOPMENT".
7. ALL EROSION CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE SOIL CONSERVATION SERVICE MANUAL "RAIN WATER AND LAND DEVELOPMENT".
8. EXISTING VEGETATION SHALL BE PROTECTED AS MUCH AS PRACTICAL.
9. POST CONSTRUCTION STORM WATER MANAGEMENT: EACH LOT SHALL HAVE ADEQUATE VEGETATION AND LANDSCAPING TO FILTER POLLUTANTS AS MUCH AS PRACTICAL. LOCAL LAWS REGARDING THE DISCHARGING OF OIL AND OTHER POLLUTANTS INTO STORM SEWERS OR DRAINAGE-WAYS SHALL APPLY.
10. ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSPECTED IN ACCORDANCE WITH THE CONDITIONS OF APPLICABLE NPDES PERMITS.
11. ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE REMOVED AND DISPOSED OF OFFSITE WITHIN THIRTY DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY PRACTICES ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION.
12. THE EROSION CONTROL PLAN MUST BE RETAINED ON-SITE AT ALL TIMES DURING THE PERIOD OF CONSTRUCTION.

ADDITIONAL EROSION CONTROL NOTES:

1. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN GRANTED BY GOVERNING AUTHORITIES.
2. THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) DURING CONSTRUCTION OPERATIONS.
3. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
4. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS OF A RAINFALL EXCEEDING 0.5 INCHES DURING A 24-HOUR PERIOD. ALL MAINTENANCE REQUIRED BY INSPECTION SHALL COMMENCE WITHIN 24 HOURS AND BE COMPLETED WITHIN 48 HOURS OF REPORT.
5. THE PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
6. GENERAL CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
7. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ONSITE INSPECTION.
8. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
9. COMPACT AND MAINTAIN STABILIZED CONSTRUCTION ENTRANCE. COORDINATE LOCATION OF CONSTRUCTION ENTRANCE WITH OWNER. THE LOCATION OF ANY FUEL TANKS AND/OR EQUIPMENT STORAGE AREAS MUST BE IDENTIFIED ON SWPPP PLAN SHEETS BY THE CONTRACTOR ONCE THE LOCATIONS HAVE BEEN DETERMINED.
10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING WHATEVER MEANS ARE NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
11. SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASIN BEFORE IT IS 50% FULL. SEDIMENT SHALL BE REMOVED FROM SILT FENCE BEFORE IT IS 33% FULL.
12. IF THE MAJORITY OF MUD OR DIRT IS NOT REMOVED FROM EXITING TRAFFIC, TEMPORARY WATER STORAGE TANKS WITH HOSES SHALL BE PROVIDED AT CONSTRUCTION TRAFFIC EXIT POINTS AND VEHICLE TIRES SHALL BE WASHED BEFORE EXITING ON PUBLIC ROAD. SILT FROM THIS WASHING OPERATION SHALL BE INTERCEPTED AND TRAPPED BEFORE WASHWATER IS ALLOWED TO BE DISCHARGED OFFSITE. IF MUD OR DIRT IS DEPOSITED ON PUBLIC ROAD, SWEEP THE STREET AND ADD TOP DRESSING(S) OF ADDITIONAL STONE TO THE CONSTRUCTION ENTRANCE AS NECESSARY.

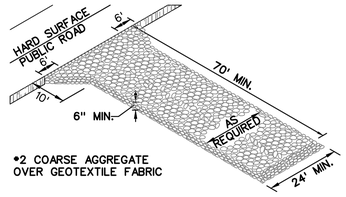


NOTES

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS PER MANUFACTURES RECOMMENDATION.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH MINIMUM 6" OVERLAP. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.
6. PLACE STAPLES/STAKES PER MANUFACTURE RECOMMENDATION FOR THE APPROPRIATE SLOPE BEING APPLIED.
7. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL BLANKET (SLOPE INSTALLATION)

NO SCALE



TEMPORARY CONSTRUCTION ACCESS

NO SCALE

STABILIZATION TYPE:	JAN	FEB.	MAR	APR	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC
PERMANENT SEEDING			A	—	—	*	—	*	—	—		
DORMANT SEEDING	B	—	—									
TEMPORARY SEEDING			C	—	—	*	D	*	—	—		
SODDING			E**	—	—	—	—	—	—	—		
MULCHING	F	—	—	—	—	—	—	—	—	—		

A = PROVIDE SW DURA TURF MIX AVAILABLE FROM
B = TRUPOINTE COOPERATIVE, INC., PIQUA, OHIO PLUS 2 TON/AC. STRAW MULCH
C = SPRING OATS @ 100 LBS/AC.
D = WHEAT OR CEREAL RYE @ 150 LBS/AC
E = SOD
F = STRAW MULCH @ 2 TONS/AC.
* = IRRIGATION NEEDED DURING JUNE AND JULY
** = IRRIGATION NEEDED FOR 2-3 WEEKS AFTER APPLYING SOD

REF.= SCS "RAINWATER AND LAND DEVELOPMENT".

NOTE: INTERIM SEEDING TO BE UTILIZED FOR AREAS TO BE LEFT UNDISTURBED AS STATED ON NOTE #5 OF THE "EROSION CONTROL REQUIREMENTS FOR COMPLIANCE WITH KDEP'S GENERAL PERMIT FOR CONSTRUCTION."

MAXIMUM PERCENT WEED SEED: 0.5%

TYPICAL SOIL PROTECTION CHART

NO SCALE

REFERENCE DRAWINGS

TEXAS GAS TRANSMISSION, LLC
A subsidiary of Boardwalk Pipelines, LP

DUKE CINERGY MASON ROAD MS EROSION CONTROL DETAILS

Co./Par.:	BUTLER	State:	OH
Division:	TGT NORTH	Op. Area:	7861-LEBANON
Latitude:	39.430056	Longitude:	-84.340366
Section:	11	Township:	3N
Range:	3E		
Drafter: AB	Date: 04/19/2021	Project ID: 12306	Loc. No.
Chk'd: MTF	Date: 04/19/2021	Scale: 1"=20'-0"	
Appr:	Date:	Filename: 81990-ERODET.DWG	
Dwg. No. MR-21420A		Sheet: 3 of 3	Rev. A

NO.	DATE	BY	DESCRIPTION	PROJ. ID	CHK	APP
A	04 19 21		ISSUED FOR REVIEW	PN 12306		

REVISIONS

ISSUE DATE:

Images: , Xrefs:
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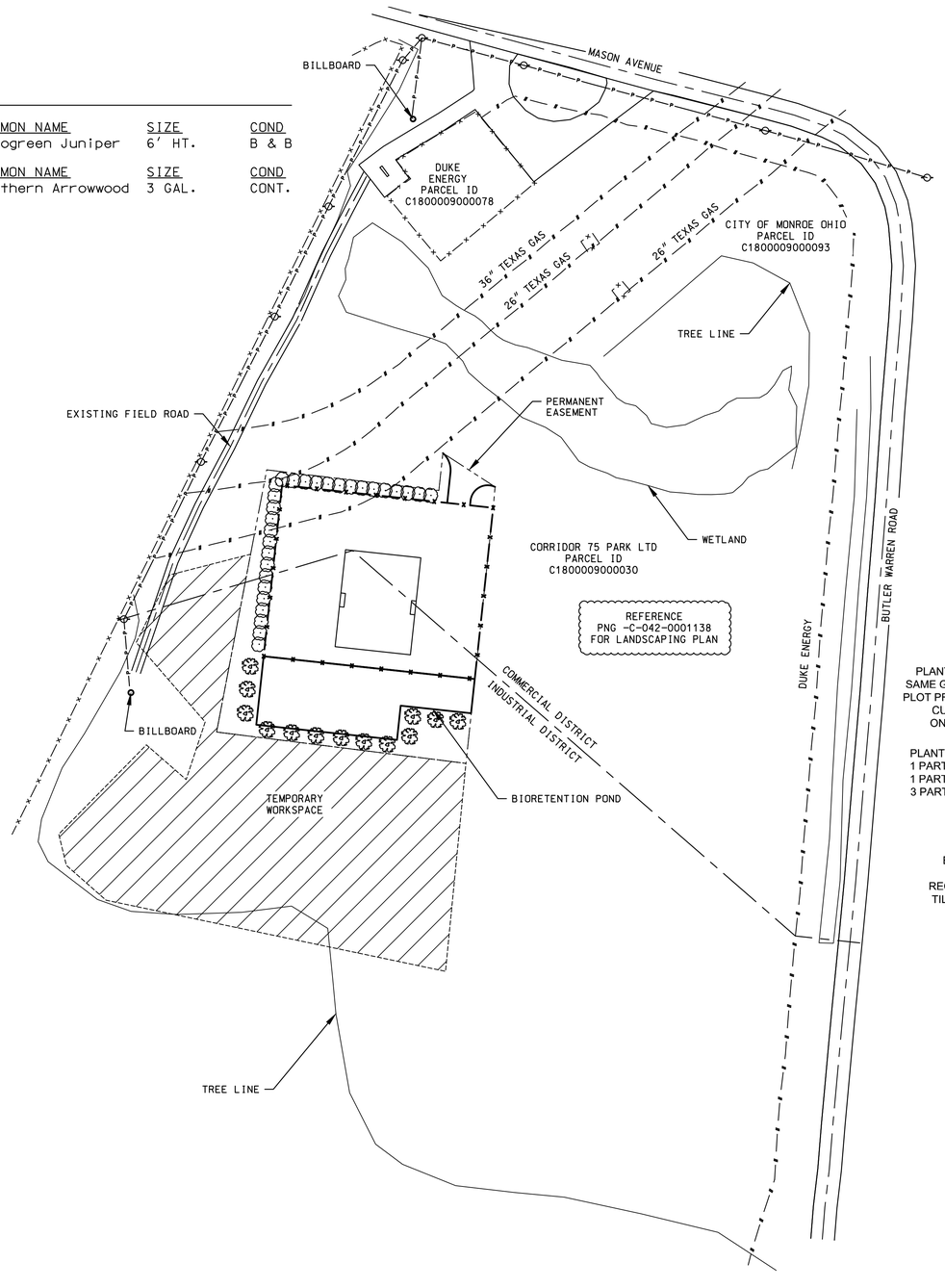
PLANT SCHEDULE

EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COND
JS	13	Juniperus scopulorum 'Cologreen'	Cologreen Juniper	6' HT.	B & B

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COND
VD	29	Viburnum dentatum 'Blue Muffin'	Southern Arrowwood	3 GAL.	CONT.

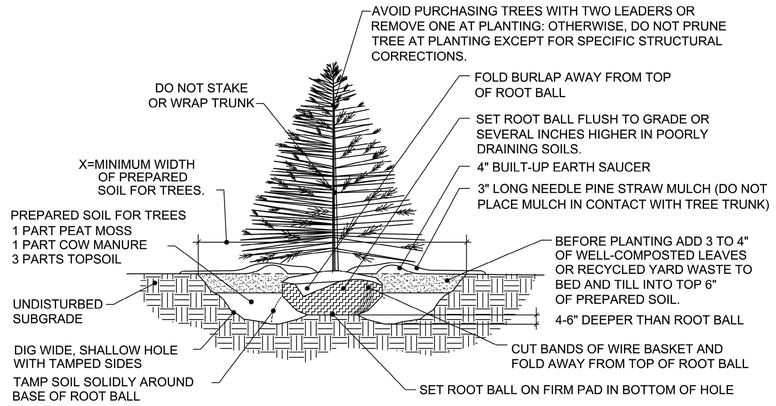
LANDSCAPE NOTES

1. LOCATE UTILITIES PRIOR TO COMMENCING LANDSCAPE OPERATIONS. ALL TREES SHALL BE FIELD POSITIONED AS TO AVOID CONFLICTS WITH EXISTING AND PROPOSED UTILITIES. NOTIFY OWNER REPRESENTATIVE OF ANY CONFLICTS OR OBSTRUCTIONS.
2. ALL PLANT MATERIAL SHALL BE SPECIMEN QUALITY AND SHALL COMPLY WITH RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z60.1 THE 'AMERICAN STANDARD FOR NURSERY STOCK'.
3. PREPARE PLANTING BEDS AND INCORPORATE AMENDMENTS ACCORDING TO DETAILS.
4. SHREDDED HARDWOOD MULCH, PER SPECIFICATIONS SHALL BE USED AS A THREE INCH (3") TOP DRESSING IN ALL PLANTING BEDS AND AROUND ALL TREES. SINGLE TREES AND SHRUBS SHALL BE MULCHED TO THE OUTSIDE EDGE OF THE SAUCER.
5. ALL TREES SHALL BE STAKED PER DETAIL.
6. ALL PLANT MATERIAL SHALL BE INSTALLED TO ALLOW A ONE FOOT (1') CLEARANCE BETWEEN PLANT AND ADJACENT PAVEMENT.
7. THE LANDSCAPE CONTRACTOR SHALL NOT COMMENCE WORK UNTIL THE SITE IS FREE OF DEBRIS CAUSED BY ON-GOING CONSTRUCTION OPERATIONS. REMOVAL OF DEBRIS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. LANDSCAPE WORK SHALL NOT BEGIN UNTIL THE OWNER REPRESENTATIVE HAS GIVEN WRITTEN APPROVAL FOR SUCH. THERE SHALL BE NO DELAYS DUE TO LACK OF COORDINATION FOR THIS ACTIVITY.
8. THE OWNER REPRESENTATIVE SHALL APPROVE GRADES AND CONDITION OF SITE PRIOR TO SODDING/SEEDING OPERATIONS.
9. ALL AREAS DISTURBED DURING CONSTRUCTION AND NOT DESIGNATED FOR OTHER PLANTINGS OR HARDSCAPE SHALL BE SODDED WITH TURF TYPE FESCUE.

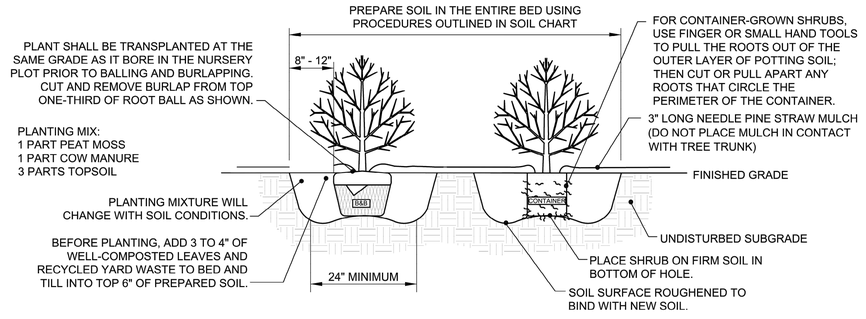


LANDSCAPING PLAN

JUNIPER
SOUTHERN ARROWWOOD
PERMANENT EASEMENT
TEMPORARY WORKSPACE



EVERGREEN PLANTING DETAIL
NOT TO SCALE



SHRUB PLANTING DETAIL
NOT TO SCALE

REFERENCE DRAWINGS

TEXAS GAS TRANSMISSION, LLC
A subsidiary of Boardwalk Pipelines, LP

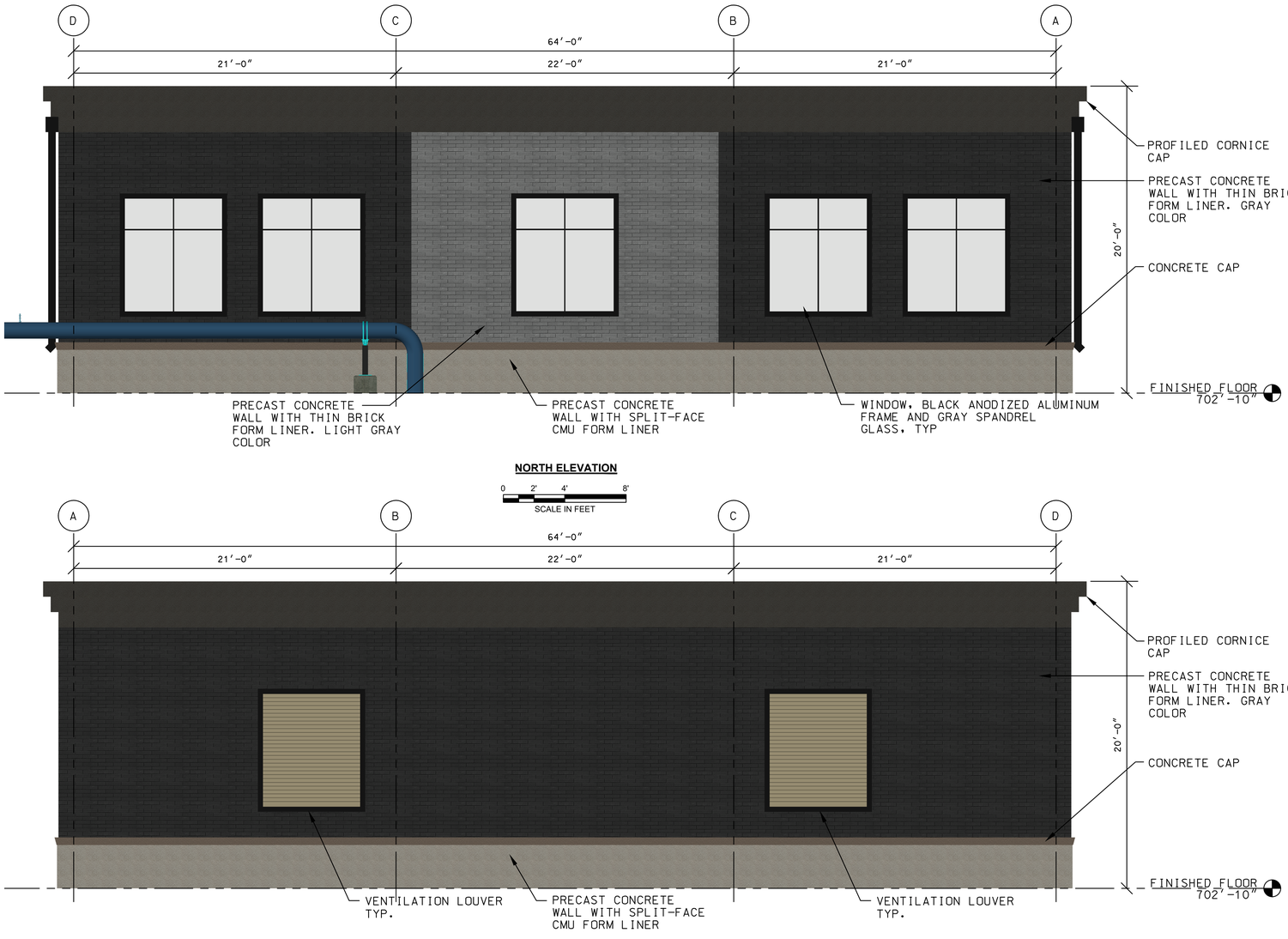
DUKE CINERGY MASON ROAD MS
LANDSCAPING PLAN

Co./Par.:	BUTLER	State:	OH
Division:	TGT NORTH	Op. Area:	7861-LEBANON
Latitude:	39.430056	Longitude:	-84.340366
Section:	11	Township: 3N	Range: 3E
Drafter: GKS	Date: 03/30/2021	Project ID: 12306	Loc. No.
Chk'd: SDC	Date: 04/19/2021	Scale: 1"=60'	
Appr: LBA	Date: 04/19/2021	Filename: MR-21421.DWG	
Dwg. No.	MR-21421	Sheet: 1 of 1	Rev: A

NO.	DATE	BY	DESCRIPTION	PROJ. ID	CHK	APP
A	04 02 21	GKS	ISSUED FOR REVIEW	12306	SDC	LBA

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ISSUE DATE:



NORTH ELEVATION

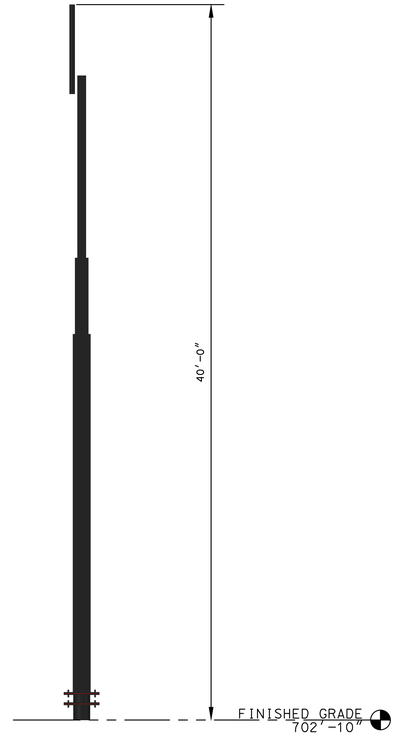
0 2' 4' 8'

SCALE IN FEET

SOUTH ELEVATION

0 2' 4' 8'

SCALE IN FEET



COMMUNICATIONS MONO POLE

REFERENCE DRAWINGS

TEXAS GAS TRANSMISSION, LLC
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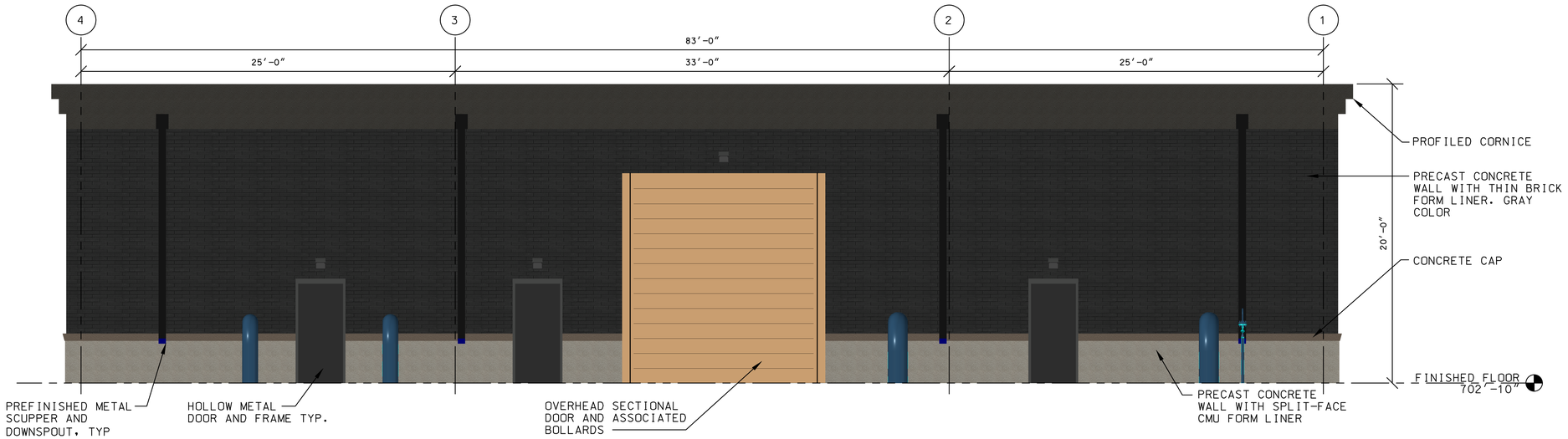
DUKE CINERGY MASON ROAD MS METER AND REGULATOR STATION ARCHITECTUAL AND BUILDING ELEV. NORTH AND SOUTH VIEW

Co./Par.: BUTLER		State: OH	
Division: TGT NORTH		Op. Area: 7861-LEBANON	
Latitude: 39.430056		Longitude: -84.340366	
Section: 11	Township: 3N	Range: 3E	
Drafter: GWH	Date: 04/02/2021	Project ID: 12306	Loc. No.
Chk'd: SDC	Date: 04/02/2021	Scale: N.T.S.	
Appr: LBA	Date: 04/02/2021	Filename: MR-21422.DWG	
Dwg. No. MR-21422		Sheet: 1 of 1	Rev. B

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A	04 02 21	GWH	ISSUED FOR REVIEW	12306	SDC	LBA

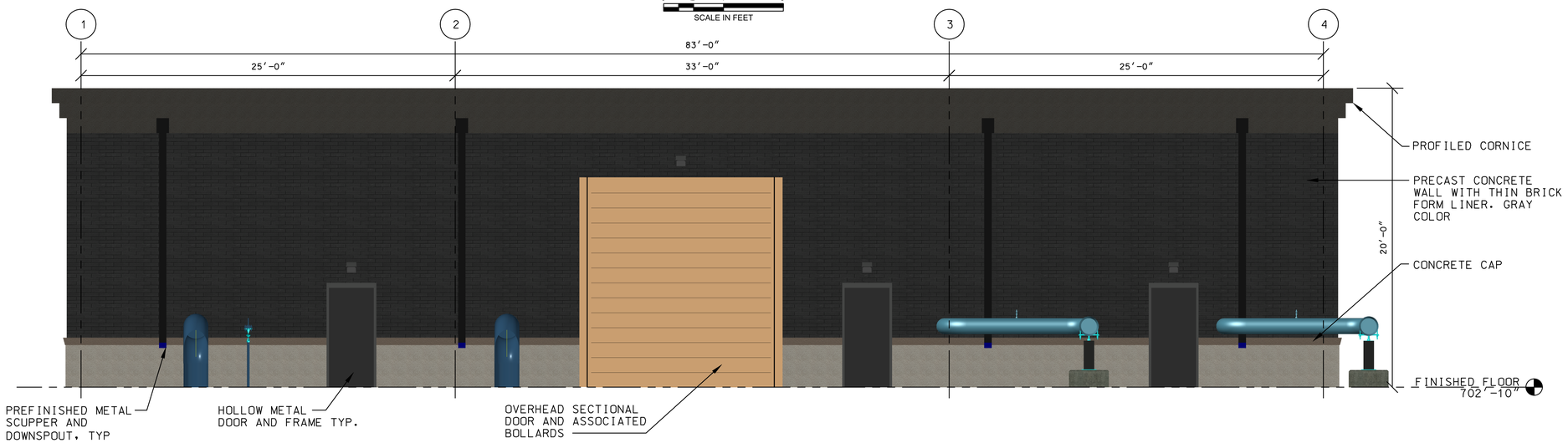
ISSUE DATE:



EAST ELEVATION

0 2' 4' 8'

SCALE IN FEET



WEST ELEVATION

0 2' 4' 8'

SCALE IN FEET

REFERENCE DRAWINGS

TEXAS GAS TRANSMISSION, LLC
A subsidiary of Boardwalk Pipelines, LP

DUKE CINERGY MASON ROAD MS METER AND REGULATOR STATION ARCHITECTUAL AND BUILDING ELEV. NORTH AND SOUTH VIEW

Co./Par.:	BUTLER	State:	OH
Division:	TGT NORTH	Op. Area:	7861-LEBANON
Latitude:	39.430056	Longitude:	-84.340366
Section: 11	Township: 3N	Range:	3E
Drafter: GWH	Date: 04/02/2021	Project ID: 12306	Loc. No.
Chk'd: SDC	Date: 04/02/2021	Scale: N.T.S.	
Appr: LBA	Date: 04/02/2021	Filename: MR-21423.DWG	
Dwg. No.	MR-21423	Sheet: 1 of 1	Rev. B

ISSUE DATE:

NO.	DATE	BY	DESCRIPTION	PROJ. ID	CHK	APP.
B	04 20 21	GWH	ISSUED FOR REVIEW	12306	SDC	LBA
A	04 02 21	GWH	ISSUED FOR REVIEW	12306	SDC	LBA

REVISIONS



SITE PLAN

SYMBOLS: BUILDING PLANS

- SURFACE MOUNTED LED LIGHT FIXTURE
- FLUORESCENT STRIP LIGHT
- SELF-CONTAINED D.C. EMERGENCY LIGHT
- CEILING MOUNTED CLASS 1 DIV 2 LED 250 WATT EQUIVALENT
- WALL MOUNTED LED LIGHT FIXTURE
- WALL MOUNTED EXIT LIGHT, LED INTERNAL LAMPS OR SELF-ILLUMINATING
- WALL MOUNTED MULTICOLOR GAS DETECTION BEACON (B)
- POLE MOUNTED LED FIXTURE 10' TALL

REFERENCE DRAWINGS

NO.	DATE	BY	DESCRIPTION	PROJ. ID	CHK	APP
B	04 20 21	ASA	RE-ISSUED FOR REVIEW	PN 12306	LBA	LBA
A	04 02 21	ASA	ISSUED FOR REVIEW	PN 12306	LBA	LBA

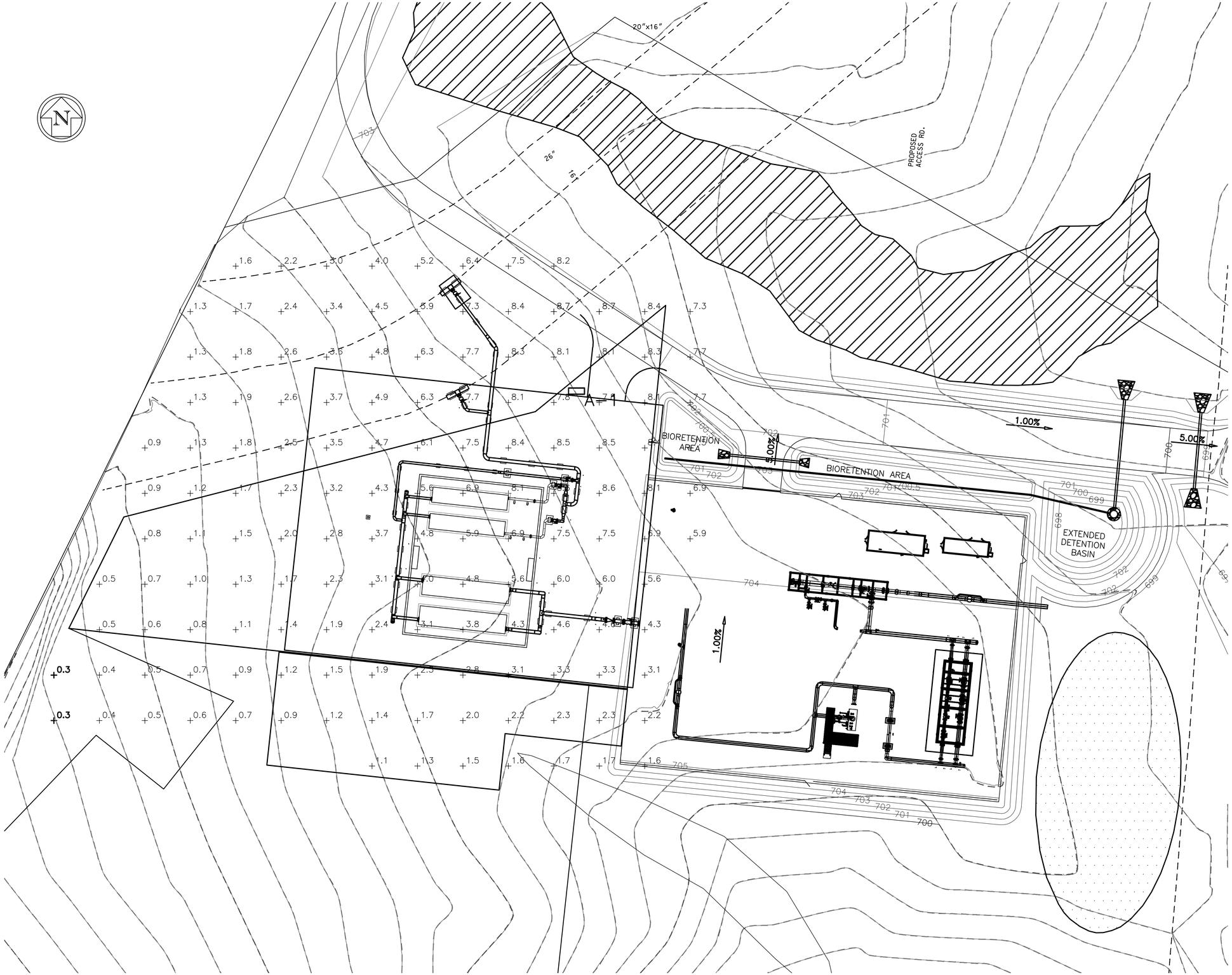
REVISIONS

TEXAS GAS TRANSMISSION, LLC
A subsidiary of Boardwalk Pipelines, LP

DUKE CINERGY MASON ROAD MS MAIN LINE SYSTEM (MLS) LIGHTING PLAN

Co./Par.:	BUTLER	State:	OH
Division:	TGT NORTH	Op. Area:	7861-LEBANON
Latitude:	39.430056	Longitude:	-84.340366
Section:	11	Township:	3N
Range:	3E		
Drafter: ASA	Date: 03/30/2021	Project ID: 12306	Loc. No.
Chk'd: LBA	Date: 04/02/2021	Scale: 1"=20'-0"	
Appr: LBA	Date: 04/02/2021	Filename: MR-21424.DWG	
Dwg. No.	MR-21424	Sheet: 1 of 1	Rev. B

ISSUE DATE:



NOTE:
SEE PNG C-042-00010199
FOR REFERENCE.

SITE PLAN

NO.	DATE	BY	DESCRIPTION	PROJ. ID	CHK	APP.
A	04 20 21	ASA	ISSUED FOR REVIEW	PN 12306	LBA	LBA

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REFERENCE DRAWINGS

TEXAS GAS TRANSMISSION, LLC
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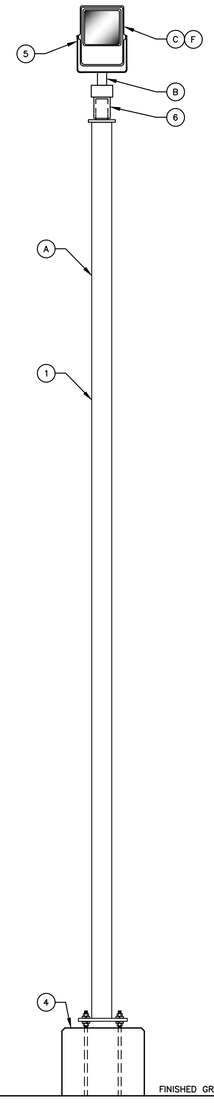
DUKE CINERGY MASON ROAD MS
MAIN LINE SYSTEM (MLS)
LIGHTING CALCULATIONS

Co./Par.:	BUTLER	State:	OH
Division:	TGT NORTH	Op. Area:	7861-LEBANON
Latitude:	39.430056	Longitude:	-84.340366
Section:	11	Township: 3N	Range: 3E
Drafter: ASA	Date: 04/16/2021	Project ID: 12306	Loc. No.
Chk'd: LBA	Date: 04/16/2021	Scale: 6"=1'-0"	
Appr: LBA	Date: 04/16/2021	Filename: MR-21470.DWG	
Dwg. No.	MR-21470	Sheet: 1 of 1	Rev. A

ISSUE DATE:

BILL OF MATERIAL - CONTRACTOR PURCHASE

ITEM	QTY.	MODEL NO.	DESCRIPTION
A	1	SSS QS 10 4G PTDNAXD	10' ALUMINUM POLE
B	1	BKT-28	STEAL ARM WITH 2 YOKE MOUNT
C	1	DSX0 LED P1 VLS 27K	LITHONIA DSX0 LED VISUAL COMFORT, P1 SYMMETRIC TYPE V DISTRIBUTION 27K



NOTES:

1. LIGHTING STANDARD. REFER TO LUMINAIRE SCHEDULE FOR SPECIFICATION. OVERALL HEIGHT IS TO BE 10 FEET. FINISH TO BE HOT DIP GALVANIZED, LUMINAIRE CROSSARM TO BE TENON, GALVANIZED, LUMINAIRES TO BE 56 WATT LED FIXTURE SEE LUMINAIRE SCHEDULE FOR FULL SPECIFICATION.
2. SET POLE ABSOLUTELY PLUMB BY ADJUSTING WITH DOUBLE NUTS AND LOCKWASHERS AT BASE. ANY POLE NOT SET PLUMB SHALL BE REWORKED UNTIL IT IS PROPER.
3. HINGED OVER POSITION OF POLE AND LUMINAIRES. LOCATE BASE AND POLE SO MOTION IS NOT INTERFERED WITH BY EQUIPMENT, PIPING, FENCING, ETC.
4. SEE OTHER DETAILS THIS DRAWING FOR BASE CONSTRUCTION, ELECTRICAL CONNECTIONS AND GROUNDING DETAILS.
5. TENON-MOUNT SETSCREW ANCHORED BULLHORN BRACKET, APPROXIMATELY 36" WIDE, HOT DIPPED GALVANIZED WITH TWIN TENONS FOR YOKE MOUNT LUMINAIRES.
6. 1.25" CORRUGATED PVC OR EQUIVALENT HOSE FOR WIRE PROTECTION AT HINGED JOINT AREA. RUN ALL WIRING TO LUMINAIRES THROUGH THIS SLEEVE.

SITE LIGHTING STANDARD DETAILS — 1

NTS — MR-21424

REFERENCE DRAWINGS

NO.	DATE	BY	DESCRIPTION	PROJ. ID	CHK	APP
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TEXAS GAS TRANSMISSION, LLC
A subsidiary of Boardwalk Pipelines, LP

DUKE CINERGY MASON ROAD MS
MAIN LINE SYSTEM (MLS)
LIGHTING INSTALLATION DETAIL

Co./Par.: BUTLER		State: OH	
Division: TGT NORTH		Op. Area: 7861-LEBANON	
Latitude: 39.430056		Longitude: -84.340366	
Section: 11	Township: 3N	Range: 3E	
Drafter: ASA	Date: 04/16/2021	Project ID: 12306	Loc. No.
Chk'd: LBA	Date: 04/16/2021	Scale: NTS	
Appr: LBA	Date: 04/16/2021	Filename: MR-21471.DWG	
Dwg. No. MR-21471		Sheet: 1 of 1	Rev. A

ISSUE DATE:

PLANT SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COND
AS	4	Acer saccharum `Fall Fiesta`	Sugar Maple	2.5" CAL.	B & B
LS	3	Liquidambar styraciflua	Sweetgum	2.5" CAL.	B & B
NS	5	Nyssa sylvatica	Black tupelo	2.5" CAL.	B & B
QB	2	Quercus bicolor	Swamp White Oak	2.5" CAL.	B & B

EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COND
JS	13	Juniperus scopulorum 'Cologreen'	Cologreen Juniper	6' HT.	B & B
TD	13	Taxodium distichum 'Shawnee Brave'	Shawnee Bald Cypress	6' HT.	B & B

FLOWERING TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COND
CC	6	Cercis occidentalis 'Claremont'	Claremont W. Redbud	2" CAL.	B & B

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COND
RF	8	Rhamnus frangula 'Fine Line'	Fine Line Buckthorn	3 GAL.	CONT.
VD	14	Viburnum dentatum 'Blue Muffin'	Southern Arrowwood	3 GAL.	CONT.

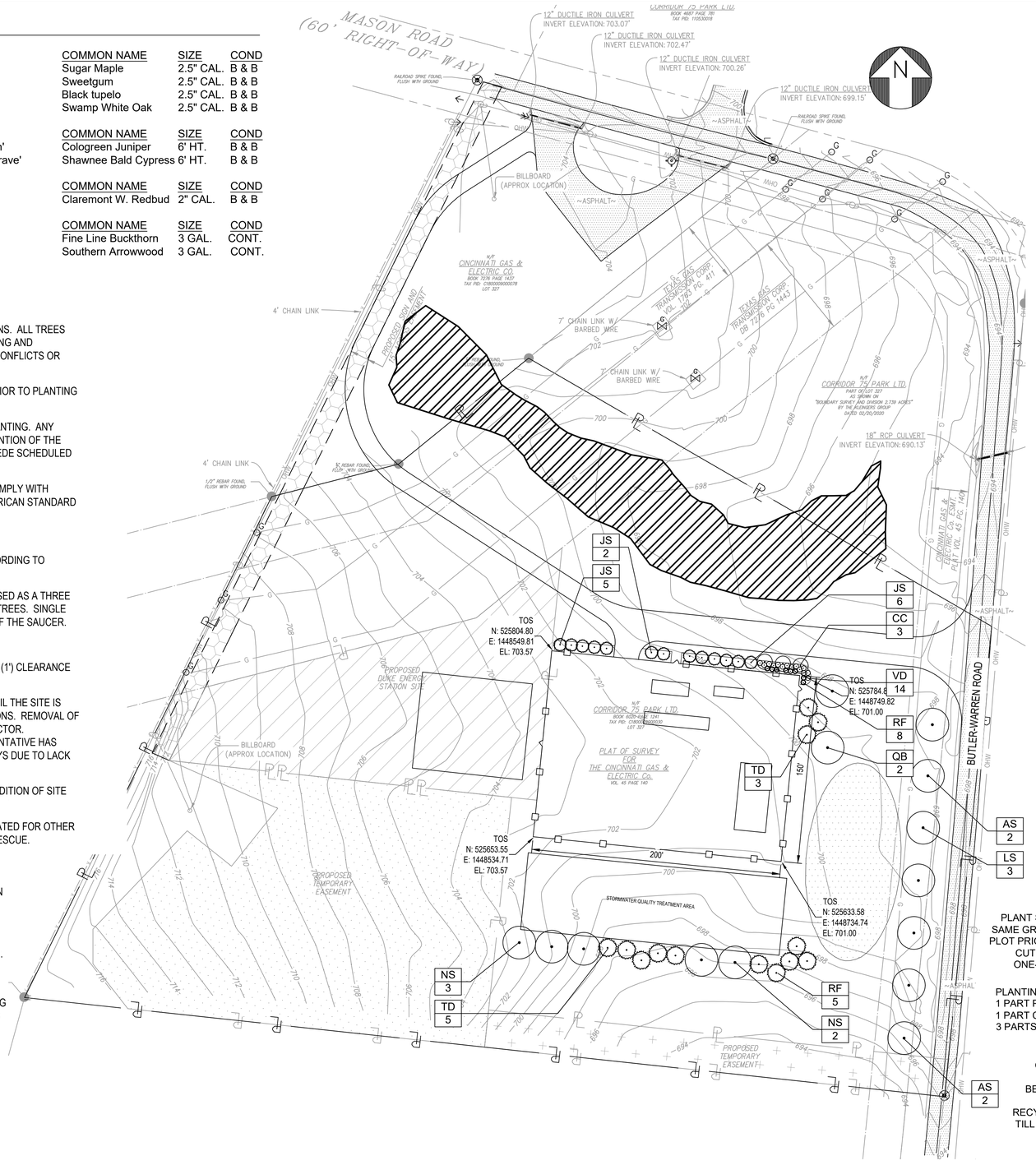
* NOTE: ALL SHRUBS SHALL BE INSTALLED AT 3' HEIGHT.

LANDSCAPE NOTES

1. LOCATE UTILITIES PRIOR TO COMMENCING LANDSCAPE OPERATIONS. ALL TREES SHALL BE FIELD POSITIONED AS TO AVOID CONFLICTS WITH EXISTING AND PROPOSED UTILITIES. NOTIFY OWNER REPRESENTATIVE OF ANY CONFLICTS OR OBSTRUCTIONS.
2. CONTRACTOR SHALL STAKE ALL PLANTING AREAS IN THE FIELD PRIOR TO PLANTING FOR APPROVAL OF THE OWNER REPRESENTATIVE.
3. CONTRACTOR SHALL VERIFY ALL PLANT QUANTITIES PRIOR TO PLANTING. ANY DISCREPANCIES WITH THE PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER REPRESENTATIVE. THE PLAN QUANTITIES SHALL SUPERCEDE SCHEDULED QUANTITIES.
4. ALL PLANT MATERIAL SHALL BE SPECIMEN QUALITY AND SHALL COMPLY WITH RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z60.1 THE 'AMERICAN STANDARD FOR NURSERY STOCK'.
5. ALL PLANTING BEDS SHALL BE EDGED AS SHOWN IN PLAN.
6. PREPARE PLANTING BEDS AND INCORPORATE AMENDMENTS ACCORDING TO DETAILS.
7. SHREDDED HARDWOOD MULCH, PER SPECIFICATIONS SHALL BE USED AS A THREE INCH (3") TOP DRESSING IN ALL PLANTING BEDS AND AROUND ALL TREES. SINGLE TREES AND SHRUBS SHALL BE MULCHED TO THE OUTSIDE EDGE OF THE SAUCER.
8. ALL TREES SHALL BE STAKED PER DETAIL.
9. ALL PLANT MATERIAL SHALL BE INSTALLED TO ALLOW A ONE FOOT (1') CLEARANCE BETWEEN PLANT AND ADJACENT PAVEMENT.
10. THE LANDSCAPE CONTRACTOR SHALL NOT COMMENCE WORK UNTIL THE SITE IS FREE OF DEBRIS CAUSED BY ON-GOING CONSTRUCTION OPERATIONS. REMOVAL OF DEBRIS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. LANDSCAPE WORK SHALL NOT BEGIN UNTIL THE OWNER REPRESENTATIVE HAS GIVEN WRITTEN APPROVAL FOR SUCH. THERE SHALL BE NO DELAYS DUE TO LACK OF COORDINATION FOR THIS ACTIVITY.
11. THE OWNER REPRESENTATIVE SHALL APPROVE GRADES AND CONDITION OF SITE PRIOR TO SODDING/SEEDING OPERATIONS.
12. ALL AREAS DISTURBED DURING CONSTRUCTION AND NOT DESIGNATED FOR OTHER PLANTINGS OR HARDSCAPE SHALL BE SODDED WITH TURF TYPE FESCUE.

LANDSCAPE COMPLIANCE

1. 1212.06 - STREET TREE REQUIREMENTS. STREET TREES HAVE BEEN PROVIDED 40 FT. O.C. ALONG BUTLER-WARREN ROAD.
2. 1212.08 FRONT YARD LANDSCAPING. DUE TO ARCHEOLOGICAL SENSITIVE AREA ALONG BUTLER-WARREN ROAD. IN LIEU OF LANDSCAPING AN 8' TALL DECORATIVE FENCE SHALL BE PROVIDED. PROPOSED FENCE SHALL BE AMERISTAR IMPASSE II FENCE.
3. 1212.10 BUFFER REQUIREMENTS. NO ADJACENT USES REQUIRE BUFFER BEYOND OUR C-3 CLASSIFICATION. ADDITIONAL SCREENING HAS BEEN PROVIDED ALONG THE NORTH AND SOUTH PERIMETERS TO ADD AESTHETIC APPEAL TO THE ELEVATION AND VIEW FROM BUTLER-WARREN ROAD.

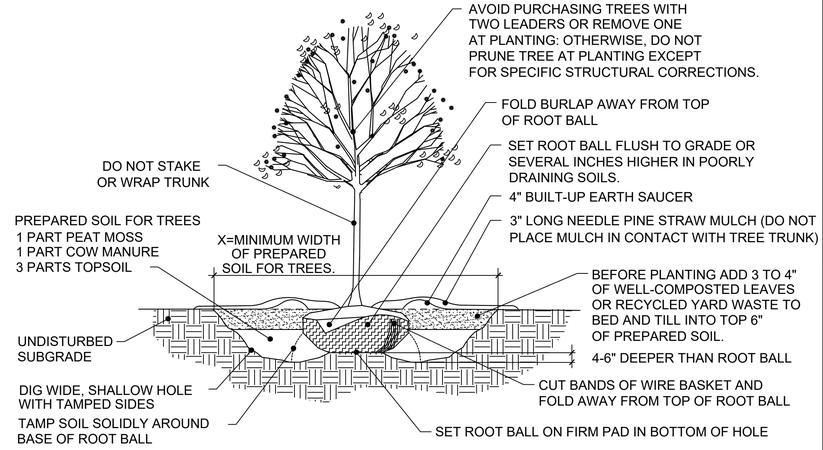


DECIDUOUS TREE

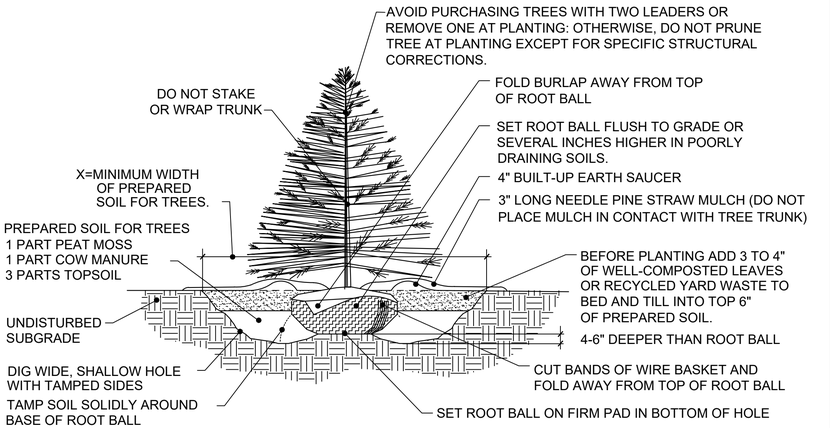
EVERGREEN TREE

SHRUBS

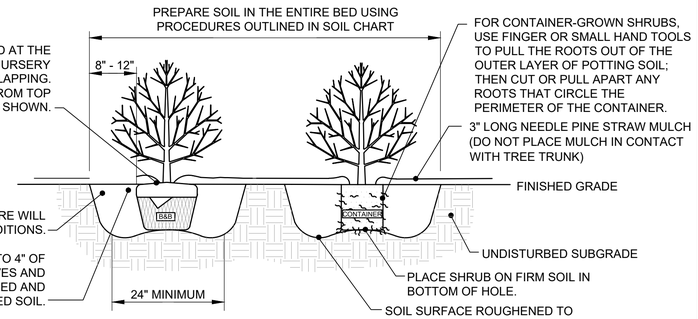
STEEL EDGE



DECIDUOUS PLANTING DETAIL 1
NOT TO SCALE -



EVERGREEN PLANTING DETAIL 2
NOT TO SCALE -



SHRUB PLANTING DETAIL 3
NOT TO SCALE -

FOR CONSTRUCTION
PRELIMINARY - NOT 30% DESIGN SUBMITTAL

BURNS & McDONNELL
ENGINEERING COMPANY, INC.
STATE LICENSE # COA.01557

CHRISTOPHER DANIEL WILSON
SUBMITTAL DATE
OHIO
SEAL 82217

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NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
-	-	-	-	-	CDW

DESCRIPTION	
AREA CODE	-
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2771
DRAWING BY	-
STATION ID	STA 914
CHECKER INITIALS	-

APPROVALS	DATE	INITIALS
REGIONAL ENGINEER		
MGR TECH REC & STD		
PRINCIPAL ENGINEER	XX-XX-XXXX	CDW

REF. DWG(S) PNG-C-042-0001137

MASON STATION CAPACITY IMPROVEMENT
LANDSCAPING PLAN
BUTLER COUNTY, OHIO

TODHUNTER RESOURCE CENTER, OHIO

SHEET(S) XX OF XX	DWG SCALE 1" = 50'
DWG DATE 01/07/2021	SUPERSEDED —

DRAWING NUMBER: PNG -C-042-0001138 (DISCIPLINE / RESOURCE CENTER / LINE NUMBER)
REVISION: A

User:dfcowen Dgn:\\bdfs01\nt1\bd_dgn\AW\Projects\Duke\PNG-C-042-0001138.dgn Tue, 1/5/2021 7:48 AM



LIGHTING FIXTURE SCHEDULE-EXTERIOR					
Type	FIXTURE INFORMATION				
	DESCRIPTION	MANUFACTURER	MODEL	MOUNTING HEIGHT	TYPE
A	FLOODLIGHT - POLE MOUNTED	CROUSE-HINDS	FMV9LCYUNV176	20'	CL1D2 LED
B	WALL PACK-BUILDING MOUNTED	CROUSE-HINDS	VMVL7L2TWR3G/UNV1	18'	CL1D2 LED
C	INTERIOR BUILDING FIXTURE	CROUSE-HINDS	VMVL52CGUNV1-S891	16'	CL1D2 LED
D	SKID MOUNTED WALL PACK	TBD	18W FIXTURE, MODEL TBD	7'	CL1D2 LED

NOTES:

1. TYPE A TO BE PHOTOCELL CONTROLLED, DUSK TILL DAWN. TYPES B, C, AND D TO BE SWITCH CONTROLLED.
2. FIXTURE TYPE D TO BE PROVIDED BY SKID MANUFACTURER, FINAL FIXTURE SELECTION IS PENDING.
3. LIGHTING MEASURED IN FOOTCANDLES.
4. MOUNTING HEIGHTS ARE APPROXIMATE PENDING FINAL GRADING AND BUILDING PLANS.
5. FIXTURE TYPE C NOT SHOWN, INTERIOR FIXTURE.

PRELIMINARY - NOT FOR CONSTRUCTION
60% DESIGN SUBMITTAL

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MICHAEL RADEMACHER,
SEAL #E-83650

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A	3/11/21	ISSUED FOR PERMIT	JCM	MWR	-
B	4/16/21	ISSUED FOR 60% SUBMITTAL	JCM	MWR	-

DESCRIPTION	
AREA CODE	-
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2771
DRAWING BY	JCM
STATION ID	STA 914
CHECKER INITIALS	MWR

APPROVALS		
DATE	INITIALS	
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N/A	N/A	MGR TECH REC & STD
04-16-2021	MWR	PRINCIPAL ENGINEER

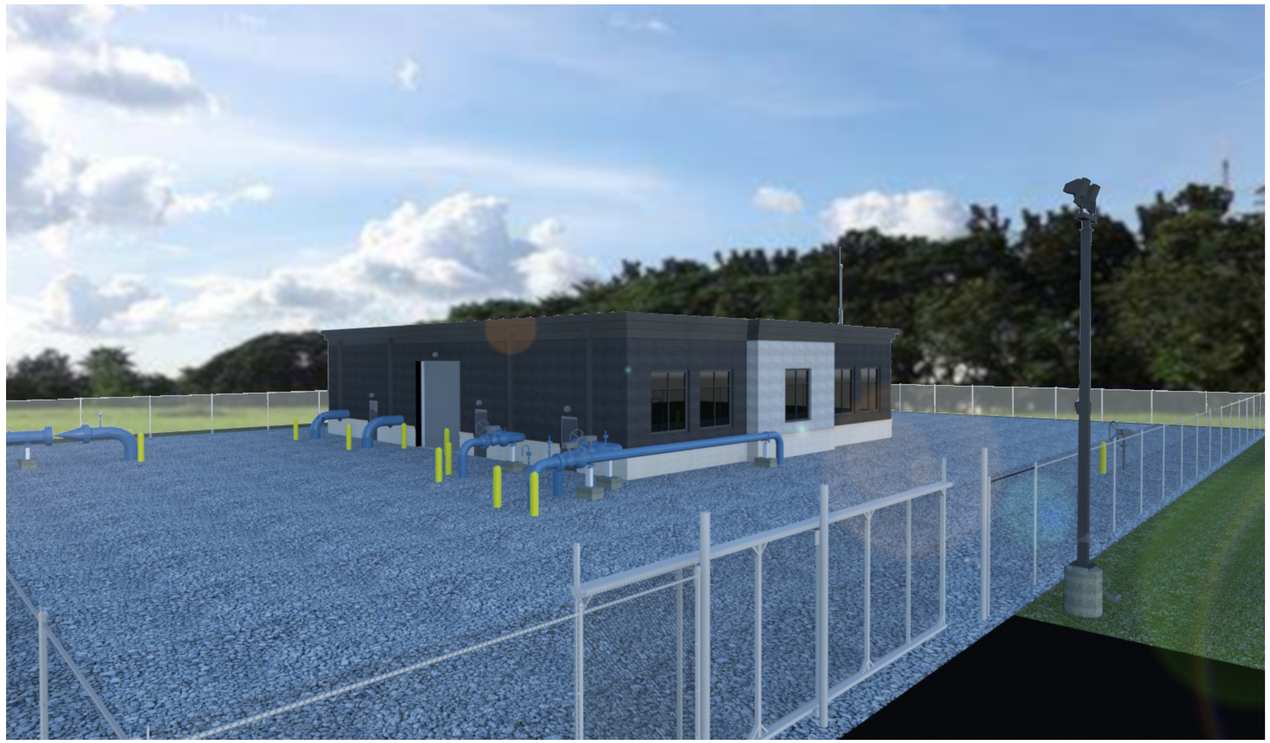
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MASON STATION CAPACITY IMPROVEMENT
SITE PHOTOMETRIC
BUTLER COUNTY, OHIO
TODHUNTER RESOURCE CENTER, OHIO

SHEET(S)	1 OF 1	DWG SCALE	3/32"=1'-0"
DWG DATE	03-11-2021	SUPERSEDED	—

DRAWING NUMBER: PNG -E-042-0001099
REVISION: A
DISCIPLINE / RESOURCE CENTER / LINE NUMBER

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REFERENCE DRAWINGS

TEXAS GAS TRANSMISSION, LLC
A subsidiary of Boardwalk Pipelines, LP

DUKE CINERGY MASON ROAD MS SITE RENDERINGS

Co./Par.:	BUTLER	State:	OH
Division:	TGT NORTH	Op. Area:	7861-LEBANON
Latitude:	39.430056	Longitude:	-84.340366
Section:	11	Township:	3N
Range:	3E		
Drafter: TLB	Date: 01/22/2021	Project ID: 12306	Loc. No.
Chk'd: SDC	Date: 01/22/2021	Scale: 1"=40'-0"	
Appr: LBA	Date: 01/22/2021	Filename: RENDERINGS.DWG	
Dwg. No.	RENDERINGS	Sheet: 1 of 1	Rev. A

NO.	DATE	BY	DESCRIPTION	PROJ. ID	CHK	APP
A	04 20 21	GWH	ISSUED FOR REVIEW	PN 12306	SDC	LBA

REVISIONS

ISSUE DATE:

TEXAS GAS
TRANSMISSION, LLC

Texas Gas Transmission, LLC

Stormwater Pollution Prevention Plan

August 2020

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6.0 Required Reports, Documents, and Record Keeping 8

1.0 INTRODUCTION

In June 2006, the U.S. Environmental Protection Agency (EPA) published a final rule for 40 Code of Federal Regulations (CFR) Part 122 to include Amendments to the National Pollutant Discharge Elimination System (NPDES) Regulations for Stormwater Discharge Associated with Oil and Gas Exploration, Production, Processing, or Treatment Operations or Transmission Facilities. This rule modified the NPDES regulations to exempt certain stormwater discharges from field activities or operations, including construction associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities. These discharges are exempt from permitting requirements except in situations when the construction-related activities result in the discharge of a hazardous substance or oil in "reportable" quantities or in situations when the discharge of a pollutant other than sediment contributes to a violation of an applicable water quality standard.

The rule also encouraged the application of best management practices (BMPs) for oil and gas field activities and operations to minimize the discharge of pollutants in stormwater runoff and protect water quality both during and after construction activities.

Installation of effective BMPs will help protect surface water during storm events and assist in assuring that there is no discharge of a reportable quantity (RQ) or violation of the water quality standard.

The primary purpose of this *Stormwater Pollution Prevention Plan* (SWPPP) is to minimize the impacts of construction activities on stormwater runoff. The plan includes descriptions of:

- Covered activities
- Best Management Practices
- Maintenance and Inspection Procedures
- Plan Modification
- Required Reports, Documents, and Record Keeping
- Certifications

A stand-alone Spill Prevention, Containment, and Countermeasure (SPCC) Plan also has been developed, and is provided as such.

All personnel engaging in construction activities will follow this SWPPP.

2.0 DESCRIPTION OF COVERED ACTIVITIES

2.1 PLAN LOCATION

A copy of the Project SWPPP will be kept at the local Texas Gas Transmission, LLC (Texas Gas) construction office.

2.2 RUNOFF COEFFICIENT OF SOILS

The potential for soil erosion caused by water is a concern in the construction and operation of the Project. During construction, some existing vegetation will be removed and some soils will be temporarily destabilized, increasing the potential for erosion. Such erosion is strongly related to the permeability of a soil and to the cohesion of the soil particles that comprise a soil. Other soil properties that influence water erosion include soil texture, percent organic matter, soil structure, and soil infiltration capacity. Soils containing high proportions of silt and very fine sand are the most erodible types, whereas well drained and well graded gravels and gravel-sand mixtures with little or no silt are the least erodible. Erosion is also influenced by the slope length and gradient, the frequency, intensity, and duration of rainfall, and the amount of time bare soils are exposed.

All construction work areas will be restored after construction, no increases in runoff coefficients are expected.

2.3 DISCHARGE AND RECEIVING WATERS

2.3.1 Waterbody Crossings

At or near all waterbody crossings, install sediment barriers as necessary upslope of waterbody banks or channels to contain spoil within the construction ROW and prevent the loss of spoil during rainfall events. Do not block flow ways in the event of rainfall events.

2.3.2 Wetland Crossings

At or near all wetland crossings, install sediment barriers as necessary in upland areas or as necessary to contain wetland spoil within the construction ROW and minimize the potential for spoil being carried off ROW. Do not allow the mixing of upland and wetland soils. Do not block flow ways in the event of rainfall events. Equipment to operate from construction mats if wetland rutting will occur.

2.4 BACKFILL MATERIAL SOURCE AND VOLUMES

The source of backfill material will be the material removed from trenching for placement of the pipe. This same material, less the volume occupied by foundations, will be returned to the trench. No off-site spoil material will be required.

2.5 POTENTIAL SOURCES OF CONTAMINATION FROM CONSTRUCTION

Potential sources of pollutants associated with construction that could be discharged into stormwater during construction may include:

- **Vehicle and Equipment Fueling and Maintenance.** Fueling and minor maintenance of vehicles and equipment are conducted on some construction sites. Leaks and spills of fuel, oil, and grease are possible sources of contamination.
- **Material Handling/Loading and Unloading Areas.** Material handling/loading and unloading activities are common on construction sites. Materials may be spilled, leaked, or lost during loading and unloading, and may collect in the soil or other surfaces and be carried away in stormwater. Machines used to unload materials also may be a source of stormwater pollution.
- **Erosion.** Erosion is caused where soil is exposed to water, wind, or ice. Erosion can be caused by removing vegetation, compacting or disturbing the soil, changing natural drainage patterns, and covering the ground with impermeable surfaces (buildings, pavement, or concrete), all of which are integral parts of construction projects. Erosion is a source of sediment in stormwater.
- **Grading and Site Preparation.** Grading and site preparation can be major contributors of suspended solids concentrations in stormwater. The increased possibility of erosion exists throughout the grading and site preparation phases of construction projects until construction is complete and site restoration is achieved.
- **Hazardous Material Storage Areas.** Hazardous material storage areas have the potential to release hazardous substances that may pose a threat to human health or the environment. Hazardous materials may be toxic, corrosive, ignitable, explosive, or chemically reactive. There is a potential for hazardous materials to be stored on construction sites.
- **Storage Yards.** Storage yards may contain equipment, construction materials, and construction debris that, when exposed to runoff, may pollute stormwater. A wide range of contaminants (e.g., metals, oil, and grease) may enter the environment from stored materials.

- **Mobile Equipment**. Portable tanks and other mobile equipment are used extensively on construction sites. This equipment may generate fuel or oil leaks or spills.
- **Painting.** Painting may utilize materials that are harmful to humans and the environment and that may enter into stormwater. Pollutants may include solvents, solids, and metals.

3.0 BEST MANAGEMENT PRACTICES

BMPs are controls used to prevent, minimize, or control stormwater pollution. The following guidelines will be used in the selection, design, and implementation of BMPs:

- The construction-phase erosion and sediment controls will be designed to retain sediment onsite to the extent practicable, and to ensure that no significant changes occur in the volume or characteristics of stormwater runoff to receiving waters.
- All control measures will be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices.
- If sediment is conveyed beyond the construction site, controls will be used to minimize off-site impact.
- Litter, construction debris, and construction chemicals exposed to stormwater will be prevented from becoming a pollutant source for stormwater discharges.

3.1 EROSION AND SEDIMENT CONTROLS

Erosion and sediment controls that will be implemented include the following:

- **Erosion Controls** (primary protection)
    1. Minimize disturbed areas and protect natural features
    2. Phase construction activities to limit exposure period
    3. Control stormwater flowing onto and through the Project area
    4. Stabilize soils promptly with seed, mulch, etc.
    5. Protect slopes to prevent gullying
    6. Adhere to requirements, as defined in FERC Plan and Procedures.
- **Sediment Controls** (secondary protection)
    1. Protect storm drain inlets
    2. Establish perimeter controls
    3. Retain sediment on-site and control dewatering practices
    4. Establish stabilized construction exits
    5. Inspect and maintain controls

All control measures identified in this SWPPP will be maintained in effective operating condition. Routine inspections, as discussed in Section 4, will be performed to confirm that the stormwater controls are effective, to identify problems with existing BMPs, and to identify the need for changes in BMPs. Maintenance activities will be performed as needed.

Properly operating BMPs will be maintained to ensure continued effectiveness. When BMPs are not operating properly, maintenance will be performed within 24 hours, if practicable, or at least before the next storm event, as necessary to maintain the continued effectiveness of stormwater controls.

For purposes of this SWPPP, a "significant" storm event is defined as one with more than 0.5 inch in a 24-hour period. When repairs to site-specific BMPs are required, the repairs will be implemented before the next storm event if practicable. If implementation before the next storm event is impractical, the situation will be documented in the inspection report and alternative BMPs will be implemented as soon as practicable. Construction typicals of BMPs that may be used for this Project are included the construction drawing package.

3.2 STABILIZATION

Appropriate BMPs will be implemented and maintained at the construction site from the initiation of construction through final stabilization. "Final stabilization" refers to the time when all soil-disturbing activities at the site have been completed and one of the following criteria has been met:

- The area has been compacted, surfaced, or built upon for final use.
- A uniform, evenly distributed perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area (compared to undisturbed, adjacent areas) has been established in areas not covered by permanent structures.
- Equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been used.
- In land used for agricultural purposes (such as crop or range land), the disturbed land is returned to its pre-construction grade for potential agricultural use. This does not apply to areas that were not previously used for agricultural activities, such as buffer strips immediately adjacent to Waters of the United States.

3.3 ENVIRONMENTAL INSPECTOR

A minimum of one Environmental Inspector (EI) will be assigned to help with stormwater management. The EI will be a person who is knowledgeable in the principles and practice of erosion and sediment control, possesses the skills needed to assess conditions at the construction site that could impact stormwater quality, and the effectiveness of any sediment and erosion control measures selected to control the quality of stormwater discharges. Each EI will be responsible for ensuring that contractors meet the goals for BMP schedule, installation, and maintenance.

4.0 MAINTENANCE AND INSPECTION PROCEDURES

EI(s) will perform inspections throughout construction until all disturbed areas of the construction site reach final stabilization. Personnel will be considered to be qualified as an EI(s) when they have received appropriate training from Texas Gas. The EI(s) will be a person who:

- Is knowledgeable in the principles and practice of erosion and sediment control.
- Possesses the skills needed to assess conditions at the construction site that could impact stormwater quality.
- Possesses the skills needed to assess the effectiveness of any sediment and erosion control measures selected to control the quality of stormwater discharges from the construction activity.
- Is familiar with the FERC Plan and Procedures and this SWPPP, and all requirements defined by FERC and the Conditions of the Certificate and other applicable permits, clearances, and approvals.

4.1 AREAS TO BE INSPECTED

Inspections will include all areas of the Project disturbed by construction activities and areas used for storage of materials. This includes but is not limited to: construction areas that have not reached final stabilization, areas used for storage of materials that are exposed to precipitation (prevents inspection at a warehouse site), staging areas, temporary contractor yards, access roads, structural controls, locations where vehicles enter or exit the site, and locations of the withdrawal and discharge to the extent practicable.

If part of the construction area has reached final stabilization, the site will be logged and mapped as final. Inspections will be discontinued upon confirmation of final stabilization.

4.2 INSPECTION SCHEDULE

Inspections will be completed every 7 days or on a 14-day schedule and within 24 hours of 0.5-inch of rain or greater. Inspections will be performed until stabilization is achieved in all disturbed areas.

4.3 DISTURBED AREAS

EI(s) will inspect disturbed areas of the construction right-of-way (ROW), storage areas that are exposed to precipitation events, structural control measures, and high-traffic areas. Sediment and erosion control measures will be inspected to confirm that they are operating properly. Areas of entrance and egress for Project traffic will be inspected for evidence of offsite sediment tracking. Inspections in disturbed areas will be in accordance with FERC's Plan and Procedures.

4.4 INSPECTION CONTENT AND ACTIVITIES

Inspections will be conducted as follows:

- Inspect all control measures. All control measures will be maintained in good working order. When repair is necessary, it should begin within 24 hours after the deficiency is noted. If weather or other factors prevent initiation of corrective actions within 24 hours, the corrective action will be completed as soon as practicable.
- Inspect all disturbed areas for evidence of or potential for pollutants entering the drainage system. Sediment from silt fences should be removed regularly and the fences inspected to ensure that the bottom remains embedded in the ground. Damaged hay/straw bales will be replaced with new bales as necessary.
- Inspect all material storage areas, where materials are exposed to precipitation, for evidence of or potential for pollutants entering the drainage system.
- Inspect areas of vehicle entrance and egress for evidence of offsite sediment tracking.
- Inspect all discharge points, if accessible, to determine if erosion control measures are effective in preventing significant impacts on receiving waters. If these points are inaccessible, inspect nearby downstream locations.
- Inspect vegetation to determine the success of revegetation. Revegetation will be considered successful when conditions of the revegetated area are similar in density and cover to adjacent undisturbed areas.
- Document each inspection with an inspection report completed after each inspection.
- Update the site diagrams to show current BMPs.

5.0 PLAN MODIFICATION

This SWPPP may be modified based on the results of routine inspections. Modifications may address additional or modified BMPs designed to correct identified deficiencies. Modifications will be completed within 7 days following the inspection. If existing BMPs need to be modified, the work will be completed as soon as practicable.

6.0 REQUIRED REPORTS, DOCUMENTS, AND RECORD KEEPING

A copy of this SWPPP will be maintained at the Project construction headquarters. Construction activity records, including inspection and maintenance reports and erosion control maintenance records, will be maintained. At a minimum, records of the following will be kept:

- Date(s) when major grading activities occur
- Date(s) when temporary or permanent construction activities are complete
- Date(s) when an area is stabilized, on either an interim or final basis

All documentation associated with this SWPPP will be maintained for a period of 3 years from the date final stabilization of the site has been achieved.

Stormwater Pollution Prevention Plan
INSPECTION CHECKLIST

Date: _____

On-Site Project Manager's or His/Her Designee Name:

_____

Note: Inspections must be performed at least once every seven days.

Circle Yes or No below for each measure.

I. Disturbed Areas Not Finally Stabilized

A. Structural Control Measures/BMPs

YES NO Are the storm water control structures (*e.g.* silt fences, rock berms, *etc.*) properly operational and adequate?
If no, note the location of the control structures that failed to operate as designed, or proved inadequate.

_____

_____

_____

YES NO Are the storm water control structures (*e.g.* silt fences, rock berms, *etc.*) properly maintained?
If no, note the location of the control structures that require maintenance.

_____

_____

_____

YES NO Where construction activities have permanently or temporarily ceased, are stabilization measures in place or will such measures be in place within 14 days after the construction activity in that portion of the site has temporarily or permanently ceased?

YES NO Has the schedule for implementing stabilization measures (within 14 days after construction in that portion of the site has been permanently halted) been communicated to and verified with the designated, authorized contractor(s)?

YES NO Is implementation of the structural controls proceeding pursuant to the Plans outlined in this SWPPP for the construction site?

YES NO Are additional control structures (*e.g.* silt fences, rock berms, *etc.*) needed?

If yes, note the location of the needed control structures.

_____

_____

_____

B. Other Potential Pollutant Sources

YES NO Are wastes or other significant materials that could contribute to storm water contamination properly protected from contact with storm water?

YES NO Is standing water within the construction site free of oil sheen or other contamination?

YES NO Is equipment or vehicle repair or maintenance activity within the construction site authorized and conducted to reduce the potential for storm water contamination?

YES NO Is solid waste pile erosion/run-off prevented?

YES NO Is off-site vehicle tracking and generation of dust at a minimum?

YES NO Is tracking or debris swept and picked up?

YES NO Is sanitary wastewater removed regularly?

II. Materials Storage Areas Exposed to Storm Water

YES NO Are solid materials adequately stored in designated storage areas within the construction site?

YES NO Is sufficient cover available or in place to prevent or minimize the contact of such materials with precipitation?

YES NO Has the structural integrity of the cover been maintained, and is it able to provide adequate protection against storm water contamination?

III. Vehicle Entry and Exit Points

YES NO Are off-site areas free of sediment tracking by vehicles exiting the construction site?

IV. Miscellaneous

YES NO Have the contractors and supervisory personnel read and understood the requirements of this Plan (and been updated as necessary) and signed a written certification to that effect, prior to commencement of the work for which the contractor or supervisor is responsible?

YES NO Are housekeeping standards met according to those outlined in this Plan and other best management practices?

YES NO Are the spills and spill response measures documented in the inspection summary report?

V. Weather Information Since Previous Inspection

Provide the best estimate of beginning of each storm event that has occurred since the last inspection (date/time), duration of each storm event, approximate amount of rainfall (in inches) and whether any discharges occurred.

_____ Check here if no rain events have occurred since the previous inspection.

Rain Event	Date	Estimated Time Storm Event Began	Estimated Duration of Storm Event	Estimated Amount of Rain (Inches)	Discharge Occurred? (circle)	
1					YES	NO
2					YES	NO
3					YES	NO
4					YES	NO
5					YES	NO
6					YES	NO
7					YES	NO

VI. Weather Conditions – provide a description of weather conditions at the time of inspection.

_____

_____

_____

VII. Discharges

YES NO Are discharges occurring at the time of inspection?

Provide the location(s) of discharge of sediment or other pollutants from the site.

_____

_____

_____

SUMMARY REPORT

A narrative report must be made that summarizes the pollution control measures/areas inspected and major observations of conditions made by the inspector relative to the implementation of the SWPPP. The report should also address the necessary corrective actions taken or recommended. Implementation of such actions should be made within seven calendar days following the inspection. The report must also identify the incidents of noncompliance with the SWPPP; if no such incidents are identified, this should also be noted in the report and certification should be included that the facility is in compliance with the Plan and with the conditions of the Storm Water General Permit. Necessary changes to the SWPPP warranted by the inspection should also be summarized in this report which must be signed in accordance with Section VI.G (Signatory Requirements) of the permit located in Appendix A.

On-Site Project Manager's or His/Her Designee **Name:** _____

On-Site Project Manager's or His/Her Designee **Signature:** _____

Qualifications or Title: _____

Date: _____

Application for Site Plan Review

Monroe Development Department
233 South Main Street, Monroe, Ohio 45050
Phone: 513-539-7374
www.monroeohio.org

For Staff Use Only	
Submittal Date:	
Date Application Determined Complete:	
Date of Planning Commission Review:	
Fee Paid:	Staff Initials:
Application/Case Number:	

Site Plan Review Information

1. The site plan review procedure and applicability requirements are established in Section 1203.06 of the Monroe Planning and Zoning Code.
2. Prior to submitting this application, you are required to meet with staff from the Development Department for a pre-application conference. Please contact the department to schedule the conference.
3. The Monroe Planning Commission reviews all site plan review applications unless specifically exempted in Section 1203.06(B)(3).
4. Approval of a site plan does not constitute approval to begin construction. Applicants with approved site plans are required to submit all applicable zoning permit and building permit applications.
5. Unless an alternative timeline is approved by the Planning Commission, construction related to the approved site plan must begin within one year of the site plan approval or the approval shall be voided. See Section 1203.06(H) for additional information.

Basic Project and Site Information

Project Address: 861 Mason Road

County: ☑ Butler ☐ Warren | Total Lot Area: 7.053 acres

County Tax Parcel ID:

Project/Development Name: Mason Station

Existing Zoning District: C-2 General Commercial District

Project Type: ☑ New Building ☐ Expansion of Existing Structure
☑ Addition to Site (e.g., parking, landscaping, lighting, etc.)

Applicant Information

Applicant Name: Duke Energy Ohio, Inc.

Contact Person: Jeff Schuchter

Contact Address: 139 East 4th Street, Cincinnati, OH 45202

Contact Phone Number: 513-287-1047/859-380-9711 | Contact Fax Number:

Contact E-Mail: jeff.schuchter@duke-energy.com

Property Owner Name: Duke Energy Ohio, Inc.

The applicant may attach a separate sheet of a paper with contact information for additional people, if necessary (e.g., additional owners, registered engineer, landscape architect, etc.). The same contact information shall be provided for each contact name.

Project Address or Tax Parcel ID: 861 Mason Road

Additional Project Information

1) Please describe, in detail, any existing uses and/or buildings on the project site.

There are currently no existed buildings on the project site. It is a pre-existing agricultural farm field with existing natural gas pipelines crossing along the western edge and eastern edge of the parcel. The parcel is currently zoned C-2 Commercial use.

2) Please describe, in detail, the proposed uses and the proposed development. Provide a summary of the square footage related to each use and/or the total number of proposed dwelling units.

The proposed development is for an upgraded natural gas regulating site to increase capacity and functionality for the growing community. In order to better serve the customers of greater Cincinnati, Duke Energy, an essential public utility, will install additional equipment to expand the capacity of their current system operations. The approximately 0.77 acre facility will contain a single building at 1740 square feet total that will be unoccupied and will provide protection for the natural gas equipment inside from the elements. This building will face Butler Warren Road and has been designed to accommodate the city zoning requirements for commercial zoning areas.

3) What are the anticipated start and completion dates for the project?

Start Date:	Completion Date:
July/August 2021	January 2022

4) What is the estimated value (in dollars) of the proposed property improvements?

$7.5MM

5) Check any relevant procedural reviews applicable to this project:

- [x] Conditional Use
- [x] Variance
- [ ] Administrative Waiver
- [ ] Alternative Equivalent Compliance

If you checked any of the above procedures, please provide specific details on what you are seeking to have approved through the applicable review procedure? Provide the application/case numbers for any related applications.

This site will be solely utilized for utility equipment to supply natural gas to the surrounding communities. It will not be an occupied site.

1210.05 Section (D) (5) c) specifies that " Only 20 percent of the windows that can be seen from all public rights-of-way, excluding alleys, shall be opaque, including spandrel glass". We are asking for a variance for this request for safety reasons. As a utility provider, for safety reasons and due to the equipment inside of the building, glass windows are a safety concern if they were to be shattered. Spandrel glass windows have been added to the facade of the building but will be for purposes of aesthetics and will not create any safety concerns.

Additionally, it is proposed that once entering the facility fenceline, the site ground will be composed of gravel. This will safely accommodate vehicle access for maintenance. It is standard in utility stations to accommodate all spill prevention procedures and protocol by limiting the rate with which stormwater runoff away from the facility takes place. This is a requested variance against 1211.03 Section 8d) *Surface drainage* indicating vehicular use area must be composed of concrete or asphalt surface.

Finally, it is requested for variance to the city fencing requirements to assure safety is adhered to for the natural gas facility. Barbed wire and the associated fence height are requested as variances to Sections 1204.5 Subsection (A) e) ii & e) iii along with section 1204.5 Subsection (A) e) vi.

Project Address or Tax Parcel ID:	861 Mason Road

Additional Project Information Continued

6) Does the project require any addition permits, licenses, or reviews by outside agencies (e.g., Butler or Warren County, ODNR, OEPA, etc.). ☑ Yes ☐ No If yes, please describe below.

OEPA-NPDES General Permit (OHC000005) for Stormwater Discharges Associated with Construction Activity/SWPPP
City of Monroe Building Permit
City of Monroe Demo Permit
Butler County earth moving and erosion control permit

Certification and Signatures

Applicant Signature - I certify that, to the best of my knowledge, the information contained in this form and within any attachments is correct and truthful. I understand that knowingly falsifying this information may be grounds for the denial or revoking of this application and any subsequent zoning permit or other review applications.

Print Name: Jeff Schuchter

Signature:

Date: 4-20-2021

Property Owner Signature - If the property owner is not the named applicant on this form, the property owner shall sign the form below acknowledging that the applicant is an authorized agent of the property owner as it relates to proposed project. If the site plan review is for multiple properties, a signature from each property owner is required.

Print Name: Jeff Schuchter

Signature:

Date: 4-20-2021

Note: A letter signed by the property owner, authorizing the applicant to act on their behalf may be submitted in lieu of the property owner's signature on this form.

Submittal Requirement Checklist Submittals shall include 8 copies (minimum of 24" x 36") and 8 copies (minimum of 11" x 17") Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.	
Digital Submittal Requirements	
☑	All document applications shall be submitted in an electronic format compatible (Adobe PDF) with the city's computer systems.
☑	All site plan materials, in map format, shall be submitted in a format compatible with the city's Geographic Information Systems (i.e. shapfile, geodatabase, or dwg) and shall be projected into NAD 1983 Ohio State Plane South - FIPS 3402 coordinate system using US Survey foot units.
General Information	
☑	Site Plan Review Application form
☑	Application fee
☑	Copies of the plans and maps established below at a scale no smaller than 1 inch = 100 feet, on full-sized copies unless on 11" x 17" or otherwise noted
☑	Any additional information determined to be necessary by the Development Department
Vicinity Map (Scale may be smaller than 1" = 100')	
☑	Date, north arrow, scale, and a legend for all symbols
☑	Project location
☑	All surrounding properties, streets, and corporation limits within a minimum of 500' of the outer boundaries of the project site
Existing Conditions Map	
☑	All existing zoning district classifications on the site and adjacent to the site
☑	Parcel boundaries of the site and all parcels adjacent to the site
☑	Names of all subdivisions and land owners owning lots adjacent to the site
☑	Existing streets within 200' of site with names and centerlines
☑	Existing watercourses and bodies of water including any applicable flood hazard areas
☑	Planned road network (including street names if available) within 500' of site (if different from existing streets)
☑	Existing land uses on the site and adjacent parcels (including across any streets)
☑	Railroad infrastructure and rights-of-way
☑	All existing easements (including drainage) with dimensions and designation as to type
☑	Location of existing curb cuts, private streets, parking and loading areas, pedestrian walks, lighting facilities, and outside trash storage facilities
Site Layout Plan	
☑	Lot numbers and sizes
☑	Square footage (gross) of existing buildings to remain and proposed buildings
☑	Required front, side, and rear yard width/setbacks
☑	All existing and proposed easements, including dimensions and type (e.g., drainage, access, public utility, etc.)
☑	Location, width, and classification of all existing and proposed streets in the development
☑	Location of any outdoor storage area(s) that require screening
☑	Locations of all proposed external street connections (including street stubs)
☑	Location, width, and materials of all sidewalks, trails, and paths (including connections to the public sidewalk system and adjacent developments)

Submittal Requirement Checklist Submittals shall include 8 copies (minimum of 24" x 36") and 8 copies (minimum of 11" x 17") Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.	
Parking Plan and Traffic Control Plan	
☐	Traffic impact study, if required
☐	Notation of total number of parking spaces, loading spaces, and stacking spaces required by ordinance
☐	Total number, dimensions, and location of parking spaces proposed off-street, on-street, and within parking structures, including information on handicapped parking spaces
☐	Total number of parking spaces to be provided through approval of shadow parking, off-site parking, or shared parking alternatives
☐	Number, location, and size of loading spaces provided
☐	Number and location of stacking spaces provided
☐	Location, arrangement, and dimensions of vehicular entrances, exits and parking lot aisles
☐	Location of pedestrian walkways and crossings
☐	Number and location of pervious parking spaces, if provided
☐	Proposed traffic control devices (in accordance with the Manual on Uniform Traffic Control Devices)
☐	Signing and striping plan
☐	Fire lanes and areas of parking prohibition
☐	Location of all sight triangles
Stormwater Management Sheet and Drainage Plan	
☑	Drainage basin(s) where the site is located and drainage patterns
☑	Existing and proposed locations, types, and sizes of drainage structures and calculations demonstrating how post-development runoff will not exceed pre-development runoff
☑	Erosion and siltation control measures and devices with narrative, including location of outfall for stormwater to proper catch basin (indicated sizes and slopes of existing pipes)
☑	Drainage computations from proposed development to proper pickup point
☑	All proposed elevations and slopes for grading
☑	Description of maintenance procedures for stormwater management devices
Utilities Plan (May be included on Site Layout Plan)	
☑	Existing and proposed locations, types, and sizes of all water, sanitary sewer, storm sewer, gas, telephone, power and other utility lines and meters, easements and any other utilities affected by the site (includes above ground utilities and grades and computations where appropriate)
☑	Notation that all new utilities (including cable television, electrical, natural gas, sewer, telephone, and water lines) shall be placed underground
☑	Locations where existing overhead utilities will be relocated underground (if applicable)
☑	Identification of any connections, above or below ground, that are located within the City of Monroe's right-of-way
Landscaping Plan	
☑	Exact locations, dimensions, and counts of existing and proposed landscape materials provided within and around vehicular use areas, including the size of landscaping islands
☑	Exact locations and counts of existing and proposed landscape materials provided within any required buffer areas including the type of buffer used, the buffer width provided, the proposed configuration of trees, shrubs, and screening features
☑	Location, size, and species of all existing and proposed street trees
☑	The total number of trees and shrubs provided, and the total number of different species planted
☑	Notations for any existing landscape within sight triangles indicating maximum shrub height or tree canopy height

Submittal Requirement Checklist Submittals shall include 8 copies (minimum of 24" x 36") and 8 copies (minimum of 11" x 17") Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.	
☑	Location and amount of credit towards landscape material requirements provided by existing landscaping
☑	Demarcation of existing trees to be removed
☑	Location and amount of all open space set-aside areas by development phase
☑	Details of all open space improvements and common features (e.g., fountains, benches, street furnishings, play equipment, etc.)
Architectural and Building Elevation Plans	
☑	Color elevations for each building side facing a public street, alley, public open space, or public building, illustrating compliance with the architectural standards of the applicable zoning district
☑	Dimensions, in feet, of all façade recesses or similar fenestration
☑	Preliminary floor plan for principal buildings
☑	Height of all buildings in feet, including number of building stories
☑	Accessory structure size(s), if applicable
☑	Accessory structure height(s), if applicable
☑	Description of the type of material(s) used on each façade elevation
☑	Illustrative elevation of all fencing, walls, and retaining walls visible from a street, open space, or public building that will be used for buffering or screening of adjacent residential uses, dumpsters, service structures, utilities, parking areas, loading areas, and similar activity areas
Lighting Plan	
☑	Location, type, and height of all lighting fixtures (including street lights)
☑	Details on colors and materials for all lighting fixtures
☑	Grid or photometric diagram showing maximum illumination values at the lot line, and uniformity ratios within parking lots, measured in footcandles
Signage Plan	
☐	All sign areas, dimensions and height (including shape)
☐	Position of all signs in relation to the use being advertised (may be identified on the site layout plan)
☐	Location and style of all address numbers, building numbers, or allowable building identifications
☐	Plan of illumination for the sign including information on message timing for electronic message centers
☐	Landscaping around base of sign (may be identified on the landscaping plan)

Application for a Conditional Use Permit

Monroe Development Department
233 South Main Street, Monroe, Ohio 45050
Phone: 513-539-7374
www.monroeohio.org

For Staff Use Only	
Submittal Date:	
Date Application Determined Complete:	
Date of Planning Commission Review:	
Fee Paid: **$300**	Staff Initials:
Application/Case Number:	

Conditional Use Permit Review Information

1. The conditional use permit review procedure and review criteria are established in Section 1203.07 of the Monroe Planning and Zoning Code.
2. Some conditional uses may be subject to use-specific standards in addition to the general review criteria for all conditional uses. Such use-specific criteria will be identified in Chapter 1204 and, more specifically, Section 1204.04.
3. If the applicant is proposing a development that will also require a site plan review, such review shall occur simultaneously and the applicant shall submit a site plan review application.
4. The Monroe Planning Commission reviews all conditional use permit applications.
5. The application fee for a conditional use is $300, due at the time the application is submitted.

Basic Project and Site Information

Project Address: 861 Mason Road

County: ☑ Butler ☐ Warren | Total Lot Area: 7.053 acres

County Tax Parcel ID:

Project/Development Name: Mason Station

Existing Zoning District: C-2 General Commercial District

Proposed Use: ☐ Residential ☐ Commercial ☐ Office ☐ Industrial ☑ Public or Institutional Use ☐ Mixed use

Applicant Information

Applicant Name: Duke Energy Ohio, Inc.

Contact Person: Jeff Schuchter

Contact Address: 139 East 4th Street, Cincinnati, OH 45202

Contact Phone Number: 513-287-1047/859-380-9711 | Contact Fax Number:

Contact E-Mail: jeff.schuchter@duke-energy.com

Property Owner Name: Duke Energy Ohio, Inc.

The applicant may attach a separate sheet of a paper with contact information for additional people, if necessary (e.g., additional owners, registered engineer, landscape architect, etc.). The same contact information shall be provided for each contact name.

Conditional Use Permit Information

1) Will a site plan review be required with the conditional use permit review? See Section 1203.06.

☑ Yes ☐ No

Project Address or Tax Parcel ID: 861 Mason Road

Conditional Use Permit Information Continued

2) Please describe, in detail, the proposed use of the site.

The proposed development is for an upgraded natural gas regulating site to increase capacity and functionality for the growing community. In order to better serve the customers of greater Cincinnati, Duke Energy, an essential public utility, will install additional equipment to expand the capacity of their current system operations. The approximately 0.77 acre facility will contain a single building at 1740 square feet total that will be unoccupied and will provide protection for the natural gas equipment inside from the elements. This building will face Butler Warren Road and has been designed to accommodate the city zoning requirements for commercial zoning areas.

3) Describe how the proposed use will be harmonious with the existing or intended character of the general vicinity, and that such use will not change the essential character of the same area.

The proposed site has been developed with the City of Monroe building and zoning code requirements for a C-2 commercial district. The proposed building was designed in collaboration with City Planning Staff to meet the needs of the City for this location. The fenceline, landscaping and building facade details meet the intent of the required codes with a few exceptions highlighted for safety reasoning as an essential public utility within this space.

4) Describe how the proposed amendment furthers the objectives of the comprehensive plan.

The Monroe Comprehensive Plan has a goal to provide for future development that is balanced, compatible with existing and adjacent land uses, and served by adequate public infrastructure. This project helps to support that goal for future development by supporting and expanding the existing gas infrastructure. Additionally, this project is being designed to meet the intent of the design standards set forth in the Commercial zoning district. Another goal of the Comprehensive Plan is to provide adequate public services to its current residents, businesses & industry and maintain appropriate levels in the future. This project is intended to meet the goal of the Comprehensive Plan by providing adequate public services to the future businesses anticipated and desired in this area.

Certification and Signatures

Applicant Signature - I certify that, to the best of my knowledge, the information contained in this form and within any attachments is correct and truthful. I understand that knowingly falsifying this information may be grounds for the denial or revoking of this conditional use application and any subsequent zoning permit or other review applications.

Print Name: Jeff Schuchter

Signature:

Date: 4-20-2021

Property Owner Signature - If the property owner is not the named applicant on this form, the property owner shall sign the form below acknowledging that the applicant is an authorized agent of the property owner as it relates to proposed project.

Print Name: Jeff Schuchter

Signature:

Date: 4-20-2021

Note: A letter signed by the property owner, authorizing the applicant to act on their behalf may be submitted in lieu of the property owner's signature on this form.

Submittal Requirement Checklist	
Digital Submittal Requirements	
☑	All document applications shall be submitted in an electronic format compatible with the city's computer systems. Adobe PDF files are acceptable.
General Information	
☑	Application fee
☑	Sixteen copies of the plans and maps established below at a scale no smaller than 1 inch = 100 feet, unless otherwise noted – Eight of the copies shall be on pages with a minimum size of 24"x36" and the other eight copies shall be on pages with a minimum size of 11"x17". Additional copies may be required based on project specifics.
☑	Eight copies of the Traffic Impact Study, if required. See Section 1211.04
☑	Any additional information determined to be necessary by the Development Department
☑	Final mylars and digital files of all maps and plans will be required after approval
Note: Any addition or alteration of landscaping, lighting, or parking will require a site plan review and the applicant shall be responsible for completing the site plan review application and submitting the necessary information.	
Existing Conditions Map	
☑	All existing zoning district classifications on the site and adjacent to the site
☑	Parcel boundaries of all parcels adjacent to the site
☑	Names of all subdivisions and property owners of lots adjacent to the site
☑	Location of existing buildings, structures, curb cuts, parking and loading areas, lighting fixtures, outside trash storage facilities, , fences, outdoor display or storage, and other built or impervious surfaces.
☑	Location of existing vegetation (general location) to be maintained

HILLS PROPERTIES

April 15, 2021

Monroe Development Department
233 South Main Street, Monroe, Ohio 45050
Phone: 513-539-7374

Re: ***Duke Energy Ohio, Inc. – Application for Site Plan Review and Conditional Use Permit for 861 Mason Road, Monroe, Butler County, Ohio ("Real Estate")***

To Whom it May Concern:

Corridor 75 Park, Ltd., the current property owner of the above Real Estate, is under contract to sell the Real Estate to Duke Energy Ohio, Inc. ("**Duke**") in a transaction which will close by April 30, 2021. We understand that Duke has filed an Application for a Conditional Use Permit and Application for Site Plan Review for the Real Estate in substantially the form attached to this letter. On before of Corridor 75 Park, Ltd., we hereby approve the applications and consent to the filing thereof.

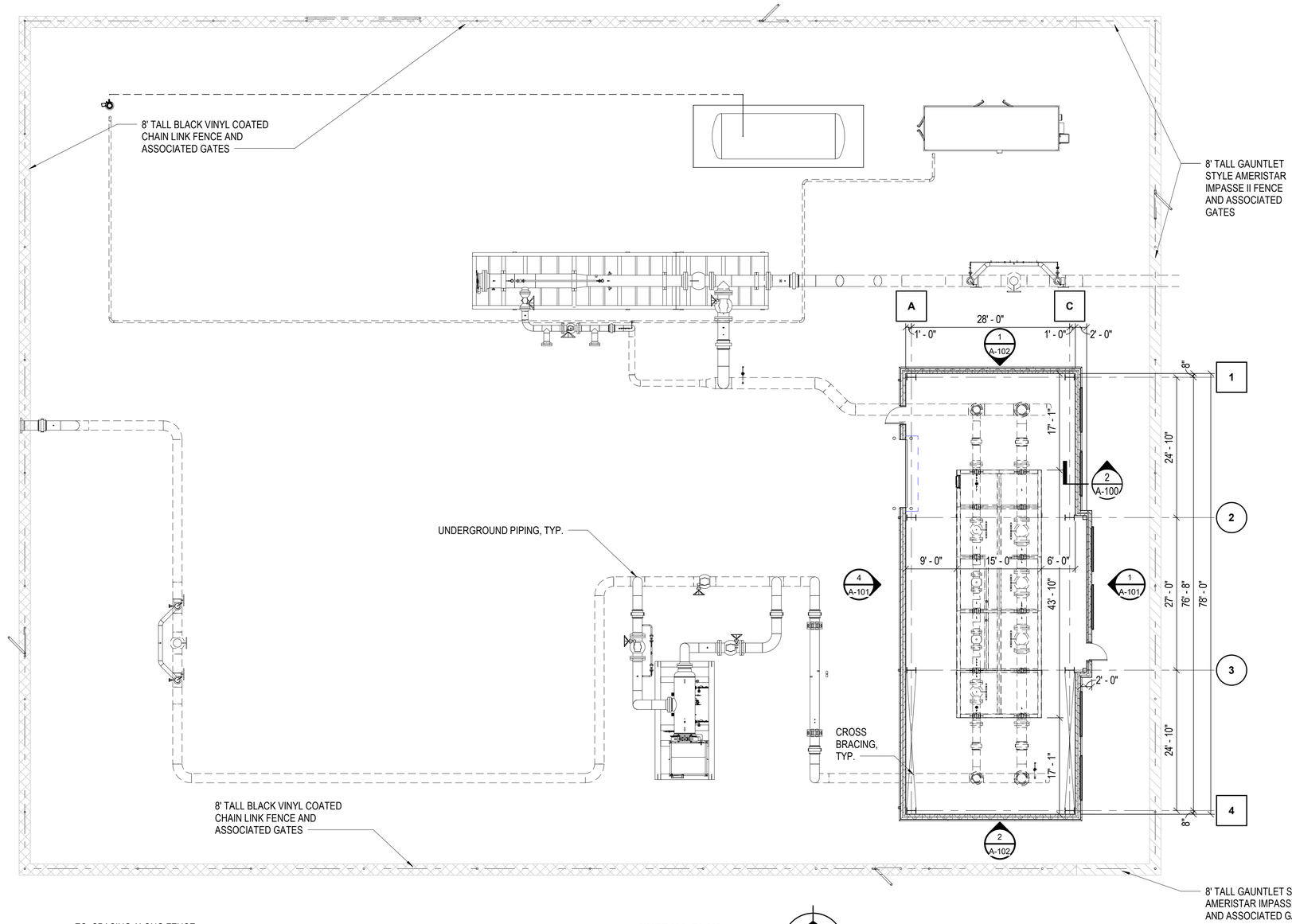
Very truly yours,

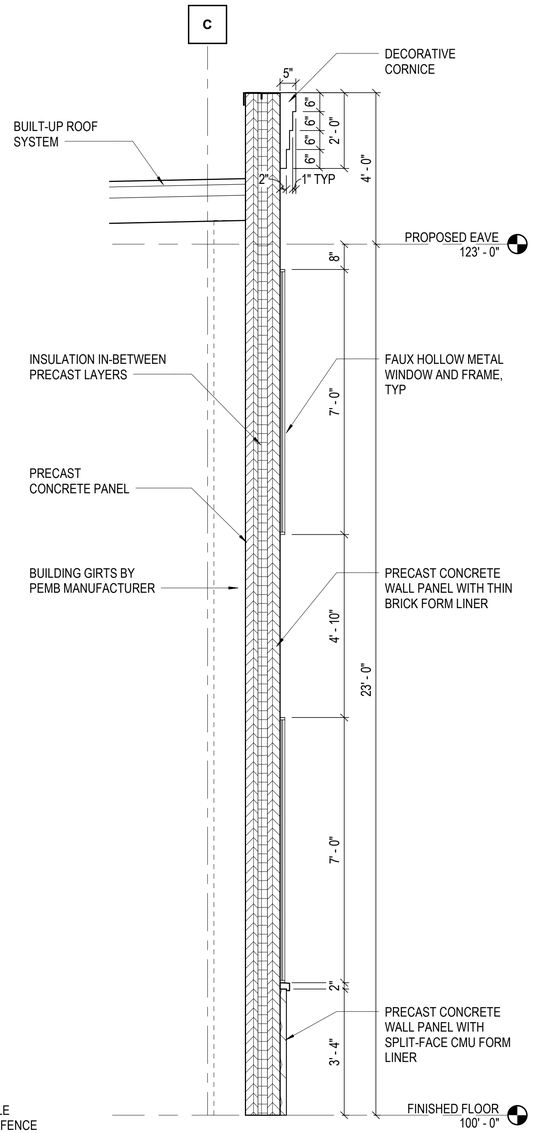
CORRIDOR 75 PARK, LTD.,
an Ohio limited liability company

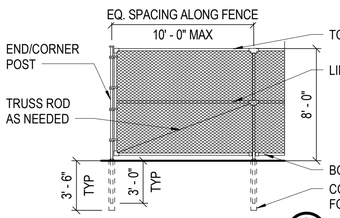
By: **HILLS DEVELOPERS, INC.,**

an Ohio corporation, its Manager

By: _____
Name: Louis Guttman
Title: President





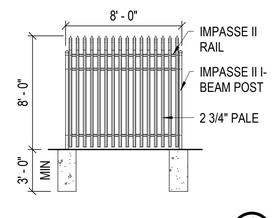


DETAIL 3

CHAIN LINK ELEVATION

0 4' 8' 12'

SCALE IN FEET



DETAIL 4

IMPASSE FENCE

0 4' 8' 12'

SCALE IN FEET

OVERALL PLAN

0 8' 16' 24'

SCALE IN FEET

NORTH

SECTION 2 / A002

TYPICAL WALL SECTION

0 1' 2' 4'

SCALE IN FEET

PRELIMINARY - NOT FOR CONSTRUCTION

FOR SITE PERMITTING PURPOSES ONLY

PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED * DO NOT SCALE THIS DRAWINGS * USE DIMENSIONS ONLY
DUKE ENERGY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) * DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE * TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSER ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD

APPROVALS	
AREA CODE	
ACCOUNT NUMBER	
PROJECT NUMBER	116892
DRAWING BY	
STATION ID	
CHECKER INITIALS	

	DATE	INITIALS	
			REGIONAL ENGINEER
			MGR TECH REC & STD
			PRINCIPAL ENGINEER

DUKE ENERGY. | Piedmont Natural Gas

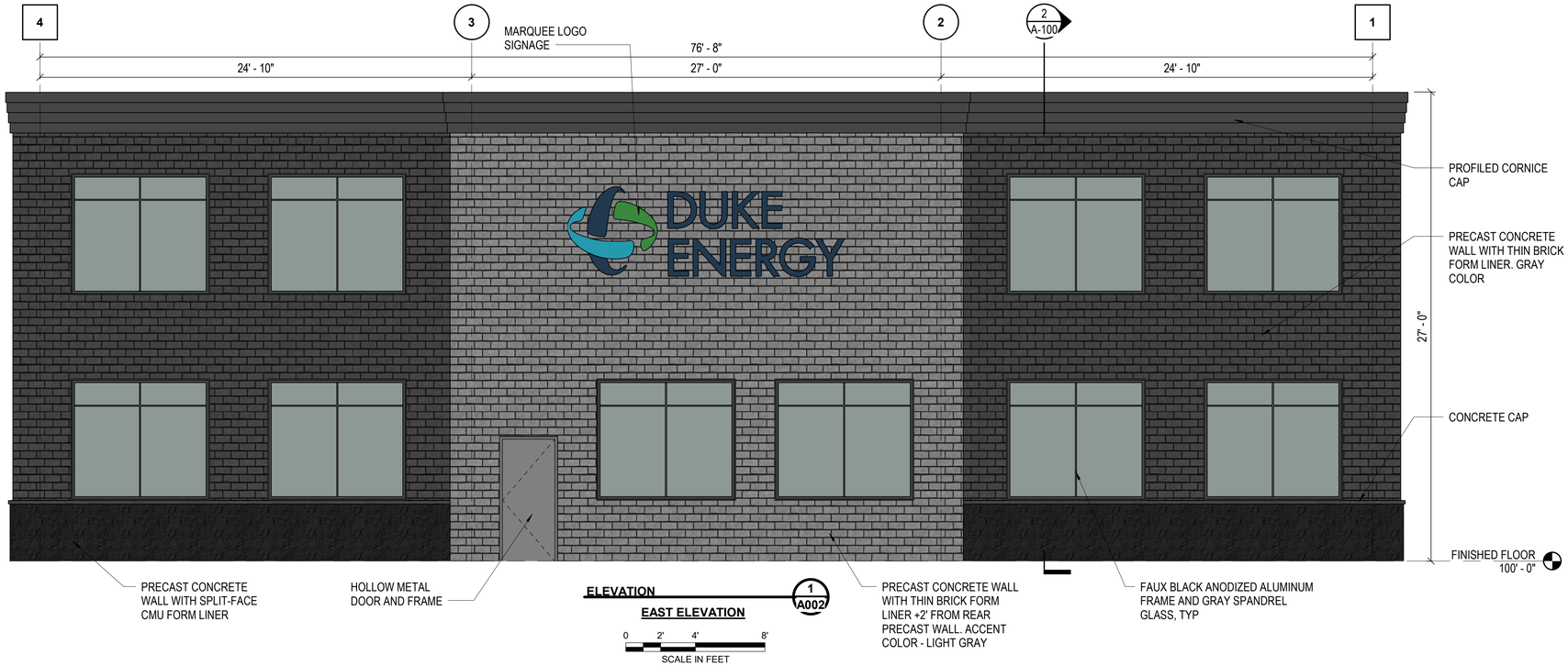
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MASON STATION FLOOR PLAN

SHEET(S)	OF	DWG SCALE	As indicated
DWG DATE 03/15/2021			

DRAWING NUMBER **A-100** REVISION

10008 ARCH1818

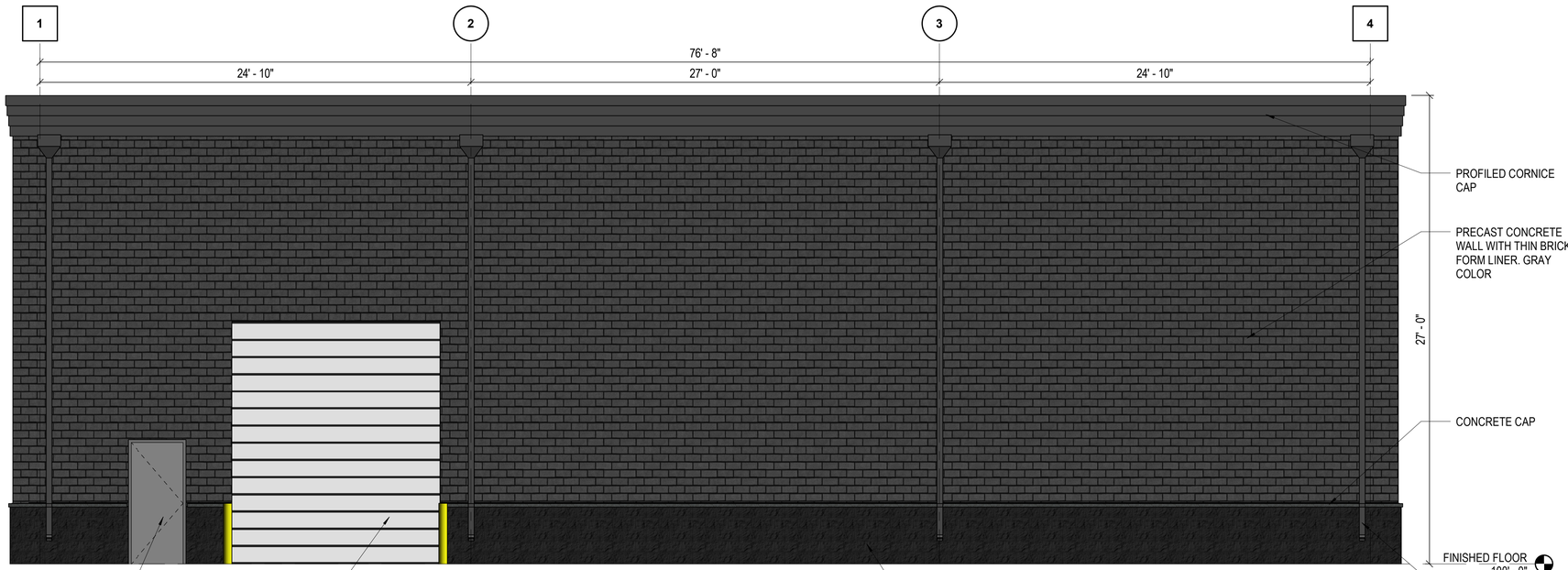


ELEVATION 1 A002

EAST ELEVATION

0 2' 4' 8'

SCALE IN FEET



ELEVATION 4 A002

WEST ELEVATION

0 2' 4' 8'

SCALE IN FEET

FRONT ELEVATION FACADE PERCENTAGES:

CAP -	185 SF =	9%
BASE -	177 SF =	8%
DOOR -	24 SF =	1%
WINDOWS -	560 SF =	26%
ACCENT PRECAST -	592 SF =	27%
PRECAST -	617 SF =	29%
	2,155 SF =	100%

PRELIMINARY - NOT FOR CONSTRUCTION

FOR SITE PERMITTING PURPOSES ONLY

PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED * DO NOT SCALE THIS DRAWINGS * USE DIMENSIONS ONLY
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NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD

APPROVALS				
AREA CODE				REGIONAL ENGINEER
ACCOUNT NUMBER		DATE	INITIALS	
PROJECT NUMBER	116892			MGR TECH REC & STD
DRAWING BY		DATE	INITIALS	
STATION ID				PRINCIPAL ENGINEER
CHECKER INITIALS		DATE	INITIALS	

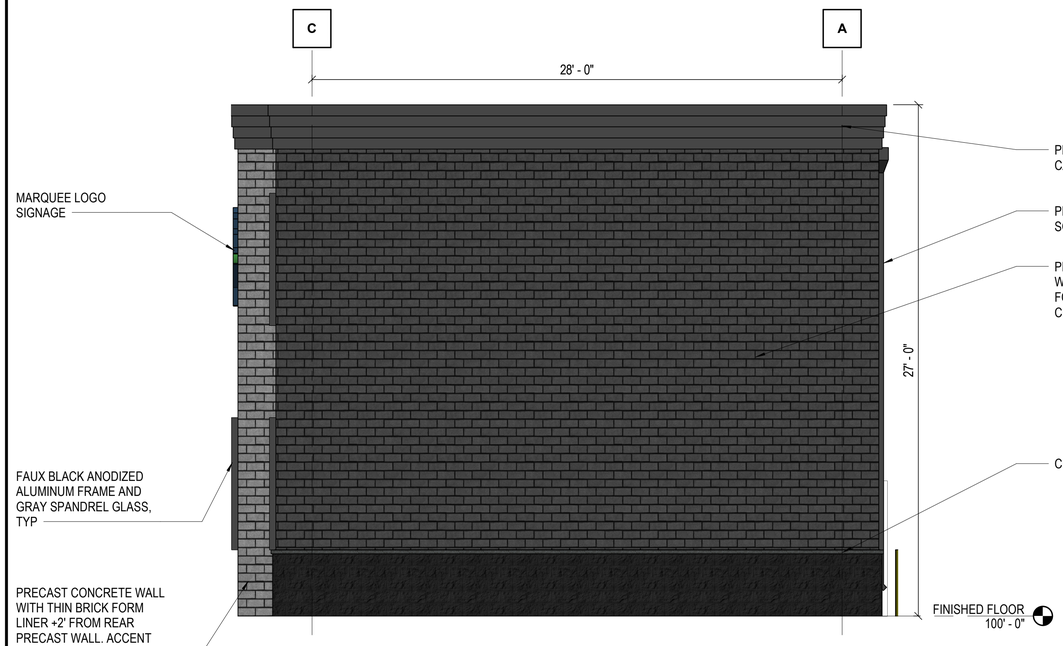
DUKE ENERGY. Piedmont Natural Gas

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MASON STATION
BUILDING EXTERIOR ELEVATIONS

SHEET(S)	OF	DWG SCALE	1/4" = 1'-0"
DWG DATE	03/15/2021		
DRAWING NUMBER		REVISION	
A-101			

19008 ARCH1818

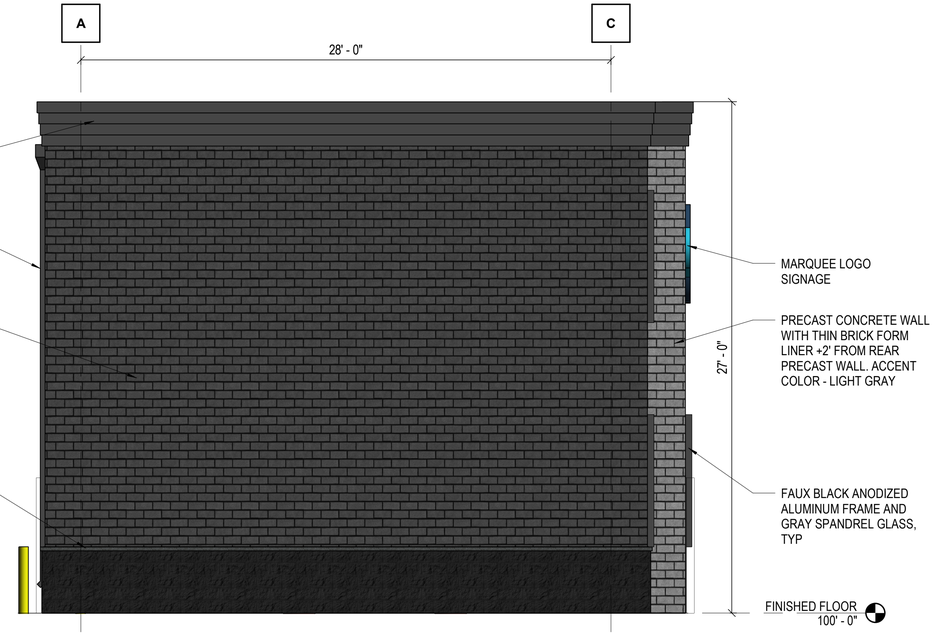


ELEVATION 1 A002

NORTH ELEVATION

0 2' 4' 8'

SCALE IN FEET



ELEVATION 2 A002

SOUTH ELEVATION

0 2' 4' 8'

SCALE IN FEET

PRELIMINARY - NOT FOR CONSTRUCTION

FOR SITE PERMITTING PURPOSES ONLY

PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED * DO NOT SCALE THIS DRAWINGS * USE DIMENSIONS ONLY
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NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD

APPROVALS				
AREA CODE				REGIONAL ENGINEER
ACCOUNT NUMBER		DATE	INITIALS	
PROJECT NUMBER	116892			MGR TECH REC & STD
DRAWING BY		DATE	INITIALS	
STATION ID				PRINCIPAL ENGINEER
CHECKER INITIALS		DATE	INITIALS	

DUKE ENERGY. | Piedmont Natural Gas

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MASON STATION
BUILDING EXTERIOR ELEVATIONS

SHEET(S) OF	DWG SCALE 1/4" = 1'-0"
DWG DATE 05/03/21	
DRAWING NUMBER A-102	REVISION

19209_ARCH.RTE

GENERAL NOTES:

1. THE EXISTING SITE UTILITIES AND FEATURES SHOWN ARE BASED ON A FIELD RUN TOPOGRAPHIC SURVEY PERFORMED BY SGC ENGINEERING, LLC, IN NOVEMBER, 2020.
2. ALL DIMENSIONS, ELEVATIONS, AND STATIONS ARE IN FEET, UNLESS INDICATED OTHERWISE.
3. CALLOUTS, COORDINATES, AND DIMENSIONS ARE POINTED TO OR MEASURED TO STRUCTURE CENTER, EDGE OF PAVEMENT, BACK OF CURB, OR OUTSIDE FACE OF FOUNDATION WALL, UNLESS INDICATED OTHERWISE.
4. ALL WORK SHALL BE SUBJECT TO INSPECTION BY AUTHORIZED PERSONNEL OF LOCAL AND GOVERNMENT REGULATORY AGENCIES AND THE CLIENT REPRESENTATIVE.
5. SEE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) DESIGN STANDARDS FOR REFERENCES TO ODOT STANDARD DRAWINGS. ALL SUBSEQUENT SPECIFICATIONS AND STANDARDS SHALL APPLY.
6. ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND LOCAL AND GOVERNMENT CODES, ORDINANCES, AND REGULATIONS. IN CASE OF CONTRADICTION OR DISCREPANCY BETWEEN REQUIREMENTS, CONTRACTOR SHALL INCORPORATE WHICHEVER IS MOST STRINGENT. WHERE A QUESTION REMAINS ON WHICH REQUIREMENT IS MOST STRINGENT, CONTRACTOR SHALL SUBMIT ISSUE TO THE CLIENT REPRESENTATIVE IN WRITING. THE DECISION OF THE CLIENT REPRESENTATIVE SHALL BE CONSIDERED FINAL.
7. ALL WORK SHALL BE CONDUCTED IN A PROFESSIONAL WORKMANSHIP MANNER USING QUALITY MATERIALS. WORK SHALL CONFORM TO THESE DRAWINGS, UNLESS INDICATED OTHERWISE OR AS DIRECTED BY THE CLIENT REPRESENTATIVE.
8. CONTRACTOR SHALL CONFINE ALL WORK TO BE WITHIN THE PERMANENT AND TEMPORARY EASEMENTS.
9. ALL GRADING, PAVEMENT WORK, AND ANY OTHER MISCELLANEOUS WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT ODOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND SUPPLEMENTAL SPECIFICATIONS.
10. CONTRACTOR SHALL TAKE CARE TO MAINTAIN THE SITE AND ADJACENT AREAS IN AS CLEAN A CONDITION AS POSSIBLE. ANY DEBRIS, DIRT, MUD, ETC. SHALL BE CLEANED DAILY, OR AS THE CLIENT REPRESENTATIVE DIRECTS, FROM ANY ADJOINING STREETS OR PROPERTIES BY THE CONTRACTOR AS A PART OF THE PRIMARY CONSTRUCTION WORK. THIS SHALL BE AT NO ADDITIONAL COMPENSATION TO THE CONTRACTOR.
11. CONTRACTOR SHALL HAVE DUKE ENERGY CONTACT OPSB STAFF, ODNR, AND USFWS WITHIN 24 HOURS IF STATE OR FEDERAL THREATENED OR ENDANGERED SPECIES ARE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES. CONSTRUCTION ACTIVITIES THAT COULD ADVERSELY IMPACT THE IDENTIFIED PLANTS OR ANIMALS SHALL BE IMMEDIATELY HALTED UNTIL AN APPROPRIATE COURSE OF ACTION HAS BEEN AGREED UPON BY DUKE ENERGY, OPSB STAFF, AND THE APPROPRIATE REGULATORY AGENCY.
12. THE CONSTRUCTION CONTRACTOR SHALL COMPLY WITH FUGITIVE DUST RULES BY THE USE OF WATER SPRAY OR OTHER APPROPRIATE DUST SUPPRESSANT MEASURES WHENEVER NECESSARY.
13. THE CONSTRUCTION CONTRACTOR SHALL REMOVE ALL TEMPORARY GRAVEL AND OTHER CONSTRUCTION STAGING AREA AND ACCESS ROAD MATERIALS AFTER COMPLETION OF CONSTRUCTION ACTIVITIES, AS WEATHER PERMITS, UNLESS OTHERWISE DIRECTED BY THE LANDOWNER OR DUKE ENERGY. IMPACTED AREAS SHALL BE RESTORED TO PRECONSTRUCTION CONDITIONS IN COMPLIANCE WITH THE OHIO EPA GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITS OBTAINED FOR THE PROJECT AND THE APPROVED STORMWATER POLLUTION PREVENTION PLAN (SWPPP) CREATED FOR THE PROJECT.

CONSTRUCTION DRAWING NOTES:

1. CONTRACTOR SHALL MAINTAIN UPDATED CONSTRUCTION DRAWINGS AT ALL TIMES THROUGH THE DURATION OF THE PROJECT. CONSTRUCTION RECORD DRAWINGS SHALL BE SUBMITTED TO THE CLIENT REPRESENTATIVE.
2. DURING CONSTRUCTION OF THE PROJECT, CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING TRACK OF ANY CLIENT REPRESENTATIVE-APPROVED FIELD CONSTRUCTION REVISIONS TO THE DESIGN DEPICTED ON APPROVED CONSTRUCTION DRAWINGS.
3. ALL VARIATIONS IN PROJECT CONDITIONS, LOCATIONS, AND CONFIGURATIONS, AND ANY OTHER CHANGES OR DEVIATIONS FROM THE INFORMATION PRESENTED ON THE ORIGINAL, APPROVED CONSTRUCTION DRAWINGS SHALL BE NOTED. THIS INCLUDES BURIED OR CONCEALED CONSTRUCTION AND UTILITY FEATURES THAT WERE REVEALED DURING CONSTRUCTION.
4. THE CLIENT REPRESENTATIVE SHALL REVIEW COMPLETENESS, ACCURACY, AND FORMAT OF SUBMITTED CONSTRUCTION DRAWINGS. IF THE CONSTRUCTION DRAWINGS ARE CONSIDERED UNACCEPTABLE, THEY SHALL BE RETURNED TO THE CONTRACTOR FOR CORRECTION AND RESUBMISSION. THIS SHALL BE AT NO ADDITIONAL COMPENSATION TO THE CONTRACTOR.

COORDINATION AND COMMUNICATION

1. CONTRACTOR SHALL APPOINT A PRIMARY CONSTRUCTION SUPERINTENDENT, SUBJECT TO THE APPROVAL OF THE CLIENT REPRESENTATIVE, WHO SHALL BE PRESENT ON THE CONSTRUCTION SITE AT ALL TIMES DURING WORKING HOURS AND ACCESSIBLE AT ALL TIMES WHILE WORK IS IN PROGRESS. THE PRIMARY CONSTRUCTION SUPERINTENDENT SHALL BE DESIGNATED THE RESPONSIBLE CONTRACTOR'S REPRESENTATIVE WHO SHALL BE AVAILABLE ON A 24-HOUR BASIS. WHEN THE CONTRACTOR'S PRIMARY CONSTRUCTION REPRESENTATIVE IS NOT AVAILABLE ON THE CONSTRUCTION SITE, AN ALTERNATE REPRESENTATIVE SHALL BE PROVIDED. CONTRACTOR SHALL PROVIDE NAMES AND CONTACT INFORMATION OF REPRESENTATIVES TO THE CLIENT REPRESENTATIVE PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONSTANT COORDINATION BETWEEN ANY SUBCONTRACTORS AND THE CLIENT REPRESENTATIVE. ALL CONSTRUCTION ACTIVITIES PLANNED BY THE CONTRACTOR SHALL BE REVIEWED AND APPROVED BY THE CLIENT REPRESENTATIVE.
3. THE FOLLOWING CONTACT INFORMATION IS PROVIDED FOR CONTRACTOR'S USE IN CASE OF AN EMERGENCY:

   A. EMERGENCY: 911
   B. OTHER CONTACTS AS DIRECTED AT PRE-CONSTRUCTION MEETING

EXCAVATION AND TRENCHES

1. CONTRACTOR SHALL COMPLY WITH THE MOST CURRENT EDITION OF OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS AND THE STATE OF OHIO LAWS CONCERNING EXCAVATION.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL EXCAVATION, TRENCHING AND SHORING ARE PERFORMED IN A MANNER THAT COMPLIES WITH LOCAL REGULATIONS AND OSHA REGULATIONS FOR CONSTRUCTION.
3. OPEN TRENCHES AND EXCAVATIONS AT THE CONSTRUCTION SITE SHALL BE PROMINENTLY MARKED WITH ORANGE BARRICADES WITH FLASHING RED LIGHTS ACCEPTABLE TO THE CLIENT REPRESENTATIVE.
4. CONTRACTOR SHALL PROVIDE A MINIMUM NOTICE OF 48 HOURS TO THE CLIENT REPRESENTATIVE AND ASSOCIATED UTILITY COMPANIES AND AGENCIES BEFORE PROCEEDING WITH ANY EXCAVATION.
5. DEWATERING OF UTILITY TRENCHES AND OTHER EXCAVATIONS MAY BE REQUIRED.
6. OPEN ONLY THOSE TRENCHES FOR WHICH MATERIAL IS ON-HAND AND READY FOR PLACING THEREIN. AS SOON AS POSSIBLE AFTER THE MATERIAL HAS BEEN PLACED AND WORK APPROVED, BACKFILL AND COMPACT TRENCHES AS SPECIFIED.
7. NO SPECIAL PROVISIONS WILL BE MADE FOR ROCK EXCAVATION, ANY BOULDERS ENCOUNTERED SHALL BE REMOVED AND DISPOSED OF OFF SITE.
8. ALL TOPSOIL SHALL BE REMOVED FROM AREAS TO BE GRADED. ALL USEABLE TOPSOIL SHALL BE STOCKPILED DURING GRADING AND REAPPLIED IN 3" LAYERS TO ALL SLOPES IMMEDIATELY AFTER GRADING IS COMPLETE.

OTHER SAFETY REQUIREMENTS

1. CONTRACTOR SHALL MAINTAIN SAFETY PRACTICES THAT CONFORM TO OSHA REGULATIONS.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AND PAY FOR ALL APPLICABLE PERMITS, FEES AND LICENSES FOR CONSTRUCTION AND EQUIPMENT.
3. THE CONTRACTOR SHALL PERFORM ON-SITE INSPECTIONS THROUGHOUT THE PROJECT AND REMEDY ANY SAFETY CONCERNS IMMEDIATELY.
4. THERE SHALL BE NO PERMANENT WASTE SITES ON SITE PROPERTY. ANY TEMPORARY WASTE AREA SHALL BE APPROVED BY THE CLIENT REPRESENTATIVE AND SHALL BE KEPT IN AN ORDERLY CONDITION. REMOVAL OF WASTE THAT IS NOT PROPERLY MAINTAINED IS SUBJECT TO THE DIRECTION OF THE CLIENT REPRESENTATIVE.
5. EROSION CONTROL DEVICES SHALL BE USED FOR THE ACCESS AND HAUL ROUTES, STAGING AREA, AND ANY MATERIAL STOCKPILES WHEN NECESSARY TO CONTROL EROSION AND STORM WATER RUNOFF. SEE DRAWINGS PNG-C-042-0001142 AND PNG-C-042-0001143 FOR EROSION AND SEDIMENT CONTROL REQUIREMENTS.
6. STOCKPILED MATERIAL SHALL BE CONSTRAINED IN A MANNER TO PREVENT MOVEMENT RESULTING FROM WIND CONDITIONS.
7. CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO LIMIT DUST CAUSED BY CONSTRUCTION ACTIVITIES TO A LIMIT ACCEPTABLE TO PROJECT SITE OPERATIONS. THE CONTRACTOR SHALL CONTROL BLOWING DUST ON THE PROJECT SITE FROM ANY HAUL ROUTE OR WORK AREA REGARDLESS OF SOURCE.
8. WILDLIFE ATTRACTANTS, SUCH AS TRASH AND FOOD SCRAPS, FROM CONSTRUCTION PERSONNEL AND ACTIVITIES SHALL BE REMOVED FROM THE PROJECT LIMITS.
9. GASOLINE, DIESEL FUEL, OIL, AND HAZARDOUS WASTE RESULTING FROM CONTRACTOR'S OPERATIONS OR ACTIVITIES SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH THE SPECIFICATIONS AND LOCAL REGULATORY REQUIREMENTS AND PROPERLY REMOVED FROM THE PROJECT PROPERTY. IF HAZARDOUS MATERIALS ARE ENCOUNTERED OR UNCOVERED DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CLIENT REPRESENTATIVE.
10. FAILURE TO COMPLY WITH THE CLIENT REPRESENTATIVE SAFETY REQUIREMENTS SHALL RESULT IN THE SUSPENSION OF CONSTRUCTION ACTIVITIES UNTIL ALL SAFETY CONCERNS ARE ADDRESSED BY THE CONTRACTOR TO THE SATISFACTION OF THE CLIENT REPRESENTATIVE.
11. ANY WORKERS AND EQUIPMENT NOT IN COMPLIANCE WITH SAFETY PLAN SHALL IMMEDIATELY BE REMOVED FROM THE WORK AREA.
12. THE CONTRACTOR SHALL NOT BURN OR BURY DEBRIS WITHOUT PERMISSION FROM THE SITE INSPECTOR.

EXISTING CONDITIONS NOTES:

1. THE LOCATIONS OF STRUCTURES AND UNDERGROUND UTILITIES AS INDICATED HAVE BEEN OBTAINED FROM EXISTING RECORDS AND FIELD SURVEYS. UNDERGROUND STRUCTURES AND UTILITIES MAY BE PRESENT WHICH ARE NOT DOCUMENTED OR LOCATED.
2. THE CONTRACTOR SHALL FIELD-CHECK ALL EXISTING CONDITIONS AND BE THOROUGHLY FAMILIAR WITH THE SITE BEFORE ANY WORK COMMENCES. ANY DISCREPANCIES IN THE DRAWINGS SHALL BE IMMEDIATELY REPORTED TO THE CLIENT REPRESENTATIVE BEFORE ANY FURTHER WORK COMMENCES.
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD-VERIFY EXISTING STRUCTURES, UTILITIES, AND SURVEY INFORMATION, AND TO TAKE NECESSARY PRECAUTIONS DURING DEMOLITION AND CONSTRUCTION. CONTRACTOR SHALL VERIFY EXISTENCE AND MARK LOCATIONS OF ALL UTILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES, PRIOR TO BEGINNING WORK. CONTRACTOR SHALL CONTACT THE CLIENT REPRESENTATIVE AND ALL ASSOCATED UTILITY COMPANIES AND AGENCIES TO IDENTIFY THE LOCATION OF UTILITIES. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED DURING CONSTRUCTION.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CLIENT REPRESENTATIVE OF OPERATIONAL PLANS. IN THE EVENT AN UNEXPECTED UTILITY OR STRUCTURE INTERFERENCE OR CONFLICT IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CLIENT REPRESENTATIVE. ANY UTILITY SERVICES OR STRUCTURES DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED IMMEDIATELY AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
5. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ITEMS NOT TO BE DAMAGED DURING DEMOLITION AND CONSTRUCTION. THE CONTRACTOR SHALL REPAIR OR REPLACE DAMAGED OR DISTURBED ITEMS TO THE SATISFACTION OF THE CLIENT REPRESENTATIVE.

GENERAL GRADING NOTES

1. ALL GRADING, PAVEMENT WORK, AND ANY OTHER MISCELLANEOUS WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT ODOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND SUPPLEMENTAL SPECIFICATIONS.
2. THE GRAVEL SURFACE COURSE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ITEM 411 OF THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING INCLUDING EXCAVATION, EMBANKMENT, AND BACKFILLING AS NECESSARY TO CONSTRUCT ALL AGGREGATE ACCESS ROADS, AS OUTLINED IN THESE TECHNICAL SPECIAL PROVISIONS AND AS DIRECTED BY THE CLIENT REPRESENTATIVE.
4. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE DONE TO STORM MANHOLES OR OTHER UTILITIES DURING GRADING.
5. THE TOLERANCE OF THIS WORK SHALL BE TO WITHIN TO 0.1 FT OF THE EXISTING GROUND SURFACE ELEVATIONS.
6. THE ACCESS ROAD SUBGRADE SHALL HAVE SUFFICIENT STABILITY TO ACCOMMODATE CONSTRUCTION TRAFFIC WITHOUT EXCESSIVE SUBRADE RUTTING OR SHOVING. AT THE TIME OF PLACEMENT OF THE PAVEMENT, THE IN SITU SUBGRADE SHALL HAVE A CALIFORNIA BEARING RATIO (CBR) OF AT LEAST 6 PERCENT IN THE TOP 12 INCHES OF SUBGRADE. THE CBR PERCENTAGE WILL BE ASCERTAINED BY THE CONTRACTOR.
7. IF SOFT SPOTS ARE IDENTIFIED IN THE SUBGRADE SOIL, THE SUBGRADE SHALL BE SCARIFIED AND PROOF-ROLLED TO THE DEPTHS REQUIRED BY THE OWNER'S CONSTRUCTION INSPECTOR TO COMPACT AREAS TO THE DENSITY REQUIREMENTS OF THIS DOCUMENT. IF THE SOFT AREAS CANNOT BE ADEQUATELY COMPACTED, THE SOFT SOIL SHALL BE REMOVED AND REPLACED PER THE DESIGN PLANS WITH SUITABLE SOIL MATERIAL AND COMPACTED TO THE DENSITY REQUIREMENTS IN ACCORDANCE WITH THIS DOCUMENT.
8. THE QUALITY OF THE SOIL TO BE USED AS FILL MATERIAL SHALL BE AS SPECIFIED IN THIS DOCUMENT. ALL BACKFILL SHALL BE SPREAD IN LOOSE LIFTS NOT EXCEEDING 8" IN THICKNESS WHEN SELF-PROPELLED EQUIPMENT IS USED AND NOT EXCEEDING 6" WHEN HAND GUIDED EQUIPMENT IS USED. ALL ROOTS, WOOD, AND VEGETATION SHALL BE REMOVED FROM THE LAYER OF FILL PRIOR TO COMPACTION. ALL FILL AND EXPOSED SOIL IN CUT AREAS SHALL BE COMPACTED AS SPECIFIED IN THIS DOCUMENT. SOIL COMPACTION TESTS WILL BE REQUESTED BY THE OWNER AT APPROPRIATE INTERVALS DURING GRADING OPERATIONS.
9. ALL HAUL-IN MATERIAL SHALL BE FREE OF ROCKS 3" IN DIAMETER AND LARGER. THE OWNER'S CONSTRUCTION INSPECTOR SHALL APPROVE ALL HAUL-IN MATERIAL TO ENSURE THE QUALITY AND THE ABSENCE OF ENVIRONMENTAL HAZARDS.
10. THE FILL AREA SHALL BE CONSTRUCTED TO THE LINES AND GRADES SHOWN ON THE DESIGN DRAWINGS WITH MATERIAL SPECIFIED IN THIS DOCUMENT. THE OWNER'S CONSTRUCTION INSPECTOR WILL PROVIDE ALL NECESSARY BENCHMARKS, SURVEY MONUMENTS, AND BASE LINES REQUIRED FOR THE WORK. THE CONTRACTOR SHALL LAY OUT ALL LINES AND GRADES FOR THE BACKFILL AREAS. ANY PROPOSED CHANGES TO THE SLOPES AND GRADES SHALL REQUIRE THE APPROVAL OF THE OWNER'S CONSTRUCTION INSPECTOR IN ADVANCE. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE, AT HIS OWN EXPENSE, ANY COMPACTED MATERIAL PLACED OUTSIDE OF THE APPROVED LINES OR GRADES.
11. SPOIL MATERIAL SHALL BE TOPSOIL AND OTHER SOIL MATERIALS CONTAINING GREATER THAN 5 PERCENT ORGANIC MATERIAL, SOIL WHICH IS TOO WET, SOIL WHICH DOES NOT MEET THE PLASTICITY AND/OR GRADATION LIMITS FOR SELECT MATERIAL AS SPECIFIED IN THIS DOCUMENT, OR OTHER SOIL MATERIAL DESIGNATED BY THE OWNER'S CONSTRUCTION INSPECTOR TO BE UNSUITABLE FOR SELECT MATERIAL.
12. SELECT SOIL MATERIAL SHALL BE THAT MATERIAL CLASSIFIED AS SM, SP, SC, SW AND CL, OR SW AND SC IN ACCORDANCE WITH ASTM D2487, AND SHALL HAVE A MAXIMUM LIQUID LIMIT OF 30, A MAXIMUM PLASTICITY INDEX OF 8, AND A MAXIMUM OF 35 PERCENT PASSING THE #200 SIEVE.
13. THE TOP SURFACE OF EACH LIFT OF BACKFILL SHALL BE PROTECTED FROM PUMPING, PONDING, AND GULLYING.
14. COMPACTION TESTING WILL BE PROVIDED AT THE EXPENSE OF THE CONTRACTOR. COMPACTION REQUIREMENTS OF SOIL BACKFILL SHALL BE AS INDICATED IN THE FOLLOWING TABLE:

LOCATION OF FILL	MINIMUM REQUIRED COMPACTION LEVEL STANDARD PROCTOR
A. GENERAL YARD AREA	98%(ASTM D698)
B. UPPER 18 INCHES OF SOIL TO BE USED AS ROAD SUBGRADE MATERIAL AND EXTENDING A MINIMUM OF 5 FEET BEYOND THE EDGE OF DEFINED ROADWAYS (IMMEDIATELY UNDER BASE MATERIAL)	98%(ASTM D698)

16. CRUSHED STONE IN DRIVE AREAS SHALL BE COMPACTED WITH A STATIC STEEL DRUM ROLLER (APPROXIMATELY 8 TONS). IF A VIBRATORY COMPACTOR IS USED, NO MORE THAN FOUR (4) PASSES SHALL BE ALLOWED.
17. APPROVAL SHALL BE RECEIVED FROM THE CLIENT REPRESENTATIVE FOR EACH FILL TYPE TO BE USED PRIOR TO PROCEEDING WITH BACKFILL OPERATIONS WITH THE MATERIAL IN QUESTION.
18. BACKFILL TO BE IMPORTED SHALL BE TESTED IN ACCORDANCE WITH THIS DOCUMENT AND APPROVED BY THE PROJECT MANAGER PRIOR TO DELIVERY OF MATERIAL TO THE SITE. THE OWNER'S CONSTRUCTION INSPECTOR ACCEPTS NO LIABILITY FOR ANY OUT OF SPECIFICATION MATERIAL ACCEPTED AND STOCKPILED BY THE CONTRACTOR
19. INSPECTION AND TESTING OF MATERIAL SHALL BE PERFORMED AS REQUIRED BY THIS DOCUMENT AT THE EXPENSE OF THE CONTRACTOR.
20. TESTS AND ANALYSIS OF MATERIAL SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE STANDARDS REFERENCED IN THIS DOCUMENT FOR THE SPECIFIC TEST. FIELD INSPECTION SHALL BE PERFORMED AS REQUIRED BY THIS DOCUMENT.
21. THE BACKFILL AND EXPOSED SOIL IN CUT AREAS SHALL BE COMPACTED AS SPECIFIED ON THIS DOCUMENT. FIELD DENSITY TESTS SHALL BE PERFORMED BY THE CONTRACTOR TO VERIFY COMPACTION REQUIREMENTS HAVE BEEN ACHIEVED. IN-PLACE FIELD DENSITY TESTING OF THE COMPACTED BACKFILL SHALL BE CONDUCTED ACCORDING TO THE PROCEDURES OF THE SAND CONE METHOD (ASTM 1556), NUCLEAR METHOD (ASTM D3017), OR ACCORDING TO THE PROVISIONS OF THIS DOCUMENT. TEST RESULTS REPORTED SHALL INCLUDE BOTH THE MOISTURE CONTENT AND DRY DENSITY, ALONG WITH OTHER PERTINENT DATA SUCH AS LOCATION, ELEVATION, PROCTOR CURVE USED FOR COMPARISON, ETC. THE TESTING FREQUENCY SHALL BE ONE TEST FOR EACH 5,000 SQUARE FEET OF LIFT AREA OR PORTION THEREOF FOR EACH LIFT. IN ISOLATED AREAS OF LESS THAN 5,000 SQUARE FEET, TEST AT LEAST EVERY THIRD LIFT. WHEN BACKFILL OPERATIONS ARE CONCENTRATED IN SMALL AREAS USING LIGHT MANUALLY-GUIDED EQUIPMENT AND RELATIVELY THIN LIFTS, THE FREQUENCY OF DENSITY TESTING MAY BE REVISED AS DIRECTED BY THE OWNER'S CONSTRUCTION INSPECTOR. TEST LOCATION SHALL BE THE WEAKEST APPEARING AREA OF THE TOP LIFT DETERMINED BY TRACKING ACTION OF THE EQUIPMENT.
22. SUITABILITY OF SOIL MATERIAL FOR USE AS BACKFILL SHALL BE DETERMINED FOR EACH FILL TYPE BY THE RESULTS OF THE FOLLOWING TESTS:

   A. LIQUID LIMIT IN ACCORDANCE WITH ASTM D4318.
   B. PARTICLE SIZE ANALYSIS IN ACCORDANCE WITH ASTM D422.
   C. MOISTURE-DENSITY RELATIONS (STANDARD PROCTOR) IN ACCORDANCE WITH ASTM D698.
   D. MOISTURE CONTENT IN ACCORDANCE WITH ASTM D2216.
   E. SAMPLING OF SOIL SHALL BE IN ACCORDANCE WITH ASTM D2216.
   F. SOIL SHALL BE CLASSIFIED IN ACCORDANCE WITH ASTM D2487.

23. FREQUENCY OF TESTS: TESTS OF MATERIALS TO BE USED IN THE OPERATIONS COVERED IN THIS DOCUMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS GIVEN IN THIS DOCUMENT. FREQUENCIES OF IN-PLACE DENSITY TESTS SHALL BE AS STATED IN THIS DOCUMENT.
24. IF QUESTIONABLE COMPACTION RESULTS ARE OBTAINED, THE CLIENT REPRESENTATIVE MAY REQUIRE THE CONTRACTOR TO PERFORM PROCTOR CHECKS (ON DRY SIDE OF OPTIMUM) TO VERIFY THAT THE PROPER PROCTOR CURVE IS BEING REFERENCED. IF NOT, A NEW PROCTOR CURVE DETERMINED BY A FIVE-POINT TEST SHALL BE REQUIRED. IF THE COMPACTION REQUIREMENTS FOR A LIFT HAVE NOT BEEN ACHIEVED, THE LIFT SHALL BE REWORKED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
25. TESTING OF IN-PLACE DENSITY AND MOISTURE CONTENT BY NUCLEAR METHODS IN ACCORDANCE WITH ASTM D2922 AND ASTM D3017, RESPECTIVELY, WILL BE ALLOWED PROVIDED:

   A. ACCEPTABLE CORRELATION WITH SAND CONE DENSITY AND LABORATORY DETERMINED MOISTURE CONTENT TEST RESULTS CAN BE OBTAINED ACCORDING TO THE GUIDELINES OF "CALIBRATION" SECTIONS OF ASTM D2922 AND ASTM D3017.
   B. THE INITIAL CORRELATION RESULTS ARE REVIEWED AND USE OF THE NUCLEAR DEVICE IS APPROVED BY THE OWNER'S CONSTRUCTION INSPECTOR.
   C. THE CONTRACTOR INSURES THAT THE REPRESENTATIVE FROM THE TESTING AGENCY OPERATING THE NUCLEAR DENSITY TESTING HAS THE NECESSARY STATE AND/OR FEDERAL LICENSES TO OPERATE THE DEVICE AND CARRY A NUCLEAR ENERGY SOURCE.

EMBANKMENT FILL NOTES:

1. EMBANKMENT FILL SHALL CONSIT OF AN INORGANIC, NON-PLASTIC, GRANULAR SOIL CONTAINING LESS THAN 10% MATERIAL PASSING THE NO. 200 MESH SIEVE WITH UNIFIED SOIL CLASSIFICATION OF SP, SP-SC, OR SP-SM. EMBANKMENT FILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 8 INCHES WHEN USING A STATIC DRUM ROLLER WITH A MINIMUM OPERATING WEIGHT OF 5 TONS WITH A DRUM DIAMETER OF 3 TO 4 FEET. WHERE LIGHTWEIGHT VIBRATORY COMPACTION METHODS ARE UTIILIZED MAXIMUM LOOSE LIFT THICKNESS SHALL BE 6 INCHES. COMPACTION TO MEET A MAXIMUM DRY DENSITY OF 98% STANDARD PROCTOR DRY DENSITY.
2. ANY GRADING TO CORRECT SLOPES SHALL BE COMPACTED PER THIS DOCUMENT.

GENERAL EXCAVATION REQUIRED FOR CONSTRUCTION

1. THIS ITEM SHALL CONSIST OF FURNISHING ALL LABOR, MATERIALS, MACHINERY, TOOLS, AND SUPERVISION FOR EXCAVATION AND GRADING REQUIRED TO PREPARE THE ROADWAY, AND GRADING REQUIRED TO COMPLETE THE FINAL GRADING OF AREAS ADJACENT TO THE ROADWAY AS SHOWN ON THE PLANS IN ACCORDANCE WITH THE PROVISIONS OF ITEM 209 OF THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS INSOFAR AS THEY ARE NOT AMENDED BY THE PLANS AND THESE SPECIAL PROVISIONS, AND IN ACCORDANCE WITH THE FOLLOWING SPECIAL PROVISIONS.

SUBGRADE COMPACTION VERIFICATION

1. THE CONTRACTOR SHALL EMPLOY AN INDEPENDENT CONSTRUCTION MATERIAL ENGINEERING TESTING FIRM TO MONITOR THE PROOFROLLING OF THE SITE AFTER THE STRIPPINGS HAVE BEEN REMOVED TO INSPECT AND TEST THE COMPACTED FILL AREAS IN THE ACCESS ROAD AREAS AS INDICATED ON THE BID DOCUMENTS AND/OR AS SPECIFIED BY THE OWNER'S DESIGNATED REPRESENTATIVE. COPIES OF THE TEST RESULTS SHALL BE FURNISHED TO THE OWNER'S DESIGNATED REPRESENTATIVE AND OTHERS AS INDICATED BY OWNER'S DESIGNATED REPRESENTATIVE. THE OWNER'S DESIGNATED REPRESENTATIVE MUST APPROVE THE INDEPENDENT CONSTRUCTION MATERIAL ENGINEERING TESTING FIRM, INCLUDED WITH THIS BID PROPOSAL, THE CONTRACTOR SHALL FURNISH THE NAME, ADDRESS AND A PHONE NUMBER OF THE INDEPENDENT CONSTRUCTION MATERIAL ENGINEERING TESTING FIRM FOR APPROVAL.

DEWATERING NOTES

1. ALL DEWATERING SHALL BE PERFORMED IN ACCORDANCE WITH THE SWPPP.
2. CONTROL GRADING AROUND EXCAVATIONS TO PREVENT SURFACE WATER FROM FLOWING INTO EXCAVATION AREAS.
3. DRAIN OR PUMP AS REQUIRED TO MAINTAIN, INCLUDING DAYS NOT NORMALLY WORKED, ALL EXCAVATIONS FREE OF WATER OR MUD FROM ANY SOURCE, AND DISCHARGE TO APPROVED DRAINS OR CHANNELS. COMMENCE WHEN WATER FIRST APPEARS AND CONTINUE AS REQUIRED TO KEEP EXCAVATION FREE OF STANDING WATER DURING ENTIRE TIME EXCAVATION IS OPEN.
4. USE PUMPS OF ADEQUATE CAPACITY TO ENSURE RAPID DRAINAGE OF AREA, AND CONSTRUCT AND USE DRAINAGE CHANNELS AND SUBDRAINS WITH SUMPS AS REQUIRED BY QUANTITY OF INFLOW.
5. WHEN WATER IS FOUND IN THE EXCAVATION DUE TO CONTRACTOR NEGLIGENCE, REMOVE UNSUITABLE EXCESSIVELY WET SUBGRADE MATERIALS AND REPLACE WITH APPROVED COMPACTED EMBANKMENT MATERIAL AS DIRECTED BY OWNER AND AT NO ADDITIONAL COST TO OWNER.

ABBREVIATIONS:

ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
CBR	CALIFORNIA BEARING RATION
FT	FEET
JAB	JACK AND BORE
GIS	GEOGRAPHIC INFORMATION SYSTEM
MAX	MAXIMUM
MIN	MINIMUM
NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
NTS	NOT TO SCALE
ODOT	OHIO DEPARTMENT OF TRANSPORTATION
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PL	PROPERTY LINE

LEGEND:

- ST — EXISTING STORM SEWER
- EXISTING UTILITY POLE
- E — EXISTING OVERHEAD ELECTRIC
- EXISTING FENCE
- PL — PROPERTY LINE
- COMM — EXISTING OVERHEAD COMM LINE
- SS — EXISTING SANITARY SEWER
- T — EXISTING UNDERGROUND TELEPHONE LINE
- W — EXISTING WATER LINE
- G — EXISTING UNDERGROUND GAS LINE
- X — PROPOSED FENCE

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APPROVALS		
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		MGR TECH REC & STD
05-07-2021	CDW	PRINCIPAL ENGINEER

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ACCESS AND STAGING

1. ACCESS AND HAUL ROUTES FOR ALL CONTRACTOR PERSONNEL, VEHICLES, EQUIPMENT, AND DELIVERIES ARE ILLUSTRATED ON THIS DRAWING AND ARE SUBJECT TO THE APPROVAL OF THE CLIENT REPRESENTATIVE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF-SITE HAUL ROUTES WITH THE APPROPRIATE OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE. ACCESS ROUTES AND HAUL ROUTES ARE SUBJECT TO CHANGE AT THE DIRECTION OF THE CLIENT REPRESENTATIVE AND MAY CHANGE BASED ON OPERATIONAL REQUIREMENTS OF THE SITE.
2. CONTRACTOR SHALL COORDINATE ACTIVITIES AND MAINTAIN ALL ACCESS AND HAUL ROUTES IN A MANNER THAT ALLOWS UNOBSTRUCTED EMERGENCY ACCESS TO ALL PROJECT AREAS AND EXISTING ROADWAYS AT ALL TIMES WITHOUT DELAY TO EMERGENCY AND SECURITY VEHICLE RESPONSE TIME.
3. IF ANY EMERGENCY ROUTES REQUIRE CLOSURE DUE TO CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL NOTIFY THE CLIENT REPRESENTATIVE, POLICE, LOCAL FIRE AUTHORITY, AND ALL OTHER EMERGENCY SERVICES OF THE CLOSURE.
4. CONTRACTOR SHALL MAINTAIN ACCESS AND HAUL ROUTES TO BE FREE FROM DEBRIS CAUSED FROM CONSTRUCTION ACTIVITIES ON A DAILY BASIS.
5. CONTRACTOR SHALL RESTRICT ALL OPERATIONS TO AREAS WITHIN THE CONSTRUCTION LIMITS UNLESS COORDINATED OTHERWISE WITH THE CLIENT REPRESENTATIVE.
6. CONTRACTOR SHALL PROVIDE TEMPORARY CONSTRUCTION FENCING AROUND THE ENTIRE SITE DURING CONSTRUCTION.
7. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING A STAGING AND STOCKPILE AREA FOR MATERIALS AND EQUIPMENT. LOCATION OF CONTRACTOR'S STAGING SHALL BE SUBJECT TO THE APPROVAL OF THE CLIENT REPRESENTATIVE. CONTRACTOR'S STAGING AREA IS SUBJECT TO CHANGE AT THE DIRECTION OF THE CLIENT REPRESENTATIVE AND MAY CHANGE BASED ON OPERATIONAL REQUIREMENTS OF THE PROJECT SITE.
8. WHEN NOT ENGAGED IN CONSTRUCTION ACTIVITIES, CONTRACTOR'S EQUIPMENT AND VEHICLES SHALL BE PARKED IN THE STAGING AREA.
9. ACCESS POINTS, HAUL ROUTES, STAGING AREA, AND ANY OTHER AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE CLIENT REPRESENTATIVE.

TRAFFIC CONTROL

1. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL CORDON OFF THE CONSTRUCTION WORK AREA AND ASSOCIATED ROADWAYS BY USING BARRICADES APPROVED BY THE CLIENT REPRESENTATIVE.
2. ALL CONSTRUCTION EQUIPMENT AND VEHICLES SHALL BE MARKED WITH COMPANY DESIGNS, INSIGNIAS, OR OTHER MARKINGS, WHICH ARE CLEARLY VISIBLE.
3. CONSTRUCTION EQUIPMENT SHALL HAVE AUTOMATIC SIGNALING DEVICES TO SOUND AN ALARM WHEN MOVING IN REVERSE.
4. NO PEDESTRIAN TRAFFIC SHALL BE ALLOWED INSIDE THE CONSTRUCTION LIMITS.
5. ANY DAMAGE TO ROADS AND PAVEMENTS-TO-REMAIN DUE TO CONSTRUCTION EQUIPMENT OR TRAFFIC SHALL BE REPAIRED TO RESTORE THE ROADS AND PAVEMENTS TO THEIR ORIGINAL CONDITION TO THE SATISFACTION OF THE CLIENT REPRESENTATIVE.

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DESCRIPTION	
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DRAWING BY	HEC
STATION ID	STA 914
CHECKER INITIALS	MEB

APPROVALS	DATE	INITIALS
REGIONAL ENGINEER		
MGR TECH REC & STD		
PRINCIPAL ENGINEER	05-07-2021	CDW

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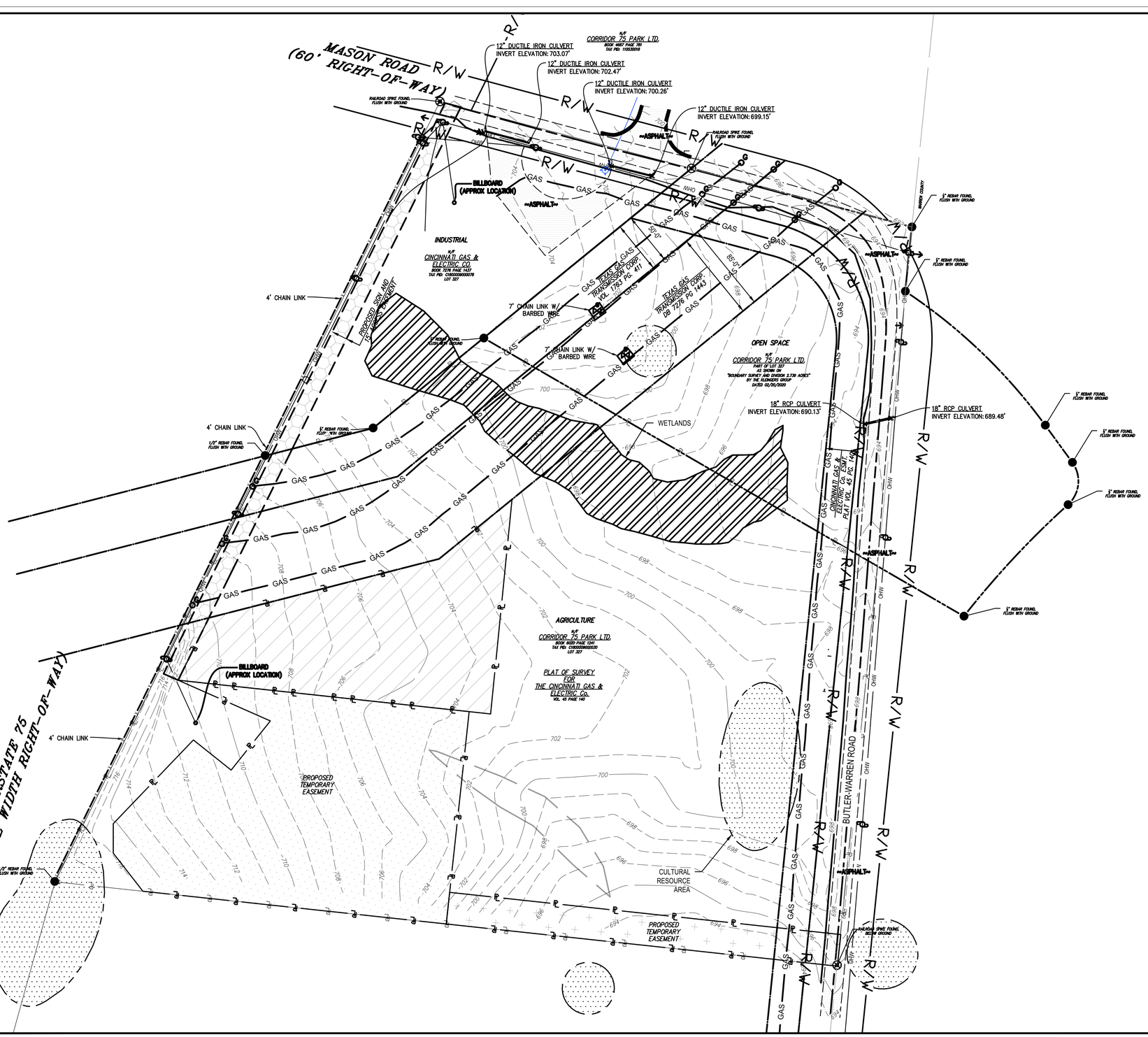
MASON STATION CAPACITY IMPROVEMENT ACCESS & CONSTRUCTION STAGING BUTLER COUNTY, OHIO

TODHUNTER RESOURCE CENTER, OHIO

SHEET(S)	1 OF 1	DWG SCALE	AS NOTED
DWG DATE	01/07/2021	SUPERSEDED	—

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DATE 05-07-2021	INITIALS CDW	PRINCIPAL ENGINEER

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EXISTING CONDITIONS
BUTLER COUNTY, OHIO
TODHUNTER RESOURCE CENTER, OHIO

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DWG SCALE	AS NOTED
DWG DATE	01/07/2021
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REVISION	B

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NOTES:

1. THE EXISTING SITE UTILITIES AND FEATURES SHOWN ARE BASED ON A FIELD RUN TOPOGRAPHIC SURVEY PERFORMED BY SGC ENGINEERING, LLC, IN NOVEMBER 2020. COORDINATES ARE IN OHIO STATE PLANE SOUTH ZONE, 3702, NAD83 HORTIZONTAL DATUM AND NAVD88 VERTICAL DATUM.
2. ALL DIMENSIONS SHOWN ARE IN FEET UNLESS NOTED OTHERWISE.
3. SEE ODOT DESIGN STANDARDS, LATEST EDITION, AS INDICATED. ALL SUBSEQUENT STANDARDS AND SPECIFICATIONS SHALL APPLY.
4. ALL WORK WEST OF WESTERN FENCE LINE SHALL BE BY OTHERS AND UNDER SEPARATE PERMIT.
5. EAST FENCE LINE SHALL BE AMERISTAR IMPASSE II FENCE. NORTH, SOUTH, AND WEST SHALL BE CHAIN LINK FENCE AS INDICATED ON PNG-C-042-0001139 AND PNG-C-042-0001140.

KEY NOTES:

1. CHAIN-LINK FENCE
2. 20' SLIDE GATE
3. 4' MAN GATE

LEGEND:

- PROPOSED GRAVEL SURFACE COURSE
- PROPOSED ASPHALT ACCESS ROAD
- WETLAND
- LOD — LIMITS OF DISTURBANCE
- CULTURAL RESOURCE AREA

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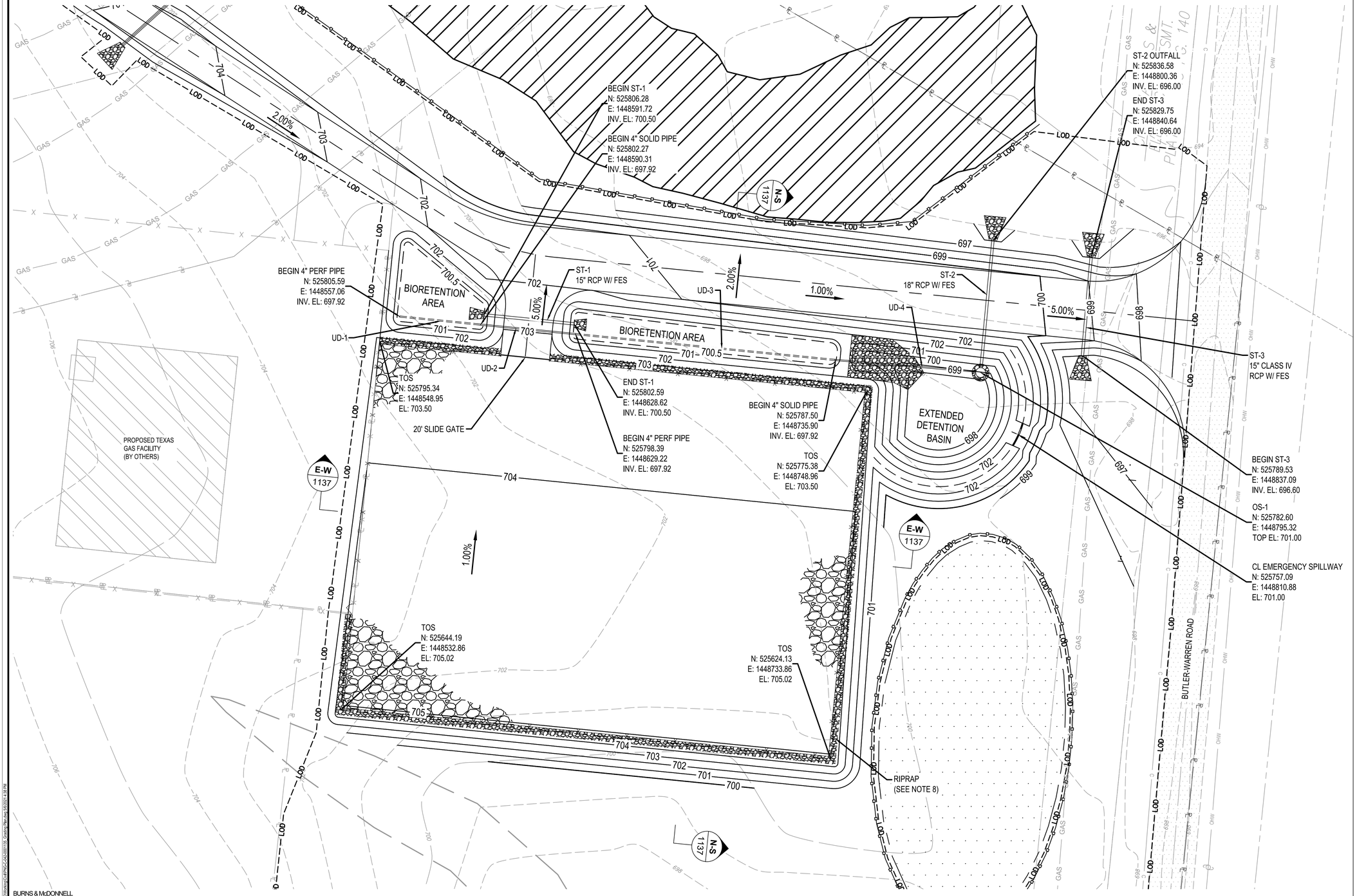
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NOTES:

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2. SEE SHEET C-042-0001131 FOR CIVIL GENERAL NOTES AND ABBREVIATIONS.
3. ALL DIMENSIONS SHOWN ARE IN FEET UNLESS NOTED OTHERWISE.
4. SEE ODOT DESIGN STANDARDS, LATEST EDITION, AS INDICATED. ALL SUBSEQUENT STANDARDS AND SPECIFICATIONS SHALL APPLY.
5. DIMENSIONS NOTED AS MATCH ARE INTENDED TO MATCH EXISTING GRADE.
6. ALL ELEVATIONS ARE TO FINISHED GRADE UNLESS OTHERWISE NOTED.
7. ALL SLOPES ARE 3:1 UNLESS INDICATED OTHERWISE.
8. RIPRAP WITH A MINIMUM d50 OF 4" SHALL EXTEND 3' OUTSIDE OF THE STATION FENCE AS INDICATED.

LEGEND:

- WETLAND
- PROPOSED GRAVEL SURFACE COURSE
- CULTURAL RESOURCE AREA
- RIPRAP
- LIMITS OF DISTURBANCE
- 700 EXISTING MAJOR CONTOUR
- 702 EXISTING MINOR CONTOUR
- 700 NEW CONTOUR
- PROPERTY LINE
- ACCESS ROAD CENTERLINE
- STATION FENCE

N

0 10' 20' 40'
SCALE IN FEET

FOR PERMITTING PURPOSES ONLY

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ENGINEERING COMPANY, INC.
STATE LICENSE # COA.01557

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REF. DWG(S) PNG-G-042-0001083

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
A	04-19-2021	ISSUED FOR PERMITTING	HEC	MEB	CDW
B	05-07-2021	REISSUED FOR PERMITTING	HEC	MEB	CDW

DESCRIPTION	
AREA CODE	-
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2771
DRAWING BY	HEC
STATION ID	STA 914
CHECKER INITIALS	MEB

APPROVALS		
DATE	INITIALS	REGIONAL ENGINEER
DATE	INITIALS	MGR TECH REC & STD
05-07-2021	CDW	PRINCIPAL ENGINEER

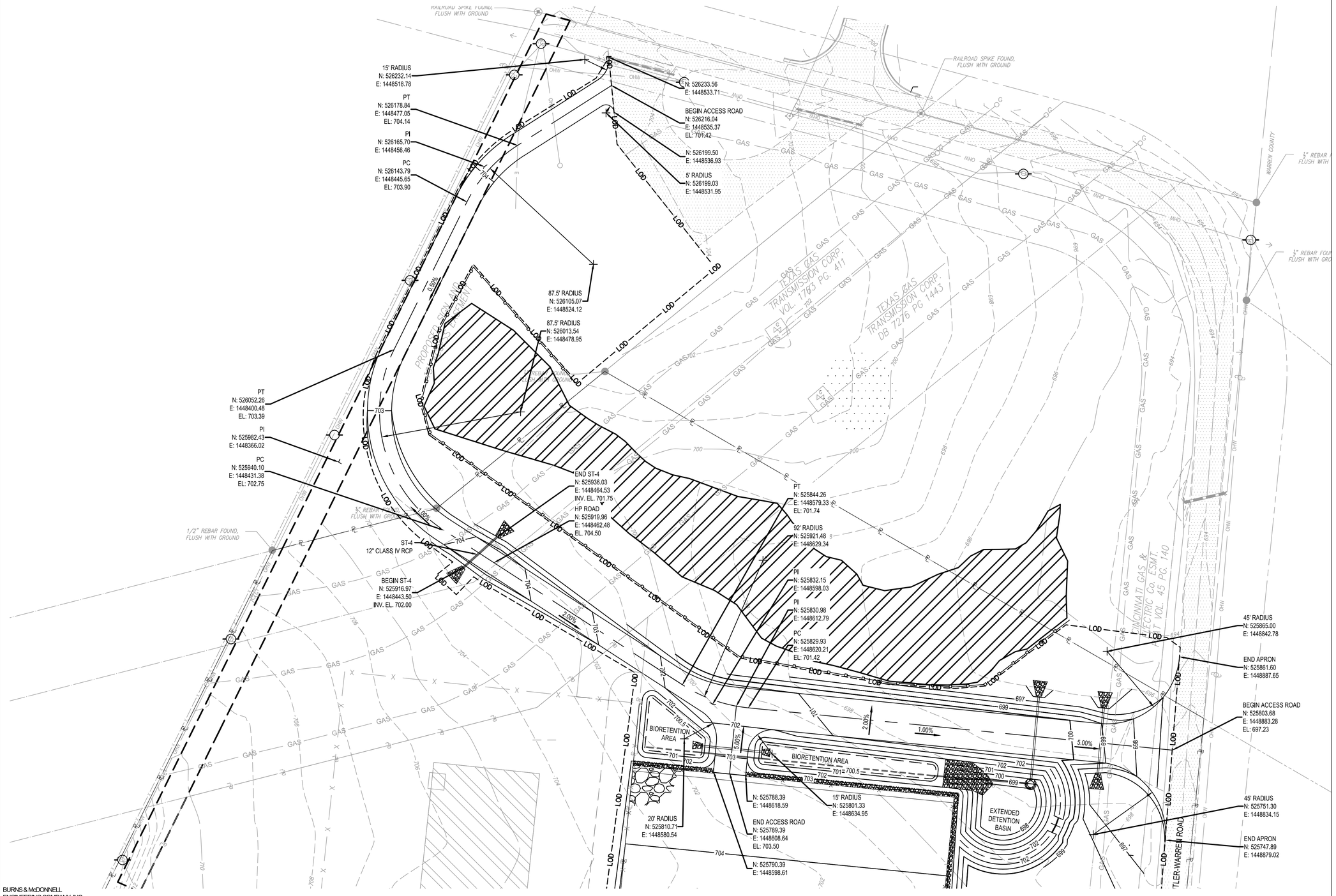
PROFESSIONAL ENG/ARCH STAMP

DUKE ENERGY. Piedmont Natural Gas

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MASON STATION CAPACITY IMPROVEMENT
GRADING PLAN
BUTLER COUNTY, OHIO
TODHUNTER RESOURCE CENTER, OHIO

SHEET(S) 1 OF 2	DWG SCALE AS NOTED
DWG DATE 01/07/2021	SUPERSEDED —
DRAWING NUMBER PNG -C-042-0001135	REVISION B
DISCIPLINE / RESOURCE CENTER / LINE NUMBER	



NOTES:

1. THE EXISTING SITE UTILITIES AND FEATURES SHOWN ARE BASED ON A FIELD RUN TOPOGRAPHIC SURVEY PERFORMED BY SGC ENGINEERING, LLC, IN NOVEMBER 2020. COORDINATES ARE IN OHIO STATE PLANE SOUTH ZONE, 3702, NAD83 HORTIZONTAL DATUM AND NAVD88 VERTICAL DATUM.
2. SEE SHEET C-042-0001131 FOR CIVIL GENERAL NOTES AND ABBREVIATIONS.
3. ALL DIMENSIONS SHOWN ARE IN FEET UNLESS NOTED OTHERWISE.
4. SEE ODOT DESIGN STANDARDS, LATEST EDITION, AS INDICATED. ALL SUBSEQUENT STANDARDS AND SPECIFICATIONS SHALL APPLY.
5. DIMENTIONS NOTED AS MATCH ARE INTENDED TO MATCH EXISTING GRADE.
6. ALL ELEVATIONS ARE TO FINISHED GRADE UNLESS OTHERWISE NOTED.
7. ALL SLOPES ARE 3:1 UNLESS INDICATED OTHERWISE.
8. ACCESS ROAD SURFACING SHALL BE ASPHALT. SEE CROSS SECTION DETAIL ON DRAWING PNG-C-042-0001137.

LEGEND:

- WETLAND
- PROPOSED GRAVEL SURFACE COURSE
- CULTURAL RESOURCE AREA
- RIPRAP
- LIMITS OF DISTURBANCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- NEW CONTOUR
- PROPERTY LINE
- ACCESS ROAD CENTERLINE
- STATION FENCE

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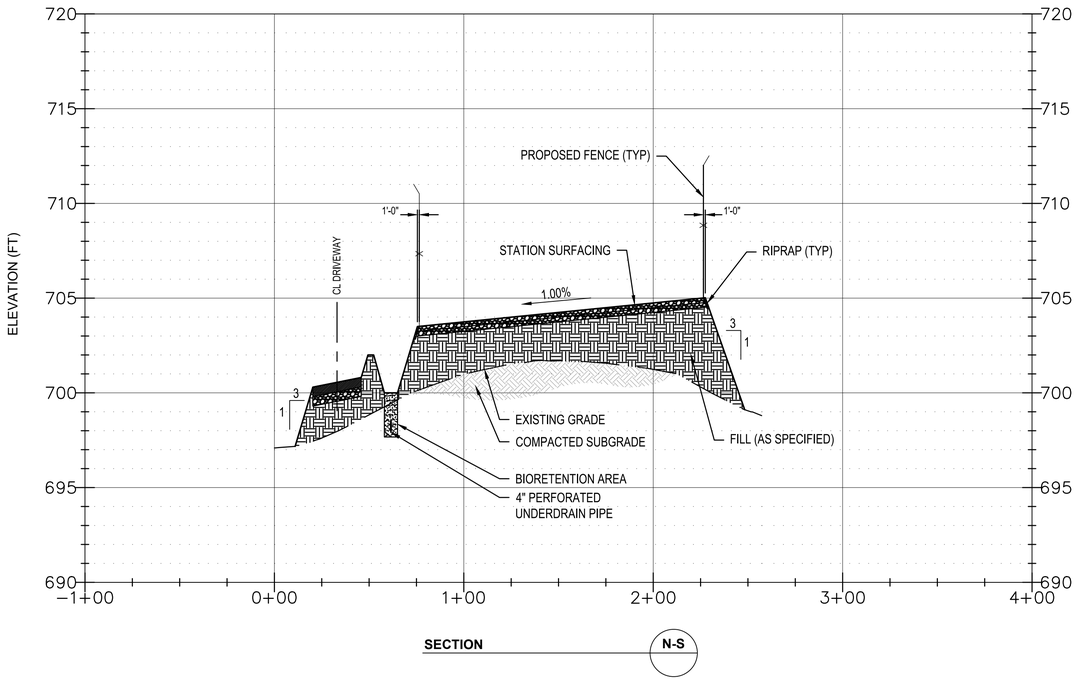
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APPROVALS		
DATE	INITIALS	REGIONAL ENGINEER
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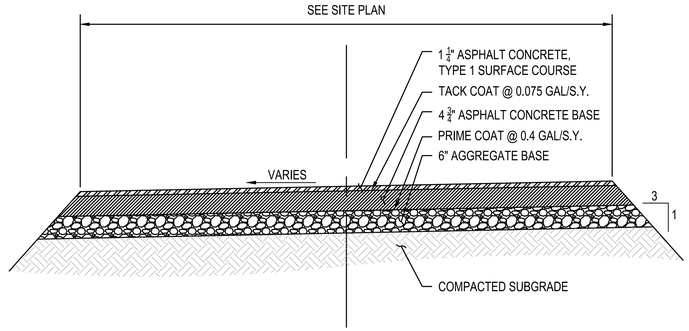
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MASON STATION CAPACITY IMPROVEMENT
GRADING PLAN
BUTLER COUNTY, OHIO
TODHUNTER RESOURCE CENTER, OHIO

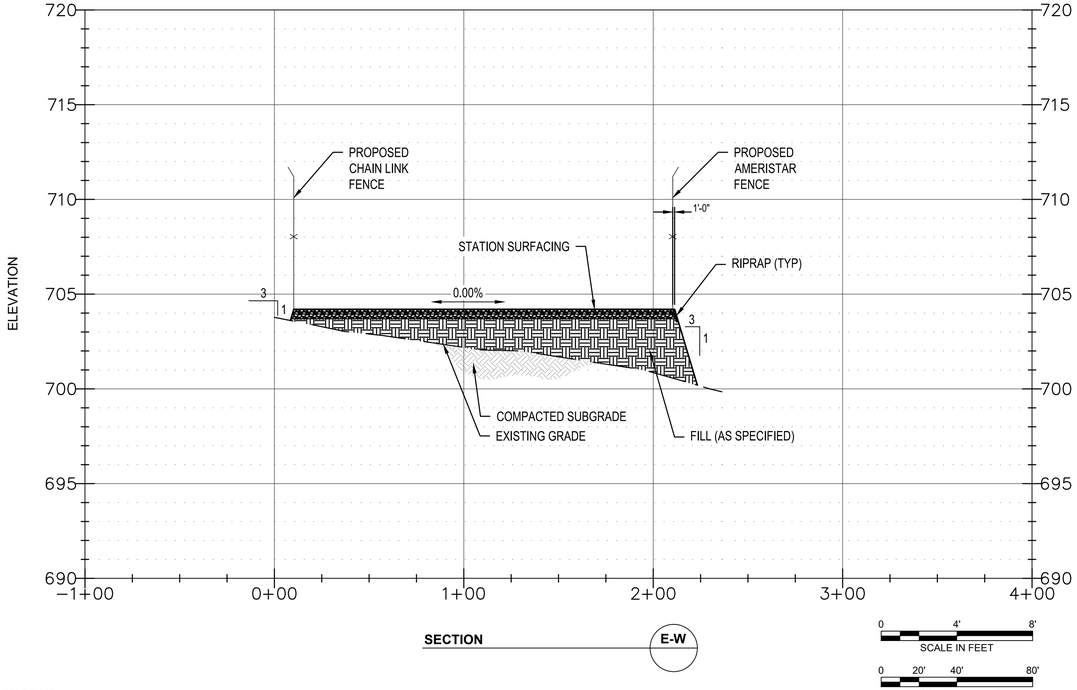
SHEET(S) 2 OF 2	DWG SCALE AS NOTED		
DWG DATE 01/07/2021	SUPERSEDED		
DRAWING NUMBER		REVISION	
PNG -C-042-0001136		B	
DISCIPLINE / RESOURCE CENTER / LINE NUMBER			



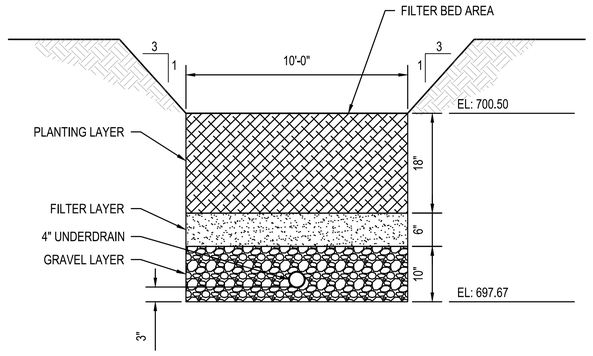
SECTION N-S



TYPICAL DRIVEWAY SECTION 1
NOT TO SCALE



SECTION E-W



NOTES:

1. PLANTING SOIL SHALL BE AS FOLLOWS:
   A. LOAMY SAND HAVING NO LESS THAN 80% SAND AND NO GREATER THAN 10% CLAY.
   B. pH SHALL BE 5.2 TO 8.0.
   C. SOLUBLE SALTS: 500 PPM MAXIMUM
   D. DECOMPOSED ORGANIC MATTER: 3-5% BY WEIGHT
   E. PHOSPHORUS: 15-60 MG.KG (PPM) AS DETERMINED BY THE MEHLICH III TEST.
2. FILTER LAYER SHALL CONSIST OF THREE INCHES OF CLEAN MEDIUM CONCRETE SAND (ASTM C-33) OVER THREE INCHES OF #8 OR #78 STONE (PEA GRAVEL).
3. GRAVEL LAYER SHALL CONSIST OF WASHED #57 STONE WITH A MINIMUM OF 3" STONE BELOW UNDERDRAIN.

BIORETENTION BASIN TYPICAL SECTION 2
NOT TO SCALE

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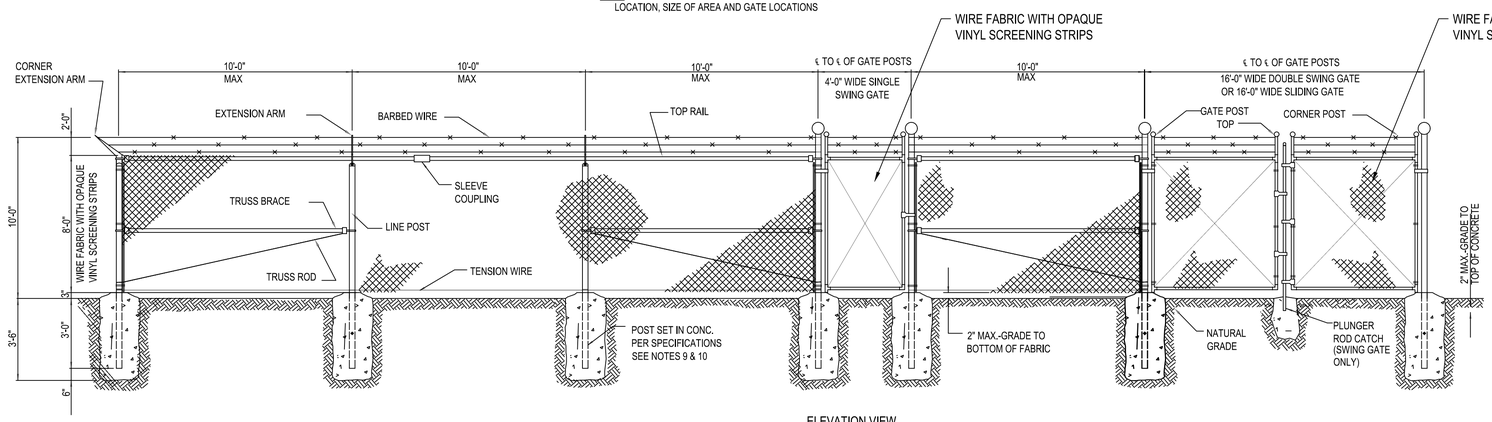
MASON STATION CAPACITY IMPROVEMENT
GRADING SECTIONS
BUTLER COUNTY, OHIO
TODHUNTER RESOURCE CENTER, OHIO

SHEET(S)	1 OF 1
DWG SCALE	AS NOTED
DWG DATE	01/07/2021
SUPERSEDED	—
DRAWING NUMBER	PNG -C-042-0001137
REVISION	B

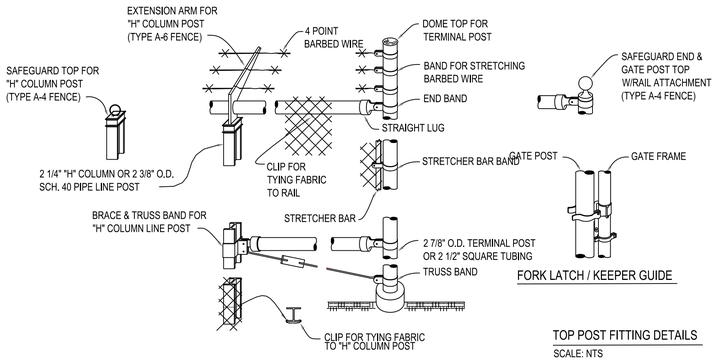
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NOTE: SEE PLAN DRAWING FOR SPECIFIC DIMENSIONS, LOCATION, SIZE OF AREA AND GATE LOCATIONS

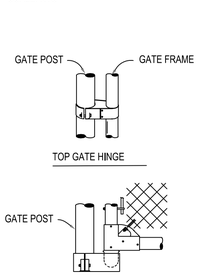


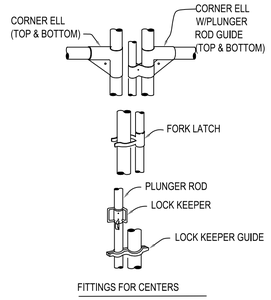
ELEVATION VIEW
SCALE: NTS



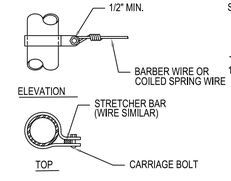
TOP POST FITTING DETAILS
SCALE: NTS

FORK LATCH / KEEPER GUIDE

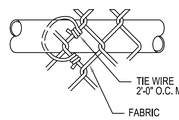




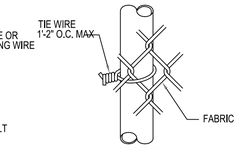
GATE FITTING DETAILS
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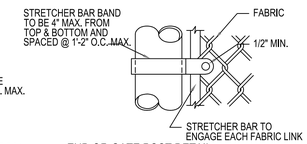
BAND FOR WIRE STRETCHING DETAIL
SCALE: NTS



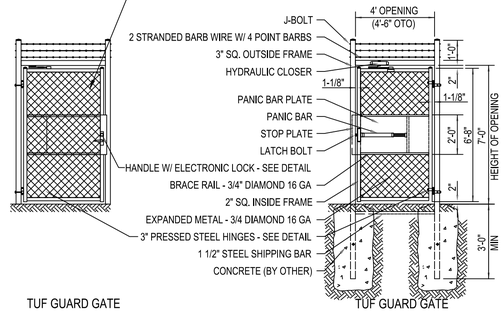
WIRE TIES TOP OR BRACE RAIL DETAIL
SCALE: NTS



WIRE TIES POST DETAIL
SCALE: NTS

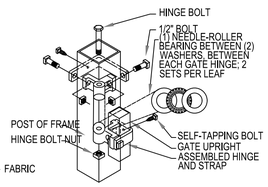


END OR GATE POST DETAIL
SCALE: NTS

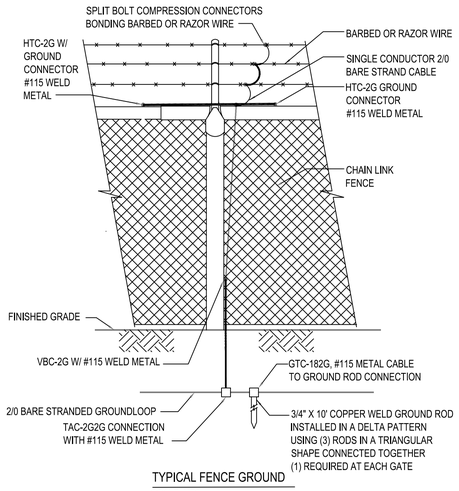


TUF GUARD GATE
ELEV. OUTSIDE LOOKING IN
SCALE: NTS

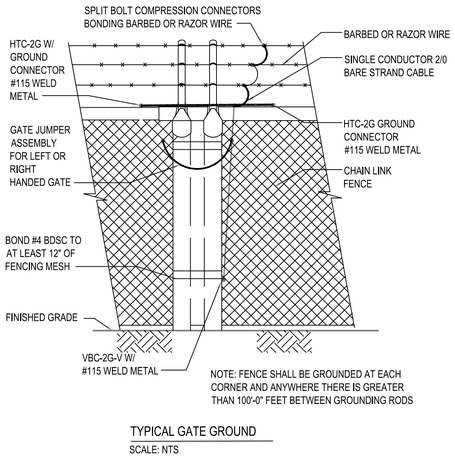
TUF GUARD GATE
ELEV. INSIDE
SCALE: NTS



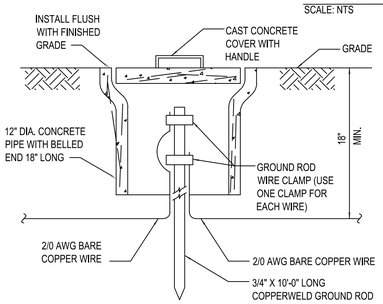
TUF GUARD GATE
PRESSED STEEL SQUARE HINGE
SCALE: NTS



TYPICAL FENCE GROUND
SCALE: NTS



TYPICAL GATE GROUND
SCALE: NTS

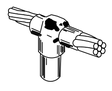


TYPICAL GROUND ROD TEST WELL
SCALE: NTS

NOTE:
2/0 AWG STRANDED CABLE TO THE TOP OF A 3/4" GROUND ROD. THE ROD END CAN BE EITHER PLAIN OR THREADED.

CAN BE USED IN PLACE OF A TYPE GR (DEAD END) BY LETTING THE CONDUCTOR EXTEND ENOUGH PAST THE ROD TO EXIT THE MOLD ON THAT SIDE.

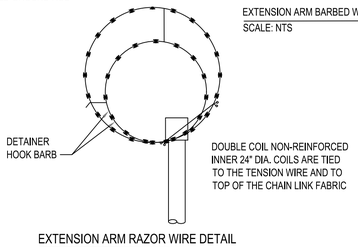
FOR CONDUCTORS 500 KCMIL OR LARGER, IT IS RECOMMENDED THAT A TA CONNECTION BE MADE TO THE 500 KCMIL CONDUCTOR WITH A SHORT STUB OF 4/0 AND WELD THE 4/0 TO THE GROUND ROD.



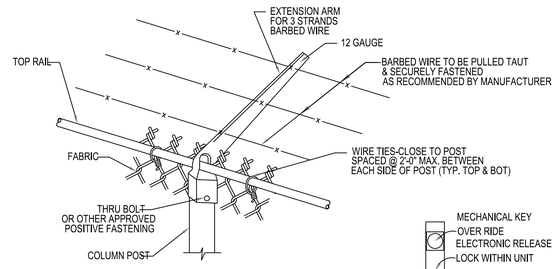
TYPE GT CONNECTION
SCALE: NTS

DETAIL 1
SCALE: NTS

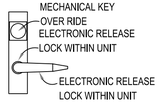
CHAIN-LINK SECURITY FENCE
DOUBLE SWING GATE
MAN GATE



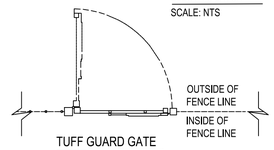
EXTENSION ARM RAZOR WIRE DETAIL
SCALE: NTS



EXTENSION ARM BARBED WIRE DETAIL
SCALE: NTS



TUF GUARD GATE
ELECTRIC LATCH
SCALE: NTS



TUFF GUARD GATE
SCALE: NTS

CHAIN LINK FENCE SPECIFICATIONS

1) INSTALLATION OF FENCE ADDITION SHALL BE PLUMB AND TRUE TO LINE, CHAIN LINK FABRIC SHALL BE TAUT AND PROPERLY SECURED, CORNER BRACES AND DIAGONAL BRACES SHALL BE PROPERLY PLACED TO PREVENT SAGGING. THE COMPLETE INSTALLATION SHALL BE INSTALLED BY SKILLED AND EXPERIENCED FENCE ERECTORS, IN A WORKMANLIKE MANNER, IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND IN ACCORDANCE WITH ALL LOCAL APPLICABLE CODES.
2) MATERIAL SHALL BE HOT-DIP GALVANIZED FENCE CHAIN LINK FABRIC - THE CHAIN LINK FABRIC SHALL BE IN ACCORDANCE WITH ASTM A-392 SPECIFICATIONS AND SHALL BE HOT DIPPED GALVANIZED AFTER WEAVING, HAVING A COATING WEIGHT OF 2 OUNCES OF ZINC PER SQUARE FOOT, MINIMUM, OF UNCOATED WIRE SURFACE (CLASS II). FABRIC SHALL BE NO. 9 GAUGE WIRE WOVEN IN A 2-INCH CHAIN LINK DIAMOND MESH. THE FABRIC SHALL BE FASTENED TO THE LINE POST BY MEANS OF NO. 6 GAUGE ALUMINUM WIRE CLIPS SPACED 12 INCHES ON CENTER. IT SHALL BE ATTACHED TO TOP RAIL WITH NO. 9 GAUGE ALUMINUM TIE WIRES SPACED 24 INCHES ON CENTER. FABRIC SHALL BE ATTACHED TO TERMINAL POST BY MEANS OF A 1/4" X 3/4" TENSION BAR WITH HEAVY GAUGE PRESSED STEEL BAND OR CLIPS SPACED APPROXIMATELY 14 INCHES ON CENTER.
3) BARBED WIRE SHALL BE OF 4 POINT PATTERN, COMPOSED OF TWO STRANDS OF NO. 11-1/2 GAUGE GALVANIZED WIRE WITH LARGE BARBS SPACED APPROXIMATELY 4 TO 5 INCHES ON CENTER. RAZOR WIRE SHALL BE USED WHEN LOCAL ORDINANCE REQUIRES OR AT PROJECT MANAGERS REQUEST.
4) BOTTOM TENSION WIRE - NO. 7 GAUGE GALVANIZED COIL SPRING TENSION WIRE WITH CLASS I COATING. WIRE TO BE FASTENED TO CHAIN LINK FABRIC WITH NO. 11 GAUGE HOG RINGS ON 18 INCH CENTERS.
5) POST AND OTHER APPURTENANCES - ALL POST AND OTHER APPURTENANCES SHALL BE HOT-DIP GALVANIZED WITH A MINIMUM ZINC COATING OF 2.0 OUNCES PER SQUARE FOOT OF SURFACE (CLASS II COATING ASTM A-392).
6) LINE POST SHALL BE 2-1/4" "H" COLUMN WEIGHING 4.1 LBS. PER FOOT, MINIMUM CARBON CONTENT .35%, MINIMUM TENSILE STRENGTH 75,000 PSI OR 2-3/8" O.D. SCHEDULE 40 PIPE, OF SUFFICIENT LENGTH TO ALLOW FOR INSTALLATION TO A DEPTH OF 3'-0" BELOW GROUND LEVEL. THE POSTS SHALL BE SPACED IN THE LINE OF FENCE, NO FURTHER.
7) TERMINAL POST AND ALL END, CORNER AND PULL POSTS SHALL BE 2-1/2" X 2-1/2" X .1875" W.T. SQUARE TUBING OR 2- 7/8" O.D. SCHEDULE 40 PIPE.
8) GATE POST SHALL BE OF THE FOLLOWING SIZE FOR SINGLE SWING GATES OR ONE LEAF OF DOUBLE GATE

POST	SIZE	NOM. WT.
UP TO 6' WIDE	2-1/2" SQ. OR 2-7/8" O.D.	SAME AS TERMINAL POST
OVER 6' TO 13'	4" O.D.	9.11 LB/FT

9) EACH POST SHALL BE OF SUFFICIENT LENGTH TO ALLOW FOR INSTALLATION TO A DEPTH OF 3'-0" BELOW GROUND LEVEL.
10) LINE POST AND TERMINAL POST ANCHORAGE SHALL BE SET IN CYLINDRICAL CONCRETE FOUNDATIONS WITH TOP OF FINISH CONCRETE SURFACE 3 INCHES ABOVE FINISH GRADE. EXCAVATION SHALL BE 3'-6" DEEP AND NOT LESS THAN TEN INCHES (10") IN DIAMETER FOR ALL LINE POSTS, AND NOT LESS THAN 3.5 TIMES THE DIAMETER FOR TERMINAL AND GATE POST. CONCRETE SHALL MEET ACI-318 SPECIFICATION FOR 3000 PSI-28 DAY STRENGTH CONCRETE.
11) FENCE SHALL HAVE A CONTINUOUS TOP RAIL FOR ITS FULL LENGTH OF STANDARD GALVANIZED PIPE, 1-5/8" O.D.. THE TOP RAIL SHALL PASS THROUGH OPENINGS PROVIDED FOR THAT PURPOSE IN THE POST TOPS AND EACH LENGTH SHALL BE COUPLED WITH A SLEEVE COUPLING, WITH EXPANSION COUPLING EVERY FIFTH JOINT.
12) TRUSS BRACES SHALL BE STANDARD GALVANIZED 1-5/8" O.D. PIPE 2.71 LB./FT., WITH A 3/8" O.D TRUSS ROD AND TURNBUCKLE ATTACHMENT SHALL BE INSTALLED BETWEEN EACH END OR GATE POST AND THE ADJACENT LINE POST. TWO TRUSS BRACES SHALL BE FURNISHED ON CORNER OR PULL POSTS.
13) FITTINGS USED IN THE COMPLETE FENCE ASSEMBLY SHALL BE OF MALLEABLE, CAST IRON OR PRESSED STEEL AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
14) EXTENSION ARM LINE POST SHALL BE EQUIPPED WITH EXTENSION ARMS TO WITHSTAND A MINIMUM PULL-DOWN WEIGHT OF 450 LBS. FROM END OF ARM. ARMS TO BE DESIGNED TO EXTEND AT A 45 DEGREE ANGLE WITH LOCKING DEVICE TO SECURELY FASTEN THREE STRANDS OF BARBED WIRE EQUALLY SPACED WITH THE TOP STRAND LOCATED 12 INCHES (12") ABOVE FABRIC AND 12 INCHES (12") OUT FROM THE FENCE LINE.
15) POST TOPS AND ALL END, CORNER, PULL AND GATE POST SHALL BE EQUIPPED WITH TOPS. TUBULAR POST TOPS TO BE SO DESIGNED AS TO EXCLUDE MOISTURE FROM THE POST. ALL LINE POST TOPS DESIGNED TO HOLD THE TOP RAIL AND THE EXTENSION ARM FOR THREE STRANDS OF BARBED WIRE.
16) GATE FRAMES SHALL BE MADE OF 2" X 2" X .110" W.T. SQUARE STEEL TUBING OR 1.9 INCH O.D. SCHEDULE 40, 2.72 LB./FT. STANDARD WEIGHT PIPE, HOT-DIP GALVANIZED, FRAMES TO BE JOINED AT CORNERS TO FORM A RIGID PANEL AND SHALL BE FILLED WITH CHAIN LINK FABRIC OF SAME GAUGE AS USED ON THE FENCE. FABRIC SHALL BE FASTENED IN THE FRAME ON ALL FOUR SIDES BY MEANS OF TENSION BARS AND CLIPS. THREE STRANDS OF BARBED WIRE SHALL BE FASTENED TO THE EXTENDED FRAMES OF GATE. EACH FRAME TO BE EQUIPPED WITH 3/8" DIAMETER ADJUSTABLE TRUSS ROD, HINGES, POSITIVE TYPE LATCHING DEVICE WITH PROVISIONS FOR PADLOCKING. ALL DRIVE GATES TO BE PROVIDED WITH CENTER PLUNGER ROD, CATCH AND SEMI-AUTOMATIC OUTER CATCHES TO SECURE GATES IN OPEN POSITION.
17) FENCE SECTION
COMPANY TYPE - A-8
FABRIC HEIGHT - 96"
TOTAL FENCE HEIGHT - 10'-0"

TUF GUARD GATE:
18) SPECIFICATIONS SHOWN CAN BE CHANGED WITH ENGINEERING APPROVAL.
19) FOOTING WIDTH TO BE (4)X POST WIDTH. VERIFY FOOTING DEPTH AND WIDTH WITH LOCAL CODES AND SITE CONDITIONS.
20) ALL COMPONENTS OF THE TUF GUARD WILL BE COATED BLACK, EXCEPT FOR THE HANDLE WITH ELECTRONIC LOCK, PANIC BAR, AND CLOSER.
21) OUTSIDE LOOKING IN, GATE WILL LATCH ON LEFT AND OPEN OUTSIDE OF FENCE LINE.

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NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
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B	05-07-2021	REISSUED FOR PERMITTING	HEC	MEB	CDW

DESCRIPTION	
AREA CODE	-
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2771
DRAWING BY	HEC
STATION ID	STA 914
CHECKER INITIALS	MEB

APPROVALS	DATE	INITIALS
REGIONAL ENGINEER		
MGR TECH REC & STD		
PRINCIPAL ENGINEER	05-07-2021	CDW

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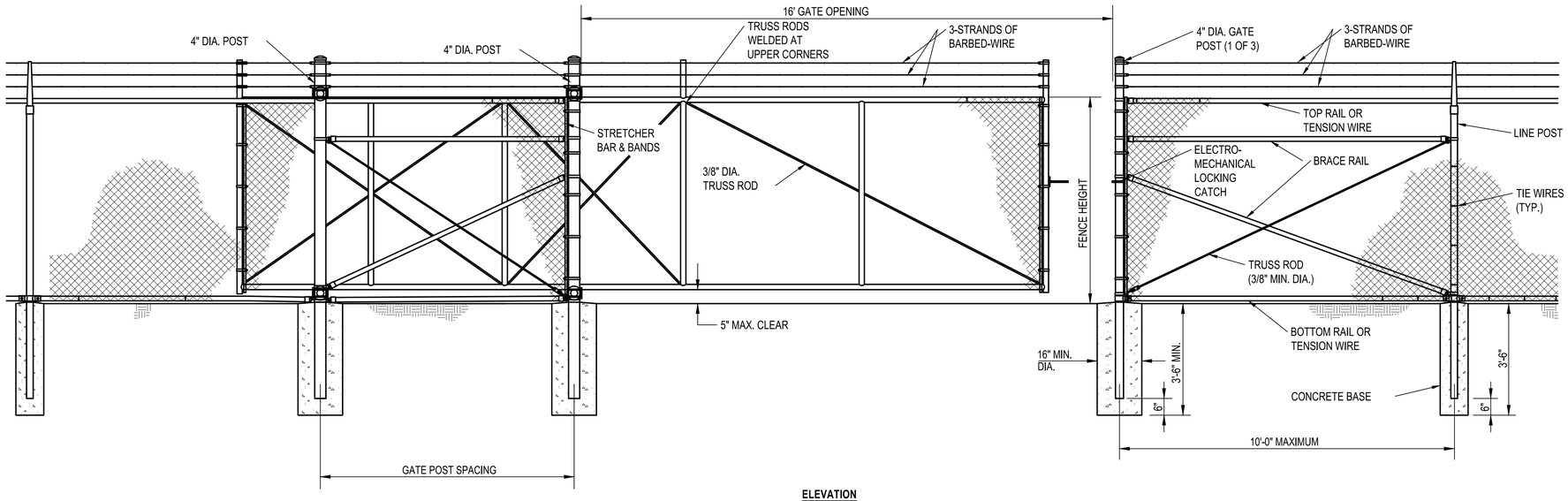
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MASON STATION CAPACITY IMPROVEMENT
GRADING DETAILS - 1
BUTLER COUNTY, OHIO
TODHUNTER RESOURCE CENTER, OHIO

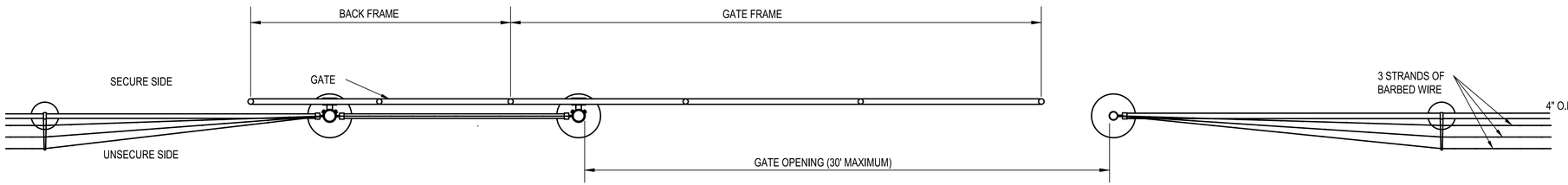
SHEET(S) 1 OF 3	DWG SCALE AS NOTED
DWG DATE 01/07/2021	SUPERSEDED —
DRAWING NUMBER PNG -C-042-0001139	REVISION B

DISCIPLINE / RESOURCE CENTER / LINE NUMBER

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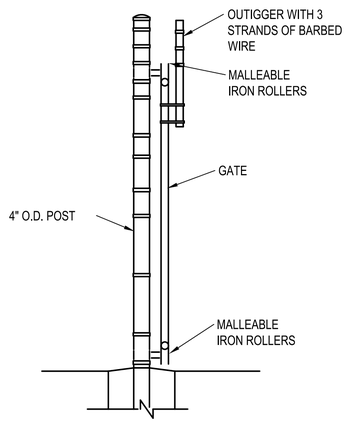
ELEVATION
NO SCALE



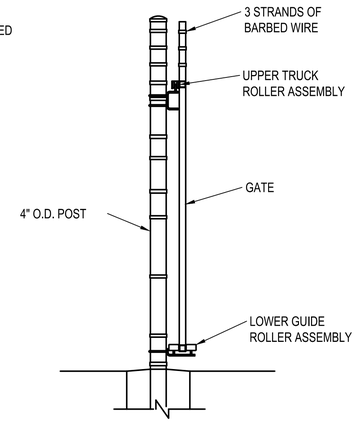
PLAN
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DETAIL 1
SCALE: NTS
SLIDE GATE

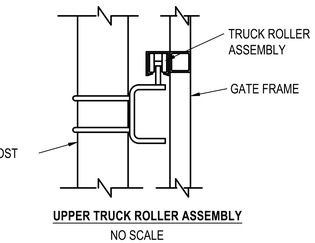
NOTES:
1. CANTILEVERED SLIDE GATES SHALL CONFORM TO ASTM F1184.
2. GATE FRAMES SHALL BE EITHER ZINC-COATED STEEL.
3. ROLLERS SHALL BE EITHER INTERNAL OR EXTERNAL.
4. DETAILS SHOWN ARE TO CLARIFY REQUIREMENTS AND ARE NOT INTENDED TO LIMIT OTHER TYPES OF GATE SECTIONS AND METHODS OF INSTALLATION.
5. GATE SHALL BE GROUNDED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.



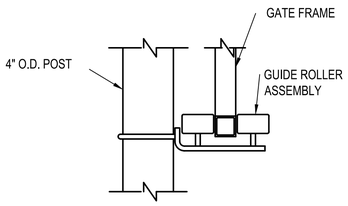
EXTERNAL ROLLERS



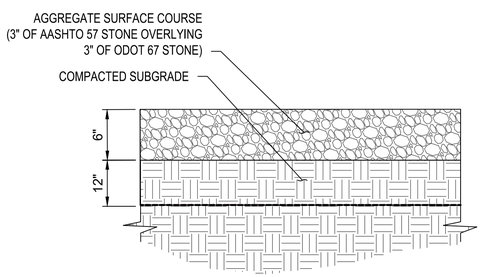
INTERNAL ROLLERS



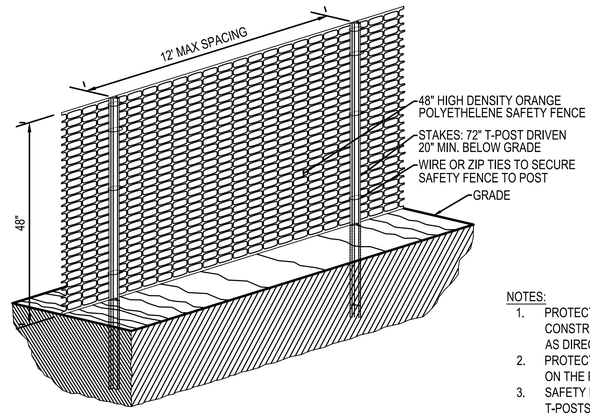
UPPER TRUCK ROLLER ASSEMBLY
NO SCALE



LOWER GUIDE ROLLER ASSEMBLY
NO SCALE



DETAIL 2
SCALE: NTS
SURFACE COURSE MATERIAL



DETAIL 3
SCALE: NTS
PROTECTION FENCING AND SIGNAGE

PROTECTED AREA
DO NOT DISTURB

NOTES:
1. PROTECTION FENCING IS TO BE INSTALLED PRIOR TO CONSTRUCTION & MAINTAINED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER.
2. PROTECTION FENCING TO BE INSTALLED WHERE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
3. SAFETY FENCE SHOULD BE FASTENED SECURELY TO THE T-POSTS.
4. ADD SIGNAGE TO PROTECTION FENCE EVERY 50' AS INDICATED.

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DATE	INITIALS	MGR TECH REC & STD
DATE 05-07-2021	INITIALS CDW	PRINCIPAL ENGINEER

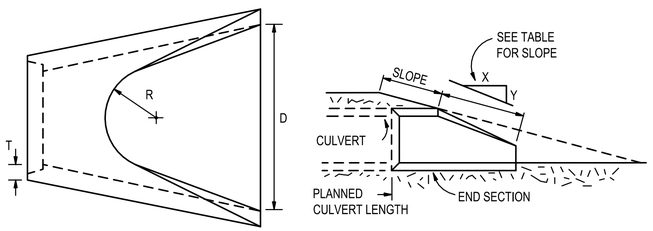
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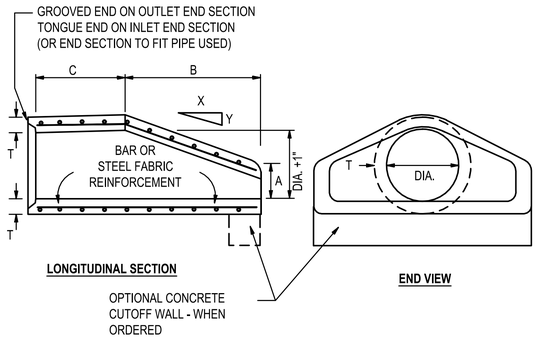
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GRADING DETAILS - 2
BUTLER COUNTY, OHIO
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SHEET(S) 2 OF 3	DWG SCALE AS NOTED
DWG DATE 01/07/2021	SUPERSEDED —
DRAWING NUMBER PNG -C-042-0001140	REVISION B
DISCIPLINE / RESOURCE CENTER / LINE NUMBER	

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PLAN **SLOPE DETAIL**



LONGITUDINAL SECTION **END VIEW**

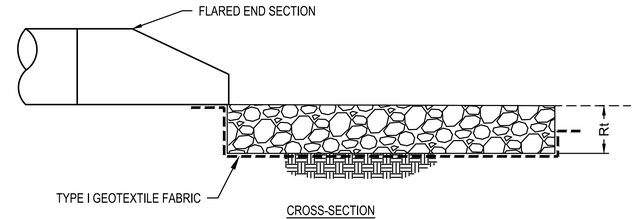
NOTES:

1. DESIGN OF END SECTION SHALL CONFORM TO STANDARD REINFORCED CONCRETE PIPE.
2. CUT OFF WALL TO BE POURED IN FIELD, IF NECESSARY, AS DIRECTED BY THE ENGINEER.
3. PAYMENT FOR THE CUT OFF WALL WILL BE MADE UNDER THE APPROPRIATE CONTRACT ITEMS.

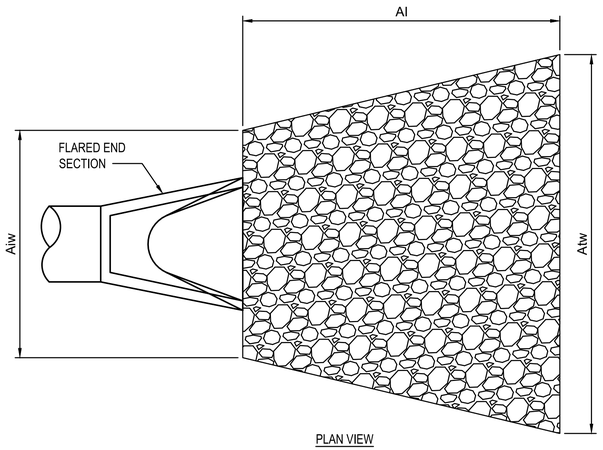
ITEM NO.	PIPE DIA.	APPROX. SLOPE X to Y	A	B	C	D	R	T
603.30112	12"	3 TO 1	4"	24"	48 7/8"	24"	9"	2"
603.30115	15"	3 TO 1	6"	27"	46"	30"	11"	2 1/4"
603.30118	18"	3 TO 1	9"	27"	46"	36"	12"	2 1/2"

DETAIL 1
SCALE: NTS

CONCRETE END SECTION FOR
REINFORCED CONCRETE PIPE



CROSS-SECTION



PLAN VIEW

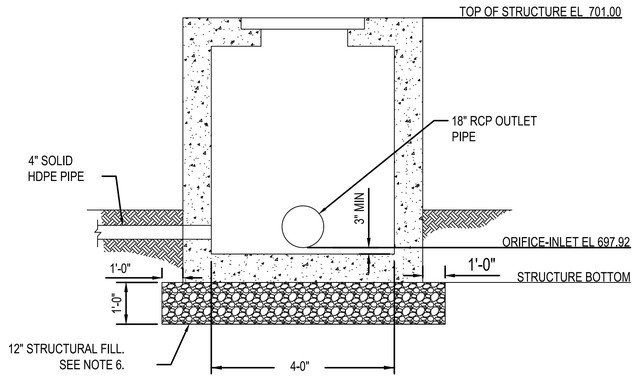
NOTES:

1. THE SUBGRADE FOR GEOTEXTILE FABRIC AND RIP-RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN.
2. THE ROCK USED FOR RIP-RAP SHALL CONFORM TO NHDOT CLASS C STONE.
3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP-RAP. DAMAGED AREAS IN THE FABRIC SHALL BE PREPARED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
4. STONE FOR THE RIP-RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

PIPE DIA Pd (IN)	RIP RAP		APRON		
	SIZE (R-)	THICK. Rt (IN)	LENGTH Al (FT)	INITIAL WIDTH Aiw (FT)	TERMINAL WIDTH Atw (FT)
12	4	12	10	2.5	7
15	4	12	10	3	8

DETAIL 2
SCALE: NTS

OUTLET PROTECTION

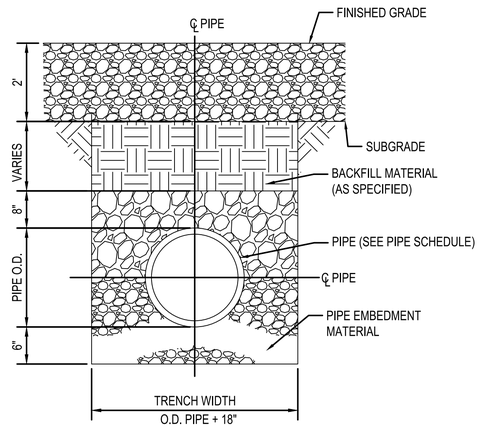


NOTES:

1. OUTLET STRUCTURE IS TO BE PRECAST CONCRETE AND H20 RATED FOR HEAVY LOADING.
2. REINFORCEMENT IN ALL SECTIONS SHALL EQUAL OR EXCEED A.S.T.M. C-478 SPECIFICATIONS.
3. PRECAST CATCH BASIN CONNECTION TO HDPP PIPES SHALL CONFORM TO ASTM F2510/F2510M-WATERTIGHT CONNECTION SHALL BE MADE WITH ADS A-LOK GASKET OR APPROVED EQUAL. SEE ADS STD-204A FOR DETAILS.
4. INSTALLATION OF PIPE OPENINGS: ALL REQUIRED PIPE OPENINGS SHALL BE PLAN CAST IN MANHOLE UNITS. FIELD ALTERATIONS OF OPENINGS WILL BE PERMITTED PROVIDED WALLS ARE SCORED WITH A MASONRY SAW TO A DEPTH SUFFICIENT TO SEVER REINFORCING STEEL. A CHIPPING HAMMER MAY THEN BE USED TO REMOVE THE CONCRETE. MINIMUM DISTANCE BETWEEN ANY TWO ADJACENT PIPES SHALL BE 4".
5. PRECAST CATCH BASIN TO CONFORM TO REQUIREMENTS OF ASTM SPEC. C-913 "PRECAST CONCRETE WATER AND WASTEWATER STRUCTURES".
6. A MINIMUM OF 12" OF 3/4" CLEAN STONE SHALL BE USED AS BACKFILL ON ALL SIDES. THE MATERIAL USED FOR GRANULAR BASE SHALL CONFORM WITH ASTM C33 SIZE NO. 67 AND SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D1557 OR 85% RELATIVE DENSITY AS DETERMINED BY ASTM D4253 AND D4254.
7. STORM DRAIN PIPES SHALL BE ADS POLYPROPELENE "HP STORM" PIPES OR ENGINEER APPROVED EQUIVALENT.
8. CATCH BASIN COVER SHALL BE NEENAH HEAVY DUTY MANHOLE GRATE (R-2557-G) OR ENGINEER APPROVED EQUAL AS INDICATED IN SCHEDULE.
9. POUR 2500 PSI CONCRETE OR HIGH STRENGTH, NON-SHRINK, NON METALLIC GROUT BETWEEN INLET AND OUTLET INVERT ELEVATIONS.

DETAIL 3
SCALE: NTS

OUTLET STRUCTURE



DETAIL 4
SCALE: NTS

TYPICAL STORMWATER PIPE TRENCH

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DWG DATE	01/07/2021	SUPERSEDED	—

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REVISION: B
DISCIPLINE / RESOURCE CENTER / LINE NUMBER

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GENERAL NOTES FOR SEDIMENT POLLUTANT CONTROLS:

1. PERIMETER SEDIMENT CONTROL MEASURES (FILTER SOCK) SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN SEVEN (7) DAYS FROM THE START OF GRUBBING AND SHALL CONTINUE TO FUNCTION UNTIL UPSLOPE AREAS DRAINING TO THEM ARE PERMANENTLY STABILIZED.

2. EXISTING STORM DRAINAGE SYSTEM SHALL BE FLUSHED OF SEDIMENT PRIOR TO BEGINNING GRADING ACTIVITIES.

3. NO EROSION AND SEDIMENT CONTROL BMPS SHALL BE REMOVED FROM THE SITE PRIOR TO ADEQUATE PERMANENT STABILIZATION OF THE ASSOCIATED UPLAND DRAINAGE AREAS. ALL BMPS WILL BE MAINTAINED IN ACCORDANCE WITH OHIO EPA GENERAL NPDES PERMIT AUTHORIZATION FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITY.

4. THERE SHALL BE NO SEDIMENT-LADEN OR TURBID DISCHARGES TO WATER RESOURCES OR WETLANDS RESULTING FROM DEWATERING ACTIVITIES. IF TRENCH OR GROUNDWATER CONTAINS SEDIMENT, IT MUST PASS THROUGH A SEDIMENT TRAP OR OTHER EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE, PRIOR TO BEING DISCHARGED FROM THE CONSTRUCTION SITE. ALTERNATIVELY, SEDIMENT MAY BE REMOVED BY SETTLING IN PLACE OR BY DEWATERING INTO A SUMP PIT, FILTER BAG OR COMPARABLE PRACTICE. GROUND WATER DEWATERING WHICH DOES NOT CONTAIN SEDIMENT OR OTHER POLLUTANTS IS NOT REQUIRED TO BE TREATED PRIOR TO DISCHARGE. HOWEVER, CARE MUST BE TAKEN WHEN DISCHARGING GROUND WATER TO ENSURE THAT IT DOES NOT BECOME POLLUTANT-LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES.

5. STREETS DIRECTLY ADJACENT TO CONSTRUCTION ENTRANCES AND RECEIVING TRAFFIC FROM THE DEVELOPMENT AREA, SHALL BE CLEANED DAILY TO REMOVE SEDIMENT TRACKED OFF-SITE. IF APPLICABLE, THE CATCH BASINS ON THESE STREETS NEAREST TO THE CONSTRUCTION ENTRANCES SHALL ALSO BE CLEANED WEEKLY.

6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, OR HIS/HER REPRESENTATIVE, TO INSPECT ALL CONTROLS ON THE SITE AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN TWENTY-FOUR (24) HOURS AFTER ANY STORM EVENT GREATER THAN ONE-HALF INCH OF RAIN PER TWENTY-FOUR (24) HOUR PERIOD. WHEN INSPECTIONS REVEAL THE NEED FOR REPAIR, REPLACEMENT, OR INSTALLATION OF EROSION AND SEDIMENT CONTROL BMPS, THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:

   A. WHEN PRACTICES REQUIRE REPAIR OR MAINTENANCE: IF AN INTERNAL INSPECTION REVEALS THAT A CONTROL PRACTICE IS IN NEED OF REPAIR OR MAINTENANCE, WITH THE EXCEPTION OF A SEDIMENT-SETTLING POND, IT MUST BE REPAIRED OR MAINTAINED WITHIN THREE (3) DAYS OF THE INSPECTION. SEDIMENT-SETTLING PONDS MUST BE REPAIRED OR MAINTAINED WITHIN TEN (10) DAYS OF THE INSPECTION.

   B. WHEN PRACTICES FAIL TO PROVIDE THEIR INTENDED FUNCTION: IF AN INTERNAL INSPECTION REVEALS THAT A CONTROL PRACTICE FAILS TO PERFORM ITS INTENDED FUNCTION AS DETAILED IN THE SWP3 AND THAT ANOTHER, MORE APPROPRIATE CONTROL PRACTICE IS REQUIRED, THE SWP3 MUST BE AMENDED AND THE NEW CONTROL PRACTICE MUST BE INSTALLED WITHIN TEN (10) DAYS OF THE INSPECTION.

   C. WHEN PRACTICES DEPICTED ON THE SWPPP ARE NOT INSTALLED: IF AN INTERNAL INSPECTION REVEALS THAT A CONTROL PRACTICE HAS NOT BEEN IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE, THE CONTROL PRACTICE MUST BE IMPLEMENTED WITHIN TEN (10) DAYS FROM THE DATE OF THE INSPECTION. IF THE INTERNAL INSPECTION REVEALS THAT THE PLANNED CONTROL PRACTICE IS NOT NEEDED, THE RECORD MUST CONTAIN A STATEMENT OF EXPLANATION AS TO WHY THE CONTROL PRACTICE IS NOT NEEDED.

7. THE APPLICANT SHALL MAINTAIN FOR THREE (3) YEARS FOLLOWING FINAL STABILIZATION THE RESULTS OF THESE INSPECTIONS, THE NAMES AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTIONS, THE DATES OF INSPECTIONS, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE SWP3, A CERTIFICATION AS TO WHETHER THE FACILITY IS IN COMPLIANCE WITH THE SWP3, AND INFORMATION ON ANY INCIDENTS OF NON-COMPLIANCE DETERMINED BY THESE INSPECTIONS.

8. ALL EROSION AND SEDIMENT CONTROL PRACTICES SPECIFIED ON THIS PLAN SHALL CONFORM WITH DETAILS AND SPECIFICATIONS OUTLINED IN THE CURRENT VERSION OF THE OHIO DEPARTMENT OF NATURAL RESOURCES BOOKLET, "RAINWATER AND LAND DEVELOPMENT" OR OTHER STANDARDS ACCEPTABLE TO OHIO EPA.

9. EROSION AND SEDIMENT CONTROL PRACTICES NOT ALREADY SPECIFIED ON THIS PLAN MAY BE NECESSARY DUE TO UNFORESEEN ENVIRONMENTAL CONDITIONS AND/OR CHANGES IN DRAINAGE PATTERNS CAUSED BY EARTH-MOVING ACTIVITY.

10. NO STRUCTURAL SEDIMENT CONTROLS (E.G. FILTER SOCK, SEDIMENT TRAPS, ETC.) SHALL BE USED IN A WATER RESOURCE OR WETLAND, UNLESS THEIR USE IS SPECIFICALLY PROVIDED FOR WITHIN THE SITE'S APPROVED PLAN.

11. SOIL STOCKPILES, TOPSOIL OR OTHERWISE, SHALL BE SITUATED AWAY FROM STREETS, SWALES, OR OTHER WATERWAYS AND SHALL BE SEEDED AND/OR MULCHED IN ACCORDANCE WITH THE OHIO EPA TIMEFRAME FOR STABILIZATION.

12. STORM DRAINAGE SHALL BE FLUSHED OF SEDIMENT AFTER COMPLETION OF CONSTRUCTION.

13. ON-SITE PERSONNEL SHALL TAKE ALL NECESSARY MEASURES TO COMPLY WITH APPLICABLE REGULATIONS REGARDING FUGITIVE DUST EMISSIONS. FUGITIVE DUST EMISSIONS SHALL BE CONTROLLED IN ACCORDANCE WITH OAC-3745-17-08.

14. FINAL STABILIZATION REQUIREMENTS SHALL INCLUDE A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF AT LEAST 80% COVER FOR ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES OR EQUIVALENT STABILIZATION MEASURES.

PERMANENT/TEMPORARY SEEDING, FERTILIZING, AND MULCHING:

1. ALL ACTIVITIES, MATERIALS, EQUIPMENT AND PERFORMANCE IN CONNECTION WITH ESTABLISHING TURF SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
2. PERMANENT SEEDING SPECIES AND RATES SHALL BE IN ACCORDANCE WITH THE SEEDING SPECIFICATION.
3. TEMPORARY TOPSOIL STOCKPILE SHALL BE SEEDED AT A RATE OF 150 POUNDS OF PURE LIVE SEED (PLS) PER ACRE IF LEFT UNDISTURBED FOR OVER 7 DAYS. SEEDING RATE SHALL BE 80 LBS/ACRE CEREAL RYE OR WHEAT PLUS 20 LBS/ACRE ANNUAL RYEGRASS.
4. ACTIVITIES ASSOCIATED WITH APPLICATION OF LIME, SEED, MULCH, COMPACTING, WATERING, MAINTENANCE AND PROTECTION SHALL BE IN ACCORDANCE WITH SPECIFICATIONS.
5. STABILIZATION SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLES.

PERMANENT STABILIZATION

AREAS REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS:
ANY AREAS THAT WILL LIE DORMANT FOR ONE (1) YEAR OR MORE	WITHIN SEVEN (7) DAYS OF THE MOST RECENT DISTURBANCE
ANY DISTURBED ARE WITHIN FIFTY (50) FEET OF A STREAM AND AT FINAL GRADE.	WITHIN TWO (2) DAYS OF REACHING FINAL GRADE.
ANY OTHER AREAS AT FINAL GRADE	WITHIN SEVEN (7) DAYS OF REACHING FINAL GRADE WITHIN THAT AREA
NOTE: WHERE VEGETATIVE STABILIZATION TECHNIQUES MAY CAUSE STRUCTURAL INSTABILITY OR ARE OTHERWISE UNOBTAINABLE, ALTERNATIVE STABILIZATION TECHNIQUES MUST BE EMPLOYED. THESE TECHNIQUES MAY INCLUDE MULCHING OR EROSION MATTING.	

TEMPORARY STABILIZATION

AREAS REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS:
ANY DISTURBED AREA WITHIN FIFTY (50) FEET OF A STREAM AND NOT AT FINAL GRADE.	WITHIN TWO (2) DAYS OF THE MOST RECENT DISTURBANCE IF THAT AREA WILL REMAIN IDLE FOR MORE THAN FOURTEEN (14) DAYS.
FOR ALL CONSTRUCTION ACTIVITIES, ANY DISTURBED AREA, INCLUDING SOIL STOCKPILES THAT WILL BE DORMANT FOR MORE THAN FOURTEEN (14) DAYS BUT LESS THAN ONE YEAR, AND NOT WITHIN FIFTY (50) FEET OF A STREAM.	WITHIN SEVEN (7) DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA.
DISTURBED AREA THAT WILL BE IDLE OVER WINTER.	PRIOR TO THE ONSET OF WINTER WEATHER/NOVEMBER 1ST.
NOTE: WHERE VEGETATIVE STABILIZATION TECHNIQUES MAY CAUSE STRUCTURAL INSTABILITY OR ARE OTHERWISE UNOBTAINABLE, ALTERNATIVE STABILIZATION TECHNIQUES MUST BE EMPLOYED. THESE TECHNIQUES MAY INCLUDE MULCHING OR EROSION MATTING.	

GENERAL NOTES FOR NON-SEDIMENT POLLUTANT CONTROLS:

1. CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER CONVEYANCE. A SUMP OR PIT WITH NO POTENTIAL FOR DISCHARGE SHALL BE CONSTRUCTED IF NEEDED TO CONTAIN CONCRETE WASH WATER. FIELD TILE OR OTHER SUBSURFACE DRAINAGE STRUCTURES WITHIN 10 FT. OF THE SUMP SHALL BE CUT AND PLUGGED. FOR SMALL PROJECTS, TRUCK CHUTES MAY BE RINSED AWAY FROM ANY WATER CONVEYANCES.

2. CONSTRUCTION MATERIALS THAT POSE A POTENTIAL CONTAMINATION THREAT TO STORM WATER SHALL BE MANAGED TO MINIMIZE EXPOSURE TO STORM WATER. MATERIALS SHALL BE KEPT IN SECURE CONTAINERS AND PROPERLY LABELED. SOLID AND LIQUID WASTE AND OTHER WASTES SHALL BE DISPOSED OF PROPERLY IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL DISPOSAL REQUIREMENTS. DISPOSAL SHALL BE CONSISTENT WITH APPLICABLE STATE AND/OR LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS AND SHALL PROVIDE FOR THE PROPER DISPOSAL OF CONTAMINATED SOILS TO THE EXTENT THESE ARE LOCATED WITHIN THE PERMITTED AREA.

3. HANDLING CONSTRUCTION CHEMICALS. MIXING, PUMPING, TRANSFERRING OR OTHER HANDLING OF CONSTRUCTION CHEMICALS SUCH AS FERTILIZER, LIME, ASPHALT, CONCRETE DRYING COMPOUNDS, AND ALL OTHER POTENTIALLY HAZARDOUS MATERIALS SHALL BE PERFORMED IN AN AREA AWAY FROM ANY WATERCOURSE, DITCH OR STORM DRAIN.

4. EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED IN ACCORDANCE WITH THE SITE SPECIFIC SWP3 AND GENERAL PERMIT.

5. THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ON SITE DURING THE CONSTRUCTION PROJECT:

   A. AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.

   B. ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.

   C. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE MANUFACTURER'S LABEL. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.

   D. WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.

   E. THE MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.

   F. PROPER USE AND DISPOSAL OF MATERIALS ON SITE SHALL BE IN ACCORDANCE WITH THE SITE SPECIFIC SWP3.

6. IN ADDITION TO PREVIOUS NOTES, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEAN-UP:

   A. SPILL CLEAN-UP AND PROCEDURES SHALL BE IN CONFORMANCE WITH THE SITE SPECIFIC SWP3.

   B. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT READILY AVAILABLE ON THE SITE IN ACCORDANCE WITH THE SITE SPECIFIC SWP3.

   C. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

   D. SPILLS OF TOXIC OR HAZARDOUS MATERIALS SHALL BE ADDRESSED AND REPORTED IN CONFORMANCE WITH THE SITE SPECIFIC SWP3.

   E. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

   F. SPILL CONTROL AND CLEANUP AND SITE PERSONNEL AWARENESS SHALL BE IN CONFORMANCE WITH THE SITE SPECIFIC SWP3.

SOIL CLASSIFICATIONS:

UrUXC — URBAN LAND
UDORTHENTS COMPLEX
0 TO 12 PERCENT SLOPES
GROUP D

PER THE USDA NATURAL RESOURCES CONSERVATION SERVICE, THIS SOIL IS DEFINED AS FOLLOWS:

GROUP D: SOILS HAVING A VERY SLOW INFILTRATION RATE (HIGH RUNOFF POTENTIAL) WHEN THOROUGHLY WET. THESE CONSIST CHIEFLY OF CLAYS THAT HAVE A HIGH SHRINK-SWELL POTENTIAL, SOILS THAT HAVE A HIGH WATER TABLE, SOILS THAT HAVE A CLAYPAN OR CLAY LATER AT OR NEAR THE SURFACE, AND SOILS THAT ARE SHALLOW OVER NEARLY IMPERVIOUS MATERIAL. THESE SOILS HAVE A VERY SLOW RATE OF WATER TRANSMISSION.

SEEDING SCHEDULE:

TYPE 1 MIX - CUT AND EMBANKMENT FILL AREAS (NON-WET)/CHANNELS

BOTANICAL NAME	COMMON NAME	RATE OF PURE LIVE SEED (PLS) PER ACRE:
Festuca Arundinacea	TALL FESCUE	40-50 LBS

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DESCRIPTION	
AREA CODE	-
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2771
DRAWING BY	HEC
STATION ID	STA 914
CHECKER INITIALS	MEB

APPROVALS		
DATE	INITIALS	REGIONAL ENGINEER
DATE	INITIALS	MGR. TECH REC & STD
DATE 05-07-2021	INITIALS CDW	PRINCIPAL ENGINEER

DUKE ENERGY. Piedmont Natural Gas

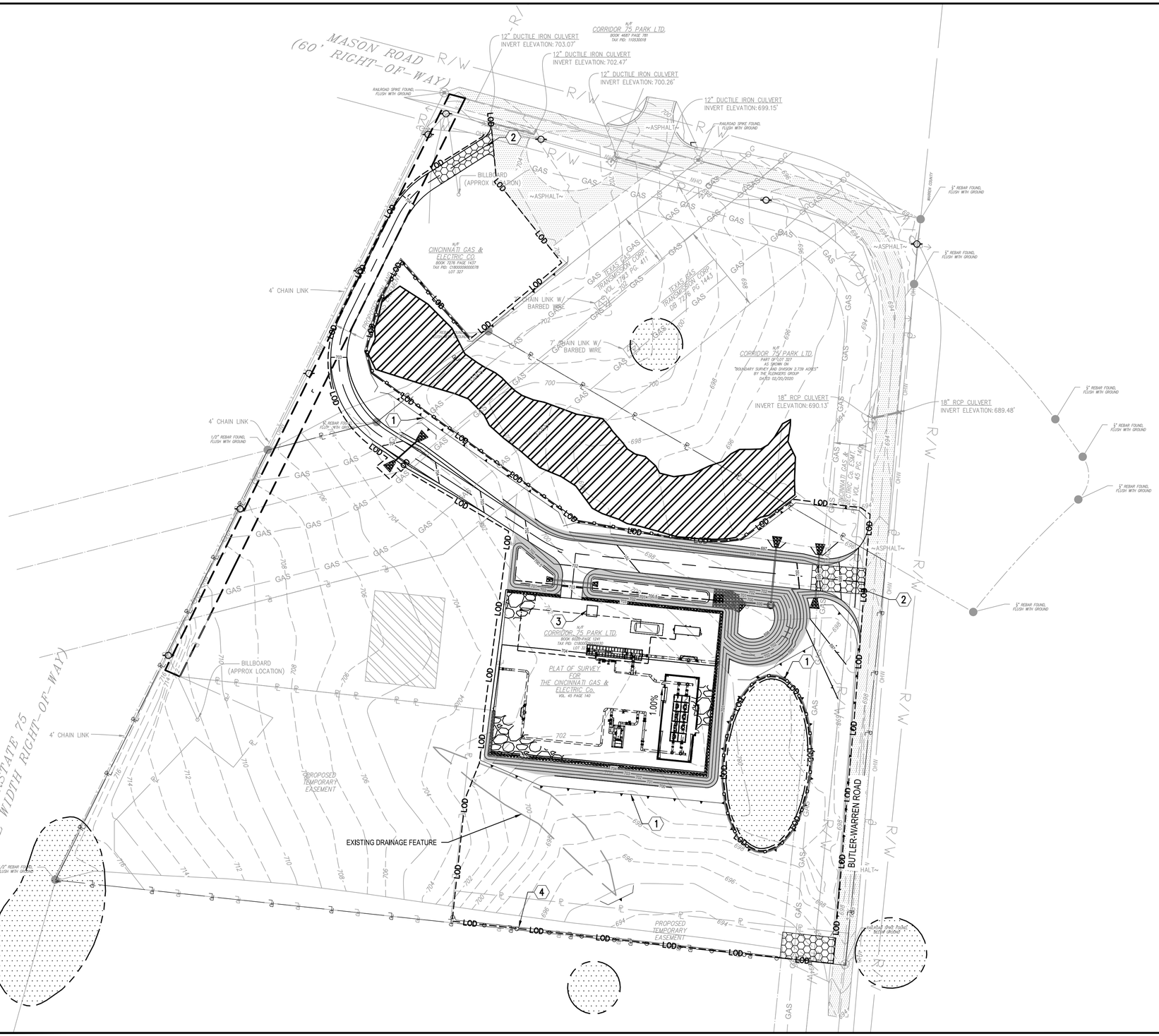
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MASON STATION CAPACITY IMPROVEMENT
ES&PC NOTES
BUTLER COUNTY, OHIO
TODHUNTER RESOURCE CENTER, OHIO

PROFESSIONAL ENG/ARCH STAMP

SHEET(S) 1 OF 1 | DWG SCALE NONE
DWG DATE 01/07/2021 | SUPERSEDED __
DRAWING NUMBER PNG -C-042-0001142 | REVISION B
DISCIPLINE / RESOURCE CENTER / LINE NUMBER

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NOTES:

1. THE EXISTING SITE UTILITIES AND FEATURES SHOWN ARE BASED ON A FIELD RUN TOPOGRAPHIC SURVEY PERFORMED BY SGC ENGINEERING, LLC, IN NOVEMBER 2020. COORDINATES ARE IN OHIO STATE PLANE SOUTH ZONE, 3702, NAD83 HORTIZONTAL DATUM AND NAVD88 VERTICAL DATUM.
2. SEE SHEET C-042-0001131 FOR CIVIL GENERAL NOTES AND ABBREVIATIONS.
3. SEE SHEET C-042-0001139 FOR GENERAL EROSION CONTROL NOTES.
4. SEE SHEET C-042-0001139 FOR TEMPORARY AND PERMANENT STABILIZATION REQUIREMENTS AND SEEDING SCHEDULES.
5. ALL DIMENSIONS SHOWN ARE IN FEET UNLESS NOTED OTHERWISE.

KEY NOTES:

1. FIBER ROLL — 4 / 1145
2. TEMPORARY CONSTRUCTION ENTRANCE — 1 / 1144
3. CONCRETE WASHOUT — 2 / 1144
4. SUPER SILT FENCE — 5 / 1145

LEGEND:

- CONSTRUCTION ENTRANCE
- FIBER ROLL
- SUPER SILT FENCE
- LOD — LIMITS OF DISTURBANCE
- PROTECTION FENCING
- EROSION CONTROL BLANKET

N

0 50' 100'
SCALE IN FEET

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DUKE ENERGY. Piedmont Natural Gas

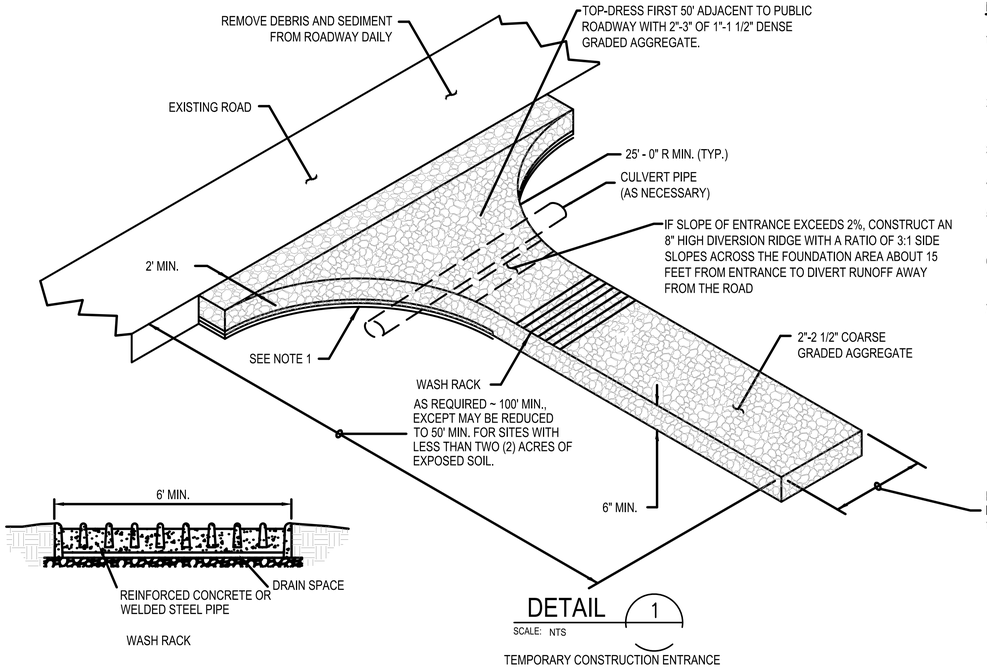
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DRAWING NUMBER PNG -C-042-0001143 | REVISION B
DISCIPLINE / RESOURCE CENTER / LINE NUMBER

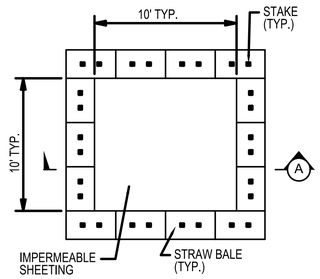
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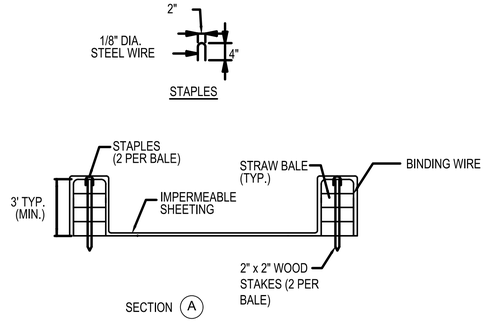
DETAIL 1
SCALE: NTS
TEMPORARY CONSTRUCTION ENTRANCE

NOTES:

1. PLACE 8 OZ/SY NON-WOVEN GEOTEXTILE FABRIC UNDERLINER TO STABILIZE FOUNDATION (ESPECIALLY WHEN WET CONDITIONS ARE EXPECTED) TO EXTEND 2' FROM OUTSIDE EDGE. GEOGRID CAN ALSO BE ADDED FOR INCREASED STABILITY.
2. COUNTY OR STATE HIGHWAY ACCESS PERMITTING MAY BE REQUIRED FOR PLACEMENT OF ENTRANCE.
3. CULVERT PLACEMENT MAY BE REQUIRED TO MAINTAIN FLOW.
4. WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS.
5. WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.
6. A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.
7. MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK. ALL SEDIMENT DEPOSITED ON ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.



PLAN VIEW

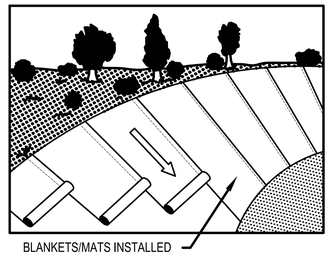


SECTION (A)

NOTES:

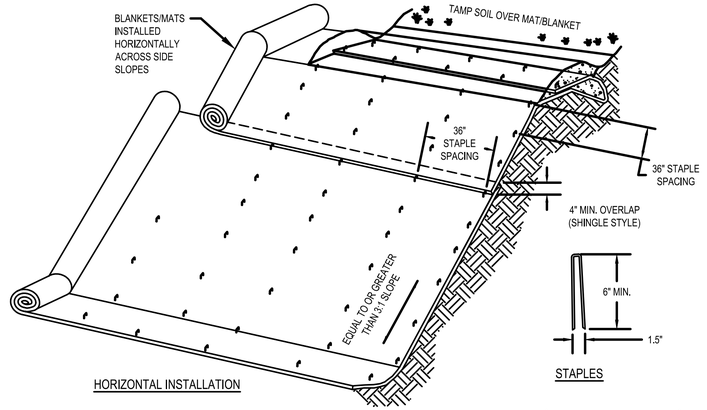
1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.
6. BALES CAN BE TWO STACKED OR PARTIALLY EXCAVATED TO REACH 3FT DEPTH (MIN.).
7. PREFABRICATED UNITS MAY BE USED WITH APPROVAL.

DETAIL 2
SCALE: NTS
CONCRETE WASHOUT



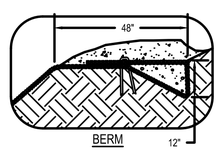
BLANKETS/MATS INSTALLED VERTICALLY ON SEVERE OR LONGER SLOPES. SEE HORIZONTAL INSTALLATION FOR DETAILS.

VERTICAL INSTALLATION



HORIZONTAL INSTALLATION

STAPLES



BERM

DETAIL 3
SCALE: NTS
EROSION CONTROL BLANKET

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ACCOUNT NUMBER	-			
PROJECT NUMBER	AW2771	DATE	INITIALS	MGR TECH REC & STD
DRAWING BY	HEC			
STATION ID	STA 914	DATE	INITIALS	PRINCIPAL ENGINEER
CHECKER INITIALS	MEB	05-07-2021	CDW	

DUKE ENERGY. Piedmont Natural Gas

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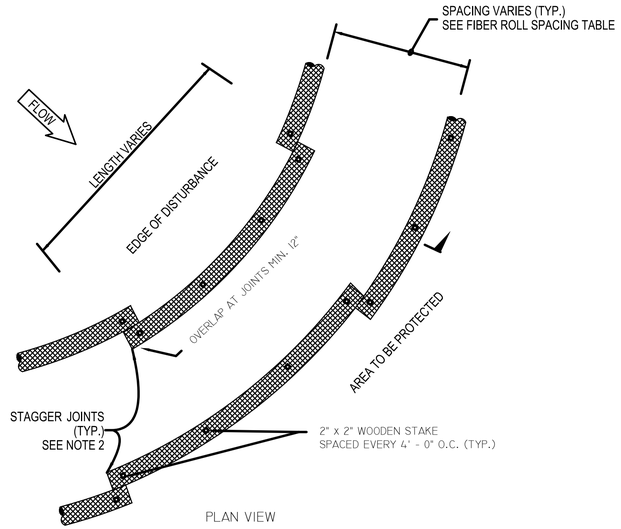
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ES&PC DETAILS - 1
BUTLER COUNTY, OHIO
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SHEET(S)	1 OF 1	DWG SCALE	AS NOTED
DWG DATE 01/07/2021	SUPERSEDED		—

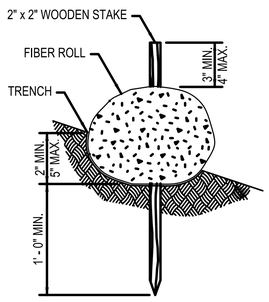
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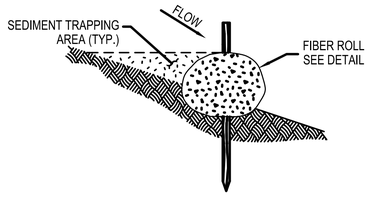
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PLAN VIEW



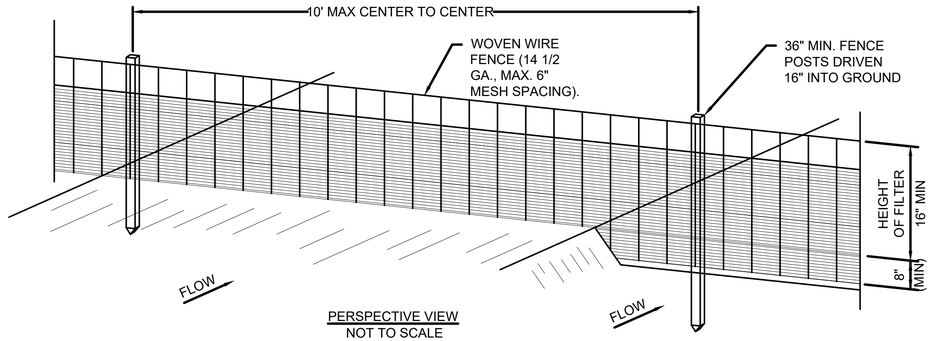


TYPICAL SECTION

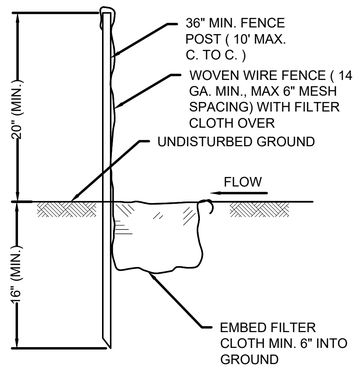
NOTES:

1. INSTALL FIBER ROLLS ALONG CONTOURS DURING FINAL RESTORATION TO CHECK FLOW TO ALLOW ADEQUATE REVEGETATION.
2. ABUT ADJACENT FIBER ROLLS TIGHTLY WHILE OVERLAPPING THE ENDS. STAGGER JOINTS WITH THE NEXT PARALLEL ROW.
3. PILOT HOLES MAY BE DRIVEN THROUGH THE FIBER ROLLS AND INTO THE SOIL WHEN SOIL CONDITIONS REQUIRE.
4. FIBER ROLLS SHALL BE INSPECTED REGULARLY, AND IMMEDIATELY AFTER A RAINFALL PRODUCES RUNOFF, TO ENSURE THEY REMAIN THOROUGHLY ENTRENCHED AND IN CONTACT WITH THE SOIL.
5. A SINGLE ROW MAY BE INSTALLED ON FLAT SLOPES.

DETAIL 4
SCALE: NTS
FIBER ROLL



PERSPECTIVE VIEW
NOT TO SCALE



NOTES:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

POSTS: STEEL EITHER "T" OR "U" TYPE OR 2" HARDWOOD.

FENCE: WOVEN WIRE 14 1/2 GA. 6" MAX. MESH OPENING.

FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

DETAIL 5
SCALE: NTS
SUPER SILT FENCE

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MGR TECH REC & STD		
PRINCIPAL ENGINEER	05-07-2021	CDW

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DRAWING NUMBER	PNG -C-042-0001145
REVISION	B

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PLANT SCHEDULE

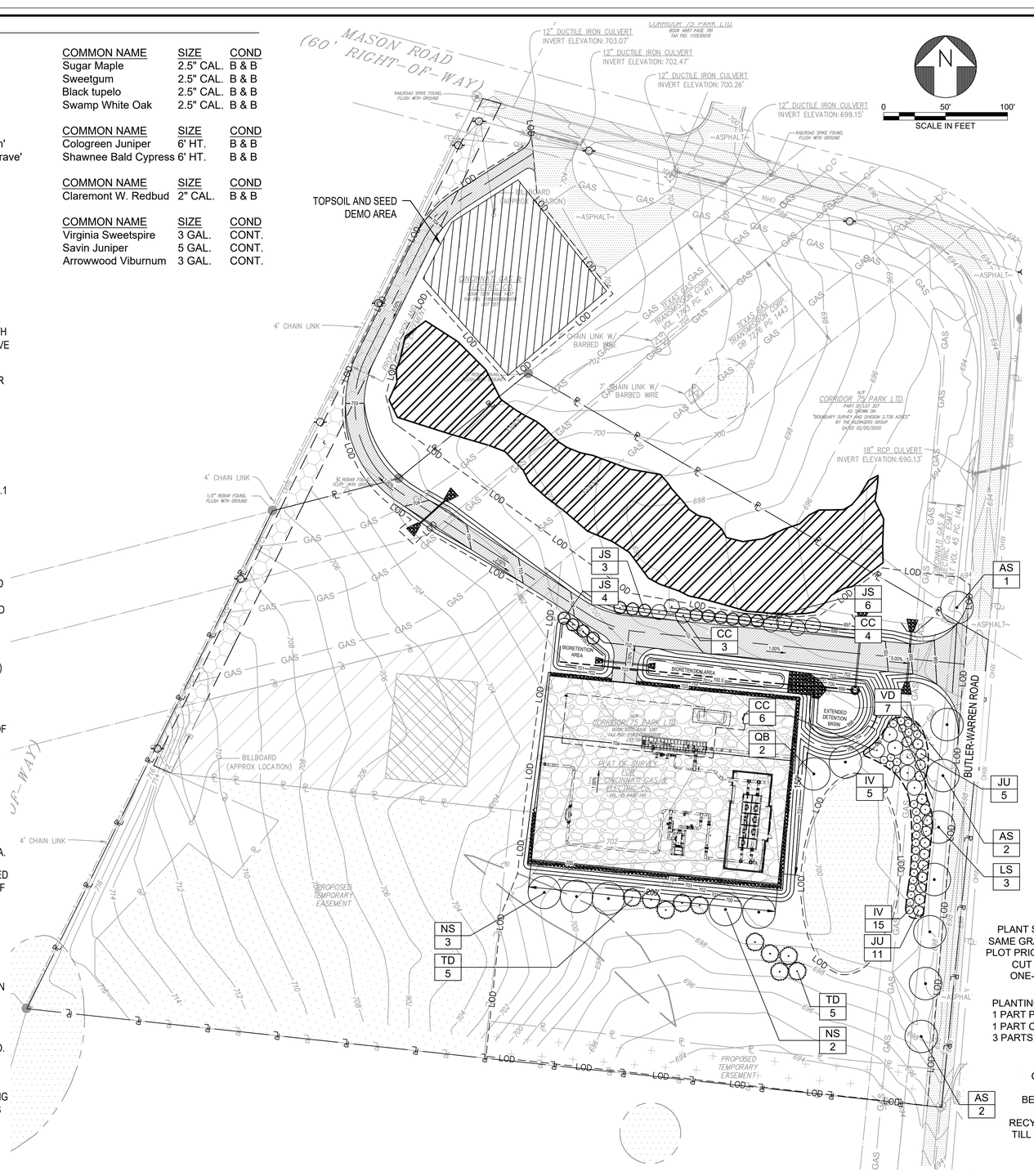
TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	COND
AS	5	Acer saccharum `Fall Fiesta`	Sugar Maple	2.5" CAL.	B & B
LS	3	Liquidambar styraciflua	Sweetgum	2.5" CAL.	B & B
NS	5	Nyssa sylvatica	Black tupelo	2.5" CAL.	B & B
QB	2	Quercus bicolor	Swamp White Oak	2.5" CAL.	B & B
EVERGREEN TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**COND**
JS	13	Juniperus scopulorum 'Cologreen'	Cologreen Juniper	6' HT.	B & B
TD	10	Taxodium distichum 'Shawnee Brave'	Shawnee Bald Cypress	6' HT.	B & B
FLOWERING TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**COND**
CC	13	Cercis occidentalis 'Claremont'	Claremont W. Redbud	2" CAL.	B & B
SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**COND**
IV	20	Itea virginica 'Henry's Garnet'	Virginia Sweetspire	3 GAL.	CONT.
JU	16	Juniperus sabina	Savin Juniper	5 GAL.	CONT.
VD	7	Viburnum dentatum	Arrowwood Viburnum	3 GAL.	CONT.

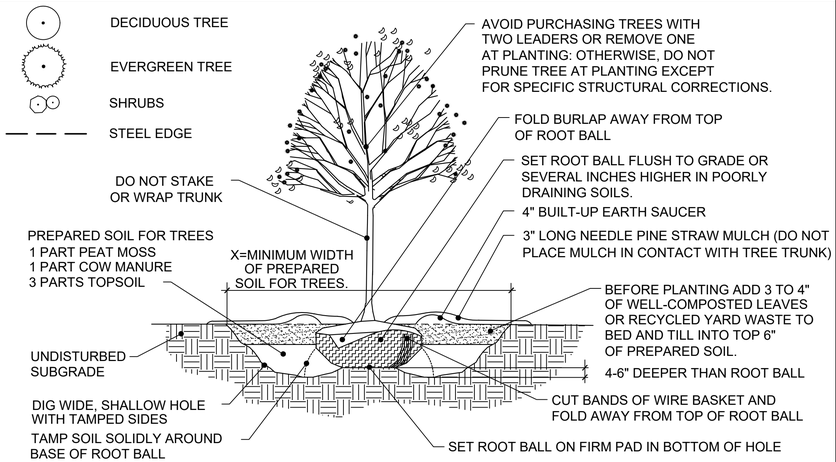
LANDSCAPE NOTES

1. LOCATE UTILITIES PRIOR TO COMMENCING LANDSCAPE OPERATIONS. ALL TREES SHALL BE FIELD POSITIONED AS TO AVOID CONFLICTS WITH EXISTING AND PROPOSED UTILITIES. NOTIFY OWNER REPRESENTATIVE OF ANY CONFLICTS OR OBSTRUCTIONS.
2. CONTRACTOR SHALL STAKE ALL PLANTING AREAS IN THE FIELD PRIOR TO PLANTING FOR APPROVAL OF THE OWNER REPRESENTATIVE.
3. CONTRACTOR SHALL VERIFY ALL PLANT QUANTITIES PRIOR TO PLANTING. ANY DISCREPANCIES WITH THE PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER REPRESENTATIVE. THE PLAN QUANTITIES SHALL SUPERCEDE SCHEDULED QUANTITIES.
4. ALL PLANT MATERIAL SHALL BE SPECIMEN QUALITY AND SHALL COMPLY WITH RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z60.1 THE 'AMERICAN STANDARD FOR NURSERY STOCK'.
5. ALL PLANTING BEDS SHALL BE EDGED AS SHOWN IN PLAN.
6. PREPARE PLANTING BEDS AND INCORPORATE AMENDMENTS ACCORDING TO DETAILS.
7. SHREDDED HARDWOOD MULCH, PER SPECIFICATIONS SHALL BE USED AS A THREE INCH (3") TOP DRESSING IN ALL PLANTING BEDS AND AROUND ALL TREES. SINGLE TREES AND SHRUBS SHALL BE MULCHED TO THE OUTSIDE EDGE OF THE SAUCER.
8. ALL TREES SHALL BE STAKED PER DETAIL.
9. ALL PLANT MATERIAL SHALL BE INSTALLED TO ALLOW A ONE FOOT (1') CLEARANCE BETWEEN PLANT AND ADJACENT PAVEMENT.
10. THE LANDSCAPE CONTRACTOR SHALL NOT COMMENCE WORK UNTIL THE SITE IS FREE OF DEBRIS CAUSED BY ON-GOING CONSTRUCTION OPERATIONS. REMOVAL OF DEBRIS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. LANDSCAPE WORK SHALL NOT BEGIN UNTIL THE OWNER REPRESENTATIVE HAS GIVEN WRITTEN APPROVAL FOR SUCH. THERE SHALL BE NO DELAYS DUE TO LACK OF COORDINATION FOR THIS ACTIVITY.
11. THE OWNER REPRESENTATIVE SHALL APPROVE GRADES AND CONDITION OF SITE PRIOR TO SODDING/SEEDING OPERATIONS.
12. ALL OF THE LOD NOT INDICATED TO RECEIVE ANOTHER SURFACING SHALL BE SEEDED INCLUDING INDICATED CULTURAL RESOURCE AREA.
13. ALL AREAS DISTURBED DURING CONSTRUCTION AND NOT DESIGNATED FOR OTHER PLANTINGS OR HARDSCAPE SHALL BE SEEDED WITH TURF TYPE FESCUE.
14. AREAS NOTED FOR "BIORETENTION" SHALL BE SODDED WITH TURF TYPE TALL FESCUE.

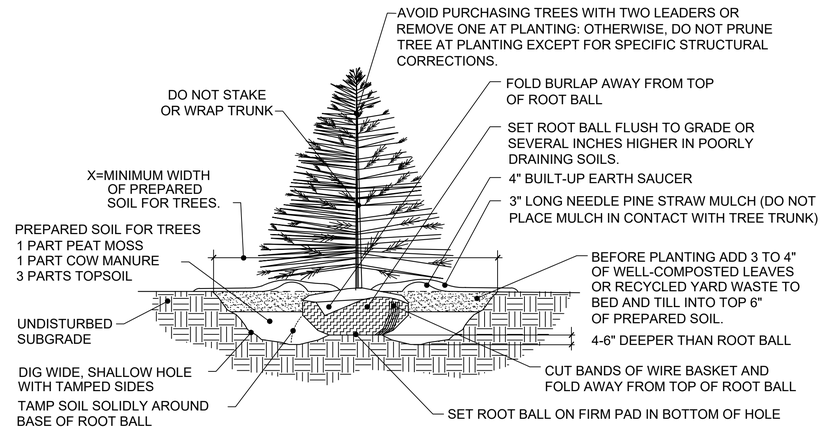
LANDSCAPE COMPLIANCE

1. 1212.06 - STREET TREE REQUIREMENTS. STREET TREES HAVE BEEN PROVIDED 40 FT. O.C. ALONG BUTLER-WARREN ROAD.
2. 1212.08 FRONT YARD LANDSCAPING. DUE TO ARCHEOLOGICAL SENSITIVE AREA ALONG BUTLER-WARREN ROAD. IN LIEU OF LANDSCAPING AN 8' TALL DECORATIVE FENCE SHALL BE PROVIDED. PROPOSED FENCE SHALL BE AMERISTAR IMPASSE II FENCE.
3. 1212.10 BUFFER REQUIREMENTS. NO ADJACENT USES REQUIRE BUFFER BEYOND OUR C-2 CLASSIFICATION. ADDITIONAL SCREENING HAS BEEN PROVIDED ALONG THE NORTH AND SOUTH PERIMETERS TO ADD AESTHETIC APPEAL TO THE ELEVATION AND VIEW FROM BUTLER-WARREN ROAD.

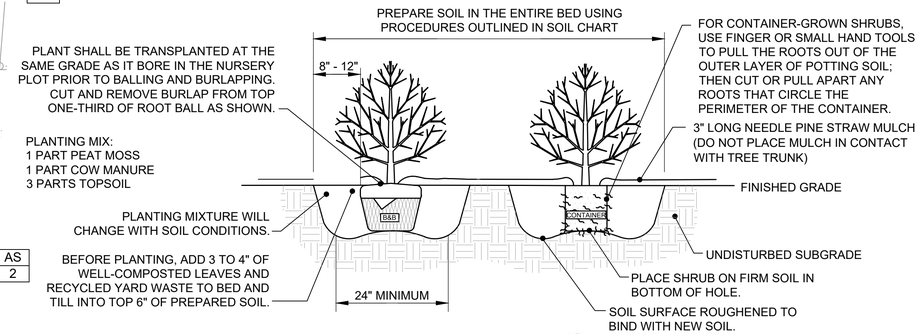




DECIDUOUS PLANTING DETAIL — 1 / -
NOT TO SCALE



EVERGREEN PLANTING DETAIL — 2 / -
NOT TO SCALE



SHRUB PLANTING DETAIL — 3 / -
NOT TO SCALE

FOR PERMITTING PURPOSES ONLY

BURNS & McDONNELL
ENGINEERING COMPANY, INC.
STATE LICENSE # COA.01557

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REF. DWG(S) PNG-C-042-0001137

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
A	04-19-2021	ISSUED FOR PERMITTING	RG	BMS	CDW
B	05-07-2021	REISSUED FOR PERMITTING	RG	BMS	CDW

DESCRIPTION	
AREA CODE	-
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2771
DRAWING BY	RG
STATION ID	STA 914
CHECKER INITIALS	BMS

APPROVALS		
DATE	INITIALS	REGIONAL ENGINEER
DATE	INITIALS	MGR TECH REC & STD
DATE 05-07-2021	INITIALS CDW	PRINCIPAL ENGINEER

PROFESSIONAL ENG/ARCH STAMP

DUKE ENERGY. Piedmont Natural Gas

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MASON STATION CAPACITY IMPROVEMENT
LANDSCAPING PLAN
BUTLER COUNTY, OHIO
TODHUNTER RESOURCE CENTER, OHIO

SHEET(S) 1 OF 1 | DWG SCALE AS NOTED
DWG DATE 01/07/2021 | SUPERSEDED __
DRAWING NUMBER: PNG -C-042-0001138 | REVISION: B
DISCIPLINE / RESOURCE CENTER / LINE NUMBER

LIGHTING FIXTURE SCHEDULE-EXTERIOR					
Type	FIXTURE INFORMATION				
	DESCRIPTION	MANUFACTURER	MODEL	MOUNTING HEIGHT	TYPE
A	FLOODLIGHT - POLE MOUNTED	CROUSE-HINDS	FMV9LCYUNV176	20'	CL1D2 LED
B	WALL PACK-BUILDING MOUNTED	CROUSE-HINDS	VMVL7L2TWR3G/UNV1	18'	CL1D2 LED
C	INTERIOR BUILDING FIXTURE	CROUSE-HINDS	VMVL52CGUNV1-S891	16'	CL1D2 LED
D	SKID MOUNTED WALL PACK	TBD	18W FIXTURE, MODEL TBD	7'	CL1D2 LED

NOTES:

1. TYPE A TO BE PHOTOCELL CONTROLLED, DUSK TILL DAWN. TYPES B, C, AND D TO BE SWITCH CONTROLLED.
2. FIXTURE TYPE D TO BE PROVIDED BY SKID MANUFACTURER, FINAL FIXTURE SELECTION IS PENDING.
3. LIGHTING MEASURED IN FOOTCANDLES.
4. MOUNTING HEIGHTS ARE APPROXIMATE PENDING FINAL GRADING AND BUILDING PLANS.
5. FIXTURE TYPE C NOT SHOWN, INTERIOR FIXTURE.

FOR PERMITTING PURPOSES ONLY

BURNS & McDONNELL
ENGINEERING COMPANY, INC.
STATE LICENSE #COA:01557

MICHAEL RADEMACHER,
SEAL #E-83650

PROFESSIONAL ENG/ARCH STAMP

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
A	3/11/21	ISSUED FOR PERMIT	JCM	MWR	-
B	4/16/21	ISSUED FOR 60% SUBMITTAL	JCM	MWR	-
C	5/7/21	RE-ISSUED FOR PERMITTING	MWR	MWR	-

DESCRIPTION	
AREA CODE	-
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2771
DRAWING BY	JCM
STATION ID	STA 914
CHECKER INITIALS	MWR

APPROVALS		
DATE	INITIALS	
N/A	N/A	REGIONAL ENGINEER
N/A	N/A	MGR TECH REC & STD
04-16-2021	MWR	PRINCIPAL ENGINEER

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DUKE ENERGY & PIEDMONT NATURAL GAS DRAWINGS ARE CONFIDENTIAL *DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE *TO ENSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE, ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO MANAGEMENT (RIM)

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REF. DWG(S)
PNG-G-042-0001083

MASON STATION CAPACITY IMPROVEMENT
SITE PHOTOMETRIC
BUTLER COUNTY, OHIO

TODHUNTER RESOURCE CENTER, OHIO

SHEET(S) 1 OF 1	DWG SCALE 3/32"=1'-0"
DWG DATE 03-11-2021	SUPERSEDED ___

DRAWING NUMBER: PNG -E-042-0001099
REVISION: A
DISCIPLINE / RESOURCE CENTER / LINE NUMBER

Site Plan Application Responses:

Question 2

The proposed natural gas utility development connects to the Rockies Express Pipeline which will provide an additional source of natural gas for Tallgrass to supply to the Ohio natural gas system. This interconnect with a new supplier will allow for added reliability to the system by providing an alternative source, one that also provides a higher minimum delivery pressure in the event of extreme weather. This new source of supply will benefit customers by increasing competition from Tallgrass suppliers and allows direct access to competitively priced natural gas from the Marcellus Shale region in eastern Ohio. The proposed development is to construct a metering and regulation station for the new pipeline interconnect with Duke Energy on the Rockies Express Pipeline, LLC (REX). Tallgrass, an essential public utility, is constructing the meter station to allow for a more reliable and cost competitive service to the current community and future development in the community. The approximately 1.40-acre facility will contain the installation of natural gas equipment which includes: filter separator, metering skid and shelter, RTU shelter with GC/ EFM.

The proposed aforementioned infrastructures associated with the Dick's Creek Interconnect project directly associated to the transmission of natural gas; therefore, fall under the exemption #12 of the Ohio Building Code (Ohio's Building Code 101.2 - Exemption #12: Structures associated with pipelines used for the transmission of natural gas and other hydrocarbons, the proposed infrastructure are exempt).
A permanent asphalt access drive will connect the proposed facility to the existing Dicks Creek Energy Facility private drive. The existing private drive is not accessible or utilized by public individuals. Inside of the facility's fencing, in addition to the natural gas infrastructure, the meter station will consist of a gravel pad with an aggregate base course (ABC) driving surface loop (Compacted Ohio #304 crusher run gravel) and clean crushed rock (AASHTO #57 rock) stabilizing all of the other ground surfaces within the fenced site. Fencing and lighting will be installed for the facility's safety and security. The only utilities required on site are an electrical service line and a telecommunication service will be installed from the existing Dicks Creek Energy Facility access road to provide a source of electricity and communications required for regulator station's operation.

Question 5

This site will solely be utilized for utility equipment to supply natural gas to the surrounding communities. This site will not be an occupied site.
FENCE:
1204.5 Subsection (A) e) ii & e) iii: Fence located surrounding the facilities will exceed the six-foot allowance with the use of an 8-foot security chain-link fence with an additional 2 feet of barbed wire on top. This variance is required as part of the Duke Standardized safety measures, required along the immediate bounds of the facility.

1204.5 Subsection (A) e) vi: Zoning prohibits the use of barbed wire, razor wire, spikes, mails, electrical or similar type fences. Barbed Wire and electrical fences are permitted in Agricultural districts except along lot lines adjacent to residential zones. The development will utilize barbed wire on top of an eight-foot fence as a required safety measure for the facilities. The use of barb wire will be employed on proposed facility fence lines.

The proposed security chain-link fence is eight feet in height with an additional two feet of barbed wire on top. The height and combination of chain-link fence with barbed wire is required by Duke Energy as a standard safety protocol to protect the infrastructure from tampering as well as protection for the surrounding community. The facility is located within A-1 zoning and positioned in the corner of an agricultural field on Duke fee-owned (Tri State Improvement Company, a Duke Energy subsidiary) property. The project is isolated from the nearby residential homes and it is not anticipated to have a negative impact on the aesthetics of the community.

BUFFER:
1212.10(A) and 1212.10(B): The required buffer for a Public and Institutional Use classified projects within zone A-1 requires a buffer type (Type B) as described within Table 1212-2 & 1212-3 of the City of Monroe - Planning and Zoning Code.

The proposed project is located within the corner of a Duke fee-owned parcel (Tri State Improvement Company, a Duke Energy subsidiary) that is classified as A-1 with a significant distance between the proposed project site and the adjacent residential landowners over 900 feet to the nearest property line and over 1,000 feet to the nearest residential structure. Not only is there significant distance between the proposed regulator station and the nearest residences, there is an existing natural tree and shrub buffer that exists along the parcel lines separating this site and those residential developments. This natural buffer will not be impacted or removed by the proposed project. To the north of the proposed project are existing pipeline corridors and the Dicks Creek Energy Facility. Based on the existing natural buffer and extended distance between the site and nearby development, Duke is proposing that the requirement to add an additional buffer as required under 1212.10(A) and 1212.10(B) be waived.

LIGHTING:

1209.04 Outdoor Lighting: the lighting standards outline the requirements and placement of proposed outdoor lighting use for any project except single-family and two-family dwellings or as otherwise exempted by the Code Enforcement Officer.

The proposed project is planning to install 4 collapsible pole lights that are approximately 20 feet tall when in use. These lights will be raised when needed to complete maintenance activities/emergency activities while workers are on site when natural lighting is insufficient. These lights will not be used regularly/on a daily basis. Based on the distance of the proposed project from residential homes, public streets/roadways, or pedestrian use areas, Duke Energy is requesting an exemption to the lighting plan and photometric plan as noted within Chapter 1209.04. The minimal use and location of these lights are expected to have minimal to no effect on residential homes, public streets/roadways, or pedestrian use areas.

TRAFFIC/ROADWAY:

1211.02 and 1211.03: The access to the facility from the Dicks Creek Energy Facility's private drive to the gate will be asphalt. The driving surface loop within the facilities fence will be comprised of an aggregate base course road (Compacted Ohio #304 crusher run gravel (ABC)) and a 57 rock covering all of the other ground surfaces within the fenced site. This access will not be accessible or utilized by public individuals. The use of the gravel surface provides lower amounts of impervious surfaces as well as reduced chance of gas being capture under the solid surface associated with concrete or asphalt.

1211.04 (H)(I): The site will utilize the private access drive of the Dick's Creek Energy Facility, north of the proposed project. This private access drive intersects Todhunter Road. The use of this existing access location will reduce impacts to the community with a centralized access from a public right-of-way. The Regulator station will be accessed for periodic maintenance by a standard sized pickup truck with limited impact to the existing infrastructure or community; therefore, does this development does not meet the requirements of a Traffic Impact Study (TIS).

1211.05 (5): The site development will not have a driveway that connects to a public street or right-of-way; therefore, doesn't require a right-of-way permit to be in compliance with the Public Works Department, Chapter 1020: Comprehensive Right-of-ways ordinance, of the Monroe Ordinances.

PARKING:

1211.01: The purpose of this chapter is to regulate the amount and location of vehicle parking, loading areas, access, and mobility in order to promote a more efficient use of land, enhance the development form, encourage the use of alternative modes of transportation, provide for better pedestrian movement, and protect air and water quality.

The proposed regulator station is not accessible to the public and is designed by engineering standards that allow for the required Duke Energy Ohio vehicles and maintenance equipment to function within the most practical and safe manner plausible. Based on this and the type of infrastructure, Duke feels that this requirement is not applicable to the site and request a variance from 1211.01.

Application for Site Plan Review

Monroe Development Department
233 South Main Street, Monroe, Ohio 45050
Phone: 513-539-7374
www.monroeohio.org

For Staff Use Only	
Submittal Date:	
Date Application Determined Complete:	
Date of Planning Commission Review:	
Fee Paid:	Staff Initials:
Application/Case Number:	

Site Plan Review Information

1. The site plan review procedure and applicability requirements are established in Section 1203.06 of the Monroe Planning and Zoning Code.
2. Prior to submitting this application, you are required to meet with staff from the Development Department for a pre-application conference. Please contact the department to schedule the conference.
3. The Monroe Planning Commission reviews all site plan review applications unless specifically exempted in Section 1203.06(B)(3).
4. Approval of a site plan does not constitute approval to begin construction. Applicants with approved site plans are required to submit all applicable zoning permit and building permit applications.
5. Unless an alternative timeline is approved by the Planning Commission, construction related to the approved site plan must begin within one year of the site plan approval or the approval shall be voided. See Section 1203.06(H) for additional information.

Basic Project and Site Information

Project Address: 598 Todhunter Road

County: [✓] Butler [ ] Warren | Total Lot Area: 48.5 Acres (Permanent: 1.4 ac, Temp: 3.54 ac)

County Tax Parcel ID: C1800002000001

Project/Development Name: Rockies Express Pipeline, LLC , Dick's Creek Interconnect Project

Existing Zoning District: A-1 (Large Scale Agriculture)

Project Type: [ ] New Building [ ] Expansion of Existing Structure
[✓] Addition to Site (e.g., parking, landscaping, lighting, etc.)

Applicant Information

Applicant Name: Tallgrass Energy

Contact Person: Dustin Beger

Contact Address: 370 Van Gordon Street, Lakewood, CO 80228

Contact Phone Number: 303-763-3435 | Contact Fax Number:

Contact E-Mail: dustin.berger@tallgrassenergylp.com

Property Owner Name: Tallgrass Energy

The applicant may attach a separate sheet of a paper with contact information for additional people, if necessary (e.g., additional owners, registered engineer, landscape architect, etc.). The same contact information shall be provided for each contact name.

Project Address or Tax Parcel ID: 632 Todhunter Road

Additional Project Information

1) Please describe, in detail, any existing uses and/or buildings on the project site.

The current use of the parcel is primarily agricultural (Zoned A-1) with an existing natural gas pipeline crossing along the northern edge of the parcel and intersecting the northwestern most corner of the parcel. The parcel is currently agricultural land with a mix of forested and shrub habitat that is undisturbed. Currently there are no buildings on site.

2) Please describe, in detail, the proposed uses and the proposed development. Provide a summary of the square footage related to each use and/or the total number of proposed dwelling units.

See attached site plan application response.

3) What are the anticipated start and completion dates for the project?

Start Date: May 2021	Completion Date: October 2021

4) What is the estimated value (in dollars) of the proposed property improvements?

$XX MM

5) Check any relevant procedural reviews applicable to this project:

☑ Conditional Use ☑ Variance ☐ Administrative Waiver ☐ Alternative Equivalent Compliance

If you checked any of the above procedures, please provide specific details on what you are seeking to have approved through the applicable review procedure? Provide the application/case numbers for any related applications.

See attached site plan application response.

Project Address or Tax Parcel ID: 632 Todhunter Road

Additional Project Information Continued

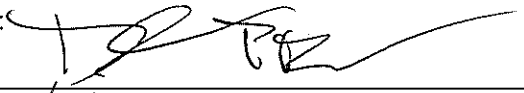
6) Does the project require any addition permits, licenses, or reviews by outside agencies (e.g., Butler or Warren County, ODNR, OEPA, etc.). ☑ Yes ☐ No If yes, please describe below.

OEPA - NPDES General Permit (OHC000005) for Stormwater Discharges Associated with Construction Activity/SWPPP

Certification and Signatures

Applicant Signature - I certify that, to the best of my knowledge, the information contained in this form and within any attachments is correct and truthful. I understand that knowingly falsifying this information may be grounds for the denial or revoking of this application and any subsequent zoning permit or other review applications.

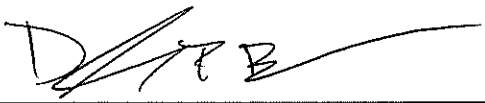
Print Name: Dustin Berger

Signature: 

Date: 4/6/2021

Property Owner Signature - If the property owner is not the named applicant on this form, the property owner shall sign the form below acknowledging that the applicant is an authorized agent of the property owner as it relates to proposed project. If the site plan review is for multiple properties, a signature from each property owner is required.

Print Name: Dustin Berger

Signature: 

Date: 4/6/2021

Note: A letter signed by the property owner, authorizing the applicant to act on their behalf may be submitted in lieu of the property owner's signature on this form.

Submittal Requirement Checklist Submittals shall include 8 copies (minimum of 24" x 36") and 8 copies (minimum of 11" x 17") Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.	
Digital Submittal Requirements	
☐	All document applications shall be submitted in an electronic format compatible (Adobe PDF) with the city's computer systems.
☐	All site plan materials, in map format, shall be submitted in a format compatible with the city's Geographic Information Systems (i.e. shapfile, geodatabase, or dwg) and shall be projected into NAD 1983 Ohio State Plane South - FIPS 3402 coordinate system using US Survey foot units.
General Information	
☐	Site Plan Review Application form
☐	Application fee
☐	Copies of the plans and maps established below at a scale no smaller than 1 inch = 100 feet, on full-sized copies unless on 11" x 17" or otherwise noted
☐	Any additional information determined to be necessary by the Development Department
Vicinity Map (Scale may be smaller than 1" = 100')	
☐	Date, north arrow, scale, and a legend for all symbols
☐	Project location
☐	All surrounding properties, streets, and corporation limits within a minimum of 500' of the outer boundaries of the project site
Existing Conditions Map	
☐	All existing zoning district classifications on the site and adjacent to the site
☐	Parcel boundaries of the site and all parcels adjacent to the site
☐	Names of all subdivisions and land owners owning lots adjacent to the site
☐	Existing streets within 200' of site with names and centerlines
☐	Existing watercourses and bodies of water including any applicable flood hazard areas
☐	Planned road network (including street names if available) within 500' of site (if different from existing streets)
☐	Existing land uses on the site and adjacent parcels (including across any streets)
☐	Railroad infrastructure and rights-of-way
☐	All existing easements (including drainage) with dimensions and designation as to type
☐	Location of existing curb cuts, private streets, parking and loading areas, pedestrian walks, lighting facilities, and outside trash storage facilities
Site Layout Plan	
☐	Lot numbers and sizes
☐	Square footage (gross) of existing buildings to remain and proposed buildings
☐	Required front, side, and rear yard width/setbacks
☐	All existing and proposed easements, including dimensions and type (e.g., drainage, access, public utility, etc.)
☐	Location, width, and classification of all existing and proposed streets in the development
☐	Location of any outdoor storage area(s) that require screening
☐	Locations of all proposed external street connections (including street stubs)
☐	Location, width, and materials of all sidewalks, trails, and paths (including connections to the public sidewalk system and adjacent developments)

Submittal Requirement Checklist Submittals shall include 8 copies (minimum of 24" x 36") and 8 copies (minimum of 11" x 17") Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.	
Parking Plan and Traffic Control Plan	
☐	Traffic impact study, if required
☐	Notation of total number of parking spaces, loading spaces, and stacking spaces required by ordinance
☐	Total number, dimensions, and location of parking spaces proposed off-street, on-street, and within parking structures, including information on handicapped parking spaces
☐	Total number of parking spaces to be provided through approval of shadow parking, off-site parking, or shared parking alternatives
☐	Number, location, and size of loading spaces provided
☐	Number and location of stacking spaces provided
☐	Location, arrangement, and dimensions of vehicular entrances, exits and parking lot aisles
☐	Location of pedestrian walkways and crossings
☐	Number and location of pervious parking spaces, if provided
☐	Proposed traffic control devices (in accordance with the Manual on Uniform Traffic Control Devices)
☐	Signing and striping plan
☐	Fire lanes and areas of parking prohibition
☐	Location of all sight triangles
Stormwater Management Sheet and Drainage Plan	
☐	Drainage basin(s) where the site is located and drainage patterns
☐	Existing and proposed locations, types, and sizes of drainage structures and calculations demonstrating how post-development runoff will not exceed pre-development runoff
☐	Erosion and siltation control measures and devices with narrative, including location of outfall for stormwater to proper catch basin (indicated sizes and slopes of existing pipes)
☐	Drainage computations from proposed development to proper pickup point
☐	All proposed elevations and slopes for grading
☐	Description of maintenance procedures for stormwater management devices
Utilities Plan (May be included on Site Layout Plan)	
☐	Existing and proposed locations, types, and sizes of all water, sanitary sewer, storm sewer, gas, telephone, power and other utility lines and meters, easements and any other utilities affected by the site (includes above ground utilities and grades and computations where appropriate)
☐	Notation that all new utilities (including cable television, electrical, natural gas, sewer, telephone, and water lines) shall be placed underground
☐	Locations where existing overhead utilities will be relocated underground (if applicable)
☐	Identification of any connections, above or below ground, that are located within the City of Monroe's right-of-way
Landscaping Plan	
☐	Exact locations, dimensions, and counts of existing and proposed landscape materials provided within and around vehicular use areas, including the size of landscaping islands
☐	Exact locations and counts of existing and proposed landscape materials provided within any required buffer areas including the type of buffer used, the buffer width provided, the proposed configuration of trees, shrubs, and screening features
☐	Location, size, and species of all existing and proposed street trees
☐	The total number of trees and shrubs provided, and the total number of different species planted
☐	Notations for any existing landscape within sight triangles indicating maximum shrub height or tree canopy height

Submittal Requirement Checklist Submittals shall include 8 copies (minimum of 24" x 36") and 8 copies (minimum of 11" x 17") Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.	
☐	Location and amount of credit towards landscape material requirements provided by existing landscaping
☐	Demarcation of existing trees to be removed
☐	Location and amount of all open space set-aside areas by development phase
☐	Details of all open space improvements and common features (e.g., fountains, benches, street furnishings, play equipment, etc.)
Architectural and Building Elevation Plans	
☐	Color elevations for each building side facing a public street, alley, public open space, or public building, illustrating compliance with the architectural standards of the applicable zoning district
☐	Dimensions, in feet, of all façade recesses or similar fenestration
☐	Preliminary floor plan for principal buildings
☐	Height of all buildings in feet, including number of building stories
☐	Accessory structure size(s), if applicable
☐	Accessory structure height(s), if applicable
☐	Description of the type of material(s) used on each façade elevation
☐	Illustrative elevation of all fencing, walls, and retaining walls visible from a street, open space, or public building that will be used for buffering or screening of adjacent residential uses, dumpsters, service structures, utilities, parking areas, loading areas, and similar activity areas
Lighting Plan	
☐	Location, type, and height of all lighting fixtures (including street lights)
☐	Details on colors and materials for all lighting fixtures
☐	Grid or photometric diagram showing maximum illumination values at the lot line, and uniformity ratios within parking lots, measured in footcandles
Signage Plan	
☐	All sign areas, dimensions and height (including shape)
☐	Position of all signs in relation to the use being advertised (may be identified on the site layout plan)
☐	Location and style of all address numbers, building numbers, or allowable building identifications
☐	Plan of illumination for the sign including information on message timing for electronic message centers
☐	Landscaping around base of sign (may be identified on the landscaping plan)

Application for a Conditional Use Permit

Monroe Development Department
233 South Main Street, Monroe, Ohio 45050
Phone: 513-539-7374
www.monroeohio.org

For Staff Use Only	
Submittal Date:	
Date Application Determined Complete:	
Date of Planning Commission Review:	
Fee Paid:	Staff Initials:
Application/Case Number:	

Conditional Use Permit Review Information

1. The conditional use permit review procedure and review criteria are established in Section 1203.07 of the Monroe Planning and Zoning Code.
2. Some conditional uses may be subject to use-specific standards in addition to the general review criteria for all conditional uses. Such use-specific criteria will be identified in Chapter 1204 and, more specifically, Section 1204.04.
3. If the applicant is proposing a development that will also require a site plan review, such review shall occur simultaneously and the applicant shall submit a site plan review application.
4. The Monroe Planning Commission reviews all conditional use permit applications.
5. The application fee for a zoning amendment is $300, due at the time the application is submitted.

Basic Project and Site Information

Project Address: 632 Todhunter Road, Monroe/OH/45050

County: ☑ Butler ☐ Warren | Total Lot Area: 48.5 acres

County Tax Parcel ID: C1800002000001

Project/Development Name: Tallgrass Energy, Dick's Creek Interconnect Project

Existing Zoning District: A-1 (Large Scale Agriculture)

Proposed Use: ☐ Residential ☐ Commercial ☐ Office ☐ Industrial ☑ Public or Institutional Use ☐ Mixed use

Applicant Information

Applicant Name: Tallgrass Energy

Contact Person: Dustin Berger

Contact Address: 370 Van Gordon Street, Lakewood, CO 80228

Contact Phone Number: 303-763-3435 | Contact Fax Number:

Contact E-Mail: dustin.berger@tallgrassenergylp.com

Property Owner Name: Tallgrass Energy

The applicant may attach a separate sheet of a paper with contact information for additional people, if necessary (e.g., additional owners, registered engineer, landscape architect, etc.). The same contact information shall be provided for each contact name.

Conditional Use Permit Information

1) Will a site plan review be required with the conditional use permit review? See Section 1203.06.

☑ Yes ☐ No

Project Address or Tax Parcel ID: 632 Todhunter Road

Conditional Use Permit Information Continued

2) Please describe, in detail, the proposed use of the site.

Tallgrass (Rockies Express Pipeline, LLC) is completing a pipeline interconnect from the Rockies Express Pipeline (REX) 42" pipeline to a new meter station to supply natural gas to Duke Energy in Butler county Ohio. The new delivery will be off of the REX mainline approximately 2.8 miles west of the Tallgrass Hamilton compressor station called, "Dick's Creek Interconnect". The scope includes the installation of: Hot tap (42" x 12"), Filter Separator, Meter Skid, Flow Control valve skid, RTU shelter, Drain tank, Power Gas Supply, Pipe/valves/fittings. This new point of delivery will supply gas to Duke Energy metering and regulation station that will be used to benefit customers by increasing competition from Duke Energy Ohio suppliers and allows direct access to competitively priced natural gas from the Marcellus Shale region in eastern Ohio.

3) Describe how the proposed use will be harmonious with the existing or intended character of the general vicinity, and that such use will not change the essential character of the same area.

The proposed development is located within an agricultural field and is situated in an area that is isolated from the surrounding development by distance and natural buffering (shrub and forested habitat). The proposed development is located on Rockies Express pipeline, LLC owned property. This placement of the development helps to maintain the aesthetics and character of the surrounding area The non-developed portion of the Tallgrass parcel provides an extended buffer with its existing land-use intact. The proposed meter station is located west of the Hamilton Compressor station.

4) Describe how the proposed amendment furthers the objectives of the comprehensive plan.

The Monroe Comprehensive Plan has a goal to provide for future development that is balanced, compatible with existing and adjacent land uses, and served by adequate public infrastructure. The development of the Dick's Creek interconnect helps to support that goal by supporting and expanding the existing Duke Energy facilities to supply gas to local customers.

Certification and Signatures

Applicant Signature - I certify that, to the best of my knowledge, the information contained in this form and within any attachments is correct and truthful. I understand that knowingly falsifying this information may be grounds for the denial or revoking of this conditional use application and any subsequent zoning permit or other review applications.

Print Name: Dustin Berger

Signature:

Date: 4/6/2021

Property Owner Signature - If the property owner is not the named applicant on this form, the property owner shall sign the form below acknowledging that the applicant is an authorized agent of the property owner as it relates to proposed project.

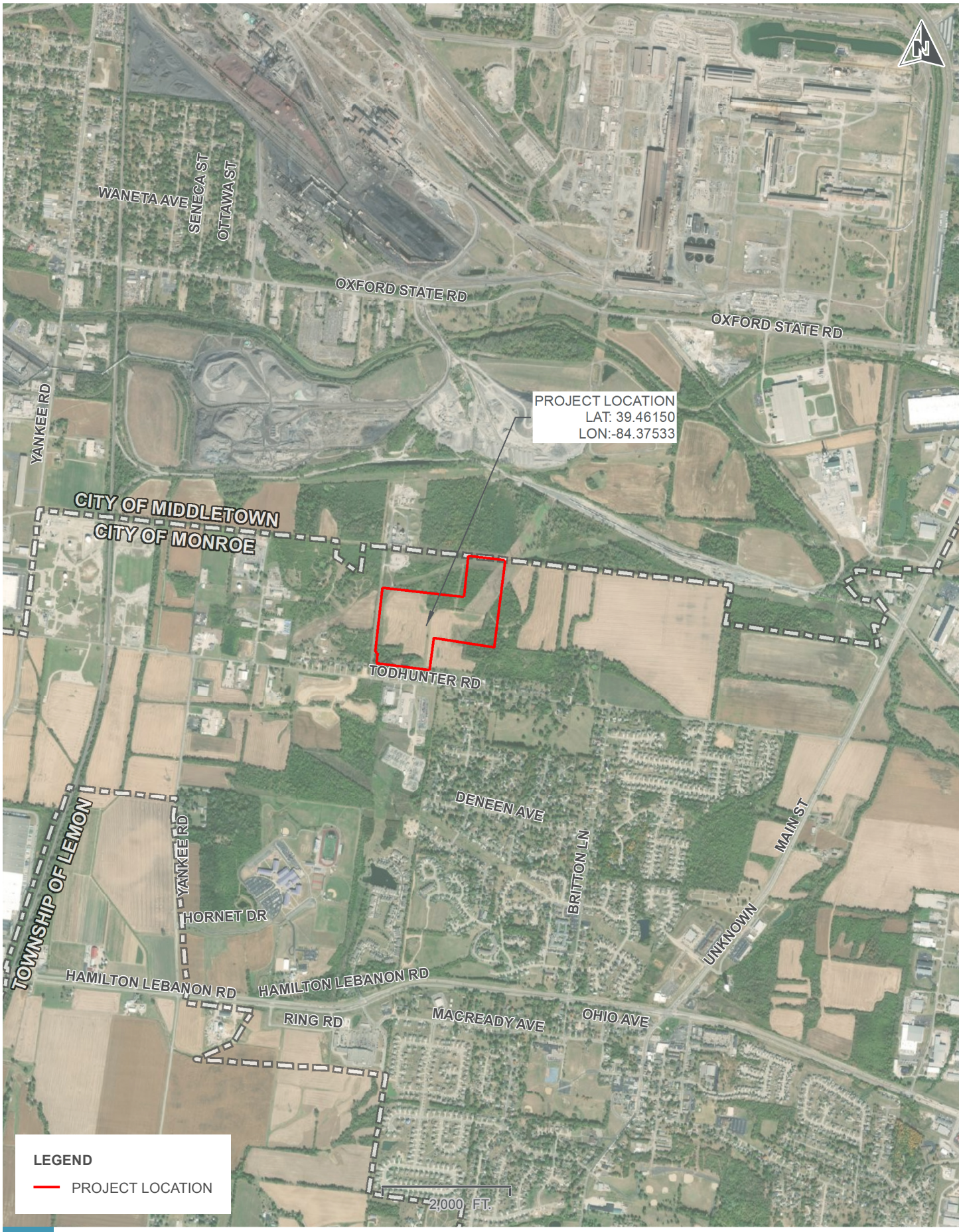
Print Name: Dustin Berger

Signature:

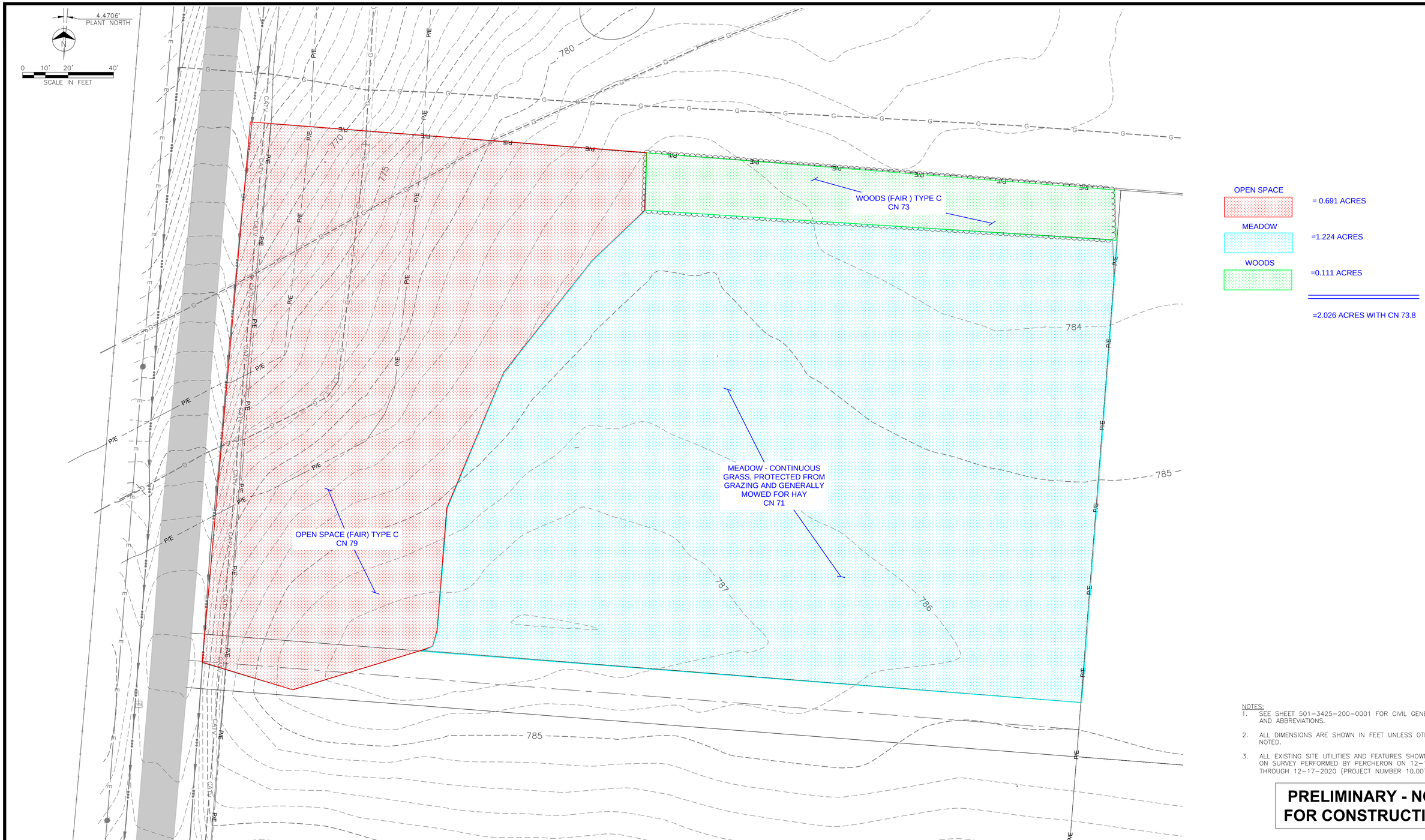
Date: 4/6/2021

Note: A letter signed by the property owner, authorizing the applicant to act on their behalf may be submitted in lieu of the property owner's signature on this form.

Submittal Requirement Checklist	
Digital Submittal Requirements	
☐	All document applications shall be submitted in an electronic format compatible with the city's computer systems. Adobe PDF files are acceptable.
General Information	
☐	Application fee
☐	Sixteen copies of the plans and maps established below at a scale no smaller than 1 inch = 100 feet, unless otherwise noted – Eight of the copies shall be on pages with a minimum size of 24"x36" and the other eight copies shall be on pages with a minimum size of 11"x17". Additional copies may be required based on project specifics.
☐	Eight copies of the Traffic Impact Study, if required. See Section 1211.04
☐	Any additional information determined to be necessary by the Development Department
☐	Final mylars and digital files of all maps and plans will be required after approval
Note: Any addition or alteration of landscaping, lighting, or parking will require a site plan review and the applicant shall be responsible for completing the site plan review application and submitting the necessary information.	
Existing Conditions Map	
☐	All existing zoning district classifications on the site and adjacent to the site
☐	Parcel boundaries of all parcels adjacent to the site
☐	Names of all subdivisions and property owners of lots adjacent to the site
☐	Location of existing buildings, structures, curb cuts, parking and loading areas, lighting fixtures, outside trash storage facilities, , fences, outdoor display or storage, and other built or impervious surfaces.
☐	Location of existing vegetation (general location) to be maintained



PROJECT VICINITY MAP
CITY OF MONROE, BUTLER COUNTY, OH



NOTES:

1. SEE SHEET 501-3425-200-0001 FOR CIVIL GENERAL NOTES AND ABBREVIATIONS.
2. ALL DIMENSIONS ARE SHOWN IN FEET UNLESS OTHERWISE NOTED.
3. ALL EXISTING SITE UTILITIES AND FEATURES SHOWN ARE BASED ON SURVEY PERFORMED BY PERCHERON ON 12-15-2020 THROUGH 12-17-2020 (PROJECT NUMBER 10.007186.0000).

PRELIMINARY - NOT FOR CONSTRUCTION

NO	DATE	BY	AFE NO.	DATE	BY	DESCRIPTION	DATE	BY
A	02/25/21	FS	65553			ISSUED FOR 60% REVIEW	02/25/21	CS

ISSUED | AS BUILT | APPROVED

REVISIONS

NO	DATE	BY	AFE NO.	DATE	BY	DESCRIPTION	DATE	BY

ISSUED | AS BUILT | APPROVED

REVISIONS

BURNS McDONNELL
ENGINEERING LICENSE
NO.: COA.01557

TITLE

REFERENCE DRAWINGS

Rockies Express Pipeline

ISSUED FOR DESIGN

APPROVED FOR CONSTRUCTION

AFE. NO. 65553

DRAWING SIZE D

Pre Watershed Map
DICKS CREEK INTERCONNECT
PIN 60478

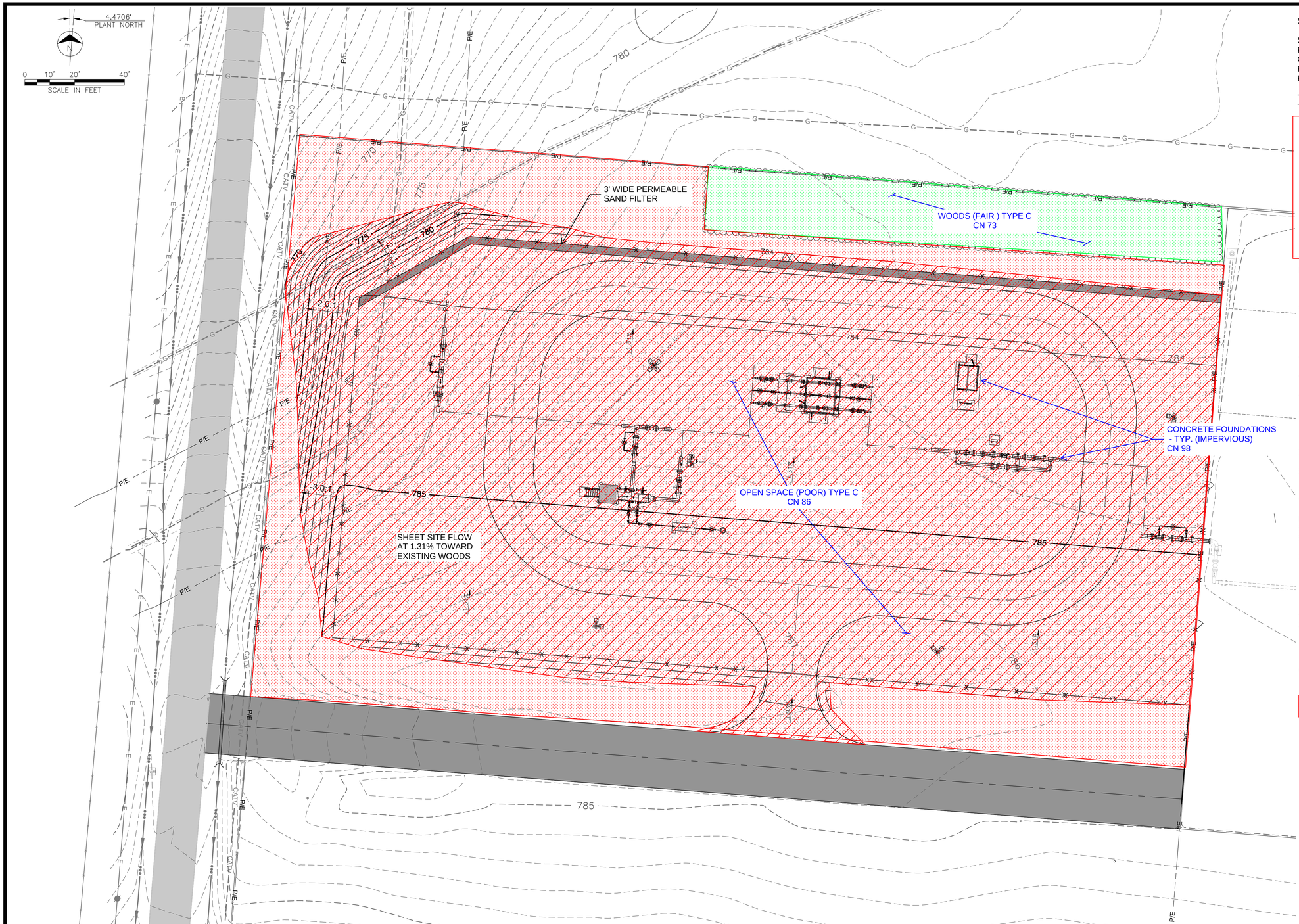
BUTLER COUNTY OH

DRAWN	CHK. DR.	SCALE	DATE
FS	CS	–	02/25/2021

PROJECT ENGR. / PROJECT MGR.: BB / DB

FILE NO.

REV A



STORMWATER MANAGEMENT ANALYSIS:

SINCE OUR PERMANENT SITE IS UNDER 2 ACRES (APPROX. 1.4 ACRES PERMANENT - FENCE AND GRADING LIMITS) WE ASSUMED OUR SITE QUALIFIED AS A SMALL CONSTRUCITON SITE AND RATE CONTROL IS NOT REQUIRED IF WE PUT WATER QUALITY VOLUME (WQv) BMPs THAT FOLLOW OHIO RUNOFF REDUCTION METHODS.

THE WQv WAS CALCULATED USING THE EQUATION FROM PAGE 21 OF THE OHIO EPA PERMIT NO. OHC000005:

Page 21 of 60
Ohio EPA Permit No.: OHC000005

$$WQ_v = Rv * P * A / 12 \qquad \text{(Equation 1)}$$

where:
WQ_v = water quality volume in acre-feet
Rv = the volumetric runoff coefficient calculated using equation 2
P = 0.90 inch precipitation depth
A = area draining into the BMP in acres

$$Rv = 0.05 + 0.9i \qquad \text{(Equation 2)}$$

where i = fraction of post-construction impervious surface

IT WAS DETERMINED THAT A GRAVEL PAD IS A PERVIOUS SURFACE, THUS THE ONLY IMPERVIOUS SURFACES ON OUR SITE ARE THE FOUNDATIONS FOR THE EQUIPMENT (APPROX. 0.067 ACRES).

SO,

i = 0.067/1.4 = 0.050
Rv = 0.05 + 0.9(0.05) = 0.095

AND

WQv = 0.095*(0.9)*1.4 / 12 = 0.010 ac-ft = 434.511 CF

AN ADDITIONAL 20% WAS ADDED TO THE WQv = (1.2)*434 = 521 CF

SO,

THE SAND FILTER BMP HAS A LENGTH = 353.5', WIDTH = 3', DEPTH = 0.5'

SAND FILTER BMPVOLUME = 353.5 * 3 * 0.5 = 530.25 CF

SUMMARY:

DUE TO THE SMALL CONSTRUCTION SITE AND THE MINIMAL WATER QUALITY VOLUME THAT IS NEEDED TO BE CAPTURED, OUR PROPOSED STORMWATER MANAGEMENT DESIGN CONSISTS OF A PERMEABLE SAND FILTER BMP. OUR INTENTION FOR THE GRADING OF THE SITE IS TO SHEET FLOW INTO THE SAND FILTER AND RELEASE TOWARD THE EXISTING WOODS AND OPEN SPACE. THE WOODS TO THE NORTH OF OUR SITE WILL CAPTURE MORE THAN HALF OF OUR RUNOFF AND IS TO BE UNDISTURBED DURING CONSTRUCTION.

OTHER NOTES:

THERE ARE NO STREAMS OR WETLANDS THAT WILL BE IMPACTED BY THE PERMANENT FACILITY DRAINAGE. IT WAS ALSO DETERMINED THAT THERE ARE NO EFFECTS FROM THE UNITED STATES FISH AND WILDLIFE SERVES (USFWS) REGARDING ADVERSE AFFECTS TO FEDEREALLY LISTED, THREATENED, OR ENDANAGED SPECIES IN THE PROJECT AREA.

THERE IS NO MAINTENANCE THAT NEEDS TO BE PERFORMED ON THE SAND FILTER. THERE WILL BE DELINEATORS INSTALLED AT 50' O.C. ALONG THE SAND FILTER TO AVOID TRAFFIC DISTURBANCE.

OPEN SPACE = 1.847 ACRES

WOODS = 0.111 ACRES

IMPERVIOUS (ASSUMED 5%) = 0.067 ACRES

= 2.026 ACRES WITH CN 85.7

PERMANENT DISTURBANCE =1.40 ACRES

NOTES:

1. ALL EXISTING SITE UTILITIES AND FEATURES SHOWN ARE BASED ON SURVEY PERFORMED BY PERCHERON ON 12-15-2020 THROUGH 12-17-2020 (PROJECT NUMBER 10.007186.0000).

NO.	DATE ISSUED	BY	AFE NO.	DATE AS BUILT	BY	DESCRIPTION	DATE APPROVED	BY

REVISIONS

NO.	DATE ISSUED	BY	AFE NO.	DATE AS BUILT	BY	DESCRIPTION	DATE APPROVED	BY

REVISIONS

REFERENCE DRAWINGS

TITLE

Rockies Express Pipeline

ISSUED FOR DESIGN | AFE. NO. 65553

APPROVED FOR CONSTRUCTION | DRAWING SIZE D

POST WATERSHED MAP
DICKS CREEK INTERCONNECT
PIN 60478

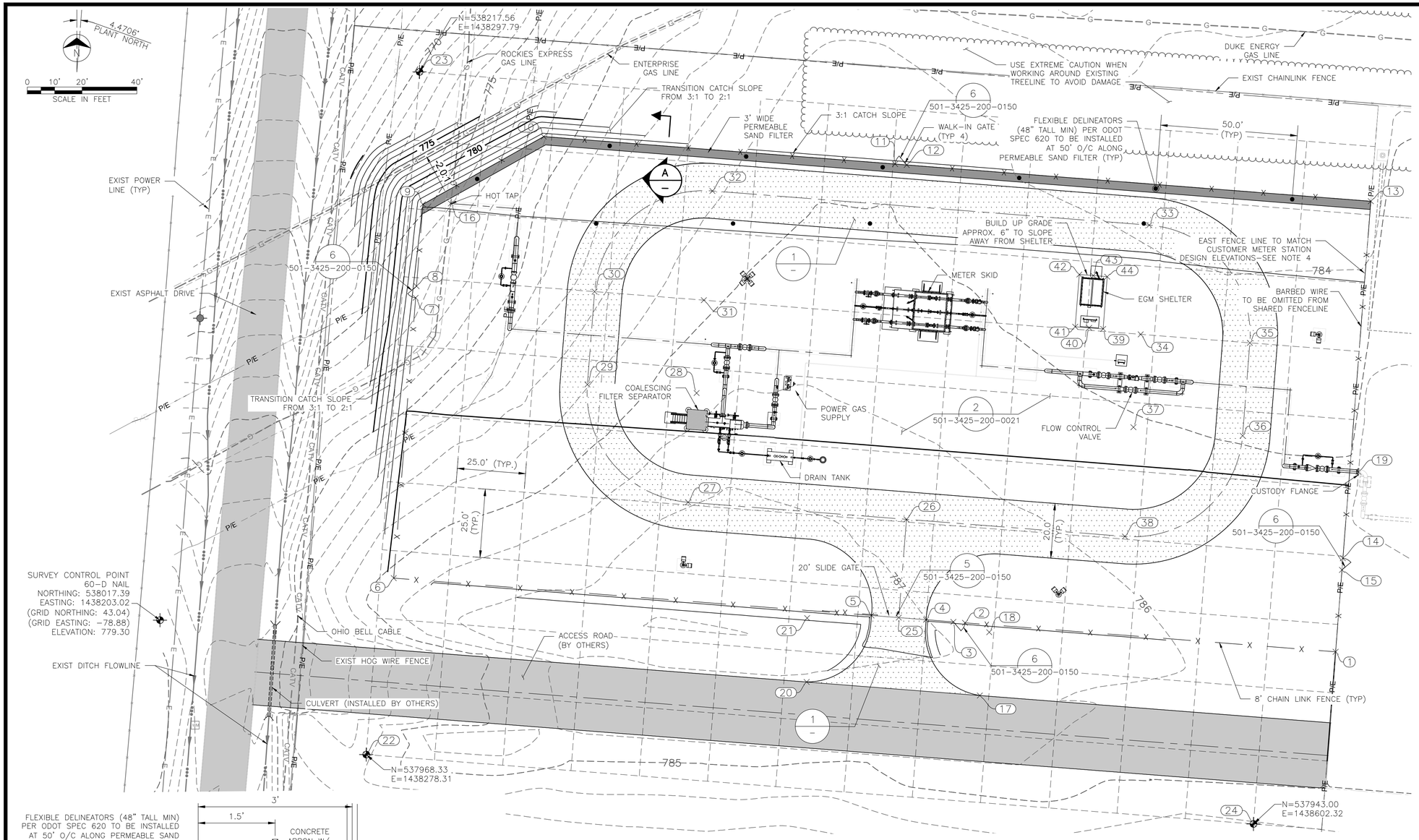
BUTLER COUNTY OH

DRAWN	CHK. DR.	SCALE	DATE
FS	CS	–	12/15/20

PROJECT ENGR. / PROJECT MGR.: BB / DB

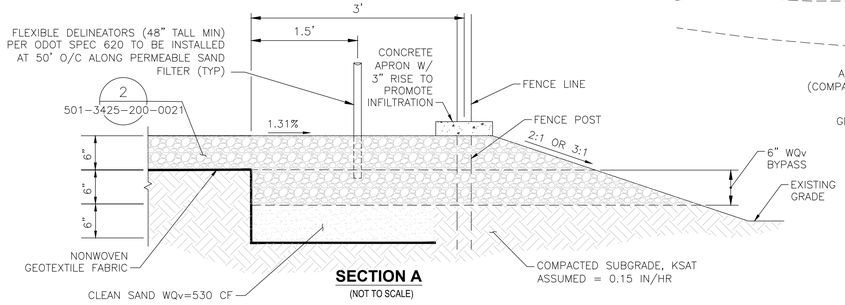
FILE NO.

REV A

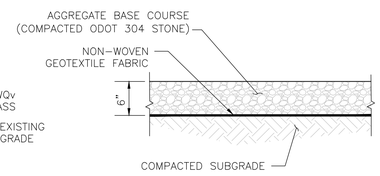


POINT CONTROL TABLE				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	65.01	350.00	785.82	PAD CORNER
2	65.00	214.25	785.82	WALK-IN GATE POST
3	65.00	210.00	785.82	WALK-IN GATE POST
4	65.01	200.00	785.82	SLIDE GATE POST
5	65.00	180.00	785.82	SLIDE GATE POST
6	65.01	5.00	785.82	PAD CORNER
7	167.67	5.00	784.44	WALK-IN GATE POST
8	171.92	5.00	784.39	WALK-IN GATE POST
9	201.93	5.00	783.98	PAD CORNER
10	230.00	47.06	783.60	PAD CORNER
11	229.99	175.75	783.60	WALK-IN GATE POST
12	229.99	180.00	783.60	WALK-IN GATE POST
13	230.00	350.00	783.60	PAD CORNER
14	99.25	349.99	785.36	WALK-IN GATE POST
15	94.99	349.99	785.42	WALK-IN GATE POST
16	202.98	15.11		HOT TAP
17	38.96	221.72	786.45	EDGE OF ROAD/MATCH EXIST
18	62.26	223.35		25' RADIUS POINT
19	131.11	353.25		CUSTODY FLANGE
20	38.96	158.28	786.50	EDGE OF ROAD MATCH EXIST
21	62.25	156.64		25' RADIUS POINT
22	0.00	0.00		CONTROL POINT #1
23	250.00	0.01		CONTROL POINT #2
24	0.01	325.01		CONTROL POINT #3
25	65.01	190.00	785.82	PI CL ROAD
26	101.00	190.00	785.34	PI CL ROAD
27	101.00	110.00	785.34	PC CL ROAD
28	141.00	110.00		RP CL ROAD
29	141.00	70.00	784.80	PT CL ROAD
30	175.00	70.00	784.35	PC CL ROAD
31	175.00	110.00		RP CL ROAD
32	214.99	110.00	783.81	PT CL ROAD
33	214.99	270.00	783.81	PC CL ROAD
34	175.00	270.00		RP CL ROAD
35	175.00	310.00	784.35	PT CL ROAD
36	141.00	310.00	784.80	PC CL ROAD
37	141.00	270.00		RP CL ROAD
38	101.00	270.00	785.34	PT CL ROAD
39	175.90	256.18	784.82	SHELTER GRADING
40	175.90	251.06	784.88	SHELTER GRADING
41	175.90	245.95	784.82	SHELTER GRADING
42	195.03	245.96	784.57	SHELTER GRADING
43	195.03	251.07	784.62	SHELTER GRADING
44	195.03	256.18	784.57	SHELTER GRADING

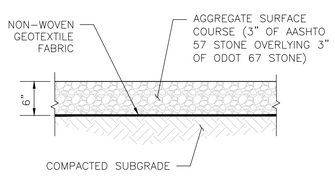
NOTES:
1. ALL COORDINATES SHOWN IN POINT CONTROL TABLE ARE GRID COORDINATES.
2. NAD83 OHIO STATE PLANES COORDINATE: N 537968.33, E 1438278.31 IS EQUAL TO PLANT GRID COORDINATE 0,0.
3. SURVEY PERFORMED BY PERCHERON ON 12-15-2020 THROUGH 12-17-2020 (PROJECT NUMBER 10.007186.0000).
4. CUSTOMER METER FACILITY TO BE BUILT UP APPROXIMATELY 1.5' FROM TALLGRASS'S EAST FENCELINE WITH A 3:1 DESIGN SLOPE. THE FLOW FROM THE 3:1 DESIGN SLOPE WILL FLOW ONTO TALLGRASS SITE AND SHEET FLOW NORTH TOWARD THE PERMEABLE SAND FILTER. THE DESIGN SLOPE AREA IS VERY MINIMAL, THUS RUNOFF IS CONSIDERED NEGLIGIBLE.



SECTION A
(NOT TO SCALE)



STATION ROAD SECTION — 1 — NOT TO SCALE



YARD SECTION — 2 — NOT TO SCALE

NO.	DATE	BY	AFE NO.	DATE	BY	DESCRIPTION	DATE	BY
	ISSUED			AS BUILT			APPROVED	
0	04/22/21	FS	65553 10193			ISSUED FOR CONSTRUCTION	04/22/21	CS

REVISIONS

REVISIONS

BURNS McDONNELL
ENGINEERING LICENSE NO.: COA.01557

REFERENCE DRAWINGS

TITLE

Rockies Express Pipeline

	ISSUED FOR DESIGN	AFE. NO.	65553/10193
X	APPROVED FOR CONSTRUCTION	DRAWING SIZE	D

GRADING PLAN
DICKS CREEK INTERCONNECT
PIN 60478

BUTLER COUNTY — OH

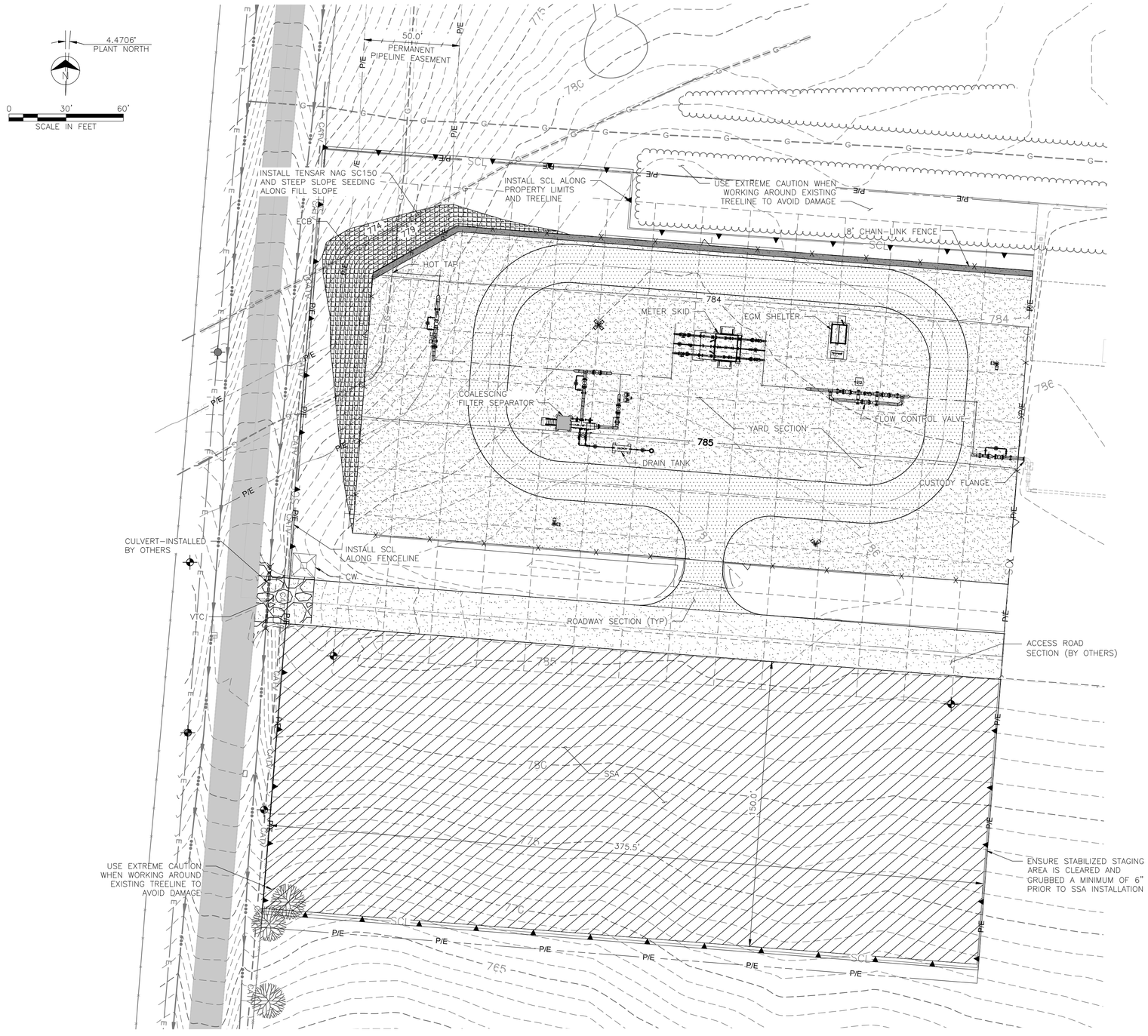
DRAWN	CHK. DR.	SCALE	DATE
FS	CS	–	12/15/20

PROJECT ENGR. / PROJECT MGR.: BB / DB

FILE NO.

501-3425-200-0021

REV 0



EROSION CONTROL LEGEND:

— SCL —	SEDIMENT CONTROL LOG (SCL)	1 / 501-3425-200-0035
	EROSION CONTROL BLANKET (ECB)	2 / 501-3425-200-0035
	SILT FENCE (SF)	3 / 501-3425-200-0035
	STABILIZED STAGING AREA (SSA)	1 / 501-3425-200-0036
	VEHICLE TRACKING CONTROL (VTC)	2 / 501-3425-200-0036
	CONCRETE WASHOUT STRUCTURE (CW)	3 / 501-3425-200-0036

NOTES:

1. SEE SHEET 501-3425-200-0001 FOR GENERAL EROSION CONTROL NOTES.
2. SEE SHEET 501-3425-200-0001 FOR TEMPORARY AND PERMANENT STABILIZATION REQUIREMENTS AND SEEDING SCHEDULES.

NO.	DATE	BY	AFE NO.	DATE	BY	DESCRIPTION	DATE	BY
0	04/22/21	FS	65553 10193			ISSUED FOR CONSTRUCTION	04/22/21	CS
	ISSUED			AS BUILT			APPROVED	

REVISIONS

NO.	DATE	BY	AFE NO.	DATE	BY	DESCRIPTION	DATE	BY
	ISSUED			AS BUILT			APPROVED	

REVISIONS

TITLE

REFERENCE DRAWINGS

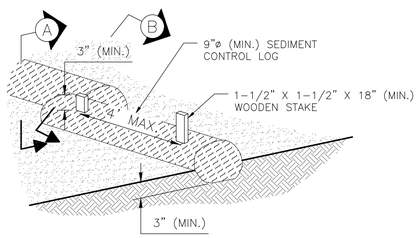
Rockies Express Pipeline

	ISSUED FOR DESIGN	AFE. NO.	65553/10193
X	APPROVED FOR CONSTRUCTION	DRAWING SIZE	D

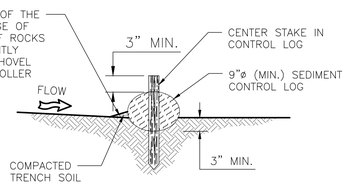
EROSION CONTROL PLAN
DICKS CREEK INTERCONNECT
PIN 60478

BUTLER COUNTY OH

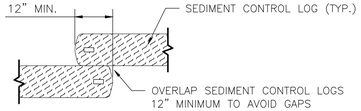
DRAWN	CHK. DR.	SCALE	DATE
FS	CS	–	12/15/20
PROJECT ENGR. / PROJECT MGR.		FILE NO.	
BB	DB	501-3425-200-0030	REV 0



PERSPECTIVE VIEW
NOT TO SCALE



A SECTION
NOT TO SCALE



B OVERLAP JOINT DETAIL
NOT TO SCALE

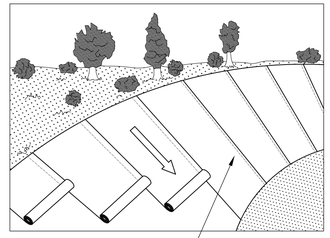
INSTALLATION NOTES:

1. SEE SEDIMENT AND EROSION CONTROL PLAN FOR GENERAL LOCATION OF SEDIMENT CONTROL LOGS. CONTRACTOR MAY MODIFY LOCATIONS AND QUANTITIES WITH APPROVAL FROM ENGINEER AND/OR OWNER.
2. SEDIMENT CONTROL LOGS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES IN THE LOCATIONS THAT WILL NOT BE DISTURBED. LOGS LOCATED IN AREAS THAT WILL BE GRADED SHALL BE INSTALLED AS SOON AS POSSIBLE AFTER GRADING HAS BEEN COMPLETED.
3. SEDIMENT CONTROL LOGS SHOULD BE AVOIDED IN CONCENTRATED HIGH FLOW AREAS.
4. SEDIMENT CONTROL LOGS SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 3 INCHES.

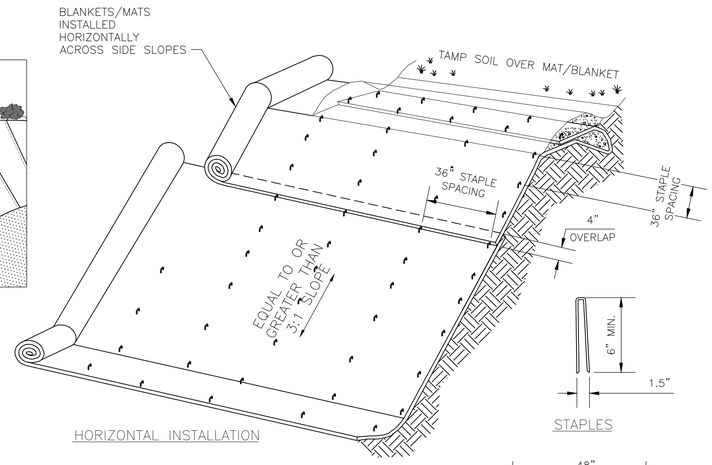
MAINTENANCE NOTES:

1. THE CONTRACTOR SHALL INSPECT THE SEDIMENT CONTROL LOGS WEEKLY AND MAINTAIN THEM IN AN EFFECTIVE CONDITION. THEY SHALL ALSO BE INSPECTED WITHIN 24 HOURS AFTER A STORM EVENT AND REPAIRS SHOULD BE COMPLETED AS NEEDED.
2. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOGS SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN 1/2 THE HEIGHT OF THE CREST OF THE LOG.
3. SEDIMENT CONTROL LOGS THAT ARE SHOWN IN RIPRAP LINED DRAINAGE CHANNELS DO NOT NEED TO BE INSTALLED IF RIPRAP IS INSTALLED DURING CHANNEL CONSTRUCTION. IF RIPRAP IS NOT INSTALLED DURING CHANNEL CONSTRUCTION, THE SEDIMENT CONTROL LOGS SHALL BE TEMPORARILY INSTALLED UNTIL COMMENCING THE RIPRAP INSTALLATION.
4. SEDIMENT CONTROL LOGS SHALL BE REMOVED AT THE END OF CONSTRUCTION. AFTER REMOVAL OF THE LOGS THE DISTURBED AREAS SHALL BE TOPSOILED, SEEDED AND MULCHED.

SEDIMENT CONTROL LOG (SCL) 1
NOT TO SCALE 501-3425-200-0030



VERTICAL INSTALLATION

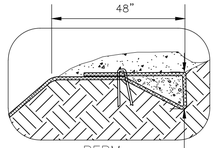


HORIZONTAL INSTALLATION

STAPLES

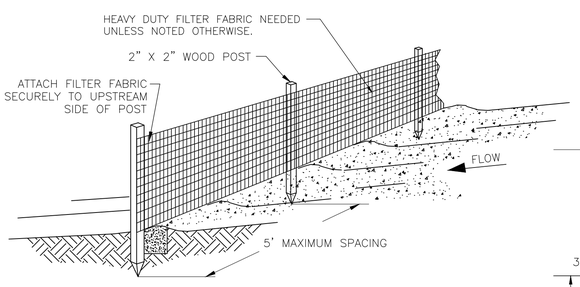
NOTES:

1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
2. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS. SEE SHEET 501-3425-200-0001 FOR TEMPORARY AND PERMANENT STABILIZATION REQUIREMENTS AND SEEDING SCHEDULES.
3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
4. USE ON SIDE SLOPES EXCEEDING A 3:1 SLOPE AND DISTURBED STREAMBANKS.
5. THE FOLLOWING BLANKET TYPES SHALL BE UTILIZED:
   A. LONG-TERM BIODEGRADABLE DOUBLE-NET COCONUT BLANKET ON STREAMBANKS.
   B. SHORT-TERM BIODEGRADABLE DOUBLE-NET STRAW BLANKET ON 3:1 SLOPES OR GREATER.
   C. SHORT-TERM BIODEGRADABLE SINGLE-NET STRAW ON LESSER SLOPES, FLAT FLOODPLAIN, AND WORKSPACE AREAS.
6. FOR STREAMBANK STABILIZATION;
   A. TUCK/UNDERLAP BASE OF BLANKET TO PREVENT HIGH WATER FROM REMOVING BLANKET AND SEED.
   B. STAPLE SPACING MAY NEED TO BE DECREASED.
   C. PREPARE SUBGRADE PRIOR TO INSTALLING BLANKET BY REMOVING DISPLACED ROCKS AND WOODY DEBRIS.

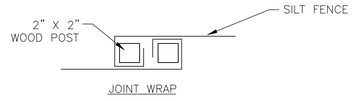


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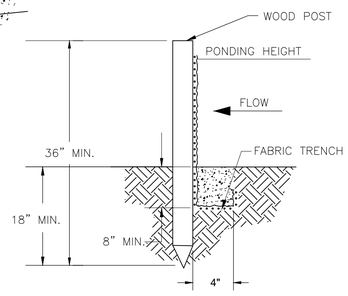
EROSION CONTROL BLANKET 2
NOT TO SCALE 501-3425-200-0030



ISOMETRIC VIEW



JOINT WRAP



TYPICAL SECTION

NOTES:

1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN IT REACHES ONE-HALF HEIGHT OF FENCE OR FABRIC STARTS TO BULGE.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
4. TURN END OF SILT FENCE UP SLOPE TO PREVENT BYPASS FLOW AND ALLOW FOR PONDING.

SILT FENCE (SF) 3
NOT TO SCALE 501-3425-200-0030

NO.	DATE	BY	AFE NO.	DATE	BY	DESCRIPTION	DATE	BY
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TITLE

REFERENCE DRAWINGS

Rockies Express Pipeline

	ISSUED FOR DESIGN	AFE. NO. 65553/10193	
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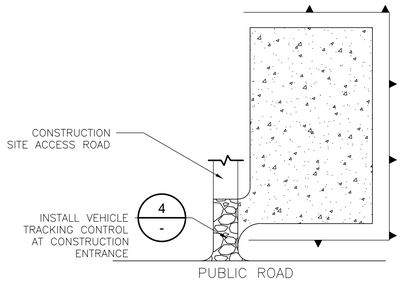
EROSION CONTROL DETAILS
DICKS CREEK INTERCONNECT
PIN 60478

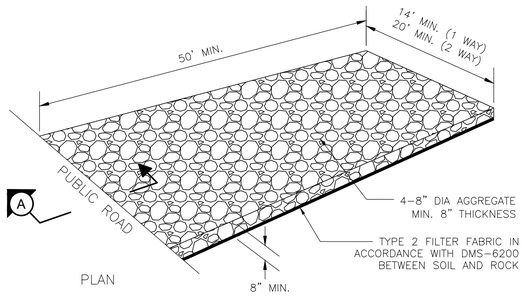
BUTLER COUNTY OH

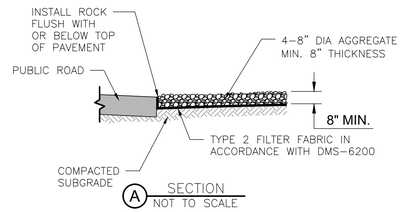
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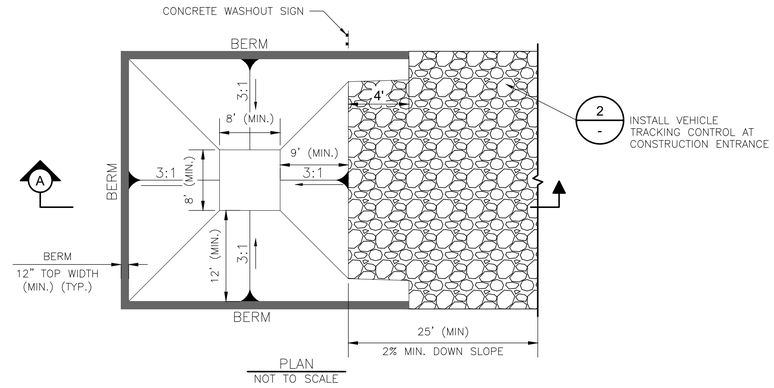
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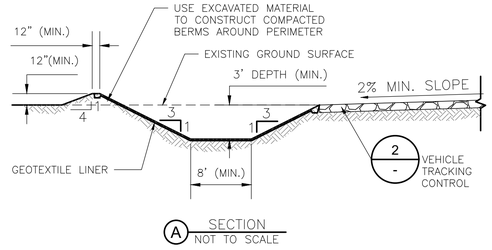
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INSTALLATION NOTES:

1. SEE SEDIMENT AND EROSION CONTROL PLAN FOR GENERAL LOCATION OF STAGING AREA. CONTRACTOR MAY MODIFY LOCATION AND SIZE OF STABILIZED STAGING AREA WITH APPROVAL FROM ENGINEER AND/OR CONTRACTING OFFICER.
2. STABILIZED STAGING AREA SHALL BE SIZED APPROPRIATELY TO FULLY CONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING OPERATIONS.
3. STAGING AREA SHALL BE STABILIZED PRIOR TO ANY OTHER OPERATIONS ON THE SITE.
4. THE STABILIZED STAGING AREA SHALL CONSIST OF 2-4" DIA AGGREGATE A MINIMUM OF 8 INCHES THICK.
5. STAGING AREA SHALL BE CONTAINED WITHIN THE SITE'S PERIMETER BMPS, OR HAVE ADDITIONAL PERIMETER BMPS (SILT FENCE) INSTALLED AROUND STAGING AREA.

MAINTENANCE NOTES:

1. THE CONTRACTOR SHALL INSPECT THE STABILIZED STAGING AREA WEEKLY AND MAINTAIN IT IN AN EFFECTIVE CONDITION. IT SHALL ALSO BE INSPECTED WITHIN 24 HOURS AFTER A STORM EVENT AND REPAIRS OR CLEAN OUT OF UPSTREAM SEDIMENT SHOULD BE COMPLETED AS NEEDED.
2. THE CONTRACTOR SHALL PROVIDE ADDITIONAL THICKNESS OF AGGREGATE MATERIAL IF ANY RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.
3. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING OPERATIONS.
4. ANY ACCUMULATED DIRT OR MUD SHALL BE REMOVED FROM THE SURFACE OF THE STABILIZED STAGING AREA.
5. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED AND THE AREA TOPSOILED, SEEDED AND MULCHED. SEE SHEET 501-3425-200-0001 FOR SEEDING SCHEDULES.

STABILIZED STAGING AREA 1
NOT TO SCALE 501-3425-200-0030

INSTALLATION NOTES:

1. SEE SEDIMENT AND EROSION CONTROL PLAN FOR GENERAL LOCATION OF VEHICLE TRACKING PAD. CONTRACTOR MAY MODIFY LOCATION AND SIZE OF THE VEHICLE TRACKING PAD WITH APPROVAL FROM ENGINEER AND/OR CONTRACTING OFFICER.
2. THE VEHICLE TRACKING PAD SHALL BE SIZED APPROPRIATELY TO ALLOW PROPER TRAFFIC FLOW AND TO PREVENT TRACKING OF SEDIMENT OFF-SITE. IF TRACKING PAD IS NOT EFFECTIVE AT CONTAINING SEDIMENT THE CONTRACTOR SHALL STOP OPERATIONS AND MAKE MODIFICATIONS TO THE TRACKING PAD TO PREVENT OFF-SITE TRACKING OF SEDIMENT.
3. VEHICLE TRACKING PAD SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
4. THE TRACKING PAD SHALL CONSIST OF 4-8" DIA AGGREGATE A MINIMUM OF 8 INCHES THICK. A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE TRACKING PAD PRIOR TO THE PLACEMENT OF AGGREGATE.
5. A STABILIZED ENTRANCE/EXIT IS REQUIRED AT ALL ACCESS POINTS WHERE VEHICLES CAN ACCESS THE CONSTRUCTION SITE FROM PUBLIC ROADS. ANY OTHER ACCESS POINTS NOT SHOWN ON THE PLANS THAT THE CONTRACTOR ELECTS TO USE SHALL HAVE A VEHICLE TRACKING PAD INSTALLED AND THE ENTRANCE/EXIT LOCATION.

MAINTENANCE NOTES:

1. THE CONTRACTOR SHALL INSPECT THE VEHICLE TRACKING PAD WEEKLY AND MAINTAIN IT IN AN EFFECTIVE CONDITION. IT SHALL ALSO BE INSPECTED WITHIN 24 HOURS AFTER A STORM EVENT AND REPAIRS SHOULD BE COMPLETED AS NEEDED.
2. THE CONTRACTOR SHALL PROVIDE ADDITIONAL THICKNESS OF AGGREGATE MATERIAL IF ANY RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED. ROCK SHALL BE RE-APPLIED OR RE-GRADED AS NECESSARY TO MAINTAIN A CONSTANT DEPTH OF THE AGGREGATE.
3. SEDIMENT TRACKED ONTO PAVED ROADS SHALL BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT SHALL NOT BE WASHED INTO DRAINAGE SWALES, DITCHES OR STORM SEWERS.
4. ALL AGGREGATE USED FOR THE VEHICLE TRACKING PAD SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE AGGREGATE MATERIAL SHALL BE REMOVED AND EITHER SURFACED WITH GRAVEL OR TOPSOILED, SEEDED AND MULCHED PER THE PLANS.

VEHICLE TRACKING CONTROL 2
NOT TO SCALE 501-3425-200-0030

INSTALLATION NOTES:

1. SEE SEDIMENT AND EROSION CONTROL PLAN FOR LOCATION OF CONCRETE WASHOUT AREA.
2. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
3. VEHICLE TRACKING CONTROL IS REQUIRED AT THE ACCESS POINT.
4. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
5. EXCAVATION MATERIAL SHALL BE UTILIZED IN PERIMETER BERM CONSTRUCTION.

MAINTENANCE NOTES:

1. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED, ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE. CONCRETE WASTE MATERIALS SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
2. THE CONTRACTOR SHALL INSPECT THE CONCRETE WASHOUT AREA WEEKLY AND MAINTAIN IT IN AN EFFECTIVE CONDITION. IT SHALL ALSO BE INSPECTED WITHIN 24 HOURS AFTER A STORM EVENT AND REPAIRS OR CLEAN OUT OF SEDIMENT SHOULD BE COMPLETED AS NEEDED.
3. THE CONCRETE WASHOUT AREA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
4. THE CONCRETE WASHOUT AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE CONCRETE WASHOUT SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. AFTER REMOVAL OF THE WASTE MATERIAL THE AREA SHALL BE GRADED SMOOTH, TOPSOILED, SEEDED AND MULCHED.

CONCRETE WASHOUT 3
NOT TO SCALE 501-3425-200-0030

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REFERENCE DRAWINGS

TITLE

Rockies Express Pipeline

	ISSUED FOR DESIGN		AFE. NO. 65553/10193
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EROSION CONTOL DETAILS #2
DICKS CREEK INTERCONNECT
PIN 60478

BUTLER COUNTY OH

DRAWN	CHK. DR.	SCALE	DATE
FS	CS	–	12/15/20
PROJECT ENGR. / PROJECT MGR.		FILE NO.	
BB	DB	501-3425-200-0036	REV 0

LEGEND

- OVERHEAD TRANSMISSION ELECTRIC LINES (OHE)
- TREE LINE
- FENCE LINE
- PROPERTY LINE
- ROAD CENTERLINE
- NATURAL GAS UTILITY LINE
- ROAD EDGE
- CITY LIMITS
- PROPOSED FACILITY

ZONING DISTRICTS

- A-1 LARGE SCALE AGRICULTURAL
- H-1 HEAVY INDUSTRIAL
- L-1 LIGHT INDUSTRIAL
- R-1 SINGLE-FAMILY RESIDENTIAL INFILL
- R-2 SINGLE-FAMILY RESIDENTIAL

Q6542060000002
AK STEEL CORP
3024 OXFORD STATE RD
14433 ENT LESS PTS

CITY OF MIDDLETOWN
CITY OF MONROE

C1800001000001
AK STEEL CORP
TODHUNTER RD
567 ENT

NATURAL GAS UTILITY LINE
NATURAL GAS UTILITY LINE
NATURAL GAS UTILITY LINE

C1800002000004
CINCINNATI GAS & ELECTRIC CO
602 TODHUNTER RD
571 N650 OF W1340

EXISTING OVERHEAD TRANSMISSION ELECTRIC LINES (OHE)

H-1

PROPOSED TALLGRASS FACILITY
PROPOSED DUKE FACILITY
PROPOSED ACCESS RD

~1177 FT.

C1800001000010
MILLER THOMAS C & CANDICE NIXON
860 HOLMAN AVE
804 ENT LESS W 549'CTR PT

A-1

APPROXIMATE EXISTING TREE LINE

EXISTING DICKS CREEK ENERGY FACILITY PRIVATE ACCESS DRIVE

C1800002000001
TRI STATE IMPROVEMENT CO
598 TODHUNTER RD
51 ENT LESS N 650 OF W

~929 FT.

EXISTING AGRICULTRUAL FIELD

L-1

C1800001000004
FARIS DONALD SCOTT
TODHUNTER RD
570 ENT LESS S PT

EXISTING DIRT FARM & OHE ACCESS

C1800002000002
TRI STATE IMPROVEMENT CO
TODHUTNER RD
572 ENT

R-1

~252 FT.

C1800002000002 CINCINNATI GAS & ELECTRIC CO
C1800002000003 SPURLOCK CODY SEE
C1800002000004 MCKINNEY ACHELA
C1800002000005 MARTIN ROSIE L &
C1800002000006 BLACKBURN CHRIS D & KELLIE L
C1800002000007 TRI STATE IMPROVEMENT CO
C1800002000008 BOYLES JEFFERY D & DONNA K
C1800002000009 SCHAEFER C & ASHLEY T

R-2

A-1

HANFORD LN

TODHUNTER RD

L-1

R-1

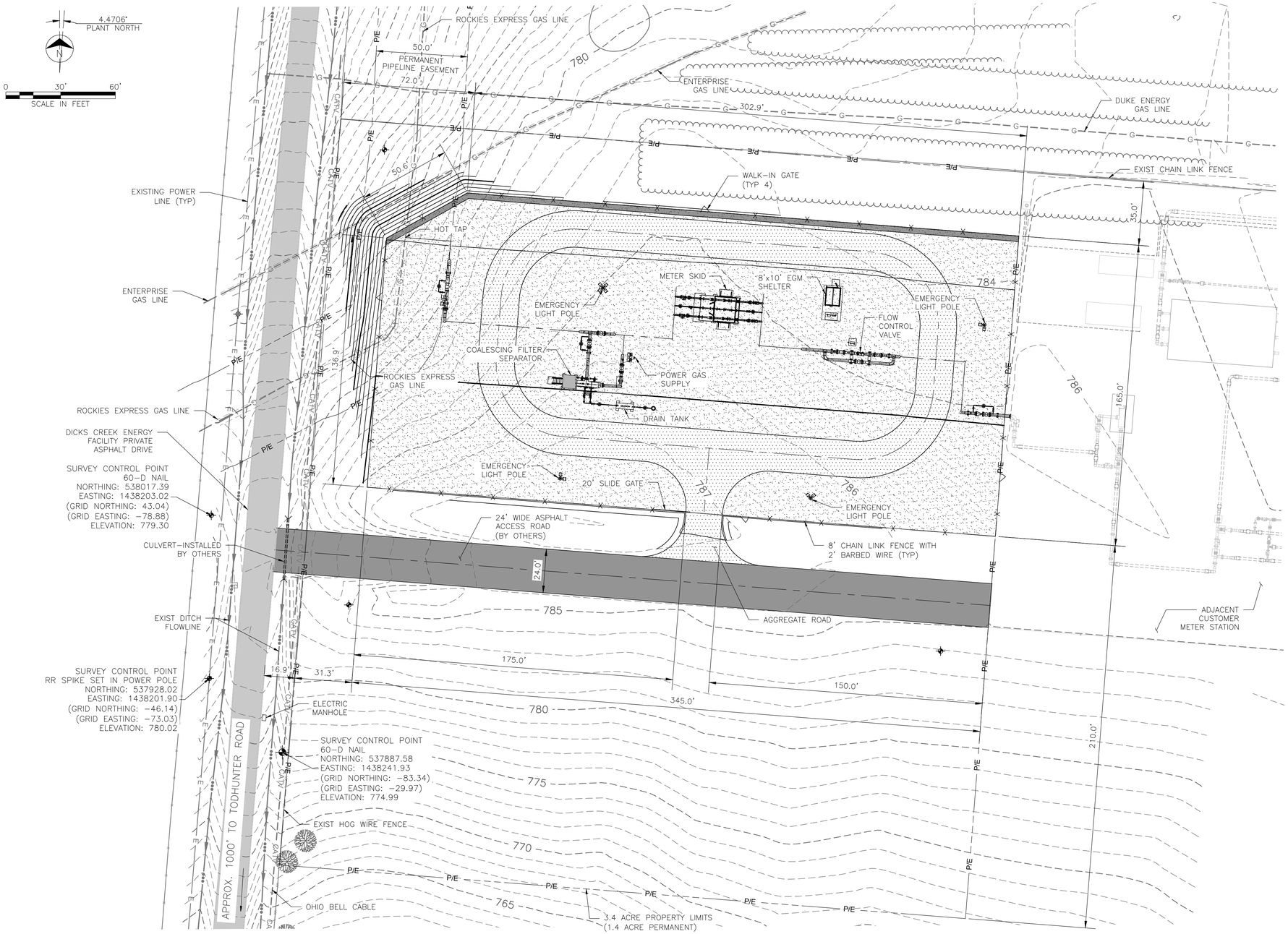
R-2

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300 Ft.

EXISTING CONDITIONS

CITY OF MONROE, BUTLER COUNTY, OH



MASTER LEGEND

- EXISTING HOG WIRE FENCE
- EXISTING CHAIN LINK BARBWIRE FENCE
- NEW CHAIN LINK BARBWIRE FENCE
- EXISTING UNDERGROUND GAS
- EXISTING OVERHEAD ELECTRICAL
- EXISTING UNDERGROUND ELECTRICAL
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- MAJOR CONTOUR
- MINOR CONTOUR
- EXISTING UNDERGROUND WATER MAIN
- EXISTING DRAINAGE DITCH
- EXISTING CABLE TV
- PERMANENT EASEMENT
- YARD SECTION
- ROADWAY SECTION
- PERMEABLE SAND FILTER
- EXISTING ASPHALT ROAD
- EXISTING TREELINE
- FIRE HYDRANT
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- SURVEY CONTROL

BASIC PROJECT AND SITE INFO

PROJECT ADDRESS: 598 TODHUNTER ROAD, MONROE, OH 45050 (BUTLER COUNTY)
TOTAL LOT AREA: 48.5 ACRES (1.4 AC PERMANENT, 3.54 AC TEMPORARY)
COUNTY TAX PARCEL ID: C1800002000001
PROJECT/DEVELOPMENT NAME: ROCKIES EXPRESS PIPELINE, LLC, DICK'S CREEK INTERCONNECT PROJECT
EXISTING ZONING DISTRICT: A-1 (LARGE SCALE AGRICULTURE)

APPLICANT INFO

APPLICANT NAME: TALLGRASS ENERGY
CONTACT PERSON: DUSTIN BERG
CONTACT ADDRESS: 370 VAN GORDON STREET, LAKEWOOD, CO 80228
CONTACT PHONE: 303-763-3435
CONTACT EMAIL: DUSTIN.BERG@TALLGRASSENERGYLP.COM
PROPERTY OWNER NAME: TALLGRASS ENERGY

NOTES:

1. THERE ARE NO EXISTING OR PROPOSED BUILDINGS ON SITE.
2. UNDERGROUND PIPELINE SHOWN AS "DASHED" AND ABOVE GROUND PIPE SHOWN AS "SOLID".
3. NO UTILITY CONNECTIONS ARE LOCATED WITHIN THE CITY OF MONROE'S RIGHT OF WAY.
4. BEARINGS AND COORDINATES ARE RELATIVE TO THE NAD83 OHIO STATE PLANES SOUTH ZONE COORDINATE SYSTEM (OH83-SF). GRID VALUES ARE SHOWN AND ARE NOT SCALED TO SURFACE VALUES. SEE DRAWING 501-3425-200-0020 FOR BENCHMARKS WITH BOTH GRID AND OH83-SF COORDINATES SHOWN.

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REFERENCE DRAWINGS

Rockies Express Pipeline

	ISSUED FOR DESIGN	AFE. NO.	65553/10193
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SITE AND UTILITY LAYOUT PLAN
DICKS CREEK INTERCONNECT

BUTLER COUNTY OH

DRAWN	CHK. DR.	SCALE	DATE
FS	CS	-	12/15/20

PROJECT ENGR. / PROJECT MGR.: BB / DB

FILE NO.

SITE LAYOUT PLAN REV 0

PROJECT NOTES:

1. BEARINGS AND COORDINATES ARE RELATIVE TO THE NAD83 OHIO STATE PLANES SOUTH ZONE COORDINATE SYSTEM (OH83-SF). GRID VALUES ARE SHOWN AND ARE NOT SCALED TO SURFACE VALUES. SEE DRAWING 501-3425-200-0020 FOR BENCHMARKS WITH BOTH GRID AND OH83-SF COORDINATES SHOWN.

2. WIND EROSION AND DUST GENERATION SHALL BE KEPT TO A MINIMUM UTILIZING DUST CONTROL METHODS. SEEDING AND MULCHING SHALL BE USED ON AREAS WHERE GRADING HAS BEEN COMPLETED. THE APPLICATION OF WATER FROM A WATER TRUCK SHALL BE USED TO CONTROL DUST DURING THE GRADING OPERATIONS. CARE WILL BE TAKEN NOT TO OVER WATER THE SITE, WHICH CAN INCREASE THE POTENTIAL OF MUD TRACKING BY EQUIPMENT.

3. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED DUE TO UNFORESEEN PROBLEMS OR IF THE PLAN DOES NOT FUNCTION AS INTENDED.

4. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE GRAVELED OR SEEDED WITH NATIVE VEGETATION, REFER TO TALLGRASS CONSTRUCTION STANDARD C1260 FOR REVEGETATION REQUIREMENTS.

5. CONTRACTOR SHALL USE VEHICLE TRACKING CONTROL AT ALL LOCATIONS WHERE VEHICLES WILL ENTER OR EXIT THE SITE. CONTROL FACILITIES WILL BE MAINTAINED WHILE CONSTRUCTION IS IN PROGRESS, MOVED WHEN NECESSARY, AND REMOVED WHEN THE CONSTRUCTION IS COMPLETED.

6. ALL CONSTRUCTION SUPPORT ACTIVITIES, SUCH AS EQUIPMENT STAGING AREAS AND MATERIAL STORAGE AREAS SHALL BE CONFINED WITHIN THE DISTURBED AREA. ANY BORROW OR STOCKPILE AREAS THAT ARE REQUIRED SHALL ALSO BE CONFINED WITHIN THE DISTURBED AREA.

7. TEMPORARY OR PERMANENT STABILIZATION MEASURES MUST BE INITIATED NO MORE THAN 14 DAYS AFTER CONSTRUCTION ACTIVITY IS STOPPED. IF THE FOLLOWING CONDITIONS ARE PRESENT: GROUND IS FROZEN, COVERED BY SNOW, OR IF ARID, SEMI-ARID OR DROUGHT CONDITIONS ARE OCCURRING THE STABILIZATION SHALL BE COMPLETED AS SOON AS IS PRACTICAL. IF CONSTRUCTION WILL BE RESTARTED WITHIN 21 DAYS FROM THE DATE CONSTRUCTION WAS STOPPED, STABILIZATION MEASURES DO NOT NEED TO BE COMPLETED.

8. VEHICLE WASHING SHALL BE COMPLETED WITHIN THE PROTECTED BOUNDARY OF THE SITE. WASHING OF VEHICLES OUTSIDE OF THE PROTECTION AREA IS PROHIBITED.

9. THE CONTRACTOR SHALL ACHIEVE FINAL STABILIZATION PRIOR TO FINAL ACCEPTANCE. FINAL STABILIZATION SHALL CONSIST OF THE FOLLOWING REQUIREMENTS:

   A. ALL SOIL DISTURBING ACTIVITIES AT THE SITE MUST BE COMPLETED. IN ADDITION, A UNIFORM AND EVENLY DISTRIBUTED PERENNIAL VEGETATIVE COVER MUST BE ESTABLISHED WITH A DENSITY OF AT LEAST 70% OF THE NATIVE BACKGROUND VEGETATIVE COVER ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES, OR EQUIVALENT PERMANENT STABILIZATION MEASURES (SUCH AS THE USE OF RIPRAP, GABIONS, AGGREGATE SURFACING, OR GEOTEXTILES) MUST BE EMPLOYED.

   B. FOR AREAS THAT ARE ARID, SEMI-ARID, OR DROUGHT-STRICKEN, ALL SOIL DISTURBING ACTIVITIES AT THE SITE MUST BE COMPLETE. TEMPORARY EROSION CONTROL MEASURES SUCH AS SELECTING, DESIGNING, AND INSTALLING DEGRADABLE ROLLED EROSION CONTROL PRODUCTS ON SITE WITH AN APPROPRIATE SEED BASE TO PROVIDE EROSION CONTROL FOR AT LEAST THREE YEARS WITHOUT ACTIVE MAINTENANCE BY THE CONTRACTOR AND TO ACHIEVE 70 PERCENT VEGETATIVE COVERAGE WITHIN THREE (3) YEARS.

SEEDING SCHEDULE:
TYPE 1 MIX – CUT AND EMBANKMENT FILL AREAS (NON-WET)/CHANNELS

BOTANICAL NAME	COMMON NAME	RATE OF PURE LIVE SEED (PLS) PER ACRE:
Festuca Arundinacea	TALL FESCUE	40-50 LBS

EROSION AND SEDIMENT CONTROL NOTES:

1. VEHICLE TRACKING CONTROL:
OFF-SITE TRACKING OF SEDIMENTS BY VEHICLES SHALL BE MINIMIZED BY USING A STABILIZED CONSTRUCTION ENTRANCE/EXIT. IF SEDIMENT IS CARRIED OFF-SITE BY VEHICLES, THE CONTRACTOR SHALL HALT OPERATIONS AND MAKE MODIFICATIONS TO THE VEHICLE TRACKING CONTROL PAD TO REDUCE SEDIMENT FROM BEING CARRIED OFF SITE. THE CONTRACTOR SHALL REMOVE THE VEHICLE TRACKING PAD WHEN THERE IS NO LONGER THE POTENTIAL FOR VEHICLE TRACKING TO OCCUR AFTER THE SITE WORK HAS BEEN COMPLETED, AGGREGATE SURFACING HAS BEEN COMPLETED ON THE SUBSTATION PAD, AND ACCESS ROADS HAVE BEEN COMPLETED. DURING THE REMOVAL OF THE VEHICLE TRACKING PAD AGGREGATE, THE EXCESS SEDIMENT SHALL BE REMOVED AND DISPOSED OF OFF-SITE.

2. WIND EROSION & DUST CONTROL:
WIND EROSION AND DUST GENERATION SHALL BE KEPT TO A MINIMUM BY UTILIZING DUST CONTROL METHODS TO HELP PREVENT SOIL PARTICLES FROM ENTERING THE AIR AS A RESULT OF LAND DISTURBING CONSTRUCTION ACTIVITIES. SEEDING AND MULCHING SHALL BE USED ON AREAS WHERE GRADING OPERATIONS HAVE BEEN COMPLETED. THE APPLICATION OF WATER FROM A WATER TRUCK SHALL BE USED TO CONTROL DUST DURING GRADING OPERATIONS. CARE SHALL BE TAKEN NOT TO OVER WATER THE SITE, WHICH WILL INCREASE THE POTENTIAL OF EQUIPMENT TRACKING MUD OFF SITE.

3. SOLID WASTE DISPOSAL:
CONSTRUCTION SITE SOLID WASTE MATERIALS SHALL BE COLLECTED, TEMPORARILY STORED AND LAWFULLY DISPOSED OF AT REGULAR INTERVALS OFF THE PROJECT SITE IN A MANNER CONSISTENT WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. CONTRACTOR'S PERSONNEL SHALL BE EDUCATED, AS REQUIRED, ON SOLID WASTE HANDLING PROCEDURES.

4. SANITARY WASTE DISPOSAL
PORTABLE TOILETS SHALL BE USED ON SITE TO CONTAIN SANITARY WASTE. THEY SHALL BE LOCATED ON LEVEL SURFACES AWAY FROM CULVERTS AND DITCHES. PORTABLE TOILETS SHALL BE CLEANED, MAINTAINED AND EMPTIED REGULARLY. THE WASTE SHALL BE TRANSPORTED AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS AND SHALL NOT BE DISCHARGED OR BURIED ON SITE. PORTABLE TOILETS MUST BE SECURELY STAKED DOWN TO PREVENT TIPPING OVER.

5. HAZARDOUS WASTE DISPOSAL
HAZARDOUS AND TOXIC WASTE SHALL BE COLLECTED, TEMPORARILY STORED AND LAWFULLY DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. CONTRACTOR'S PERSONNEL SHALL BE EDUCATED, AS REQUIRED, ON HAZARDOUS AND TOXIC WASTE HANDLING PROCEDURES.

6. CONSTRUCTION & HAZARDOUS MATERIAL CONTROLS:
   A. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER AND UNDER AN ENCLOSURE IF POSSIBLE. MATERIALS SHALL BE STORED ON IMPERMEABLE SURFACES AND IN LOCATIONS AWAY FROM HIGH TRAFFIC AREAS WHENEVER PRACTICAL.

   B. CONTRACTOR SHALL IMPLEMENT A PROGRAM TO INVENTORY MATERIALS AND REDUCE OVERSTOCKED MATERIALS STORED ON SITE.

   C. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RE-SEALABLE WITH THE ORIGINAL MANUFACTURER'S LABEL AND MATERIAL SAFETY DATA SHEETS (MSDS). SECONDARY CONTAINMENT SHALL BE USED WHEN STORING HAZARDOUS MATERIALS, WHEN PRACTICAL.

   D. ALL OF THE PRODUCT IN A CONTAINER SHALL BE USED BEFORE DISPOSING OF THE CONTAINER, WHENEVER POSSIBLE.

   E. ONLY PROPERLY TRAINED PERSONNEL SHALL HANDLE HAZARDOUS MATERIALS.

   F. SURPLUS PRODUCTS WILL BE DISPOSED OF FOLLOWING THE MANUFACTURERS' RECOMMENDED METHOD FOR PROPER DISPOSAL AND SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

7. PETROLEUM PRODUCTS:
   A. ALL ONSITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED.

   B. ON-SITE, BULK FUEL STORAGE TANKS, GREATER THAN 1,100 GALLONS, SHALL HAVE SECONDARY CONTAINMENT PER COLORADO ADMINISTRATIVE CODE. BULK FUEL STORAGE TANKS LESS THAN 1,100 GALLONS SHOULD BE EQUIPPED WITH SECONDARY CONTAINMENT AS A MATTER OF GOOD HOUSEKEEPING. STORAGE TANKS AND ALL APPURTENANCES SHALL BE INSPECTED PRIOR TO AND AFTER EACH USE FOR EVIDENCE OF FUEL LEAKS OR SPILLS. IF A LEAK OR SPILL HAS OCCURRED, THE OPERATOR SHALL CONFORM TO THE RULES AND REGULATIONS SET FORTH BY THE COLORADO ADMINISTRATIVE CODE.

8. CONCRETE TRUCK WASH OUT
   A. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED ON SITE AS SHOWN ON THE SEDIMENT & EROSION CONTROL PLANS. IT WILL BE CONSTRUCTED PER THE CONCRETE WASHOUT AREA DETAIL ON THE SEDIMENT & EROSION CONTROL DETAILS DRAWING.

   B. CONCRETE TRUCK WASHOUT WATER SHALL BE DISCHARGED TO AREAS AT THE CONSTRUCTION SITE WHERE STRUCTURAL CONTROLS HAVE BEEN ESTABLISHED TO PREVENT DIRECT DISCHARGE TO SURFACE WATERS, OR TO AREAS THAT HAVE A MINIMAL SLOPE THAT ALLOW INFILTRATION AND FILTERING OF WASH OUT WATER TO PREVENT DIRECT DISCHARGE TO SURFACE WATERS. STRUCTURAL CONTROLS MAY CONSIST OF TEMPORARY BERMS, TEMPORARY SHALLOW PITS, TEMPORARY STORAGE TANKS WITH SLOW RATE RELEASE, OR OTHER REASONABLE MEASURES TO PREVENT RUNOFF FROM THE CONSTRUCTION SITE.

GENERAL NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH ALL APPLICABLE TALLGRASS PIPELINE STANDARDS, CODES, SPECIFICATIONS, LOCAL ORDINANCES, INDUSTRY STANDARDS AND UTILITY COMPANY REQUIREMENTS.

2. THESE DESIGN DRAWINGS PRESENT THE CIVIL CONCEPTS OF THIS PROJECT AND ARE NOT INTENDED TO SERVE AS CONTRACTOR'S SHOP DRAWINGS. CERTAIN ITEMS MAY NOT BE COMPLETELY DETAILED ON THESE DRAWINGS. SUCH ITEMS SHALL BE CONSTRUCTED TO THE CODES AND STANDARDS AS NOTED. THE STANDARDS AND REQUIREMENTS OF THE LOCAL JURISDICTION SHALL TAKE PRECEDENCE.

3. GRADING SHALL BE PERFORMED TO THE PLANS, ELEVATIONS, PROFILES, SECTIONS, DETAILS AND SPECIFICATIONS UNLESS APPROVAL HAS BEEN OBTAINED IN ADVANCE.

4. THE CONTRACTOR SHALL REQUEST UTILITY LOCATES AND VERIFY ALL UNDERGROUND UTILITY LOCATIONS BEFORE CONSTRUCTION. THE LOCATION OF UNDERGROUND UTILITIES WAS NOT PART OF THE DESIGN SURVEY. THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE OPERATION OF ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION AREA THROUGHOUT THE CONSTRUCTION PROCESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF ALL EXISTING UTILITIES WHICH ARE DISTURBED AS PART OF THE CONTRACT. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE RESPECTIVE UTILITY OWNERS.

5. THE CONTRACTOR SHALL VERIFY THE LOCATION AND INVERT ELEVATIONS OF ALL EXISTING UTILITIES AND STRUCTURES WITHIN THE PROJECT AREA. SEE MECHANICAL, STRUCTURAL, AND ELECTRICAL DRAWINGS TO VERIFY THE LOCATION OF EXISTING AND NEW COMPONENTS.

6. UTILITY SHUTDOWNS, INSPECTIONS, AND ACCEPTANCE TESTS SHALL BE COORDINATED IN ADVANCE WITH THE APPROPRIATE AGENCIES.

7. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE PROJECT OBJECTIVES WITH ALL UTILITY COMPANIES.

8. DOWNTIME FOR UTILITIES SHALL BE HELD TO A MINIMUM AND TEMPORARY BYPASSES SHALL BE PROVIDED WHERE NECESSARY TO MAINTAIN PROPER SERVICE. DO NOT INTERRUPT UTILITIES THAT ARE SERVING FACILITIES OCCUPIED BY THE OWNER OR BY OTHERS UNLESS GRANTED IN WRITING BY THE OWNER'S REPRESENTATIVE, AND ONLY AFTER ARRANGING TO PROVIDE TEMPORARY SERVICES ACCORDING TO THE REQUIREMENTS AS INDICATED.

9. THE LOCATION OF PROPERTY LINES, EXISTING STRUCTURES, FIXTURES AND UNDERGROUND UTILITIES ARE DRAWN FROM THE BEST AVAILABLE AS-BUILT AND SURVEYED INFORMATION. THIS DOES NOT GUARANTEE THAT THE LOCATION OF EXISTING ITEMS ARE EXACT OR COMPLETE.

10. SITE CONSTRUCTION PRACTICES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS. THE CONTRACTOR SHALL MAINTAIN ON-SITE, LEGIBLE MATERIAL SAFETY DATA SHEETS FOR ALL HAZARDOUS MATERIALS USED ON-SITE.

11. ANY OFF-SITE IMPROVEMENTS FOUND DAMAGED SHALL BE REPLACED TO THE SATISFACTION OF THE INSPECTOR OR OWNER'S REPRESENTATIVE OF THE AFFECTED AGENCY.

12. THE WORK SCHEDULE SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE AND WITH ANY LOCAL ORDINANCES.

13. THE CONTRACTOR SHALL SECURE THE JOB SITE AT THE END OF EACH DAY. ON-DUTY AND OFF-DUTY CONTACTS AND PHONE NUMBERS FOR THE CONTRACTOR SHALL BE FURNISHED TO THE OWNER'S REPRESENTATIVE.

14. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE TO MANAGE THE PROJECT'S IMPACT TO SECURITY AND SAFETY MATTERS.

15. ANY REVISIONS MADE TO THE APPROVED PLANS REQUIRE SUBSEQUENT APPROVAL BY THE APPROPRIATE AGENCY.

16. REMOVE SURPLUS SOIL MATERIAL, UNSUITABLE TOPSOIL, OBSTRUCTIONS, DEMOLISHED MATERIALS, AND WASTE MATERIALS, INCLUDING TRASH AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF SITE AT AN APPROVED LOCATION.

17. NO OPEN BURNING OF WASTE MATERIALS SHALL BE PERMITTED ON THE SITE WITHOUT APPROVAL FROM THE OWNERS REPRESENTATIVE AND APPROPRIATE REGULATORY AGENCIES.

18. DUST SHALL BE CONTROLLED AT ALL TIMES BY WATERING. DIRT DEBRIS, TRASH OR OTHER CONSTRUCTION MATERIALS SHALL BE CONTAINED WITHIN CONSTRUCTION BOUNDARIES AT ALL TIMES AND SHALL BE CLEANED AND REMOVED DAILY AS NECESSARY. EXCESS EXCAVATED MATERIALS SHALL BE PROMPTLY DISPOSED OF TO AN APPROVED LOCATION AT THE CONTRACTOR'S EXPENSE. EXCAVATED MATERIAL TO BE REUSED AS BACKFILL MAY BE TEMPORARILY STOCKPILED PER THE DIRECTION OF THE ON-SITE OWNER'S REPRESENTATIVE, BUT MUST BE WATERED AND/OR COVERED TO PREVENT BLOWING ONTO ADJACENT PROPERTIES. THE CONTRACTOR SHALL ALSO PREVENT CONSTRUCTION DEBRIS FROM ENTERING ANY EXISTING STORM DRAINAGE REACHES BY IMPLEMENTING PREVENTATIVE MEASURES SUCH AS DAMMING OR TEMPORARY CLOSURES.

ABBREVIATIONS:

BLDG	BUILDING
C, CNTR	CENTER
CONC	CONCRETE
DIA	DIAMETER
DND	DO NOT DISTURB
DWGS	DRAWINGS
ELEC	ELECTRICAL
EXIST	EXISTING
FF	FINISHED FLOOR
FM	FARM-TO-MARKET
HP	HORSE POWER
KVA	KILOVOLT-AMPERE
MAX	MAXIMUM
MECH	MECHANICAL
MIN	MINIMUM
OC	OFF-CENTER
OOS	OUT OF SERVICE
PLC	PROCESS LOGIC CONTROLLER
PMP	PUMP
PROP	PROPOSED
STD	STANDARD
STRUC	STRUCTURAL
TBR	TO BE REMOVED
TOC	TOP OF CONCRETE
TYP	TYPICAL
CO	COLORADO
VFD	VARIABLE FREQUENCY DRIVE

MASTER LEGEND

- EXISTING HOG WIRE FENCE
- EXISTING CHAIN LINK BARBWIRE FENCE
- NEW CHAIN LINK BARBWIRE FENCE
- EXISTING UNDERGROUND GAS
- EXISTING OVERHEAD ELECTRICAL
- EXISTING UNDERGROUND ELECTRICAL
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- MAJOR CONTOUR
- MINOR CONTOUR
- EXISTING UNDERGROUND WATER MAIN
- EXISTING DRAINAGE DITCH
- EXISTING CABLE TV
- PERMANENT EASEMENT
- CONCRETE
- RIP RAP
- YARD SECTION
- ROADWAY SECTION
- PERMEABLE SAND FILTER
- EXISTING ASPHALT ROAD
- EXISTING TREELINE
- FIRE HYDRANT
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- SURVEY CONTROL
- NUMBER DESIGNATION OF DETAIL
- DRAWING NUMBER WHERE DETAIL IS LOCATED

NO.	DATE	BY	AFE NO.	DATE	BY	DESCRIPTION	DATE	BY
	ISSUED			AS BUILT			APPROVED	
0	04/22/21	FS	65553 10193			ISSUED FOR CONSTRUCTION	04/22/21	CS

REVISIONS

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REVISIONS

BURNS McDONNELL
ENGINEERING LICENSE
NO.: COA.01557

REFERENCE DRAWINGS
TITLE

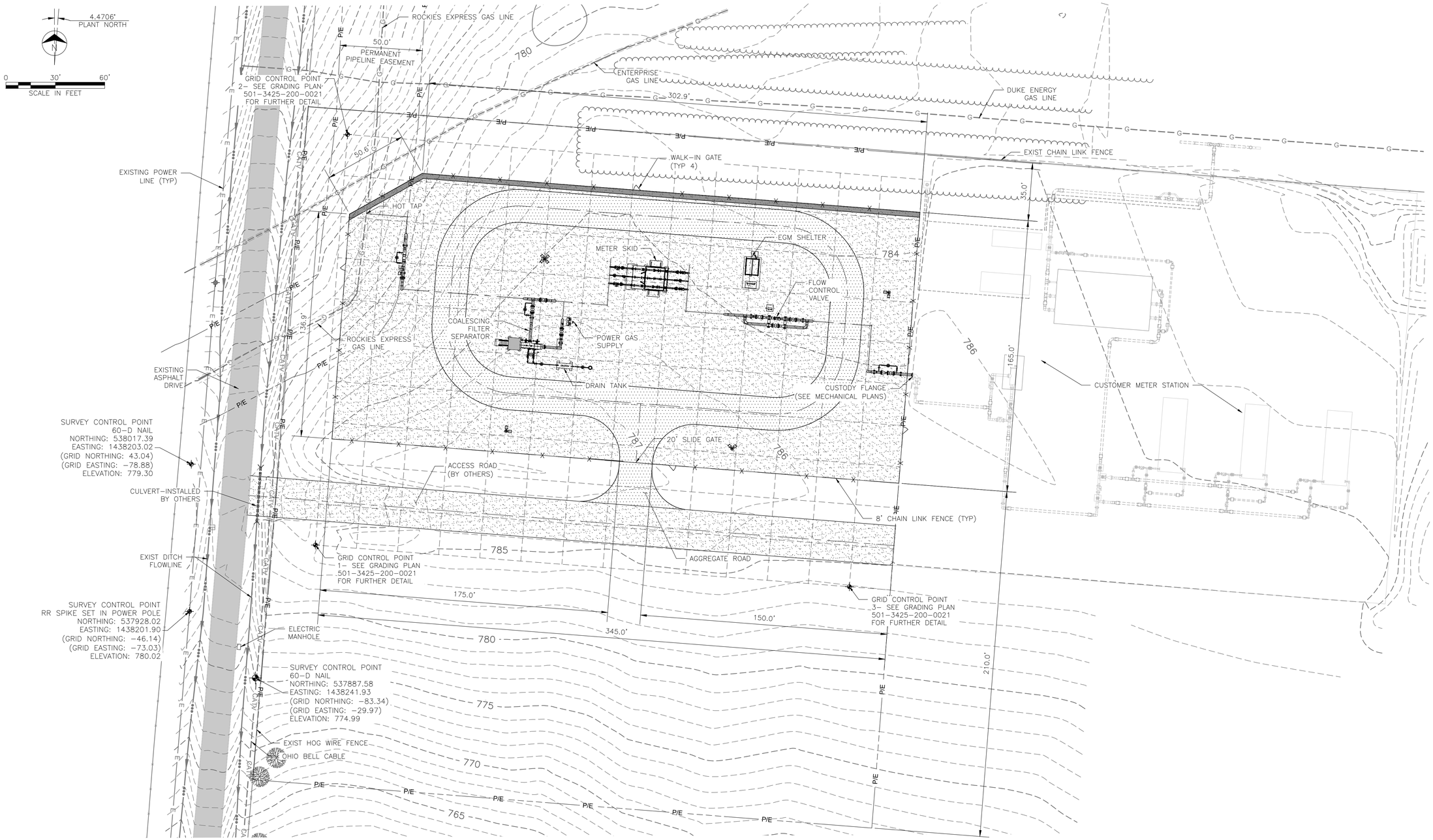
Rockies Express Pipeline

	ISSUED FOR DESIGN	AFE. NO.	65553/ 10193
X	APPROVED FOR CONSTRUCTION	DRAWING SIZE	D

CIVIL GENERAL NOTES AND STANDARDS
DICKS CREEK INTERCONNECT
PIN 60478

BUTLER COUNTY OH

DRAWN	CHK. DR.	SCALE	DATE
FS	CS	–	12/15/20
PROJECT ENGR. / PROJECT MGR.		FILE NO.	
BB	DB	501-3425-200-0001	REV 0



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Rockies Express Pipeline

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X	APPROVED FOR CONSTRUCTION	DRAWING SIZE	D

CIVIL SITE PLAN
DICKS CREEK INTERCONNECT
PIN 60478

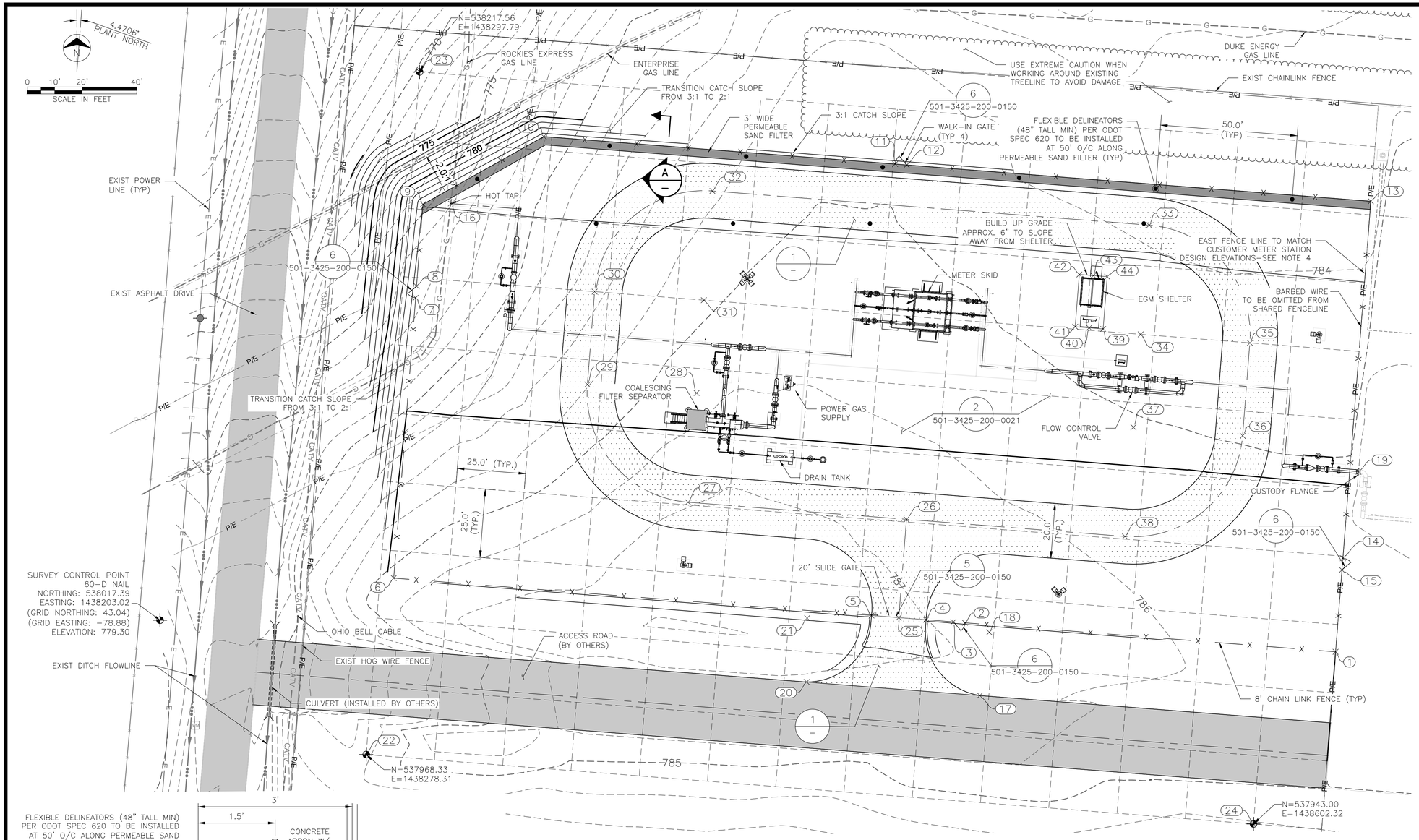
BUTLER COUNTY OH

DRAWN	CHK. DR.	SCALE	DATE
FS	CS	–	12/15/20

PROJECT ENGR. / PROJECT MGR.
BB DB

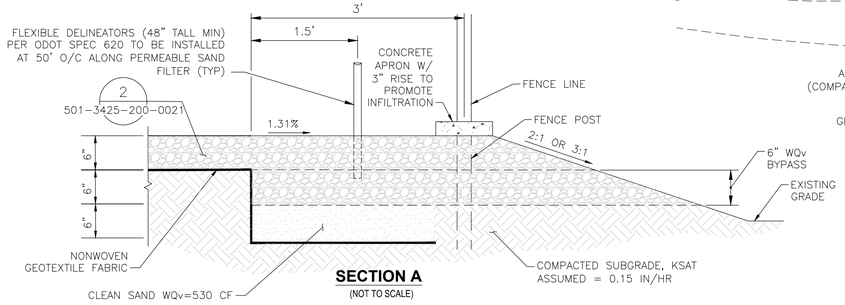
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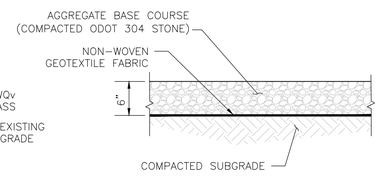


POINT CONTROL TABLE				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	65.01	350.00	785.82	PAD CORNER
2	65.00	214.25	785.82	WALK-IN GATE POST
3	65.00	210.00	785.82	WALK-IN GATE POST
4	65.01	200.00	785.82	SLIDE GATE POST
5	65.00	180.00	785.82	SLIDE GATE POST
6	65.01	5.00	785.82	PAD CORNER
7	167.67	5.00	784.44	WALK-IN GATE POST
8	171.92	5.00	784.39	WALK-IN GATE POST
9	201.93	5.00	783.98	PAD CORNER
10	230.00	47.06	783.60	PAD CORNER
11	229.99	175.75	783.60	WALK-IN GATE POST
12	229.99	180.00	783.60	WALK-IN GATE POST
13	230.00	350.00	783.60	PAD CORNER
14	99.25	349.99	785.36	WALK-IN GATE POST
15	94.99	349.99	785.42	WALK-IN GATE POST
16	202.98	15.11		HOT TAP
17	38.96	221.72	786.45	EDGE OF ROAD/MATCH EXIST
18	62.26	223.35		25' RADIUS POINT
19	131.11	353.25		CUSTODY FLANGE
20	38.96	158.28	786.50	EDGE OF ROAD MATCH EXIST
21	62.25	156.64		25' RADIUS POINT
22	0.00	0.00		CONTROL POINT #1
23	250.00	0.01		CONTROL POINT #2
24	0.01	325.01		CONTROL POINT #3
25	65.01	190.00	785.82	PI CL ROAD
26	101.00	190.00	785.34	PI CL ROAD
27	101.00	110.00	785.34	PC CL ROAD
28	141.00	110.00		RP CL ROAD
29	141.00	70.00	784.80	PT CL ROAD
30	175.00	70.00	784.35	PC CL ROAD
31	175.00	110.00		RP CL ROAD
32	214.99	110.00	783.81	PT CL ROAD
33	214.99	270.00	783.81	PC CL ROAD
34	175.00	270.00		RP CL ROAD
35	175.00	310.00	784.35	PT CL ROAD
36	141.00	310.00	784.80	PC CL ROAD
37	141.00	270.00		RP CL ROAD
38	101.00	270.00	785.34	PT CL ROAD
39	175.90	256.18	784.82	SHELTER GRADING
40	175.90	251.06	784.88	SHELTER GRADING
41	175.90	245.95	784.82	SHELTER GRADING
42	195.03	245.96	784.57	SHELTER GRADING
43	195.03	251.07	784.62	SHELTER GRADING
44	195.03	256.18	784.57	SHELTER GRADING

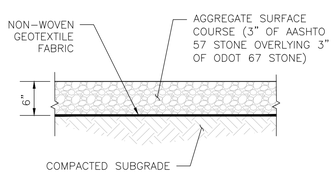
NOTES:
1. ALL COORDINATES SHOWN IN POINT CONTROL TABLE ARE GRID COORDINATES.
2. NAD83 OHIO STATE PLANES COORDINATE: N 537968.33, E 1438278.31 IS EQUAL TO PLANT GRID COORDINATE 0,0.
3. SURVEY PERFORMED BY PERCHERON ON 12-15-2020 THROUGH 12-17-2020 (PROJECT NUMBER 10.007186.0000).
4. CUSTOMER METER FACILITY TO BE BUILT UP APPROXIMATELY 1.5' FROM TALLGRASS'S EAST FENCELINE WITH A 3:1 DESIGN SLOPE. THE FLOW FROM THE 3:1 DESIGN SLOPE WILL FLOW ONTO TALLGRASS SITE AND SHEET FLOW NORTH TOWARD THE PERMEABLE SAND FILTER. THE DESIGN SLOPE AREA IS VERY MINIMAL, THUS RUNOFF IS CONSIDERED NEGLIGIBLE.



SECTION A
(NOT TO SCALE)



STATION ROAD SECTION — 1 — NOT TO SCALE



YARD SECTION — 2 — NOT TO SCALE

NO.	DATE	BY	AFE NO.	DATE	BY	DESCRIPTION	DATE	BY
	ISSUED			AS BUILT			APPROVED	
0	04/22/21	FS	65553 10193			ISSUED FOR CONSTRUCTION	04/22/21	CS

REVISIONS

REVISIONS

BURNS McDONNELL
ENGINEERING LICENSE NO.: COA.01557

REFERENCE DRAWINGS

TITLE

Rockies Express Pipeline

	ISSUED FOR DESIGN	AFE. NO.	65553/10193
X	APPROVED FOR CONSTRUCTION	DRAWING SIZE	D

GRADING PLAN
DICKS CREEK INTERCONNECT
PIN 60478

BUTLER COUNTY — OH

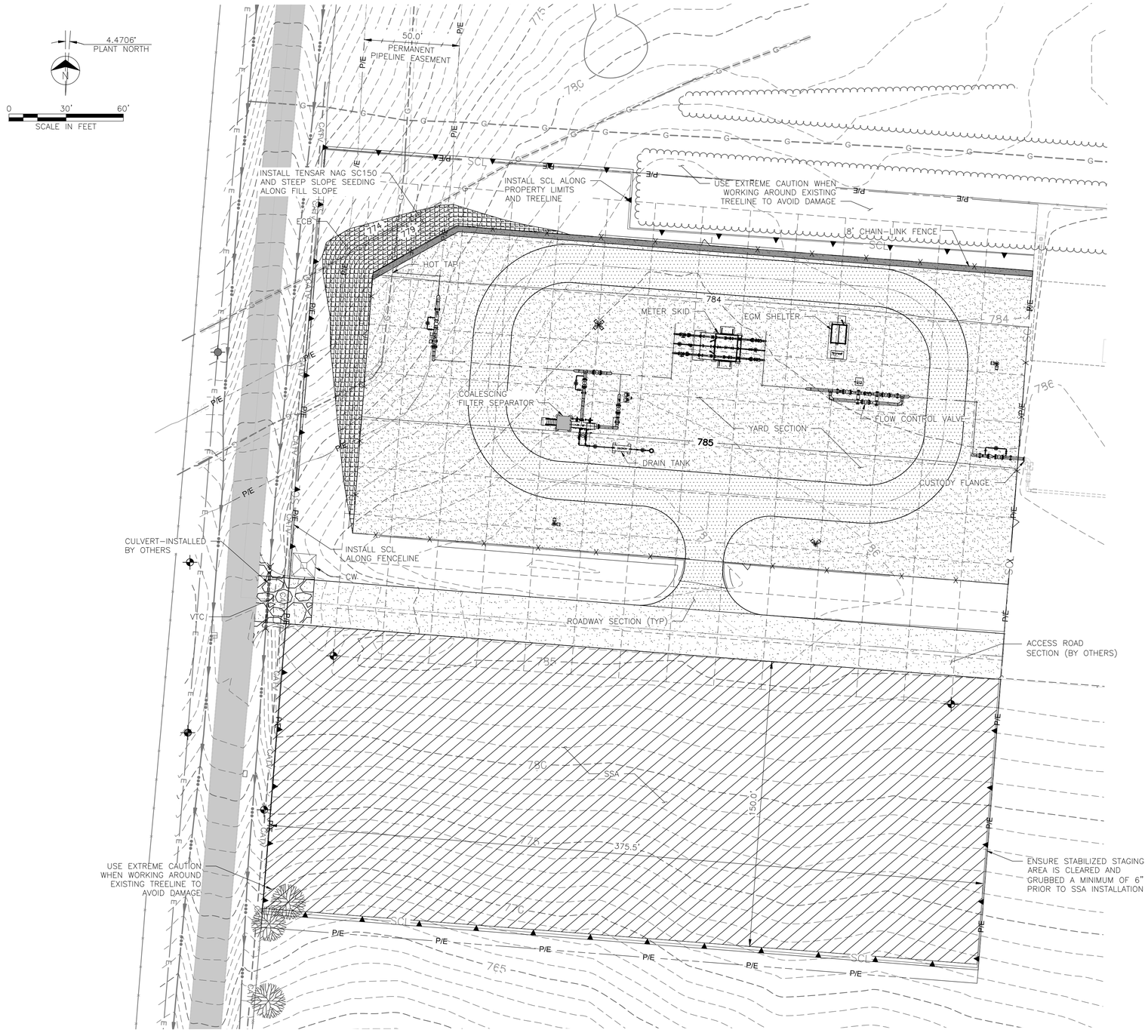
DRAWN	CHK. DR.	SCALE	DATE
FS	CS	–	12/15/20

PROJECT ENGR. / PROJECT MGR.: BB / DB

FILE NO.

501-3425-200-0021

REV 0



EROSION CONTROL LEGEND:

— SCL —	SEDIMENT CONTROL LOG (SCL)	1 / 501-3425-200-0035
	EROSION CONTROL BLANKET (ECB)	2 / 501-3425-200-0035
	SILT FENCE (SF)	3 / 501-3425-200-0035
	STABILIZED STAGING AREA (SSA)	1 / 501-3425-200-0036
	VEHICLE TRACKING CONTROL (VTC)	2 / 501-3425-200-0036
	CONCRETE WASHOUT STRUCTURE (CW)	3 / 501-3425-200-0036

NOTES:

1. SEE SHEET 501-3425-200-0001 FOR GENERAL EROSION CONTROL NOTES.
2. SEE SHEET 501-3425-200-0001 FOR TEMPORARY AND PERMANENT STABILIZATION REQUIREMENTS AND SEEDING SCHEDULES.

NO.	DATE	BY	AFE NO.	DATE	BY	DESCRIPTION	DATE	BY
0	04/22/21	FS	65553 10193			ISSUED FOR CONSTRUCTION	04/22/21	CS
	ISSUED			AS BUILT			APPROVED	

REVISIONS

NO.	DATE	BY	AFE NO.	DATE	BY	DESCRIPTION	DATE	BY
	ISSUED			AS BUILT			APPROVED	

REVISIONS

TITLE

REFERENCE DRAWINGS

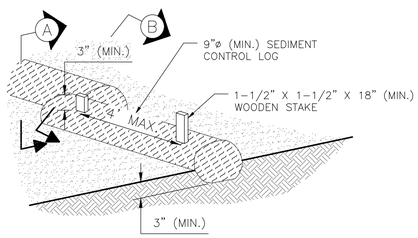
Rockies Express Pipeline

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X	APPROVED FOR CONSTRUCTION	DRAWING SIZE	D

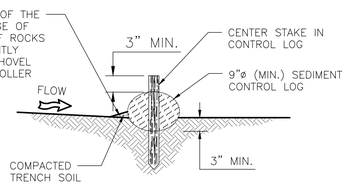
EROSION CONTROL PLAN
DICKS CREEK INTERCONNECT
PIN 60478

BUTLER COUNTY OH

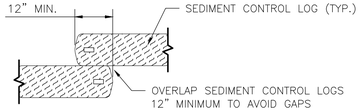
DRAWN	CHK. DR.	SCALE	DATE
FS	CS	–	12/15/20
PROJECT ENGR. / PROJECT MGR.		FILE NO.	
BB	DB	501-3425-200-0030	REV 0



PERSPECTIVE VIEW
NOT TO SCALE



A SECTION
NOT TO SCALE



B OVERLAP JOINT DETAIL
NOT TO SCALE

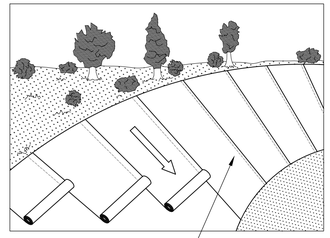
INSTALLATION NOTES:

1. SEE SEDIMENT AND EROSION CONTROL PLAN FOR GENERAL LOCATION OF SEDIMENT CONTROL LOGS. CONTRACTOR MAY MODIFY LOCATIONS AND QUANTITIES WITH APPROVAL FROM ENGINEER AND/OR OWNER.
2. SEDIMENT CONTROL LOGS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES IN THE LOCATIONS THAT WILL NOT BE DISTURBED. LOGS LOCATED IN AREAS THAT WILL BE GRADED SHALL BE INSTALLED AS SOON AS POSSIBLE AFTER GRADING HAS BEEN COMPLETED.
3. SEDIMENT CONTROL LOGS SHOULD BE AVOIDED IN CONCENTRATED HIGH FLOW AREAS.
4. SEDIMENT CONTROL LOGS SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 3 INCHES.

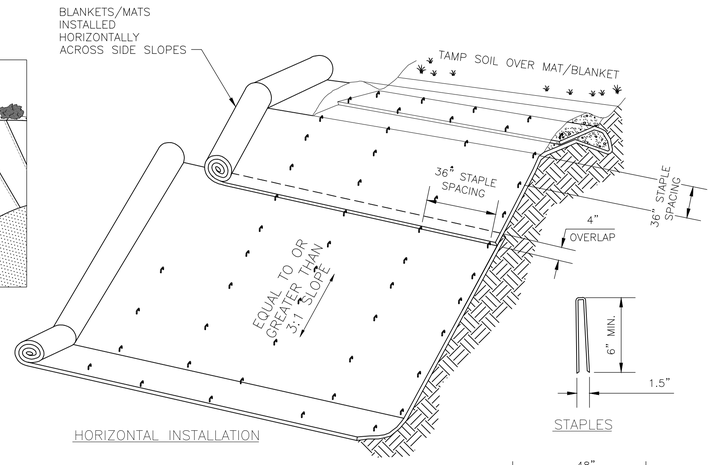
MAINTENANCE NOTES:

1. THE CONTRACTOR SHALL INSPECT THE SEDIMENT CONTROL LOGS WEEKLY AND MAINTAIN THEM IN AN EFFECTIVE CONDITION. THEY SHALL ALSO BE INSPECTED WITHIN 24 HOURS AFTER A STORM EVENT AND REPAIRS SHOULD BE COMPLETED AS NEEDED.
2. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOGS SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN 1/2 THE HEIGHT OF THE CREST OF THE LOG.
3. SEDIMENT CONTROL LOGS THAT ARE SHOWN IN RIPRAP LINED DRAINAGE CHANNELS DO NOT NEED TO BE INSTALLED IF RIPRAP IS INSTALLED DURING CHANNEL CONSTRUCTION. IF RIPRAP IS NOT INSTALLED DURING CHANNEL CONSTRUCTION, THE SEDIMENT CONTROL LOGS SHALL BE TEMPORARILY INSTALLED UNTIL COMMENCING THE RIPRAP INSTALLATION.
4. SEDIMENT CONTROL LOGS SHALL BE REMOVED AT THE END OF CONSTRUCTION. AFTER REMOVAL OF THE LOGS THE DISTURBED AREAS SHALL BE TOPSOILED, SEEDED AND MULCHED.

SEDIMENT CONTROL LOG (SCL) 1
NOT TO SCALE 501-3425-200-0030



VERTICAL INSTALLATION

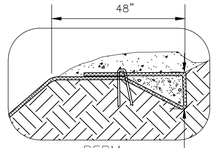


HORIZONTAL INSTALLATION

STAPLES

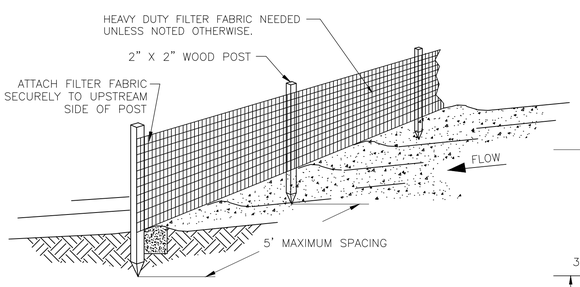
NOTES:

1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
2. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS. SEE SHEET 501-3425-200-0001 FOR TEMPORARY AND PERMANENT STABILIZATION REQUIREMENTS AND SEEDING SCHEDULES.
3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
4. USE ON SIDE SLOPES EXCEEDING A 3:1 SLOPE AND DISTURBED STREAMBANKS.
5. THE FOLLOWING BLANKET TYPES SHALL BE UTILIZED:
   A. LONG-TERM BIODEGRADABLE DOUBLE-NET COCONUT BLANKET ON STREAMBANKS.
   B. SHORT-TERM BIODEGRADABLE DOUBLE-NET STRAW BLANKET ON 3:1 SLOPES OR GREATER.
   C. SHORT-TERM BIODEGRADABLE SINGLE-NET STRAW ON LESSER SLOPES, FLAT FLOODPLAIN, AND WORKSPACE AREAS.
6. FOR STREAMBANK STABILIZATION;
   A. TUCK/UNDERLAP BASE OF BLANKET TO PREVENT HIGH WATER FROM REMOVING BLANKET AND SEED.
   B. STAPLE SPACING MAY NEED TO BE DECREASED.
   C. PREPARE SUBGRADE PRIOR TO INSTALLING BLANKET BY REMOVING DISPLACED ROCKS AND WOODY DEBRIS.

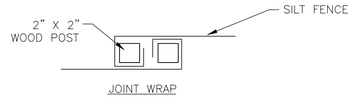


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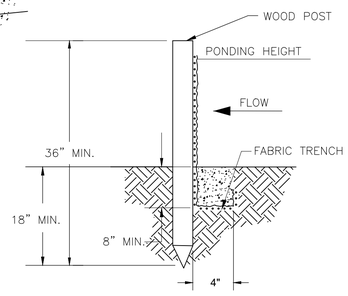
EROSION CONTROL BLANKET 2
NOT TO SCALE 501-3425-200-0030



ISOMETRIC VIEW



JOINT WRAP



TYPICAL SECTION

NOTES:

1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN IT REACHES ONE-HALF HEIGHT OF FENCE OR FABRIC STARTS TO BULGE.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
4. TURN END OF SILT FENCE UP SLOPE TO PREVENT BYPASS FLOW AND ALLOW FOR PONDING.

SILT FENCE (SF) 3
NOT TO SCALE 501-3425-200-0030

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Rockies Express Pipeline

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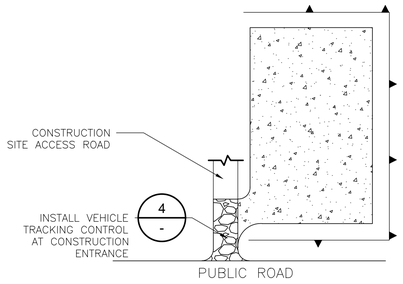
EROSION CONTROL DETAILS
DICKS CREEK INTERCONNECT
PIN 60478

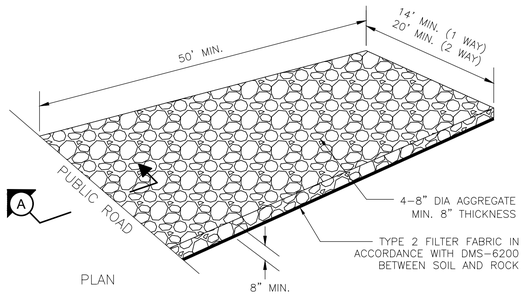
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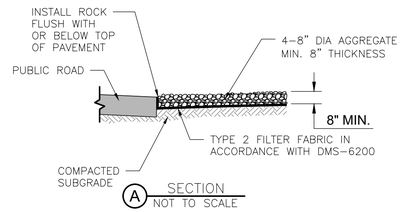
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FS	CS	–	12/15/20

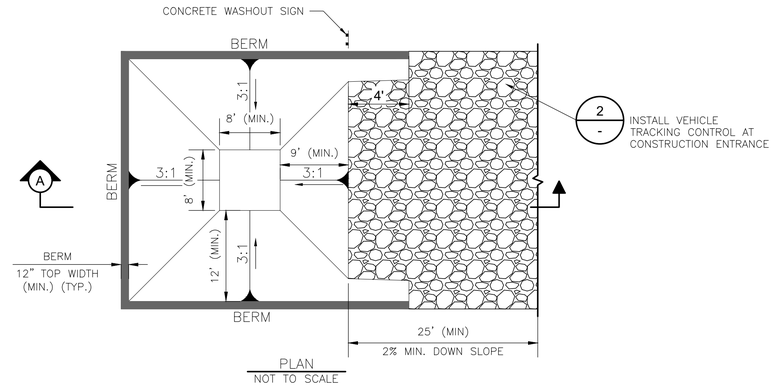
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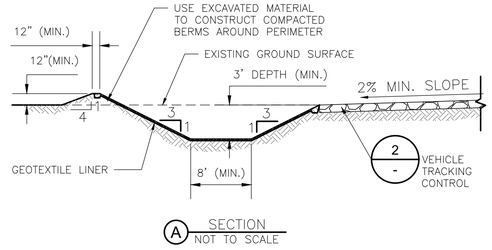
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INSTALLATION NOTES:

1. SEE SEDIMENT AND EROSION CONTROL PLAN FOR GENERAL LOCATION OF STAGING AREA. CONTRACTOR MAY MODIFY LOCATION AND SIZE OF STABILIZED STAGING AREA WITH APPROVAL FROM ENGINEER AND/OR CONTRACTING OFFICER.
2. STABILIZED STAGING AREA SHALL BE SIZED APPROPRIATELY TO FULLY CONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING OPERATIONS.
3. STAGING AREA SHALL BE STABILIZED PRIOR TO ANY OTHER OPERATIONS ON THE SITE.
4. THE STABILIZED STAGING AREA SHALL CONSIST OF 2-4" DIA AGGREGATE A MINIMUM OF 8 INCHES THICK.
5. STAGING AREA SHALL BE CONTAINED WITHIN THE SITE'S PERIMETER BMPS, OR HAVE ADDITIONAL PERIMETER BMPS (SILT FENCE) INSTALLED AROUND STAGING AREA.

MAINTENANCE NOTES:

1. THE CONTRACTOR SHALL INSPECT THE STABILIZED STAGING AREA WEEKLY AND MAINTAIN IT IN AN EFFECTIVE CONDITION. IT SHALL ALSO BE INSPECTED WITHIN 24 HOURS AFTER A STORM EVENT AND REPAIRS OR CLEAN OUT OF UPSTREAM SEDIMENT SHOULD BE COMPLETED AS NEEDED.
2. THE CONTRACTOR SHALL PROVIDE ADDITIONAL THICKNESS OF AGGREGATE MATERIAL IF ANY RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.
3. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING OPERATIONS.
4. ANY ACCUMULATED DIRT OR MUD SHALL BE REMOVED FROM THE SURFACE OF THE STABILIZED STAGING AREA.
5. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED AND THE AREA TOPSOILED, SEEDED AND MULCHED. SEE SHEET 501-3425-200-0001 FOR SEEDING SCHEDULES.

STABILIZED STAGING AREA 1
NOT TO SCALE 501-3425-200-0030

INSTALLATION NOTES:

1. SEE SEDIMENT AND EROSION CONTROL PLAN FOR GENERAL LOCATION OF VEHICLE TRACKING PAD. CONTRACTOR MAY MODIFY LOCATION AND SIZE OF THE VEHICLE TRACKING PAD WITH APPROVAL FROM ENGINEER AND/OR CONTRACTING OFFICER.
2. THE VEHICLE TRACKING PAD SHALL BE SIZED APPROPRIATELY TO ALLOW PROPER TRAFFIC FLOW AND TO PREVENT TRACKING OF SEDIMENT OFF-SITE. IF TRACKING PAD IS NOT EFFECTIVE AT CONTAINING SEDIMENT THE CONTRACTOR SHALL STOP OPERATIONS AND MAKE MODIFICATIONS TO THE TRACKING PAD TO PREVENT OFF-SITE TRACKING OF SEDIMENT.
3. VEHICLE TRACKING PAD SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
4. THE TRACKING PAD SHALL CONSIST OF 4-8" DIA AGGREGATE A MINIMUM OF 8 INCHES THICK. A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE TRACKING PAD PRIOR TO THE PLACEMENT OF AGGREGATE.
5. A STABILIZED ENTRANCE/EXIT IS REQUIRED AT ALL ACCESS POINTS WHERE VEHICLES CAN ACCESS THE CONSTRUCTION SITE FROM PUBLIC ROADS. ANY OTHER ACCESS POINTS NOT SHOWN ON THE PLANS THAT THE CONTRACTOR ELECTS TO USE SHALL HAVE A VEHICLE TRACKING PAD INSTALLED AND THE ENTRANCE/EXIT LOCATION.

MAINTENANCE NOTES:

1. THE CONTRACTOR SHALL INSPECT THE VEHICLE TRACKING PAD WEEKLY AND MAINTAIN IT IN AN EFFECTIVE CONDITION. IT SHALL ALSO BE INSPECTED WITHIN 24 HOURS AFTER A STORM EVENT AND REPAIRS SHOULD BE COMPLETED AS NEEDED.
2. THE CONTRACTOR SHALL PROVIDE ADDITIONAL THICKNESS OF AGGREGATE MATERIAL IF ANY RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED. ROCK SHALL BE RE-APPLIED OR RE-GRADED AS NECESSARY TO MAINTAIN A CONSTANT DEPTH OF THE AGGREGATE.
3. SEDIMENT TRACKED ONTO PAVED ROADS SHALL BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT SHALL NOT BE WASHED INTO DRAINAGE SWALES, DITCHES OR STORM SEWERS.
4. ALL AGGREGATE USED FOR THE VEHICLE TRACKING PAD SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE AGGREGATE MATERIAL SHALL BE REMOVED AND EITHER SURFACED WITH GRAVEL OR TOPSOILED, SEEDED AND MULCHED PER THE PLANS.

VEHICLE TRACKING CONTROL 2
NOT TO SCALE 501-3425-200-0030

INSTALLATION NOTES:

1. SEE SEDIMENT AND EROSION CONTROL PLAN FOR LOCATION OF CONCRETE WASHOUT AREA.
2. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
3. VEHICLE TRACKING CONTROL IS REQUIRED AT THE ACCESS POINT.
4. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
5. EXCAVATION MATERIAL SHALL BE UTILIZED IN PERIMETER BERM CONSTRUCTION.

MAINTENANCE NOTES:

1. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED, ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE. CONCRETE WASTE MATERIALS SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
2. THE CONTRACTOR SHALL INSPECT THE CONCRETE WASHOUT AREA WEEKLY AND MAINTAIN IT IN AN EFFECTIVE CONDITION. IT SHALL ALSO BE INSPECTED WITHIN 24 HOURS AFTER A STORM EVENT AND REPAIRS OR CLEAN OUT OF SEDIMENT SHOULD BE COMPLETED AS NEEDED.
3. THE CONCRETE WASHOUT AREA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
4. THE CONCRETE WASHOUT AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE CONCRETE WASHOUT SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. AFTER REMOVAL OF THE WASTE MATERIAL THE AREA SHALL BE GRADED SMOOTH, TOPSOILED, SEEDED AND MULCHED.

CONCRETE WASHOUT 3
NOT TO SCALE 501-3425-200-0030

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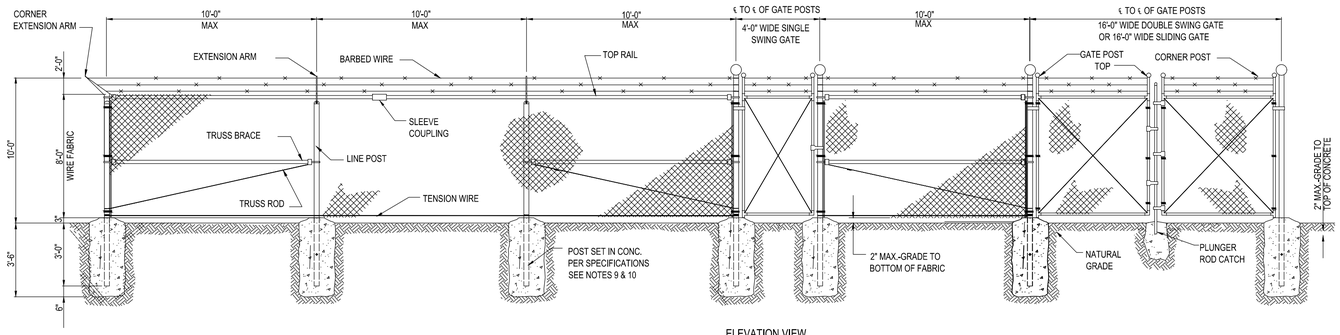
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EROSION CONTOL DETAILS #2
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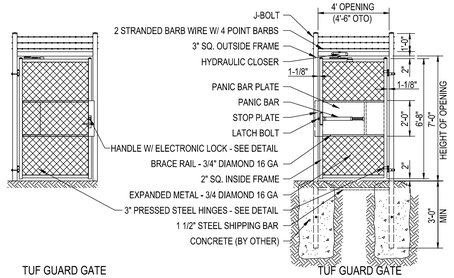
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NOTE: SEE PLAN DRAWING FOR SPECIFIC DIMENSIONS, LOCATION, SIZE OF AREA AND GATE LOCATIONS

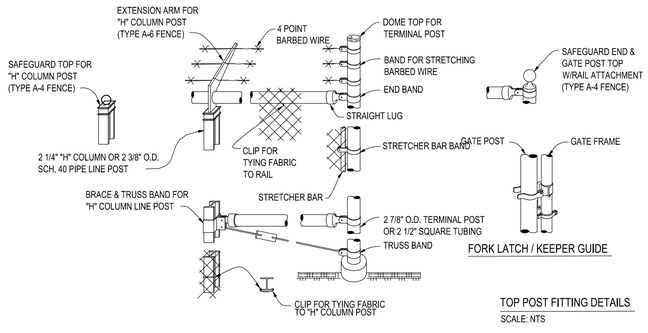


ELEVATION VIEW
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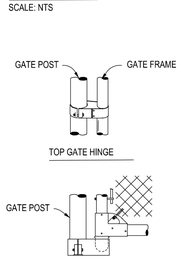


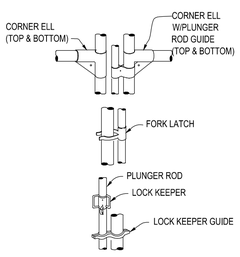
TUF GUARD GATE
ELEV. OUTSIDE LOOKING IN
SCALE: NTS

TUF GUARD GATE
ELEV. INSIDE
SCALE: NTS

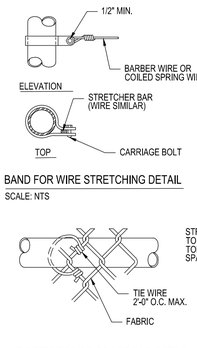


TOP POST FITTING DETAILS
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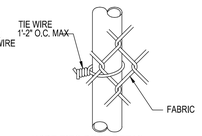




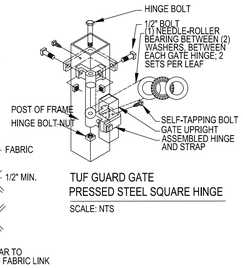
GATE FITTING DETAILS
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BAND FOR WIRE STRETCHING DETAIL
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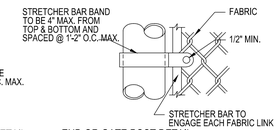


WIRE TIES POST DETAIL
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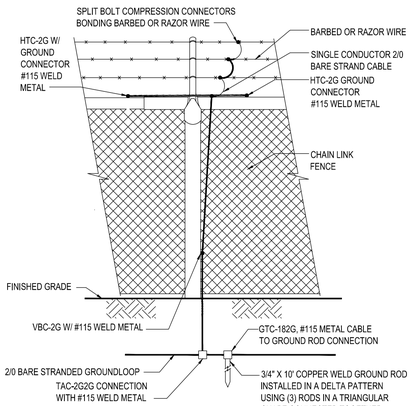


TUF GUARD GATE
PRESSED STEEL SQUARE HINGE
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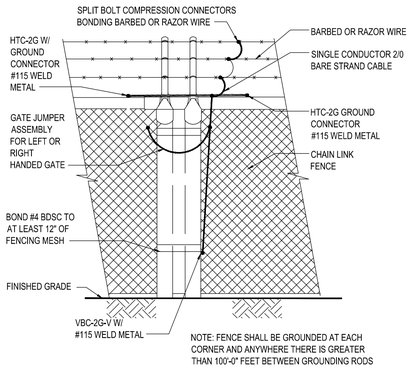
WIRE TIES TOP OR BRACE RAIL DETAIL
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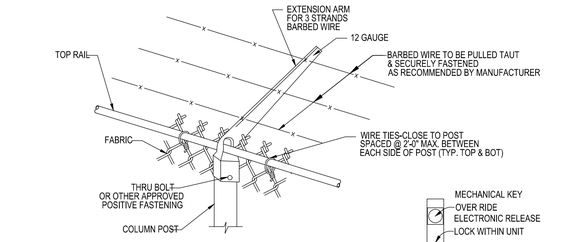
END OR GATE POST DETAIL
SCALE: NTS



TYPICAL FENCE GROUND
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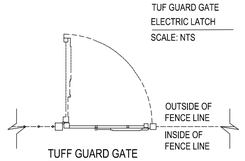


TYPICAL GATE GROUND
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EXTENSION ARM BARBED WIRE DETAIL
SCALE: NTS

TUF GUARD GATE
ELECTRIC LATCH
SCALE: NTS



TUFF GUARD GATE
SCALE: NTS

CHAIN LINK FENCE SPECIFICATIONS

1) INSTALLATION OF FENCE ADDITION SHALL BE PLUMB AND TRUE TO LINE, CHAIN LINK FABRIC SHALL BE TAUT AND PROPERLY SECURED, CORNER BRACES AND DIAGONAL BRACES SHALL BE PROPERLY PLACED TO PREVENT SAGGING. THE COMPLETE INSTALLATION SHALL BE INSTALLED BY SKILLED AND EXPERIENCED FENCE ERECTORS, IN A WORKMANLIKE MANNER, IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND IN ACCORDANCE WITH ALL LOCAL APPLICABLE CODES.
2) MATERIAL SHALL BE HOT-DIP GALVANIZED FENCE CHAIN LINK FABRIC - THE CHAIN LINK FABRIC SHALL BE IN ACCORDANCE WITH ASTM A-392 SPECIFICATIONS AND SHALL BE HOT DIPPED GALVANIZED AFTER WEAVING, HAVING A COATING WEIGHT OF 2 OUNCES OF ZINC PER SQUARE FOOT, MINIMUM, OF UNCOATED WIRE SURFACE (CLASS II). FABRIC SHALL BE NO. 9 GAUGE WIRE WOVEN IN A 2-INCH CHAIN LINK DIAMOND MESH. THE FABRIC SHALL BE FASTENED TO THE LINE POST BY MEANS OF NO. 6 GAUGE ALUMINUM WIRE CLIPS SPACED 12 INCHES ON CENTER. IT SHALL BE ATTACHED TO TOP RAIL WITH NO. 9 GAUGE ALUMINUM TIE WIRES SPACED 24 INCHES ON CENTER. FABRIC SHALL BE ATTACHED TO TERMINAL POST BY MEANS OF A 1/4" X 3/4" TENSION BAR WITH HEAVY GAUGE PRESSED STEEL BAND OR CLIPS SPACED APPROXIMATELY 14 INCHES ON CENTER.
3) BARBED WIRE SHALL BE OF 4 POINT PATTERN, COMPOSED OF TWO STRANDS OF NO. 11-1/2 GAUGE GALVANIZED WIRE WITH LARGE BARBS SPACED APPROXIMATELY 4 TO 5 INCHES ON CENTER. BOTTOM TENSION WIRE - NO. 7 GAUGE GALVANIZED COIL SPRING TENSION WIRE WITH CLASS I COATING. WIRE TO BE FASTENED TO CHAIN LINK FABRIC WITH NO. 11 GAUGE HOG RINGS ON 18 INCH CENTERS.
4) POST AND OTHER APPURTENANCES - ALL POST AND OTHER APPURTENANCES SHALL BE HOT-DIP GALVANIZED WITH A MINIMUM ZINC COATING OF 2.0 OUNCES PER SQUARE FOOT OF SURFACE (CLASS II COATING ASTM A-392).
5) LINE POST SHALL BE 2-1/4" "H" COLUMN WEIGHING 4.1 LBS. PER FOOT, MINIMUM CARBON CONTENT .35%, MINIMUM TENSILE STRENGTH 75,000 PSI OR 2-3/8" O.D. SCHEDULE 40 PIPE, OF SUFFICIENT LENGTH TO ALLOW FOR INSTALLATION TO A DEPTH OF 3'-0" BELOW GROUND LEVEL. THE POSTS SHALL BE SPACED IN THE LINE OF FENCE, NO FURTHER.
6) TERMINAL POST AND ALL END, CORNER AND PULL POSTS SHALL BE 2-1/2" X 2-1/2" X .1875" W.T. SQUARE TUBING OR 2- 7/8" O.D. SCHEDULE 40 PIPE.
7) GATE POST SHALL BE OF THE FOLLOWING SIZE FOR SINGLE SWING GATES OR ONE LEAF OF DOUBLE GATE

POST	SIZE	NOM. WT.
UP TO 6' WIDE	2-1/2" SQ. OR 2-7/8" O.D.	SAME AS TERMINAL POST
OVER 6' TO 13'	4" O.D.	9.11 LB/FT

9) EACH POST SHALL BE OF SUFFICIENT LENGTH TO ALLOW FOR INSTALLATION TO A DEPTH OF 3'-0" BELOW GROUND LEVEL.
10) LINE POST AND TERMINAL POST ANCHORAGE SHALL BE SET IN CYLINDRICAL CONCRETE FOUNDATIONS WITH TOP OF FINISH CONCRETE SURFACE 3 INCHES ABOVE FINISH GRADE. EXCAVATION SHALL BE 3'-6" DEEP AND NOT LESS THAN TEN INCHES (10") IN DIAMETER FOR ALL LINE POSTS, AND NOT LESS THAN 3.5 TIMES THE DIAMETER FOR TERMINAL AND GATE POST. CONCRETE SHALL MEET ACI-318 SPECIFICATION FOR 3000 PSI-28 DAY STRENGTH CONCRETE.
11) FENCE SHALL HAVE A CONTINUOUS TOP RAIL FOR ITS FULL LENGTH OF STANDARD GALVANIZED PIPE, 1-5/8" O.D,. THE TOP RAIL SHALL PASS THROUGH OPENINGS PROVIDED FOR THAT PURPOSE IN THE POST TOPS AND EACH LENGTH SHALL BE COUPLED WITH A SLEEVE COUPLING, WITH EXPANSION COUPLING EVERY FIFTH JOINT.
12) TRUSS BRACES SHALL BE STANDARD GALVANIZED 1-5/8" O.D. PIPE 2.71 LB./FT., WITH A 3/8" O.D. TRUSS ROD AND TURNBUCKLE ATTACHMENT SHALL BE INSTALLED BETWEEN EACH END OR GATE POST AND THE ADJACENT LINE POST. TWO TRUSS BRACES SHALL BE FURNISHED ON CORNER OR PULL POSTS.
13) FITTINGS USED IN THE COMPLETE FENCE ASSEMBLY SHALL BE OF MALLEABLE, CAST IRON OR PRESSED STEEL AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
14) EXTENSION ARM LINE POST SHALL BE EQUIPPED WITH EXTENSION ARMS TO WITHSTAND A MINIMUM PULL-DOWN WEIGHT OF 450 LBS. FROM END OF ARM. ARMS TO BE DESIGNED TO EXTEND AT A 45 DEGREE ANGLE WITH LOCKING DEVICE TO SECURELY FASTEN THREE STRANDS OF BARBED WIRE EQUALLY SPACED WITH THE TOP STRAND LOCATED 12 INCHES (12") ABOVE FABRIC AND 12 INCHES (12") OUT FROM THE FENCE LINE.
15) POST TOPS AND ALL END, CORNER, PULL AND GATE POST SHALL BE EQUIPPED WITH TOPS. TUBULAR POST TOPS TO BE SO DESIGNED AS TO EXCLUDE MOISTURE FROM THE POST. ALL LINE POST TOPS DESIGNED TO HOLD THE TOP RAIL AND THE EXTENSION ARM FOR THREE STRANDS OF BARBED WIRE.
16) GATE FRAMES SHALL BE MADE OF 2" X 2" X .110" W.T. SQUARE STEEL TUBING OR 1.9 INCH O.D. SCHEDULE 40, 2.72 LB./FT. STANDARD WEIGHT PIPE, HOT-DIP GALVANIZED, FRAMES TO BE JOINED AT CORNERS TO FORM A RIGID PANEL AND SHALL BE FILLED WITH CHAIN LINK FABRIC OF SAME GAUGE AS USED ON THE FENCE. FABRIC SHALL BE FASTENED IN THE FRAME ON ALL FOUR SIDES BY MEANS OF TENSION BARS AND CLIPS. THREE STRANDS OF BARBED WIRE SHALL BE FASTENED TO THE EXTENDED FRAMES OF GATE. EACH FRAME TO BE EQUIPPED WITH 3/8" DIAMETER ADJUSTABLE TRUSS ROD, HINGES, POSITIVE TYPE LATCHING DEVICE WITH PROVISIONS FOR PADLOCKING. ALL DRIVE GATES TO BE PROVIDED WITH CENTER PLUNGER ROD, CATCH AND SEMI-AUTOMATIC OUTER CATCHES TO SECURE GATES IN OPEN POSITION.
17) FENCE SECTION
COMPANY TYPE - A-8
FABRIC HEIGHT - 96"
TOTAL FENCE HEIGHT - 10'-0"

TUF GUARD GATE:
18) SPECIFICATIONS SHOWN CAN BE CHANGED WITH ENGINEERING APPROVAL.
19) FOOTING WIDTH TO BE (4)X POST WIDTH. VERIFY FOOTING DEPTH AND WIDTH WITH LOCAL CODES AND SITE CONDITIONS.
20) ALL COMPONENTS OF THE TUF GUARD WILL BE COATED BLACK, EXCEPT FOR THE HANDLE WITH ELECTRONIC LOCK, PANIC BAR, AND CLOSER.
21) OUTSIDE LOOKING IN, GATE WILL LATCH ON LEFT AND OPEN OUTSIDE OF FENCE LINE.

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Rockies Express Pipeline

	ISSUED FOR DESIGN		AFE. NO. 65553/10193
X	APPROVED FOR CONSTRUCTION		DRAWING SIZE D

FENCE & GATE DETAILS
DICKS CREEK INTERCONNECT
PIN 60478

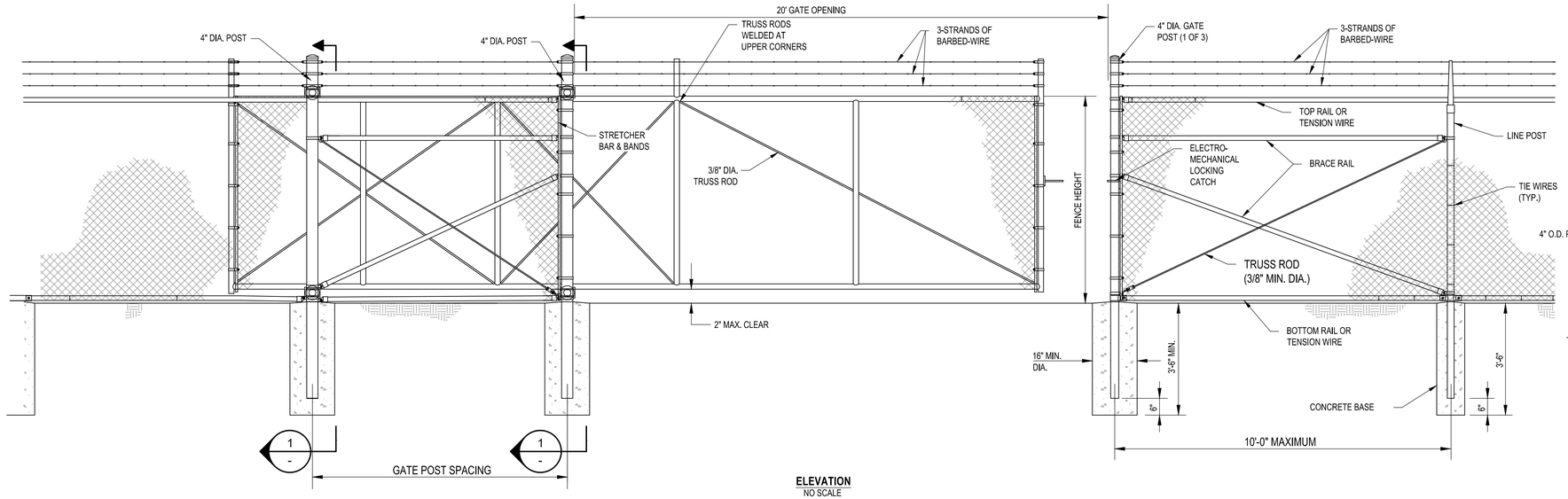
BUTLER COUNTY OH

DRAWN	CHK. DR.	SCALE	DATE
FS	CS	–	12/15/20

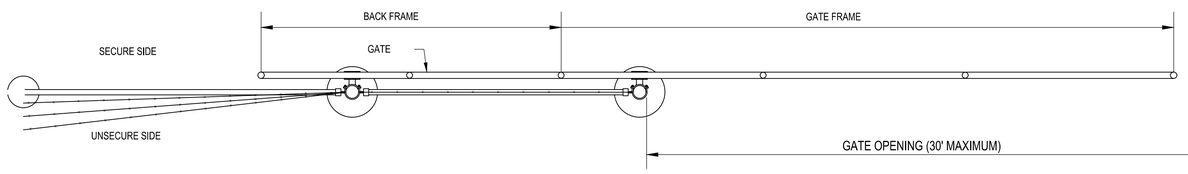
PROJECT ENGR. / PROJECT MGR.: BB DB

FILE NO.: **501-3425-200-0150**

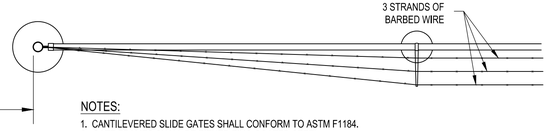
REV: **0**



ELEVATION
NO SCALE



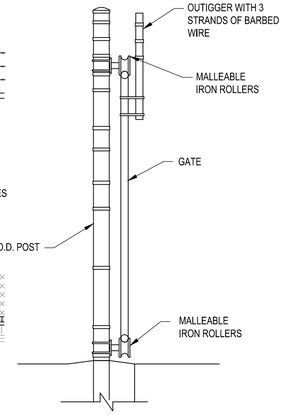
SLIDE GATE PLAN
NO SCALE



NOTES:

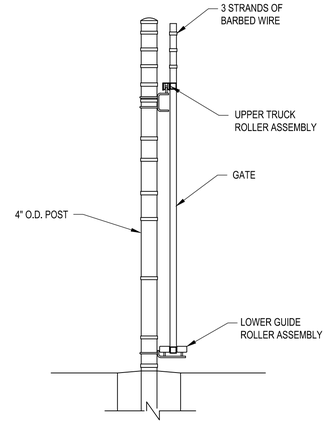
1. CANTILEVERED SLIDE GATES SHALL CONFORM TO ASTM F1184.
2. GATE FRAMES SHALL BE EITHER ZINC-COATED STEEL.
3. ROLLERS SHALL BE EITHER INTERNAL OR EXTERNAL.
4. DETAILS SHOWN ARE TO CLARIFY REQUIREMENTS AND ARE NOT INTENDED TO LIMIT OTHER TYPES OF GATE SECTIONS AND METHODS OF INSTALLATION.
5. GATE SHALL BE GROUNDED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
6. GATE SHALL BE CONSTRUCTED IN ACCORDANCE WITH FENCING SPECIFICATIONS.

DETAIL 1
SCALE: NTS

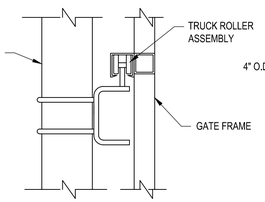


EXTERNAL ROLLERS

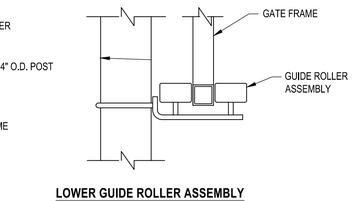
SECTION 1 -



INTERNAL ROLLERS



UPPER TRUCK ROLLER ASSEMBLY
NO SCALE



LOWER GUIDE ROLLER ASSEMBLY
NO SCALE

NO	DATE	BY	AFE NO.	DATE	BY	DESCRIPTION	DATE	BY
	ISSUED			AS BUILT			APPROVED	
0	04/22/21	FS	65553 10193			ISSUED FOR CONSTRUCTION	04/22/21	CS

REVISIONS

NO	DATE	BY	AFE NO.	DATE	BY	DESCRIPTION	DATE	BY
	ISSUED			AS BUILT			APPROVED	

REVISIONS

TITLE

REFERENCE DRAWINGS

Rockies Express Pipeline

	ISSUED FOR DESIGN	AFE. NO.	65553/10193
X	APPROVED FOR CONSTRUCTION	DRAWING SIZE	D

FENCE & GATE DETAILS
DICKS CREEK INTERCONNECT
PIN 60478

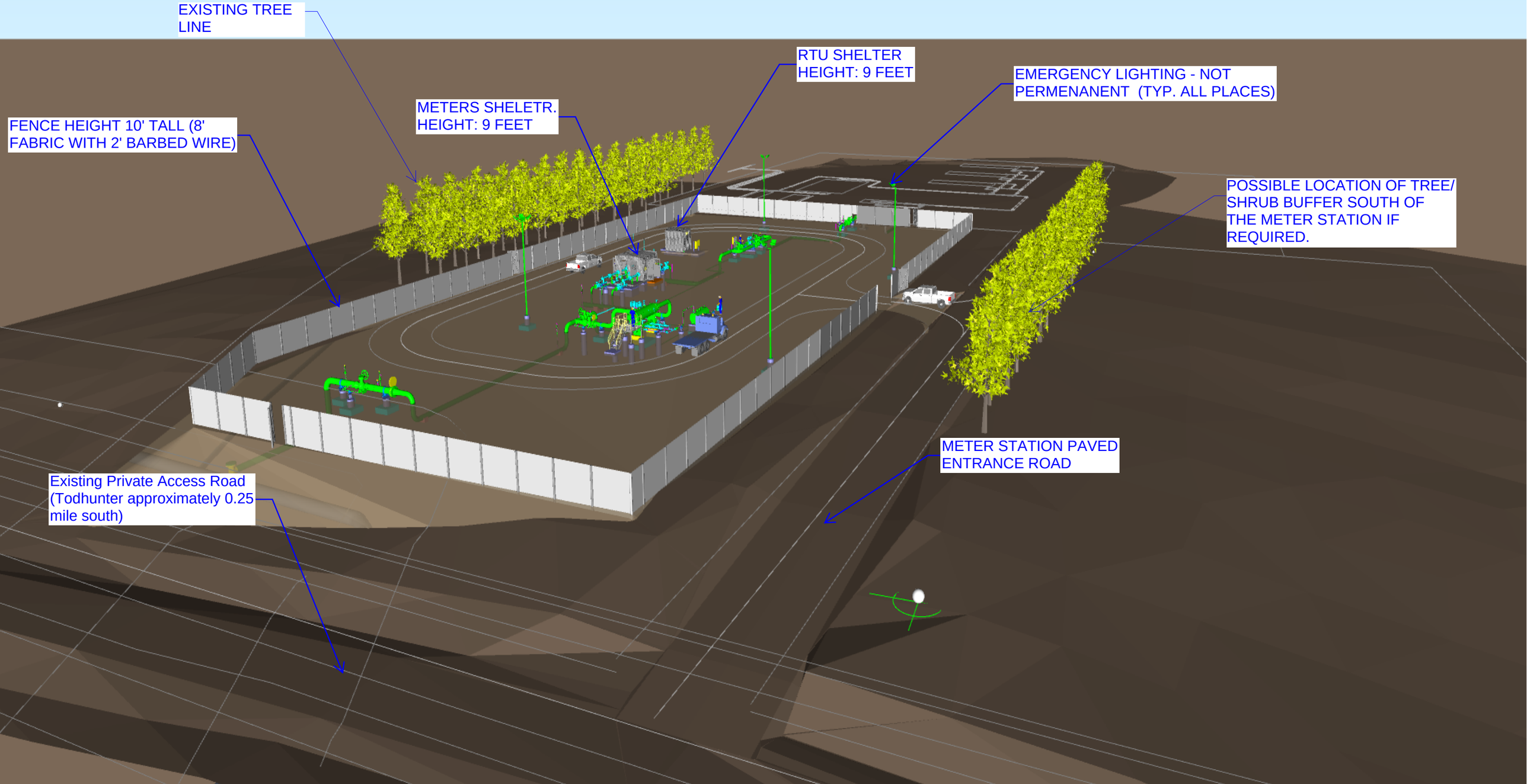
BUTLER COUNTY — OH

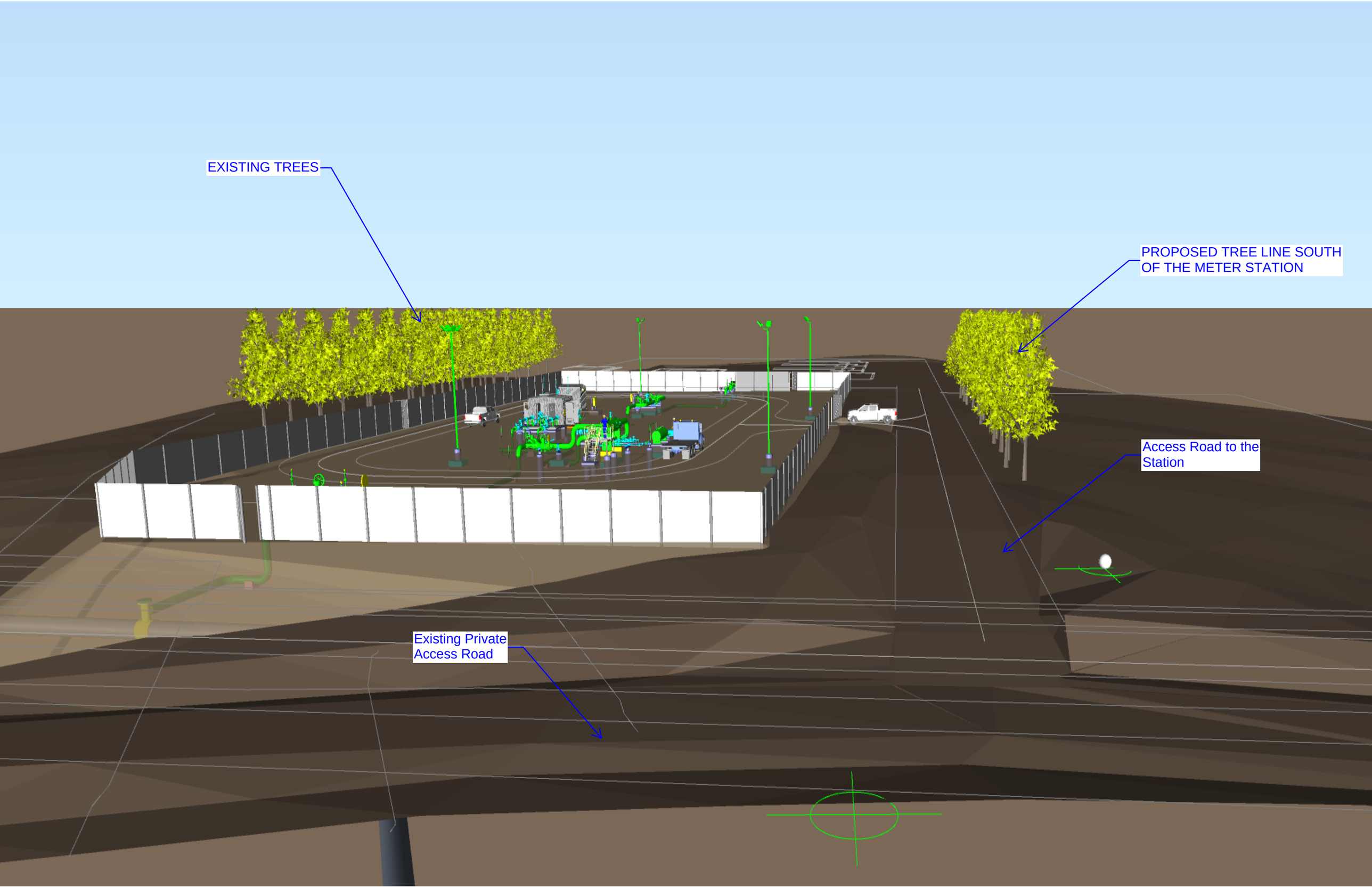
DRAWN	CHK. DR.	SCALE	DATE
FS	CS	–	12/15/20

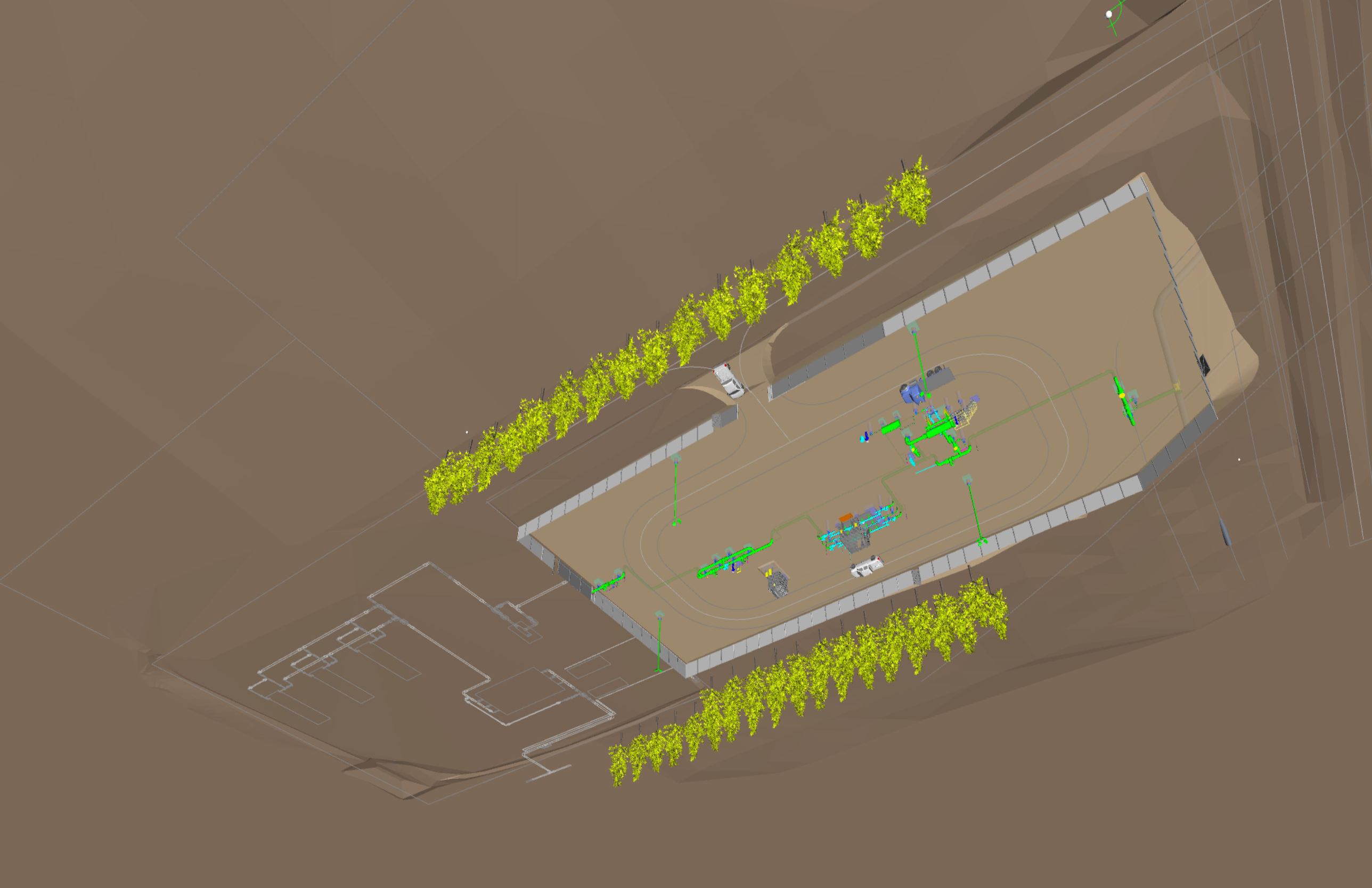
PROJECT ENGR. / PROJECT MGR.: BB / DB

FILE NO. **501-3425-200-0151**

REV **0**


EXISTING TREE LINE
RTU SHELTER HEIGHT: 9 FEET
EMERGENCY LIGHTING - NOT PERMENANENT (TYP. ALL PLACES)
METERS SHELETR. HEIGHT: 9 FEET
FENCE HEIGHT 10' TALL (8' FABRIC WITH 2' BARBED WIRE)
POSSIBLE LOCATION OF TREE/ SHRUB BUFFER SOUTH OF THE METER STATION IF REQUIRED.
METER STATION PAVED ENTRANCE ROAD
Existing Private Access Road (Todhunter approximately 0.25 mile south)


EXISTING TREES
PROPOSED TREE LINE SOUTH OF THE METER STATION
Access Road to the Station
Existing Private Access Road



Application for Site Plan Review

Monroe Development Department
233 South Main Street, Monroe, Ohio 45050
Phone: 513-539-7374
www.monroeohio.org

For Staff Use Only	
Submittal Date:	
Date Application Determined Complete:	
Date of Planning Commission Review:	
Fee Paid:	Staff Initials:
Application/Case Number:	

Site Plan Review Information

1. The site plan review procedure and applicability requirements are established in Section 1203.06 of the Monroe Planning and Zoning Code.
2. Prior to submitting this application, you are required to meet with staff from the Development Department for a pre-application conference. Please contact the department to schedule the conference.
3. The Monroe Planning Commission reviews all site plan review applications unless specifically exempted in Section 1203.06(B)(3).
4. Approval of a site plan does not constitute approval to begin construction. Applicants with approved site plans are required to submit all applicable zoning permit and building permit applications.
5. Unless an alternative timeline is approved by the Planning Commission, construction related to the approved site plan must begin within one year of the site plan approval or the approval shall be voided. See Section 1203.06(H) for additional information.

Basic Project and Site Information

Project Address: 861 Mason Road

County: ☐ Butler ☐ Warren | Total Lot Area: 1.07

County Tax Parcel ID:

Project/Development Name: Duke Mason Meter Station

Existing Zoning District: C-2

Project Type: ☐ New Building ☐ Expansion of Existing Structure
☐ Addition to Site (e.g., parking, landscaping, lighting, etc.)

Applicant Information

Applicant Name: Texas gas Transmission, LLC

Contact Person: Ahmad Shaheed

Contact Address: 9 Greenway Plaza Houston, Texas 77043

Contact Phone Number: | Contact Fax Number: 713-479-3172

Contact E-Mail: Ahmad.Shaheed@bwpipelines.com

Property Owner Name: Duke Energy* see Attached Letter

The applicant may attach a separate sheet of a paper with contact information for additional people, if necessary (e.g., additional owners, registered engineer, landscape architect, etc.). The same contact information shall be provided for each contact name.

Project Address or Tax Parcel ID:

Additional Project Information

1) Please describe, in detail, any existing uses and/or buildings on the project site.

The proposed project is for a new natural gas metering site to increase capacity and functionality for the growing community. Texas Gas Transmission, LLC will utilize approximately 1.07 acres and a 5808 square foot building to house the metering equipment. The building will be unoccupied and will provide protection for the natural gas equipment inside from the elements. This building will face Mason Road and be setback from the road about 400 feet. The building is divided by the Industrial and Commercial boundary line, but designed to meet the commercial zoning requirements.

2) Please describe, in detail, the proposed uses and the proposed development. Provide a summary of the square footage related to each use and/or the total number of proposed dwelling units.

The proposed site has been developed with the City of Monroe building and zoning code requirements for a C-2 commercial district. The proposed building was designed in collaboration with City Planning Staff to meet the needs of the City for this location. The fence line, landscaping and building facade details meet the intent of the required codes with a few exceptions highlighted for safety reasoning as an essential public utility within this space.

3) What are the anticipated start and completion dates for the project?

Start Date: The Monroe Comprehensive Plan	Completion Date: Ahmad Shaheed

4) What is the estimated value (in dollars) of the proposed property improvements?

4/19/2021

5) Check any relevant procedural reviews applicable to this project:

✔ Conditional Use	✔ Variance	✔ Administrative Waiver	✔ Alternative Equivalent Compliance

If you checked any of the above procedures, please provide specific details on what you are seeking to have approved through the applicable review procedure? Provide the application/case numbers for any related applications.

See Attached Letter - Texas Gas will receive a permanent Lease from Duke Energy

Project Address or Tax Parcel ID: *Per Attached - Duke Energy will close on the property by April 30, 2021

Additional Project Information Continued

6) Does the project require any addition permits, licenses, or reviews by outside agencies (e.g., Butler or Warren County, ODNR, OEPA, etc.). ☐ Yes ☑ No If yes, please describe below.

OEPA - NPDES General Permit (OHC000005) for Stormwater Discharges Associated with Construction Activity/SWPPP

Certification and Signatures

Applicant Signature - I certify that, to the best of my knowledge, the information contained in this form and within any attachments is correct and truthful. I understand that knowingly falsifying this information may be grounds for the denial or revoking of this application and any subsequent zoning permit or other review applications.

Print Name: David Klein

Signature: David KLein - Duke Energy

Date: 4/8/2021

Property Owner Signature - If the property owner is not the named applicant on this form, the property owner shall sign the form below acknowledging that the applicant is an authorized agent of the property owner as it relates to proposed project. If the site plan review is for multiple properties, a signature from each property owner is required.

Print Name: David Klein

Signature: David KLein - Duke Energy

Date: 4/8/2021

Note: A letter signed by the property owner, authorizing the applicant to act on their behalf may be submitted in lieu of the property owner's signature on this form.

Submittal Requirement Checklist Submittals shall include 8 copies (minimum of 24” x 36”) and 8 copies (minimum of 11” x 17”) Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.	
Digital Submittal Requirements	
☑	All document applications shall be submitted in an electronic format compatible (Adobe PDF) with the city’s computer systems.
☑	All site plan materials, in map format, shall be submitted in a format compatible with the city's Geographic Information Systems (i.e. shapfile, geodatabase, or dwg) and shall be projected into NAD 1983 Ohio State Plane South - FIPS 3402 coordinate system using US Survey foot units.
General Information	
☑	Site Plan Review Application form
☑	Application fee
☑	Copies of the plans and maps established below at a scale no smaller than 1 inch = 100 feet, on full-sized copies unless on 11” x 17” or otherwise noted
☑	Any additional information determined to be necessary by the Development Department
Vicinity Map (Scale may be smaller than 1” = 100’)	
☑	Date, north arrow, scale, and a legend for all symbols
☑	Project location
☑	All surrounding properties, streets, and corporation limits within a minimum of 500’ of the outer boundaries of the project site
Existing Conditions Map	
☑	All existing zoning district classifications on the site and adjacent to the site
☑	Parcel boundaries of the site and all parcels adjacent to the site
☑	Names of all subdivisions and land owners owning lots adjacent to the site
☑	Existing streets within 200’ of site with names and centerlines
☑	Existing watercourses and bodies of water including any applicable flood hazard areas
☑	Planned road network (including street names if available) within 500’ of site (if different from existing streets)
☑	Existing land uses on the site and adjacent parcels (including across any streets)
☑	Railroad infrastructure and rights-of-way
☑	All existing easements (including drainage) with dimensions and designation as to type
☑	Location of existing curb cuts, private streets, parking and loading areas, pedestrian walks, lighting facilities, and outside trash storage facilities
Site Layout Plan	
☑	Lot numbers and sizes
☑	Square footage (gross) of existing buildings to remain and proposed buildings
☐	Required front, side, and rear yard width/setbacks
☐	All existing and proposed easements, including dimensions and type (e.g., drainage, access, public utility, etc.)
☐	Location, width, and classification of all existing and proposed streets in the development
☐	Location of any outdoor storage area(s) that require screening
☐	Locations of all proposed external street connections (including street stubs)
☐	Location, width, and materials of all sidewalks, trails, and paths (including connections to the public sidewalk system and adjacent developments)

Submittal Requirement Checklist Submittals shall include 8 copies (minimum of 24” x 36”) and 8 copies (minimum of 11” x 17”) Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.	
Parking Plan and Traffic Control Plan	
☐	Traffic impact study, if required
☐	Notation of total number of parking spaces, loading spaces, and stacking spaces required by ordinance
☐	Total number, dimensions, and location of parking spaces proposed off-street, on-street, and within parking structures, including information on handicapped parking spaces
☐	Total number of parking spaces to be provided through approval of shadow parking, off-site parking, or shared parking alternatives
☑	Number, location, and size of loading spaces provided
☐	Number and location of stacking spaces provided
☐	Location, arrangement, and dimensions of vehicular entrances, exits and parking lot aisles
☑	Location of pedestrian walkways and crossings
☑	Number and location of pervious parking spaces, if provided
☑	Proposed traffic control devices (in accordance with the Manual on Uniform Traffic Control Devices)
☑	Signing and striping plan
☑	Fire lanes and areas of parking prohibition
☑	Location of all sight triangles
Stormwater Management Sheet and Drainage Plan	
☑	Drainage basin(s) where the site is located and drainage patterns
☑	Existing and proposed locations, types, and sizes of drainage structures and calculations demonstrating how post-development runoff will not exceed pre-development runoff
☑	Erosion and siltation control measures and devices with narrative, including location of outfall for stormwater to proper catch basin (indicated sizes and slopes of existing pipes)
☑	Drainage computations from proposed development to proper pickup point
☑	All proposed elevations and slopes for grading
☑	Description of maintenance procedures for stormwater management devices
Utilities Plan (May be included on Site Layout Plan)	
☑	Existing and proposed locations, types, and sizes of all water, sanitary sewer, storm sewer, gas, telephone, power and other utility lines and meters, easements and any other utilities affected by the site (includes above ground utilities and grades and computations where appropriate)
☐	Notation that all new utilities (including cable television, electrical, natural gas, sewer, telephone, and water lines) shall be placed underground
☑	Locations where existing overhead utilities will be relocated underground (if applicable)
☐	Identification of any connections, above or below ground, that are located within the City of Monroe’s right-of-way
Landscaping Plan	
☑	Exact locations, dimensions, and counts of existing and proposed landscape materials provided within and around vehicular use areas, including the size of landscaping islands
☑	Exact locations and counts of existing and proposed landscape materials provided within any required buffer areas including the type of buffer used, the buffer width provided, the proposed configuration of trees, shrubs, and screening features
☑	Location, size, and species of all existing and proposed street trees
☑	The total number of trees and shrubs provided, and the total number of different species planted
☐	Notations for any existing landscape within sight triangles indicating maximum shrub height or tree canopy height

Submittal Requirement Checklist Submittals shall include 8 copies (minimum of 24” x 36”) and 8 copies (minimum of 11” x 17”) Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.	
☑	Location and amount of credit towards landscape material requirements provided by existing landscaping
☑	Demarcation of existing trees to be removed
☑	Location and amount of all open space set-aside areas by development phase
☑	Details of all open space improvements and common features (e.g., fountains, benches, street furnishings, play equipment, etc.)
Architectural and Building Elevation Plans	
☑	Color elevations for each building side facing a public street, alley, public open space, or public building, illustrating compliance with the architectural standards of the applicable zoning district
☑	Dimensions, in feet, of all façade recesses or similar fenestration
☑	Preliminary floor plan for principal buildings
☑	Height of all buildings in feet, including number of building stories
☐	Accessory structure size(s), if applicable
☐	Accessory structure height(s), if applicable
☐	Description of the type of material(s) used on each façade elevation
☐	Illustrative elevation of all fencing, walls, and retaining walls visible from a street, open space, or public building that will be used for buffering or screening of adjacent residential uses, dumpsters, service structures, utilities, parking areas, loading areas, and similar activity areas
Lighting Plan	
☐	Location, type, and height of all lighting fixtures (including street lights)
☐	Details on colors and materials for all lighting fixtures
☑	Grid or photometric diagram showing maximum illumination values at the lot line, and uniformity ratios within parking lots, measured in footcandles
Signage Plan	
☐	All sign areas, dimensions and height (including shape)
☐	Position of all signs in relation to the use being advertised (may be identified on the site layout plan)
☐	Location and style of all address numbers, building numbers, or allowable building identifications
☐	Plan of illumination for the sign including information on message timing for electronic message centers
☐	Landscaping around base of sign (may be identified on the landscaping plan)

Application for a Conditional Use Permit

Monroe Development Department
233 South Main Street, Monroe, Ohio 45050
Phone: 513-539-7374
www.monroeohio.org

For Staff Use Only	
Submittal Date:	
Date Application Determined Complete:	
Date of Planning Commission Review:	
Fee Paid:	Staff Initials:
Application/Case Number:	

Conditional Use Permit Review Information

1. The conditional use permit review procedure and review criteria are established in Section 1203.07 of the Monroe Planning and Zoning Code.
2. Some conditional uses may be subject to use-specific standards in addition to the general review criteria for all conditional uses. Such use-specific criteria will be identified in Chapter 1204 and, more specifically, Section 1204.04.
3. If the applicant is proposing a development that will also require a site plan review, such review shall occur simultaneously and the applicant shall submit a site plan review application.
4. The Monroe Planning Commission reviews all conditional use permit applications.
5. The application fee for a zoning amendment is $300, due at the time the application is submitted.

Basic Project and Site Information

Project Address: 861 Mason Road

County: ☑ Butler ☐ Warren | Total Lot Area: 1.07

County Tax Parcel ID:

Project/Development Name: Duke Mason Meter Station

Existing Zoning District: C-2

Proposed Use: ☐ Residential ☐ Commercial ☐ Office ☐ Industrial ☑ Public or Institutional Use ☐ Mixed use

Applicant Information

Applicant Name: Texas gas Transmission, LLC

Contact Person: Ahmad Shaheed

Contact Address: 9 Greenway Plaza Houston, Texas 77043

Contact Phone Number: 713-479-3172 | Contact Fax Number:

Contact E-Mail: Ahmad.Shaheed@bwpipelines.com

Property Owner Name: Duke Energy* see Attached Letter

The applicant may attach a separate sheet of a paper with contact information for additional people, if necessary (e.g., additional owners, registered engineer, landscape architect, etc.). The same contact information shall be provided for each contact name.

Conditional Use Permit Information

1) Will a site plan review be required with the conditional use permit review? See Section 1203.06.

☑ Yes ☐ No

Project Address or Tax Parcel ID:

Conditional Use Permit Information Continued

2) Please describe, in detail, the proposed use of the site.

The proposed project is for a new natural gas metering site to increase capacity and functionality for the growing community. Texas Gas Transmission, LLC will utilize approximately 1.07 acres and a 5808 square foot building to house the metering equipment. The building will be unoccupied and will provide protection for the natural gas equipment inside from the elements. This building will face Mason Road and be setback from the road about 400 feet. The building is divided by the Industrial and Commercial boundary line, but designed to meet the commercial zoning requirements.

3) Describe how the proposed use will be harmonious with the existing or intended character of the general vicinity, and that such use will not change the essential character of the same area.

The proposed site has been developed with the City of Monroe building and zoning code requirements for a C-2 commercial district. The proposed building was designed in collaboration with City Planning Staff to meet the needs of the City for this location. The fence line, landscaping and building facade details meet the intent of the required codes with a few exceptions highlighted for safety reasoning as an essential public utility within this space.

4) Describe how the proposed amendment furthers the objectives of the comprehensive plan.

The Monroe Comprehensive Plan provides a framework for future development that will address the city's growth patterns, changing demographics and land use requirements. This project expands the existing energy infrastructure to meet those future needs. Additionally, this project is being designed to meet the intent of the design standards set forth in the Commercial zoning district.

Certification and Signatures

Applicant Signature - I certify that, to the best of my knowledge, the information contained in this form and within any attachments is correct and truthful. I understand that knowingly falsifying this information may be grounds for the denial or revoking of this conditional use application and any subsequent zoning permit or other review applications.

Print Name: Ahmad Shaheed

Signature:

Date: 4/19/2021

Property Owner Signature - If the property owner is not the named applicant on this form, the property owner shall sign the form below acknowledging that the applicant is an authorized agent of the property owner as it relates to proposed project.

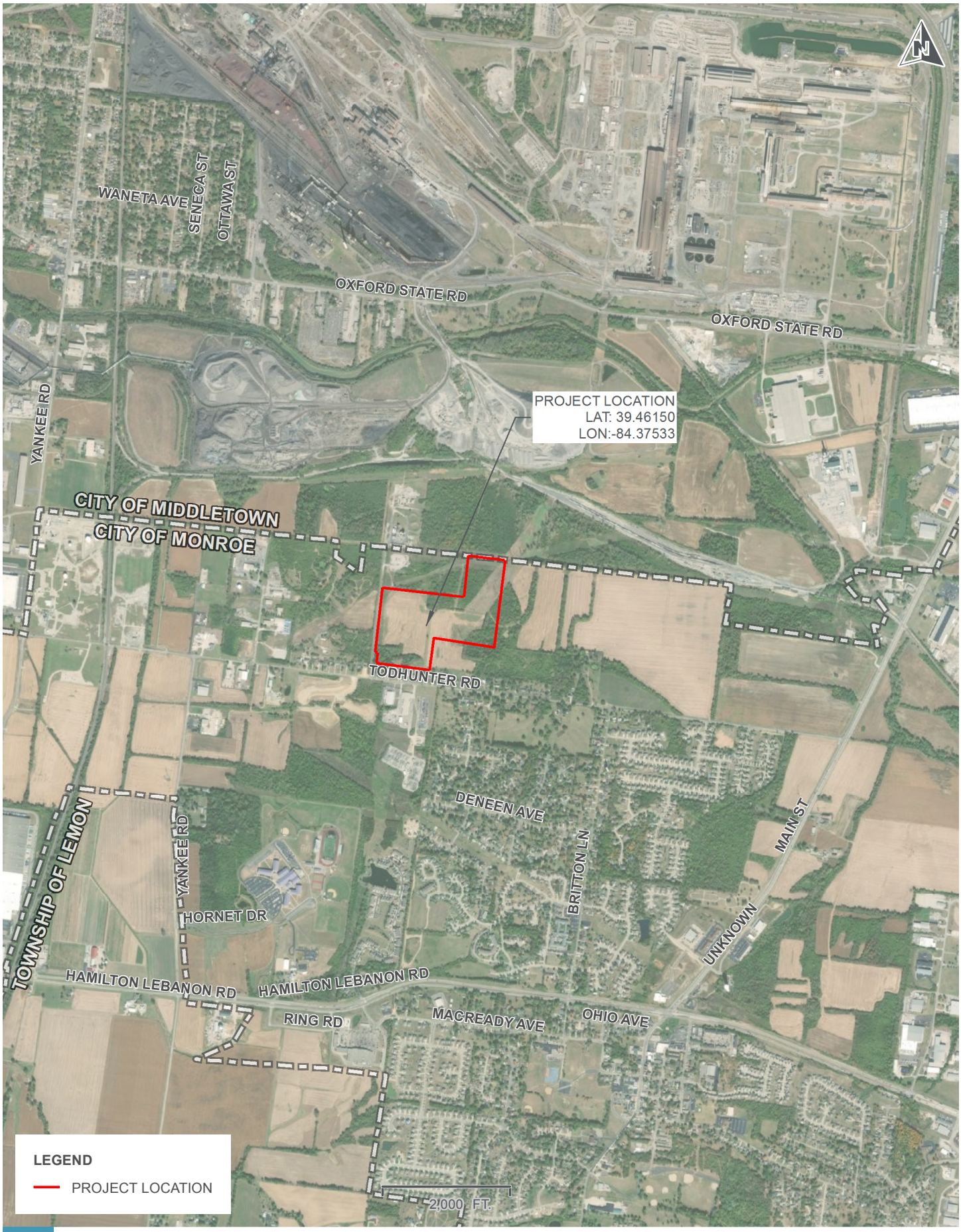
Print Name: See Attached Letter - Texas Gas will receive a permanent Lease from Duke Energy

Signature: David KLein - Duke Energy

Date: *Per Attached - Duke Energy will close on the property by April 30, 2021

Note: A letter signed by the property owner, authorizing the applicant to act on their behalf may be submitted in lieu of the property owner's signature on this form.

Submittal Requirement Checklist	
Digital Submittal Requirements	
☑	All document applications shall be submitted in an electronic format compatible with the city's computer systems. Adobe PDF files are acceptable.
General Information	
☑	Application fee
☑	Sixteen copies of the plans and maps established below at a scale no smaller than 1 inch = 100 feet, unless otherwise noted – Eight of the copies shall be on pages with a minimum size of 24"x36" and the other eight copies shall be on pages with a minimum size of 11"x17". Additional copies may be required based on project specifics.
☐	Eight copies of the Traffic Impact Study, if required. See Section 1211.04
☑	Any additional information determined to be necessary by the Development Department
☑	Final mylars and digital files of all maps and plans will be required after approval
Note: Any addition or alteration of landscaping, lighting, or parking will require a site plan review and the applicant shall be responsible for completing the site plan review application and submitting the necessary information.	
Existing Conditions Map	
☑	All existing zoning district classifications on the site and adjacent to the site
☑	Parcel boundaries of all parcels adjacent to the site
☑	Names of all subdivisions and property owners of lots adjacent to the site
☑	Location of existing buildings, structures, curb cuts, parking and loading areas, lighting fixtures, outside trash storage facilities, , fences, outdoor display or storage, and other built or impervious surfaces.
☑	Location of existing vegetation (general location) to be maintained



PROJECT VICINITY MAP
CITY OF MONROE, BUTLER COUNTY, OH

LEGEND

- OVERHEAD TRANSMISSION ELECTRIC LINES (OHE)
- TREE LINE
- FENCE LINE
- PROPERTY LINE
- ROAD CENTERLINE
- NATURAL GAS UTILITY LINE
- ROAD EDGE
- CITY LIMITS
- PROPOSED FACILITY

ZONING DISTRICTS

- A-1 LARGE SCALE AGRICULTURAL
- H-1 HEAVY INDUSTRIAL
- L-1 LIGHT INDUSTRIAL
- R-1 SINGLE-FAMILY RESIDENTIAL INFILL
- R-2 SINGLE-FAMILY RESIDENTIAL

Q6542060000002
AK STEEL CORP
3024 OXFORD STATE RD
14433 ENT LESS PTS

CITY OF MIDDLETOWN
CITY OF MONROE

C1800001000001
AK STEEL CORP
TODHUNTER RD
567 ENT

NATURAL GAS UTILITY LINE
NATURAL GAS UTILITY LINE
NATURAL GAS UTILITY LINE

C1800002000004
CINCINNATI GAS & ELECTRIC CO
602 TODHUNTER RD
571 N650 OF W1340

EXISTING OVERHEAD TRANSMISSION ELECTRIC LINES (OHE)

H-1

PROPOSED TALLGRASS FACILITY
PROPOSED DUKE FACILITY
PROPOSED ACCESS RD

~1177 FT.

C1800001000010
MILLER THOMAS C & CANDICE NIXON
860 HOLMAN AVE
804 ENT LESS W 549'CTR PT

A-1

APPROXIMATE EXISTING TREE LINE

EXISTING DICKS CREEK ENERGY FACILITY PRIVATE ACCESS DRIVE

C1800002000001
TRI STATE IMPROVEMENT CO
598 TODHUNTER RD
51 ENT LESS N 650 OF W

~929 FT.

EXISTING AGRICULTRUAL FIELD

L-1

C1800001000004
FARIS DONALD SCOTT
TODHUNTER RD
570 ENT LESS S PT

EXISTING DIRT FARM & OHE ACCESS

C1800002000002
TRI STATE IMPROVEMENT CO
TODHUTNER RD
572 ENT

R-1

~252 FT.

C1800002000002 CINCINNATI GAS & ELECTRIC CO
C1800002000003 SPURLOCK CODY SEE
C1800002000004 MCKINNEY ACHELA
C1800002000005 MARTIN ROSIE L &
C1800002000006 BLACKBURN CHRIS D & KELLIE L
C1800002000007 TRI STATE IMPROVEMENT CO
C1800002000008 BOYLES JEFFERY D & DONNA K
C1800002000009 SCHAEFER C & ASHLEY T

R-2

A-1

HANFORD LN

TODHUNTER RD

L-1

R-1

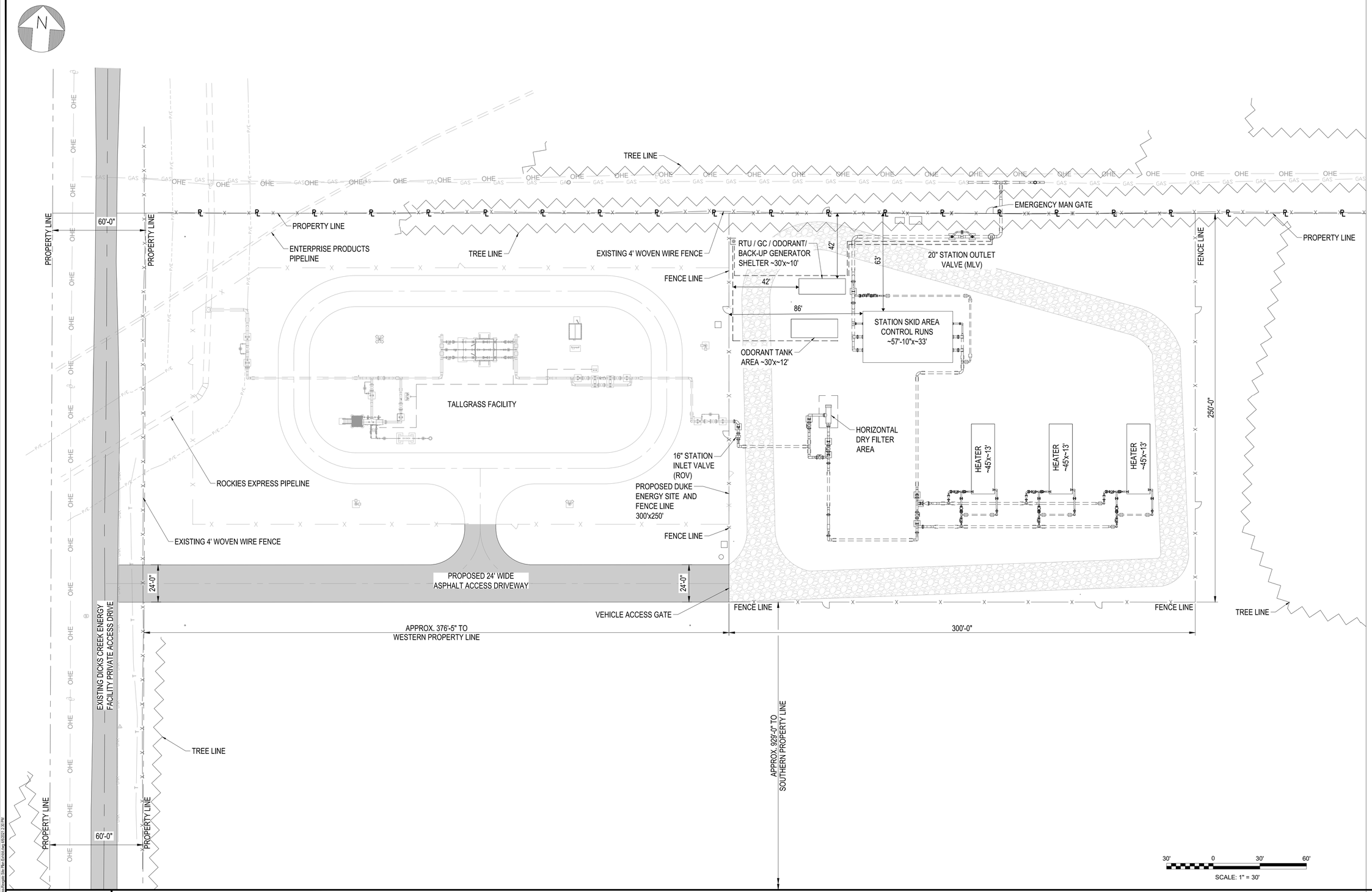
R-2

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300 Ft.

EXISTING CONDITIONS

CITY OF MONROE, BUTLER COUNTY, OH



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REF. DWG(S) -

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
A	04/06/2021	SITE PLAN REVIEW	JAF	NRW	-

DESCRIPTION	
AREA CODE	513
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2217
DRAWING BY	JAF
STATION ID	S09090I
CHECKER INITIALS	NRW

APPROVALS		
DATE -	INITIALS N/A	REGIONAL ENGINEER
DATE -	INITIALS N/A	MGR TECH REC & STD
DATE -	INITIALS N/A	PRINCIPAL ENGINEER

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STATION 909 REX GATE STA.
SITE PLAN EXHIBIT
BUTLER COUNTY, OHIO

SHEET(S) 1 OF 1	DWG SCALE AS SHOWN
DWG DATE 04/06/2021	SUPERSEDED —
DRAWING NUMBER	REVISION
SITE EXHIBIT	A

MECHANICAL / TODHUNTER / LINE CG07

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STATION 909 REX GATE STA. (TALLGRASS)
BUTLER COUNTY, OHIO, 45050

DRAWING INDEX

DRAWING NUMBER	DRAWING TITLE	SHEET NO.	REV.
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PNG-G-042-0001065	GENERAL NOTES	2	D
PNG-G-000-0002250	P&ID LEGEND AND SYMBOLS	3	-
PNG-G-000-0002250	P&ID LEGEND AND SYMBOLS	4	-
PNG-G-000-0002250	P&ID LEGEND AND SYMBOLS	5	-
PNG-D-042-0001013	PIPING AND INSTRUMENTATION DIAGRAM	6	D
PNG-D-042-0001014	PIPING AND INSTRUMENTATION DIAGRAM	7	D
PNG-D-042-0001015	PIPING AND INSTRUMENTATION DIAGRAM	8	D
PNG-D-042-0001016	PIPING AND INSTRUMENTATION DIAGRAM	9	D
PNG-D-042-0001017	PIPING AND INSTRUMENTATION DIAGRAM	10	D
PNG-M-042-0001066	MECHANICAL SITE PLAN	11	D
PNG-M-042-0001067	MECHANICAL PIPING PLAN	12	D
PNG-M-042-0001068	INLET STATION VALVE DETAIL	13	B
PNG-M-042-0001069	FILTER SEPARATOR DETAIL	14	B
PNG-M-042-0001070	METER RUN DETAIL	15	B
PNG-M-042-0001071	HEATER BYPASS DETAIL	16	B
PNG-M-042-0001072	HEATER #1 - INLET/OUTLET VALVES	17	B
PNG-M-042-0001073	HEATER #2 - INLET/OUTLET VALVES	18	B
PNG-M-042-0001074	HEATER #3 - INLET/OUTLET VALVES	19	B
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PNG-X-042-0001007	EMERGENCY SCHEMATIC	23	B
PNG-C-042-0001116	ALIGNMENT SHEET	24	D
PNG-C-042-0001117	GRADING AND EROSION CONTROL PLAN	25	B
PNG-C-042-0001118	CIVIL SITE AND RESTORATION PLAN	26	B
PNG-C-042-0001119	ACCESS ROADS DETAILS	27	B
PNG-C-042-0001120	EROSION & SEDIMENTATION CONTROL DETAILS	28	B
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811 Know what's **below.** **Call** before you dig.

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NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
A	10/16/2020	ISSUE FOR 30% REVIEW	JAF	BJS	JWL
B	10/30/2020	INCORPORATED 30% REVIEW COMMENTS	JAF	NRW	JWL
C	12/15/2020	ISSUE FOR 60% REVIEW	JAF	BJS	JWL
D	03/26/2021	ISSUE FOR 90% REVIEW	JAF	BJS	JWL

DESCRIPTION	
AREA CODE	513
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2217
DRAWING BY	JAF
STATION ID	S090901
CHECKER INITIALS	BJS

APPROVALS		
DATE -	INITIALS N/A	REGIONAL ENGINEER
DATE -	INITIALS N/A	MGR TECH REC & STD
DATE -	INITIALS N/A	PRINCIPAL ENGINEER

PROFESSIONAL ENG/ARCH STAMP

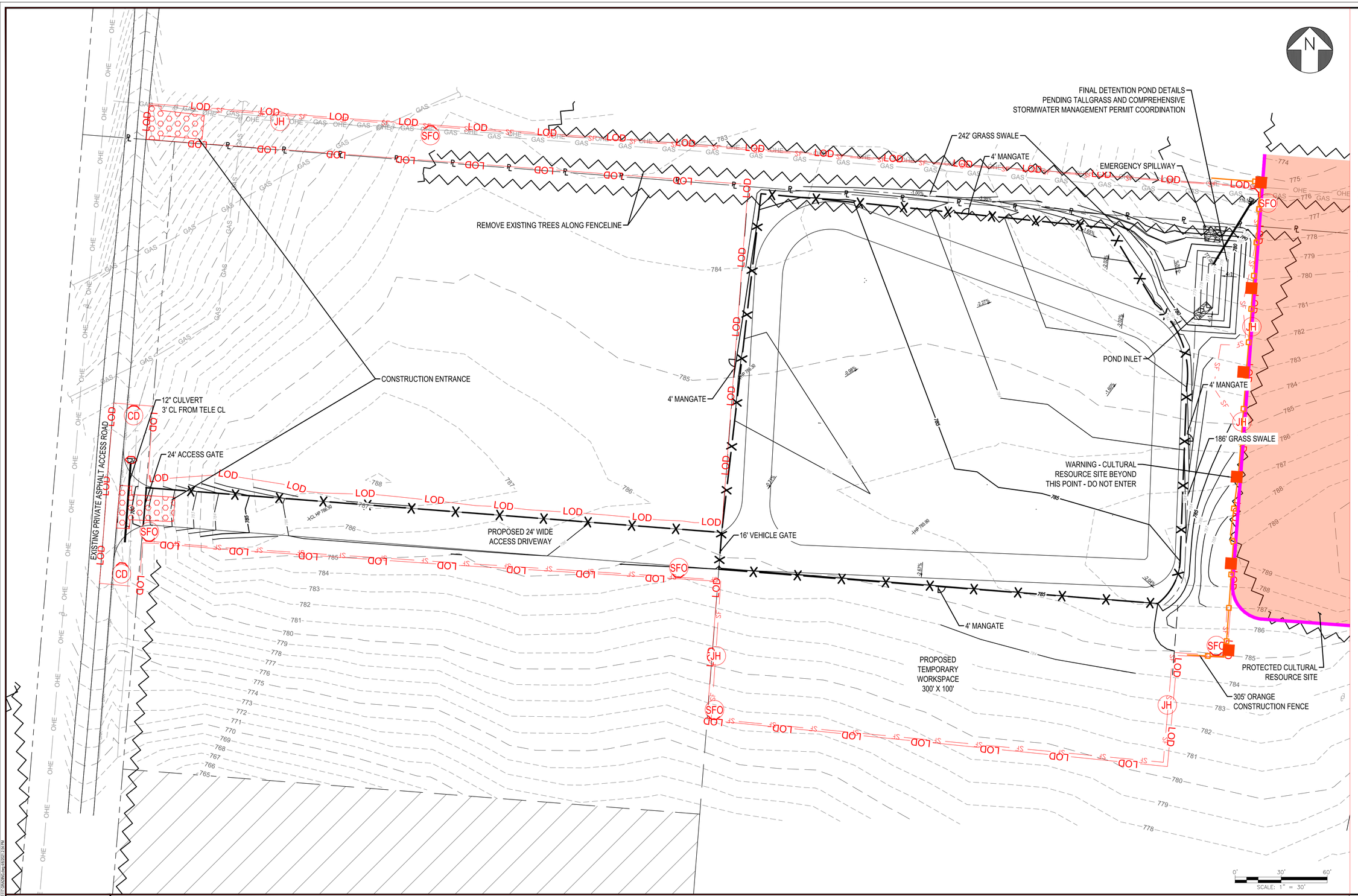
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STATION 909 REX GATE STA. (TALLGRASS)
COVER SHEET
BUTLER COUNTY, OHIO
TODHUNTER RESOURCE CENTER, CINCINNATI, OHIO

SHEET(S) 1 OF 62	DWG SCALE NTS		
DWG DATE 10/16/2020	SUPERSEDED —		
DRAWING NUMBER PNG -G-042-0001064	REVISION D		
GENERAL / TODHUNTER / LINE CG07			

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LEGEND:

- PROPERTY LINE
- PROPOSED FENCE
- LIMIT OF DISTURBANCE
- SS2 REINFORCED SILT FENCE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- SURVEY MAJOR CONTOUR
- SURVEY MINOR CONTOUR
- RIGHT OF WAY LINE
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING CULVERT
- PROPOSED CULVERT
- OVERHEAD ELECTRIC
- COMPOSITE FILTER SOCK \ CHECK DAM
- EXISTING TREELINE
- CONSTRUCTION FENCING
- SILT FENCE OUTLET
- J HOOK DETAIL
- PROPOSED PERMANENT CHAINLINK FENCE
- CULTURAL AVOIDANCE LINE
- SIGN - "WARNING - CULTURAL RESOURCE SITE BEYOND THIS POINT DO NOT ENTER"

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REF. DWG(S) PNG-G-042-0001064

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
A	12/15/2020	ISSUE FOR 60% REVIEW	NS	JCG	NRW
B	03/26/2021	ISSUE FOR 90% REVIEW			

DESCRIPTION		APPROVALS		
AREA CODE	513	DATE -	INITIALS N/A	REGIONAL ENGINEER
ACCOUNT NUMBER	-			
PROJECT NUMBER	AW2217	DATE -	INITIALS N/A	MGR TECH REC & STD
DRAWING BY	NS			
STATION ID	S090901	DATE -	INITIALS N/A	PRINCIPAL ENGINEER
CHECKER INITIALS	JCG			

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STATION 909 REX GATE STA. (TALLGRASS) GRADING AND EROSION CONTROL PLAN BUTLER COUNTY, OHIO

TODHUNTER RESOURCE CENTER, CINCINNATI, OHIO

SHEET(S) 25 OF 62	DWG SCALE AS SHOWN
DWG DATE 12/15/2020	SUPERSEDED —
DRAWING NUMBER	REVISION
DUKE -C-042-0001117	B
CIVIL / TODHUNTER / LINE CG07	

FINAL DETENTION POND DETAILS
PENDING TALLGRASS AND COMPREHENSIVE
STORMWATER MANAGEMENT PERMIT COORDINATION

250' GRASS SWALE

4' MANGATE

EMERGENCY SPILLWAY

POND INLET

4' MANGATE

186' GRASS SWALE

12" CULVERT
3' CL FROM TELE CL

24' ACCESS GATE

EXISTING GRAVEL ACCESS ROAD

PROPOSED 24' WIDE
ACCESS DRIVEWAY

16' VEHICLE GATE

4' MANGATE

WARNING - CULTURAL
RESOURCE SITE BEYOND
THIS POINT - DO NOT ENTER

PROPOSED
TEMPORARY
WORKSPACE
300' X 100'

PROTECTED CULTURAL
RESOURCE SITE

305' ORANGE
CONSTRUCTION FENCE

0' 30' 60'
SCALE: 1" = 30'

LEGEND:

- PROPERTY LINE
- PROPOSED FENCE
- LIMIT OF DISTURBANCE
- SS2 REINFORCED SILT FENCE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- SURVEY MAJOR CONTOUR
- SURVEY MINOR CONTOUR
- RIGHT OF WAY LINE
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING CULVERT
- PROPOSED CULVERT
- OVERHEAD ELECTRIC
- AASHTO 57 GRAVEL PAD
- OH 304 AGGREGATE BASE COURSE ACCESS ROAD
- ASPHALT
- RIP RAP
- COMPOSITE FILTER SOCK \ CHECK DAM
- SEED AND MULCH RESTORATION
- TEMPORARY MATTING RESTORATION
- EXISTING TREELINE
- CONSTRUCTION FENCING
- SILT FENCE OUTLET
- J HOOK DETAIL
- PROPOSED PERMANENT CHAINLINK FENCE
- CULTURAL AVOIDANCE LINE
- SIGN - "WARNING - CULTURAL RESOURCE SITE BEYOND THIS POINT DO NOT ENTER"

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DESCRIPTION		APPROVALS		
AREA CODE	513	DATE -	INITIALS N/A	REGIONAL ENGINEER
ACCOUNT NUMBER	-			
PROJECT NUMBER	AW2217	DATE -	INITIALS N/A	MGR TECH REC & STD
DRAWING BY	NS			
STATION ID	S090901	DATE -	INITIALS N/A	PRINCIPAL ENGINEER
CHECKER INITIALS	JCG			

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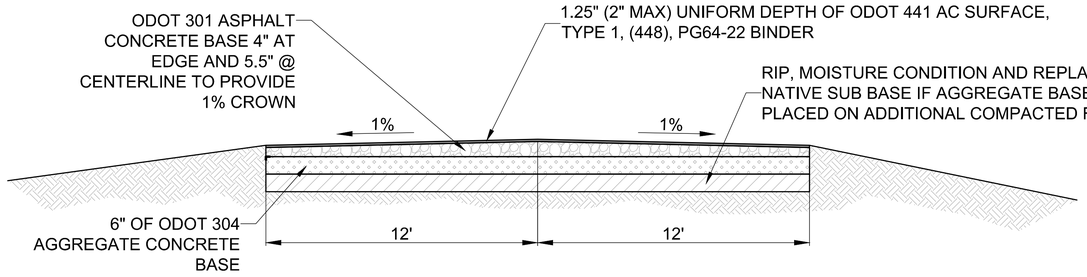
STATION 909 REX GATE STA. (TALLGRASS)
CIVIL SITE AND RESTORATION PLAN
BUTLER COUNTY, OHIO

TODHUNTER RESOURCE CENTER, CINCINNATI, OHIO

SHEET(S) X OF X	DWG SCALE AS SHOWN
DWG DATE 12/15/2020	SUPERSEDED —

DRAWING NUMBER: DUKE -C-042-0001118 | REVISION: B

CIVIL / TODHUNTER / LINE CG07

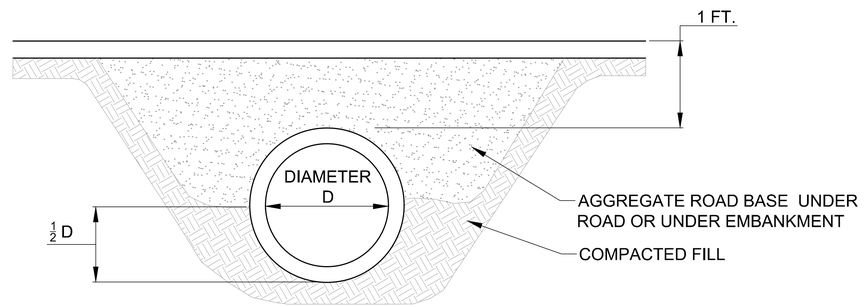


NOTES:

1. PROPOSED BASE AND ASPHALT MIXES SHALL BE PROVIDED TO THE ENGINEER PRIOR TO INSTALLATION.
2. SUB BASE AND ALL BASE COURSES SHALL BE COMPACTED TO 95% OF A STANDARD PROCTOR. NUCLEAR PROBE TESTS EVERY 200 FT SHALL BE APPROVED BY ENGINEER PRIOR INSTALLATION OF NEXT LAYER.
3. FINAL SURFACE ACCEPTANCE SHALL BE OHIO DOT 403 ACCEPTANCE PROVIDED TO THE ENGINEER (ASPHALT BINDER CONTENT & GRADATION) AND A PROOF ROLL PER COMPANY DIRECTION.
4. PLACE OHIO DOT TACK COAT ITEM 407 BETWEEN ASPHALT BASE AND ASPHALT SURFACE COURSE.

ASPHALT ACCESS DRIVE

NOT TO SCALE



SECTION VIEW

NOTES:

NON-REINFORCED CONCRETE PIPE, CLASS 3 (ODOT 706.01), OR APPROVED EQUAL.

MINIMUM DIAMETER FOR ANY CULVERT IS 12"; OTHERWISE CULVERT SHALL BE SIZED FOR ANTICIPATED PEAK FLOW. PLACE CULVERT SO BOTTOM IS AT SAME LEVEL AS BOTTOM OF DITCH OR ADJOINING SLOPE. CULVERTS SHALL BE PLACED WITH A SLOPE OF 2 TO 4%. LOWER END SHALL BE AT LEAST 2" BELOW UPPER END.

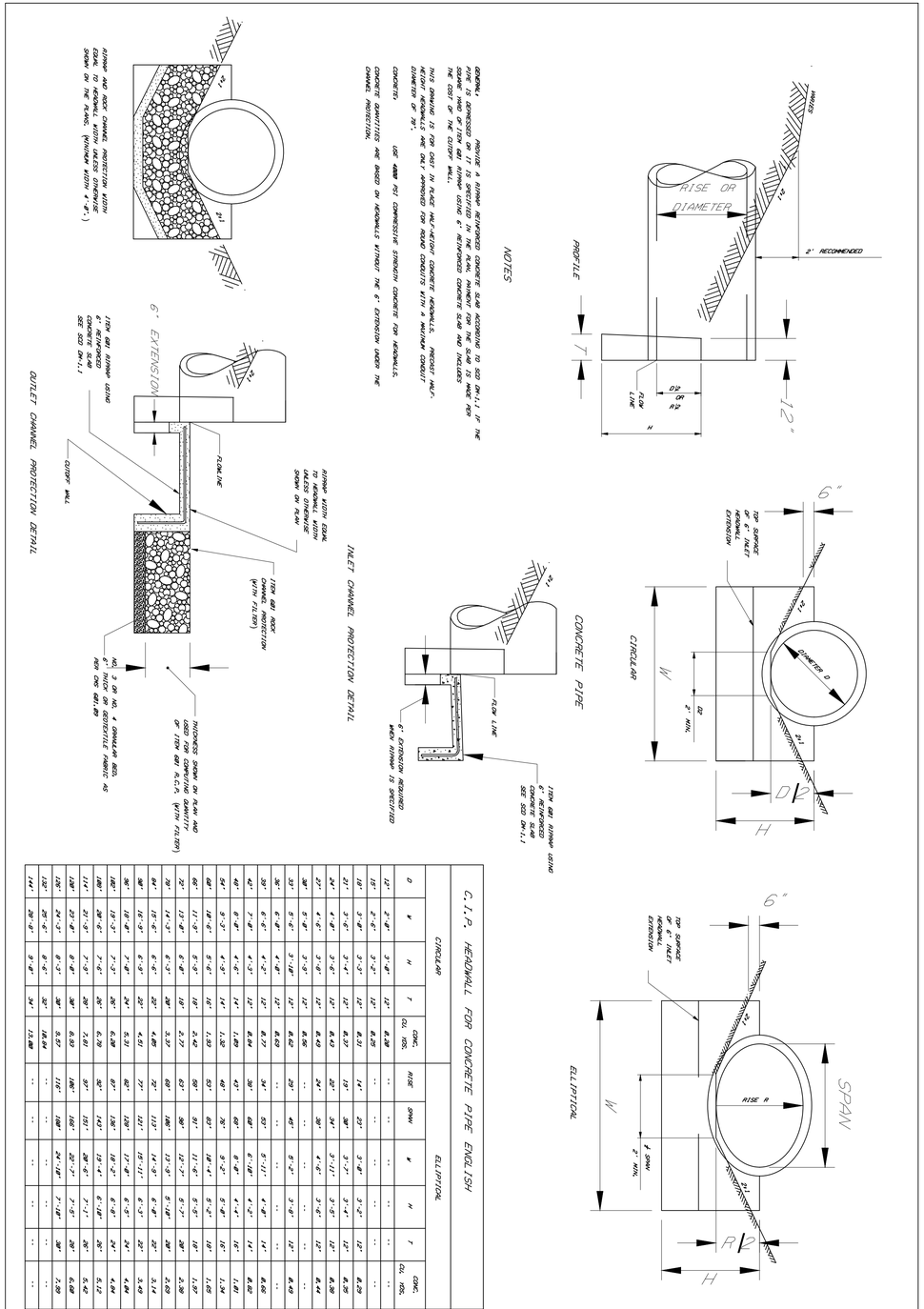
EXTEND CULVERT 12" BEYOND BASE OF ROAD FILL ON BOTH SIDES. FIRMLY PACK FILL AROUND CULVERT, ESPECIALLY THE BOTTOM HALF.

PROVIDE A MIN OF 18" THICK TYPE C RIP RAP OUTLET PROTECTION FOR 5' PER ODOT DWG HW-2.2 ON THIS SHEET.

INSPECT CULVERT WEEKLY: REMOVE ANY FLOW OBSTRUCTIONS AND MAKE NECESSARY REPAIRS IMMEDIATELY.

DITCH RELIEF CULVERT

NOT TO SCALE



| | | |

EROSION AND SEDIMENT CONTROL NARRATIVE

THE EROSION AND SEDIMENT CONTROL MEASURES FOR THIS REGULATOR STATION INVOLVE THE PLACEMENT OF A VARIETY OF EROSION AND SEDIMENT CONTROL DEVICES, AT STRATEGIC LOCATIONS THROUGHOUT THE PROJECT AREA THESE DEVICES INCLUDE:

1. UPLAND SEEDING SPECIFICATIONS (TEMPORARY AND PERMANENT)
2. SILT FENCE
3. CONSTRUCTION ENTRANCE
4. PERMANENT DETENTION POND
5. DEWATERING STRUCTURE
6. SILT FENCE OUTLET
7. TEMPORARY MATTING OF SLOPES

ADDITIONAL EROSION CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION.

THE TOTAL PROJECT DENUDED AREA IS 3.48 AC.

ALL ENVIRONMENTAL MEASURES SHALL BE PER PERTINENT DUKE DESIGN AND CONSTRUCTION STANDARDS.

CONSTRUCTION SEQUENCE

1. OBTAIN E&SC PLAN APPROVAL AND OTHER PERTINENT PERMITS. NOTIFY AFFECTED AND/OR ADJACENT LANDOWNERS PRIOR TO BEGINNING WORK.
2. SCHEDULE MANDATORY PRE-CONSTRUCTION MEETING.
3. INSTALL CONSTRUCTION ENTRANCE PER PLANS.
4. INSTALL PERIMETER EROSION CONTROL MEASURES (SILT FENCE, SILT FENCE OUTLETS, ETC.) PRIOR TO CLEARING AND GRUBBING, WHERE PRACTICAL, AND CONCURRENTLY WHEN CLEARING IS REQUIRED TO INSTALL PERIMETER MEASURES. CLEARING SHALL NOT OUTPACE THE INSTALLATION OF PERIMETER CONTROLS.
5. INITIATE CLEARING AND GRUBBING WITHIN LIMITS OF DISTURBANCE. MINIMIZE CLEARING AND GRUBBING WHERE PRACTICAL. INITIATE TEMPORARY SEEDING AS PER GENERAL SEEDING SPECIFICATIONS WITHIN LIMITS OF DISTURBANCE ONCE WORK AREAS HAVE REACHED FINAL ELEVATIONS.
6. INSTALL REMAINING E&SC MEASURES AS NEEDED ONCE CLEARING AND GRUBBING IS COMPLETED.
7. CONTRACTOR TO PHASE, SEQUENCE, AND CONDUCT LAND DISTURBING AND CONSTRUCTION ACTIVITIES IN A MANNER THAT MINIMIZES THE AMOUNT OF BARE SOIL EXPOSED AT A GIVEN TIME DURING THE PROJECT. LIMIT BARE CONDITIONS WHERE POSSIBLE DURING THE PROJECT.
8. PERFORM GRADING TO ESTABLISH STATION PAD.
9. INSTALL STATION FACILITIES PER CONSTRUCTION DRAWINGS. FINALIZE STATION CONSTRUCTION ACTIVITIES.
10. IN AREAS WHERE SEGREGATION OF THE SUBSOIL AND TOPSOIL IS NECESSARY, THE TOPSOIL WILL BE REPLACED LAST. AFFECTED AREAS WILL THEN BE "CLEANED-UP" BY ROUGH-GRADING AND TEMPORARY SEEDING (IF NECESSARY), FOLLOWED BY FINAL GRADING, PERMANENT SEEDING AND MULCHING.
11. UPON ESTABLISHMENT OF FINAL VEGETATIVE GROUND COVER, CONTACT DUKE FOR FINAL INSPECTION.
12. UPON APPROVAL FROM INSPECTORS, REMOVE SILT FENCING AND OTHER EROSION CONTROL MEASURES. AREAS DISTURBED DURING THIS PROCESS SHALL BE RESEEDED WITH PERMANENT SEED, AS APPROPRIATE.
13. AT THE END OF CONSTRUCTION, ALL STORMWATER PIPES, BASINS, CHANNELS, ETC. SHALL BE CLEANED OUT OF ALL SEDIMENT. ACCUMULATION AND RESTORED TO THE ORIGINAL DESIGN AS SHOWN PER THESE PLANS.

MAINTENANCE

1. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING CONSTRUCTION UNTIL THE COMPLETION OF CONSTRUCTION ACTIVITIES AND DISTURBED AREAS HAVE BEEN STABILIZED. TEMPORARY EROSION CONTROL DEVICES STABILIZED. TEMPORARY MATTING, WHERE USED, SHALL BE LEFT IN PLACE.
2. SEDIMENT AND EROSION CONTROL DEVICES AND PLANTED AREAS SHALL BE INSPECTED BY THE OWNER, OR ENVIRONMENTAL INSPECTOR, EVERY SEVEN (7) CALENDAR DAYS AND AFTER EACH RAINFALL OCCURRENCE THAT EXCEEDS ONE-HALF (0.5) INCH IN A 24-HOUR PERIOD. DAMAGED OR INEFFECTIVE DEVICES SHALL BE REPAIRED OR REPLACED, AS NECESSARY, AS SOON AS POSSIBLE.
3. SEEDED AREAS SHALL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO THE SEEDING PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. SEEDED AREAS SHALL BE INSPECTED PERIODICALLY BY THE OWNER, OR ENVIRONMENTAL INSPECTOR, UNTIL FINAL GROUND COVER HAS BEEN ESTABLISHED. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING VEGETATION UNTIL ALL SEEDED AREAS ARE AT LEAST 70% COVER.
4. ALL MUD /DIRT TRACKED ONTO THE ROADS FROM THE SITE, DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED AT THE END OF EACH DAY.
5. ANY DE-WATERING OF SEDIMENT CONTAINMENT DEVICES FOR MAINTENANCE OR REMOVAL SHALL BE DONE THROUGH A SILT BAG.
6. A RAIN GAUGE SHALL BE INSTALLED AND MAINTAINED ON SITE. INSPECTIONS SHALL BE COMPLETED BY QUALIFIED INSPECTION PERSONNEL PER THE OPEA GENERAL PERMIT AUTHORIZATION FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.

EROSION CONTROL NOTES

1. LAND DISTURBANCE BEYOND THE LIMITS SHOWN ON THE PLAN IS NOT PERMITTED.
2. DISTURBED AREAS MUST BE STABILIZED WITHIN 14 (OR 7) CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING AND/OR AT THE COMPLETION OF CONSTRUCTION OR DEVELOPMENT. SEE "STABILIZATION TIME FRAMES" CHART FOR REQUIREMENTS ON GROUND COVER.
3. CONTRACTOR SHALL TAKE ALL PRACTICAL MEASURES TO MINIMIZE THE DISTURBED AREA AND TO ENSURE THAT THE DISTURBED AREAS ARE STABILIZED WITH VEGETATION AS SOON AS POSSIBLE.
4. ACTUAL LOCATIONS OF EROSION AND SEDIMENTATION CONTROL DEVICES SHOULD BE FIELD ADJUSTED BASED ON CONDITIONS IN THE FIELD.
5. EROSION AND SEDIMENT CONTROL MEASURES MAY BE TEMPORARILY REMOVED TO FACILITATE CONSTRUCTION, HOWEVER ALL MEASURES TEMPORARILY REMOVED MUST BE REPLACED FOLLOWING THE COMPLETION OF WORK OR BY THE END OF THE WORKING DAY, WHICHEVER COMES FIRST.
6. DETERMINE METHODS AND LOCATIONS WITHIN THE LIMITS OF DISTURBANCE, FOR THE REGULAR COLLECTION, AND CONTAINMENT OF EXCESS CONSTRUCTION MATERIALS AND DEBRIS (E.G., TIMBER, SLASH, MATS, GARBAGE,AND EXCESS ROCK) THROUGHOUT THE CONSTRUCTION PROCESS. CONTAINMENT AREAS MUST BE LOCATED AT A MINIMUM OF 50 FEET FROM WETLANDS, STREAMS, AND OTHER POTENTIAL POINTS OF DISCHARGE UNLESS IT CAN BE SHOWN THAT NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE.
7. NO CONSTRUCTION MATERIALS OR DEBRIS MAY BE BURNED WITHOUT APPROVAL FROM APPLICABLE LOCAL, STATE AND FEDERAL AUTHORITIES.
8. ADDITIONAL MEASURES MAY BE REQUIRED - THE APPLICANT IS RESPONSIBLE FOR THE CONTROL OF SEDIMENT ON SITE. IF THE APPROVED EROSION AND SEDIMENTATION CONTROL MEASURES PROVE INSUFFICIENT, THE APPLICANT MUST TAKE THOSE ADDITIONAL STEPS NECESSARY TO STOP SEDIMENT FROM LEAVING THIS SITE.
9. IF APPLICABLE, ANY OFF-SITE BORROW AND WASTE REQUIRED FOR THIS PROJECT MUST COME FROM A SITE WITH AN APPROVED EROSION CONTROL PLAN, A SITE REGULATED UNDER THE MINING ACT OF 1971, OR A LANDFILL REGULATED BY THE DIVISION OF SOLID WASTE MANAGEMENT. TRASH/DEBRIS FROM DEMOLITION ACTIVITIES OR GENERATED BY ANY ACTIVITIES ON SITE MUST BE DISPOSED OF AT A FACILITY REGULATED BY THE DIVISION OF SOLID WASTE MANAGEMENT OR PER DIVISION OF SOLID WASTE MANAGEMENT OR DIVISION OF WATER RESOURCES RULES AND REGULATIONS.
10. CATCH ALL INLET FILTERS ARE REQUIRED AT ALL SEWER INLETS, GRATES AND MANHOLES FOR SEDIMENT CONTROL.
11. CARE SHALL BE TAKEN TO MINIMIZE DOWNSTREAM SILTATION. RAW BANKS MAY BE SEEDED AND MULCHED TO PREVENT EROSION.
12. ALL SPOILS INCLUDING ORGANIC SOILS, VEGETATION AND DEBRIS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF IN SUCH A MANNER AS TO NOT ERODE INTO ANY BODY OF WATER OR WETLAND.
13. TOPSOIL STOCKPILES SHALL BE LOCATED TO AVOID EROSION OF SAID STOCKPILE ONTO OFFSITE AREAS.
14. UNSUITABLE OR EXCESS EARTH SOIL SHALL BE DISPOSED OF AT AN APPROVED WASTE LOCATION. SOIL BEING TRANSPORTED ONTO THE JOB SITE SHALL BE APPROVED BY EITHER THE PROJECT MANAGER OR CONSTRUCTION MANAGER.

1) Ground Stabilization*

Site Area Description	Stabilization Time Frame	Stabilization Time Frame Exceptions
• Perimeter dikes, swales, ditches and slopes	7 days	None
• High Quality Water (HQW) Zones	7 days	None
• Slopes steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed.
• Slopes 3:1 or flatter	14 days	7-days for slopes greater than 50 feet in length
• All other areas with slopes flatter than 4:1	14 days	None (except for perimeters and HQW Zones)

* "Extensions of time may be approved by the permitting authority based on weather or other site-specific conditions that make compliance impracticable." (Section II.B(2)(b))

The major change in the Permit from the previous one is the shorter times to apply ground stabilization such as mulch, wheat straw, or grasses. The NC laws and rules relating to the Sediment Act require, in most places, ground stabilization within 21 days. Based on the new EPA requirements and 9-months' work with a permit advisory group, CTAG, the Division and EPA-developed permit, now contains requirements for ground cover within 14, and in some places, 7 days.

2) Building Wastes Handling

- No paint or liquid wastes in stream or storm drains
- Dedicated areas for demolition, construction and other wastes must be located 50' from storm drains and streams unless no reasonable alternatives available.
- Earthen-material stockpiles must be located 50' from storm drains and streams unless no reasonable alternatives available.
- Concrete materials must be controlled to avoid contact with surface waters, wetlands, or buffers.

3) Discharges to Federally-listed Waters

- Requirements are the same as in previous permit.
- The permit allows reduction from the 20 acre minimum if the Director of DWQ determines that other BMPs provide equivalent protection.

4) Inspections

- Same weekly inspection requirements
- Same rain gauge & inspections after 0.5" rain event
- Inspections are only required during "normal business hours"
- Inspection reports must be available on-site during business hours unless a site-specific exemption is approved.
- Records must be kept for 3 years and available upon request.
- Electronically-available records may be substituted under certain conditions.

5) Implementation of New Permit Conditions

- Projects permitted under the previous permit can continue to follow the previously-permitted conditions.
- Complete applications received prior to August 3, 2011 can follow conditions of approved application.
- Applications received after August 2, 2011 must comply with new permit conditions.

6) Conditions in Erosion & Sedimentation Control Plans*

- Designation on the plans where the 7 and 14-day ground stabilization requirements of the NPDES permit apply
- Designation on the plans where basins that comply with the surface-withdrawal requirements of the NPDES permit are located.

7) Building Wastes Handling

- No paint or liquid wastes in stream or storm drains
- Dedicated areas for demolition, construction and other wastes located 50' from storm drains and streams unless no reasonable alternatives are available.
- Earthen-material stockpiles located 50' from storm drains unless no reasonable alternatives available.
- Concrete materials must be controlled to avoid contact with surface waters, wetlands, or buffers.

8) Sediment Basins

- Outlet structures must withdraw from basin surface unless drainage area is less than 1 acre.
- Use only DWQ-approved flocculants.

* In order for the E&SC Plan to satisfy the conditions of the Construction General permit, it must identify areas where the ground stabilization requirements apply and the location of the basins where the surface-withdrawal requirements apply.

PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING

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REF. DWG(S) PNG-G-042-0001064

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
A	12/15/2020	ISSUE FOR 60% REVIEW	NS	JCG	NRW
B	03/26/2021	ISSUE FOR 90% REVIEW	NS	JCG	NRW

DESCRIPTION	
AREA CODE	513
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2217
DRAWING BY	NS
STATION ID	S0909O1
CHECKER INITIALS	JCG

APPROVALS	DATE	INITIALS	
REGIONAL ENGINEER	-	N/A	
MGR TECH REC & STD	-	N/A	
PRINCIPAL ENGINEER	-	N/A	

PROFESSIONAL ENG/ARCH STAMP

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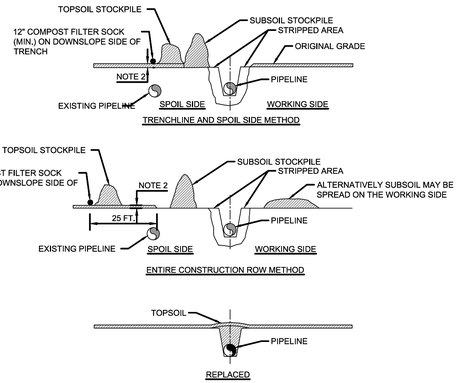
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STATION 909 REX GATE STA. (TALLGRASS) EROSION & SEDIMENTATION CONTROL DETAILS BUTLER COUNTY, OHIO

TODHUNTER RESOURCE CENTER, CINCINNATI, OHIO

SHEET(S) 28 OF 62 | DWG SCALE NTS
DWG DATE 12/15/2020 | SUPERSEDED —
DRAWING NUMBER DUKE -C-042-0001120 | REVISION B
CIVIL / TODHUNTER / LINE CG07

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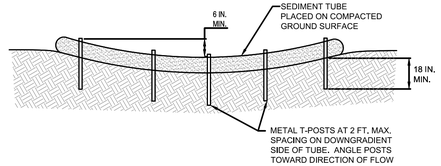


NOTES:

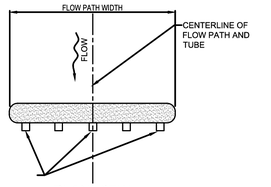
1. OTHER CONFIGURATIONS OF TOPSOIL AND SUBSOIL ARE ACCEPTABLE PROVIDED THEY ARE KEPT SEPERATE AND APPROPRIATE EROSION AND SEDIMENT CONTROL DEVICES ARE EMPLOYED.
2. UP TO 12 INCHES OF TOPSOIL REMOVED
3. TOPSOIL AND SUBSOIL PILES WILL BE ADEQUATELY PROTECTED FROM EROSION AND SEDIMENTATION BY THE USE OF COMPOST FILTER SOCKS. FOR THIS PROJECT (NON-EV WATERSHED), IT IS ACCEPTABLE TO SUBSTITUTE SILT FENCE AS INDICATED IN THE E&S DETAIL SHEETS.

DETAIL ES-3
UTILITY LINE TRENCH STAGING DETAIL

NOT TO SCALE



FRONT VIEW



PLAN VIEW

NOTES:

THIS DETAIL APPLICABLE TO FLOW PATHS WITH WIDTHS LESS THAN OR EQUAL TO ONE TUBE LENGTH.

METAL T-POSTS SHALL BE INSTALLED AT THE CENTER AND AT EACH END OF THE TUBE, ADDITIONAL T-POSTS SHALL BE INSTALLED AS NEEDED TO MEET THE MAXIMUM 2-FOOT SPACING.

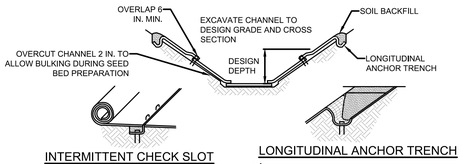
SEDIMENT TUBES SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE TUBE AND DISPOSED AS DIRECTED ELSEWHERE IN THE E&S PLAN.

DAMAGED TUBES SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION, A SUPPLY OF TUBES SHALL BE KEPT ON SITE FOR THIS PURPOSE.

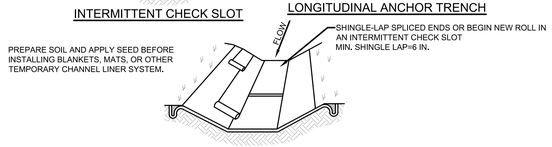
SEDIMENT TUBE CHECK DAM

NOT TO SCALE

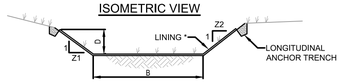


INTERMITTENT CHECK SLOT

LONGITUDINAL ANCHOR TRENCH



ISOMETRIC VIEW



(LOOKING DOWNSTREAM)

CHANNEL CROSS-SECTION

* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

NOTES:

ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.

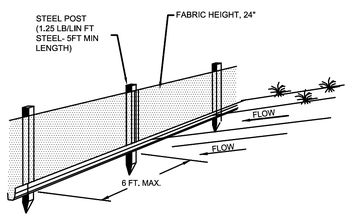
CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION.
SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.

NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

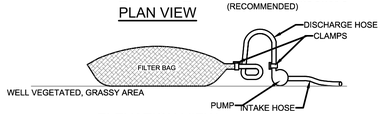
USE NAG SC150BN (OR APPROVED EQUAL) UNLESS OTHERWISE NOTED.

TEMPORARY MATTING (CHANNEL)

NOT TO SCALE



PLAN VIEW



ELEVATION VIEW

NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT, SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

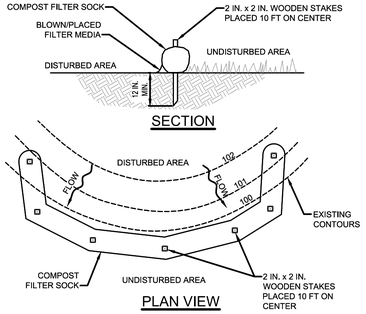
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

PUMPED WATER FILTER BAG

NOT TO SCALE



SECTION

PLAN VIEW

NOTES:

SOCK MATERIAL SHALL MEET THE STANDARDS OF SECTION 6.66 COMPOST SOCK OF THE NC EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
COMPOST MATERIAL SHALL MEET THE STANDARD OF TABLE 6,18A OF THE NC EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL. WITH THE EXCEPTION OF PARTICLE SIZE. SLIGHTLY MORE COARSE COMPOST IS RECOMMENDED FOR THE SOCKS, AS FOLLOWS:

PARTICLE SIZE DISTRIBUTION

SIEVE SIZE	PERCENT PASSING SELECTED SIEVE MESH SIZE, DRY WEIGHT BASIS
2"	99 % (3" MAXIMUM PARTICLE SIZE)
3/8"	30-50 %

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY OR AFTER EACH 1/2 IN. STORM EVENT, DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

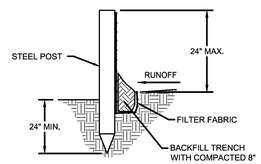
UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

COMPOST FILTER SOCK

NOT TO SCALE

NOTES:

1. SILT FENCE FABRIC SHALL MEET THE STANDARDS OF TABLE 6.62B OF THE NC EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL:
   A. TENSILE STRENGTH - 90 LBS;
   B. PERMITTIVITY - 0.05 SEC-1;
   C. APPARENT OPENING SIZE - 30 US STD. SIEVE; AND,
   D. ULTRAVIOLET STABILITY - 70%
2. THE BASE OF BOTH END POSTS SHOULD BE AT LEAST ONE FOOT HIGHER THAN THE MIDDLE OF THE FENCE. CHECK WITH A LEVEL IF NECESSARY.
3. INSTALL POSTS 4 FEET APART IN CRITICAL AREAS AND 6 FEET APART ON STANDARD APPLICATIONS.
4. INSTALL POSTS 2 FEET DEEP ON THE DOWNSTREAM SIDE OF THE SILT FENCE, AND AS CLOSE AS POSSIBLE TO THE FABRIC, ENABLING POSTS TO SUPPORT THE FABRIC FROM UPSTREAM WATER PRESSURE.
5. INSTALL POSTS WITH THE NIPPLES FACING AWAY FROM THE SILT FABRIC.
6. ATTACH THE FABRIC TO EACH POST WITH THREE TIES, ALL SPACED WITHIN THE TOP 8 INCHES OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1 INCH VERTICALLY APART. ALSO, EACH TIE SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENED TO PREVENT SAGGING.
7. WRAP APPROXIMATELY 6 INCHES OF FABRIC AROUND THE END POSTS AND SECURE WITH 3 TIES.
8. NO MORE THAN 24 INCHES OF A 36 INCH FABRIC IS ALLOWED ABOVE GROUND LEVEL.
9. THE INSTALLATION SHOULD BE CHECKED AND CORRECTED FOR ANY DEVIATIONS BEFORE COMPACTION.
10. COMPACTION IS VITALLY IMPORTANT FOR EFFECTIVE RESULTS. COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE FABRIC WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 60 POUNDS PER SQUARE INCH. COMPACT THE UPSTREAM SIDE FIRST, AND THEN EACH SIDE TWICE FOR A TOTAL OF 4 TRIPS.



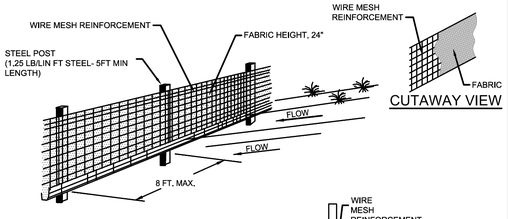
SECTION VIEW

MAINTENANCE:

1. INSPECT AND REPAIR FENCE WEEKLY OR AFTER EACH 1/2 IN. STORM EVENT AND REMOVE SEDIMENT WHEN DEPOSITS REACH 1/3 OF FENCE HEIGHT.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. ANY SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR OVERTOPPED SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET (DETAIL 4 THIS SHEET)

SILT FENCE (SS1)

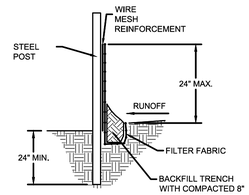
NOT TO SCALE



CUTAWAY VIEW

NOTES:

1. SILT FENCE FABRIC SHALL MEET THE STANDARDS OF TABLE 6.62B OF THE NC EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL:
   A. TENSILE STRENGTH - 90 LBS;
   B. PERMITTIVITY - 0.05 SEC-1;
   C. APPARENT OPENING SIZE - 30 US STD. SIEVE; AND,
   D. ULTRAVIOLET STABILITY - 70%
2. THE BASE OF BOTH END POSTS SHOULD BE AT LEAST ONE FOOT HIGHER THAN THE MIDDLE OF THE FENCE. CHECK WITH A LEVEL IF NECESSARY.
3. INSTALL POSTS 4 FEET APART IN CRITICAL AREAS AND 6 FEET APART ON STANDARD APPLICATIONS.
4. INSTALL POSTS 2 FEET DEEP ON THE DOWNSTREAM SIDE OF THE SILT FENCE, AND AS CLOSE AS POSSIBLE TO THE FABRIC, ENABLING POSTS TO SUPPORT THE FABRIC FROM UPSTREAM WATER PRESSURE.
5. INSTALL POSTS WITH THE NIPPLES FACING AWAY FROM THE SILT FABRIC.
6. ATTACH THE FABRIC TO EACH POST WITH THREE TIES, ALL SPACED WITHIN THE TOP 8 INCHES OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1 INCH VERTICALLY APART. ALSO, EACH TIE SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENED TO PREVENT SAGGING.
7. WRAP APPROXIMATELY 6 INCHES OF FABRIC AROUND THE END POSTS AND SECURE WITH 3 TIES.
8. NO MORE THAN 24 INCHES OF A 36 INCH FABRIC IS ALLOWED ABOVE GROUND LEVEL.
9. THE INSTALLATION SHOULD BE CHECKED AND CORRECTED FOR ANY DEVIATIONS BEFORE COMPACTION.
10. COMPACTION IS VITALLY IMPORTANT FOR EFFECTIVE RESULTS. COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE FABRIC WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 60 POUNDS PER SQUARE INCH. COMPACT THE UPSTREAM SIDE FIRST, AND THEN EACH SIDE TWICE FOR A TOTAL OF 4 TRIPS.



SECTION VIEW

MAINTENANCE:

1. INSPECT AND REPAIR FENCE WEEKLY OR AFTER EACH 1/2 IN. STORM EVENT AND REMOVE SEDIMENT WHEN DEPOSITS REACH 1/3 OF FENCE HEIGHT.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. ANY SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR OVERTOPPED SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET (DETAIL 4 THIS SHEET)

REINFORCED SILT FENCE (SS2)

NOT TO SCALE



SIGN NOTES:

- X" ALUMINUM PANEL
- 3M SCOTCH LIFE "ENGINEER GRADE" SHEETING OR APPROVED EQUAL.
- RED COPY ON WHITE BACKGROUND
- MOUNT SIGN PANEL 5' ABOVE GRADE (MIN.)
- USE 2 LB/FT U-CHANNEL POST (MIN.)
- MOUNT SIGNS AT TERMINAL ENDS OF ORANGE CONSTRUCTION FENCING AND SPACE APPROXIMATELY AT 50-FOOT INTERVALS OR EVENLY ALONG FENCE LINE

WARNING SIGN

NOT TO SCALE

PROFESSIONAL ENG/ARCH STAMP

PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED * DO NOT SCALE THIS DRAWING * USE DIMENSIONS ONLY
PIEDMONT 'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) * DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE * TO ENSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

REF. DWG(S) PNG-G-042-0001064

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B	03/26/2021	ISSUE FOR 90% REVIEW	NS	JCG	NRW

DESCRIPTION	
AREA CODE	513
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2217
DRAWING BY	NS
STATION ID	S090901
CHECKER INITIALS	JCG

APPROVALS	DATE	INITIALS	
	-	N/A	REGIONAL ENGINEER
	-	N/A	MGR TECH REC & STD
	-	N/A	PRINCIPAL ENGINEER

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STATION 909 REX GATE STA. (TALLGRASS) EROSION & SEDIMENTATION CONTROL DETAILS BUTLER COUNTY, OHIO

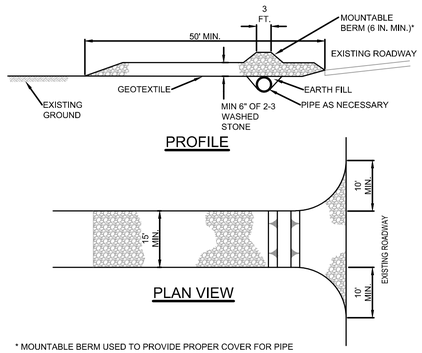
TODHUNTER RESOURCE CENTER, CINCINNATI, OHIO

SHEET(S) 29 OF 62	DWG SCALE NTS
DWG DATE 12/15/2020	SUPERSEDED —
DRAWING NUMBER	REVISION
DUKE -C-042-0001121	B

CIVIL / TODHUNTER / LINE CG07

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* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

1. CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AND PROPERLY GRADE IT.
2. PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS, AND SMOOTH IT.
3. PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET.
4. USE GEOTEXTILE FABRICS BECAUSE THEY IMPROVE STABILITY OF THE FOUNDATION IN LOCATIONS SUBJECT TO SEEPAGE OR HIGH WATER TABLE.
5. MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

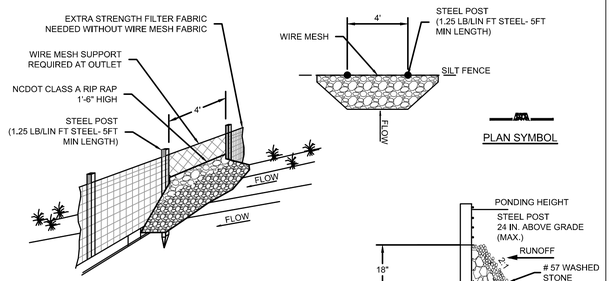
MAINTENANCE: MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE, THIS MAY REQUIRE PERIODIC TOPDRESSING WITH 2-INCH STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.

ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE

BOLLARD DETAIL

NOT TO SCALE



NOTES:

1. A MINIMUM 6" LAYER OF #57 WASHED STONE SHALL BE PLACED ON THE UPSTREAM FACE OF THE STONE OUTLET.

MAINTENANCE

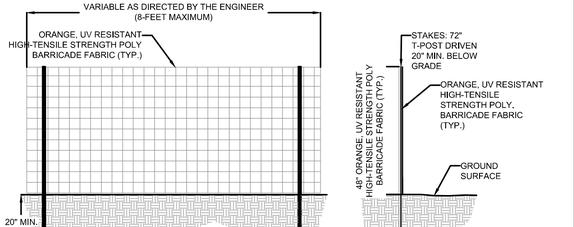
1. REPLACE CLOGGED WASHED STONE AS NEEDED TO ENSURE DEWATERING.
2. INSPECT AND REPAIR FENCE WEEKLY OR AFTER EACH 1/2 IN. STORM EVENT AND REMOVE SEDIMENT WHEN DEPOSITS REACH 1/3 OF OUTLET HEIGHT.

ROCK SECTION DETAIL

TRENCH WITH GRAVEL

SILT FENCE OUTLET

NOT TO SCALE



SAFETY FENCE NOTES:

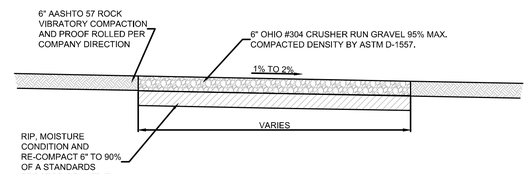
1. SAFETY FENCE SHALL BE INSTALLED AS SHOWN ON PLANS.
2. SAFETY FENCE SHOULD BE FASTENED SECURELY TO THE T-POSTS.

SAFETY FENCE MAINTENANCE:

1. INSPECT SAFETY FENCES AT LEAST ONCE A WEEK. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. SHOULD ANY OF THE ORANGE, UV RESISTANCE HIGH-TENSILE STRENGTH POLY-BARRICADE FABRIC (TYP.) OF THE FENCE COLLAPSE, TEAR, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE ALL FENCING MATERIALS UPON COMPLETION OF PROJECT.

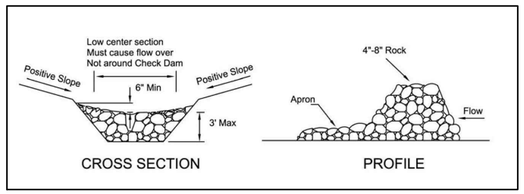
TYPICAL CONSTRUCTION SAFETY FENCE DETAIL

NOT TO SCALE



STATION ROADS & GRAVEL

NOT TO SCALE

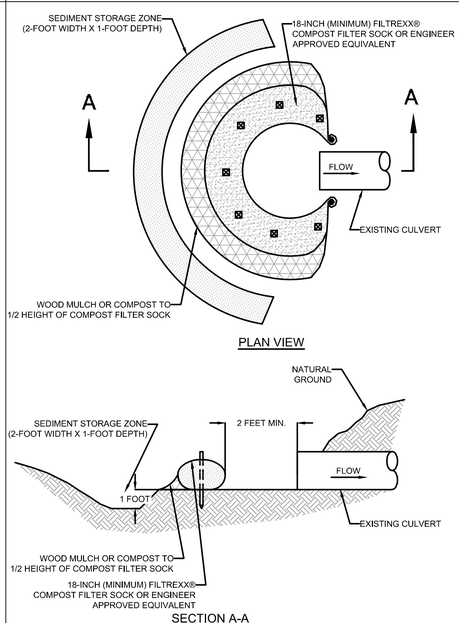


NOTES:

1. THE CHECK DAM SHALL BE CONSTRUCTED OF 4-8 INCH DIAMETER STONE, PLACED SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL. ODOT TYPE D STONE IS ACCEPTABLE, BUT SHOULD BE UNDERLAIN WITH A GRAVEL FILTER CONSISTING OF ODOT NO. 3 OR 4 OR SUITABLE FILTER FABRIC..
2. MAXIMUM HEIGHT OF CHECK DAM SHALL NOT EXCEED 3.0 FEET.
3. THE MIDPOINT OF THE ROCK CHECK DAM SHALL BE A MINIMUM OF 6 INCHES LOWER THAN THE SIDES IN ORDER TO DIRECT ACROSS THE CENTER AND AWAY FROM THE CHANNEL SIDES.
4. THE BASE OF THE CHECK DAM SHALL BE ENTRENCHED APPROXIMATELY 6 INCHES.
5. SPACING OF CHECK DAMS SHALL BE IN A MANNER SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM.
6. A SPLASH APRON SHALL BE CONSTRUCTED WHERE CHECK DAMS ARE EXPECTED TO BE IN USE FOR AN EXTENDED PERIOD OF TIME. A STONE APRON SHALL BE CONSTRUCTED IMMEDIATELY DOWNSTREAM OF THE CHECK DAM TO PREVENT FLOWS FROM UNDERCUTTING THE STRUCTURE. THE APRON SHOULD BE 6 IN. THICK AND ITS LENGTH TWO TIMES THE HEIGHT OF THE DAM.
7. STONE PLACEMENT SHALL BE PERFORMED EITHER BY HAND OR MECHANICALLY AS LONG AS THE CENTER OF CHECK DAM IS LOWER THAN THE SIDES AND EXTENDS ACROSS ENTIRE CHANNEL.
8. SIDE SLOPES SHALL BE A MINIMUM OF 2:1.

ROCK CHECK DAM

NOT TO SCALE



PIPE INLET PROTECTION NOTES:

1. INSTALL PIPE INLET PROTECTION AT CULVERTS RECEIVING FLOW ACROSS DISTURBED AREAS. LOCATIONS OF PIPE INLET PROTECTION SHALL BE BASED ON PLANS AND CONDITIONS IN THE FIELD.
2. DIMENSIONS ARE MINIMUM ACCEPTABLE UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
3. INSTALL 18-INCH (MINIMUM) FILTREXX® COMPOST FILTER SOCK OR ENGINEER APPROVED EQUIVALENT. IT IS RECOMMENDED TO INSTALL 24-INCH FILTER SOCKS BASED ON PRODUCT AVAILABILITY.

PIPE INLET PROTECTION INSPECTION & MAINTENANCE:

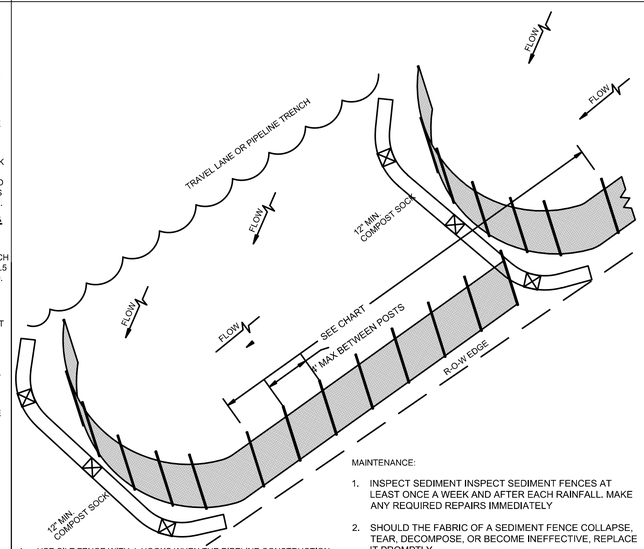
1. INSPECT PIPE INLET PROTECTION AT LEAST WEEKLY AND AFTER EACH RAINFALL EVENT THAT EXCEEDS 0.5 INCHES WITHIN A 24 HOUR PERIOD.
2. MAKE ANY NECESSARY REPAIRS IMMEDIATELY.
3. REMOVE ACCUMULATED SEDIMENT AND ANY DEBRIS. THE COMPOST SOCK MUST BE REPLACED IF CLOGGED OR TORN.
4. IF PONDING BECOMES EXCESSIVE, THE SOCK MAY NEED TO BE REPLACED WITH A LARGER DIAMETER OR A DIFFERENT MEASURE. THE SOCK NEEDSTO BE REINSTALLED IF UNDERMINED OR DISLODGED.
5. THE COMPOST SOCK SHALL BE INSPECTED UNTIL LAND DISTURBANCE IS COMPLETE AND THE AREA ABOVE THE MEASURE HAS BEEN PERMANENTLY STABILIZED.

COMPOST MATERIAL & DISPOSAL/RECYCLING NOTE :

REFER TO EROSION & SEDIMENT CONTROL NOTES DRAWING FOR COMPOST MATERIAL REQUIREMENTS AND DISPOSAL/RECYCLING HANDLING.

TYPICAL PIPE INLET PROTECTION DETAIL

NOT TO SCALE



1. USE SILT FENCE WITH J. HOOKS WHEN THE PIPELINE CONSTRUCTION TRANSVERSES A SLOPE GREATER THAN 10% AND SILT FENCE ALONG EITHER SIDE ALONE IS NOT EFFECTIVE.
2. SILT FENCE SHOULD BE INSTALLED AND MAINTAINED PER SILT FENCE DETAIL.

SLOPE	SLOPE LENGTH BETWEEN HOOKS (FT)
10 TO 20%	100
>20%	50

MAINTENANCE:

1. INSPECT SEDIMENT INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY
2. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEAN OUT.
4. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

JH

12 J-HOOK DETAIL

NOT TO SCALE

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REF. DWG(S) PNG-G-042-0001064

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
A	12/15/2020	ISSUE FOR 60% REVIEW	NS	JCG	NRW
B	03/26/2021	ISSUE FOR 90% REVIEW	NS	JCG	NRW

DESCRIPTION	
AREA CODE	513
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2217
DRAWING BY	NS
STATION ID	S090901
CHECKER INITIALS	JCG

APPROVALS	DATE	INITIALS	
REGIONAL ENGINEER	-	N/A	
MGR TECH REC & STD	-	N/A	
PRINCIPAL ENGINEER	-	N/A	

PROFESSIONAL ENG/ARCH STAMP

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STATION 909 REX GATE STA. (TALLGRASS)
EROSION & SEDIMENTATION CONTROL DETAILS
BUTLER COUNTY, OHIO

TODHUNTER RESOURCE CENTER, CINCINNATI, OHIO

SHEET(S) 30 OF 62	DWG SCALE NTS
DWG DATE 12/15/2020	SUPERSEDED —
DRAWING NUMBER DUKE -C-042-0001122	REVISION B

CIVIL / TODHUNTER / LINE CG07

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Specifications
for

Permanent Seeding

Site Preparation

1. Subsoiler, plow, or other implement shall be used to reduce soil compaction and allow maximum infiltration. (Maximizing infiltration will help control both runoff rate and water quality.) Subsoiling should be done when the soil moisture is low enough to allow the soil to crack or fracture. Subsoiling shall not be done on slip-prone areas where soil preparation should be limited to what is necessary for establishing vegetation.
2. The site shall be graded as needed to permit the use of conventional equipment for seedbed preparation and seeding.
3. Topsoil shall be applied where needed to establish vegetation.

Seedbed Preparation

1. Lime—Agricultural ground limestone shall be applied to acid soil as recommended by a soil test. In lieu of a soil test, lime shall be applied at the rate of 100 pounds per 1,000-sq. ft. or 2 tons per acre.
2. Fertilizer—Fertilizer shall be applied as recommended by a soil test. In place of a soil test, fertilizer shall be applied at a rate of 25 pounds per 1,000-sq. ft. or 1000 pounds per acre of a 10-10-10 or 12-12-12 analyses.
3. The lime and fertilizer shall be worked into the soil with a disk harrow, spring-tooth harrow, or other suitable field implement to a depth of 3 inches. On sloping land, the soil shall be worked on the contour.

Seeding Dates and Soil Conditions

Seeding should be done March 1 to May 31 or August 1 to September 30. If seeding occurs outside of the above-specified dates, additional mulch and irrigation may be required to ensure a minimum of 80% germination. Tillage for seedbed preparation should be done when the soil is dry enough to crumble and not form ribbons when compressed by hand. For winter seeding, see the following section on dormant seeding.

Dormant Seedings

1. Seedings should not be made from October 1 through November 20. During this period, the seeds are likely to germinate but probably will not be able to survive the winter.
2. The following methods may be used for “Dormant Seeding”:

- From October 1 through November 20, prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After November 20, and before March 15, broadcast the selected seed mixture. Increase the seeding rates by 50% for this type of seeding.
- From November 20 through March 15, when soil conditions permit, prepare the seedbed, lime and fertilize, apply the selected seed mixture, mulch and anchor. Increase the seeding rates by 50% for this type of seeding.
- Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder, or hydro-seeder (slurry may include seed and fertilizer) on a firm, moist seedbed.
- Where feasible, except when a cultipacker type seeder is used, the seedbed should be firmed following seeding operations with a cultipacker, roller, or light drag. On sloping land, seeding operations should be on the contour where feasible.

Mulching

1. Mulch material shall be applied immediately after seeding. Dormant seeding shall be mulched. 100% of the ground surface shall be covered with an approved material.
2. Materials

- Straw—If straw is used it shall be unrotted small-grain straw applied at the rate of 2 tons per acre or 90 pounds (two to three bales) per 1,000-sq. ft. The mulch shall be spread uniformly by hand or mechanically applied so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000-sq.-ft. sections and spread two 45-lb. bales of straw in each section.
- Hydroseeders—If wood cellulose fiber is used, it shall be applied at 2,000 lb./ac. or 46 lb./1,000 sq. ft.
- Other—Other acceptable mulches include rolled erosion control mattings or blankets applied according to manufacturer’s recommendations or wood chips applied at 6 tons per acre.

3. Straw and Mulch Anchoring Methods

Straw mulch shall be anchored immediately to minimize loss by wind or water.

- Mechanical—A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but, generally, be left longer than 6 inches.
- Mulch Netting—Netting shall be used according to the manufacturer’s recommendations. Netting may be necessary to hold mulch in place in areas of concentrated runoff and on critical slopes.
- Asphalt Emulsion—Asphalt shall be applied as recommended by the manufacture or at the rate of 160 gallons per acre.
- Synthetic Binders—Synthetic binders such as Acrylic DLR (Agri-Tac), DCA-70, Petroset, Terra Tack or equivalent may be used at rates specified by the manufacturer.
- Wood Cellulose Fiber—Wood cellulose fiber shall be applied at a net dry weight of 750 pounds per acre. The wood cellulose fiber shall be mixed with water with the mixture containing a maximum of 50 pounds cellulose per 100 gallons of water.

Irrigation

Permanent seeding shall include irrigation to establish vegetation during dry weather or on adverse site conditions, which require adequate moisture for seed germination and plant growth.

Irrigation rates shall be monitored to prevent erosion and damage to seeded areas from excessive runoff.

Table 7.10.2 Permanent Seeding

Seed Mix	Seeding Rate		Notes:
	Lbs./acre	Lbs./1,000 Sq. Feet	
General Use			
Creeping Red Fescue Domestic Ryegrass Kentucky Bluegrass	20-40 10-20 20-40	1⁄2-1 1⁄4-1⁄2 1⁄2-1	For close mowing & for waterways with <2.0 ft/sec velocity
Tall Fescue	40-50	1-1 1⁄4	
Turf-type (dwarf) Fescue	90	2 1⁄4	
Steep Banks or Cut Slopes			
Tall Fescue	40-50	1-1 1⁄4	
Crown Vetch Tall Fescue	10-20 20-30	1⁄4-1⁄2 1⁄2-3⁄4	Do not seed later than August
Flat Pea Tall Fescue	20-25 20-30	1⁄2-3⁄4 1⁄2-3⁄4	Do not seed later than August
Road Ditches and Swales			
Tall Fescue	40-50	1-11⁄4	
Turf-type (Dwarf) Fescue Kentucky Bluegrass	 90 5	 2 1⁄4 0.1	
Lawns			
Kentucky Bluegrass Perennial Ryegrass	100-120	2 2	
Kentucky Bluegrass Creeping Red Fescue	100-120	2 1-1/2	For shaded areas

Note: Other approved seed species may be substituted.

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A	12/15/2020	ISSUE FOR 60% REVIEW	NS	JCG	NRW
B	03/26/2021	ISSUE FOR 90% REVIEW	NS	JCG	NRW

DESCRIPTION	
AREA CODE	513
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2217
DRAWING BY	NS
STATION ID	S0909O1
CHECKER INITIALS	JCG

APPROVALS		
DATE	INITIALS	
-	N/A	REGIONAL ENGINEER
-	N/A	MGR TECH REC & STD
-	N/A	PRINCIPAL ENGINEER

PROFESSIONAL ENG/ARCH STAMP

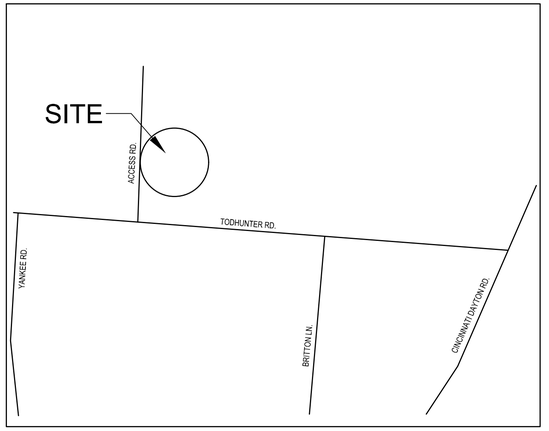
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STATION 909 REX GATE STA. (TALLGRASS)
EROSION & SEDIMENTATION CONTROL SEEDING PLAN
BUTLER COUNTY, OHIO
TODHUNTER RESOURCE CENTER, CINCINNATI, OHIO

SHEET(S) 31 OF 62 | DWG SCALE NTS
DWG DATE 12/15/2020 | SUPERSEDED __
DRAWING NUMBER DUKE -C-042-0001123 | REVISION B
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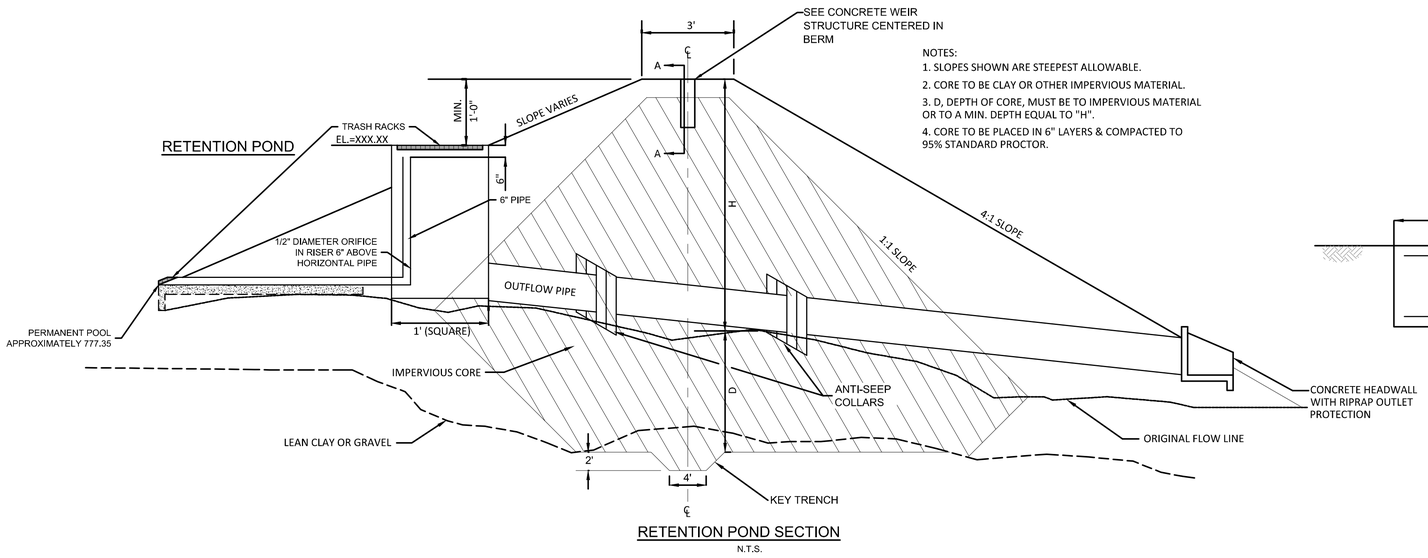


VICINITY MAP
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GENERAL NOTES:

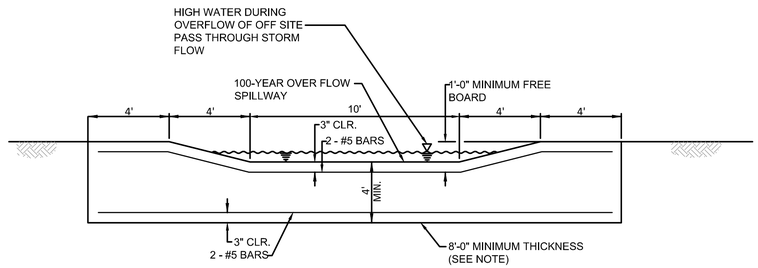
1. VERIFY ALL UTILITY LOCATIONS WITH OHIO - 811.
2. THIS PLAN IS NOT THE RESULT OF A BOUNDARY SURVEY. PROPERTY AND EASEMENT LINES ARE FOR ILLUSTRATION PURPOSES ONLY.
3. THE HORIZONTAL DATUM FOR THIS PROJECT IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983, OHIO SOUTH ZONE.
4. THE VERTICAL DATUM FOR THIS PROJECT IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
5. SEE SHEET C-042-0001117 FOR GRADING AND DRAINAGE PLAN.
6. SEE SHEET G-042-0001065 FOR GENERAL NOTES.

Address of Proposed Construction:
632 Todhunter Road
Monroe, OH 45050
PIN# C180000200001



NOTES:
1. SLOPES SHOWN ARE STEEPEST ALLOWABLE.
2. CORE TO BE CLAY OR OTHER IMPERVIOUS MATERIAL.
3. D, DEPTH OF CORE, MUST BE TO IMPERVIOUS MATERIAL OR TO A MIN. DEPTH EQUAL TO "H".
4. CORE TO BE PLACED IN 6" LAYERS & COMPACTED TO 95% STANDARD PROCTOR.

RETENTION POND SECTION
N.T.S.



NOTE:
TRENCH FOR WEIR OUTLET STRUCTURE USING NATIVE GROUND AS FORM WORK. CONSTRUCT WEIR 8" MINIMUM THICKNESS. UPON COMPLETION OF TRENCHING, PLACE TEMPERATURE STEEL AND CONCRETE IMMEDIATELY, FORM TOP 4".

CONCRETE WEIR STRUCTURE - SECTION "AA" AND EMERGENCY SPILLWAY
NOT TO SCALE

RETENTION POND OUTLET CONTROL STRUCTURE SECTIONS AND DETAILS

NOT TO SCALE

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DESCRIPTION	
AREA CODE	513
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2217
DRAWING BY	NS
STATION ID	S090901
CHECKER INITIALS	JCG

APPROVALS		
DATE -	INITIALS N/A	REGIONAL ENGINEER
DATE -	INITIALS N/A	MGR TECH REC & STD
DATE -	INITIALS N/A	PRINCIPAL ENGINEER

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STATION 909 REX GATE STA. (TALLGRASS)
OUTLET STRUCTURE DETAILS
BUTLER COUNTY, OHIO

TODHUNTER RESOURCE CENTER, CINCINNATI, OHIO

REF. DWG(S)
PNG-G-042-0001064

SHEET(S) 32 OF 62	DWG SCALE NTS
DWG DATE 03/16/2021	SUPERSEDED ___

DRAWING NUMBER: DUKE -C-042-0001124 | REVISION: A

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Calculation Cover Sheet

Client:	Duke Energy		
Project:	STA 909 REX Gate Regulator Station		
Project No:	10240294	Rev:	A
Calculation No:	C-001	Page:	#. of #.
Title:	Detention Basin Calculations		
Purpose:	Size the appropriate extended detention basin for the new regulator station installation.		
Originator:	Bryce Merritt	Date:	2/17/2021
Checked by:	Jonathan Gates	Date:	3/5/2021
QC Review by:	Brandon Walker	Date:	3/17/2021
Approved by:	Nathan Willkom	Date:	Click to enter date.
Supersedes Calculation No:			
Superseded by Calculation No:			

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(303) 764-1520

Rex Gate Impervious Area

Known Impervious Areas	Equipment / Building Size (SF)	# of Equipment / Buildings or Pipe D	Total Area (SF)
Heaters	675	3	2,025
Control Skids	1500	1	1,500
Odorant Tanks & Building	300	3	900
Pipe (LF)	148.5	2	297
Station Pad Total			**4,722**
Paved Access Rd	930	12	11,160
Total (SF)			**20,604**
Total (acre)			**0.473**

Semi-Impervious Area	Area (SF)	Area (acre)
Station Yard	54,396	1.25
Access Road	9,456	0.22
Total	**63,852**	**1.47**

Total Area	Area (SF)	Area (acre)
Duke Station Yard Only	75,000	1.72
Total Parcel	2,112,660	48.5

Percent Impervious		
Methods		**%**
Known		**1.0%**
Conservative w. Semi-Impervious		**3.0%**

Volumetric Runoff Coefficient

Equation: Rv = 0.05 + 0.9i

Where i = fraction of post-construction impervious surface

i: 0.24

Rv: 0.27

C= 0.18 Alternate calculation check for max volume. See Below from Page 32 of 41 of the Monroe Requirements

Pre D CN 84 See Curve Number Spreadsheet

Post D CN 91 See Curve Number Spreadsheet

(2) *Criteria applying to all storm water management practices.* Practices chosen must be sized to treat the water quality volume (WQv) and to ensure compliance with Ohio Water Quality Standards (OAC Chapter 3745-1).

a. The WQv shall be equal to the volume of runoff from a 0.75 inch rainfall event and shall be determined according to one of the following methods:

1. Through a site hydrologic study approved by the city engineer that uses continuous hydrologic simulation; site-specific hydrologic parameters, including impervious area, soil infiltration characteristics, slope, and surface routing characteristics; proposed best management practices controlling the amount and/or timing of runoff from the site; and local long-term hourly records, or
2. Using the following equation:

WQv	=	C*P* A/12 where terms have the following meanings:
WQv	=	water quality volume in acre-feet
C	=	runoff coefficient appropriate for storms less than one inch
P	=	0.75 inch precipitation depth
A	=	area draining into the storm water practice, in acres.

Runoff coefficients required by the Ohio Environmental Protection Agency (Ohio EPA) for use in determining the water quality volume can be determined using the list in Table 1 or using the following equation to calculate the runoff coefficient, if the applicant can demonstrate that appropriate controls are in place to limit the proposed impervious area of the development:

C	=	$0.858i^3 - 0.78i^2 + 0.774i + 0.04$
where:		
i	=	fraction of the drainage area that is impervious

Water Quality Volume

Equation: WQv = Rv * P * A / 12

Rv = the vol runoff coefficient P = 0.90 in precip depth (per Ohio EPA) A = area draining into the BMP in acres		Alt. Vol check using Monroe Guidelines using C & 0.75" instead of Rv & 0.9".
WQv (acre-feet):	**0.0348**	0.0223
WQv (ft^3):	1,516.30	969.39
Additional Volume Required by Ohio EPA: 20% of WQv		
Additional Volume (ft^3):	303.26	193.88
Total Volume (ft^3):	**1,819.57**	1,163.27

Critical Storm

	Storage S = (1000/CN)10	Initial Abs. Ia = 0.2*S	
Pre-Dev S	1.905	0.381	
Post-Dev S	0.989	0.198	
	I (from NOAA PF)	Pre-Dev Runoff Depth Q= (P-Ia)^2/(P-Ia+S)	Post-Dev Runoff Depth Q= (P-Ia)^2/(P-Ia+S)
1 yr 24 hr storm (in)	2.33	0.986	1.457
% Increase			**47.8%**
Per Ohio EPA & Monroe 20% to 50% increase use 5 year storm (bolded below)			
2 yr 24 hr storm	2.8	1.353	1.886
5 yr 24 hr storm	**3.41**	**1.860**	**2.456**
10 yr 24 hr storm	3.9	2.283	2.922
25 yr 24 hr storm	4.54	2.853	3.537
50 yr 24 hr storm	5.04	3.307	4.021
100 yr 24 hr storm	5.55	3.777	4.517

Critical Storm Volumn	1.03	acre-ft
Critical Storm Volumn	**44,727.52**	**CF**

Extended Detention Basin Sizing

Requirements and Parameters:

Forebay sized to minimum of 10% of WQv with a protected outlet		For Alternate Monore
Micropool sized to minimum of 10% of WQv with a protected outlet		WQv and assume 20%
Basin depth < 3'-0" from bottom of basin to top of outlet structure		Add volume for
Minimum Drain Time of WQv is 48 hours		sediment in micropool
Forebay Volume (ft^3):	152	116
Micropool Volume (ft^3):	152	116
Area of Basin Assuming 2' Ave Depth (ft^2):	910	582
Release Rate (cfh):	38	20
Forbay/ Micropool Area (6" Deep) (ft^2)	303	233

Preliminary Pond Sizing

Volume= Base Area*Depth + 1/2*(Depth*Slope)*Base Perimeter (see sketch below)

WQv = [A*B*D]+[1/2*(D*S)*(2A+2B)] = D[AB+(S/2*(2A+2B))]

WQv/D = AB+(S/2*(2A+2B)) = AB+SA+SB if C=A/B the arrange to quadraic function

0 = CB^2+(CS+S)B-(WQv/D) and = (1/C)A^2+(S/C+S)A-(WQv/D)

Detention Pond Inputs	
Depth D (ft)	2.5
Slope S (i.e. 4 to1 / 4:1 use 4)	4
Length /Width (C=A/B)	2

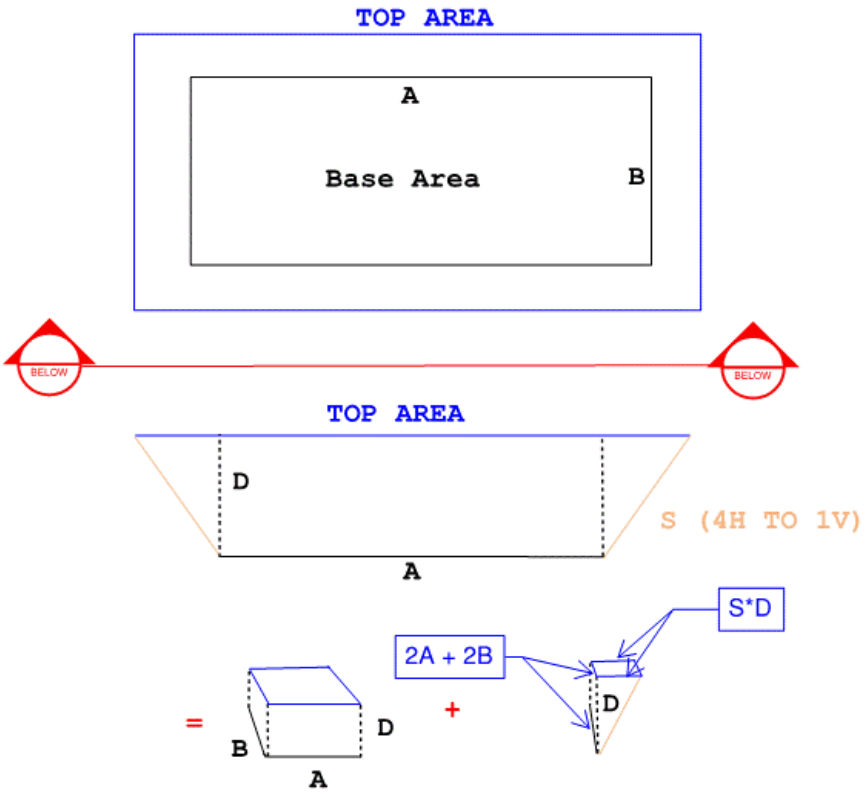
Resuts	**WQv**	**Critical Storm**
Base Length A (ft)	14.68	90.11
Base Width B (ft)	7.34	45.06
Top Length (ft)	**34.68**	**110.11**
Top Width (ft)	**27.34**	**65.06**

(5) *Additional criteria for extended detention facilities.*

a. The outlet shall be designed to not release more than the first half of the water quality volume in less than one third of the drain time. A valve shall be provided to drain any permanent pool volume for removal of accumulated sediments. The outlet shall be designed to minimize clogging, vandalism, maintenance, and promote the capture of floatable pollutants.

b. The basin design shall incorporate the following features to maximize multiple uses, aesthetics, safety, and maintainability:

1. Basin side slopes above the permanent pool shall have a run to rise ratio of 4:1 or flatter.
2. The perimeter of all permanent pool areas deeper than four feet shall be surrounded by an aquatic bench that extends at least eight feet and no more than 15 feet outward from the normal water edge. The eight feet wide portion of the aquatic bench closest to the shoreline shall have an average depth of six inches below the permanent pool to promote the growth of aquatic vegetation. The remainder of the aquatic bench shall be no more than 15 inches below the permanent pool to minimize drowning risk to individuals who accidentally or intentionally enter the basin, and to limit growth of dense vegetation in a manner that allows waves and mosquito predators to pass through the vegetation. The maximum slope of the aquatic bench shall be 10(H) to 1(V). The aquatic bench shall be planted with hearty plants comparable to wetland vegetation that are able to withstand prolonged inundation.
3. A forebay designed to allow larger sediment particles to settle shall be placed at basin inlets. The fore bay and micro-pool volume shall be equal to at least ten percent of the water quality volume (WQv).



Outlet Structure Sizing

Requirements: Per Ohio EPA Document OHC000005 Table 4a, Note 1,The outlet structure shall not discharge more than the first half of the WQv in less than one-third of the drain time.
Minimum drain time for Dry Extended Detention Basin = 48 hours

Release Rate (cfh) Min of:	Total WQv/48	37.90761
	Half WQv/(48/3)	56.86141

Where:

Q = Discharge rate (cfs)	0.0105
C = Orifice coefficient (assume 0.6)	0.6
a = Area of orifice (ft^2)	Unknown
g = Gravitational acceleration (ft/sec^2)	32.2
h = head (ft)	5.00
Rearranged to solve for area of the orifice: $a=Q/C\sqrt{2gh}$	0.00098

Area of orifice (in^2)	0.14
Diameter of hole (in)	**0.42**
or 16th of an inch	**6.78**

Pipe Outlet for 100yr 24 hr storm	
Inches runoff	4.517
CF	338,808
cfs	94.113
Area	13.821
Diameter of pipe (in)	**4.195**

Composite SCS Curve Number

PROJECT: Duke Rex Gate Station
SCENARIO: Pre-Development Conditions
DATE: 3/5/2021
PREPARED BY: JCG

Drainage Area: DA-1 (POI A)									Total Drainage Area: 1.72 Ac	
	Hydrologic Soil Group									
	A		B		C		D			
Cover Description	Area (Ac)	CN	Area (Ac)	CN	Area (Ac)	CN	Area (Ac)	CN		
Open space (lawns, parks, golf courses, cemeteries, etc.):										
Poor condition (grass cover < 50%)		68		79		86		89		
Fair condition (grass cover 50% to 75%)		49		69		79		84		
Good condition (grass cover > 75%)		39		61		74		80		
Impervious areas:										
Paved parking lots, roofs, driveways, etc. (excluding R/W)		98		98		98		98		
Paved streets and roads; curbs and storm sewers (excluding right-of-way)		98		98		98		98		
Paved streets and roads; open ditches (including R/W)		83		89		92		93		
Gravel streets and roads (including R/W)		76		85		89		91		
Dirt streets and roads (including R/W)		72		82		87		89		
Western desert urban areas:										
Natural desert landscaping (pervious areas only)		63		77		85		88		
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96		96		96		96		
Urban districts:										
Industrial		81		88		91		93		
Residential districts by average lot size:										
Pasture, grassland or range:										
Poor hydrologic condition		68		79		86		89		
Fair hydrologic condition		49		69		79		84		
Good hydrologic condition		39		61		74		80		
Woods:										
Poor hydrologic condition		45		66		77		83		
Fair hydrologic condition		36		60		73		79		
Good hydrologic condition		30		55		70		77		
Developing urban areas:										
Newly graded areas (pervious areas only, no vegetation)		77		86		91		94		
Substation Pad with 6" of Loose Washed Stone		49		69		79		84		
Agricultural Fields										
Fallow- Bare Soil		77		86		91		94		
Fallow- Crop Residue Cover (CR)- Poor		76		85		90		93		
Fallow- Crop Residue Cover (CR)- Good		74		83		88		90		
Row Crops- Straight Row (SR)- Poor		72		81		88		91		
Row Crops- Straight Row (SR)- Good		67		78		85		89		
Row Crops- Contoured (C)- Poor		70		79		84		88		
Row Crops- Contoured (C)- Good		65		75		82		86		
Row Crops- Contoured & Terraced (C&T)- Poor		66		74		80		82		
Row Crops- Contoured & Terraced (C&T)- Good		62		71		78		81		
Close Seed/Broadcast Legumes/Rotation Meadow- (SR)- Poor		66	0.40	77	1.32	85		89		
Close Seed/Broadcast Legumes/Rotation Meadow- (SR)- Good		58		72		81		85		
Close Seed/Broadcast Legumes/Rotation Meadow- (C)- Poor		64		75		83		85		
Close Seed/Broadcast Legumes/Rotation Meadow- (C)- Good		55		69		78		83		
Close Seed/Broadcast Legumes/Rotation Meadow- (C&T)- Poor		63		73		80		83		
Close Seed/Broadcast Legumes/Rotation Meadow- (C&T)- Good		51		67		76		80		
Total HSG Areas:			**0.40**		**1.32**					

Calculated Total Drainage Area: 1.72 Ac
Calculated Composite Curve Number: 84

Composite SCS Curve Number

PROJECT: Duke Rex Gate Station
SCENARIO: Post-Development Conditions
DATE: 3/5/2021
PREPARED BY: JCG

Drainage Area: DA-1 (POI A)									Total Drainage Area: 1.72 Ac	
	Hydrologic Soil Group									
	A		B		C		D			
Cover Description	Area (Ac)	CN	Area (Ac)	CN	Area (Ac)	CN	Area (Ac)	CN		
Open space (lawns, parks, golf courses, cemeteries, etc.):										
Poor condition (grass cover < 50%)		68		79		86		89		
Fair condition (grass cover 50% to 75%)		49		69		79		84		
Good condition (grass cover > 75%)		39		61		74		80		
Impervious areas:										
Paved parking lots, roofs, driveways, etc. (excluding R/W)		98		98	0.37	98		98		
Paved streets and roads; curbs and storm sewers (excluding right-of-way)		98		98		98		98		
Paved streets and roads; open ditches (including R/W)		83		89		92		93		
Gravel streets and roads (including R/W)		76	0.40	85	0.95	89		91		
Dirt streets and roads (including R/W)		72		82		87		89		
Western desert urban areas:										
Urban districts:										
Industrial		81		88		91		93		
Residential districts by average lot size:										
Pasture, grassland or range:										
Poor hydrologic condition		68		79		86		89		
Fair hydrologic condition		49		69		79		84		
Good hydrologic condition		39		61		74		80		
Woods:										
Poor hydrologic condition		45		66		77		83		
Fair hydrologic condition		36		60		73		79		
Good hydrologic condition		30		55		70		77		
Developing urban areas:										
Newly graded areas (pervious areas only, no vegetation)		77		86		91		94		
Substation Pad with 6" of Loose Washed Stone		49		69		79		84		
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Close Seed/Broadcast Legumes/Rotation Meadow- (C)- Poor		64		75		83		85		
Close Seed/Broadcast Legumes/Rotation Meadow- (C)- Good		55		69		78		83		
Close Seed/Broadcast Legumes/Rotation Meadow- (C&T)- Poor		63		73		80		83		
Close Seed/Broadcast Legumes/Rotation Meadow- (C&T)- Good		51		67		76		80		
Total HSG Areas:			**0.40**		**1.32**					

Calculated Total Drainage Area: **1.72 Ac**
Calculated Composite Curve Number: **91**

Duke Energy Ohio, Inc.

Stormwater Pollution Prevention Plan (SWP3)

Ohio Environmental Protection Agency

General Permit Authorization for Storm Water Discharges Associated with Construction Activity Under the National Pollutant Discharge Elimination System Permit No. OHC000005

STA 909 Rex Gate (Tallgrass) Station Project
Lemon Township, Butler County, Ohio

Prepared by:

HDR Engineering, Inc.
4880 Sadler Road
Suite 100
Glen Allen, Virginia 23060-6164

March 2021

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Appendices

Appendix A Notice of Intent

Appendix B SWP3 Contact List

Appendix C Detailed Soil Report

Appendix D Erosion Prevention and Sediment Control Plans

Appendix E Major Activities Log

Appendix F Notice of Termination Form

Appendix G Construction Stormwater Inspection Certification Form

Appendix H Sequence of Control Measure Implementation

Appendix I Rainfall Record Log

Stormwater Pollution Prevention Plan

General Permit Authorization for Storm Water Discharges Associated with Construction Activity under the National Pollutant Discharge Elimination System

For Duke Energy Ohio, Inc.
STA 909 REX Gate (Tallgrass) Station Project

Lemon Township, Butler County, Ohio

Date of Preparation:	March 24, 2020
Prepared By:	James P. Young, PWS HDR Engineering, INC. 4880 Sadler Road, Suite 100 Glen Allen, Virginia 23060-6164
Project Name:	STA 909 REX Gate (Tallgrass) Station
Site Location (County):	Butler County, Ohio
Owner/Primary Permittee:	Duke Energy Ohio, Inc. (Duke)
Owner/Primary Permittee Address & Phone:	Steve Lane / 139 E 4th St, Cincinnati, OH 45202
General Contractor (Operator):	To-be-determined (TBD) at a later date.
General Contractor Address & Phone:	TBD at a later date.
Estimated Start Date of Construction:	June 2021
Estimated Completion Date of Construction:	December 2021
Description of Proposed Project:	Duke intends to construct a metering and regulation station for a newly acquired tap from Tallgrass Energy on the Rockies Express Pipeline (REX). The station installation will include multi-stage heater, filter/strainer skid and shelter, regulation skid and shelter, check metering, odorizer, chromatograph, and RTU shelter infrastructure. In addition to the station construction, under 200 feet of 16-inch natural gas pipeline will be installed to tie-in into Duke's existing infrastructure.
SWP3 Conformance to NPDES Permit:	Duke shall perform construction activities described in this SWP3 under the General National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Discharges Associated with Construction

Activities Permit No. OHC000005. This SWP3 has been developed and prepared to include all required elements for conformance with Part III, Section G of the General NPDES Permit No. OHC000005. The design, inspection, and maintenance of Best Management Practices (BMPs) described in this SWP3 have been prepared in accordance with good engineering practices. A list of SWP3 contacts during construction is provided in Appendix B.

1) Site Description

Duke's STA 909 Rex Gate (Tallgrass) Station is located approximately 1,030 feet north of Todhunter Road at 39.462310, -84.378329 along a private road in Lemon Township, Butler County, Ohio. Duke owns (Tri State Improvement Company, a Duke Energy subsidiary) the parcel of land that the proposed Regulator Station and associated facilities is proposed to be constructed on.

The proposed station footprint is approximately 300 ft. by 250 ft. and will be positioned along the upper portion of an existing agricultural field that immediately abuts the existing pipeline corridor, located just north of the proposed facility site. The STA 909 REX gate (Tallgrass) Station will tie into the Tallgrass facilities that will be constructed immediately adjacent to the project along its western side. The proposed long-term access to this facility will be from the private road to the west as it passes through the Tallgrass facility. Outside of the final footprint of the project station all other areas utilized for workspace and construction will be restored, stabilized, and re-established as required by the permit.

Figure 1. USGS Map

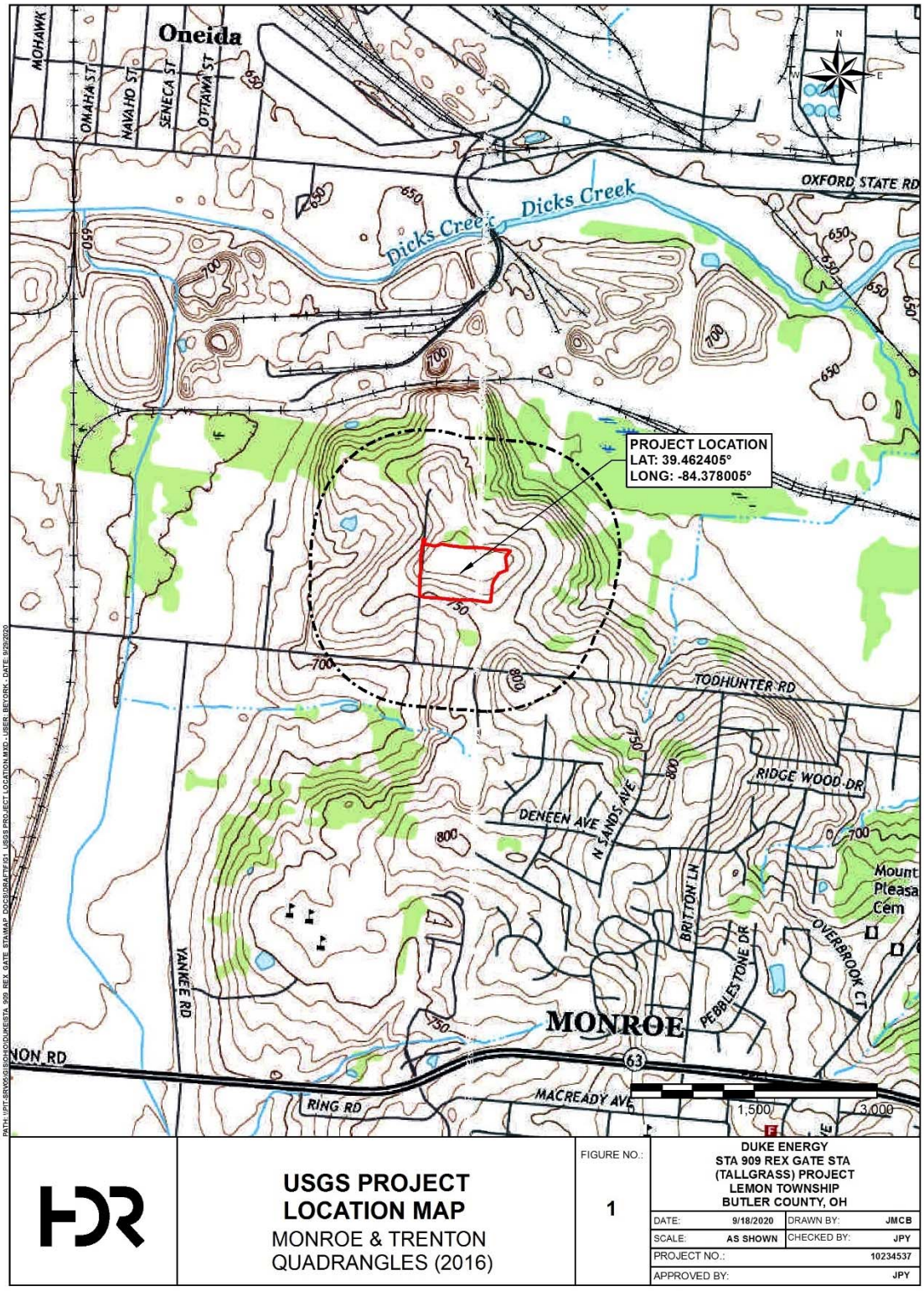
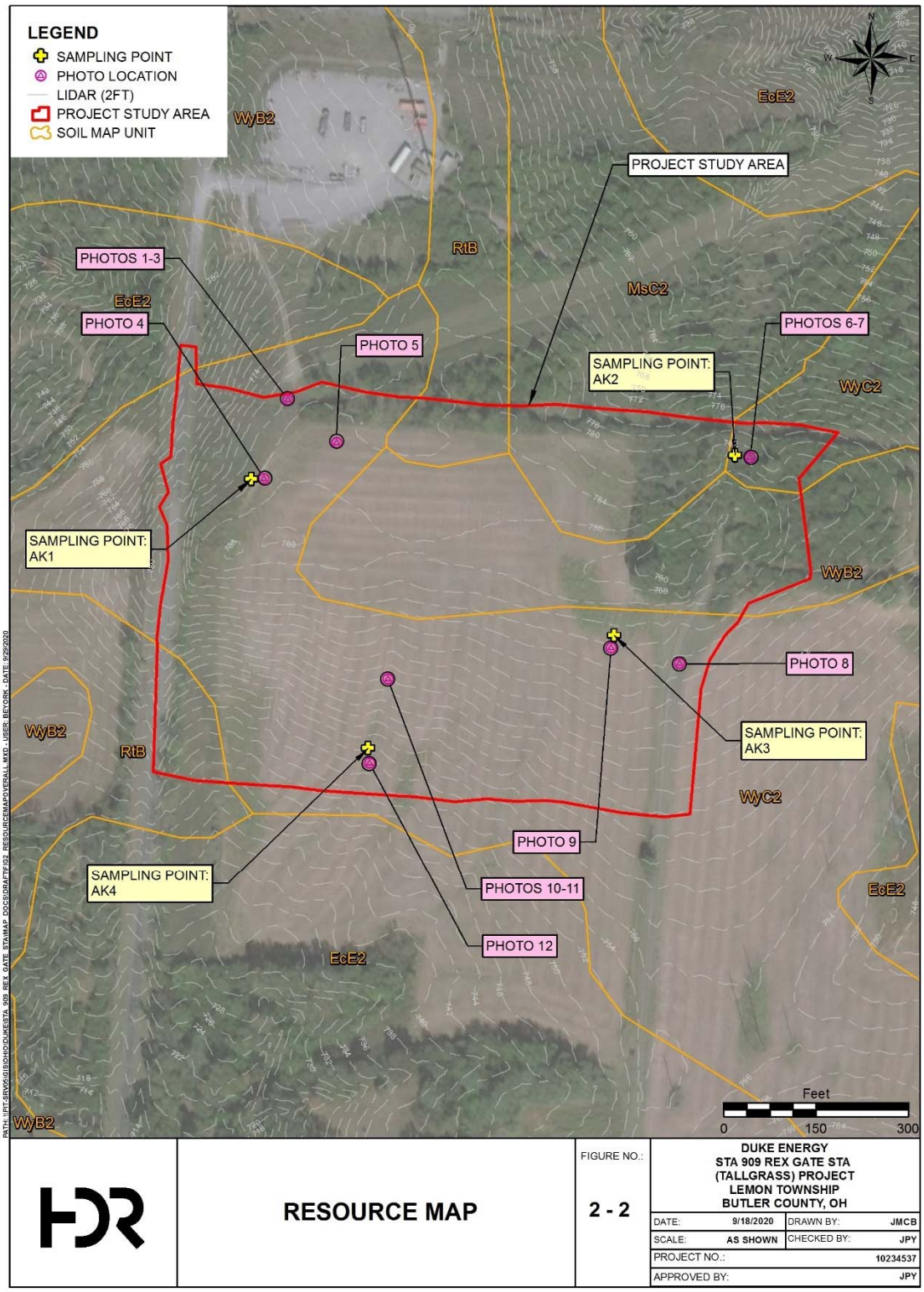


Figure 2. Resource Map



a) Construction Activities

Duke is constructing the STA 909 REX Gate Station to support existing and future natural gas demands with this additional supply point from the REX transmission pipeline. The majority of the construction will take place within the proposed footprint of the facilities with some temporary workspace located immediately adjacent. Once the initial construction is completed and tied into the existing Duke Pipeline, this station will be tied into the adjacent Tallgrass facilities. Once completed the main access point to this facility will be through the Tallgrass facilities and all other temporary construction access points, workspace, and non-permanent disturbance will be restored.

This Project's construction activity details include:

- Temporary access from the farm road will be updated with Rock construction entrances installed. Access will be from the private drive on the west side of the parcel.
- Proper Erosion &Sediment Control measures installed prior to earth disturbance.
- Excavation or topsoil. Excavated soils shall be stored/staged within the limits of disturbance (LOD). Equipment and pipe materials shall be stored within the LOD. No equipment staging areas outside of the LOD shall be allowed for this Project;
- Construction of new facilities to include: (1) RTU/odorant shelter unit, (2) ultrasonic clamp-on "check meter" meter run, (3) regulating control valve skid unit and shelter, (4) heater(s), (5) filter separator, (6) associated piping, and (7) pipeline tying the station into the existing pipeline, (8) Security Fence, (9) access/driveway;
- At the end of each workday, all sediment tracked onto any paved surface shall be removed, returned to the work area, and stabilized; and
- Erosion prevention and sediment control measures included in the project plans shall be conducted in compliance with the General Permit and maintained throughout the period of construction.

b) Estimate of Total Area

Estimate of the total area of the site and the total area of disturbance, is as follows:

Total Project Area	3.48 acres
Total Temporarily Disturbed Area	1.64 acres
Total Permanent Disturbance	1.84 acres

c) Estimate of Impervious Area

For the site portion of this project, all areas outside of the access road and pad used for construction will be temporary and will be returned to pre-construction conditions. However, an asphalt driveway is being constructed at the site to where it will tie into the gravel facilities pad. The pad has an area of 1.62 acres and the access road has an area of 0.22 acres so there will be an I increase of an area of 1.62 acres from vegetation to asphalt and 0.22 acres from vegetation to gravel. This will be the only change in permeability for the entire project area, all other areas will be returned to pre-construction conditions.

d) Stormwater Calculations

As mentioned above, a gravel pad is being constructed at the site portion of this project as well as a permanent access road as part of the facilities. The pad has an area of 1.62 acres and the access road has an area of 0.22 acres so there will be an l increase of an area of 1.62 acres from vegetation to asphalt and 0.22 acres from vegetation to gravel. This is the only area of the project where there will be a change in surface permeability between pre- and post-construction conditions. All other areas shall be returned to pre-construction conditions. As per the Ohio Environmental Protection Agency regulations, post-construction Best Management Practices (BMPs) are required on sites that are over 1 acre of disturbance. Considering this, a stormwater plan (*City of Monroe Publics Works – Comprehensive Stormwater Management Plan*) and post-construction BMPs were designed for this site.

e) Site Soil Characteristics

According to the Natural Resources Conservation Service (NRCS) Web Soil Survey 2020, there are five soil map units located within this Project area. These soils include Eden silty clay loam (15-25% Slopes), Miamian-Russell silt loams (6-12% slopes), Russell silt loam (2-6% slopes), Wynn silt loam (2-6% slopes), and Wynn silt loam (6-12% slopes).

Eden silty clay loam soils are well drained, typically found on valley sides, with a depth of water table at more than 80 inches, Miamian-Russell silt loams soils are well drained, typically found in till plains, with a depth range varying from 12 to 24 inches to depth of water table, Russell silt loam are well drained, typically found in till plains, with a depth range varying from 42 to 60 inches to depth of water table, and Wynn silt loam soils are well drained, typically found in till plains, with a depth of water table at more than 80 inches. See Appendix C for Soils Report.

f) Prior Land Use

Historic aerial photographs and USGS topographic maps of the area (Trenton quadrangle), dating from 1994 to 2019, were reviewed. The background review revealed historic land use within the site location and surrounding area was agricultural. In March 2004 a utility corridor along the northern most bounds of the area of investigation was visible in the aerial images. In 2009, a second utility corridor was visible in the northwestern most corner to the area of investigation. A residential structure was present from 1994 to 2006. Post 2006 the area where the structure was visible has been reverted to vegetative growth.

g) Streams on or Adjacent to this Project

There are no streams on or adjacent to the property (see Figures 1 and 2).

h) Construction Sequence

Site disturbing activities shall be conducted in general accordance with the phasing provided below. The following is a specific construction sequence developed for this Project. This is a preliminary construction sequence that was developed to provide the necessary erosion and sedimentation control protection throughout earthmoving activities.

1. All work shall be completed within the LOD areas shown on the ESCP drawings (see Appendix D).

2. Flagging/fencing will be utilized to field-mark the LOD. The contractor shall install appropriate barriers where equipment may be parked, staged, operated, or located for any purpose. The LOD shall be staked for this Project and best management practices (BMPs) shall be installed within the LOD.
3. Access to the LOD shall be from the private drive located to the west of the proposed facilities (39.461860, -84.378330). This entrance will be the temporary construction entrance utilized for the duration of the primary construction and then converted to be the permanent site entrance to access the regulator station. All required BMPs for the construction activities shall be installed within the LOD prior to starting earth disturbance for these activities. This includes compost filter sock and the temporary gravel construction entrance/exit (which must be installed as specified). A secondary access will be located north of the proposed facility along the existing pipeline corridor to access the pipeline tie-in location. This entrance will be a temporary construction entrance. All required BMPs for the construction activities shall be installed within the LOD prior to starting earth disturbance for these activities. This includes compost filter sock and the temporary gravel construction entrance/exit (which must be installed as specified).
4. Access to the pipeline LOD, where the project will tie-in, will be through the proposed station LOD as the pipeline is located immediately along the northern bounds of the proposed facility. All required BMPs for the construction activities shall be installed within the LOD prior to starting earth disturbance for this activity. This includes silt fence, compost filter sock, and inlet protection which must be installed as specified
5. Any tracking onto paved roadways shall be swept up (without the use of water) at the end of each workday.
6. Erosion control blankets (ECBs) are not anticipated to be necessary during the construction activities. However, if the onsite conditions change at the time of installation and there is a potential for runoff to occur in areas where ECB is appropriate, ECBs shall be installed as necessary.
7. The excavated materials shall be temporary stockpiled within the LOD. Excess stockpiling of material shall be avoided.
8. Topsoil and subsoil from excavation shall be segregated. Topsoil and subsoil require separate stockpiles and shall not be mixed together. The topsoil and subsoil shall be temporarily stockpiled within the LOD and shall be utilized during backfilling and final grading.
9. If necessary, dewatering of excavations shall be performed by pumping any excess water into a non-woven pumped water filter bag in a vegetated upland area.
10. All BMPs must be removed from the site and recycled or disposed of in accordance with the City of Monroe and the Ohio Environmental Protection Agency waste management regulations. The building materials and wastes include, but are not limited to, BMP materials, straps, canisters, pipe cuttings, pipe sections, food wrappers, and plastic bottles.
11. All earth disturbance associated with removal of BMPs shall be immediately restored and stabilized in accordance with permanent seeding specifications.

i) Receiving Waters

There are no aquatic resources identified within or immediately surrounding the proposed project area. BMP's will be utilized throughout the project. The proposed construction activities are not likely to impact any receiving waters (see Figure 1); Stormwater is likely to infiltrate the ground prior to reaching any receiving waters that may be present beyond the bounds of the project's area of investigation.

j) Subdivisions

This is not applicable to this project.

k) Stormwater Discharge Associated with Asphalt/Concrete Plants

This is not applicable to this project.

l) Cover Page

A cover page identifying the name and location of the site, the name and contact information of the operators and contacts for this SWP3 are included on the first page of this SWP3 (in addition to the SWP3 Contact List (see Appendix B)).

m) Log

Amendments to this SWP3 are tracked in Section 5 (in addition to the Major Activities Log (see Appendix E)). A sequence of Control Measure Implementation document is included as Appendix H.

n) Site Map

According to OHC000005, a site map shall be included in the SWP3 containing the following list of items. These items are primarily shown on the Erosion and Sediment Control Plan (ESCP) drawings (see Appendix D) or included as a separate attachment.

i) Limits of earth-disturbing activity of the site, including associated offsite borrow or spoil areas that are not addressed by a separate NOI and associated SWP3 (see Appendix D);

ii) Soil types for all areas of the site, including locations of unstable or highly erodible and/or known contaminated soils (see Appendix C);

iii) Existing and proposed contours;

- ❖ There are proposed changes to grade or contour. The proposed grading and post-construction contours are shown in the 1.7.1 AW2217 20201215 STA 909 REX Gate Sta – Drawing Package drawings in Appendix D. Existing contours are shown the ESCP Drawings in Appendix D. A delineation of drainage watersheds expected during and after major grading activities as well as the size of each drainage watershed, in acres;

iv) Construction Supervisor or designated Job Representative (Pre-construction and Post-construction contours and drainage will vary slightly based on the required grading of the proposed project.)

v) The location of any delineated boundary for required riparian setbacks;

- There are no riparian setback that affect this project area.

vi) Conservation easements or areas designated as open space, preserved vegetation or otherwise protected from earth disturbing activities. A description of any associated temporary or permanent fencing or signage;

- There are no conservation easements or areas designated as open space that affect this project area.

vii) Surface water locations including springs, wetlands, streams, lakes, water wells, etc., on or within 200 feet of the site, including the boundaries of wetlands or stream channels and first subsequent named receiving water(s) the permittee intends to fill or relocate;

- There are no surface water impacts associated with this project.

viii) Existing and planned locations of buildings, roads, parking facilities and utilities (see Appendix D);

ix) The location of erosion and sediment control practices, including the location of areas likely to require temporary stabilization during site development (see Appendix D);

x) Sediment traps and basins noting their sediment storage and dewatering (detention) volume and contributing drainage area;

- A stormwater retention basin will be located along the northeastern most area of the proposed project and facilities location. See Appendix D for design layout and calculations.

xi) The location of permanent stormwater management practices including pretreatment practices to be used to control pollutants in stormwater after construction operations have been completed along with the location of the planned drainage features including catch basins, culvert, ditches, swales, surface inlets and outlet structures (Appendix D).

xii) Areas designated for the storage or disposal of solid, sanitary and toxic wastes, including dumpster areas, areas designated for cement truck washout, and vehicle fueling;

- The vegetated area south of the Station will be used for temporary material storage and equipment laydown.
- Dumpster areas will be located on site within the Temporary Workspace Area. The specific location will vary dependent upon contractor and required space configuration.
- Cement truck washout areas will be determined prior to the arrival of the trucks on site by the contractor team and ensured to be in compliance with local and state regulations.
- Vehicle refueling location will be determined at the start of construction based on contractor needs and requirements. Proper spill control measures will be utilized at all times refueling is required on site.

xiii) The location of designated construction entrances where the vehicles shall access the construction site (see Appendix D); and

xiv) The location of any areas of propose floodplain fill, floodplain excavation, stream restoration or known temporary or permanent stream crossings.

- ❖ The project is not located within an area of regulatory floodway or floodplain, and there are no surface waters within the project area.

The LOD and BMPs are shown on the ESCP drawings. If the Contractor requires changes to the minimum BMPs, changes must be revised and documented in the Major Activities Log (see Appendix E) the SWP3 within seven (7) days.

2) Controls

This section discusses the controls appropriate for this Project covered by the General Permit. Controls shall be installed prior to the start of construction activities. Duke's Construction Supervisor or designated Job Representative shall ensure implementation of each control throughout this Project. Controls shall be implemented in general accordance with Duke Specifications (see Appendix D). Erosion control measures shall be implemented based on the discretion of Duke's Construction Supervisor or designated Job Representative, based on site-specific conditions during construction. The ESCP drawings (see Appendix D) depict locations of controls to be implemented for the various Project components: construction entrances, equipment staging and work areas, dewatering structures, and locations of installations of sediment and erosion control structures. The surface area of erodible earth material exposed at any one time shall be minimized to the extent possible; work shall be completed in a continuous and timely manner to further minimize the potential for erosion and sedimentation from the construction activities.

Duke shall designate an individual to be responsible for ensuring that requirements of the General Permit are met and that BMPs as discussed in this SWP3 are implemented and maintained in working order throughout construction activities. The responsible person shall be trained and versed in the mitigative measures described in this plan.

BMPs to be utilized shall include minimizing construction footprints, construction entrances, trench dewatering controls, temporary and permanent reseeding and mulching, erosion control fabric, dust control and street sweeping, regular environmental inspections, and follow-up inspections following permanent stabilization.

Duke shall review this SWP3 with the Construction Supervisor or designated Job Representative prior to commencement of Project activities and shall have the Construction Supervisor or designated Job Representative sign the SWP3 Certification (see Section 6) that demonstrates that this review has occurred.

a) Preservation Methods

During Project planning, the Project team spent significant effort in designing this Project to avoid and minimize environmental impacts. Impact avoidance measures implemented by the Project team included:

- Designing work areas to include only the space needed to safely and effectively perform the scope of work. No work shall be performed outside the LOD identified

on the ESCP drawings (see Appendix D). Minimizing the construction footprint shall prevent soil erosion by minimizing the amount of bare soil exposed, and

- Duke's Construction Supervisor or designated Job Representative shall take care to remove only vegetation and shrubs necessary to safely complete this Project. Part of the preservation methods of this project include the placement of the facilities entirely within an existing farm field where no forested habitat would be impacted.

b) Erosion Control Practices

This SWP3 makes use of erosion controls that are capable of providing cover over disturbed soils and re-stabilizing disturbed areas after construction activities cease and final re-grading is accomplished. Prior to any onsite construction activity, temporary erosion control measures shall be installed. Erosion control measures shall be employed throughout this Project and shall be maintained until the site is permanently stabilized.

i) Stabilization

Construction Entrances

A construction entrance is a stabilized area underlain with a geotextile and is used to reduce the amount of mud track offsite with construction traffic at the site ingress/egress location. Construction entrances shall provide buffer areas where construction vehicles can drop their mud to avoid transporting it onto public roads. The workspace is located entirely within an active agricultural field and associated existing gravel access road. This access road was previously utilized to access the farm fields as well as a single-family residence that is no longer present. The use of this roadway should have minimal to no impacts on the surrounding residents/land users. The construction entrances shall be installed if site conditions at the time of construction warrant it.

Temporary Stabilization

Although not anticipated, for any disturbed areas that shall be dormant for more than 14 days but less than 1 year, Duke's Construction Supervisor or designated Job Representative shall temporarily stabilize the area(s) within 7 days of the most recent disturbance within the areas. This also includes temporary soil stockpiles that shall be dormant for more than 14 days.

Temporary stabilization shall limit erosion and sedimentation potential, and reduce problems associated with mud or dust from bare soil surfaces.

Temporary Rolled Erosion Control Product (TRECP) may also be used to stabilize easily eroded areas while vegetation becomes stabilized. TRECPs consist of erosion control netting, open weave textile, and erosion control blankets and mattings.

Permanent Stabilization

Permanent Seeding. Duke's Construction Supervisor or designated Job Representative shall perform permanent seeding within 7 days on all disturbed work areas that are not graveled or paved following final re-grading. Permanent seeding includes site preparation, seedbed preparation, planting seed, mulching, irrigation, and maintenance.

Mulching. Duke's Construction Supervisor or designated Job Representative shall apply mulch to permanent reseeded areas immediately following seeding. Mulch shall be applied liberally throughout construction to limit the areas that are bare and susceptible to erosion.

Temporary Rolled Erosion Control Product. TRECP shall be used on areas where establishing vegetation is difficult such as areas prone to drying, areas of concentrated flow, and areas where mulch is difficult to hold in place due to wind or water.

ii) Permanent Stabilization of Conveyance Channels

This section does not apply, as none of the work areas involve conveyance channels.

c) Runoff Control Practices

Given the nature of the site being located along the upper flat area within an agricultural field with the site proposed grading, Duke anticipates the need to install runoff control practices. Should Duke's Construction Supervisor or designated Job Representative identify areas where concentrated runoff is occurring within the Project area, Duke's Construction Supervisor or designated Job Representative shall install appropriate measures to divert runoff away from disturbed areas where practicable using velocity dissipation devices such as rock riprap or rock check dams.

d) Sediment Control Practices

Sediment control practices used shall include pumped water filter bag(s), compost filter sock(s), rock construction entrance or other similar sediment controls. Given the nature of this Project and scope of work with the installation of a permanent facility pad and access road, the need for retention/sediment settling pond is anticipated or necessary. All sediment control practices are shown on the ESCP drawings (see Appendix D).

i) Timing

The General Permit requires that sediment control structures be functional throughout the course of earth disturbing activity. The General Permit also requires that sediment barriers be implemented prior to grading and within seven (7) days from the start of grubbing. They must remain functional until disturbed upslope areas are re-stabilized. Controls shall be adjusted or altered to address changing drainage patterns, if encountered.

ii) Sediment Settling Ponds

The need for sediment/retention settling pond is anticipated and will be located along the northeastern most bounds of the proposed facility.

iii) Sediment Barriers and Diversions

Sediment barriers shall be constructed of compost filter sock(s) or other similar sediment barriers. These sediment barrier types may be used interchangeably or together depending on site-specific conditions.

Sediment barriers shall be installed down-gradient of disturbed areas and soil stockpiles where there is a hazard of offsite sedimentation, including:

- Along the exterior edge of the LOD where warranted;
- Around trench dewatering structures/locations where warranted; and

- Around temporary soil stockpiles as warranted.

The Contractor shall maintain sediment barriers by removing/collecting sediment and replacing barriers as necessary. If sediment loading is greater than approximately 1/2 the height of the compost filter sock(s), the sediment shall be removed and placed in an area where it shall not re-enter the barriers.

Dewatering Structures

Depending on the depth to groundwater and number of rainfall events that occur, throughout the construction activities, this Project may require occasional dewatering from the Project area. Trench water shall be dewatered through pumped water filter bags attached at the end of the flex hose in order to collect sediments that may be present in groundwater. The dewatering structures shall be located at the downslope sides of the workspaces and in well vegetated areas if possible.

Rock Check Dams

Though not anticipated, if warranted, rock check dams shall be installed within drainage swales which may develop along depressional areas during this Project. Check dams are small rock dams constructed in swales, and grassed waterways to reduce the velocity of concentrated flows, thereby reducing erosion within the swale or waterway. Rock check dams are used in conjunction with primary sediment-trapping practices.

iv) Inlet Protection

The need for inlet protection is not anticipated.

v) Surface Waters of the State
The proposed construction activities shall not impact any Surface Waters of the State (see Figures 1 and 2).

vi) Modifying Controls

Controls shall be modified or replaced, as deemed appropriate by Duke's Construction Supervisor or designated Job Representative, following periodic site inspections.

e) Post-Construction Stormwater Management Requirements

All areas utilized for temporary workspace shall be returned to pre-construction conditions. The installation of the facilities pad and permanent access road will increase the amount of new impervious surfaces; therefore, require the installation of post-construction stormwater management structures.

f) Surface Water Protection

The proposed construction activities shall not impact any wetlands or streams, as mentioned above. No wetlands or streams are identified within the project area or immediately adjacent to it; therefore, will not be impacted by the proposed project.

g) Other Controls

i) Non-Sediment Pollutant Controls

In addition to sediment and erosion controls, throughout this Project, Duke's Construction Supervisor or designated Job Representative shall implement non-sediment pollution

prevention BMPs including good housekeeping practices, waste segregation, solid and sanitary waste disposal in accordance with State and Local regulations, disposal of woody vegetation and debris, spill prevention practices, and disposal and removal of unused or surplus pipe/materials from the site. Duke's Construction Supervisor or designated Job Representative shall also implement BMPs for equipment refueling, hazardous material management practices, and control of fugitive dust.

Duke's Construction Supervisor or designated Job Representative shall perform their due diligence in locating underground utilities through the One-Call system. Duke's Construction Supervisor or designated Job Representative shall pothole/excavate down to locate utility lines prior to any excavation.

Appropriate measures shall be implemented to minimize or eliminate wastes or unused building materials including garbage, debris, cleaning wastes, wastewater, concrete truck and chute washout, and other substances from being carried from the Project area by run-off or wind. Wastes and unused building materials shall be managed and disposed of in accordance with applicable requirements.

Proper storage and handling of materials such as fuels or hazardous materials, and spill prevention and clean-up measures, shall be implemented to minimize the potential for pollutants to contaminate surface or groundwater or degrade soil quality.

Good Housekeeping Practices

In addition to the foregoing, the following good housekeeping practices shall be implemented for the duration of this Project:

- The surrounding site shall be kept free of construction debris and waste; wastes generated onsite shall be segregated and containerized for proper disposal by Duke's Construction Supervisor or designated Job Representative. Wastes shall be stored in a manner that shall not result in the potential for leakage;
- Chemicals, wastes, or other materials shall be staged in an upland location and protected from exposure of precipitation;
- Materials stored onsite shall be stored in a neat, orderly manner in their appropriate containers, and if possible, under a roof or other enclosure;
- Whenever possible, all of a product shall be used before disposal of the container, and the manufacturer's recommendations for proper use and disposal shall be followed;
- Duke's Construction Supervisor or designated Job Representative shall inspect work areas daily to ensure proper usage and storage of materials. Waste disposal containers shall be provided for the proper collection and segregation of waste material including construction debris, sanitary garbage, petroleum products, and any hazardous materials to be used onsite. Containers shall be maintained in good order and free from leaking. Duke's Construction Supervisor or designated Job Representative is responsible for the disposal of all wastes; and
- Duke's Construction Supervisor or designated Job Representative shall ensure that no hazardous materials, containers, or other construction wastes are poured onto the ground or buried/ burned onsite.

Hazardous Materials

The materials or substances listed below are expected to be present onsite during construction activities:

- Fuel/oil/grease
- Fertilizer
- Paint
- Grout (non-hazardous)
- Pipe Coating

Duke's Construction Supervisor or designated Job Representative shall utilize temporary construction boxes as needed for long-term storage of used or unused hazardous materials.

Hazardous materials shall be kept in the original containers with the original manufacturer's label, unless they are not re-sealable. The following practices shall be used to reduce the risks associated with any and all hazardous materials.

- Original labels and material safety data sheets shall be retained; and
- If surplus products must be disposed, disposal shall be done in accordance with applicable laws and regulations.

Spill Prevention/Material Management Practices

The following material management practices shall be used to reduce the risk of spills or other accidental exposure of materials and substances from exposure to the weather and/or runoff.

- Areas within the LOD shall be designated for dumpsters, vehicle refueling, and material storage/disposal of solid, sanitary, and toxic wastes;
- Vehicles kept onsite shall be monitored for leaks;
- Petroleum products shall be stored in tightly sealed containers that are clearly labeled. If fuel is stored onsite for equipment refueling, it shall be stored in an appropriate aboveground storage tank (AST) equipped with secondary containment;
- No fuels, oils, lubricants, solvents, or other hazardous materials shall be disposed of onsite. Hazardous material shall be properly disposed of in accordance with State law;
- Duke's Construction Supervisor or designated Job Representative shall be responsible for providing sanitary facilities on the site, and for the proper disposal of sanitary waste. Portable toilets shall be provided by Duke's Construction Supervisor or designated Job Representative for use by construction personnel. The toilets shall have the wastes regularly collected by a licensed hauler for disposal as required by local regulation; and

Process wastewaters (vehicle and/or equipment washing, leachate associated with onsite waste disposal, etc.) are not covered under the General Permit. If such process wastewaters are generated during construction, Duke's Construction Supervisor or designated Job Representative shall ensure proper collection and disposed of such at an approved disposal facility.

Spill Control Measures

In addition to the good housekeeping and material management practices discussed in the previous sections of this SWP3, the following practices shall be followed for spill prevention and cleanup:

- During construction, all non-sediment pollutants such as oils, fuels, hydraulic fluids, chemical cleaners, etc., shall be managed to not result in spills that could impact the site and Surface Waters of the U.S. or State. If spills occur at the site, the spilled product shall be contained and removed from the site in accordance with Duke procedures. If not recoverable for reuse, the spilled product shall be disposed of properly per Federal and State regulatory requirements.
- Any spills of petroleum products or chemicals regardless of amount or location and all sediment releases beyond the site perimeter controls are to be immediately reported to the Duke Energy Environmental Field Professional. If the Duke Energy Field Professional cannot be reached, the Duke Energy Spill Hotline to be called at 800-527-3853;
- No vehicle fueling, maintenance procedures, or concrete washout activities are to occur within 125 feet of wetlands, waterways, sewer grates, ditches or other features that drain to Waters of the U.S. or State without prior location-specific approval of Duke Energy Environmental;
- The manufacturer's recommended methods for spill cleanup shall be clearly posted and site personnel shall be made aware of the procedures and the location of the information and clean-up supplies;
- Materials and equipment necessary for spill cleanup shall be kept onsite and waste disposed of with the trash at a licensed sanitary landfill. Hazardous or industrial wastes such as most solvents, gasoline, oil-based paints, and cement curing compounds require special handling;
- Duke's Construction Supervisor or designated Job Representative shall notify Duke Environmental Field Professional immediately in the event of a spill;
- Spills shall be cleaned up immediately upon discovery and properly containerized for proper disposal by Duke's Construction Supervisor or designated Job Representative;
- The spill area shall be kept well ventilated and personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance;
- Spills of toxic or hazardous material shall be reported immediately by Duke to the appropriate State or Local government agency as appropriate;
- This SWP3 shall be adjusted as needed to prevent spills from reoccurring and improve spill response and cleanup; and

- If substances such as oil, diesel fuel, hydraulic fluid, antifreeze, etc. are spilled, leaked, or released onto the soil, the soil shall be dug up and disposed of at a licensed sanitary landfill or other approved petroleum contaminated soil remediation facility (not a construction/demolition debris landfill).

Spill Containment Measures

The following secondary containment measures are required at all Duke construction sites:

- For mobile equipment staged outside of the designated staging areas, secondary containment is required;
    - Designated staging areas are defined as designated areas for a construction site that typically include material offloading, overnight storage of project equipment and vehicles, and are located greater than 125ft from waterways and wetlands. Typical locations for designated storage areas include locations near road crossings, end of right-of-ways, etc.
- For fuel trucks that are stored overnight after daily refueling operations, secondary containment is required (does not apply to “drag-up” pickups with fuel tanks in the bed of the pick-up);
- For non-linear Project aspects secondary containment is required where the risk of spills to waterways and wetlands is present;
- For chemical storage areas (drum storage, fuel cans, etc) at construction sites, secondary containment is required;
- For equipment such as generators, light plants, compressors, and sump pumps, secondary containment is required when not in a designated staging area;
- For locations where a spill can reach storm drains, waters and/or wetlands, secondary containment is required; and
- Additional existing requirements to prevent spills are included in the Duke 2019 EHS Handbook.

Additionally, the following must be adhered to:

- Secondary containment systems must be impervious and free of cracks or gaps ensuring that the containment system is chemically compatible with whatever liquids could come into contact with it.
- Secondary containment system must have sufficient capacity to contain at least 10% of the total volume of the primary containers or 100% of the volume of the largest container, whichever is greater;
- Secondary containment systems should be designed with sufficient capacity to contain any precipitation (i.e. run-on) in addition to the volume capacity requirements;
- Any waste that has spilled or leaked into the secondary containment area (or any accumulated precipitation) must be removed in as timely a manner as is necessary to prevent overflow; And inspecting equipment, containers, drums, etc on a regular basis (minimum of start of shift and end of shift) to ensure they are in good condition is essential in preventing spills to the environment.

Air Emissions

Dust control is required to prevent nuisance conditions. Duke's Construction Supervisor or designated Job Representative shall be responsible for implementing dust controls in accordance with the manufacturer's specifications and not applied in a manner which shall result in a discharge to Waters of the State. Dust shall be minimized by stabilizing areas with mulch, water, or other practical means, if necessary. Application (other than water) shall not occur when precipitation is imminent as noted in the short-term forecast. Used oil shall not be applied for dust control.

ii) Offsite Traffic

Public and private roadways shall be kept clear of accumulated sediment that is a result of runoff or offsite tracking. Bulk clearing of sediments, if needed, shall be performed by equipment or hand tool; no flushing with water shall be performed. Cleared sediment shall be re-distributed or disposed of in an appropriate manner. Duke's Construction Supervisor or designated Job Representative shall be responsible for inspecting adjoining streets and keeping them clean on a daily basis.

iii) Compliance with Other Requirements

Implementation of this SWP3 shall be consistent with applicable State and/or Local waste disposal and sanitary sewer system regulations. There shall be no open burning of waste material onsite. Although not anticipated, should contaminated soils be encountered, they shall be properly disposed at an approved, offsite facility in accordance with Federal, State, and/or Local regulations.

iv) Trench and Groundwater Control

Duke's Construction Supervisor or designated Job Representative shall ensure that if trenchwater contains sediment, it shall be filtered through a pumped water filter bag prior to discharge from the work areas. Groundwater dewatering which does not contain sediment or other pollutants is not required to be treated prior to discharge. However, care shall be taken when discharging groundwater to ensure that it does not become pollutant-laden by traversing over disturbed soils or other pollutant sources.

v) Contaminated Sediment

Should contaminated sediments be encountered, Duke's Construction Supervisor or designated Job Representative shall be made aware that discharges are not authorized by the General Permit. Appropriate BMPs implemented to handle stormwater containing contaminated sediments shall include:

- Use of berms, trenches, and pits to collect contaminated runoff and prevent discharges;
- Pumping runoff into a sanitary sewer with prior approval from the sanitary sewer operator, or into a container for transport to an appropriate treatment/disposal facility; and
- Covering areas of contamination with tarps or other methods that prevent stormwater from coming into contact with the material.

h) Maintenance

All temporary and permanent control practices shall be maintained and repaired as needed to ensure continued performance of their intended function. All sediment control practices shall be maintained in a functional condition until the up-slope areas they control are permanently stabilized. Maintenance and repair shall be conducted by the construction contractor in accordance with BMPs.

i) Inspections

Duke shall implement a self-monitoring program on the construction site that shall continue throughout construction until final stabilization. Duke shall utilize their Construction Supervisor or designated Job Representative who shall be responsible for ensuring all requirements of the General Permit are met and that BMPs as discussed in this SWP3 are implemented and maintained in working order at all times throughout construction. Duke's Construction Supervisor or designated Job Representative and their assigned delegate(s) shall be trained and versed in the principles and practice of erosion and sediment controls and the mitigative measures described in this SWP3, as well as conditions of Federal, State, and Local environmental permits. These trained individuals shall be present onsite throughout construction and shall be responsible for conducting regular inspections. Duke's Construction Supervisor or designated Job Representative shall be responsible for the BMP installation, maintenance, and good housekeeping as per the Contractor's Certification.

Duke's Construction Supervisor or designated Job Representative shall monitor compliance and shall report compliance problems promptly to Duke. Upon determination of a compliance problem, Duke's Construction Supervisor or designated Job Representative shall be responsible to work to find onsite solutions to remediate any non-compliance incident.

Duke's Construction Supervisor or designated Job Representative shall conduct a visual inspection to ensure that the control practices are functional, to evaluate whether this SWP3 is adequate and properly implemented, and to determine whether additional control measures are required. This SWP3 shall serve as a guideline for stormwater quality, but should not be interpreted to be the only basis for implementation of stormwater quality measures for this Project area. Duke shall inform general contractors, construction management firms, grading or excavating contractors, and utility contractors of the conditions of this rule, the conditions and standards of this SWP3, and the schedule for proposed implementation.

Inspections shall be performed as follows:

(i). at least once every 7 calendar days; and

(ii). within 24 hours after any storm event greater than 0.5 inch of rain per 24-hour period.

The inspection frequency may be reduced to at least once every month if the entire site is temporarily stabilized or runoff is unlikely due to weather conditions (e.g., site is covered with snow, ice, or the ground is frozen). A waiver of inspection requirements is available until one month before thawing conditions are expected to result in a discharge if all of the following conditions are met:

- this Project is located in an area where frozen conditions are anticipated to continue for extended periods of time (i.e. more than one month); or
- land disturbance activities have been suspended; and the beginning and ending dates of the waiver period are documented in this SWP3.

Once a definable area has been finally stabilized, Duke's Construction Supervisor or designated Job Representative shall mark this on the field copy of the SWP3 with a date and initials that no further inspection requirements shall apply to that portion of the site.

Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in this SWP3 shall be observed to ensure that they are operating correctly. Discharge locations, where applicable, shall be inspected to ascertain whether erosion and sediment control measures are effective in preventing significant impacts to the receiving water. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite vehicle tracking.

Following each inspection, the inspector shall complete and sign a written evaluation of the project area and stormwater discharge areas. The inspection report shall address the maintenance of existing stormwater quality measures to ensure they are functioning properly; and identify additional measures necessary to remain in compliance.

This SWP3 and a log of each inspection and copy of the signed inspection report shall be retained on the work sites while onsite construction workers are present, and made available to Ohio EPA upon request.

Duke shall maintain the following for three (3) years following the submittal of a Notice of Termination (NOT) form:

(i). a record that summarizes the results of the inspection;

(ii). names(s) and qualifications of personnel making the inspection;

(iii). date(s) of the inspection;

(iv). major observations relating to the implementation of this SWP3; and

(v). a certification as to whether the facility is in compliance with this SWP3 and the General Permit and identify any incidents of non-compliance.

The records and certification shall be signed in accordance with Part V.G. of the General Permit.

Repair and Maintenance Requirements

If the inspection reveals that a control practice is in need of repair or maintenance, it shall be repaired or maintained within three (3) days of the inspection.

Failure of Controls to Provide Their Intended Function

If the inspection reveals that a control practice fails to perform its intended function and that another, more appropriate control practice is required, this SWP3 shall be amended and the new control practice shall be installed within 10 days of the inspection.

When Practices Depicted On this SWP3 Are Not Installed

If the inspection reveals that a control practice has not been implemented in accordance with the BMP schedule provided in this SWP3, the control practice shall be implemented within 10 days from the date of the inspection. If the inspection reveals that the planned control practice is not needed, the record shall contain a statement of explanation as to why the control practice is not needed.

3) Approved State or Local Plans

Duke has coordinated with and obtained necessary coordination and clearance with local agencies, as well as State agencies for cultural and threatened and endangered species clearance. There shall be no disturbance to the streams or wetlands, so no Clean Water Act 401 or 404 permitting is necessary.

Duke has coordinated with and obtained a Site Plan approval from the City of Monroe Development Department associated with the land disturbance and Stormwater Approval.

4) Exceptions

No exceptions to this SWP3 or General Permit conditions are anticipated for this Project. If specific site conditions contained in the General Permit or site-specific conditions are such that implementation of any erosion and sediment control practices contained in the General Permit shall result in no environmental benefit, then Duke shall provide justification for rejecting the practice based on site conditions. Exceptions from implementing the erosion and sediment control standards contained in the General Permit shall be approved or denied on a case-by-case basis.

5) Records, Updates and Amendments

A complete copy of this SWP3, related documents, and completed reports and forms shall be kept onsite at all times and made available for review immediately upon request. It is the responsibility of Duke's Construction Supervisor or designated Job Representative to update and/or amend this SWP3 to reflect any and all significant changes in the Project scope including, phasing/sequencing, BMPs, or onsite materials. Amendments/updates shall be made in writing and posted along with this Plan within 7 days of the significant change. All inspection reports shall be maintained onsite and kept by the Operator on file for a period of 3 years following completion of this Project.

Record amendment and/or modifications to the plan below:

Item	Discussion	By	Date

6) SWP3 Certification

a) Operator

I certify under penalty of law that I understand the terms and conditions of the National Pollutant Discharge Elimination System (NPDES) Permit (which includes state and local permits) that authorizes the stormwater discharge associated with construction activity for this project and the obligations associated with this Permit and the contents of this Plan.

Name (print or type)	Title
Signature	Date

b) Subcontractor

It is the responsibility of the Operator to ensure that all Subcontractors are familiar with and conduct site activities in accordance with this Plan.

I have reviewed this Plan and understand my responsibility to comply with the terms thereof.

Subcontractor	**Name (print)**	**Date**

Appendix A
Notice of Intent

Appendix B
SWP3 Contact List

Appendix C
Detailed Soil Report

Appendix D
Erosion and Sediment Control Plan (ESCP)

Appendix E
Major Activities Log

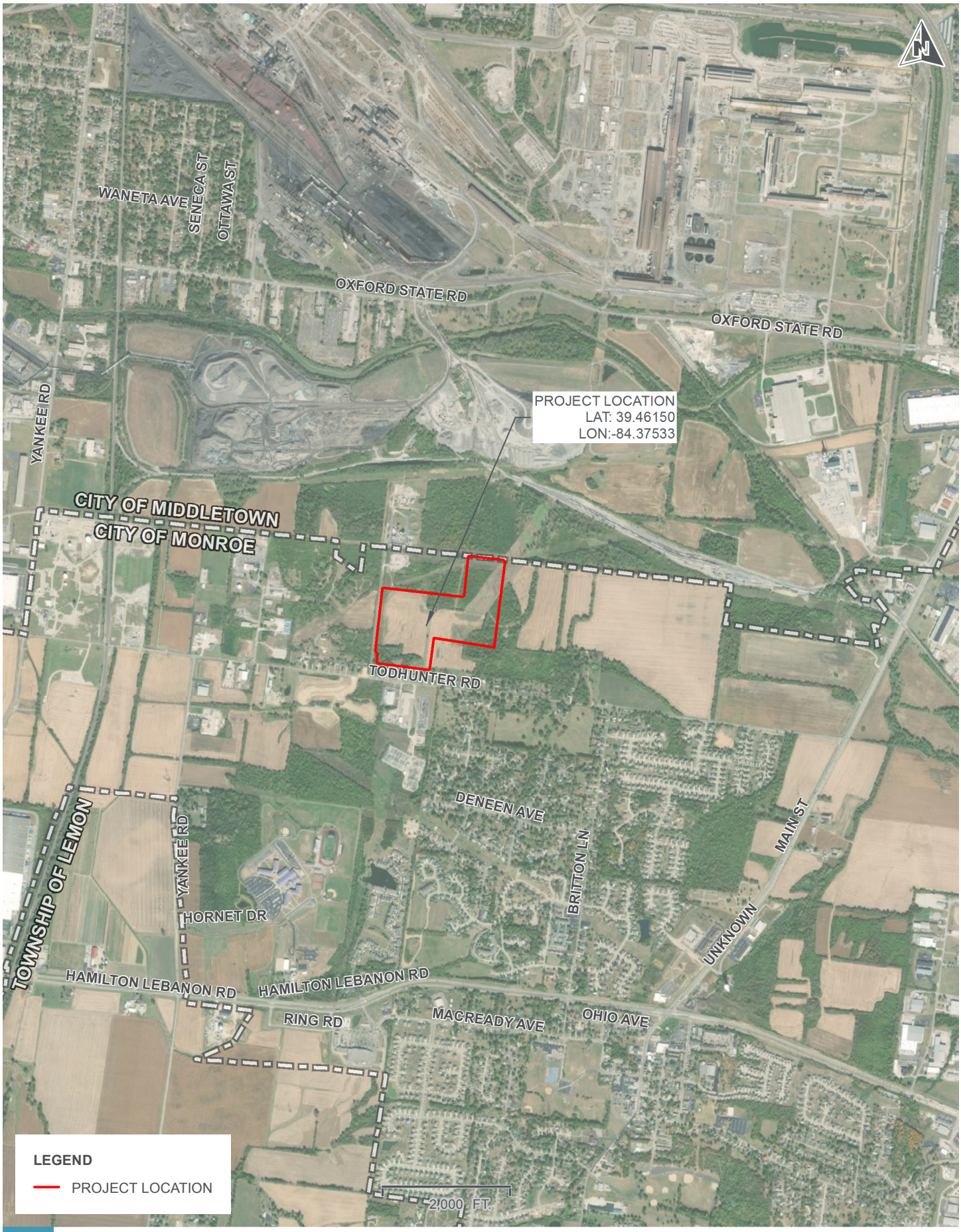
Appendix F
Notice of Termination Form

The Ohio EPA has moved to electronic Notice of Termination filing system. The NOI for this project shall be submitted electronically through https://ebiz.epa.ohio.gov.

Appendix G
Construction Stormwater Inspection Certification Form

Appendix H
Sequence of Control Measure Implementation

Appendix I
Rainfall Record Log



PROJECT VICINITY MAP
CITY OF MONROE, BUTLER COUNTY, OH

LEGEND

- OVERHEAD TRANSMISSION ELECTRIC LINES (OHE)
- TREE LINE
- FENCE LINE
- PROPERTY LINE
- ROAD CENTERLINE
- NATURAL GAS UTILITY LINE
- ROAD EDGE
- CITY LIMITS
- PROPOSED FACILITY

ZONING DISTRICTS

- A-1 LARGE SCALE AGRICULTURAL
- H-1 HEAVY INDUSTRIAL
- L-1 LIGHT INDUSTRIAL
- R-1 SINGLE-FAMILY RESIDENTIAL INFILL
- R-2 SINGLE-FAMILY RESIDENTIAL

Q6542060000002
AK STEEL CORP
3024 OXFORD STATE RD
14433 ENT LESS PTS

CITY OF MIDDLETOWN
CITY OF MONROE

C1800001000001
AK STEEL CORP
TODHUNTER RD
567 ENT

NATURAL GAS UTILITY LINE
NATURAL GAS UTILITY LINE
NATURAL GAS UTILITY LINE

C1800002000004
CINCINNATI GAS & ELECTRIC CO
602 TODHUNTER RD
571 N650 OF W1340

EXISTING OVERHEAD TRANSMISSION ELECTRIC LINES (OHE)

H-1

PROPOSED TALLGRASS FACILITY
PROPOSED DUKE FACILITY
PROPOSED ACCESS RD

~1177 FT.

C1800001000010
MILLER THOMAS C & CANDICE NIXON
860 HOLMAN AVE
804 ENT LESS W 549'CTR PT

A-1

APPROXIMATE EXISTING TREE LINE

EXISTING DICKS CREEK ENERGY FACILITY PRIVATE ACCESS DRIVE

C1800002000001
TRI STATE IMPROVEMENT CO
598 TODHUNTER RD
51 ENT LESS N 650 OF W

~929 FT.

EXISTING AGRICULTRUAL FIELD

L-1

C1800001000004
FARIS DONALD SCOTT
TODHUNTER RD
570 ENT LESS S PT

EXISTING DIRT FARM & OHE ACCESS

C1800002000002
TRI STATE IMPROVEMENT CO
TODHUTNER RD
572 ENT

R-1

~252 FT.

C1800002000002 CINCINNATI GAS & ELECTRIC CO
C1800002000003 SPURLOCK CODY SEE
C1800002000004 MCKINNEY ACHELA
C1800002000005 MARTIN ROSIE L &
C1800002000006 BLACKBURN CHRIS D & KELLIE L
C1800002000007 TRI STATE IMPROVEMENT CO
C1800002000008 BOYLES JEFFERY D & DONNA K
C1800002000009 SCHAEFER C & ASHLEY T

R-2

A-1

HANFORD LN

TODHUNTER RD

L-1

R-1

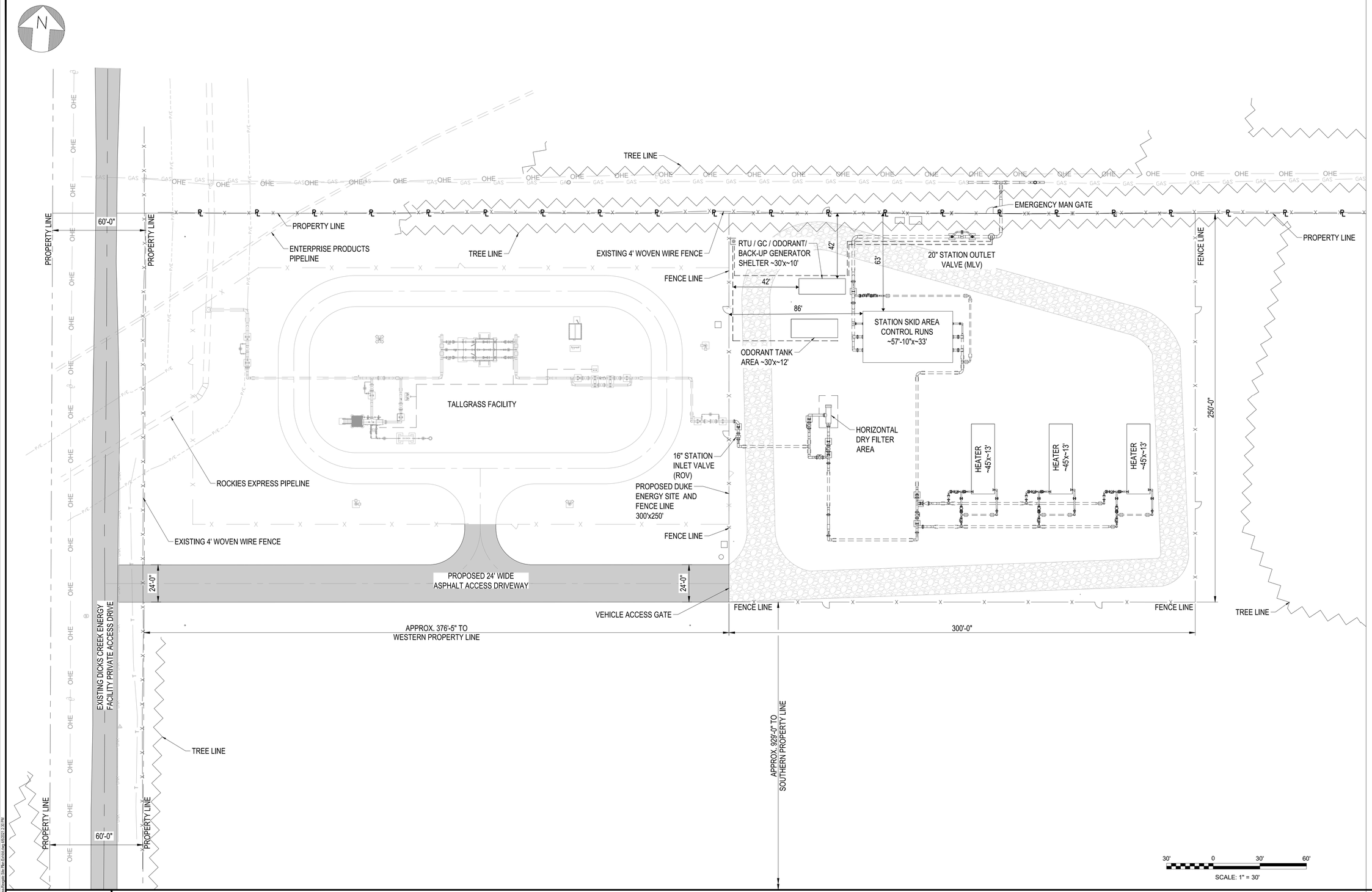
R-2

THE INFORMATION PROVIDED IN THIS EXHIBIT IS TAKEN FROM PUBLIC INFORMATION AND IS INTENDED TO PROVIDE APPROXIMATE GENERAL CONDITIONS OF THE EXISTING AREA. WHILE DATA AND INFORMATION FURNISHED IS BELIEVED TO BE ACCURATE, ACCURACY, IS NOT EXPRESSLY OR IMPLIEDLY WARRANTED OR GUARANTEED TO BE ACCURATE, COMPLETE, RELIABLE, OR CURRENT.

300 Ft.

EXISTING CONDITIONS

CITY OF MONROE, BUTLER COUNTY, OH



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REF. DWG(S) -

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
A	04/06/2021	SITE PLAN REVIEW	JAF	NRW	-

DESCRIPTION	
AREA CODE	513
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2217
DRAWING BY	JAF
STATION ID	S09090I
CHECKER INITIALS	NRW

APPROVALS		
DATE -	INITIALS N/A	REGIONAL ENGINEER
DATE -	INITIALS N/A	MGR TECH REC & STD
DATE -	INITIALS N/A	PRINCIPAL ENGINEER

PROFESSIONAL ENG/ARCH STAMP

DUKE ENERGY. Piedmont Natural Gas

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STATION 909 REX GATE STA.
SITE PLAN EXHIBIT
BUTLER COUNTY, OHIO

SHEET(S) 1 OF 1	DWG SCALE AS SHOWN
DWG DATE 04/06/2021	SUPERSEDED —
DRAWING NUMBER	REVISION
SITE EXHIBIT	A

MECHANICAL / TODHUNTER / LINE CG07

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STATION 909 REX GATE STA. (TALLGRASS)
BUTLER COUNTY, OHIO, 45050

DRAWING INDEX

DRAWING NUMBER	DRAWING TITLE	SHEET NO.	REV.
PNG-G-042-0001064	COVER SHEET	1	D
PNG-G-042-0001065	GENERAL NOTES	2	D
PNG-G-000-0002250	P&ID LEGEND AND SYMBOLS	3	-
PNG-G-000-0002250	P&ID LEGEND AND SYMBOLS	4	-
PNG-G-000-0002250	P&ID LEGEND AND SYMBOLS	5	-
PNG-D-042-0001013	PIPING AND INSTRUMENTATION DIAGRAM	6	D
PNG-D-042-0001014	PIPING AND INSTRUMENTATION DIAGRAM	7	D
PNG-D-042-0001015	PIPING AND INSTRUMENTATION DIAGRAM	8	D
PNG-D-042-0001016	PIPING AND INSTRUMENTATION DIAGRAM	9	D
PNG-D-042-0001017	PIPING AND INSTRUMENTATION DIAGRAM	10	D
PNG-M-042-0001066	MECHANICAL SITE PLAN	11	D
PNG-M-042-0001067	MECHANICAL PIPING PLAN	12	D
PNG-M-042-0001068	INLET STATION VALVE DETAIL	13	B
PNG-M-042-0001069	FILTER SEPARATOR DETAIL	14	B
PNG-M-042-0001070	METER RUN DETAIL	15	B
PNG-M-042-0001071	HEATER BYPASS DETAIL	16	B
PNG-M-042-0001072	HEATER #1 - INLET/OUTLET VALVES	17	B
PNG-M-042-0001073	HEATER #2 - INLET/OUTLET VALVES	18	B
PNG-M-042-0001074	HEATER #3 - INLET/OUTLET VALVES	19	B
PNG-M-042-0001075	CONTROL VALVE RUN INLET DETAIL	20	B
PNG-M-042-0001076	CONTROL VALVE RUN OUTLET DETAIL	21	B
PNG-M-042-0001077	STATION OUTLET TIE-IN DETAIL	22	B
PNG-X-042-0001007	EMERGENCY SCHEMATIC	23	B
PNG-C-042-0001116	ALIGNMENT SHEET	24	D
PNG-C-042-0001117	GRADING AND EROSION CONTROL PLAN	25	B
PNG-C-042-0001118	CIVIL SITE AND RESTORATION PLAN	26	B
PNG-C-042-0001119	ACCESS ROADS DETAILS	27	B
PNG-C-042-0001120	EROSION & SEDIMENTATION CONTROL DETAILS	28	B
PNG-C-042-0001121	EROSION & SEDIMENTATION CONTROL DETAILS	29	B
PNG-C-042-0001122	EROSION & SEDIMENTATION CONTROL DETAILS	30	B
PNG-C-042-0001123	EROSION & SEDIMENTATION CONTROL SEEDING PLAN	31	B
PNG-C-042-0001124	OUTLET STRUCTURE DETAILS	32	A

DRAWING INDEX

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PNG-E-042-0001070	GROUNDING DETAILS	34	B
PNG-E-042-0001071	HAZARDOUS AREA CLASSIFICATION PLAN	35	B
PNG-E-042-0001072	HAZARDOUS AREA CLASSIFICATION DETAILS	36	B
PNG-E-042-0001082	HAZARDOUS AREA CLASSIFICATION DETAILS	37	A
PNG-E-042-0001073	ELECTRICAL AND INSTRUMENTATION CONDUIT PLAN	38	B
PNG-E-042-0001074	CABLE AND CONDUIT SCHEDULE	39	B
PNG-E-042-0001075	CABLE AND CONDUIT SCHEDULE	40	B
PNG-E-042-0001083	CABLE AND CONDUIT SCHEDULE	41	A
PNG-E-042-0001076	ELECTRICAL INSTALLATION DETAILS	42	B
PNG-E-042-0001077	ELECTRICAL INSTALLATION DETAILS	43	B
PNG-E-042-0001078	STATION LIGHTING	44	B
PNG-E-042-0001079	ELECTRICAL ONE LINE DIAGRAM	45	B
PNG-E-042-0001080	INSTRUMENT LIST	46	B
PNG-E-042-0001081	INSTRUMENT LIST	47	B
PNG-G-042-0001073	TYPICAL FENCE SECTION & DETAILS	48	B
PNG-S-042-0001030	FOUNDATION LOCATION PLAN	49	B
PNG-S-042-0001032	PIPE SUPPORT DETAILS	50	B
PNG-S-042-0001031	FLARE STACK FOUNDATION DETAILS	51	A
PNG-S-042-0001033	RTU, GC & ODORIZER ENCLOSURE FOUNDATION DETAILS	52	A
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PNG-S-042-0001035	TYPICAL HEATER FOUNDATION DETAILS	54	A
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PNG-S-042-0001037	CONTROL VALVE SKID FOUNDATION DETAILS	56	A
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PNG-G-042-0001068	BILL OF MATERIALS	58	D
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PNG-G-042-0001072	BILL OF MATERIALS	62	A

811 Know what's **below.** **Call** before you dig.

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NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
A	10/16/2020	ISSUE FOR 30% REVIEW	JAF	BJS	JWL
B	10/30/2020	INCORPORATED 30% REVIEW COMMENTS	JAF	NRW	JWL
C	12/15/2020	ISSUE FOR 60% REVIEW	JAF	BJS	JWL
D	03/26/2021	ISSUE FOR 90% REVIEW	JAF	BJS	JWL

DESCRIPTION	
AREA CODE	513
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2217
DRAWING BY	JAF
STATION ID	S090901
CHECKER INITIALS	BJS

APPROVALS		
DATE -	INITIALS N/A	REGIONAL ENGINEER
DATE -	INITIALS N/A	MGR TECH REC & STD
DATE -	INITIALS N/A	PRINCIPAL ENGINEER

PROFESSIONAL ENG/ARCH STAMP

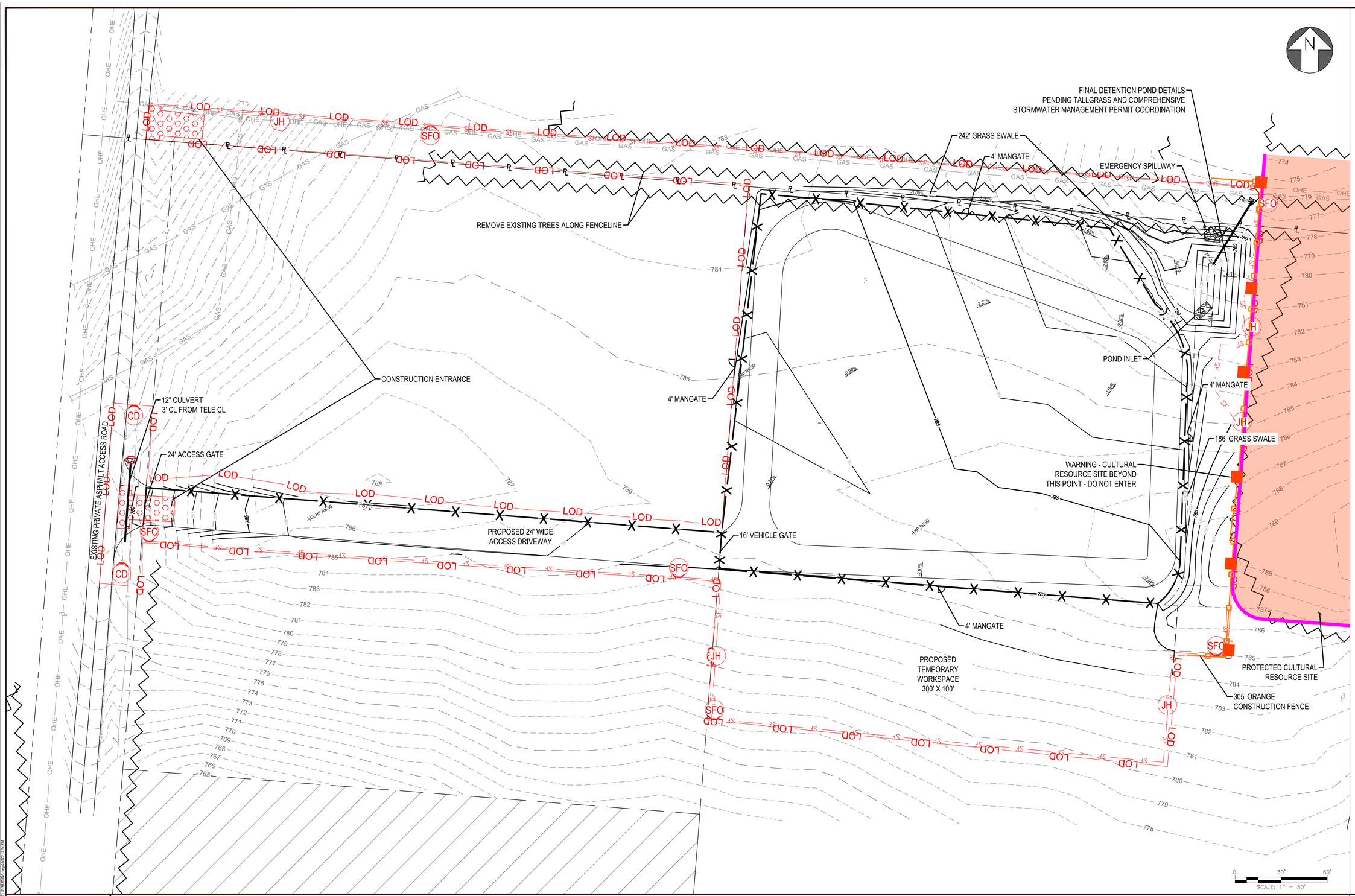
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STATION 909 REX GATE STA. (TALLGRASS)
COVER SHEET
BUTLER COUNTY, OHIO
TODHUNTER RESOURCE CENTER, CINCINNATI, OHIO

SHEET(S) 1 OF 62	DWG SCALE NTS		
DWG DATE 10/16/2020	SUPERSEDED —		
DRAWING NUMBER PNG -G-042-0001064	REVISION D		
GENERAL / TODHUNTER / LINE CG07			

D:\1_Projects\Active\1060\04\045 Rex Gate Station\Cincinnati\G\042-0001064.dwg 3/27/2021 1:50:07 PM



LEGEND:

- PROPERTY LINE
- PROPOSED FENCE
- LIMIT OF DISTURBANCE
- SS2 REINFORCED SILT FENCE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- SURVEY MAJOR CONTOUR
- SURVEY MINOR CONTOUR
- RIGHT OF WAY LINE
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING CULVERT
- PROPOSED CULVERT
- OVERHEAD ELECTRIC
- COMPOSITE FILTER SOCK \ CHECK DAM
- EXISTING TREELINE
- CONSTRUCTION FENCING
- SILT FENCE OUTLET
- J HOOK DETAIL
- PROPOSED PERMANENT CHAINLINK FENCE
- CULTURAL AVOIDANCE LINE
- SIGN - "WARNING - CULTURAL RESOURCE SITE BEYOND THIS POINT DO NOT ENTER"

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REF. DWG(S) PNG-G-042-0001064

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
A	12/15/2020	ISSUE FOR 60% REVIEW	NS	JCG	NRW
B	03/26/2021	ISSUE FOR 90% REVIEW			

DESCRIPTION		APPROVALS		
AREA CODE	513	DATE -	INITIALS N/A	REGIONAL ENGINEER
ACCOUNT NUMBER	-			
PROJECT NUMBER	AW2217	DATE -	INITIALS N/A	MGR TECH REC & STD
DRAWING BY	NS			
STATION ID	S090901	DATE -	INITIALS N/A	PRINCIPAL ENGINEER
CHECKER INITIALS	JCG			

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STATION 909 REX GATE STA. (TALLGRASS) GRADING AND EROSION CONTROL PLAN BUTLER COUNTY, OHIO

TODHUNTER RESOURCE CENTER, CINCINNATI, OHIO

SHEET(S) 25 OF 62	DWG SCALE AS SHOWN
DWG DATE 12/15/2020	SUPERSEDED —
DRAWING NUMBER	REVISION
DUKE -C-042-0001117	B
CIVIL / TODHUNTER / LINE CG07	

FINAL DETENTION POND DETAILS
PENDING TALLGRASS AND COMPREHENSIVE
STORMWATER MANAGEMENT PERMIT COORDINATION

250' GRASS SWALE

4' MANGATE

EMERGENCY SPILLWAY

POND INLET

4' MANGATE

186' GRASS SWALE

12" CULVERT
3' CL FROM TELE CL

24' ACCESS GATE

EXISTING GRAVEL ACCESS ROAD

PROPOSED 24' WIDE
ACCESS DRIVEWAY

16' VEHICLE GATE

4' MANGATE

WARNING - CULTURAL
RESOURCE SITE BEYOND
THIS POINT - DO NOT ENTER

PROPOSED
TEMPORARY
WORKSPACE
300' X 100'

PROTECTED CULTURAL
RESOURCE SITE

305' ORANGE
CONSTRUCTION FENCE

0' 30' 60'
SCALE: 1" = 30'

LEGEND:

- PROPERTY LINE
- PROPOSED FENCE
- LIMIT OF DISTURBANCE
- SS2 REINFORCED SILT FENCE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- SURVEY MAJOR CONTOUR
- SURVEY MINOR CONTOUR
- RIGHT OF WAY LINE
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING CULVERT
- PROPOSED CULVERT
- OVERHEAD ELECTRIC
- AASHTO 57 GRAVEL PAD
- OH 304 AGGREGATE BASE COURSE ACCESS ROAD
- ASPHALT
- RIP RAP
- COMPOSITE FILTER SOCK \ CHECK DAM
- SEED AND MULCH RESTORATION
- TEMPORARY MATTING RESTORATION
- EXISTING TREELINE
- CONSTRUCTION FENCING
- SILT FENCE OUTLET
- J HOOK DETAIL
- PROPOSED PERMANENT CHAINLINK FENCE
- CULTURAL AVOIDANCE LINE
- SIGN - "WARNING - CULTURAL RESOURCE SITE BEYOND THIS POINT DO NOT ENTER"

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REF. DWG(S) PNG-G-042-0001064

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
A	12/15/2020	ISSUE FOR 60% REVIEW	NS	JCG	NRW
B	03/26/2021	ISSUE FOR 90% REVIEW	NS	JCG	NRW

DESCRIPTION		APPROVALS		
AREA CODE	513	DATE -	INITIALS N/A	REGIONAL ENGINEER
ACCOUNT NUMBER	-			
PROJECT NUMBER	AW2217	DATE -	INITIALS N/A	MGR TECH REC & STD
DRAWING BY	NS			
STATION ID	S090901	DATE -	INITIALS N/A	PRINCIPAL ENGINEER
CHECKER INITIALS	JCG			

PROFESSIONAL ENG/ARCH STAMP

DUKE ENERGY. Piedmont Natural Gas

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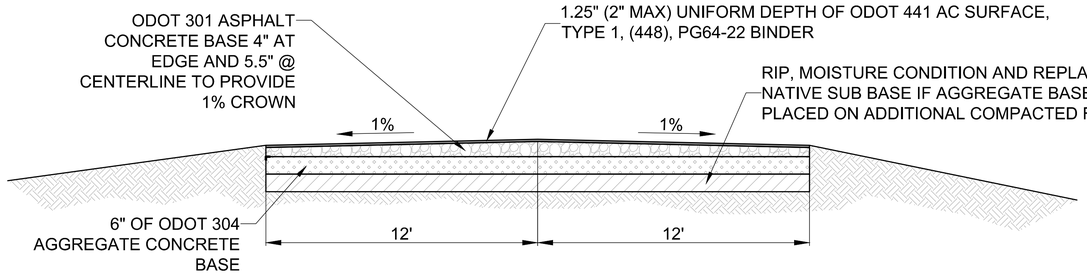
STATION 909 REX GATE STA. (TALLGRASS)
CIVIL SITE AND RESTORATION PLAN
BUTLER COUNTY, OHIO

TODHUNTER RESOURCE CENTER, CINCINNATI, OHIO

SHEET(S) X OF X	DWG SCALE AS SHOWN
DWG DATE 12/15/2020	SUPERSEDED —

DRAWING NUMBER: DUKE -C-042-0001118 | REVISION: B

CIVIL / TODHUNTER / LINE CG07

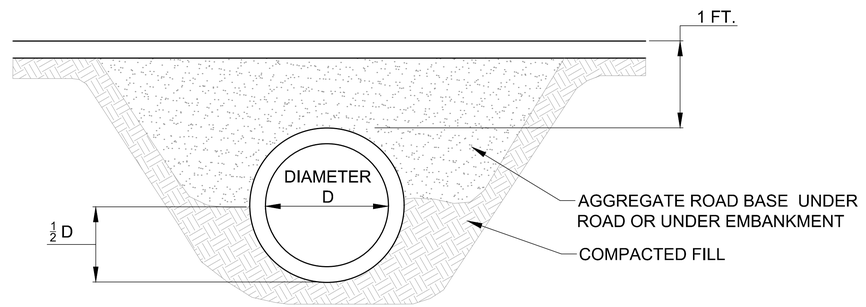


NOTES:

1. PROPOSED BASE AND ASPHALT MIXES SHALL BE PROVIDED TO THE ENGINEER PRIOR TO INSTALLATION.
2. SUB BASE AND ALL BASE COURSES SHALL BE COMPACTED TO 95% OF A STANDARD PROCTOR. NUCLEAR PROBE TESTS EVERY 200 FT SHALL BE APPROVED BY ENGINEER PRIOR INSTALLATION OF NEXT LAYER.
3. FINAL SURFACE ACCEPTANCE SHALL BE OHIO DOT 403 ACCEPTANCE PROVIDED TO THE ENGINEER (ASPHALT BINDER CONTENT & GRADATION) AND A PROOF ROLL PER COMPANY DIRECTION.
4. PLACE OHIO DOT TACK COAT ITEM 407 BETWEEN ASPHALT BASE AND ASPHALT SURFACE COURSE.

ASPHALT ACCESS DRIVE

NOT TO SCALE



SECTION VIEW

NOTES:

NON-REINFORCED CONCRETE PIPE, CLASS 3 (ODOT 706.01), OR APPROVED EQUAL.

MINIMUM DIAMETER FOR ANY CULVERT IS 12"; OTHERWISE CULVERT SHALL BE SIZED FOR ANTICIPATED PEAK FLOW. PLACE CULVERT SO BOTTOM IS AT SAME LEVEL AS BOTTOM OF DITCH OR ADJOINING SLOPE. CULVERTS SHALL BE PLACED WITH A SLOPE OF 2 TO 4%. LOWER END SHALL BE AT LEAST 2" BELOW UPPER END.

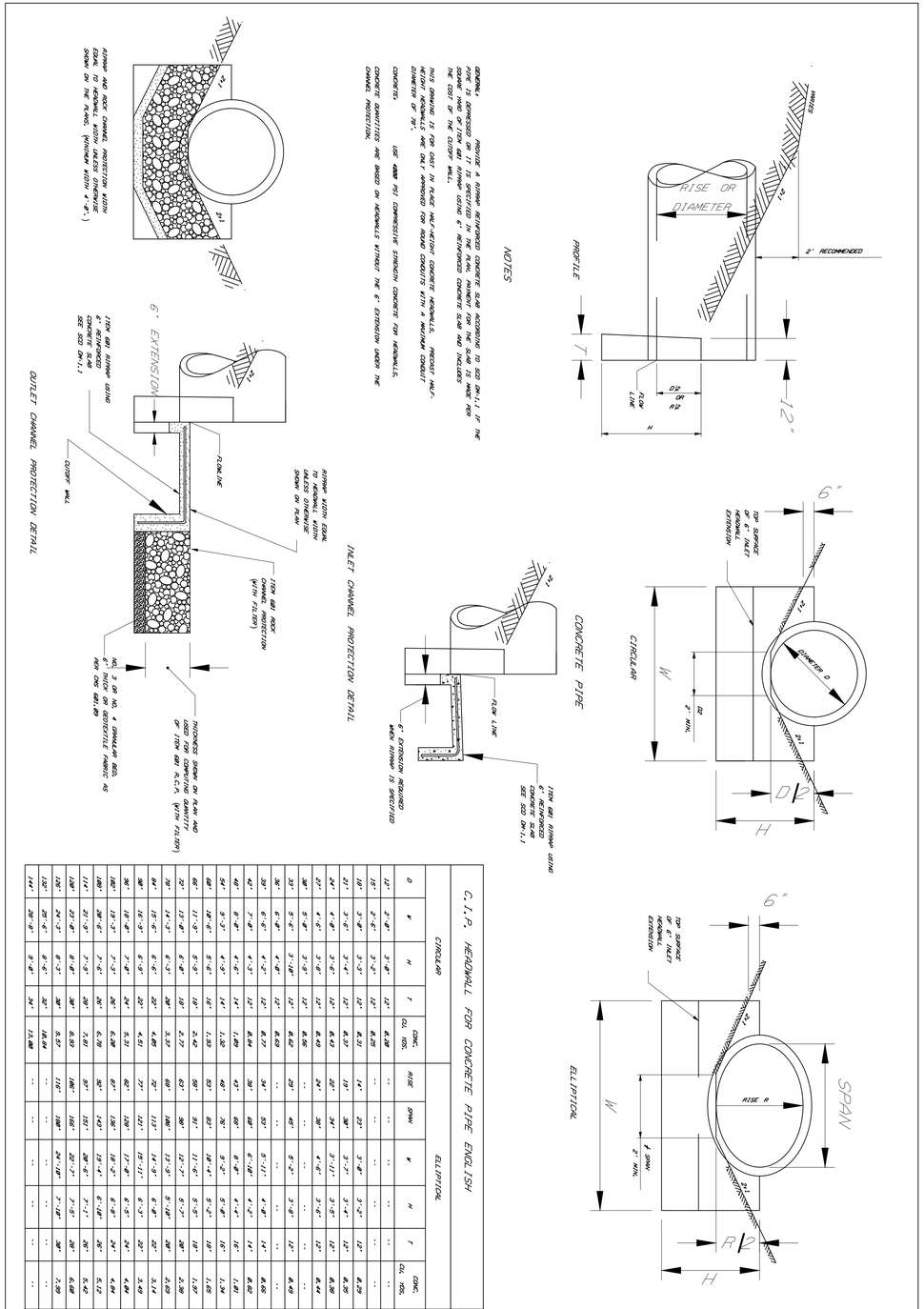
EXTEND CULVERT 12" BEYOND BASE OF ROAD FILL ON BOTH SIDES. FIRMLY PACK FILL AROUND CULVERT, ESPECIALLY THE BOTTOM HALF.

PROVIDE A MIN OF 18" THICK TYPE C RIP RAP OUTLET PROTECTION FOR 5' PER ODOT DWG HW-2.2 ON THIS SHEET.

INSPECT CULVERT WEEKLY: REMOVE ANY FLOW OBSTRUCTIONS AND MAKE NECESSARY REPAIRS IMMEDIATELY.

DITCH RELIEF CULVERT

NOT TO SCALE



| | | |

EROSION AND SEDIMENT CONTROL NARRATIVE

THE EROSION AND SEDIMENT CONTROL MEASURES FOR THIS REGULATOR STATION INVOLVE THE PLACEMENT OF A VARIETY OF EROSION AND SEDIMENT CONTROL DEVICES, AT STRATEGIC LOCATIONS THROUGHOUT THE PROJECT AREA THESE DEVICES INCLUDE:

1. UPLAND SEEDING SPECIFICATIONS (TEMPORARY AND PERMANENT)
2. SILT FENCE
3. CONSTRUCTION ENTRANCE
4. PERMANENT DETENTION POND
5. DEWATERING STRUCTURE
6. SILT FENCE OUTLET
7. TEMPORARY MATTING OF SLOPES

ADDITIONAL EROSION CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION.

THE TOTAL PROJECT DENUDED AREA IS 3.48 AC.

ALL ENVIRONMENTAL MEASURES SHALL BE PER PERTINENT DUKE DESIGN AND CONSTRUCTION STANDARDS.

CONSTRUCTION SEQUENCE

1. OBTAIN E&SC PLAN APPROVAL AND OTHER PERTINENT PERMITS. NOTIFY AFFECTED AND/OR ADJACENT LANDOWNERS PRIOR TO BEGINNING WORK.
2. SCHEDULE MANDATORY PRE-CONSTRUCTION MEETING.
3. INSTALL CONSTRUCTION ENTRANCE PER PLANS.
4. INSTALL PERIMETER EROSION CONTROL MEASURES (SILT FENCE, SILT FENCE OUTLETS, ETC.) PRIOR TO CLEARING AND GRUBBING, WHERE PRACTICAL, AND CONCURRENTLY WHEN CLEARING IS REQUIRED TO INSTALL PERIMETER MEASURES. CLEARING SHALL NOT OUTPACE THE INSTALLATION OF PERIMETER CONTROLS.
5. INITIATE CLEARING AND GRUBBING WITHIN LIMITS OF DISTURBANCE. MINIMIZE CLEARING AND GRUBBING WHERE PRACTICAL. INITIATE TEMPORARY SEEDING AS PER GENERAL SEEDING SPECIFICATIONS WITHIN LIMITS OF DISTURBANCE ONCE WORK AREAS HAVE REACHED FINAL ELEVATIONS.
6. INSTALL REMAINING E&SC MEASURES AS NEEDED ONCE CLEARING AND GRUBBING IS COMPLETED.
7. CONTRACTOR TO PHASE, SEQUENCE, AND CONDUCT LAND DISTURBING AND CONSTRUCTION ACTIVITIES IN A MANNER THAT MINIMIZES THE AMOUNT OF BARE SOIL EXPOSED AT A GIVEN TIME DURING THE PROJECT. LIMIT BARE CONDITIONS WHERE POSSIBLE DURING THE PROJECT.
8. PERFORM GRADING TO ESTABLISH STATION PAD.
9. INSTALL STATION FACILITIES PER CONSTRUCTION DRAWINGS. FINALIZE STATION CONSTRUCTION ACTIVITIES.
10. IN AREAS WHERE SEGREGATION OF THE SUBSOIL AND TOPSOIL IS NECESSARY, THE TOPSOIL WILL BE REPLACED LAST. AFFECTED AREAS WILL THEN BE "CLEANED-UP" BY ROUGH-GRADING AND TEMPORARY SEEDING (IF NECESSARY), FOLLOWED BY FINAL GRADING, PERMANENT SEEDING AND MULCHING.
11. UPON ESTABLISHMENT OF FINAL VEGETATIVE GROUND COVER, CONTACT DUKE FOR FINAL INSPECTION.
12. UPON APPROVAL FROM INSPECTORS, REMOVE SILT FENCING AND OTHER EROSION CONTROL MEASURES. AREAS DISTURBED DURING THIS PROCESS SHALL BE RESEEDED WITH PERMANENT SEED, AS APPROPRIATE.
13. AT THE END OF CONSTRUCTION, ALL STORMWATER PIPES, BASINS, CHANNELS, ETC. SHALL BE CLEANED OUT OF ALL SEDIMENT. ACCUMULATION AND RESTORED TO THE ORIGINAL DESIGN AS SHOWN PER THESE PLANS.

MAINTENANCE

1. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING CONSTRUCTION UNTIL THE COMPLETION OF CONSTRUCTION ACTIVITIES AND DISTURBED AREAS HAVE BEEN STABILIZED. TEMPORARY EROSION CONTROL DEVICES STABILIZED. TEMPORARY MATTING, WHERE USED, SHALL BE LEFT IN PLACE.
2. SEDIMENT AND EROSION CONTROL DEVICES AND PLANTED AREAS SHALL BE INSPECTED BY THE OWNER, OR ENVIRONMENTAL INSPECTOR, EVERY SEVEN (7) CALENDAR DAYS AND AFTER EACH RAINFALL OCCURRENCE THAT EXCEEDS ONE-HALF (0.5) INCH IN A 24-HOUR PERIOD. DAMAGED OR INEFFECTIVE DEVICES SHALL BE REPAIRED OR REPLACED, AS NECESSARY, AS SOON AS POSSIBLE.
3. SEEDED AREAS SHALL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO THE SEEDING PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER. SEEDED AREAS SHALL BE INSPECTED PERIODICALLY BY THE OWNER, OR ENVIRONMENTAL INSPECTOR, UNTIL FINAL GROUND COVER HAS BEEN ESTABLISHED. THE CONTRACTOR IS RESPONSIBLE FOR RESTORING VEGETATION UNTIL ALL SEEDED AREAS ARE AT LEAST 70% COVER.
4. ALL MUD /DIRT TRACKED ONTO THE ROADS FROM THE SITE, DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED AT THE END OF EACH DAY.
5. ANY DE-WATERING OF SEDIMENT CONTAINMENT DEVICES FOR MAINTENANCE OR REMOVAL SHALL BE DONE THROUGH A SILT BAG.
6. A RAIN GAUGE SHALL BE INSTALLED AND MAINTAINED ON SITE. INSPECTIONS SHALL BE COMPLETED BY QUALIFIED INSPECTION PERSONNEL PER THE OPEA GENERAL PERMIT AUTHORIZATION FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.

EROSION CONTROL NOTES

1. LAND DISTURBANCE BEYOND THE LIMITS SHOWN ON THE PLAN IS NOT PERMITTED.
2. DISTURBED AREAS MUST BE STABILIZED WITHIN 14 (OR 7) CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING AND/OR AT THE COMPLETION OF CONSTRUCTION OR DEVELOPMENT. SEE "STABILIZATION TIME FRAMES" CHART FOR REQUIREMENTS ON GROUND COVER.
3. CONTRACTOR SHALL TAKE ALL PRACTICAL MEASURES TO MINIMIZE THE DISTURBED AREA AND TO ENSURE THAT THE DISTURBED AREAS ARE STABILIZED WITH VEGETATION AS SOON AS POSSIBLE.
4. ACTUAL LOCATIONS OF EROSION AND SEDIMENTATION CONTROL DEVICES SHOULD BE FIELD ADJUSTED BASED ON CONDITIONS IN THE FIELD.
5. EROSION AND SEDIMENT CONTROL MEASURES MAY BE TEMPORARILY REMOVED TO FACILITATE CONSTRUCTION, HOWEVER ALL MEASURES TEMPORARILY REMOVED MUST BE REPLACED FOLLOWING THE COMPLETION OF WORK OR BY THE END OF THE WORKING DAY, WHICHEVER COMES FIRST.
6. DETERMINE METHODS AND LOCATIONS WITHIN THE LIMITS OF DISTURBANCE, FOR THE REGULAR COLLECTION, AND CONTAINMENT OF EXCESS CONSTRUCTION MATERIALS AND DEBRIS (E.G., TIMBER, SLASH, MATS, GARBAGE,AND EXCESS ROCK) THROUGHOUT THE CONSTRUCTION PROCESS. CONTAINMENT AREAS MUST BE LOCATED AT A MINIMUM OF 50 FEET FROM WETLANDS, STREAMS, AND OTHER POTENTIAL POINTS OF DISCHARGE UNLESS IT CAN BE SHOWN THAT NO OTHER ALTERNATIVES ARE REASONABLY AVAILABLE.
7. NO CONSTRUCTION MATERIALS OR DEBRIS MAY BE BURNED WITHOUT APPROVAL FROM APPLICABLE LOCAL, STATE AND FEDERAL AUTHORITIES.
8. ADDITIONAL MEASURES MAY BE REQUIRED - THE APPLICANT IS RESPONSIBLE FOR THE CONTROL OF SEDIMENT ON SITE. IF THE APPROVED EROSION AND SEDIMENTATION CONTROL MEASURES PROVE INSUFFICIENT, THE APPLICANT MUST TAKE THOSE ADDITIONAL STEPS NECESSARY TO STOP SEDIMENT FROM LEAVING THIS SITE.
9. IF APPLICABLE, ANY OFF-SITE BORROW AND WASTE REQUIRED FOR THIS PROJECT MUST COME FROM A SITE WITH AN APPROVED EROSION CONTROL PLAN, A SITE REGULATED UNDER THE MINING ACT OF 1971, OR A LANDFILL REGULATED BY THE DIVISION OF SOLID WASTE MANAGEMENT. TRASH/DEBRIS FROM DEMOLITION ACTIVITIES OR GENERATED BY ANY ACTIVITIES ON SITE MUST BE DISPOSED OF AT A FACILITY REGULATED BY THE DIVISION OF SOLID WASTE MANAGEMENT OR PER DIVISION OF SOLID WASTE MANAGEMENT OR DIVISION OF WATER RESOURCES RULES AND REGULATIONS.
10. CATCH ALL INLET FILTERS ARE REQUIRED AT ALL SEWER INLETS, GRATES AND MANHOLES FOR SEDIMENT CONTROL.
11. CARE SHALL BE TAKEN TO MINIMIZE DOWNSTREAM SILTATION. RAW BANKS MAY BE SEEDED AND MULCHED TO PREVENT EROSION.
12. ALL SPOILS INCLUDING ORGANIC SOILS, VEGETATION AND DEBRIS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF IN SUCH A MANNER AS TO NOT ERODE INTO ANY BODY OF WATER OR WETLAND.
13. TOPSOIL STOCKPILES SHALL BE LOCATED TO AVOID EROSION OF SAID STOCKPILE ONTO OFFSITE AREAS.
14. UNSUITABLE OR EXCESS EARTH SOIL SHALL BE DISPOSED OF AT AN APPROVED WASTE LOCATION. SOIL BEING TRANSPORTED ONTO THE JOB SITE SHALL BE APPROVED BY EITHER THE PROJECT MANAGER OR CONSTRUCTION MANAGER.

1) Ground Stabilization*

Site Area Description	Stabilization Time Frame	Stabilization Time Frame Exceptions
• Perimeter dikes, swales, ditches and slopes	7 days	None
• High Quality Water (HQW) Zones	7 days	None
• Slopes steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed.
• Slopes 3:1 or flatter	14 days	7-days for slopes greater than 50 feet in length
• All other areas with slopes flatter than 4:1	14 days	None (except for perimeters and HQW Zones)

* "Extensions of time may be approved by the permitting authority based on weather or other site-specific conditions that make compliance impracticable." (Section II.B(2)(b))

The major change in the Permit from the previous one is the shorter times to apply ground stabilization such as mulch, wheat straw, or grasses. The NC laws and rules relating to the Sediment Act require, in most places, ground stabilization within 21 days. Based on the new EPA requirements and 9-months' work with a permit advisory group, CTAG, the Division and EPA-developed permit, now contains requirements for ground cover within 14, and in some places, 7 days.

2) Building Wastes Handling

- No paint or liquid wastes in stream or storm drains
- Dedicated areas for demolition, construction and other wastes must be located 50' from storm drains and streams unless no reasonable alternatives available.
- Earthen-material stockpiles must be located 50' from storm drains and streams unless no reasonable alternatives available.
- Concrete materials must be controlled to avoid contact with surface waters, wetlands, or buffers.

3) Discharges to Federally-listed Waters

- Requirements are the same as in previous permit.
- The permit allows reduction from the 20 acre minimum if the Director of DWQ determines that other BMPs provide equivalent protection.

4) Inspections

- Same weekly inspection requirements
- Same rain gauge & inspections after 0.5" rain event
- Inspections are only required during "normal business hours"
- Inspection reports must be available on-site during business hours unless a site-specific exemption is approved.
- Records must be kept for 3 years and available upon request.
- Electronically-available records may be substituted under certain conditions.

5) Implementation of New Permit Conditions

- Projects permitted under the previous permit can continue to follow the previously-permitted conditions.
- Complete applications received prior to August 3, 2011 can follow conditions of approved application.
- Applications received after August 2, 2011 must comply with new permit conditions.

6) Conditions in Erosion & Sedimentation Control Plans*

- Designation on the plans where the 7 and 14-day ground stabilization requirements of the NPDES permit apply
- Designation on the plans where basins that comply with the surface-withdrawal requirements of the NPDES permit are located.

7) Building Wastes Handling

- No paint or liquid wastes in stream or storm drains
- Dedicated areas for demolition, construction and other wastes located 50' from storm drains and streams unless no reasonable alternatives are available.
- Earthen-material stockpiles located 50' from storm drains unless no reasonable alternatives available.
- Concrete materials must be controlled to avoid contact with surface waters, wetlands, or buffers.

8) Sediment Basins

- Outlet structures must withdraw from basin surface unless drainage area is less than 1 acre.
- Use only DWQ-approved flocculants.

* In order for the E&SC Plan to satisfy the conditions of the Construction General permit, it must identify areas where the ground stabilization requirements apply and the location of the basins where the surface-withdrawal requirements apply.

PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING

PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED * DO NOT SCALE THIS DRAWING * USE DIMENSIONS ONLY
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REF. DWG(S) PNG-G-042-0001064

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
A	12/15/2020	ISSUE FOR 60% REVIEW	NS	JCG	NRW
B	03/26/2021	ISSUE FOR 90% REVIEW	NS	JCG	NRW

DESCRIPTION	
AREA CODE	513
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2217
DRAWING BY	NS
STATION ID	S0909O1
CHECKER INITIALS	JCG

APPROVALS	DATE	INITIALS	
REGIONAL ENGINEER	-	N/A	
MGR TECH REC & STD	-	N/A	
PRINCIPAL ENGINEER	-	N/A	

PROFESSIONAL ENG/ARCH STAMP

DUKE ENERGY®

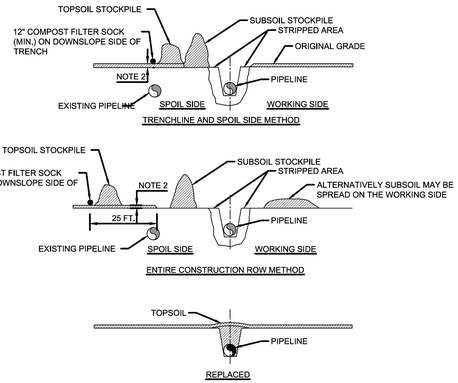
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STATION 909 REX GATE STA. (TALLGRASS) EROSION & SEDIMENTATION CONTROL DETAILS BUTLER COUNTY, OHIO

TODHUNTER RESOURCE CENTER, CINCINNATI, OHIO

SHEET(S) 28 OF 62 | DWG SCALE NTS
DWG DATE 12/15/2020 | SUPERSEDED —
DRAWING NUMBER DUKE -C-042-0001120 | REVISION B
CIVIL / TODHUNTER / LINE CG07

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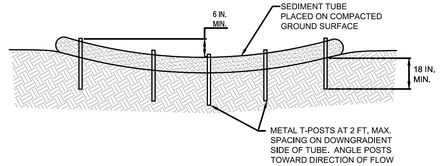


NOTES:

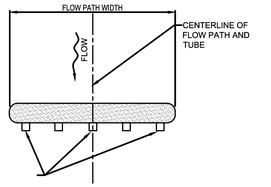
1. OTHER CONFIGURATIONS OF TOPSOIL AND SUBSOIL ARE ACCEPTABLE PROVIDED THEY ARE KEPT SEPERATE AND APPROPRIATE EROSION AND SEDIMENT CONTROL DEVICES ARE EMPLOYED.
2. UP TO 12 INCHES OF TOPSOIL REMOVED
3. TOPSOIL AND SUBSOIL PILES WILL BE ADEQUATELY PROTECTED FROM EROSION AND SEDIMENTATION BY THE USE OF COMPOST FILTER SOCKS. FOR THIS PROJECT (NON-EV WATERSHED), IT IS ACCEPTABLE TO SUBSTITUTE SILT FENCE AS INDICATED IN THE E&S DETAIL SHEETS.

DETAIL ES-3
UTILITY LINE TRENCH STAGING DETAIL

NOT TO SCALE



FRONT VIEW



PLAN VIEW

NOTES:

THIS DETAIL APPLICABLE TO FLOW PATHS WITH WIDTHS LESS THAN OR EQUAL TO ONE TUBE LENGTH.

METAL T-POSTS SHALL BE INSTALLED AT THE CENTER AND AT EACH END OF THE TUBE, ADDITIONAL T-POSTS SHALL BE INSTALLED AS NEEDED TO MEET THE MAXIMUM 2-FOOT SPACING.

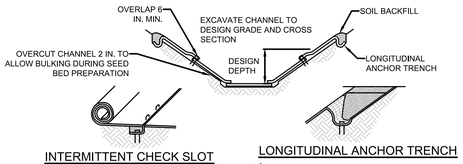
SEDIMENT TUBES SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE TUBE AND DISPOSED AS DIRECTED ELSEWHERE IN THE E&S PLAN.

DAMAGED TUBES SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION, A SUPPLY OF TUBES SHALL BE KEPT ON SITE FOR THIS PURPOSE.

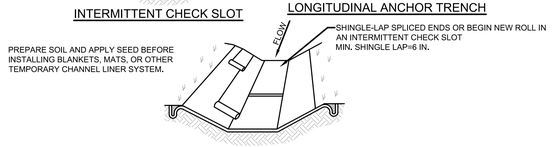
SEDIMENT TUBE CHECK DAM

NOT TO SCALE

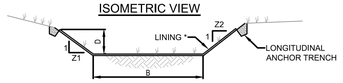


INTERMITTENT CHECK SLOT

LONGITUDINAL ANCHOR TRENCH



ISOMETRIC VIEW



(LOOKING DOWNSTREAM)

CHANNEL CROSS-SECTION

* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

NOTES:

ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.

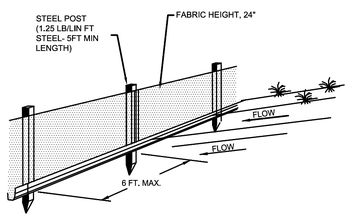
CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION.
SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.

NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

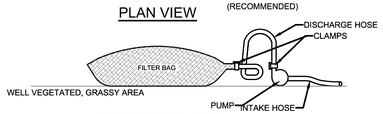
USE NAG SC150BN (OR APPROVED EQUAL) UNLESS OTHERWISE NOTED.

TEMPORARY MATTING (CHANNEL)

NOT TO SCALE



PLAN VIEW



ELEVATION VIEW

NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT, SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

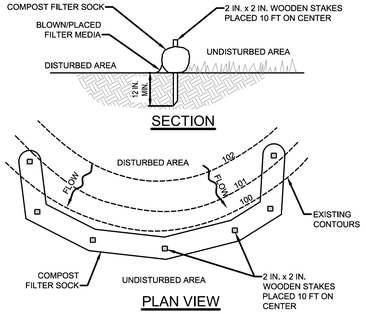
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

PUMPED WATER FILTER BAG

NOT TO SCALE



SECTION

PLAN VIEW

NOTES:

SOCK MATERIAL SHALL MEET THE STANDARDS OF SECTION 6.66 COMPOST SOCK OF THE NC EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
COMPOST MATERIAL SHALL MEET THE STANDARD OF TABLE 6,18A OF THE NC EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL. WITH THE EXCEPTION OF PARTICLE SIZE. SLIGHTLY MORE COARSE COMPOST IS RECOMMENDED FOR THE SOCKS, AS FOLLOWS:

PARTICLE SIZE DISTRIBUTION

SIEVE SIZE	PERCENT PASSING SELECTED SIEVE MESH SIZE, DRY WEIGHT BASIS
2"	99 % (3" MAXIMUM PARTICLE SIZE)
3/8"	30-50 %

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY OR AFTER EACH 1/2 IN. STORM EVENT, DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

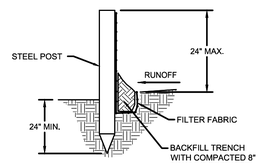
UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

COMPOST FILTER SOCK

NOT TO SCALE

NOTES:

1. SILT FENCE FABRIC SHALL MEET THE STANDARDS OF TABLE 6.62B OF THE NC EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL:
   A. TENSILE STRENGTH - 90 LBS;
   B. PERMITTIVITY - 0.05 SEC-1;
   C. APPARENT OPENING SIZE - 30 US STD. SIEVE; AND,
   D. ULTRAVIOLET STABILITY - 70%
2. THE BASE OF BOTH END POSTS SHOULD BE AT LEAST ONE FOOT HIGHER THAN THE MIDDLE OF THE FENCE. CHECK WITH A LEVEL IF NECESSARY.
3. INSTALL POSTS 4 FEET APART IN CRITICAL AREAS AND 6 FEET APART ON STANDARD APPLICATIONS.
4. INSTALL POSTS 2 FEET DEEP ON THE DOWNSTREAM SIDE OF THE SILT FENCE, AND AS CLOSE AS POSSIBLE TO THE FABRIC, ENABLING POSTS TO SUPPORT THE FABRIC FROM UPSTREAM WATER PRESSURE.
5. INSTALL POSTS WITH THE NIPPLES FACING AWAY FROM THE SILT FABRIC.
6. ATTACH THE FABRIC TO EACH POST WITH THREE TIES, ALL SPACED WITHIN THE TOP 8 INCHES OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1 INCH VERTICALLY APART. ALSO, EACH TIE SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENED TO PREVENT SAGGING.
7. WRAP APPROXIMATELY 6 INCHES OF FABRIC AROUND THE END POSTS AND SECURE WITH 3 TIES.
8. NO MORE THAN 24 INCHES OF A 36 INCH FABRIC IS ALLOWED ABOVE GROUND LEVEL.
9. THE INSTALLATION SHOULD BE CHECKED AND CORRECTED FOR ANY DEVIATIONS BEFORE COMPACTION.
10. COMPACTION IS VITALLY IMPORTANT FOR EFFECTIVE RESULTS. COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE FABRIC WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 60 POUNDS PER SQUARE INCH. COMPACT THE UPSTREAM SIDE FIRST, AND THEN EACH SIDE TWICE FOR A TOTAL OF 4 TRIPS.



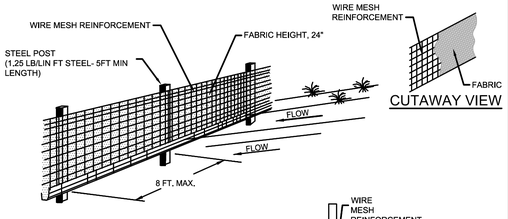
SECTION VIEW

MAINTENANCE:

1. INSPECT AND REPAIR FENCE WEEKLY OR AFTER EACH 1/2 IN. STORM EVENT AND REMOVE SEDIMENT WHEN DEPOSITS REACH 1/3 OF FENCE HEIGHT.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. ANY SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR OVERTOPPED SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET (DETAIL 4 THIS SHEET)

SILT FENCE (SS1)

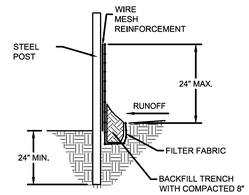
NOT TO SCALE



CUTAWAY VIEW

NOTES:

1. SILT FENCE FABRIC SHALL MEET THE STANDARDS OF TABLE 6.62B OF THE NC EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL:
   A. TENSILE STRENGTH - 90 LBS;
   B. PERMITTIVITY - 0.05 SEC-1;
   C. APPARENT OPENING SIZE - 30 US STD. SIEVE; AND,
   D. ULTRAVIOLET STABILITY - 70%
2. THE BASE OF BOTH END POSTS SHOULD BE AT LEAST ONE FOOT HIGHER THAN THE MIDDLE OF THE FENCE. CHECK WITH A LEVEL IF NECESSARY.
3. INSTALL POSTS 4 FEET APART IN CRITICAL AREAS AND 6 FEET APART ON STANDARD APPLICATIONS.
4. INSTALL POSTS 2 FEET DEEP ON THE DOWNSTREAM SIDE OF THE SILT FENCE, AND AS CLOSE AS POSSIBLE TO THE FABRIC, ENABLING POSTS TO SUPPORT THE FABRIC FROM UPSTREAM WATER PRESSURE.
5. INSTALL POSTS WITH THE NIPPLES FACING AWAY FROM THE SILT FABRIC.
6. ATTACH THE FABRIC TO EACH POST WITH THREE TIES, ALL SPACED WITHIN THE TOP 8 INCHES OF THE FABRIC. ATTACH EACH TIE DIAGONALLY 45 DEGREES THROUGH THE FABRIC, WITH EACH PUNCTURE AT LEAST 1 INCH VERTICALLY APART. ALSO, EACH TIE SHOULD BE POSITIONED TO HANG ON A POST NIPPLE WHEN TIGHTENED TO PREVENT SAGGING.
7. WRAP APPROXIMATELY 6 INCHES OF FABRIC AROUND THE END POSTS AND SECURE WITH 3 TIES.
8. NO MORE THAN 24 INCHES OF A 36 INCH FABRIC IS ALLOWED ABOVE GROUND LEVEL.
9. THE INSTALLATION SHOULD BE CHECKED AND CORRECTED FOR ANY DEVIATIONS BEFORE COMPACTION.
10. COMPACTION IS VITALLY IMPORTANT FOR EFFECTIVE RESULTS. COMPACT THE SOIL IMMEDIATELY NEXT TO THE SILT FENCE FABRIC WITH THE FRONT WHEEL OF THE TRACTOR, SKID STEER, OR ROLLER EXERTING AT LEAST 60 POUNDS PER SQUARE INCH. COMPACT THE UPSTREAM SIDE FIRST, AND THEN EACH SIDE TWICE FOR A TOTAL OF 4 TRIPS.



SECTION VIEW

MAINTENANCE:

1. INSPECT AND REPAIR FENCE WEEKLY OR AFTER EACH 1/2 IN. STORM EVENT AND REMOVE SEDIMENT WHEN DEPOSITS REACH 1/3 OF FENCE HEIGHT.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. ANY SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR OVERTOPPED SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET (DETAIL 4 THIS SHEET)

REINFORCED SILT FENCE (SS2)

NOT TO SCALE



SIGN NOTES:

- X" ALUMINUM PANEL
- 3M SCOTCH LIFE "ENGINEER GRADE" SHEETING OR APPROVED EQUAL.
- RED COPY ON WHITE BACKGROUND
- MOUNT SIGN PANEL 5' ABOVE GRADE (MIN.)
- USE 2 LB/FT U-CHANNEL POST (MIN.)
- MOUNT SIGNS AT TERMINAL ENDS OF ORANGE CONSTRUCTION FENCING AND SPACE APPROXIMATELY AT 50-FOOT INTERVALS OR EVENLY ALONG FENCE LINE

WARNING SIGN

NOT TO SCALE

PROFESSIONAL ENG/ARCH STAMP

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REF. DWG(S) PNG-G-042-0001064

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
A	12/15/2020	ISSUE FOR 60% REVIEW	NS	JCG	NRW
B	03/26/2021	ISSUE FOR 90% REVIEW	NS	JCG	NRW

DESCRIPTION	
AREA CODE	513
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2217
DRAWING BY	NS
STATION ID	S090901
CHECKER INITIALS	JCG

APPROVALS	DATE	INITIALS	
	-	N/A	REGIONAL ENGINEER
	-	N/A	MGR TECH REC & STD
	-	N/A	PRINCIPAL ENGINEER

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STATION 909 REX GATE STA. (TALLGRASS) EROSION & SEDIMENTATION CONTROL DETAILS BUTLER COUNTY, OHIO

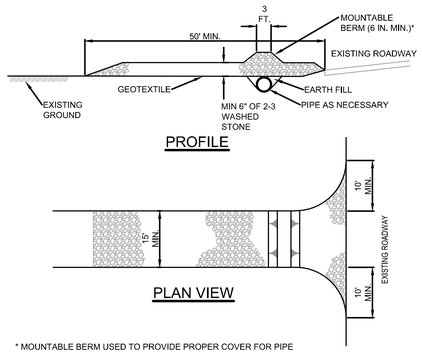
TODHUNTER RESOURCE CENTER, CINCINNATI, OHIO

SHEET(S) 29 OF 62	DWG SCALE NTS
DWG DATE 12/15/2020	SUPERSEDED —
DRAWING NUMBER	REVISION
DUKE -C-042-0001121	B

CIVIL / TODHUNTER / LINE CG07

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* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

1. CLEAR THE ENTRANCE AND EXIT AREA OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AND PROPERLY GRADE IT.
2. PLACE THE GRAVEL TO THE SPECIFIC GRADE AND DIMENSIONS SHOWN ON THE PLANS, AND SMOOTH IT.
3. PROVIDE DRAINAGE TO CARRY WATER TO A SEDIMENT TRAP OR OTHER SUITABLE OUTLET.
4. USE GEOTEXTILE FABRICS BECAUSE THEY IMPROVE STABILITY OF THE FOUNDATION IN LOCATIONS SUBJECT TO SEEPAGE OR HIGH WATER TABLE.
5. MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

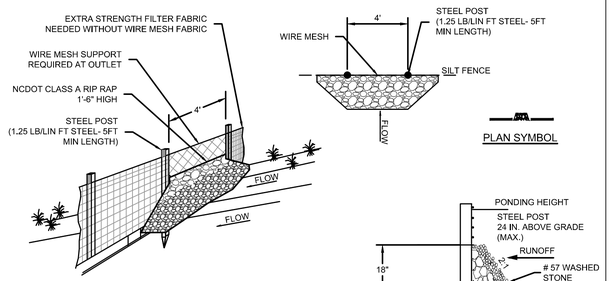
MAINTENANCE: MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE, THIS MAY REQUIRE PERIODIC TOPDRESSING WITH 2-INCH STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.

ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE

BOLLARD DETAIL

NOT TO SCALE



NOTES:

1. A MINIMUM 6" LAYER OF #57 WASHED STONE SHALL BE PLACED ON THE UPSTREAM FACE OF THE STONE OUTLET.

MAINTENANCE

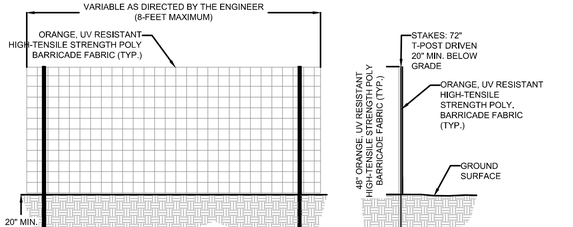
1. REPLACE CLOGGED WASHED STONE AS NEEDED TO ENSURE DEWATERING.
2. INSPECT AND REPAIR FENCE WEEKLY OR AFTER EACH 1/2 IN. STORM EVENT AND REMOVE SEDIMENT WHEN DEPOSITS REACH 1/3 OF OUTLET HEIGHT.

ROCK SECTION DETAIL

TRENCH WITH GRAVEL

SILT FENCE OUTLET

NOT TO SCALE



SAFETY FENCE NOTES:

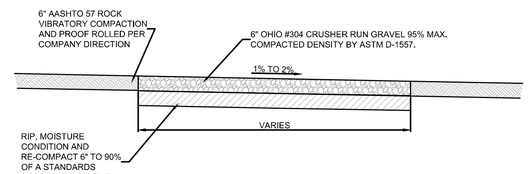
1. SAFETY FENCE SHALL BE INSTALLED AS SHOWN ON PLANS.
2. SAFETY FENCE SHOULD BE FASTENED SECURELY TO THE T-POSTS.

SAFETY FENCE MAINTENANCE:

1. INSPECT SAFETY FENCES AT LEAST ONCE A WEEK. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. SHOULD ANY OF THE ORANGE, UV RESISTANCE HIGH-TENSILE STRENGTH POLY-BARRICADE FABRIC (TYP.) OF THE FENCE COLLAPSE, TEAR, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE ALL FENCING MATERIALS UPON COMPLETION OF PROJECT.

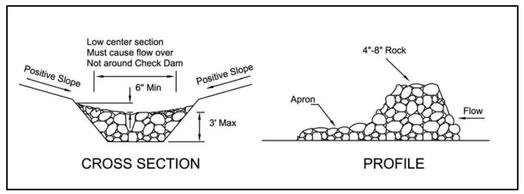
TYPICAL CONSTRUCTION SAFETY FENCE DETAIL

NOT TO SCALE



STATION ROADS & GRAVEL

NOT TO SCALE

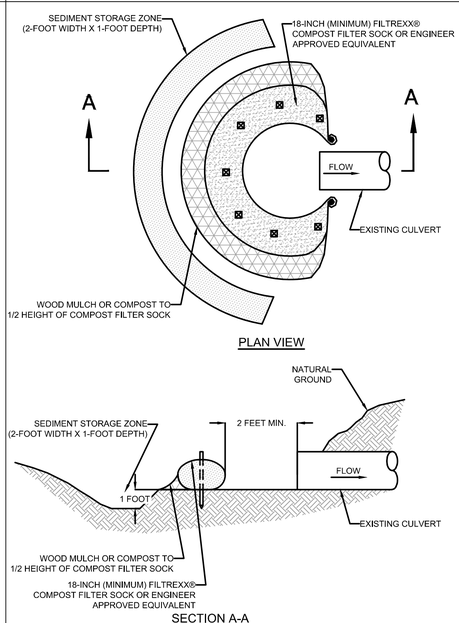


NOTES:

1. THE CHECK DAM SHALL BE CONSTRUCTED OF 4-8 INCH DIAMETER STONE, PLACED SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL. ODOT TYPE D STONE IS ACCEPTABLE, BUT SHOULD BE UNDERLAIN WITH A GRAVEL FILTER CONSISTING OF ODOT NO. 3 OR 4 OR SUITABLE FILTER FABRIC..
2. MAXIMUM HEIGHT OF CHECK DAM SHALL NOT EXCEED 3.0 FEET.
3. THE MIDPOINT OF THE ROCK CHECK DAM SHALL BE A MINIMUM OF 6 INCHES LOWER THAN THE SIDES IN ORDER TO DIRECT ACROSS THE CENTER AND AWAY FROM THE CHANNEL SIDES.
4. THE BASE OF THE CHECK DAM SHALL BE ENTRENCHED APPROXIMATELY 6 INCHES.
5. SPACING OF CHECK DAMS SHALL BE IN A MANNER SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM.
6. A SPLASH APRON SHALL BE CONSTRUCTED WHERE CHECK DAMS ARE EXPECTED TO BE IN USE FOR AN EXTENDED PERIOD OF TIME. A STONE APRON SHALL BE CONSTRUCTED IMMEDIATELY DOWNSTREAM OF THE CHECK DAM TO PREVENT FLOWS FROM UNDERCUTTING THE STRUCTURE. THE APRON SHOULD BE 6 IN. THICK AND ITS LENGTH TWO TIMES THE HEIGHT OF THE DAM.
7. STONE PLACEMENT SHALL BE PERFORMED EITHER BY HAND OR MECHANICALLY AS LONG AS THE CENTER OF CHECK DAM IS LOWER THAN THE SIDES AND EXTENDS ACROSS ENTIRE CHANNEL.
8. SIDE SLOPES SHALL BE A MINIMUM OF 2:1.

ROCK CHECK DAM

NOT TO SCALE



PIPE INLET PROTECTION NOTES:

1. INSTALL PIPE INLET PROTECTION AT CULVERTS RECEIVING FLOW ACROSS DISTURBED AREAS. LOCATIONS OF PIPE INLET PROTECTION SHALL BE BASED ON PLANS AND CONDITIONS IN THE FIELD.
2. DIMENSIONS ARE MINIMUM ACCEPTABLE UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
3. INSTALL 18-INCH (MINIMUM) FILTREXX® COMPOST FILTER SOCK OR ENGINEER APPROVED EQUIVALENT. IT IS RECOMMENDED TO INSTALL 24-INCH FILTER SOCKS BASED ON PRODUCT AVAILABILITY.

PIPE INLET PROTECTION INSPECTION & MAINTENANCE:

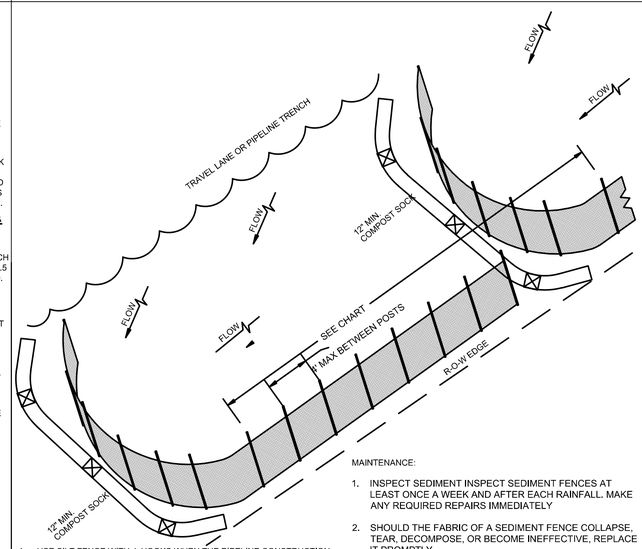
1. INSPECT PIPE INLET PROTECTION AT LEAST WEEKLY AND AFTER EACH RAINFALL EVENT THAT EXCEEDS 0.5 INCHES WITHIN A 24 HOUR PERIOD.
2. MAKE ANY NECESSARY REPAIRS IMMEDIATELY.
3. REMOVE ACCUMULATED SEDIMENT AND ANY DEBRIS. THE COMPOST SOCK MUST BE REPLACED IF CLOGGED OR TORN.
4. IF PONDING BECOMES EXCESSIVE, THE SOCK MAY NEED TO BE REPLACED WITH A LARGER DIAMETER OR A DIFFERENT MEASURE. THE SOCK NEEDSTO BE REINSTALLED IF UNDERMINED OR DISLODGED.
5. THE COMPOST SOCK SHALL BE INSPECTED UNTIL LAND DISTURBANCE IS COMPLETE AND THE AREA ABOVE THE MEASURE HAS BEEN PERMANENTLY STABILIZED.

COMPOST MATERIAL & DISPOSAL/RECYCLING NOTE :

REFER TO EROSION & SEDIMENT CONTROL NOTES DRAWING FOR COMPOST MATERIAL REQUIREMENTS AND DISPOSAL/RECYCLING HANDLING.

TYPICAL PIPE INLET PROTECTION DETAIL

NOT TO SCALE



1. USE SILT FENCE WITH J. HOOKS WHEN THE PIPELINE CONSTRUCTION TRANSVERSES A SLOPE GREATER THAN 10% AND SILT FENCE ALONG EITHER SIDE ALONE IS NOT EFFECTIVE.
2. SILT FENCE SHOULD BE INSTALLED AND MAINTAINED PER SILT FENCE DETAIL.

SLOPE	SLOPE LENGTH BETWEEN HOOKS (FT)
10 TO 20%	100
>20%	50

MAINTENANCE:

1. INSPECT SEDIMENT INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY
2. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEAN OUT.
4. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

JH

12 J-HOOK DETAIL

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REF. DWG(S) PNG-G-042-0001064

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
A	12/15/2020	ISSUE FOR 60% REVIEW	NS	JCG	NRW
B	03/26/2021	ISSUE FOR 90% REVIEW	NS	JCG	NRW

DESCRIPTION	
AREA CODE	513
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2217
DRAWING BY	NS
STATION ID	S090901
CHECKER INITIALS	JCG

APPROVALS	DATE	INITIALS	
REGIONAL ENGINEER	-	N/A	
MGR TECH REC & STD	-	N/A	
PRINCIPAL ENGINEER	-	N/A	

PROFESSIONAL ENG/ARCH STAMP

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STATION 909 REX GATE STA. (TALLGRASS)
EROSION & SEDIMENTATION CONTROL DETAILS
BUTLER COUNTY, OHIO

TODHUNTER RESOURCE CENTER, CINCINNATI, OHIO

SHEET(S) 30 OF 62	DWG SCALE NTS
DWG DATE 12/15/2020	SUPERSEDED —
DRAWING NUMBER DUKE -C-042-0001122	REVISION B

CIVIL / TODHUNTER / LINE CG07

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Specifications
for

Permanent Seeding

Site Preparation

1. Subsoiler, plow, or other implement shall be used to reduce soil compaction and allow maximum infiltration. (Maximizing infiltration will help control both runoff rate and water quality.) Subsoiling should be done when the soil moisture is low enough to allow the soil to crack or fracture. Subsoiling shall not be done on slip-prone areas where soil preparation should be limited to what is necessary for establishing vegetation.
2. The site shall be graded as needed to permit the use of conventional equipment for seedbed preparation and seeding.
3. Topsoil shall be applied where needed to establish vegetation.

Seedbed Preparation

1. Lime—Agricultural ground limestone shall be applied to acid soil as recommended by a soil test. In lieu of a soil test, lime shall be applied at the rate of 100 pounds per 1,000-sq. ft. or 2 tons per acre.
2. Fertilizer—Fertilizer shall be applied as recommended by a soil test. In place of a soil test, fertilizer shall be applied at a rate of 25 pounds per 1,000-sq. ft. or 1000 pounds per acre of a 10-10-10 or 12-12-12 analyses.
3. The lime and fertilizer shall be worked into the soil with a disk harrow, spring-tooth harrow, or other suitable field implement to a depth of 3 inches. On sloping land, the soil shall be worked on the contour.

Seeding Dates and Soil Conditions

Seeding should be done March 1 to May 31 or August 1 to September 30. If seeding occurs outside of the above-specified dates, additional mulch and irrigation may be required to ensure a minimum of 80% germination. Tillage for seedbed preparation should be done when the soil is dry enough to crumble and not form ribbons when compressed by hand. For winter seeding, see the following section on dormant seeding.

Dormant Seedings

1. Seedings should not be made from October 1 through November 20. During this period, the seeds are likely to germinate but probably will not be able to survive the winter.
2. The following methods may be used for “Dormant Seeding”:

- From October 1 through November 20, prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After November 20, and before March 15, broadcast the selected seed mixture. Increase the seeding rates by 50% for this type of seeding.
- From November 20 through March 15, when soil conditions permit, prepare the seedbed, lime and fertilize, apply the selected seed mixture, mulch and anchor. Increase the seeding rates by 50% for this type of seeding.
- Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder, or hydro-seeder (slurry may include seed and fertilizer) on a firm, moist seedbed.
- Where feasible, except when a cultipacker type seeder is used, the seedbed should be firmed following seeding operations with a cultipacker, roller, or light drag. On sloping land, seeding operations should be on the contour where feasible.

Mulching

1. Mulch material shall be applied immediately after seeding. Dormant seeding shall be mulched. 100% of the ground surface shall be covered with an approved material.
2. Materials

- Straw—If straw is used it shall be unrotted small-grain straw applied at the rate of 2 tons per acre or 90 pounds (two to three bales) per 1,000-sq. ft. The mulch shall be spread uniformly by hand or mechanically applied so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000-sq.-ft. sections and spread two 45-lb. bales of straw in each section.
- Hydroseeders—If wood cellulose fiber is used, it shall be applied at 2,000 lb./ac. or 46 lb./1,000 sq. ft.
- Other—Other acceptable mulches include rolled erosion control mattings or blankets applied according to manufacturer’s recommendations or wood chips applied at 6 tons per acre.

3. Straw and Mulch Anchoring Methods

Straw mulch shall be anchored immediately to minimize loss by wind or water.

- Mechanical—A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but, generally, be left longer than 6 inches.
- Mulch Netting—Netting shall be used according to the manufacturer’s recommendations. Netting may be necessary to hold mulch in place in areas of concentrated runoff and on critical slopes.
- Asphalt Emulsion—Asphalt shall be applied as recommended by the manufacture or at the rate of 160 gallons per acre.
- Synthetic Binders—Synthetic binders such as Acrylic DLR (Agri-Tac), DCA-70, Petroset, Terra Tack or equivalent may be used at rates specified by the manufacturer.
- Wood Cellulose Fiber—Wood cellulose fiber shall be applied at a net dry weight of 750 pounds per acre. The wood cellulose fiber shall be mixed with water with the mixture containing a maximum of 50 pounds cellulose per 100 gallons of water.

Irrigation

Permanent seeding shall include irrigation to establish vegetation during dry weather or on adverse site conditions, which require adequate moisture for seed germination and plant growth.

Irrigation rates shall be monitored to prevent erosion and damage to seeded areas from excessive runoff.

Table 7.10.2 Permanent Seeding

Seed Mix	Seeding Rate		Notes:
	Lbs./acre	Lbs./1,000 Sq. Feet	
General Use			
Creeping Red Fescue Domestic Ryegrass Kentucky Bluegrass	20-40 10-20 20-40	1⁄2-1 1⁄4-1⁄2 1⁄2-1	For close mowing & for waterways with <2.0 ft/sec velocity
Tall Fescue	40-50	1-1 1⁄4	
Turf-type (dwarf) Fescue	90	2 1⁄4	
Steep Banks or Cut Slopes			
Tall Fescue	40-50	1-1 1⁄4	
Crown Vetch Tall Fescue	10-20 20-30	1⁄4-1⁄2 1⁄2-3⁄4	Do not seed later than August
Flat Pea Tall Fescue	20-25 20-30	1⁄2-3⁄4 1⁄2-3⁄4	Do not seed later than August
Road Ditches and Swales			
Tall Fescue	40-50	1-11⁄4	
Turf-type (Dwarf) Fescue Kentucky Bluegrass	 90 5	 2 1⁄4 0.1	
Lawns			
Kentucky Bluegrass Perennial Ryegrass	100-120	2 2	
Kentucky Bluegrass Creeping Red Fescue	100-120	2 1-1/2	For shaded areas

Note: Other approved seed species may be substituted.

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A	12/15/2020	ISSUE FOR 60% REVIEW	NS	JCG	NRW
B	03/26/2021	ISSUE FOR 90% REVIEW	NS	JCG	NRW

DESCRIPTION	
AREA CODE	513
ACCOUNT NUMBER	-
PROJECT NUMBER	AW2217
DRAWING BY	NS
STATION ID	S0909O1
CHECKER INITIALS	JCG

APPROVALS		
DATE	INITIALS	
-	N/A	REGIONAL ENGINEER
-	N/A	MGR TECH REC & STD
-	N/A	PRINCIPAL ENGINEER

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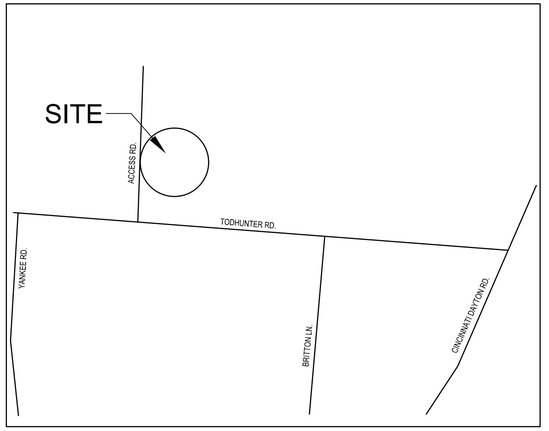
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STATION 909 REX GATE STA. (TALLGRASS)
EROSION & SEDIMENTATION CONTROL SEEDING PLAN
BUTLER COUNTY, OHIO
TODHUNTER RESOURCE CENTER, CINCINNATI, OHIO

SHEET(S) 31 OF 62 | DWG SCALE NTS
DWG DATE 12/15/2020 | SUPERSEDED __
DRAWING NUMBER DUKE -C-042-0001123 | REVISION B
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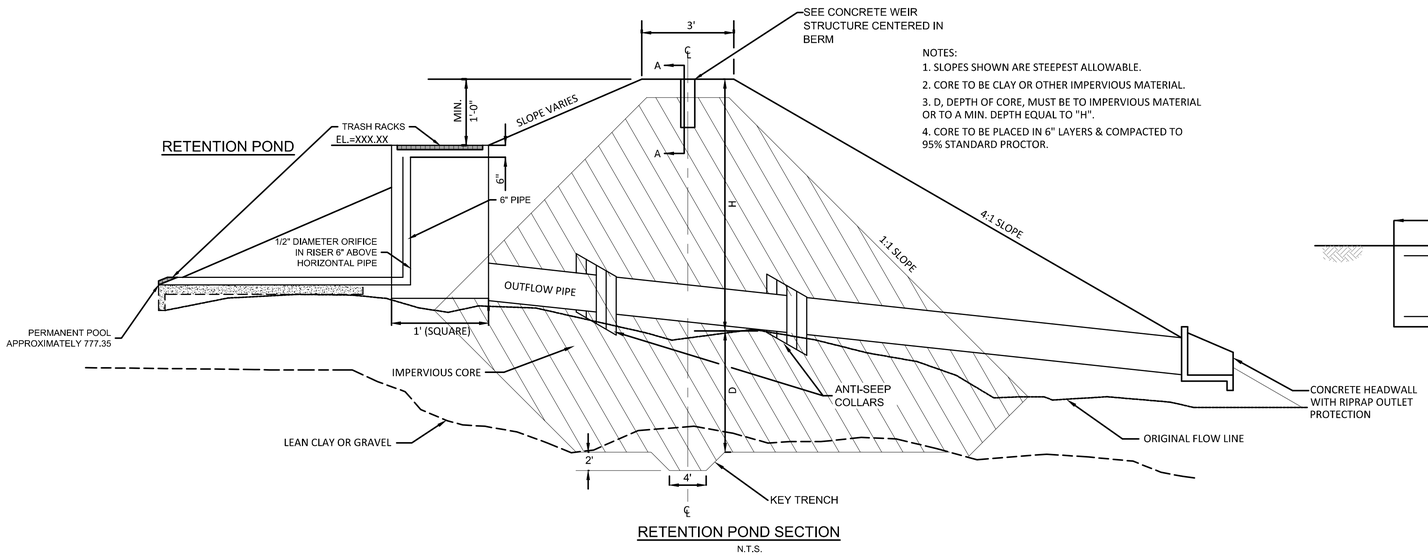


VICINITY MAP
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GENERAL NOTES:

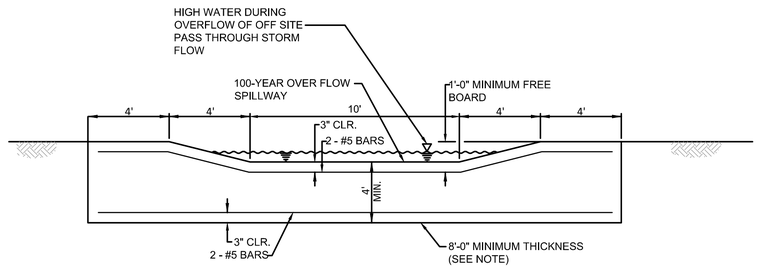
1. VERIFY ALL UTILITY LOCATIONS WITH OHIO - 811.
2. THIS PLAN IS NOT THE RESULT OF A BOUNDARY SURVEY. PROPERTY AND EASEMENT LINES ARE FOR ILLUSTRATION PURPOSES ONLY.
3. THE HORIZONTAL DATUM FOR THIS PROJECT IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983, OHIO SOUTH ZONE.
4. THE VERTICAL DATUM FOR THIS PROJECT IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.
5. SEE SHEET C-042-0001117 FOR GRADING AND DRAINAGE PLAN.
6. SEE SHEET G-042-0001065 FOR GENERAL NOTES.

Address of Proposed Construction:
632 Todhunter Road
Monroe, OH 45050
PIN# C180000200001



NOTES:
1. SLOPES SHOWN ARE STEEPEST ALLOWABLE.
2. CORE TO BE CLAY OR OTHER IMPERVIOUS MATERIAL.
3. D, DEPTH OF CORE, MUST BE TO IMPERVIOUS MATERIAL OR TO A MIN. DEPTH EQUAL TO "H".
4. CORE TO BE PLACED IN 6" LAYERS & COMPACTED TO 95% STANDARD PROCTOR.

RETENTION POND SECTION
N.T.S.



NOTE:
TRENCH FOR WEIR OUTLET STRUCTURE USING NATIVE GROUND AS FORM WORK. CONSTRUCT WEIR 8" MINIMUM THICKNESS. UPON COMPLETION OF TRENCHING, PLACE TEMPERATURE STEEL AND CONCRETE IMMEDIATELY, FORM TOP 4".

CONCRETE WEIR STRUCTURE - SECTION "AA" AND EMERGENCY SPILLWAY
NOT TO SCALE

RETENTION POND OUTLET CONTROL STRUCTURE SECTIONS AND DETAILS

NOT TO SCALE

1
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DRAWING BY	NS
STATION ID	S090901
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APPROVALS		
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DATE -	INITIALS N/A	MGR TECH REC & STD
DATE -	INITIALS N/A	PRINCIPAL ENGINEER

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STATION 909 REX GATE STA. (TALLGRASS)
OUTLET STRUCTURE DETAILS
BUTLER COUNTY, OHIO

TODHUNTER RESOURCE CENTER, CINCINNATI, OHIO

REF. DWG(S)
PNG-G-042-0001064

SHEET(S) 32 OF 62	DWG SCALE NTS
DWG DATE 03/16/2021	SUPERSEDED ___

DRAWING NUMBER: DUKE -C-042-0001124 | REVISION: A

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Calculation Cover Sheet

Client:	Duke Energy		
Project:	STA 909 REX Gate Regulator Station		
Project No:	10240294	Rev:	A
Calculation No:	C-001	Page:	#. of #.
Title:	Detention Basin Calculations		
Purpose:	Size the appropriate extended detention basin for the new regulator station installation.		
Originator:	Bryce Merritt	Date:	2/17/2021
Checked by:	Jonathan Gates	Date:	3/5/2021
QC Review by:	Brandon Walker	Date:	3/17/2021
Approved by:	Nathan Willkom	Date:	Click to enter date.
Supersedes Calculation No:			
Superseded by Calculation No:			

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1670 Broadway, Suite 3400, Denver, CO US 80202-4824
(303) 764-1520

Rex Gate Impervious Area

Known Impervious Areas	Equipment / Building Size (SF)	# of Equipment / Buildings or Pipe D	Total Area (SF)
Heaters	675	3	2,025
Control Skids	1500	1	1,500
Odorant Tanks & Building	300	3	900
Pipe (LF)	148.5	2	297
Station Pad Total			**4,722**
Paved Access Rd	930	12	11,160
Total (SF)			**20,604**
Total (acre)			**0.473**

Semi-Impervious Area	Area (SF)	Area (acre)
Station Yard	54,396	1.25
Access Road	9,456	0.22
Total	**63,852**	**1.47**

Total Area	Area (SF)	Area (acre)
Duke Station Yard Only	75,000	1.72
Total Parcel	2,112,660	48.5

Percent Impervious		
Methods		**%**
Known		**1.0%**
Conservative w. Semi-Impervious		**3.0%**

Volumetric Runoff Coefficient

Equation: Rv = 0.05 + 0.9i

Where i = fraction of post-construction impervious surface

i: 0.24

Rv: 0.27

C= 0.18 Alternate calculation check for max volume. See Below from Page 32 of 41 of the Monroe Requirements

Pre D CN 84 See Curve Number Spreadsheet

Post D CN 91 See Curve Number Spreadsheet

(2) *Criteria applying to all storm water management practices.* Practices chosen must be sized to treat the water quality volume (WQv) and to ensure compliance with Ohio Water Quality Standards (OAC Chapter 3745-1).

a. The WQv shall be equal to the volume of runoff from a 0.75 inch rainfall event and shall be determined according to one of the following methods:

1. Through a site hydrologic study approved by the city engineer that uses continuous hydrologic simulation; site-specific hydrologic parameters, including impervious area, soil infiltration characteristics, slope, and surface routing characteristics; proposed best management practices controlling the amount and/or timing of runoff from the site; and local long-term hourly records, or
2. Using the following equation:

WQv	=	C*P* A/12 where terms have the following meanings:
WQv	=	water quality volume in acre-feet
C	=	runoff coefficient appropriate for storms less than one inch
P	=	0.75 inch precipitation depth
A	=	area draining into the storm water practice, in acres.

Runoff coefficients required by the Ohio Environmental Protection Agency (Ohio EPA) for use in determining the water quality volume can be determined using the list in Table 1 or using the following equation to calculate the runoff coefficient, if the applicant can demonstrate that appropriate controls are in place to limit the proposed impervious area of the development:

C	=	$0.858i^3 - 0.78i^2 + 0.774i + 0.04$
where:		
i	=	fraction of the drainage area that is impervious

Water Quality Volume

Equation: WQv = Rv * P * A / 12

Rv = the vol runoff coefficient P = 0.90 in precip depth (per Ohio EPA) A = area draining into the BMP in acres		Alt. Vol check using Monroe Guidelines using C & 0.75" instead of Rv & 0.9".
WQv (acre-feet):	**0.0348**	0.0223
WQv (ft^3):	1,516.30	969.39
Additional Volume Required by Ohio EPA: 20% of WQv		
Additional Volume (ft^3):	303.26	193.88
Total Volume (ft^3):	**1,819.57**	1,163.27

Critical Storm

	Storage S = (1000/CN)10	Initial Abs. Ia = 0.2*S	
Pre-Dev S	1.905	0.381	
Post-Dev S	0.989	0.198	
	I (from NOAA PF)	Pre-Dev Runoff Depth Q= (P-Ia)^2/(P-Ia+S)	Post-Dev Runoff Depth Q= (P-Ia)^2/(P-Ia+S)
1 yr 24 hr storm (in)	2.33	0.986	1.457
% Increase			**47.8%**
Per Ohio EPA & Monroe 20% to 50% increase use 5 year storm (bolded below)			
2 yr 24 hr storm	2.8	1.353	1.886
5 yr 24 hr storm	**3.41**	**1.860**	**2.456**
10 yr 24 hr storm	3.9	2.283	2.922
25 yr 24 hr storm	4.54	2.853	3.537
50 yr 24 hr storm	5.04	3.307	4.021
100 yr 24 hr storm	5.55	3.777	4.517

Critical Storm Volumn	1.03	acre-ft
Critical Storm Volumn	**44,727.52**	**CF**

Extended Detention Basin Sizing

Requirements and Parameters:
Forebay sized to minimum of 10% of WQv with a protected outlet
Micropool sized to minimum of 10% of WQv with a protected outlet
Basin depth < 3'-0" from bottom of basin to top of outlet structure
Minimum Drain Time of WQv is 48 hours

		For Alternate Monore WQv and assume 20% Add volume for sediment in micropool
Forebay Volume (ft^3):	152	116
Micropool Volume (ft^3):	152	116
Area of Basin Assuming 2' Ave Depth (ft^2):	910	582
Release Rate (cfh):	38	20
Forbay/ Micropool Area (6" Deep) (ft^2)	303	233

Preliminary Pond Sizing

Volume= Base Area*Depth + 1/2*(Depth*Slope)*Base Perimeter (see sketch below)
WQv = [A*B*D]+[1/2*(D*S)*(2A+2B)] = D[AB+(S/2*(2A+2B))]
WQv/D = AB+(S/2*(2A+2B)) = AB+SA+SB if C=A/B the arrange to quadraic function
0 = CB^2+(CS+S)B-(WQv/D) and = (1/C)A^2+(S/C+S)A-(WQv/D)

Detention Pond Inputs	
Depth D (ft)	2.5
Slope S (i.e. 4 to1 / 4:1 use 4)	4
Length /Width (C=A/B)	2

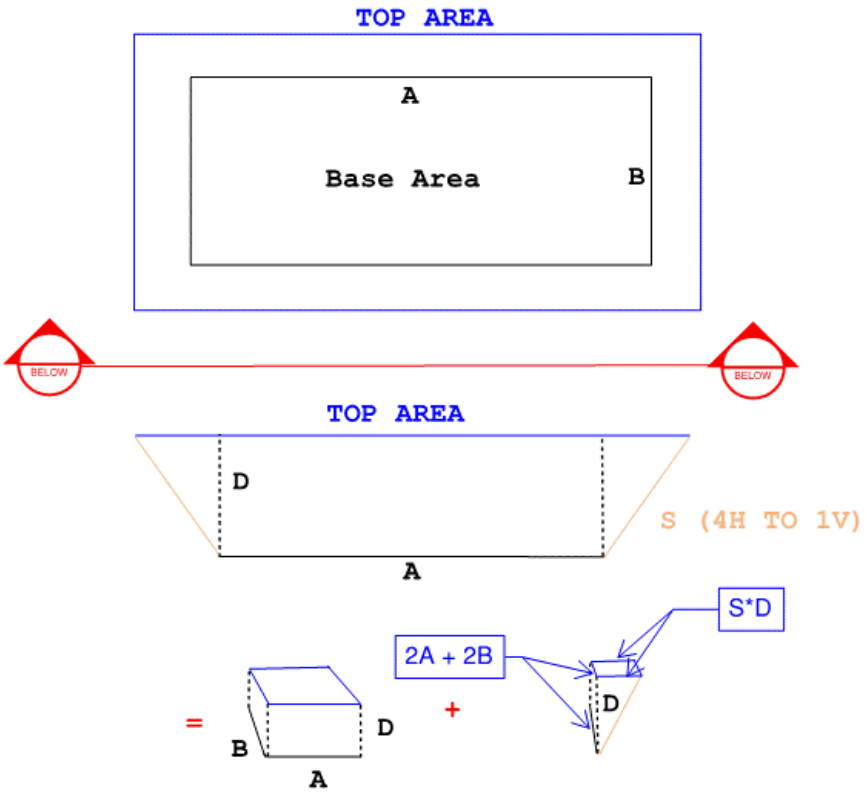
Resuts	**WQv**	**Critical Storm**
Base Length A (ft)	14.68	90.11
Base Width B (ft)	7.34	45.06
Top Length (ft)	**34.68**	**110.11**
Top Width (ft)	**27.34**	**65.06**

(5) *Additional criteria for extended detention facilities.*

a. The outlet shall be designed to not release more than the first half of the water quality volume in less than one third of the drain time. A valve shall be provided to drain any permanent pool volume for removal of accumulated sediments. The outlet shall be designed to minimize clogging, vandalism, maintenance, and promote the capture of floatable pollutants.

b. The basin design shall incorporate the following features to maximize multiple uses, aesthetics, safety, and maintainability:

1. Basin side slopes above the permanent pool shall have a run to rise ratio of 4:1 or flatter.
2. The perimeter of all permanent pool areas deeper than four feet shall be surrounded by an aquatic bench that extends at least eight feet and no more than 15 feet outward from the normal water edge. The eight feet wide portion of the aquatic bench closest to the shoreline shall have an average depth of six inches below the permanent pool to promote the growth of aquatic vegetation. The remainder of the aquatic bench shall be no more than 15 inches below the permanent pool to minimize drowning risk to individuals who accidentally or intentionally enter the basin, and to limit growth of dense vegetation in a manner that allows waves and mosquito predators to pass through the vegetation. The maximum slope of the aquatic bench shall be 10(H) to 1(V). The aquatic bench shall be planted with hearty plants comparable to wetland vegetation that are able to withstand prolonged inundation.
3. A forebay designed to allow larger sediment particles to settle shall be placed at basin inlets. The fore bay and micro-pool volume shall be equal to at least ten percent of the water quality volume (WQv).



Outlet Structure Sizing

Requirements: Per Ohio EPA Document OHC000005 Table 4a, Note 1,The outlet structure shall not discharge more than the first half of the WQv in less than one-third of the drain time.
Minimum drain time for Dry Extended Detention Basin = 48 hours

Release Rate (cfh) Min of:	Total WQv/48	37.90761
	Half WQv/(48/3)	56.86141

Where:

Q = Discharge rate (cfs)	0.0105
C = Orifice coefficient (assume 0.6)	0.6
a = Area of orifice (ft^2)	Unknown
g = Gravitational acceleration (ft/sec^2)	32.2
h = head (ft)	5.00
Rearranged to solve for area of the orifice: $a=Q/C\sqrt{2gh}$	0.00098

Area of orifice (in^2)	0.14
Diameter of hole (in)	**0.42**
or 16th of an inch	**6.78**

Pipe Outlet for 100yr 24 hr storm	
Inches runoff	4.517
CF	338,808
cfs	94.113
Area	13.821
Diameter of pipe (in)	**4.195**

Composite SCS Curve Number

PROJECT: Duke Rex Gate Station **DATE:** 3/5/2021
SCENARIO: Pre-Development Conditions **PREPARED BY:** JCG

Drainage Area: DA-1 (POI A)									Total Drainage Area: 1.72 Ac	
	Hydrologic Soil Group									
	A		B		C		D			
Cover Description	Area (Ac)	CN	Area (Ac)	CN	Area (Ac)	CN	Area (Ac)	CN		
Open space (lawns, parks, golf courses, cemeteries, etc.):										
Poor condition (grass cover < 50%)		68		79		86		89		
Fair condition (grass cover 50% to 75%)		49		69		79		84		
Good condition (grass cover > 75%)		39		61		74		80		
Impervious areas:										
Paved parking lots, roofs, driveways, etc. (excluding R/W)		98		98		98		98		
Paved streets and roads; curbs and storm sewers (excluding right-of-way)		98		98		98		98		
Paved streets and roads; open ditches (including R/W)		83		89		92		93		
Gravel streets and roads (including R/W)		76		85		89		91		
Dirt streets and roads (including R/W)		72		82		87		89		
Western desert urban areas:										
Natural desert landscaping (pervious areas only)		63		77		85		88		
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96		96		96		96		
Urban districts:										
Industrial		81		88		91		93		
Residential districts by average lot size:										
Pasture, grassland or range:										
Poor hydrologic condition		68		79		86		89		
Fair hydrologic condition		49		69		79		84		
Good hydrologic condition		39		61		74		80		
Woods:										
Poor hydrologic condition		45		66		77		83		
Fair hydrologic condition		36		60		73		79		
Good hydrologic condition		30		55		70		77		
Developing urban areas:										
Newly graded areas (pervious areas only, no vegetation)		77		86		91		94		
Substation Pad with 6" of Loose Washed Stone		49		69		79		84		
Agricultural Fields										
Fallow- Bare Soil		77		86		91		94		
Fallow- Crop Residue Cover (CR)- Poor		76		85		90		93		
Fallow- Crop Residue Cover (CR)- Good		74		83		88		90		
Row Crops- Straight Row (SR)- Poor		72		81		88		91		
Row Crops- Straight Row (SR)- Good		67		78		85		89		
Row Crops- Contoured (C)- Poor		70		79		84		88		
Row Crops- Contoured (C)- Good		65		75		82		86		
Row Crops- Contoured & Terraced (C&T)- Poor		66		74		80		82		
Row Crops- Contoured & Terraced (C&T)- Good		62		71		78		81		
Close Seed/Broadcast Legumes/Rotation Meadow- (SR)- Poor		66	0.40	77	1.32	85		89		
Close Seed/Broadcast Legumes/Rotation Meadow- (SR)- Good		58		72		81		85		
Close Seed/Broadcast Legumes/Rotation Meadow- (C)- Poor		64		75		83		85		
Close Seed/Broadcast Legumes/Rotation Meadow- (C)- Good		55		69		78		83		
Close Seed/Broadcast Legumes/Rotation Meadow- (C&T)- Poor		63		73		80		83		
Close Seed/Broadcast Legumes/Rotation Meadow- (C&T)- Good		51		67		76		80		
Total HSG Areas:			**0.40**		**1.32**					

Calculated Total Drainage Area: **1.72 Ac**
Calculated Composite Curve Number: **84**

Composite SCS Curve Number

PROJECT: Duke Rex Gate Station
SCENARIO: Post-Development Conditions
DATE: 3/5/2021
PREPARED BY: JCG

Drainage Area: DA-1 (POI A)									Total Drainage Area: 1.72 Ac	
	Hydrologic Soil Group									
	A		B		C		D			
Cover Description	Area (Ac)	CN	Area (Ac)	CN	Area (Ac)	CN	Area (Ac)	CN		
Open space (lawns, parks, golf courses, cemeteries, etc.):										
Poor condition (grass cover < 50%)		68		79		86		89		
Fair condition (grass cover 50% to 75%)		49		69		79		84		
Good condition (grass cover > 75%)		39		61		74		80		
Impervious areas:										
Paved parking lots, roofs, driveways, etc. (excluding R/W)		98		98	0.37	98		98		
Paved streets and roads; curbs and storm sewers (excluding right-of-way)		98		98		98		98		
Paved streets and roads; open ditches (including R/W)		83		89		92		93		
Gravel streets and roads (including R/W)		76	0.40	85	0.95	89		91		
Dirt streets and roads (including R/W)		72		82		87		89		
Western desert urban areas:										
Urban districts:										
Industrial		81		88		91		93		
Residential districts by average lot size:										
Pasture, grassland or range:										
Poor hydrologic condition		68		79		86		89		
Fair hydrologic condition		49		69		79		84		
Good hydrologic condition		39		61		74		80		
Woods:										
Poor hydrologic condition		45		66		77		83		
Fair hydrologic condition		36		60		73		79		
Good hydrologic condition		30		55		70		77		
Developing urban areas:										
Newly graded areas (pervious areas only, no vegetation)		77		86		91		94		
Substation Pad with 6" of Loose Washed Stone		49		69		79		84		
Agricultural Fields										
Fallow- Bare Soil		77		86		91		94		
Fallow- Crop Residue Cover (CR)- Poor		76		85		90		93		
Fallow- Crop Residue Cover (CR)- Good		74		83		88		90		
Row Crops- Straight Row (SR)- Poor		72		81		88		91		
Row Crops- Straight Row (SR)- Good		67		78		85		89		
Row Crops- Contoured (C)- Poor		70		79		84		88		
Row Crops- Contoured (C)- Good		65		75		82		86		
Row Crops- Contoured & Terraced (C&T)- Poor		66		74		80		82		
Row Crops- Contoured & Terraced (C&T)- Good		62		71		78		81		
Close Seed/Broadcast Legumes/Rotation Meadow- (SR)- Poor		66		77		85		89		
Close Seed/Broadcast Legumes/Rotation Meadow- (SR)- Good		58		72		81		85		
Close Seed/Broadcast Legumes/Rotation Meadow- (C)- Poor		64		75		83		85		
Close Seed/Broadcast Legumes/Rotation Meadow- (C)- Good		55		69		78		83		
Close Seed/Broadcast Legumes/Rotation Meadow- (C&T)- Poor		63		73		80		83		
Close Seed/Broadcast Legumes/Rotation Meadow- (C&T)- Good		51		67		76		80		
Total HSG Areas:			**0.40**		**1.32**					

Calculated Total Drainage Area: **1.72 Ac**
Calculated Composite Curve Number: **91**

Duke Energy Ohio, Inc.

Stormwater Pollution Prevention Plan (SWP3)

Ohio Environmental Protection Agency

General Permit Authorization for Storm Water Discharges Associated with Construction Activity Under the National Pollutant Discharge Elimination System Permit No. OHC000005

STA 909 Rex Gate (Tallgrass) Station Project
Lemon Township, Butler County, Ohio

Prepared by:

HDR Engineering, Inc.
4880 Sadler Road
Suite 100
Glen Allen, Virginia 23060-6164

March 2021

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Appendices

Appendix A Notice of Intent

Appendix B SWP3 Contact List

Appendix C Detailed Soil Report

Appendix D Erosion Prevention and Sediment Control Plans

Appendix E Major Activities Log

Appendix F Notice of Termination Form

Appendix G Construction Stormwater Inspection Certification Form

Appendix H Sequence of Control Measure Implementation

Appendix I Rainfall Record Log

Stormwater Pollution Prevention Plan

General Permit Authorization for Storm Water Discharges Associated with Construction Activity under the National Pollutant Discharge Elimination System

For Duke Energy Ohio, Inc.
STA 909 REX Gate (Tallgrass) Station Project

Lemon Township, Butler County, Ohio

Date of Preparation:	March 24, 2020
Prepared By:	James P. Young, PWS HDR Engineering, INC. 4880 Sadler Road, Suite 100 Glen Allen, Virginia 23060-6164
Project Name:	STA 909 REX Gate (Tallgrass) Station
Site Location (County):	Butler County, Ohio
Owner/Primary Permittee:	Duke Energy Ohio, Inc. (Duke)
Owner/Primary Permittee Address & Phone:	Steve Lane / 139 E 4th St, Cincinnati, OH 45202
General Contractor (Operator):	To-be-determined (TBD) at a later date.
General Contractor Address & Phone:	TBD at a later date.
Estimated Start Date of Construction:	June 2021
Estimated Completion Date of Construction:	December 2021
Description of Proposed Project:	Duke intends to construct a metering and regulation station for a newly acquired tap from Tallgrass Energy on the Rockies Express Pipeline (REX). The station installation will include multi-stage heater, filter/strainer skid and shelter, regulation skid and shelter, check metering, odorizer, chromatograph, and RTU shelter infrastructure. In addition to the station construction, under 200 feet of 16-inch natural gas pipeline will be installed to tie-in into Duke's existing infrastructure.
SWP3 Conformance to NPDES Permit:	Duke shall perform construction activities described in this SWP3 under the General National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Discharges Associated with Construction

Activities Permit No. OHC000005. This SWP3 has been developed and prepared to include all required elements for conformance with Part III, Section G of the General NPDES Permit No. OHC000005. The design, inspection, and maintenance of Best Management Practices (BMPs) described in this SWP3 have been prepared in accordance with good engineering practices. A list of SWP3 contacts during construction is provided in Appendix B.

1) Site Description

Duke's STA 909 Rex Gate (Tallgrass) Station is located approximately 1,030 feet north of Todhunter Road at 39.462310, -84.378329 along a private road in Lemon Township, Butler County, Ohio. Duke owns (Tri State Improvement Company, a Duke Energy subsidiary) the parcel of land that the proposed Regulator Station and associated facilities is proposed to be constructed on.

The proposed station footprint is approximately 300 ft. by 250 ft. and will be positioned along the upper portion of an existing agricultural field that immediately abuts the existing pipeline corridor, located just north of the proposed facility site. The STA 909 REX gate (Tallgrass) Station will tie into the Tallgrass facilities that will be constructed immediately adjacent to the project along its western side. The proposed long-term access to this facility will be from the private road to the west as it passes through the Tallgrass facility. Outside of the final footprint of the project station all other areas utilized for workspace and construction will be restored, stabilized, and re-established as required by the permit.

Figure 1. USGS Map

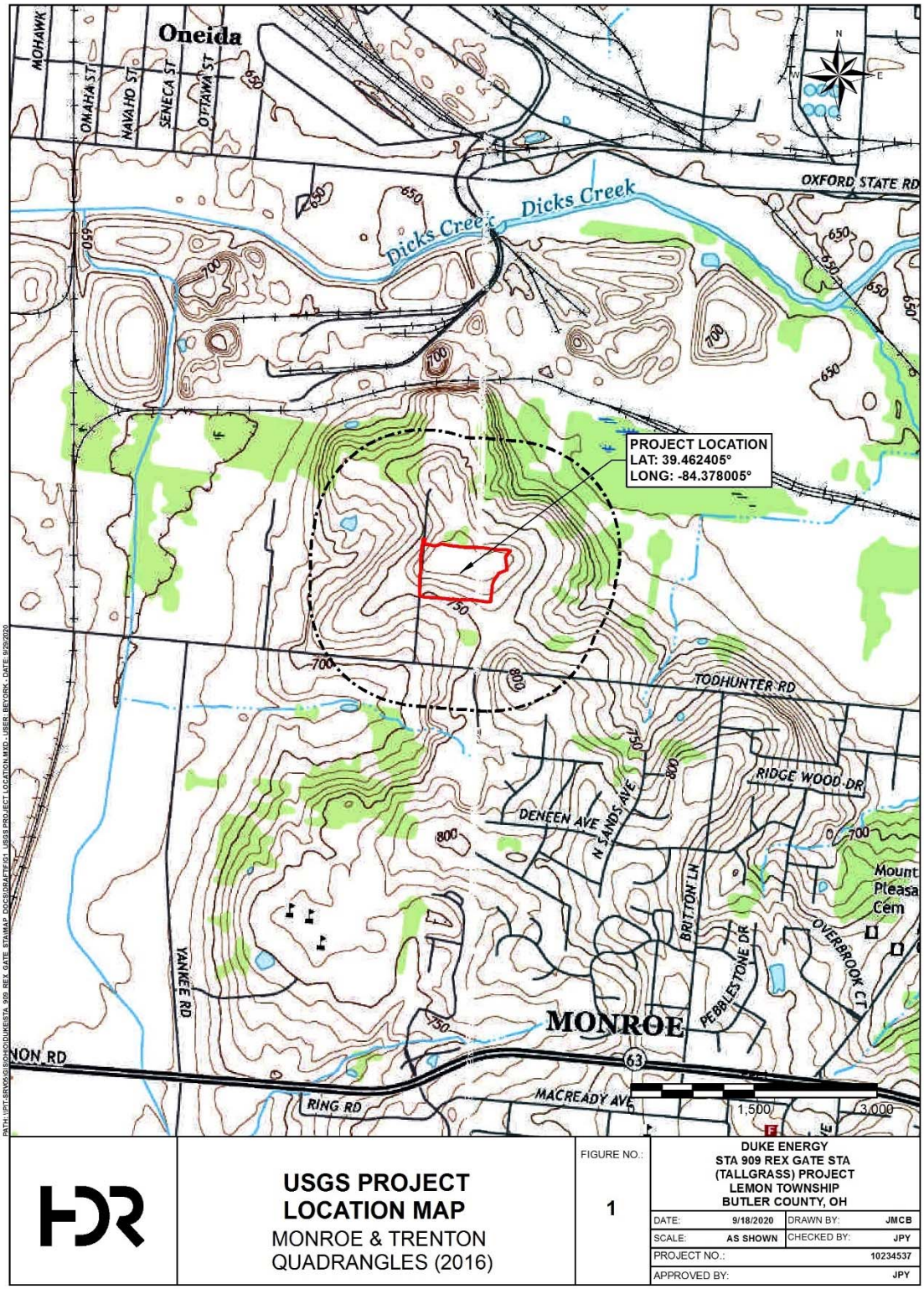
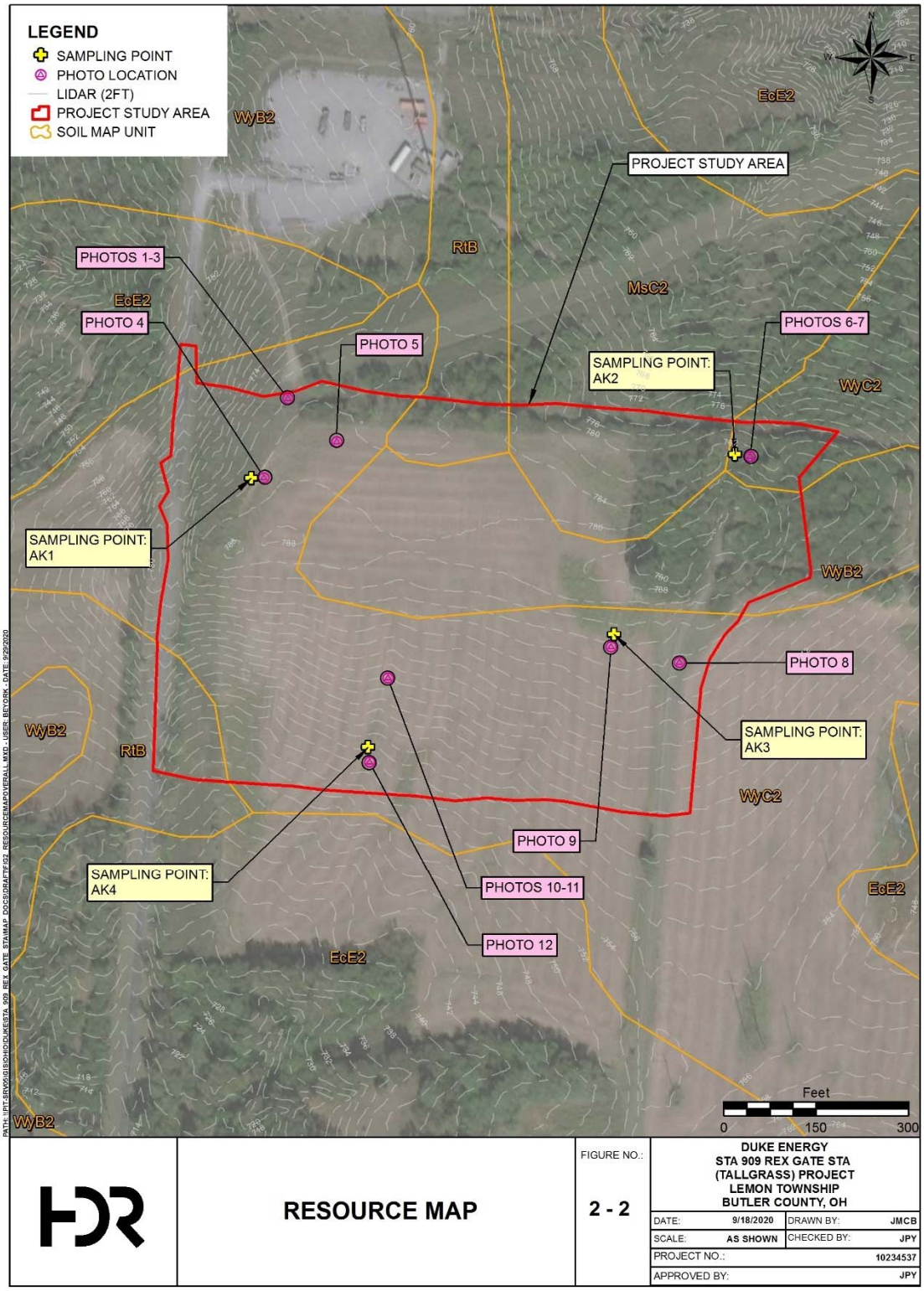


Figure 2. Resource Map



a) Construction Activities

Duke is constructing the STA 909 REX Gate Station to support existing and future natural gas demands with this additional supply point from the REX transmission pipeline. The majority of the construction will take place within the proposed footprint of the facilities with some temporary workspace located immediately adjacent. Once the initial construction is completed and tied into the existing Duke Pipeline, this station will be tied into the adjacent Tallgrass facilities. Once completed the main access point to this facility will be through the Tallgrass facilities and all other temporary construction access points, workspace, and non-permanent disturbance will be restored.

This Project's construction activity details include:

- Temporary access from the farm road will be updated with Rock construction entrances installed. Access will be from the private drive on the west side of the parcel.
- Proper Erosion &Sediment Control measures installed prior to earth disturbance.
- Excavation or topsoil. Excavated soils shall be stored/staged within the limits of disturbance (LOD). Equipment and pipe materials shall be stored within the LOD. No equipment staging areas outside of the LOD shall be allowed for this Project;
- Construction of new facilities to include: (1) RTU/odorant shelter unit, (2) ultrasonic clamp-on "check meter" meter run, (3) regulating control valve skid unit and shelter, (4) heater(s), (5) filter separator, (6) associated piping, and (7) pipeline tying the station into the existing pipeline, (8) Security Fence, (9) access/driveway;
- At the end of each workday, all sediment tracked onto any paved surface shall be removed, returned to the work area, and stabilized; and
- Erosion prevention and sediment control measures included in the project plans shall be conducted in compliance with the General Permit and maintained throughout the period of construction.

b) Estimate of Total Area

Estimate of the total area of the site and the total area of disturbance, is as follows:

Total Project Area	3.48 acres
Total Temporarily Disturbed Area	1.64 acres
Total Permanent Disturbance	1.84 acres

c) Estimate of Impervious Area

For the site portion of this project, all areas outside of the access road and pad used for construction will be temporary and will be returned to pre-construction conditions. However, an asphalt driveway is being constructed at the site to where it will tie into the gravel facilities pad. The pad has an area of 1.62 acres and the access road has an area of 0.22 acres so there will be an l increase of an area of 1.62 acres from vegetation to asphalt and 0.22 acres from vegetation to gravel. This will be the only change in permeability for the entire project area, all other areas will be returned to pre-construction conditions.

d) Stormwater Calculations

As mentioned above, a gravel pad is being constructed at the site portion of this project as well as a permanent access road as part of the facilities. The pad has an area of 1.62 acres and the access road has an area of 0.22 acres so there will be an l increase of an area of 1.62 acres from vegetation to asphalt and 0.22 acres from vegetation to gravel. This is the only area of the project where there will be a change in surface permeability between pre- and post-construction conditions. All other areas shall be returned to pre-construction conditions. As per the Ohio Environmental Protection Agency regulations, post-construction Best Management Practices (BMPs) are required on sites that are over 1 acre of disturbance. Considering this, a stormwater plan (*City of Monroe Publics Works – Comprehensive Stormwater Management Plan*) and post-construction BMPs were designed for this site.

e) Site Soil Characteristics

According to the Natural Resources Conservation Service (NRCS) Web Soil Survey 2020, there are five soil map units located within this Project area. These soils include Eden silty clay loam (15-25% Slopes), Miamian-Russell silt loams (6-12% slopes), Russell silt loam (2-6% slopes), Wynn silt loam (2-6% slopes), and Wynn silt loam (6-12% slopes).

Eden silty clay loam soils are well drained, typically found on valley sides, with a depth of water table at more than 80 inches, Miamian-Russell silt loams soils are well drained, typically found in till plains, with a depth range varying from 12 to 24 inches to depth of water table, Russell silt loam are well drained, typically found in till plains, with a depth range varying from 42 to 60 inches to depth of water table, and Wynn silt loam soils are well drained, typically found in till plains, with a depth of water table at more than 80 inches. See Appendix C for Soils Report.

f) Prior Land Use

Historic aerial photographs and USGS topographic maps of the area (Trenton quadrangle), dating from 1994 to 2019, were reviewed. The background review revealed historic land use within the site location and surrounding area was agricultural. In March 2004 a utility corridor along the northern most bounds of the area of investigation was visible in the aerial images. In 2009, a second utility corridor was visible in the northwestern most corner to the area of investigation. A residential structure was present from 1994 to 2006. Post 2006 the area where the structure was visible has been reverted to vegetative growth.

g) Streams on or Adjacent to this Project

There are no streams on or adjacent to the property (see Figures 1 and 2).

h) Construction Sequence

Site disturbing activities shall be conducted in general accordance with the phasing provided below. The following is a specific construction sequence developed for this Project. This is a preliminary construction sequence that was developed to provide the necessary erosion and sedimentation control protection throughout earthmoving activities.

1. All work shall be completed within the LOD areas shown on the ESCP drawings (see Appendix D).

2. Flagging/fencing will be utilized to field-mark the LOD. The contractor shall install appropriate barriers where equipment may be parked, staged, operated, or located for any purpose. The LOD shall be staked for this Project and best management practices (BMPs) shall be installed within the LOD.
3. Access to the LOD shall be from the private drive located to the west of the proposed facilities (39.461860, -84.378330). This entrance will be the temporary construction entrance utilized for the duration of the primary construction and then converted to be the permanent site entrance to access the regulator station. All required BMPs for the construction activities shall be installed within the LOD prior to starting earth disturbance for these activities. This includes compost filter sock and the temporary gravel construction entrance/exit (which must be installed as specified). A secondary access will be located north of the proposed facility along the existing pipeline corridor to access the pipeline tie-in location. This entrance will be a temporary construction entrance. All required BMPs for the construction activities shall be installed within the LOD prior to starting earth disturbance for these activities. This includes compost filter sock and the temporary gravel construction entrance/exit (which must be installed as specified).
4. Access to the pipeline LOD, where the project will tie-in, will be through the proposed station LOD as the pipeline is located immediately along the northern bounds of the proposed facility. All required BMPs for the construction activities shall be installed within the LOD prior to starting earth disturbance for this activity. This includes silt fence, compost filter sock, and inlet protection which must be installed as specified
5. Any tracking onto paved roadways shall be swept up (without the use of water) at the end of each workday.
6. Erosion control blankets (ECBs) are not anticipated to be necessary during the construction activities. However, if the onsite conditions change at the time of installation and there is a potential for runoff to occur in areas where ECB is appropriate, ECBs shall be installed as necessary.
7. The excavated materials shall be temporary stockpiled within the LOD. Excess stockpiling of material shall be avoided.
8. Topsoil and subsoil from excavation shall be segregated. Topsoil and subsoil require separate stockpiles and shall not be mixed together. The topsoil and subsoil shall be temporarily stockpiled within the LOD and shall be utilized during backfilling and final grading.
9. If necessary, dewatering of excavations shall be performed by pumping any excess water into a non-woven pumped water filter bag in a vegetated upland area.
10. All BMPs must be removed from the site and recycled or disposed of in accordance with the City of Monroe and the Ohio Environmental Protection Agency waste management regulations. The building materials and wastes include, but are not limited to, BMP materials, straps, canisters, pipe cuttings, pipe sections, food wrappers, and plastic bottles.
11. All earth disturbance associated with removal of BMPs shall be immediately restored and stabilized in accordance with permanent seeding specifications.

i) Receiving Waters

There are no aquatic resources identified within or immediately surrounding the proposed project area. BMP's will be utilized throughout the project. The proposed construction activities are not likely to impact any receiving waters (see Figure 1); Stormwater is likely to infiltrate the ground prior to reaching any receiving waters that may be present beyond the bounds of the project's area of investigation.

j) Subdivisions

This is not applicable to this project.

k) Stormwater Discharge Associated with Asphalt/Concrete Plants

This is not applicable to this project.

l) Cover Page

A cover page identifying the name and location of the site, the name and contact information of the operators and contacts for this SWP3 are included on the first page of this SWP3 (in addition to the SWP3 Contact List (see Appendix B)).

m) Log

Amendments to this SWP3 are tracked in Section 5 (in addition to the Major Activities Log (see Appendix E)). A sequence of Control Measure Implementation document is included as Appendix H.

n) Site Map

According to OHC000005, a site map shall be included in the SWP3 containing the following list of items. These items are primarily shown on the Erosion and Sediment Control Plan (ESCP) drawings (see Appendix D) or included as a separate attachment.

i) Limits of earth-disturbing activity of the site, including associated offsite borrow or spoil areas that are not addressed by a separate NOI and associated SWP3 (see Appendix D);

ii) Soil types for all areas of the site, including locations of unstable or highly erodible and/or known contaminated soils (see Appendix C);

iii) Existing and proposed contours;

- There are proposed changes to grade or contour. The proposed grading and post-construction contours are shown in the 1.7.1 AW2217 20201215 STA 909 REX Gate Sta – Drawing Package drawings in Appendix D. Existing contours are shown the ESCP Drawings in Appendix D. A delineation of drainage watersheds expected during and after major grading activities as well as the size of each drainage watershed, in acres;

iv) Construction Supervisor or designated Job Representative (Pre-construction and Post-construction contours and drainage will vary slightly based on the required grading of the proposed project.)

v) The location of any delineated boundary for required riparian setbacks;

- ❖ There are no riparian setback that affect this project area.

vi) Conservation easements or areas designated as open space, preserved vegetation or otherwise protected from earth disturbing activities. A description of any associated temporary or permanent fencing or signage;

- ❖ There are no conservation easements or areas designated as open space that affect this project area.

vii) Surface water locations including springs, wetlands, streams, lakes, water wells, etc., on or within 200 feet of the site, including the boundaries of wetlands or stream channels and first subsequent named receiving water(s) the permittee intends to fill or relocate;

- ❖ There are no surface water impacts associated with this project.

viii) Existing and planned locations of buildings, roads, parking facilities and utilities (see Appendix D);

ix) The location of erosion and sediment control practices, including the location of areas likely to require temporary stabilization during site development (see Appendix D);

x) Sediment traps and basins noting their sediment storage and dewatering (detention) volume and contributing drainage area;

- ❖ A stormwater retention basin will be located along the northeastern most area of the proposed project and facilities location. See Appendix D for design layout and calculations.

xi) The location of permanent stormwater management practices including pretreatment practices to be used to control pollutants in stormwater after construction operations have been completed along with the location of the planned drainage features including catch basins, culvert, ditches, swales, surface inlets and outlet structures (Appendix D).

xii) Areas designated for the storage or disposal of solid, sanitary and toxic wastes, including dumpster areas, areas designated for cement truck washout, and vehicle fueling;

- ❖ The vegetated area south of the Station will be used for temporary material storage and equipment laydown.
- ❖ Dumpster areas will be located on site within the Temporary Workspace Area. The specific location will vary dependent upon contractor and required space configuration.
- ❖ Cement truck washout areas will be determined prior to the arrival of the trucks on site by the contractor team and ensured to be in compliance with local and state regulations.
- ❖ Vehicle refueling location will be determined at the start of construction based on contractor needs and requirements. Proper spill control measures will be utilized at all times refueling is required on site.

xiii) The location of designated construction entrances where the vehicles shall access the construction site (see Appendix D); and

xiv) The location of any areas of propose floodplain fill, floodplain excavation, stream restoration or known temporary or permanent stream crossings.

- ❖ The project is not located within an area of regulatory floodway or floodplain, and there are no surface waters within the project area.

The LOD and BMPs are shown on the ESCP drawings. If the Contractor requires changes to the minimum BMPs, changes must be revised and documented in the Major Activities Log (see Appendix E) the SWP3 within seven (7) days.

2) Controls

This section discusses the controls appropriate for this Project covered by the General Permit. Controls shall be installed prior to the start of construction activities. Duke's Construction Supervisor or designated Job Representative shall ensure implementation of each control throughout this Project. Controls shall be implemented in general accordance with Duke Specifications (see Appendix D). Erosion control measures shall be implemented based on the discretion of Duke's Construction Supervisor or designated Job Representative, based on site-specific conditions during construction. The ESCP drawings (see Appendix D) depict locations of controls to be implemented for the various Project components: construction entrances, equipment staging and work areas, dewatering structures, and locations of installations of sediment and erosion control structures. The surface area of erodible earth material exposed at any one time shall be minimized to the extent possible; work shall be completed in a continuous and timely manner to further minimize the potential for erosion and sedimentation from the construction activities.

Duke shall designate an individual to be responsible for ensuring that requirements of the General Permit are met and that BMPs as discussed in this SWP3 are implemented and maintained in working order throughout construction activities. The responsible person shall be trained and versed in the mitigative measures described in this plan.

BMPs to be utilized shall include minimizing construction footprints, construction entrances, trench dewatering controls, temporary and permanent reseeding and mulching, erosion control fabric, dust control and street sweeping, regular environmental inspections, and follow-up inspections following permanent stabilization.

Duke shall review this SWP3 with the Construction Supervisor or designated Job Representative prior to commencement of Project activities and shall have the Construction Supervisor or designated Job Representative sign the SWP3 Certification (see Section 6) that demonstrates that this review has occurred.

a) Preservation Methods

During Project planning, the Project team spent significant effort in designing this Project to avoid and minimize environmental impacts. Impact avoidance measures implemented by the Project team included:

- Designing work areas to include only the space needed to safely and effectively perform the scope of work. No work shall be performed outside the LOD identified

on the ESCP drawings (see Appendix D). Minimizing the construction footprint shall prevent soil erosion by minimizing the amount of bare soil exposed, and

- Duke's Construction Supervisor or designated Job Representative shall take care to remove only vegetation and shrubs necessary to safely complete this Project. Part of the preservation methods of this project include the placement of the facilities entirely within an existing farm field where no forested habitat would be impacted.

b) Erosion Control Practices

This SWP3 makes use of erosion controls that are capable of providing cover over disturbed soils and re-stabilizing disturbed areas after construction activities cease and final re-grading is accomplished. Prior to any onsite construction activity, temporary erosion control measures shall be installed. Erosion control measures shall be employed throughout this Project and shall be maintained until the site is permanently stabilized.

i) Stabilization

Construction Entrances

A construction entrance is a stabilized area underlain with a geotextile and is used to reduce the amount of mud track offsite with construction traffic at the site ingress/egress location. Construction entrances shall provide buffer areas where construction vehicles can drop their mud to avoid transporting it onto public roads. The workspace is located entirely within an active agricultural field and associated existing gravel access road. This access road was previously utilized to access the farm fields as well as a single-family residence that is no longer present. The use of this roadway should have minimal to no impacts on the surrounding residents/land users. The construction entrances shall be installed if site conditions at the time of construction warrant it.

Temporary Stabilization

Although not anticipated, for any disturbed areas that shall be dormant for more than 14 days but less than 1 year, Duke's Construction Supervisor or designated Job Representative shall temporarily stabilize the area(s) within 7 days of the most recent disturbance within the areas. This also includes temporary soil stockpiles that shall be dormant for more than 14 days.

Temporary stabilization shall limit erosion and sedimentation potential, and reduce problems associated with mud or dust from bare soil surfaces.

Temporary Rolled Erosion Control Product (TRECP) may also be used to stabilize easily eroded areas while vegetation becomes stabilized. TRECPs consist of erosion control netting, open weave textile, and erosion control blankets and mattings.

Permanent Stabilization

Permanent Seeding. Duke's Construction Supervisor or designated Job Representative shall perform permanent seeding within 7 days on all disturbed work areas that are not graveled or paved following final re-grading. Permanent seeding includes site preparation, seedbed preparation, planting seed, mulching, irrigation, and maintenance.

Mulching. Duke's Construction Supervisor or designated Job Representative shall apply mulch to permanent reseeded areas immediately following seeding. Mulch shall be applied liberally throughout construction to limit the areas that are bare and susceptible to erosion.

Temporary Rolled Erosion Control Product. TRECP shall be used on areas where establishing vegetation is difficult such as areas prone to drying, areas of concentrated flow, and areas where mulch is difficult to hold in place due to wind or water.

ii) Permanent Stabilization of Conveyance Channels

This section does not apply, as none of the work areas involve conveyance channels.

c) Runoff Control Practices

Given the nature of the site being located along the upper flat area within an agricultural field with the site proposed grading, Duke anticipates the need to install runoff control practices. Should Duke's Construction Supervisor or designated Job Representative identify areas where concentrated runoff is occurring within the Project area, Duke's Construction Supervisor or designated Job Representative shall install appropriate measures to divert runoff away from disturbed areas where practicable using velocity dissipation devices such as rock riprap or rock check dams.

d) Sediment Control Practices

Sediment control practices used shall include pumped water filter bag(s), compost filter sock(s), rock construction entrance or other similar sediment controls. Given the nature of this Project and scope of work with the installation of a permanent facility pad and access road, the need for retention/sediment settling pond is anticipated or necessary. All sediment control practices are shown on the ESCP drawings (see Appendix D).

i) Timing

The General Permit requires that sediment control structures be functional throughout the course of earth disturbing activity. The General Permit also requires that sediment barriers be implemented prior to grading and within seven (7) days from the start of grubbing. They must remain functional until disturbed upslope areas are re-stabilized. Controls shall be adjusted or altered to address changing drainage patterns, if encountered.

ii) Sediment Settling Ponds

The need for sediment/retention settling pond is anticipated and will be located along the northeastern most bounds of the proposed facility.

iii) Sediment Barriers and Diversions

Sediment barriers shall be constructed of compost filter sock(s) or other similar sediment barriers. These sediment barrier types may be used interchangeably or together depending on site-specific conditions.

Sediment barriers shall be installed down-gradient of disturbed areas and soil stockpiles where there is a hazard of offsite sedimentation, including:

- Along the exterior edge of the LOD where warranted;
- Around trench dewatering structures/locations where warranted; and

- Around temporary soil stockpiles as warranted.

The Contractor shall maintain sediment barriers by removing/collecting sediment and replacing barriers as necessary. If sediment loading is greater than approximately 1/2 the height of the compost filter sock(s), the sediment shall be removed and placed in an area where it shall not re-enter the barriers.

Dewatering Structures

Depending on the depth to groundwater and number of rainfall events that occur, throughout the construction activities, this Project may require occasional dewatering from the Project area. Trench water shall be dewatered through pumped water filter bags attached at the end of the flex hose in order to collect sediments that may be present in groundwater. The dewatering structures shall be located at the downslope sides of the workspaces and in well vegetated areas if possible.

Rock Check Dams

Though not anticipated, if warranted, rock check dams shall be installed within drainage swales which may develop along depressional areas during this Project. Check dams are small rock dams constructed in swales, and grassed waterways to reduce the velocity of concentrated flows, thereby reducing erosion within the swale or waterway. Rock check dams are used in conjunction with primary sediment-trapping practices.

iv) Inlet Protection

The need for inlet protection is not anticipated.

v) Surface Waters of the State
The proposed construction activities shall not impact any Surface Waters of the State (see Figures 1 and 2).

vi) Modifying Controls

Controls shall be modified or replaced, as deemed appropriate by Duke's Construction Supervisor or designated Job Representative, following periodic site inspections.

e) Post-Construction Stormwater Management Requirements

All areas utilized for temporary workspace shall be returned to pre-construction conditions. The installation of the facilities pad and permanent access road will increase the amount of new impervious surfaces; therefore, require the installation of post-construction stormwater management structures.

f) Surface Water Protection

The proposed construction activities shall not impact any wetlands or streams, as mentioned above. No wetlands or streams are identified within the project area or immediately adjacent to it; therefore, will not be impacted by the proposed project.

g) Other Controls

i) Non-Sediment Pollutant Controls

In addition to sediment and erosion controls, throughout this Project, Duke's Construction Supervisor or designated Job Representative shall implement non-sediment pollution

prevention BMPs including good housekeeping practices, waste segregation, solid and sanitary waste disposal in accordance with State and Local regulations, disposal of woody vegetation and debris, spill prevention practices, and disposal and removal of unused or surplus pipe/materials from the site. Duke's Construction Supervisor or designated Job Representative shall also implement BMPs for equipment refueling, hazardous material management practices, and control of fugitive dust.

Duke's Construction Supervisor or designated Job Representative shall perform their due diligence in locating underground utilities through the One-Call system. Duke's Construction Supervisor or designated Job Representative shall pothole/excavate down to locate utility lines prior to any excavation.

Appropriate measures shall be implemented to minimize or eliminate wastes or unused building materials including garbage, debris, cleaning wastes, wastewater, concrete truck and chute washout, and other substances from being carried from the Project area by run-off or wind. Wastes and unused building materials shall be managed and disposed of in accordance with applicable requirements.

Proper storage and handling of materials such as fuels or hazardous materials, and spill prevention and clean-up measures, shall be implemented to minimize the potential for pollutants to contaminate surface or groundwater or degrade soil quality.

Good Housekeeping Practices

In addition to the foregoing, the following good housekeeping practices shall be implemented for the duration of this Project:

- The surrounding site shall be kept free of construction debris and waste; wastes generated onsite shall be segregated and containerized for proper disposal by Duke's Construction Supervisor or designated Job Representative. Wastes shall be stored in a manner that shall not result in the potential for leakage;
- Chemicals, wastes, or other materials shall be staged in an upland location and protected from exposure of precipitation;
- Materials stored onsite shall be stored in a neat, orderly manner in their appropriate containers, and if possible, under a roof or other enclosure;
- Whenever possible, all of a product shall be used before disposal of the container, and the manufacturer's recommendations for proper use and disposal shall be followed;
- Duke's Construction Supervisor or designated Job Representative shall inspect work areas daily to ensure proper usage and storage of materials. Waste disposal containers shall be provided for the proper collection and segregation of waste material including construction debris, sanitary garbage, petroleum products, and any hazardous materials to be used onsite. Containers shall be maintained in good order and free from leaking. Duke's Construction Supervisor or designated Job Representative is responsible for the disposal of all wastes; and
- Duke's Construction Supervisor or designated Job Representative shall ensure that no hazardous materials, containers, or other construction wastes are poured onto the ground or buried/ burned onsite.

Hazardous Materials

The materials or substances listed below are expected to be present onsite during construction activities:

- Fuel/oil/grease
- Fertilizer
- Paint
- Grout (non-hazardous)
- Pipe Coating

Duke's Construction Supervisor or designated Job Representative shall utilize temporary construction boxes as needed for long-term storage of used or unused hazardous materials.

Hazardous materials shall be kept in the original containers with the original manufacturer's label, unless they are not re-sealable. The following practices shall be used to reduce the risks associated with any and all hazardous materials.

- Original labels and material safety data sheets shall be retained; and
- If surplus products must be disposed, disposal shall be done in accordance with applicable laws and regulations.

Spill Prevention/Material Management Practices

The following material management practices shall be used to reduce the risk of spills or other accidental exposure of materials and substances from exposure to the weather and/or runoff.

- Areas within the LOD shall be designated for dumpsters, vehicle refueling, and material storage/disposal of solid, sanitary, and toxic wastes;
- Vehicles kept onsite shall be monitored for leaks;
- Petroleum products shall be stored in tightly sealed containers that are clearly labeled. If fuel is stored onsite for equipment refueling, it shall be stored in an appropriate aboveground storage tank (AST) equipped with secondary containment;
- No fuels, oils, lubricants, solvents, or other hazardous materials shall be disposed of onsite. Hazardous material shall be properly disposed of in accordance with State law;
- Duke's Construction Supervisor or designated Job Representative shall be responsible for providing sanitary facilities on the site, and for the proper disposal of sanitary waste. Portable toilets shall be provided by Duke's Construction Supervisor or designated Job Representative for use by construction personnel. The toilets shall have the wastes regularly collected by a licensed hauler for disposal as required by local regulation; and

Process wastewaters (vehicle and/or equipment washing, leachate associated with onsite waste disposal, etc.) are not covered under the General Permit. If such process wastewaters are generated during construction, Duke's Construction Supervisor or designated Job Representative shall ensure proper collection and disposed of such at an approved disposal facility.

Spill Control Measures

In addition to the good housekeeping and material management practices discussed in the previous sections of this SWP3, the following practices shall be followed for spill prevention and cleanup:

- During construction, all non-sediment pollutants such as oils, fuels, hydraulic fluids, chemical cleaners, etc., shall be managed to not result in spills that could impact the site and Surface Waters of the U.S. or State. If spills occur at the site, the spilled product shall be contained and removed from the site in accordance with Duke procedures. If not recoverable for reuse, the spilled product shall be disposed of properly per Federal and State regulatory requirements.
- Any spills of petroleum products or chemicals regardless of amount or location and all sediment releases beyond the site perimeter controls are to be immediately reported to the Duke Energy Environmental Field Professional. If the Duke Energy Field Professional cannot be reached, the Duke Energy Spill Hotline to be called at 800-527-3853;
- No vehicle fueling, maintenance procedures, or concrete washout activities are to occur within 125 feet of wetlands, waterways, sewer grates, ditches or other features that drain to Waters of the U.S. or State without prior location-specific approval of Duke Energy Environmental;
- The manufacturer's recommended methods for spill cleanup shall be clearly posted and site personnel shall be made aware of the procedures and the location of the information and clean-up supplies;
- Materials and equipment necessary for spill cleanup shall be kept onsite and waste disposed of with the trash at a licensed sanitary landfill. Hazardous or industrial wastes such as most solvents, gasoline, oil-based paints, and cement curing compounds require special handling;
- Duke's Construction Supervisor or designated Job Representative shall notify Duke Environmental Field Professional immediately in the event of a spill;
- Spills shall be cleaned up immediately upon discovery and properly containerized for proper disposal by Duke's Construction Supervisor or designated Job Representative;
- The spill area shall be kept well ventilated and personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance;
- Spills of toxic or hazardous material shall be reported immediately by Duke to the appropriate State or Local government agency as appropriate;
- This SWP3 shall be adjusted as needed to prevent spills from reoccurring and improve spill response and cleanup; and

- If substances such as oil, diesel fuel, hydraulic fluid, antifreeze, etc. are spilled, leaked, or released onto the soil, the soil shall be dug up and disposed of at a licensed sanitary landfill or other approved petroleum contaminated soil remediation facility (not a construction/demolition debris landfill).

Spill Containment Measures

The following secondary containment measures are required at all Duke construction sites:

- For mobile equipment staged outside of the designated staging areas, secondary containment is required;
    - Designated staging areas are defined as designated areas for a construction site that typically include material offloading, overnight storage of project equipment and vehicles, and are located greater than 125ft from waterways and wetlands. Typical locations for designated storage areas include locations near road crossings, end of right-of-ways, etc.
- For fuel trucks that are stored overnight after daily refueling operations, secondary containment is required (does not apply to “drag-up” pickups with fuel tanks in the bed of the pick-up);
- For non-linear Project aspects secondary containment is required where the risk of spills to waterways and wetlands is present;
- For chemical storage areas (drum storage, fuel cans, etc) at construction sites, secondary containment is required;
- For equipment such as generators, light plants, compressors, and sump pumps, secondary containment is required when not in a designated staging area;
- For locations where a spill can reach storm drains, waters and/or wetlands, secondary containment is required; and
- Additional existing requirements to prevent spills are included in the Duke 2019 EHS Handbook.

Additionally, the following must be adhered to:

- Secondary containment systems must be impervious and free of cracks or gaps ensuring that the containment system is chemically compatible with whatever liquids could come into contact with it.
- Secondary containment system must have sufficient capacity to contain at least 10% of the total volume of the primary containers or 100% of the volume of the largest container, whichever is greater;
- Secondary containment systems should be designed with sufficient capacity to contain any precipitation (i.e. run-on) in addition to the volume capacity requirements;
- Any waste that has spilled or leaked into the secondary containment area (or any accumulated precipitation) must be removed in as timely a manner as is necessary to prevent overflow; And inspecting equipment, containers, drums, etc on a regular basis (minimum of start of shift and end of shift) to ensure they are in good condition is essential in preventing spills to the environment.

Air Emissions

Dust control is required to prevent nuisance conditions. Duke's Construction Supervisor or designated Job Representative shall be responsible for implementing dust controls in accordance with the manufacturer's specifications and not applied in a manner which shall result in a discharge to Waters of the State. Dust shall be minimized by stabilizing areas with mulch, water, or other practical means, if necessary. Application (other than water) shall not occur when precipitation is imminent as noted in the short-term forecast. Used oil shall not be applied for dust control.

ii) Offsite Traffic

Public and private roadways shall be kept clear of accumulated sediment that is a result of runoff or offsite tracking. Bulk clearing of sediments, if needed, shall be performed by equipment or hand tool; no flushing with water shall be performed. Cleared sediment shall be re-distributed or disposed of in an appropriate manner. Duke's Construction Supervisor or designated Job Representative shall be responsible for inspecting adjoining streets and keeping them clean on a daily basis.

iii) Compliance with Other Requirements

Implementation of this SWP3 shall be consistent with applicable State and/or Local waste disposal and sanitary sewer system regulations. There shall be no open burning of waste material onsite. Although not anticipated, should contaminated soils be encountered, they shall be properly disposed at an approved, offsite facility in accordance with Federal, State, and/or Local regulations.

iv) Trench and Groundwater Control

Duke's Construction Supervisor or designated Job Representative shall ensure that if trenchwater contains sediment, it shall be filtered through a pumped water filter bag prior to discharge from the work areas. Groundwater dewatering which does not contain sediment or other pollutants is not required to be treated prior to discharge. However, care shall be taken when discharging groundwater to ensure that it does not become pollutant-laden by traversing over disturbed soils or other pollutant sources.

v) Contaminated Sediment

Should contaminated sediments be encountered, Duke's Construction Supervisor or designated Job Representative shall be made aware that discharges are not authorized by the General Permit. Appropriate BMPs implemented to handle stormwater containing contaminated sediments shall include:

- Use of berms, trenches, and pits to collect contaminated runoff and prevent discharges;
- Pumping runoff into a sanitary sewer with prior approval from the sanitary sewer operator, or into a container for transport to an appropriate treatment/disposal facility; and
- Covering areas of contamination with tarps or other methods that prevent stormwater from coming into contact with the material.

h) Maintenance

All temporary and permanent control practices shall be maintained and repaired as needed to ensure continued performance of their intended function. All sediment control practices shall be maintained in a functional condition until the up-slope areas they control are permanently stabilized. Maintenance and repair shall be conducted by the construction contractor in accordance with BMPs.

i) Inspections

Duke shall implement a self-monitoring program on the construction site that shall continue throughout construction until final stabilization. Duke shall utilize their Construction Supervisor or designated Job Representative who shall be responsible for ensuring all requirements of the General Permit are met and that BMPs as discussed in this SWP3 are implemented and maintained in working order at all times throughout construction. Duke's Construction Supervisor or designated Job Representative and their assigned delegate(s) shall be trained and versed in the principles and practice of erosion and sediment controls and the mitigative measures described in this SWP3, as well as conditions of Federal, State, and Local environmental permits. These trained individuals shall be present onsite throughout construction and shall be responsible for conducting regular inspections. Duke's Construction Supervisor or designated Job Representative shall be responsible for the BMP installation, maintenance, and good housekeeping as per the Contractor's Certification.

Duke's Construction Supervisor or designated Job Representative shall monitor compliance and shall report compliance problems promptly to Duke. Upon determination of a compliance problem, Duke's Construction Supervisor or designated Job Representative shall be responsible to work to find onsite solutions to remediate any non-compliance incident.

Duke's Construction Supervisor or designated Job Representative shall conduct a visual inspection to ensure that the control practices are functional, to evaluate whether this SWP3 is adequate and properly implemented, and to determine whether additional control measures are required. This SWP3 shall serve as a guideline for stormwater quality, but should not be interpreted to be the only basis for implementation of stormwater quality measures for this Project area. Duke shall inform general contractors, construction management firms, grading or excavating contractors, and utility contractors of the conditions of this rule, the conditions and standards of this SWP3, and the schedule for proposed implementation.

Inspections shall be performed as follows:

(i). at least once every 7 calendar days; and

(ii). within 24 hours after any storm event greater than 0.5 inch of rain per 24-hour period.

The inspection frequency may be reduced to at least once every month if the entire site is temporarily stabilized or runoff is unlikely due to weather conditions (e.g., site is covered with snow, ice, or the ground is frozen). A waiver of inspection requirements is available until one month before thawing conditions are expected to result in a discharge if all of the following conditions are met:

- this Project is located in an area where frozen conditions are anticipated to continue for extended periods of time (i.e. more than one month); or
- land disturbance activities have been suspended; and the beginning and ending dates of the waiver period are documented in this SWP3.

Once a definable area has been finally stabilized, Duke's Construction Supervisor or designated Job Representative shall mark this on the field copy of the SWP3 with a date and initials that no further inspection requirements shall apply to that portion of the site.

Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in this SWP3 shall be observed to ensure that they are operating correctly. Discharge locations, where applicable, shall be inspected to ascertain whether erosion and sediment control measures are effective in preventing significant impacts to the receiving water. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite vehicle tracking.

Following each inspection, the inspector shall complete and sign a written evaluation of the project area and stormwater discharge areas. The inspection report shall address the maintenance of existing stormwater quality measures to ensure they are functioning properly; and identify additional measures necessary to remain in compliance.

This SWP3 and a log of each inspection and copy of the signed inspection report shall be retained on the work sites while onsite construction workers are present, and made available to Ohio EPA upon request.

Duke shall maintain the following for three (3) years following the submittal of a Notice of Termination (NOT) form:

(i). a record that summarizes the results of the inspection;

(ii). names(s) and qualifications of personnel making the inspection;

(iii). date(s) of the inspection;

(iv). major observations relating to the implementation of this SWP3; and

(v). a certification as to whether the facility is in compliance with this SWP3 and the General Permit and identify any incidents of non-compliance.

The records and certification shall be signed in accordance with Part V.G. of the General Permit.

Repair and Maintenance Requirements

If the inspection reveals that a control practice is in need of repair or maintenance, it shall be repaired or maintained within three (3) days of the inspection.

Failure of Controls to Provide Their Intended Function

If the inspection reveals that a control practice fails to perform its intended function and that another, more appropriate control practice is required, this SWP3 shall be amended and the new control practice shall be installed within 10 days of the inspection.

When Practices Depicted On this SWP3 Are Not Installed

If the inspection reveals that a control practice has not been implemented in accordance with the BMP schedule provided in this SWP3, the control practice shall be implemented within 10 days from the date of the inspection. If the inspection reveals that the planned control practice is not needed, the record shall contain a statement of explanation as to why the control practice is not needed.

3) Approved State or Local Plans

Duke has coordinated with and obtained necessary coordination and clearance with local agencies, as well as State agencies for cultural and threatened and endangered species clearance. There shall be no disturbance to the streams or wetlands, so no Clean Water Act 401 or 404 permitting is necessary.

Duke has coordinated with and obtained a Site Plan approval from the City of Monroe Development Department associated with the land disturbance and Stormwater Approval.

4) Exceptions

No exceptions to this SWP3 or General Permit conditions are anticipated for this Project. If specific site conditions contained in the General Permit or site-specific conditions are such that implementation of any erosion and sediment control practices contained in the General Permit shall result in no environmental benefit, then Duke shall provide justification for rejecting the practice based on site conditions. Exceptions from implementing the erosion and sediment control standards contained in the General Permit shall be approved or denied on a case-by-case basis.

5) Records, Updates and Amendments

A complete copy of this SWP3, related documents, and completed reports and forms shall be kept onsite at all times and made available for review immediately upon request. It is the responsibility of Duke's Construction Supervisor or designated Job Representative to update and/or amend this SWP3 to reflect any and all significant changes in the Project scope including, phasing/sequencing, BMPs, or onsite materials. Amendments/updates shall be made in writing and posted along with this Plan within 7 days of the significant change. All inspection reports shall be maintained onsite and kept by the Operator on file for a period of 3 years following completion of this Project.

Record amendment and/or modifications to the plan below:

Item	Discussion	By	Date

6) SWP3 Certification

a) Operator

I certify under penalty of law that I understand the terms and conditions of the National Pollutant Discharge Elimination System (NPDES) Permit (which includes state and local permits) that authorizes the stormwater discharge associated with construction activity for this project and the obligations associated with this Permit and the contents of this Plan.

Name (print or type)	Title
Signature	Date

b) Subcontractor

It is the responsibility of the Operator to ensure that all Subcontractors are familiar with and conduct site activities in accordance with this Plan.

I have reviewed this Plan and understand my responsibility to comply with the terms thereof.

Subcontractor	**Name (print)**	**Date**

Appendix A
Notice of Intent

Appendix B
SWP3 Contact List

Appendix C
Detailed Soil Report

Appendix D
Erosion and Sediment Control Plan (ESCP)

Appendix E
Major Activities Log

Appendix F
Notice of Termination Form

The Ohio EPA has moved to electronic Notice of Termination filing system. The NOI for this project shall be submitted electronically through https://ebiz.epa.ohio.gov.

Appendix G
Construction Stormwater Inspection Certification Form

Appendix H
Sequence of Control Measure Implementation

Appendix I
Rainfall Record Log

Application for Site Plan Review

Monroe Development Department
233 South Main Street, Monroe, Ohio 45050
Phone: 513-539-7374
www.monroeohio.org

For Staff Use Only	
Submittal Date:	
Date Application Determined Complete:	
Date of Planning Commission Review:	
Fee Paid:	Staff Initials:
Application/Case Number:	

Site Plan Review Information

1. The site plan review procedure and applicability requirements are established in Section 1203.06 of the Monroe Planning and Zoning Code.
2. Prior to submitting this application, you are required to meet with staff from the Development Department for a pre-application conference. Please contact the department to schedule the conference.
3. The Monroe Planning Commission reviews all site plan review applications unless specifically exempted in Section 1203.06(B)(3).
4. Approval of a site plan does not constitute approval to begin construction. Applicants with approved site plans are required to submit all applicable zoning permit and building permit applications.
5. Unless an alternative timeline is approved by the Planning Commission, construction related to the approved site plan must begin within one year of the site plan approval or the approval shall be voided. See Section 1203.06(H) for additional information.

Basic Project and Site Information

Project Address:

County: [X] Butler [ ] Warren | Total Lot Area:

County Tax Parcel ID: C1800-004-000-029 / C1800-004-000-030

Project/Development Name: NEW ACADEMIC BUILDING FOR BUTLER TECH

Existing Zoning District: A-1

Project Type: [X] New Building [ ] Expansion of Existing Structure
[ ] Addition to Site (e.g., parking, landscaping, lighting, etc.)

Applicant Information

Applicant Name: DAVID CLARK

Contact Person: DAVID CLARK

Contact Address: 3700 PARK 42 DR. STE. 190B CINTI, OHIO 45241

Contact Phone Number: 513-759-3278 | Contact Fax Number: 563-7099

Contact E-Mail: dclark@mspdesign.com

Property Owner Name: MONROE LOCAL SCHOOL DISTRICT BOARD OF EDUCATION

The applicant may attach a separate sheet of a paper with contact information for additional people, if necessary (e.g., additional owners, registered engineer, landscape architect, etc.). The same contact information shall be provided for each contact name.

Project Address or Tax Parcel ID:

Additional Project Information

1) Please describe, in detail, any existing uses and/or buildings on the project site.

SITE IS CURRENTLY USED BY BUTLER TECH FOR EDUCATIONAL PURPOSES AND ALSO FOR HOUSING ANIMALS SUCH AS HORSES. EXISTING BUILDINGS CONSIST OF AN ADMIN BUILDING, A RIDING ARENA, A MODULAR CLASSROOM BUILDING, TWO EQUINE BARNS, AN ACADEMIC/ STORAGE BARN AND THE SITE CARE-TAKER'S RESIDENCE.

2) Please describe, in detail, the proposed uses and the proposed development. Provide a summary of the square footage related to each use and/or the total number of proposed dwelling units.

PROJECT SCOPE INVOLVES THE REMOVAL OF THE EXISTING 8,500 SQ. FT. MODULAR TRAILER BUILDING. A NEW 26,000 SQ. FT ACADEMIC AND LAB BUILDING SHALL BE CONSTRUCTED IN IT'S PLACE. BUILDING SHALL HOUSE CURRENT STUDENTS AND STAFF ON SITE. ASSOCIATED SITE IMPROVEMENTS SHALL BE MADE AS REQUIRED.

3) What are the anticipated start and completion dates for the project?

Start Date: 6/2021

Completion Date: 7/2022

4) What is the estimated value (in dollars) of the proposed property improvements?

$10,000,000.00

5) Check any relevant procedural reviews applicable to this project:

☐ Conditional Use ☐ Variance ☐ Administrative Waiver ☐ Alternative Equivalent Compliance

If you checked any of the above procedures, please provide specific details on what you are seeking to have approved through the applicable review procedure? Provide the application/case numbers for any related applications.

Project Address or Tax Parcel ID:

Additional Project Information Continued

6) Does the project require any addition permits, licenses, or reviews by outside agencies (e.g., Butler or Warren County, ODNR, OEPA, etc.). ☒ Yes ☐ No If yes, please describe below.

BUTLER COUNTY PLUMBING AND HEALTH DEPARTMENT

Certification and Signatures

Applicant Signature - I certify that, to the best of my knowledge, the information contained in this form and within any attachments is correct and truthful. I understand that knowingly falsifying this information may be grounds for the denial or revoking of this application and any subsequent zoning permit or other review applications.

Print Name: DAVID CLARK

Signature: Dal Cl.

Date: 4.19.2021

Property Owner Signature - If the property owner is not the named applicant on this form, the property owner shall sign the form below acknowledging that the applicant is an authorized agent of the property owner as it relates to proposed project. If the site plan review is for multiple properties, a signature from each property owner is required.

Print Name: Jesse Catanzaro - Director of HR - Operations Monroe Local Schools

Signature:

Date: 4/19/2021

Note: A letter signed by the property owner, authorizing the applicant to act on their behalf may be submitted in lieu of the property owner's signature on this form.

Submittal Requirement Checklist Submittals shall include 8 copies (minimum of 24" x 36") and 8 copies (minimum of 11" x 17") Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.	
Digital Submittal Requirements	
☑	All document applications shall be submitted in an electronic format compatible (Adobe PDF) with the city's computer systems.
☑	All site plan materials, in map format, shall be submitted in a format compatible with the city's Geographic Information Systems (i.e. shapfile, geodatabase, or dwg) and shall be projected into NAD 1983 Ohio State Plane South - FIPS 3402 coordinate system using US Survey foot units.
General Information	
☑	Site Plan Review Application form
☑	Application fee
☑	Copies of the plans and maps established below at a scale no smaller than 1 inch = 100 feet, on full-sized copies unless on 11" x 17" or otherwise noted
☑	Any additional information determined to be necessary by the Development Department
Vicinity Map (Scale may be smaller than 1" = 100')	
☑	Date, north arrow, scale, and a legend for all symbols
☑	Project location
☑	All surrounding properties, streets, and corporation limits within a minimum of 500' of the outer boundaries of the project site
Existing Conditions Map	
☐	All existing zoning district classifications on the site and adjacent to the site
☐	Parcel boundaries of the site and all parcels adjacent to the site
☐	Names of all subdivisions and land owners owning lots adjacent to the site
☐	Existing streets within 200' of site with names and centerlines
☐	Existing watercourses and bodies of water including any applicable flood hazard areas
☐	Planned road network (including street names if available) within 500' of site (if different from existing streets)
☐	Existing land uses on the site and adjacent parcels (including across any streets)
☐	Railroad infrastructure and rights-of-way
☐	All existing easements (including drainage) with dimensions and designation as to type
☐	Location of existing curb cuts, private streets, parking and loading areas, pedestrian walks, lighting facilities, and outside trash storage facilities
Site Layout Plan	
☐	Lot numbers and sizes
☐	Square footage (gross) of existing buildings to remain and proposed buildings
☐	Required front, side, and rear yard width/setbacks
☐	All existing and proposed easements, including dimensions and type (e.g., drainage, access, public utility, etc.)
☐	Location, width, and classification of all existing and proposed streets in the development
☐	Location of any outdoor storage area(s) that require screening
☐	Locations of all proposed external street connections (including street stubs)
☐	Location, width, and materials of all sidewalks, trails, and paths (including connections to the public sidewalk system and adjacent developments)

Submittal Requirement Checklist Submittals shall include 8 copies (minimum of 24" x 36") and 8 copies (minimum of 11" x 17") Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.	
Parking Plan and Traffic Control Plan	
☐	Traffic impact study, if required
☐	Notation of total number of parking spaces, loading spaces, and stacking spaces required by ordinance
☐	Total number, dimensions, and location of parking spaces proposed off-street, on-street, and within parking structures, including information on handicapped parking spaces
☐	Total number of parking spaces to be provided through approval of shadow parking, off-site parking, or shared parking alternatives
☐	Number, location, and size of loading spaces provided
☐	Number and location of stacking spaces provided
☐	Location, arrangement, and dimensions of vehicular entrances, exits and parking lot aisles
☐	Location of pedestrian walkways and crossings
☐	Number and location of pervious parking spaces, if provided
☐	Proposed traffic control devices (in accordance with the Manual on Uniform Traffic Control Devices)
☐	Signing and striping plan
☐	Fire lanes and areas of parking prohibition
☐	Location of all sight triangles
Stormwater Management Sheet and Drainage Plan	
☐	Drainage basin(s) where the site is located and drainage patterns
☐	Existing and proposed locations, types, and sizes of drainage structures and calculations demonstrating how post-development runoff will not exceed pre-development runoff
☐	Erosion and siltation control measures and devices with narrative, including location of outfall for stormwater to proper catch basin (indicated sizes and slopes of existing pipes)
☐	Drainage computations from proposed development to proper pickup point
☐	All proposed elevations and slopes for grading
☐	Description of maintenance procedures for stormwater management devices
Utilities Plan (May be included on Site Layout Plan)	
☐	Existing and proposed locations, types, and sizes of all water, sanitary sewer, storm sewer, gas, telephone, power and other utility lines and meters, easements and any other utilities affected by the site (includes above ground utilities and grades and computations where appropriate)
☐	Notation that all new utilities (including cable television, electrical, natural gas, sewer, telephone, and water lines) shall be placed underground
☐	Locations where existing overhead utilities will be relocated underground (if applicable)
☐	Identification of any connections, above or below ground, that are located within the City of Monroe's right-of-way
Landscaping Plan	
☐	Exact locations, dimensions, and counts of existing and proposed landscape materials provided within and around vehicular use areas, including the size of landscaping islands
☐	Exact locations and counts of existing and proposed landscape materials provided within any required buffer areas including the type of buffer used, the buffer width provided, the proposed configuration of trees, shrubs, and screening features
☐	Location, size, and species of all existing and proposed street trees
☐	The total number of trees and shrubs provided, and the total number of different species planted
☐	Notations for any existing landscape within sight triangles indicating maximum shrub height or tree canopy height

Submittal Requirement Checklist Submittals shall include 8 copies (minimum of 24" x 36") and 8 copies (minimum of 11" x 17") Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.	
☐	Location and amount of credit towards landscape material requirements provided by existing landscaping
☐	Demarcation of existing trees to be removed
☐	Location and amount of all open space set-aside areas by development phase
☐	Details of all open space improvements and common features (e.g., fountains, benches, street furnishings, play equipment, etc.)
Architectural and Building Elevation Plans	
☐	Color elevations for each building side facing a public street, alley, public open space, or public building, illustrating compliance with the architectural standards of the applicable zoning district
☐	Dimensions, in feet, of all façade recesses or similar fenestration
☐	Preliminary floor plan for principal buildings
☐	Height of all buildings in feet, including number of building stories
☐	Accessory structure size(s), if applicable
☐	Accessory structure height(s), if applicable
☐	Description of the type of material(s) used on each façade elevation
☐	Illustrative elevation of all fencing, walls, and retaining walls visible from a street, open space, or public building that will be used for buffering or screening of adjacent residential uses, dumpsters, service structures, utilities, parking areas, loading areas, and similar activity areas
Lighting Plan	
☐	Location, type, and height of all lighting fixtures (including street lights)
☐	Details on colors and materials for all lighting fixtures
☐	Grid or photometric diagram showing maximum illumination values at the lot line, and uniformity ratios within parking lots, measured in footcandles
Signage Plan	
☐	All sign areas, dimensions and height (including shape)
☐	Position of all signs in relation to the use being advertised (may be identified on the site layout plan)
☐	Location and style of all address numbers, building numbers, or allowable building identifications
☐	Plan of illumination for the sign including information on message timing for electronic message centers
☐	Landscaping around base of sign (may be identified on the landscaping plan)

Application for a Planned Unit Development (PUD)

Monroe Development Department
233 South Main Street, Monroe, Ohio 45050
Phone: 513-539-7374
www.monroeohio.org

For Staff Use Only	
Submittal Date:	
Date Application Determined Complete:	
Date of Planning Commission Review:	
Fee Paid:	Staff Initials:
Application/Case Number:	

Planned Unit Development Review Information

1. The review procedure, review criteria, and standards for planned unit developments are established in Chapter 1206 of the Monroe Planning and Zoning Code.
2. The PUD review procedure is a two-step process. The first step is the review and approval of a preliminary PUD plan that results in a zoning map amendment and the second step is the review and approval of a final PUD plan. This form shall serve as the application for a PUD zoning map amendment.
3. A pre-application conference is required prior to submission of an application for a zoning map amendment unless the Code Enforcement Officer waives the requirement. Contact the Development Department to set up a time.
4. The applicant shall be responsible for contacting the Development Department to set up a pre-application conference in advance of submitting this form and related information.
5. Unless an alternative timeline is approved by the Planning Commission, a final PUD plan must be submitted to the Development Department within one year of the approval of the preliminary PUD plan approval or the preliminary PUD plan approval will expire. See Section 1206.04 for additional information on timelines.
6. City Council maintains the authority to revoke a final PUD plan approval if construction does not begin within one year of the Council's approval of the final PUD plan. City Council is required to hold a public hearing prior to any revocation. See Section 1206.07 for additional information.
7. The application fee is due at the time the application is submitted and shall be $500 for the review of a planned unit development.

Basic Information

Project Address:

☐ New PUD Development ($500) ☐ Major PUD Amendment ($500) ☒ Minor PUD Amendment ($100)

County: ☒ Butler ☐ Warren | Total Area of Rezoning:

County Tax Parcel ID: C1800-004-000-029 | C1800-004-000-030

Existing Zoning District: A-1

Proposed Zoning District: A-1

Applicant Information

Applicant Name: DAVID CLARK

Contact Person: DAVID CLARK

Contact Address: 3700 PARK 42 DR. STE. 190B CINTI, OHIO 45241

Contact Phone Number: 513-759-3278 | Contact Fax Number: 563-7099

Contact E-Mail: dclark@mspdesign.com

Property Owner Name: MONROE LOCAL SCHOOL DISTRICT BOARD OF EDUCATION

The applicant may attach a separate sheet of a paper with contact information for additional people, if necessary (e.g., additional owners, registered engineer, landscape architect, etc.). The same contact information shall be provided for each contact name.

Project Address or Tax Parcel ID:

Planned Unit Development Information

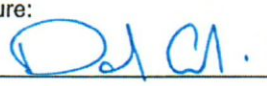
1) Describe any change in conditions, trends, or other facts that necessitates the proposed zoning amendment. Furthermore, describe how the proposed zoning district will remedy the change in conditions, trends, or other issues.

Butler Tech is removing the existing leased, modular trailer classroom building and wishes to construct a new 26,000 sq. F.T academic facility.

2) Describe how the proposed amendment furthers the objectives of the comprehensive plan.

N/A - site is, and will continue to be "PUD".

3) Provide any additional information necessary to document how the proposed plans meet the review criteria established for PUDs in Section 1206.05(C) of the Monroe Planning and Zoning Code.

Project Address or Tax Parcel ID: .
Certification and Signatures
Applicant Signature - I certify that, to the best of my knowledge, the information contained in this form and within any attachments is correct and truthful. I understand that knowingly falsifying this information may be grounds for the denial or revoking of this PUD application and any subsequent zoning permit or other review applications.
Print Name: DAVID CLARK
Signature: 
Date: 4.19.2021
Property Owner Signature - If the property owner is not the named applicant on this form, the property owner shall sign the form below acknowledging that the applicant is an authorized agent of the property owner as it relates to proposed project. If the proposed PUD affects multiple properties owned by different property owners, each property owner subject to the PUD review shall be required to sign this form acknowledging consents of this PUD request. Separate signature sheets or letters acknowledging such consent are acceptable.
Print Name: Jesse Catanzaro - Director of HR + Operations Monroe Local Schools
Signature: 
Date: 4/19/2021
Note: A letter signed by the property owner, authorizing the applicant to act on their behalf may be submitted in lieu of the property owner's signature on this form.

Submittal Requirement Checklist Submittals shall include 8 copies (minimum of 24" x 36") and 8 copies (minimum of 11" x 17") Additional copies may be required based on project specifics. Final mylars and digital Files will be required after approval.	
General Information	
☐	Completion of required pre-application conference
☐	Planned Unit Development Review Application Form
☐	Application fee
☐	Copies of the plans and maps established below at a scale no smaller than 1 inch = 100 feet, unless otherwise noted
☐	Traffic impact study, if required. See Section 1211.04
☐	Any additional information determined to be necessary by the Development Department
Vicinity Map (Scale may be smaller than 1" = 100')	
☐	Date, north arrow, scale, and a legend for all symbols
☐	Identification of properties subject to the proposed rezoning
☐	All surrounding properties, streets, and corporation limits within a minimum of 500' of the outer boundaries of the project site
Preliminary PUD Plan and Map Amendment	
☐	The existing and proposed zoning for all properties that are a part of this application for a PUD. The map shall also identify the existing zoning for all surrounding properties
☐	Existing streets within 200' of site with names and centerlines
☐	Existing watercourses and bodies of water including any applicable flood hazard areas
☐	A development plan with an appropriate scale, illustrating the proposed streets, internal circulation, sidewalks and trails, open spaces and related improvements, lots, land uses and related densities, for the entire PUD, regardless if the PUD will be developed in phases.
☐	A proposed schedule for completion of the project, including any phasing schedule, for submitting the final PUD plan(s)
☐	General illustrations of building elevations to demonstrate an understanding of the applicable architectural standards
Final PUD Plan	
☐	A plan with subdivision level details illustrating the final lot layout, street information (e.g., width and access), sidewalks and trails, building footprints, and other information necessary to demonstrate that the final plan is in compliance with the approved preliminary PUD plan
☐	A copy of any deed restrictions or covenants that will apply to development in the PUD. Note: This submittal shall in no way imply a requirement for the city to enforce any of these private agreements
☐	Final building elevations for all buildings to be constructed. The applicant may submit a series of elevations to illustrate the architectural character and materials for any residential product

BUTLER TECH
NATURAL SCIENCE CENTER

NEW ACADEMIC BUILDING

640 HAMILTON LEBANON ROAD
MONROE, OH 45050



ARCHITECTURAL, CIVIL ENGINEERING AND LANDSCAPE ARCHITECTURE

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STRUCTURAL ENGINEER

SCHAEFER
537 EAST PETE ROSE WAY, SUITE 400
CINCINNATI, OHIO 45202
PHONE: (513) 542-3302
www.schaefer-inc.com

CONSTRUCTION MANAGER

SKANSKA USA BUILDING, INC.
201 EAST FIFTH STREET, SUITE 2020
CINCINNATI, OHIO 45202
PHONE: (513) 421-0028
www.usaskanska.com

OWNER

BUTLER TECH AND CAREER DEVELOPMENT SCHOOLS
3605 HAMILTON-MIDDLETOWN ROAD
HAMILTON, OHIO 45011

DRAWING INDEX

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3700 Park 42 Drive
Suite 190B
Cincinnati OH 45241
Phone 513.759.0004
www.mspdesign.com

Project Manager **DCC**
Drawn By **XMC**

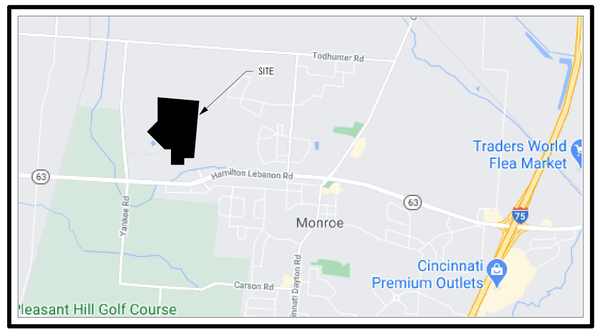
Issue/Revision	No.	Date
PLANNING COMMISSION		04/20/21

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ARCHITECTURAL ABBREVIATIONS

AB	ANCHOR BOLT
A/E	ARCHITECT/ENGINEER
A.F.F.	ABOVE FINISH FLOOR
A.F.G.	ABOVE FINISH GRADE
APPROX.	APPROXIMATE
ARCH.	ARCHITECT
AVG.	AVERAGE
B_L	BASELINE/BUILDING LINE
B/B	BACK TO BACK
BD.	BOARD
B/FTG	BOTTOM OF FOOTING
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BOT	BOTTOM
BRG	BEARING
BSMT	BASEMENT
℄	CENTERLINE
CPT	CARPET
CB	CATCH BASIN
C.J.	CONTROL JOINT
CLG.	CEILING
CL	CLEAR
C.M.U.	CONCRETE MASONRY UNIT
CO	CLEANOUT
COL.	COLUMN
CONC.	CONCRETE
CONST.	CONSTRUCTION
CONST. JT.	CONSTRUCTION JOINT
CONT.	CONTINUOUS
CONTR	CONTRACTOR
DF	DRINKING FOUNTAIN
DIA (OR Ø)	DIAMETER
DIM	DIMENSION
DL	DEAD LOAD
DN	DOWN
DS	DOWNSPOUT
DWG	DRAWING
E.I.F.S.	EXTERIOR INSULATION AND FINISH SYSTEM
ELEC	ELECTRIC
EOP	EDGE OF PAVEMENT
EQ	EQUAL
EQUIP	EQUIPMENT
EWC	ELEC. WATER COOLER
EXP	EXPANSION
EXIST	EXISTING
FD	FLOOR DRAIN
FDN	FOUNDATION
F.E.	FIRE EXTINGUISHER
F.F.	FINISH FLOOR
F.H.	FIRE HYDRANT
FIN	FINISH
FLR	FLOOR
FT	FEET/FOOT
FTG	FOOTING
F/F	FACE TO FACE
FURR	FURRED
GA.	GAUGE
GALV.	GALVANIZED
GRD	GRADE
GYP.	GYPSUM
GYP.BD.	GYPSUM WALLBOARD
HBD	HARDBOARD
HDR	HEADER
HGT	HEIGHT
H.M.	HOLLOW METAL
I.D.	INSIDE DIAMETER
IN.	INCH
INV.	INVERT
INCL	INCLUDE
INSUL	INSULATION
∠	ANGLE
LAV	LAVATORY
LF	LINEAL FOOT
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
MAX	MAXIMUM
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
M.O.	MASONRY OPENING
MS	MOP SINK
MTD	MOUNTED
N.I.C.	NOT IN CONTRACT
NOM	NOMINAL
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OPP	OPPOSITE
PL	PROPERTY LINE/PLATE
PLYWD	PLYWOOD
P.S.F.	POUNDS PER SQUARE FOOT
P.S.I.	POUNDS PER SQUARE INCH
PTFR	PRESSURE TREATED FIRE RESISTANT
R	RADIUS/RISER
RD	ROOF DRAIN
REF.	REFERENCE
REINF	REINFORCEMENT
REQ'D	REQUIRED
REV	REVISION
RM	ROOM
R.O.	ROUGH OPENING
R/W	RIGHT OF WAY
SF	SQUARE FEET/FOOT
SHT	SHEET
SIM	SIMILAR
SPEC	SPECIFICATION
SM	SHEET METAL
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
SUSP	SUSPENDED
SYM	SYMMETRICAL
T	TREAD
TEL	TELEPHONE
THRU	THROUGH
T/M	TOP OF MASONRY
T/SLAB	TOP OF SLAB
TV	TELEVISION
T/WALL	TOP OF WALL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
W/	WITH
WC	WATER CLOSET
WM	WATER METER
W/O	WITHOUT
WWF	WELDED WIRE FABRIC
YD	YARD DRAIN

VICINITY MAP



NORTH

GRAPHIC SYMBOLS

- NOTE NUMBERS
- REVISION NUMBERS
- DOOR NUMBERS
- ROOM NUMBERS
- WINDOW NUMBERS
- WALL TYPES
- EQUIPMENT TAG
- TOILET ACCESSORY TAG
- CENTERLINE

IDENTIFICATION OF SECTION, ELEVATION OR ENLARGED DETAIL

- SECTION CUT (NUMBERS)
- LOCATED ON SHEET
- INTERIOR ELEVATION
- ENLARGED DETAILS
- SHEET(S) WHERE DETAIL OCCURS
- Name / Elevation — LEVEL IDENTIFICATION
- MATERIAL TAG
- CEILING HEIGHT

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Sheet Title
COVER SHEET

Project Number 06398.04
Drawing Scale As indicated

Sheet Number **G000**

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NORTHWEST ELEVATION



NORTH ELEVATION



NORTHEAST ELEVATION



EAST ELEVATION

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Project Manager DCC
Drawn By XMC

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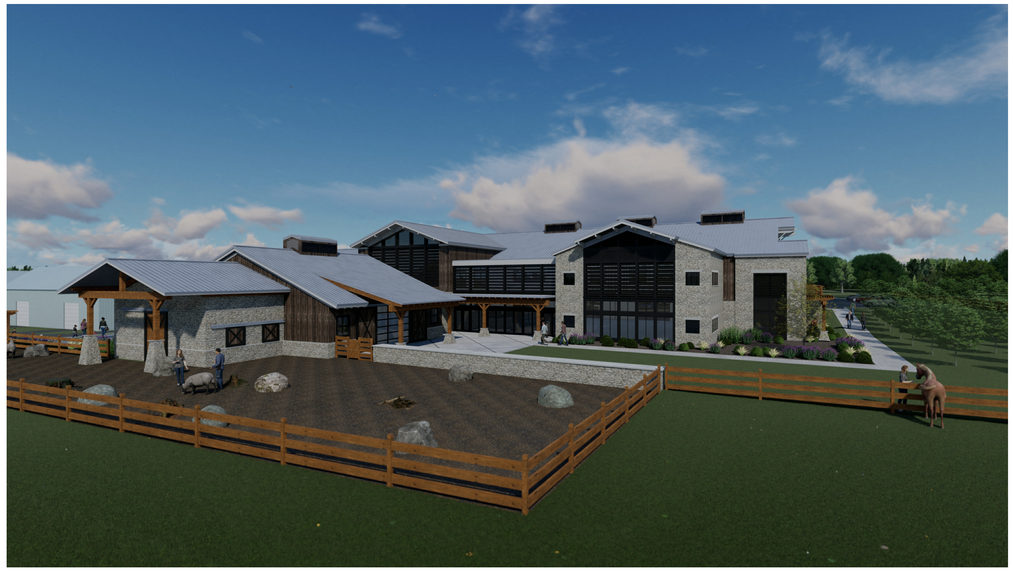
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Sheet Title
RENDERINGS

Project Number 06398.04
Drawing Scale 12" = 1'-0"

Sheet Number **G003**

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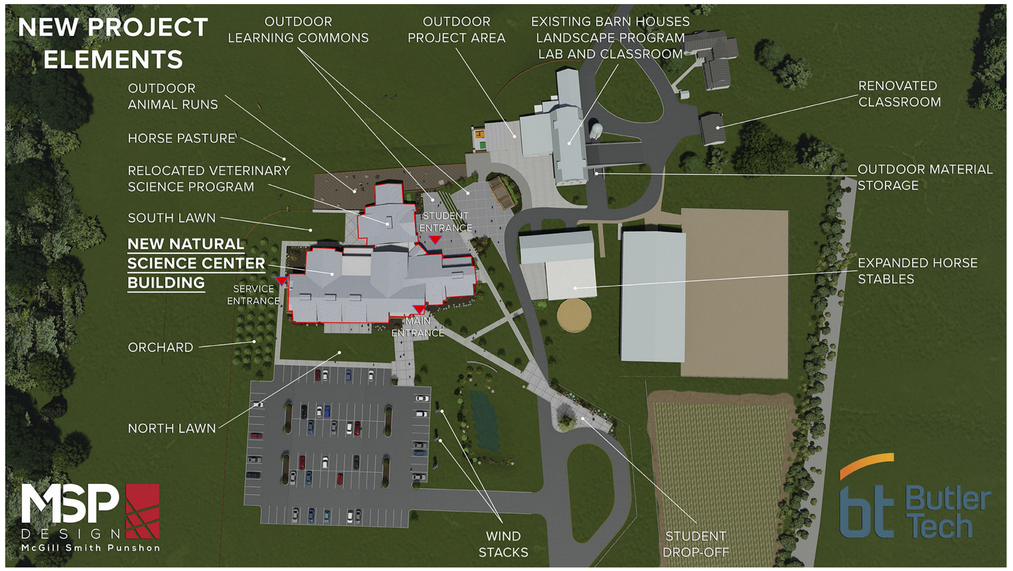
SOUTHEAST ELEVATION



SOUTH ELEVATION



WEST ELEVATION



SITE AERIAL

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RENDERINGS

Project Number 06398.04
Drawing Scale 12" = 1'-0"

Sheet Number **G004**

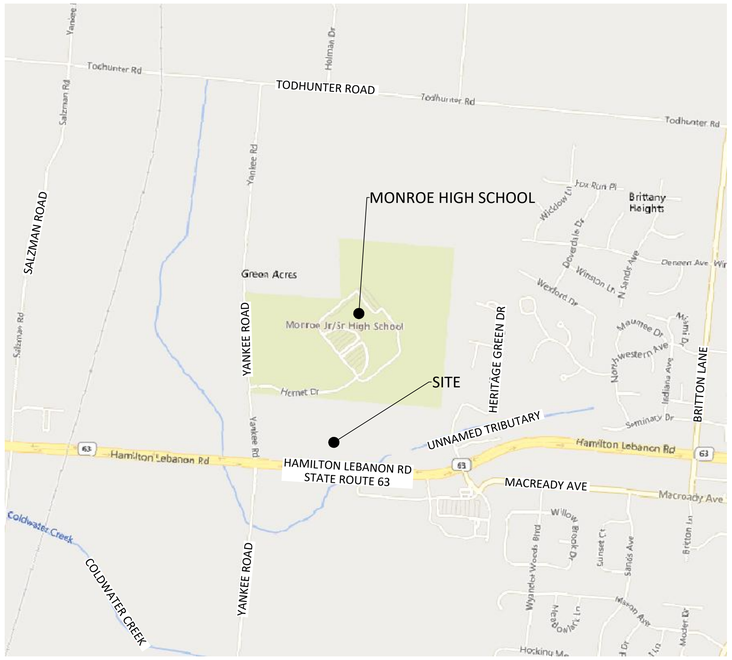
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NEW ACADEMIC BUILDING

640 HAMILTON LEBANON ROAD
CITY OF MONROE
BUTLER COUNTY, OHIO

PLANNING COMMISSION

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VICINITY MAP
1" = 1000'



SITE MAP

SCALE IN FEET
0 30 60 120 180

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BUTLER TECH AND CAREER DEVELOPMENT SCHOOLS
3605 HAMILTON-MIDDLETOWN ROAD
HAMILTON, OH 45011

PARCEL DATA

TAX PARCEL NUMBER	AREA
C1800004000029	5.00 AC.
C1800004000030	181.57 AC.

SHEET INDEX

C001	COVER SHEET
C100	EXISTING CONDITIONS PLAN
C100A	EXISTING CONDITIONS PLAN - 60 SCALE
D101	SITE DEMOLITION PLAN
C101	UTILITY PLAN
C102	GRADING PLAN
C103	EROSION AND SEDIMENT CONTROL PLAN
C200	CIVIL DETAILS I
C201	CIVIL DETAILS II
C202	EROSION AND SEDIMENT CONTROL DETAILS I
C203	EROSION AND SEDIMENT CONTROL DETAILS II
L101	SITE LAYOUT AND MATERIALS PLAN
L102	PLAZA LAYOUT AND MATERIALS PLAN
L103	ENLARGEMENTS LAYOUT AND MATERIALS PLAN
L200	LANDSCAPE CONSTRUCTION DETAILS I
L201	LANDSCAPE CONSTRUCTION DETAILS II
L301	SITE PLANTING PLAN
L302	PLAZA PLANTING PLAN
L303	ENTRY PLANTING PLAN
L304	PLANTING DETAILS

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CITY OF MONROE
BUTLER COUNTY, OHIO
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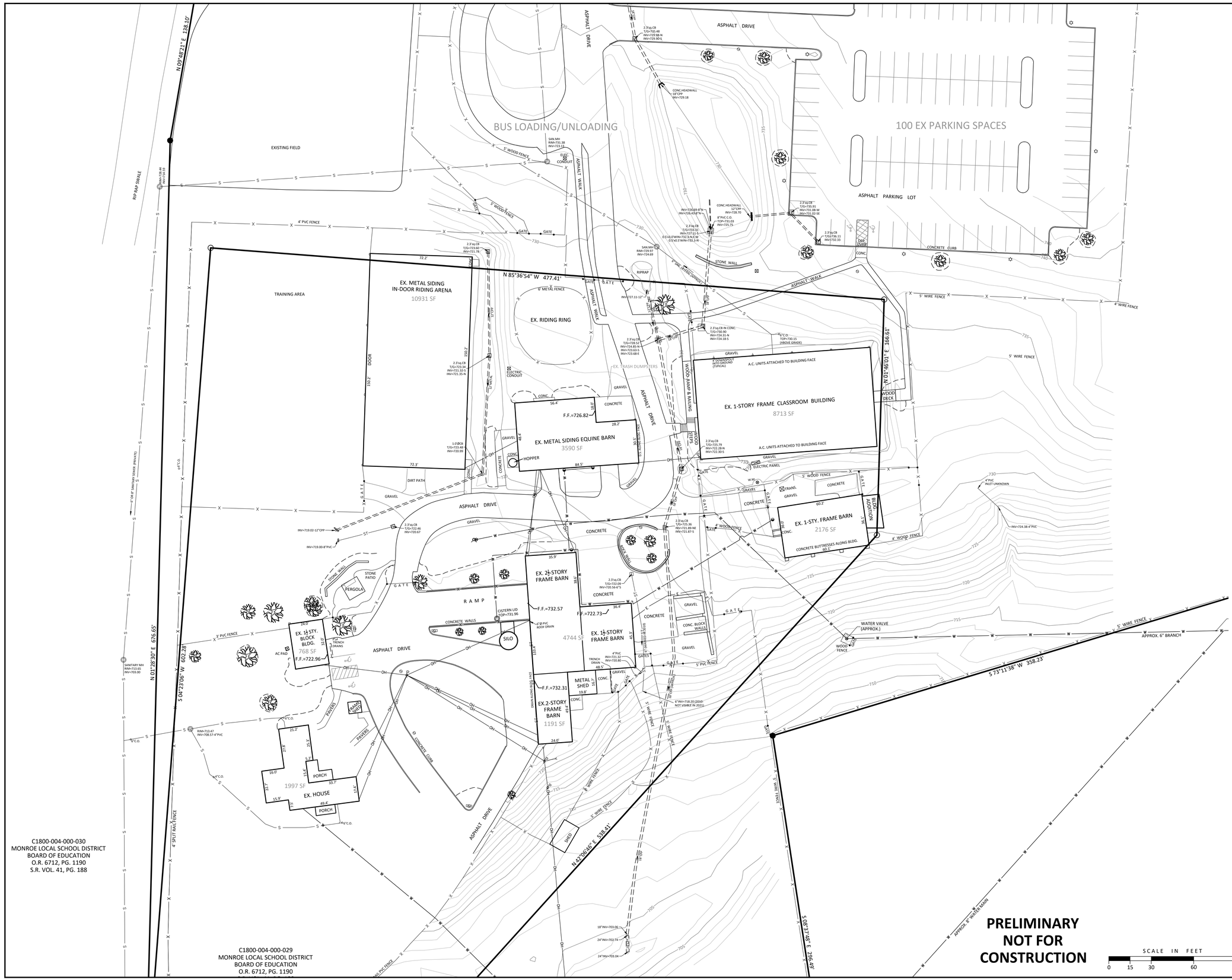
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COVER SHEET

Project Number	06398.04
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Sheet Number	C001
File Number	06398



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SCALE IN FEET
0 15 30 60 90

LEGEND
EXISTING FEATURES

- MANHOLE
- CATCH BASIN/DRAIN
- GUTTER INLET
- CLEAN OUT
- DOWNSPOUT
- UTILITY POLE
- ELECTRIC BOX
- TELEPHONE BOX
- CABLE TV BOX
- LIGHT POLE/LAMP POST
- TRAFFIC SIGNAL/BOX
- FIRE HYDRANT
- WATER VALVE/METER
- SPRINKLER/VALVE
- GAS VALVE/METER
- SIGN/SIGN POST
- FLAG POLE
- MAIL BOX
- PARKING METER
- GUARD POST
- HANDICAPPED PARKING
- S — SANITARY SEWER
- ST — STORM SEWER (SMALL) / (LARGE)
- W — WATER LINE
- F — FIRE WATER LINE
- D — DOMESTIC WATER LINE
- G — GAS LINE
- E — ELECTRIC LINE
- T — TELEPHONE LINE
- FO — FIBEROPTIC LINE
- OH — OVERHEAD UTILITY LINE
- X — FENCE LINE
- 730 — EXISTING MAJOR TOPOGRAPHIC CONTOUR
- EXISTING MINOR TOPOGRAPHIC CONTOUR

LEGEND
MONUMENTS
(UNLESS NOTED OTHERWISE)

- EX. 5/8" IRON PIN
- EX. SPIKE
- EX. NOTCH
- EX. NAIL
- EX. STONE
- EX. CONC. MON.
- X — EX. FENCE LINE
- 5/8" IRON PIN SET
- 1" IRON PIN SET
- SPIKE SET
- NOTCH SET
- NAIL SET
- CONC. MON. SET

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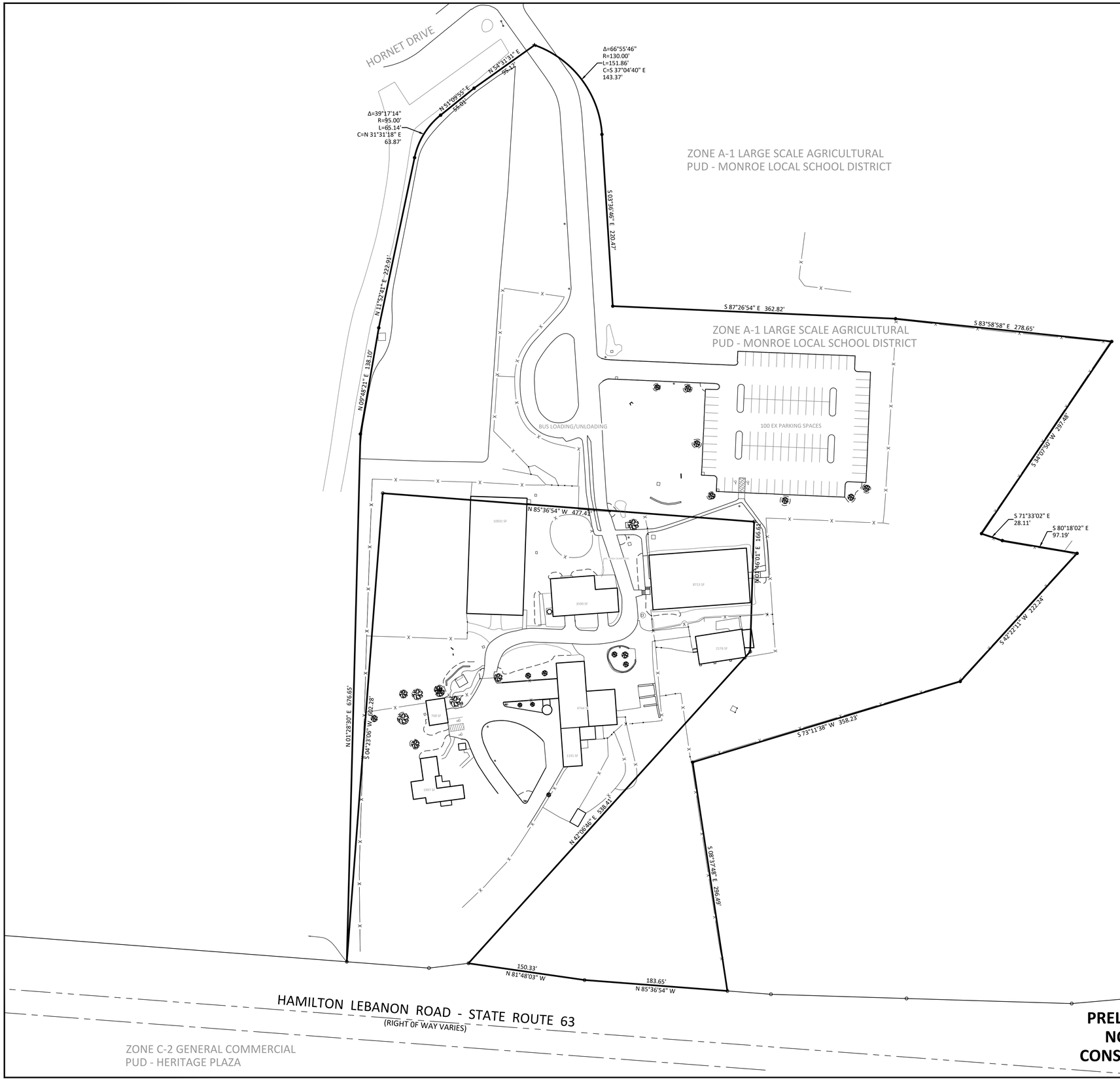
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EXISTING CONDITIONS PLAN

Project Number	06398.04
Drawing Scale	1" = 30'
Sheet Number	C100
File Number	06398



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SCALE IN FEET
0 30 60 120 180

LEGEND
EXISTING FEATURES

- MANHOLE
- CATCH BASIN/DRAIN
- GUTTER INLET
- CLEAN OUT
- DOWNSPOUT
- UTILITY POLE
- ELECTRIC BOX
- TELEPHONE BOX
- CABLE TV BOX
- LIGHT POLE/LAMP POST
- TRAFFIC SIGNAL/BOX
- FIRE HYDRANT
- WATER VALVE/METER
- SPRINKLER/VALVE
- GAS VALVE/METER
- SIGN/SIGN POST
- FLAG POLE
- MAIL BOX
- PARKING METER
- GUARD POST
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- T — TELEPHONE LINE
- FO — FIBEROPTIC LINE
- OH — OVERHEAD UTILITY LINE
- X — FENCE LINE

LEGEND
MONUMENTS
(UNLESS NOTED OTHERWISE)

- EX. 5/8" IRON PIN
- EX. SPIKE
- EX. NOTCH
- EX. NAIL
- EX. STONE
- EX. CONC. MON.
- EX. FENCE LINE
- 5/8" IRON PIN SET
- 1" IRON PIN SET
- SPIKE SET
- NOTCH SET
- NAIL SET
- CONC. MON. SET

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EXISTING CONDITIONS
PLAN - 60 SCALE

Project Number	06398.04
Drawing Scale	1" = 60'
Sheet Number	C100A
File Number	06398

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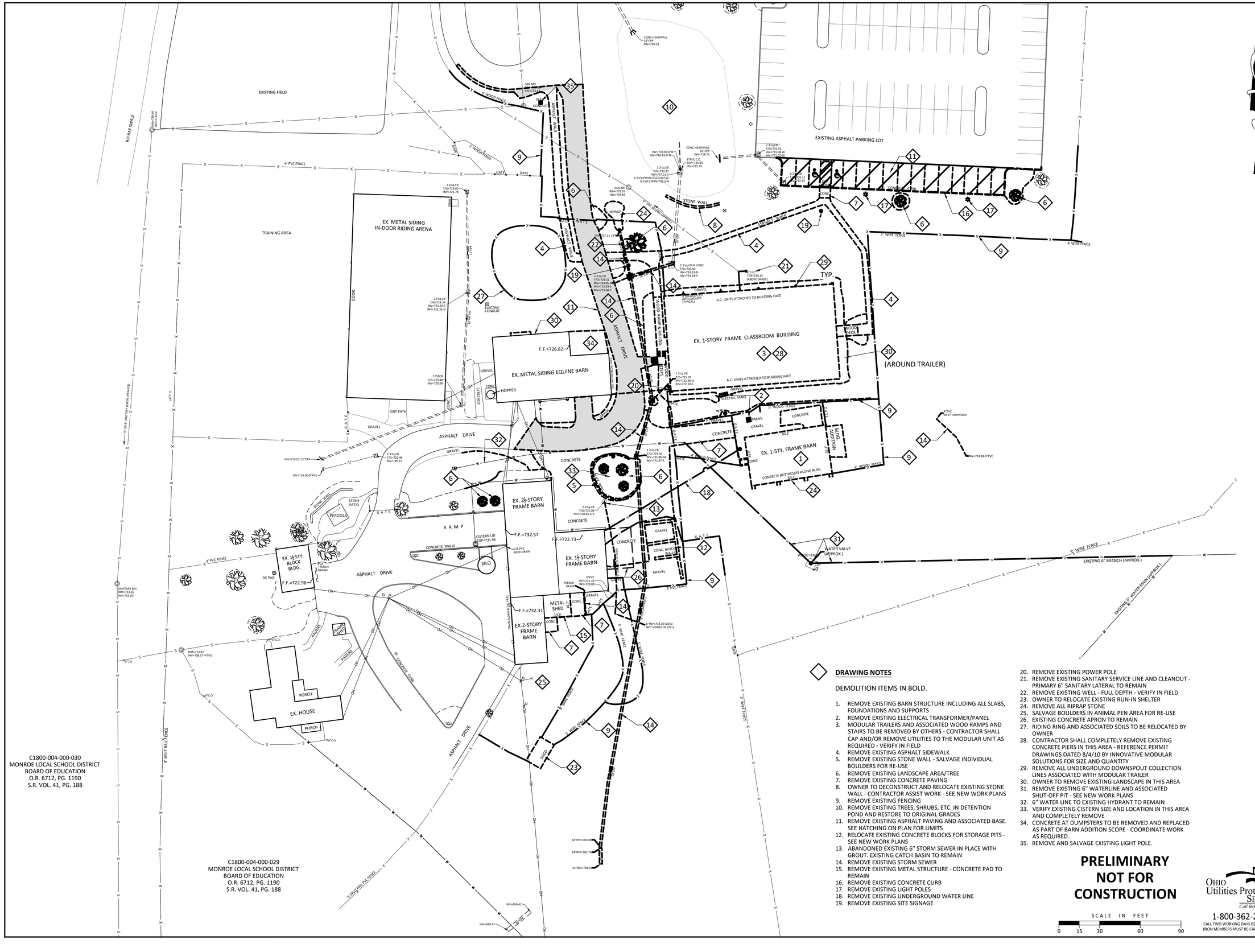
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DRAWING NOTES

DEMOLITION ITEMS IN BOLD.

1. REMOVE EXISTING BARN STRUCTURE INCLUDING ALL SLABS, FOUNDATIONS AND SUPPORTS
2. REMOVE EXISTING ELECTRICAL TRANSFORMER/PANEL
3. MODULAR TRAILERS AND ASSOCIATED WOOD RAMPS AND STAIRS TO BE REMOVED BY OTHERS - CONTRACTOR SHALL CAP AND/OR REMOVE UTILITIES TO THE MODULAR UNIT AS REQUIRED - VERIFY IN FIELD
4. REMOVE EXISTING ASPHALT SIDEWALK
5. REMOVE EXISTING STONE WALL - SALVAGE INDIVIDUAL BOULDERS FOR RE-USE
6. REMOVE EXISTING LANDSCAPE AREA/TREE
7. REMOVE EXISTING CONCRETE PAVING
8. OWNER TO DECONSTRUCT AND RELOCATE EXISTING STONE WALL - CONTRACTOR ASSIST WORK - SEE NEW WORK PLANS
9. REMOVE EXISTING FENCING
10. REMOVE EXISTING TREES, SHRUBS, ETC. IN DETENTION POND AND RESTORE TO ORIGINAL GRADES
11. REMOVE EXISTING ASPHALT PAVING AND ASSOCIATED BASE. SEE HATCHING ON PLAN FOR LIMITS
12. RELOCATE EXISTING CONCRETE BLOCKS FOR STORAGE PITS - SEE NEW WORK PLANS
13. ABANDONED EXISTING 6" STORM SEWER IN PLACE WITH GROUT. EXISTING CATCH BASIN TO REMAIN
14. REMOVE EXISTING STORM SEWER
15. REMOVE EXISTING METAL STRUCTURE - CONCRETE PAD TO REMAIN
16. REMOVE EXISTING CONCRETE CURB
17. REMOVE EXISTING LIGHT POLES
18. REMOVE EXISTING UNDERGROUND WATER LINE
19. REMOVE EXISTING SITE SIGNAGE
20. REMOVE EXISTING POWER POLE
21. REMOVE EXISTING SANITARY SERVICE LINE AND CLEANOUT - PRIMARY 6" SANITARY LATERAL TO REMAIN
22. REMOVE EXISTING WELL - FULL DEPTH - VERIFY IN FIELD
23. OWNER TO RELOCATE EXISTING RUN-IN SHELTER
24. REMOVE ALL RIPRAP STONE
25. SALVAGE BOULDERS IN ANIMAL PEN AREA FOR RE-USE
26. EXISTING CONCRETE APRON TO REMAIN
27. RIDING RING AND ASSOCIATED SOILS TO BE RELOCATED BY OWNER
28. CONTRACTOR SHALL COMPLETELY REMOVE EXISTING CONCRETE PIERS IN THIS AREA - REFERENCE PERMIT DRAWINGS DATED 8/4/10 BY INNOVATIVE MODULAR SOLUTIONS FOR SIZE AND QUANTITY
29. REMOVE ALL UNDERGROUND DOWNSPOUT COLLECTION LINES ASSOCIATED WITH MODULAR TRAILER
30. OWNER TO REMOVE EXISTING LANDSCAPE IN THIS AREA
31. REMOVE EXISTING 6" WATERLINE AND ASSOCIATED SHUT-OFF PIT - SEE NEW WORK PLANS
32. 6" WATER LINE TO EXISTING HYDRANT TO REMAIN
33. VERIFY EXISTING CISTERN SIZE AND LOCATION IN THIS AREA AND COMPLETELY REMOVE
34. CONCRETE AT DUMPSTERS TO BE REMOVED AND REPLACED AS PART OF BARN ADDITION SCOPE - COORDINATE WORK AS REQUIRED.
35. REMOVE AND SALVAGE EXISTING LIGHT POLE.

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SITE DEMOLITION PLAN

Project Number	06398.04
Drawing Scale	1" = 30'
Sheet Number	D101
File Number	06398

(2) 1.5"C TO RENEW ELECTRICAL ROOM

CONCRETE PIER (1 OF 3) FOR WIND TURBINE

PROVIDE CONNECTION FOR NEMA 3R DUAL PORT CAR CHARGING STATION - (CHARGEPOINT CT4021 STANDARD POWER SHARE OR EQUAL)

PROPOSED FIRE HYDRANT

EXISTING ASPHALT PARKING LOT

PROPOSED 6" C900 FIRE LINE

DAYLIGHT PIPE
INV = 729.50

PROPOSED FIRE LINE PIT AND FDC

PROPOSED 8" C900 FIRE LINE

ODOT CB 2-2B
GRATE = 734.10
INV = 731.10

PROPOSED 6" C900 FIRE LINE

111LF 12" CPP @ 5.4%

69LF 8" CPP @ 2.9%

ODOT CB 2-2B
GRATE = 729.00
INV = 723.50

170LF 12" CPP @ 4.1%

36LF 18" CPP @ 1.9%

PROPOSED GREASE INTERCEPTOR

8" NDS YARD DRAIN
GRATE = 735.10
INV = 733.10

102LF 8" CPP @ 3.3%

PROPOSED 6" FIRE CONNECTION TO PROPOSED BUILDING

PROPOSED SANITARY CLEANOUT

PROPOSED FIRE HYDRANT

CONNECT TO EXISTING SANITARY

PROPOSED 6" C900 FIRE LINE

IT ROOM IN BUILDING-
SEE ARCHITECTURAL PLANS

(2) 4"C

PROPOSED 2" C900 DOMESTIC

PRIMARY ELECTRICAL ROOM-
SEE ARCHITECTURAL PLANS

PROPOSED DOMESTIC
WATER METER PIT

SEE NOTE 1.

(1) 4"C RISER

196LF 18" CPP @ 5.2%

PROPOSED 8" C900 FIRE LINE

(1) 4"C

(1) 4"C

(1) 2"C

CONNECT EXISTING 6" HYDRANT LINE TO PROPOSED 8"

(2) 3.5"C

(2) 2"C

(1) 4"C RISER

32LF 18" CPP @ 2.0%

PROPOSED 8" TAP

(1) 4"C

10' x 10' TRANSFORMER PAD

(1) 4"C RISER

ODOT CB 2-2B
GRATE = 723.00
W INV = 719.90
N/S INV = 713.88

PROPOSED 8" C900 FIRE LINE

GENERATOR PAD - 72"L x 36"W

SEE NOTE 2.

97LF 18" CPP @ 5.0%

(2) 5"C

(2) 4"C

PROPOSED UTILITY POLE

INV = 709.00

PROPOSED DETENTION BASIN
TOP OF BERM = 710.00
BOTTOM OF BASIN = 705.00

4" CONDUIT FOR GAS

ODOT CB 2-2A RELEASE STRUCTURE.
GRATE = 709.00
18" OUTLET = 705.00
6" ORIFICE INV = 705.00
24"W x 6"H WINDOW = 707.50

65LF 18" CPP @ 1.5%

EMERGENCY SPILLWAY
INV = 709.00

ANTI-SEEP COLLARS

INV = 704.00

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EXISTING FIELD
TRAINING AREA
EX. METAL SIDING IN-DOOR RIDING ARENA
EX. METAL SIDING EQUINE BARN
EX. HOUSE
EX. 1½ STY. BLOCK BLDG.
EX. 2½ STORY FRAME BARN
EX. 1½ STORY FRAME BARN
EX.2-STORY FRAME BARN
ASPHALT DRIVE
DIRT PATH
GRAVEL
RAMP
SILO
PERGOLA
STONE PATIO
STONE WALL
CONCRETE WALLS
CONCRETE CURB
PAVERS
PORCH
4' PVC FENCE
5' WOOD FENCE
4' SPLIT RAIL FENCE
RIP RAP SWALE
EXISTING 8" WATER MAIN (APPROX.)

LEGEND

- EXISTING SANITARY LINE
- EXISTING WATER LINE
- EXISTING STORMWATER LINE
- EXISTING OVERHEAD ELECTRIC LINE
- PROPOSED SANITARY LINE
- PROPOSED WATER LINE
- PROPOSED GAS LINE
- PROPOSED ELECTRICAL LINE
- PROPOSED STORMWATER LINE
- PROPOSED STORMWATER CATCH BASIN
- PROPOSED PULL BOX
- PROPOSED UTILITY POLE

NOTES

1. MAINTAIN ALL OVERHEAD 120/240 VOLT, 1 PHASE, 3 WIRE ELECTRIC SERVICES TO ALL EXISTING BUILDINGS. MAINTAIN OVERHEAD FIRE ALARM COMMUNICATION CABLE. DEMOLISH ALL REMAINING OVERHEAD COMMUNICATIONS WIRING BETWEEN BUILDINGS.
2. MAINTAIN ALL OVERHEAD 120/240 VOLT, 1 PHASE, 3 WIRE ELECTRIC SERVICES TO ALL EXISTING BUILDINGS. MAINTAIN OVERHEAD TELEPHONE TO FEED TO EXISTING HOUSE. DEMOLISH ALL REMAINING OVERHEAD COMMUNICATIONS WIRING BETWEEN BUILDINGS.
3. PROVIDE FIRE ALARM TAMPER SWITCH AND FIRE ALARM FLOW SWITCH AT FIRE PIT.
4. CONNECT THE PROPOSED BUILDING DOWNSPOUTS TO THE NEAREST STORM STRUCTURE.

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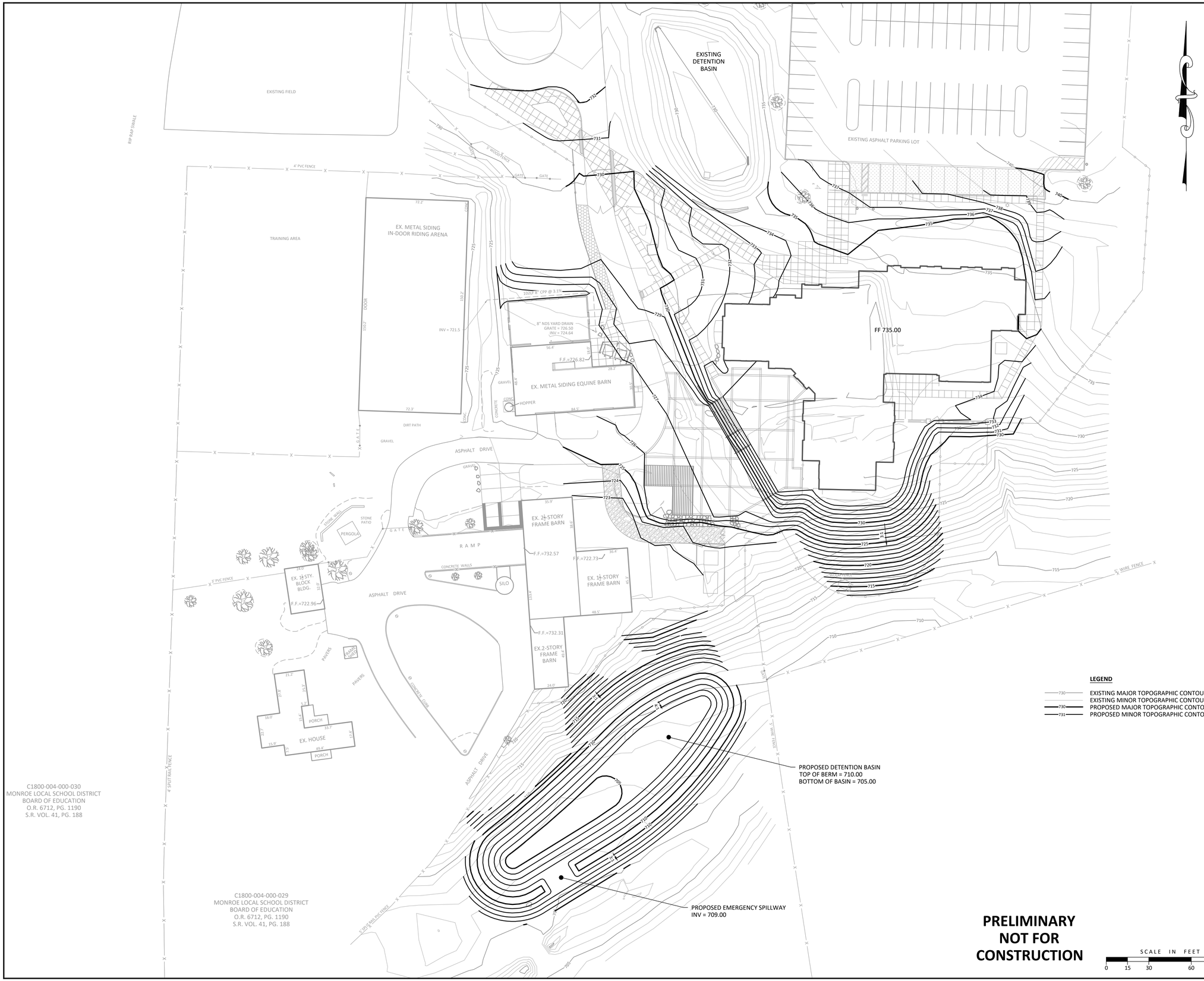
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UTILITY PLAN

Project Number	06398.04
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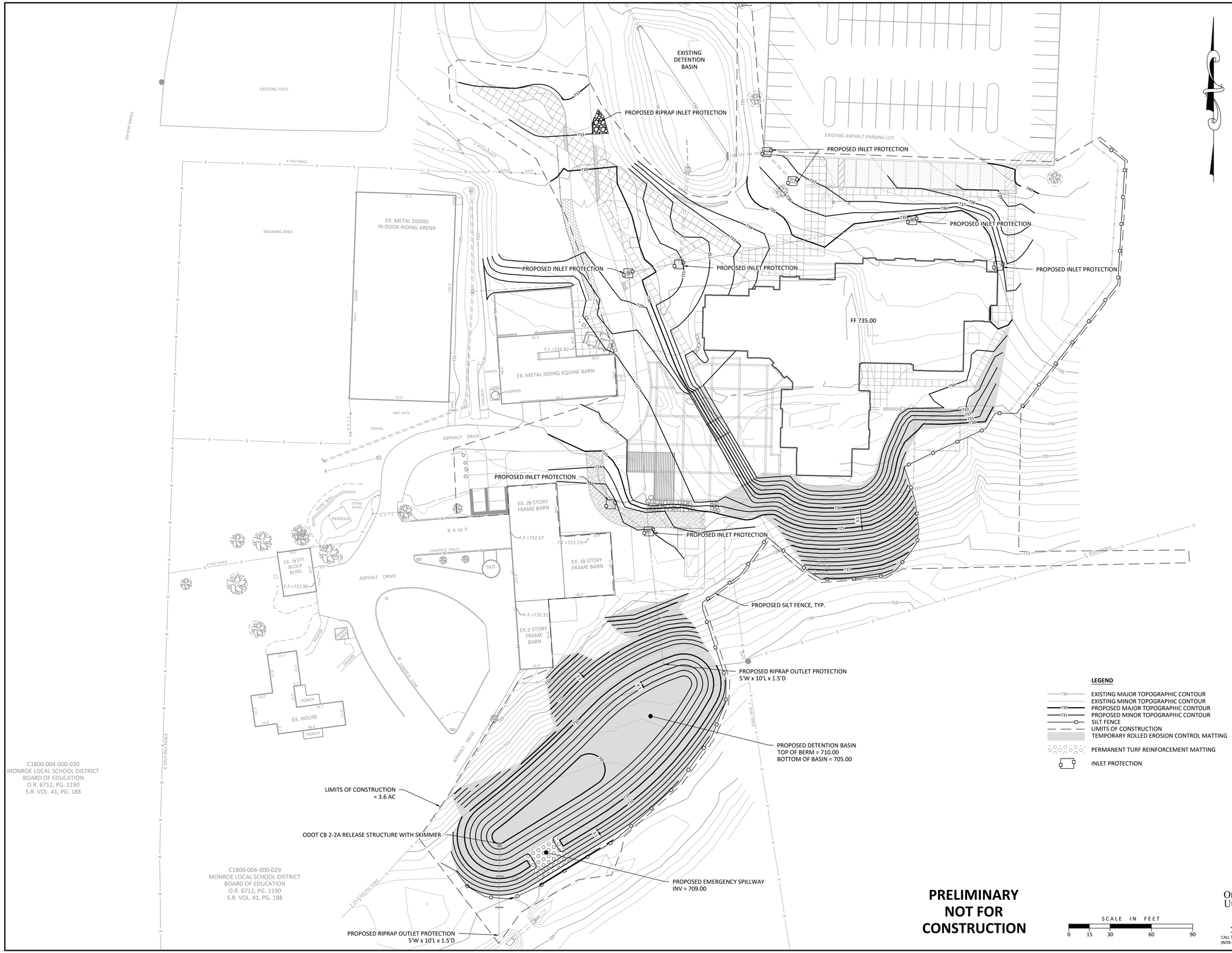
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GRADING PLAN

Project Number	06398.04
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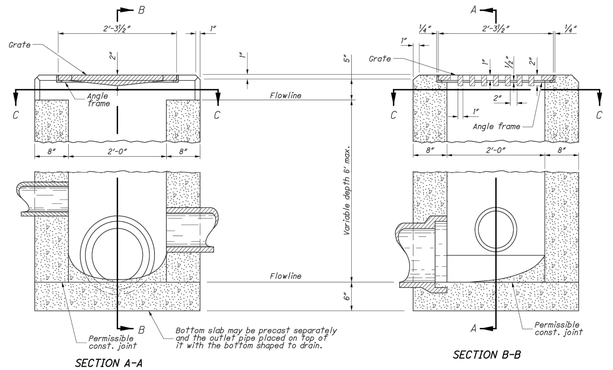
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MONROE, OH 45050

Sheet Title

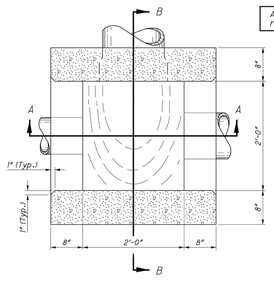
EROSION AND SEDIMENT CONTROL PLAN

Project Number	06398.04
Drawing Scale	1" = 30'
Sheet Number	C103
File Number	06398

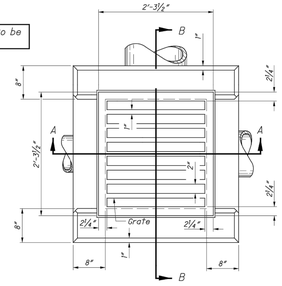


SECTION A-A

SECTION B-B



SECTION C-C



PLAN

CATCH BASIN No. 2-2A

NOTES

GENERAL: *Catch Basins 2-2A and 2-2B are not intended for use in roadway applications. Catch Basin 2-2C is intended for parking lot use only.*

CATCH BASINS 2-2A, 2-2B & 2-2C: *This sheet depicts Catch Basin 2-2A. See Sheet 2 of 2 for Catch Basin 2-2B & 2-2C.*

GRATE AND FRAME: *Furnish a design essentially the same and equally as strong as the one shown (see Construction Information Table), or meet the requirements of CMS 711.14. Provide grate openings and dimensions as shown here unless otherwise shown in the plans.*

Cast the following text into the top of the grate:

"DUMP NO WASTE" *and* ***"DRAINS TO WATERWAY"***

Print text in bold, capital letters at least ½" high. "WATERWAY" may be substituted with "STREAM", "RIVER", "LAKE", etc. Actual placement and logo may vary per manufacturer.

WALLS: *Construct brick or cast-in-place walls with a nominal 8" thickness. Provide precast walls at least 6" thick with sufficient reinforcing to permit shipping and handling without damage. Do not use brick above the flow line of the side opening for Type 2-2A.*

CONCRETE: *Use 4000 psi compressive strength for cast-in-place concrete. Meet the requirements of CMS 706.13 for all precast concrete and mark with the catch basin number.*

PRECAST BASE: *If a precast base is used, set it deep enough so that the top can be placed on the base to provide the grate elevation specified in the plans. Do not use brick layers to adjust the top elevation.*

LOCATION AND ELEVATION: *When given on the plans, location and elevation are at the top center of the grate.*

MINIMUM DEPTH: *The minimum depth of CB No. 2-2A is the outside diameter (O.D.) of the outlet pipe plus 7".*

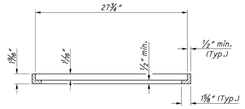
OPENINGS: *Ensure pipe openings are the O.D. of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.*

2-2A SIDE INLETS: *Provide inlets on both sides of the No. 2-2A catch basin in sags and on upstream side only where the ditch has a continuous down grade past the catch basin. Do not use CB 2-2A within the Clear Zone. The flow line should be 4" to 6" below normal ditch returning to normal 10' to 15' each side of the inlet.*

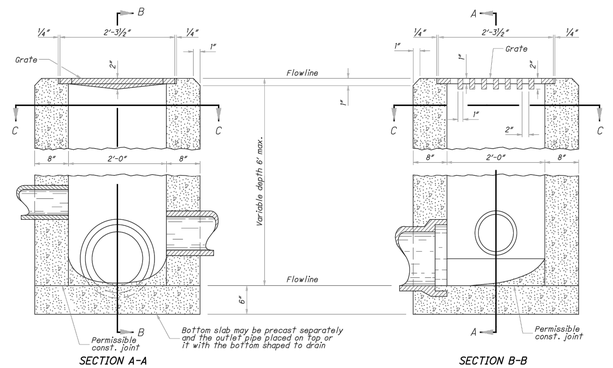
PAYMENT: *All materials and labor, including excavation and backfilling, are paid for under* ***Item 611 - Catch Basin, No. 2-2A.***

CONSTRUCTION INFORMATION
Minimum weight of grate, 120 lbs.
Minimum weight of frame, 40 lbs.

CATCH BASIN	*OUTLET PIPE SIZE*
2-2A, 2-2B, 2-2C	*12" to 21"*

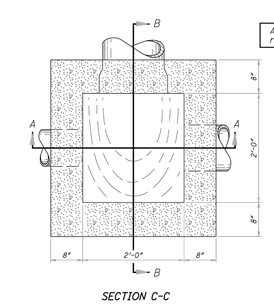


SECTION THRU ANGLE FRAME FOR STANDARD No. 2-2A CATCH BASIN

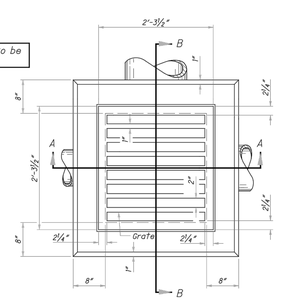


SECTION A-A

SECTION B-B



SECTION C-C



PLAN

CATCH BASIN No. 2-2B

NOTES

CATCH BASINS 2-2A, 2-2B & 2-2C: *This sheet depicts Catch Basin 2-2B & 2-2C. See Sheet 1 of 2 for Catch Basin 2-2A.*

CB-2-2B GRATE: *Furnish a design essentially the same and equally as strong as the one shown (see Construction Information Table), or meet the requirements of CMS 711.14. Provide grate openings and dimensions as shown here unless otherwise shown in the plans.*

If necessary, bicycle safe grates will be specified in the plans. Furnish Neenah No. R-4883-S or EJ No. 5110MS (10051043) grates or approved equals.

Place grate elevation ¼" to 6" below normal ditch and return to normal 10' to 15' each side of inlet.

CB-2-2C FRAME & GRATE: *Where the catch basin is specified for use in a parking lot, Furnish Neenah No. R-1878-ASG or EJ No. V-5622 (4562010) frame and V-5622 (4562030) grate or approved equals. If necessary, bicycle safe grates will be specified in the plans. Furnish Neenah No. R-3405 grate or EJ No. 5250M (10052031) grate or approved equals.*

On cast-in-place and precast units, provide a level surface on the catch basin 4" below the pipe grate elevation for setting the frame and grate assembly. Provide a concrete apron to encase and secure the frame of a width not less than the thickness of the catch basin walls that the frame was placed on or as shown in the plans. Slope apron to provide local depression.

GRATE TEXT: *Cast the following text into the top of the grate:*

"DRAINS TO WATERWAY" *and* ***"DUMP NO WASTE"***

Print text in bold, capital letters at least 1/2" high. "WATERWAY" may be substituted with "STREAM", "RIVER", "LAKE", etc. Actual placement and logo may vary per manufacturer.

WALLS: *Construct brick or cast-in-place walls with a nominal 8" thickness. Provide precast walls at least 6" thick with sufficient reinforcing to permit shipping and handling without damage.*

CONCRETE: *Use 4000 psi compressive strength for cast-in-place concrete. Meet the requirements of CMS 706.13 for all precast concrete and mark with the catch basin number.*

PRECAST BASE: *If a precast base is used, set it deep enough so that the top can be placed on the base to provide the grate elevation specified in the plans. Do not use brick layers to adjust the top elevation.*

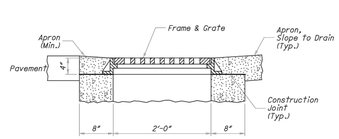
LOCATION AND ELEVATION: *When given on the plans, location and elevation are at the top center of the grate.*

MINIMUM DEPTH: *The minimum depth of CB No. 2-2B is the outside diameter (O.D.) of the outlet pipe plus 4". The minimum depth of CB No. 2-2C is the outside diameter (O.D.) of the outlet pipe plus 8".*

OPENINGS: *Ensure pipe openings are the O.D. of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.*

PAYMENT: *All materials and labor, including excavation and backfilling, are paid for under* ***Item 611 - Catch Basin, No. 2-2B or 2C).***

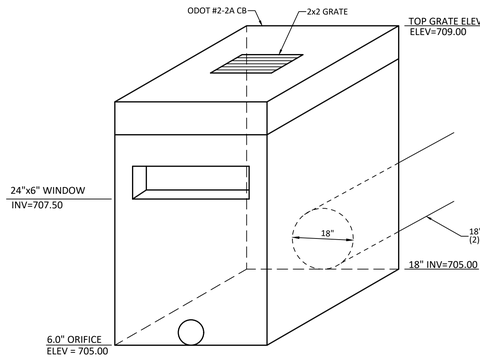
CONSTRUCTION INFORMATION
Minimum weight of grate, 120 lbs.



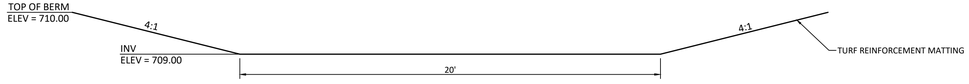
CATCH BASIN No. 2-2C

1 C200 ODOT CATCH BASINS

SCALE: NTS



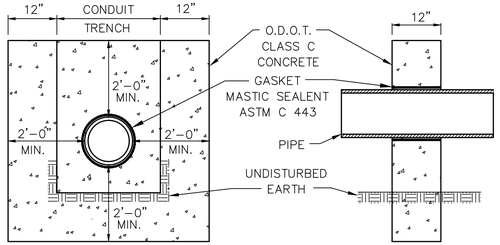
DETENTION BASIN RELEASE STRUCTURE



EMERGENCY SPILLWAY

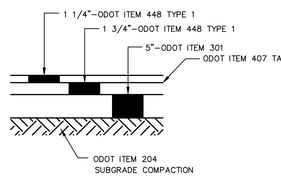
2 C200 DETENTION BASIN DETAILS

SCALE: NTS



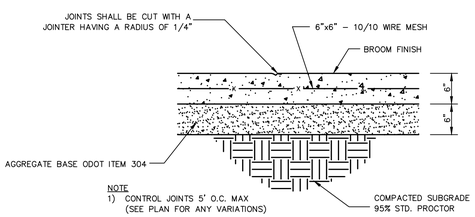
3 C200 ANTI-SEEP COLLAR DETAIL

SCALE: NTS



4 C200 STANDARD DUTY ASPHALT PAVEMENT SECTION

SCALE: NTS



NOTE
1) CONTROL JOINTS 5' O.C. MAX. (SEE PLAN FOR ANY VARIATIONS)
2) EXPANSION JOINTS 25' O.C. MAX. (SEE PLANS FOR ANY VARIATIONS)
3) CONCRETE SHALL BE 4000 PSI AE

5 C200 HEAVY DUTY CONCRETE PAVEMENT DETAIL

SCALE: NTS

PRELIMINARY NOT FOR CONSTRUCTION

OHIO Utilities Protection SERVICE Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG (NON MEMBERS MUST BE CALLED DIRECTLY)

STATE OF OHIO DEPARTMENT OF TRANSPORTATION APPROVAL NUMBER
Jeffery E. Syar

REVISIONS
7-19-02
7-15-05
7-20-12
1-18-13
1-15-16
7-20-18
7-19-19

HIGHWAY HYDRAULIC ENGINEER
M. Cozzoli

OFFICE OF HYDRAULICS ENGINEERING

STANDARD HYDRAULIC CONSTRUCTION DRAWING
CATCH BASINS No's 2-2A, 2-2B & 2-2C

SCD NUMBER
CB-1.1

1 / 2

2 / 2

MSP DESIGN
McGill Smith Punshon

- Architecture
- Engineering
- Landscape Architecture
- Planning
- Surveying

3700 Park 42 Drive
Suite 190B
Cincinnati OH 45241
Phone 513.759.0004
www.mspdesign.com

Project Manager	JMW
Drawn By	JMW
DWG	06398044-IMP
X-Ref(s)	---

Issue/Revision	No.	Date
PLANNING COMMISSION		04/20/21

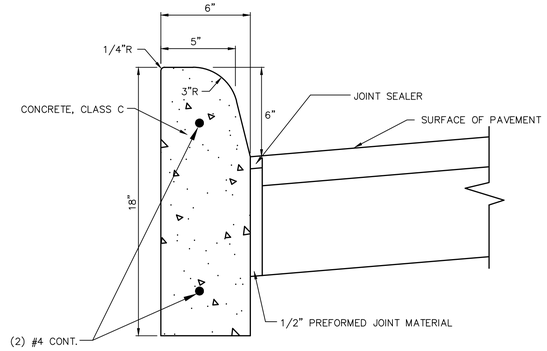
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BUTLER TECH
NATURAL SCIENCE CENTER
NEW ACADEMIC BUILDING
640 HAMILTON LEBANON ROAD
MONROE, OH 45050

Sheet Title

CIVIL DETAILS I

Project Number	06398.04
Drawing Scale	AS SHOWN
Sheet Number	C200
File Number	06398



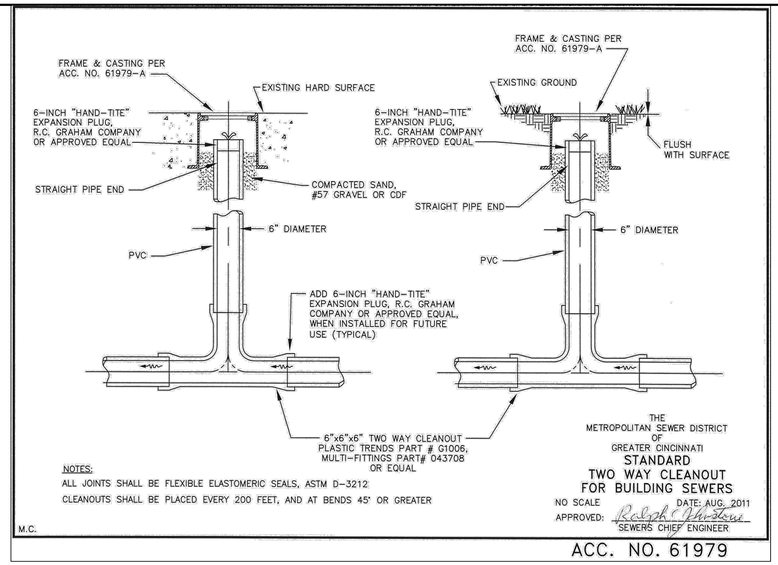
ODOT TYPE 6

N.T.S.

NOTE: EXSPANSION JOINT MATERIAL AND JOINT SEALER IS NOT REQUIRED WHEN CURB IS ADJACENT TO FLEXIBLE TYPE PAVEMENT.

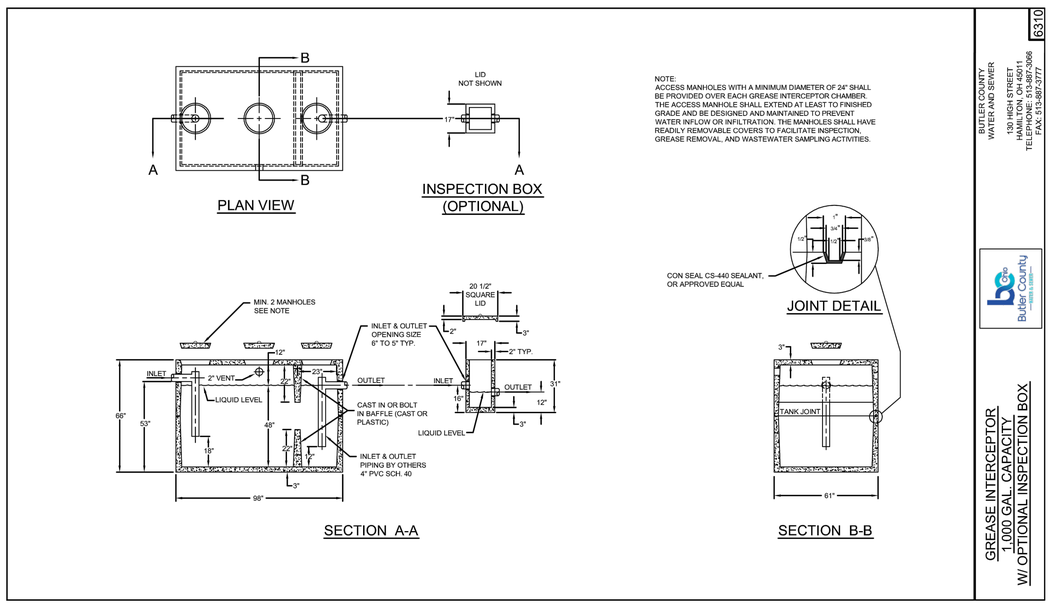
6 / C201 CONCRETE CURB DETAIL

SCALE: NTS



7 / C201 SANITARY CLEANOUT DETAIL

SCALE: NTS



8 / C201 GREASE INTERCEPTOR DETAIL

SCALE: NTS

MSP DESIGN
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■ Engineering
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■ Planning
■ Surveying
3700 Park 42 Drive
Suite 190B
Cincinnati OH 45241
Phone 513.759.0004
www.mspdesign.com

Project Manager	JMW
Drawn By	JMW
DWG	06398044-IMP
X-Ref(s)	---

Issue/Revision	No.	Date
PLANNING COMMISSION		04/20/21

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BUTLER TECH
NATURAL SCIENCE CENTER
NEW ACADEMIC BUILDING
640 HAMILTON LEBANON ROAD
MONROE, OH 45050

Sheet Title

CIVIL DETAILS II

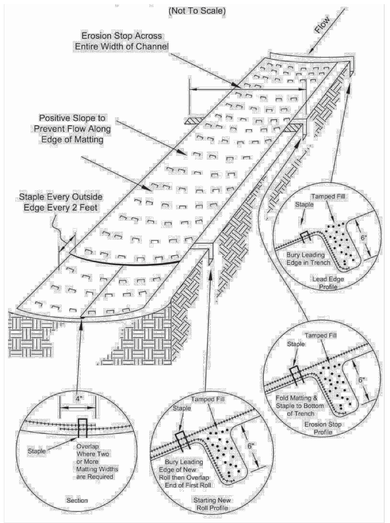
Project Number	06398.04
Drawing Scale	AS SHOWN
Sheet Number	C201
File Number	06398

PRELIMINARY NOT FOR CONSTRUCTION

OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

Specifications
for

Temporary Rolled Erosion Control Product



Specifications
for

Temporary Rolled Erosion Control Product

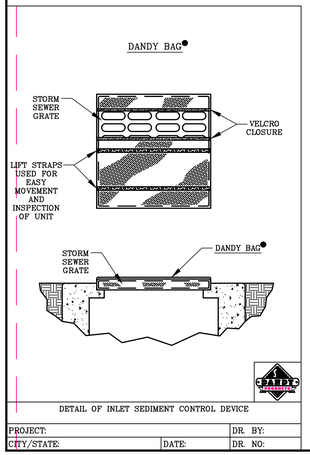
1. Channel/Slope Soil Preparation Grade and compact area of installation, preparing seedbed by loosening 2"-3" of topsoil above final grade. Incorporate amendments such as lime and fertilizer into soil. Remove all rocks, clods, vegetation or other debris so that installed RECP will have direct contact with the soil surface.
2. Channel/Slope Seeding Apply seed to soil surface prior to installation. All check slots, anchor trenches, and other disturbed areas must be reseeded. Refer to the Permanent Seeding specification for seeding recommendations.

Slope Installation

3. Excavate top and bottom trenches (12"x6"). Intermittent erosion check slots (6"x6") may be required based on slope length. Excavate top anchor trench 2' x 3' over crest of the slope.
4. If intermittent erosion check slots are required, install RECP in 6"x6" slot at a maximum of 30' centers or the mid point of the slope. RECP should be stapled into trench on 12" centers.
5. Install RECP in top anchor trench, anchor on 12" spacings, backfill and compact soil.
6. Unroll RECP down slope with adjacent rolls overlapped a minimum of 3". Anchor the seam every 18". Lay the RECP loose to maintain direct soil contact, do not pull taught.
7. Overlap roll ends a minimum of 12" with upslope RECP on top for a shingle effect. Begin all new rolls in an erosion check slot if required, double anchor across roll every 12".
8. Install RECP in bottom anchor trench (12"x6"), anchor every 12". Place all other staples throughout slope at 1 to 2.5 per square yard dependant on slope. Refer to manufacturer's anchor guide.

Channel Installation

9. Excavate initial anchor trench (12"x6") across the lower end of the project area.
10. Excavate intermittent check slots (6"x6") across the channel at 30' intervals along the channel.
11. Excavate longitudinal channel anchor slots (4"x4") along both sides of the channel to bury the edges. Whenever possible extend the RECP 2'-3' above the crest of channel side slopes.
12. Install RECP in initial anchor trench (downstream) anchor every 12", backfill and compact soil.
13. Roll out RECP beginning in the center of the channel toward the intermittent check slot. Do not pull taught. Unroll adjacent rolls upstream with a 3" minimum overlap (anchor every 18") and up each channel side slope.
14. At top of channel side slopes install RECP in the longitudinal anchor slots, anchor every 18".
15. Install RECP in intermittent check slots. Lay into trench and secure with anchors every 12", backfill with soil and compact.
16. Overlap roll ends a minimum of 12" with upstream RECP on top for a shingling effect. Begin all new rolls in an intermittent check slot, double anchored every 12".
17. Install upstream end in a terminal anchor trench (12"x6"); anchor every 12", backfill and compact.
18. Complete anchoring throughout channel at 2.5 per square yard using suitable ground anchoring devices (U shaped wire staples, metal geotextile pins, plastic stakes, and triangular wooden stakes). Anchors should be of sufficient length to resist pullout. Longer anchors may be required in loose sandy or gravelly soils.

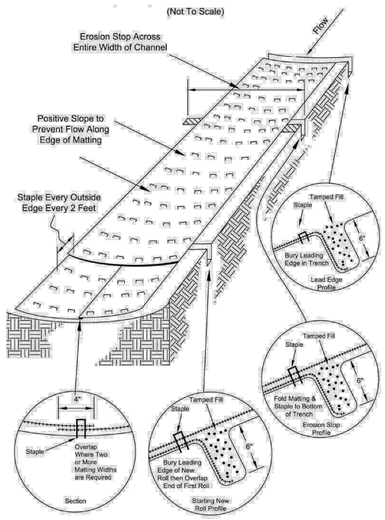


DETAIL OF INLET SEDIMENT CONTROL DEVICE

PROJECT:	DR. BY:
CITY/STATE: DATE:	DR. NO:

Specifications
for

Turf Reinforcement Matting



Specifications
for

Turf Reinforcement Matting

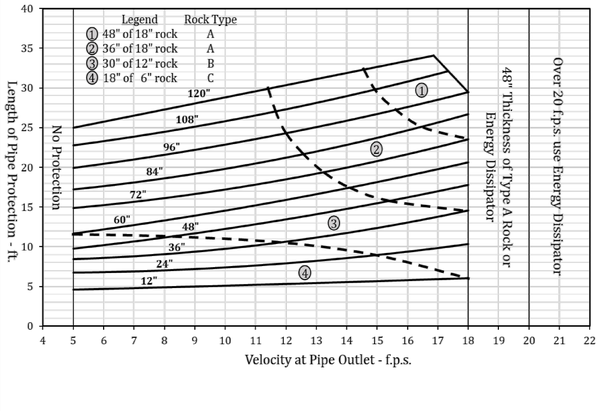
1. Channel/Slope Soil Preparation Grade and compact area of installation, preparing seedbed by loosening 2"-3" of topsoil above final grade. Incorporate amendments such as lime and fertilizer into soil. Remove all rocks, clods, vegetation or other debris so that installed TRM will have direct contact with the soil surface.
2. Channel/Slope Seeding Apply seed to soil surface prior to installation. All check slots, anchor trenches, and other disturbed areas must be reseeded. Refer to the Permanent Seeding specification for seeding recommendations.

Slope Installation

3. Excavate top and bottom trenches (12"x6"). Intermittent erosion check slots (6"x6") may be required based on slope length. Excavate top anchor trench 2' x 3' over crest of the slope.
4. If intermittent erosion check slots are required install TRM in 6"x6" slot at a maximum of 30' centers or the mid point of the slope. TRM should be stapled into trench on 12" centers.
5. Install TRM in top anchor trench, anchor on 12" spacings, backfill and compact soil.
6. Unroll TRM down slope with adjacent rolls overlapped a minimum of 3". Anchor the seam every 18". Lay the TRM loose to maintain direct soil contact, do not pull taught.
7. Overlap roll ends a minimum of 12" with upslope TRM on top for a shingle effect. Begin all new rolls in an erosion check slot if required, double anchor across roll every 12".
8. Install TRM in bottom anchor trench (12"x6"), anchor every 12". Place all other staples throughout slope at 1 to 2.5 per square yard dependant on slope. Refer to manufacturer's anchor guide.

Channel Installation

9. Excavate initial anchor trench (12"x6") across the lower end of the project area.
10. Excavate intermittent check slots (6"x6") across the channel at 30' intervals along the channel.
11. Excavate longitudinal channel anchor slots (4"x4") along both sides of the channel to bury the edges. Whenever possible extend the TRM 2'-3' above the crest of channel side slopes.
12. Install TRM in initial anchor trench (downstream) anchor every 12", backfill and compact soil.
13. Roll out TRM beginning in the center of the channel toward the intermittent check slot. Do not pull taught. Unroll adjacent rolls upstream with a 3" minimum overlap (anchor every 18") and up each channel side slope.
14. At top of channel side slopes install TRM in the longitudinal anchor slots, anchor every 18".
15. Install TRM in intermittent check slots. Lay into trench and secure with anchors every 12", backfill with soil and compact.
16. Overlap roll ends a minimum of 12" with upstream TRM on top for a shingling effect. Begin all new rolls in an intermittent check slot, double anchored every 12".
17. Install upstream end in a terminal anchor trench (12"x6"); anchor every 12", backfill and compact.
18. Complete anchoring throughout channel at 2.5 per square yard using suitable ground anchoring devices (U shaped wire staples, metal geotextile pins, plastic stakes, and triangular wooden stakes). Anchors should be of sufficient length to resist pullout. Longer anchors may be required in loose sandy or gravelly soils.



ROCK CHANNEL PROTECTION AT CULVERT AND STORM SEWER OUTLETS

1107-1

REFERENCE SECTION 1107.2

July 2020

Specifications
for

Temporary Seeding

Table 7.8.1 Temporary Seeding Species Selection

Seeding Dates	Species	Lb./1000 ft2	Lb/Acre
March 1 to August 15	Oats Tall Fescue Annual Ryegrass	3 1 1	128 (4 Bushel) 40 40
	Perennial Ryegrass Tall Fescue Annual Ryegrass	1 1 1	40 40 40
	Annual Ryegrass Perennial Ryegrass Creeping Red Fescue Kentucky Bluegrass	1.25 3.25 0.4 0.4	55 142 17 17
	Oats Tall Fescue Annual Ryegrass	3 1 1	128 (3 bushel) 40 40
August 16th to November	Rye Tall Fescue Annual Ryegrass	3 1 1	112 (2 bushel) 40 40
	Wheat Tall Fescue Annual Ryegrass	3 1 1	120 (2 bushel) 40 40
	Perennial Rye Tall Fescue Annual Ryegrass	1 1 1	40 40 40
	Annual Ryegrass Perennial Ryegrass Creeping Red Fescue Kentucky Bluegrass	1.25 3.25 0.4 0.4	40 40 40
November 1 to Feb. 29	Use mulch only or dormant seeding		

Note: Other approved species may be substituted.

1. Structural erosion and sediment control practices such as diversions and sediment traps shall be installed and stabilized with temporary seeding prior to grading the rest of the construction site.
2. Temporary seed shall be applied between construction operations on soil that will not be graded or reworked for 21 days or greater. These idle areas shall be seeded within 7 days after grading.
3. The seedbed should be pulverized and loose to ensure the success of establishing vegetation. Temporary seeding should not be postponed if ideal seedbed preparation is not possible.
4. Soil Amendments—Temporary vegetation seeding rates shall establish adequate stands of vegetation, which may require the use of soil amendments. Base rates for lime and fertilizer shall be used.
5. Seeding Method—Seed shall be applied uniformly with a cyclone spreader, drill, cultipacker seeder, or hydroseeder. When feasible, seed that has been broadcast shall be covered by raking or dragging and then lightly tamped into place using a roller or cultipacker. If hydroseeding is used, the seed and fertilizer will be mixed on-site and the seeding shall be done immediately and without interruption.

Specifications
for

Temporary Seeding

Mulching Temporary Seeding

1. Applications of temporary seeding shall include mulch, which shall be applied during or immediately after seeding. Seedings made during optimum seeding dates on favorable, very flat soil conditions may not need mulch to achieve adequate stabilization.
2. Materials:

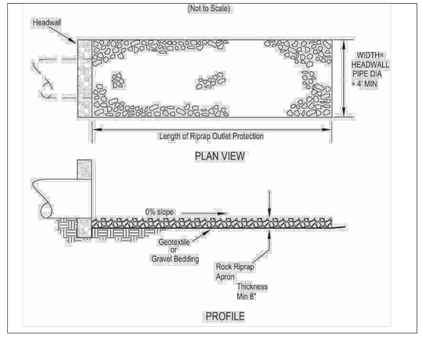
- Straw—If straw is used, it shall be unrotted small-grain straw applied at a rate of 2 tons per acre or 90 lbs./ 1,000 sq. ft. (2-3 bales)
- Hydroseeders—If wood cellulose fiber is used, it shall be used at 2000 lbs./ ac. or 46 lb./ 1,000-sq.-ft.
- Other—Other acceptable mulches include mulch mattings applied according to manufacturer's recommendations or wood chips applied at 6 ton/ ac.

3. Straw Mulch shall be anchored immediately to minimize loss by wind or water. Anchoring methods:

- Mechanical—A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but, generally, be left longer than 6 inches.
- Mulch Netting—Netting shall be used according to the manufacturer's recommendations. Netting may be necessary to hold mulch in place in areas of concentrated runoff and on critical slopes.
- Synthetic Binders—Synthetic binders such as Acrylic DLR (Agri-Tac), DCA-70, Petroset, Terra Tack or equivalent may be used at rates recommended by the manufacturer.
- Wood-Cellulose Fiber—Wood-cellulose fiber binder shall be applied at a net dry wt. of 750 lb./ac. The wood-cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lb. / 100 gal.

Specifications
for

Rock Outlet Protection



1. Subgrade for the filter or bedding and riprap shall be prepared to the required lines and grades as shown on the plan. The subgrade shall be cleared of all trees, stumps, roots, sod, loose rock, or other material.
2. Riprap shall conform to the grading limits as shown on the plan.
3. Geotextile shall be securely anchored according to manufacturers' recommendations.
4. Geotextile shall be laid with the long dimension parallel to the direction of flow and shall be laid loosely but without wrinkles and creases. Where joints are necessary, strips shall be placed to provide a 12-in. minimum overlap, with the upstream strip overlapping the downstream strip.
5. Gravel bedding shall be ODOT No. 67's or 57's unless shown differently on the drawings.
6. Riprap may be placed by equipment but shall be placed in a manner to prevent slippage or damage to the geotextile.
7. Riprap shall be placed by a method that does not cause segregation of sizes. Extensive pushing with a dozer causes segregation and shall be avoided by delivering riprap near its final location within the channel.
8. Construction shall be sequenced so that outlet protection is placed and functional when the storm drain, culvert, or open channel above it becomes operational.
9. All disturbed areas will be vegetated as soon as practical.

PRELIMINARY NOT FOR CONSTRUCTION

Specifications
for

Permanent Seeding

Site Preparation

1. Subsoiler, plow, or other implement shall be used to reduce soil compaction and allow maximum infiltration. (Maximizing infiltration will help control both runoff rate and water quality.) Subsoiling should be done when the soil moisture is low enough to allow the soil to crack or fracture. Subsoiling shall not be done on slip-prone areas where soil preparation should be limited to what is necessary for establishing vegetation.
2. The site shall be graded as needed to permit the use of conventional equipment for seedbed preparation and seeding.
3. Topsoil shall be applied where needed to establish vegetation.

Seedbed Preparation

1. Lime—Agricultural ground limestone shall be applied to acid soil as recommended by a soil test. In lieu of a soil test, lime shall be applied at the rate of 100 pounds per 1,000-sq. ft. or 2 tons per acre.
2. Fertilizer—Fertilizer shall be applied as recommended by a soil test. In place of a soil test, fertilizer shall be applied at a rate of 25 pounds per 1,000-sq. ft. or 1000 pounds per acre of a 10-10-10 or 12-12-12 analyses.
3. The lime and fertilizer shall be worked into the soil with a disk harrow, spring-tooth harrow, or other suitable field implement to a depth of 3 inches. On sloping land, the soil shall be worked on the contour.

Seeding Dates and Soil Conditions

Seeding should be done March 1 to May 31 or August 1 to September 30. If seeding occurs outside of the above-specified dates, additional mulch and irrigation may be required to ensure a minimum of 80% germination. Tillage for seedbed preparation should be done when the soil is dry enough to crumble and not form ribbons when compressed by hand. For winter seeding, see the following section on dormant seeding.

Dormant Seedings

1. Seedings should not be made from October 1 through November 20. During this period, the seeds are likely to germinate but probably will not be able to survive the winter.
2. The following methods may be used for "Dormant Seeding":

- From October 1 through November 20, prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After November 20, and before March 15, broadcast the selected seed mixture. Increase the seeding rates by 50% for this type of seeding.
- From November 20 through March 15, when soil conditions permit, prepare the seedbed, lime and fertilize, apply the selected seed mixture, mulch and anchor. Increase the seeding rates by 50% for this type of seeding.
- Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder, or hydro-seeder (slurry may include seed and fertilizer) on a firm, moist seedbed.
- Where feasible, except when a cultipacker type seeder is used, the seedbed should be firmed following seeding operations with a cultipacker, roller, or light drag. On sloping land, seeding operations should be on the contour where feasible.

Mulching

1. Mulch material shall be applied immediately after seeding. Dormant seeding shall be mulched. 100% of the ground surface shall be covered with an approved material.
2. Materials

- Straw—If straw is used it shall be unrotted small-grain straw applied at the rate of 2 tons per acre or 90 pounds (two to three bales) per 1,000-sq. ft. The mulch shall be spread uniformly by hand or mechanically applied so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000-sq.-ft. sections and spread two 45-lb. bales of straw in each section.
- Hydroseeders—If wood cellulose fiber is used, it shall be applied at 2,000 lb./ac. or 46 lb./1,000 sq. ft.
- Other—Other acceptable mulches include rolled erosion control mattings or blankets applied according to manufacturer's recommendations or wood chips applied at 6 tons per acre.

3. Straw and Mulch Anchoring Methods

Straw mulch shall be anchored immediately to minimize loss by wind or water.

- Mechanical—A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but, generally, be left longer than 6 inches.
- Mulch Netting—Netting shall be used according to the manufacturer's recommendations. Netting may be necessary to hold mulch in place in areas of concentrated runoff and on critical slopes.
- Asphalt Emulsion—Asphalt shall be applied as recommended by the manufacture or at the rate of 160 gallons per acre.
- Synthetic Binders—Synthetic binders such as Acrylic DLR (Agri-Tac), DCA-70, Petroset, Terra Tack or equivalent may be used at rates specified by the manufacturer.
- Wood Cellulose Fiber—Wood cellulose fiber shall be applied at a net dry weight of 750 pounds per acre. The wood cellulose fiber shall be mixed with water with the mixture containing a maximum of 50 pounds cellulose per 100 gallons of water.

Irrigation

Permanent seeding shall include irrigation to establish vegetation during dry weather or on adverse site conditions, which require adequate moisture for seed germination and plant growth.

Irrigation rates shall be monitored to prevent erosion and damage to seeded areas from excessive runoff.

Table 7.10.2 Permanent Seeding

Seed Mix	Seeding Rate		Notes:
	Lbs./acre	Lbs./1,000 Sq. Feet	
General Use			
Creeping Red Fescue Domestic Ryegrass Kentucky Bluegrass	20-40 10-20 20-40	1/2-1 1/4-1/2 1/2-1	For close mowing & for waterways with <2.0 ft/sec velocity
Tall Fescue	40-50	1-1 1/4	
Turf-type (dwarf) Fescue	90	2 1/4	
Steep Banks or Cut Slopes			
Tall Fescue	40-50	1-1 1/4	
Crown Vetch Tall Fescue	10-20 20-30	1/4-1/2 1/2-3/4	Do not seed later than August
Flat Pea Tall Fescue	20-25 20-30	1/2-3/4 1/2-3/4	Do not seed later than August
Road Ditches and Swales			
Tall Fescue	40-50	1-1 1/4	
Turf-type (Dwarf) Fescue Kentucky Bluegrass	90 5	2 1/4 0.1	
Lawns			
Kentucky Bluegrass Perennial Ryegrass	100-120	2 2	
Kentucky Bluegrass Creeping Red Fescue	100-120	2 1-1/2	For shaded areas

Note: Other approved seed species may be substituted.

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www.mspdesign.com

Project Manager	JMW
Drawn By	JMW
DWG	06398044-IMP
X-Ref(s)	---

Issue/Revision	No.	Date
PLANNING COMMISSION		04/20/21

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Sheet Title

E&S DETAILS I

Project Number	06398.04
Drawing Scale	AS SHOWN
Sheet Number	C202
File Number	06398

GENERAL NPDES NOTES

1. PROJECT INVOLVES THE CONSTRUCTION AND ASSOCIATED INFRASTRUCTURE FOR A NEW ACADEMIC BUILDING.
2. AREA TO BE DISTURBED IS APPROXIMATELY 3.6 ACRES.
3. PRE-DEVELOPED IMPERVIOUS AREA IS APPROXIMATELY 0.9 ACRES. POST-DEVELOPED IMPERVIOUS AREA IS APPROXIMATELY 1.3 ACRES RESULTING IN 31 PERCENT OF IMPERVIOUSNESS.
4. PRE-CONSTRUCTION RUNOFF CURVE NUMBER IS 88. POST-CONSTRUCTION RUNOFF CURVE NUMBER IS 90.
5. THE PRIMARY SOIL TYPE IS RUSSELL - MIAMIAN SILT LOAM AND EDEN SILTY CLAY LOAM.
6. THE PRIOR LAND USE IS THE BUTLER TECH NATURAL SCIENCE CENTER.
7. A TRIBUTARY TO DICKS CREEK RECEIVES RUNOFF FROM THIS SITE. THIS ULTIMATELY FLOWS TO DICKS CREEK.
8. NPDES STORM WATER GENERAL PERMIT NUMBER: OHC000005
9. PROJECT DURATION: THRU 2022
10. SITE OPERATOR: BUTLER TECH AND CAREER DEVELOPMENT SCHOOLS
    3605 HAMILTON-MIDDLETOWN ROAD
    HAMILTON, OH 45011
    (513) 868-6300
11. SWPPP CONTACT: BUTLER TECH AND CAREER DEVELOPMENT SCHOOLS
    3605 HAMILTON-MIDDLETOWN ROAD
    HAMILTON, OH 45011
    (513) 868-6300
12. UNLESS OTHERWISE NOTED, STANDARDS AND SPECIFICATIONS ESTABLISHED IN THE LATEST EDITION OF THE OHIO DEPARTMENT OF NATURAL RESOURCES "RAINWATER AND LAND DEVELOPMENT" MANUAL, CURRENT EDITION, SHALL GOVERN THE EROSION AND SEDIMENT CONTROL INSTALLATIONS SPECIFIED ON THIS PLAN.
13. THE DEVELOPER AND CONTRACTOR SHALL ABIDE BY THE RULES AND REGULATIONS SET FOURTH IN THE OHIO EPA PERMIT NO. OHC000004- "AUTHORIZATION FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY" UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES).
14. PRIOR TO COMMENCEMENT OF CONSTRUCTION OPERATIONS, ALL SEDIMENTATION AND EROSION CONTROL FEATURES SHALL BE IN PLACE.
15. SEDIMENT CONTROL STRUCTURES SHALL BE FUNCTIONAL THROUGHOUT THE COURSE OF EARTH DISTURBING ACTIVITY. AND SHALL CONTINUE TO FUNCTION UNTIL THE UP SLOPE DEVELOPMENT AREA IS RESTABLISHED. AS CONSTRUCTION PROGRESSES AND THE TOPOGRAPHY IS ALTERED, APPROPRIATE CONTROLS MUST BE CONSTRUCTED OR EXISTING CONTROLS ALTERED TO ADDRESS THE CHANGING DRAINAGE PATTERNS.
16. ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF DEMOLITION AND ARE TO FINAL GRADE AND TO REMAIN SO, SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL IN ACCORDANCE WITH STATE OF OHIO SPECIFICATION ITEM 659, AND IN ACCORDANCE WITH THE CONDITIONS OF THE NPDES STORM WATER GENERAL PERMIT.

MAINTENANCE OF CONTROLS:

1. SILT FENCE AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND DAILY DURING A PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
2. SHOULD THE FABRIC ON A FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
4. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE AND PREPARED FOR SEEDING.
5. ESTABLISH VEGETATION ON ALL BARE AREAS AS PER OEPA NPDES REGULATIONS.
6. CONTRACTOR IS RESPONSIBLE FOR NPDES INSPECTIONS DURING CONSTRUCTION PERIOD.

CONSTRUCTION SEQUENCE

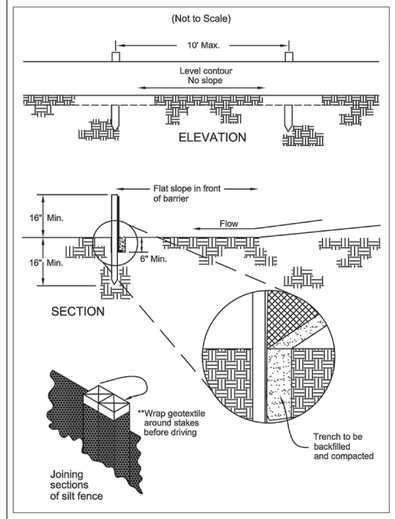
1. INSTALL EROSION AND SEDIMENT CONTROL MEASURES BEFORE UPSLOPE CLEARING AND GRADING.
2. GRADING AND STRIPPING OF THE REMAINING AREAS OF THE DEVELOPMENT SITE OR PROJECT AREA.
3. INSTALL STORMWATER MANAGEMENT SYSTEM.
4. TEMPORARY VEGETATIVE STABILIZATION OF EROSION AND SEDIMENT CONTROL MEASURES.
5. GRADING OF SUBDIVISION STREET.
6. INSTALLATION OF ALL UTILITIES.
7. SITE CONSTRUCTION.
8. FINAL GRADING, STABILIZATION, AND LANDSCAPING.
9. REMOVAL OF EROSION AND SEDIMENT CONTROLS MEASURES.

DUE TO THE DYNAMICS AND STAGING OF EARTH MOVEMENT. CONTRACTOR MAY NEED TO ALTER THE EROSION CONTROL MEASURES AS SHOWN HEREON. CONTRACTOR TO APPLY (B.M.P.) BEST MANAGEMENT PRACTICES IN ORDER TO CONTROL THE RUNOFF OF SILT AND SEDIMENT.

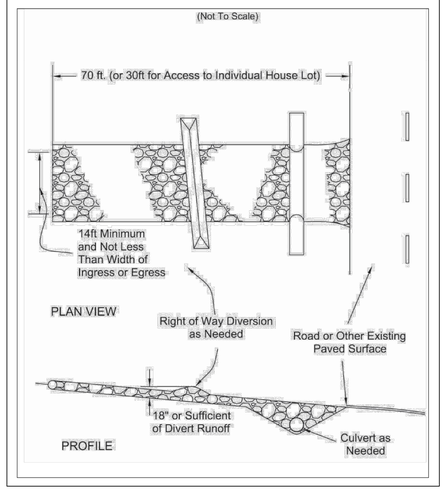
ADDITIONAL SILT FENCE MAY BE REQUIRED AS SITE CONDITIONS DETERMINE.

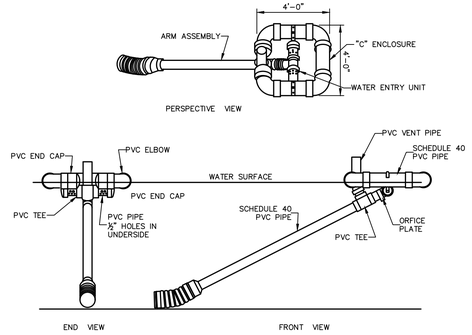
IF A TEMPORARY STOCKPILE IS CREATED, SILT FENCE SHALL BE PLACED AT THE TOE OF SLOPE

Specifications
for
Silt Fence



Specifications
for
Construction Entrance





DETENTION BASIN SKIMMER DETAIL
N.T.S.

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www.mspdesign.com

Project Manager	JMW
Drawn By	JMW
DWG	06398044-IMP
X-Ref(s)	---

Issue/Revision	No.	Date
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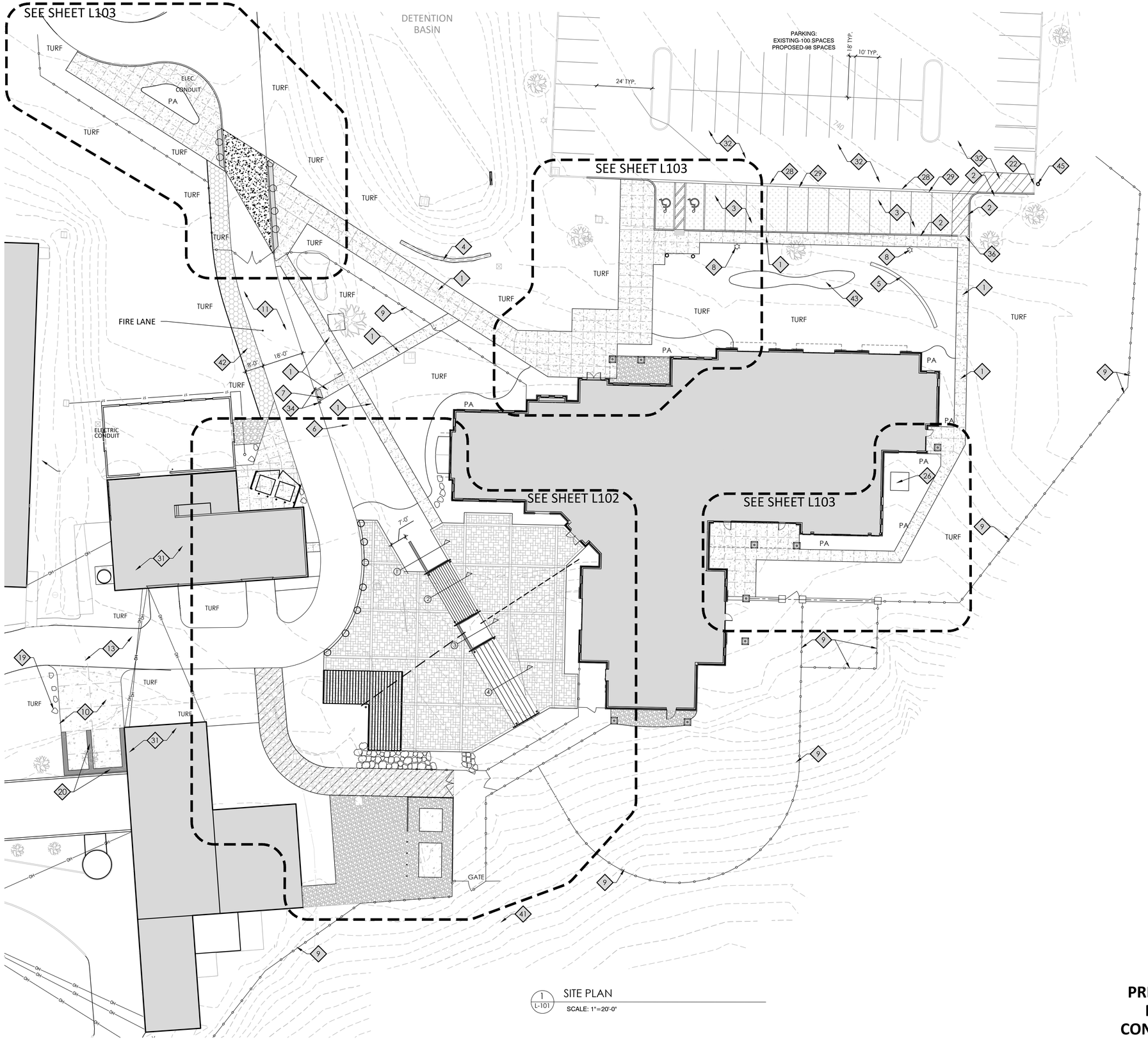
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Sheet Title

E&S DETAILS II

Project Number	06398.04
Drawing Scale	AS SHOWN
Sheet Number	C203
File Number	06398



CODED NOTES:

1. INSTALL 5" THICK CONCRETE PAVING. SEE DETAIL 1. SHEET L-201.
2. INSTALL 6" HT CONCRETE CURB. SEE DETAIL__, SHEET L-___.
3. INSTALL PERMEABLE PAVERS ON AGGREGATE BASE. SEE DETAIL___, SHEET L-201.
4. EXISTING STACKED STONE WALL. DEMO AND SALVAGE STONE.
5. RELOCATED STACKED STONE WALL. INSTALLATION BY OWNER.
6. CATCH BASIN. SEE CIVIL ENGINEERING PLANS.
7. INSTALL ADA TRUNCATED DOMES. SEE DETAIL 6, SHEET L-201.
8. INSTALL SALVAGED PARKING LOT LIGHTS. TYP OF 2
9. INSTALL 48" HT 4 RAIL FENCE. SEE DETAIL 8, SHEET L-201.
10. HEAVY DUTY CONCRETE PAVING. SEE CIVIL ENGINEERING PLANS.
11. ASPHALT PAVING. SEE CIVIL ENGINEERING PLANS.
12. INSTALL CONCRETE CURB AND GUTTER. SEE CIVIL ENGINEERING PLANS.
13. INSTALL CAST PAVERS ON CONCRETE BASE. SEE DETAIL 2, SHEET L-201.
14. INSTALL CONCRETE STEPS. SEE DETAIL 2, SHEET L-200.
15. INSTALL CONCRETE AMPHITHEATER SEATING. SEE DETAIL 4, SHEET L-200.
16. INSTALL CONCRETE PLANTER. SEE DETAIL 3, SHEET L-200.
17. TRELLIS
18. INSTALL 6" DEPTH AGGREGATE PAVING. SEE DETAIL 8, SHEET L-201.
19. INSTALL SALVAGED BOULDERS.
20. RELOCATE SALVAGED MANURE BINS. INSTALL ON HEAVY DUTY CONCRETE PAD.
21. INSTALL 6' HT. WOOD FENCE. SEE DETAIL 7, SHEET L-200.
22. INSTALL ADA COMPLIANT PARKING SPACE, WITH SIGNS. SEE DETAIL 6, SHEET L-201,
23. INSTALL 48" HT STONE VENEER WALL. SEE DETAIL 5, SHEET L-200.
24. INSTALL 60" HT STONE PILASTER. SEE DETAIL 6, SHEET L-200.
25. METER PIT. SEE MEP PLANS
26. INSTALL CONCRETE TRANSFORMER/GENERATOR PADS. SEE MEP PLANS
27. EXISTING CONCRETE CURB. PROTECT FROM DAMAGE.
28. SAWCUT EXISTING PAVEMENT. PATCH W/ASPHALT ALONG NEW CONCRETE BAND.
29. INSTALL 12" WIDE CONCRETE BAND. SEE DETAIL___, SHEET___.
30. INSTALL 2" DIA. PVC SLEEVE UNDER PAVING. CAP ENDS.
31. EXISTING BUILDING. PROTECT FROM DAMAGE
32. EXISTING ASPHALT PAVING. PROTECT FROM DAMAGE.
33. INSTALL STONE VENEER CONCRETE RETAINING WALL. SEE DETAIL 1, SHEET L-200.
34. INSTALL 6" DIAMETER STEEL BOLLARD. SEE DETAIL 4, SHEET L-200.
35. INSTALL 36" PLANTER. SEE DETAIL___, SHEET__.
36. CURB CUT. PROVIDE FLUSH TRANSITION FROM PARKING TO WALK.
37. STEP-STONE PATHWAY. INSTALLED BY OWNER. ADVISED BY CONTRACTOR.
38. INSTALL GRAVELPAVE2 AGGREGATE PAVING. SEE DETAIL 9, SHEET L-201.
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43. INSTALL BIO-SWALE. SEE PLANTING PLAN.
44. INSTALL METAL HANDRAIL.
45. INSTALL 'NO PARKING-LOADING ZONE' SIGN.

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Project Manager	FCB
Drawn By	FCB
DWG	06398046-IMP
X-Ref(s)	06398046-BAS 06398044-IMP

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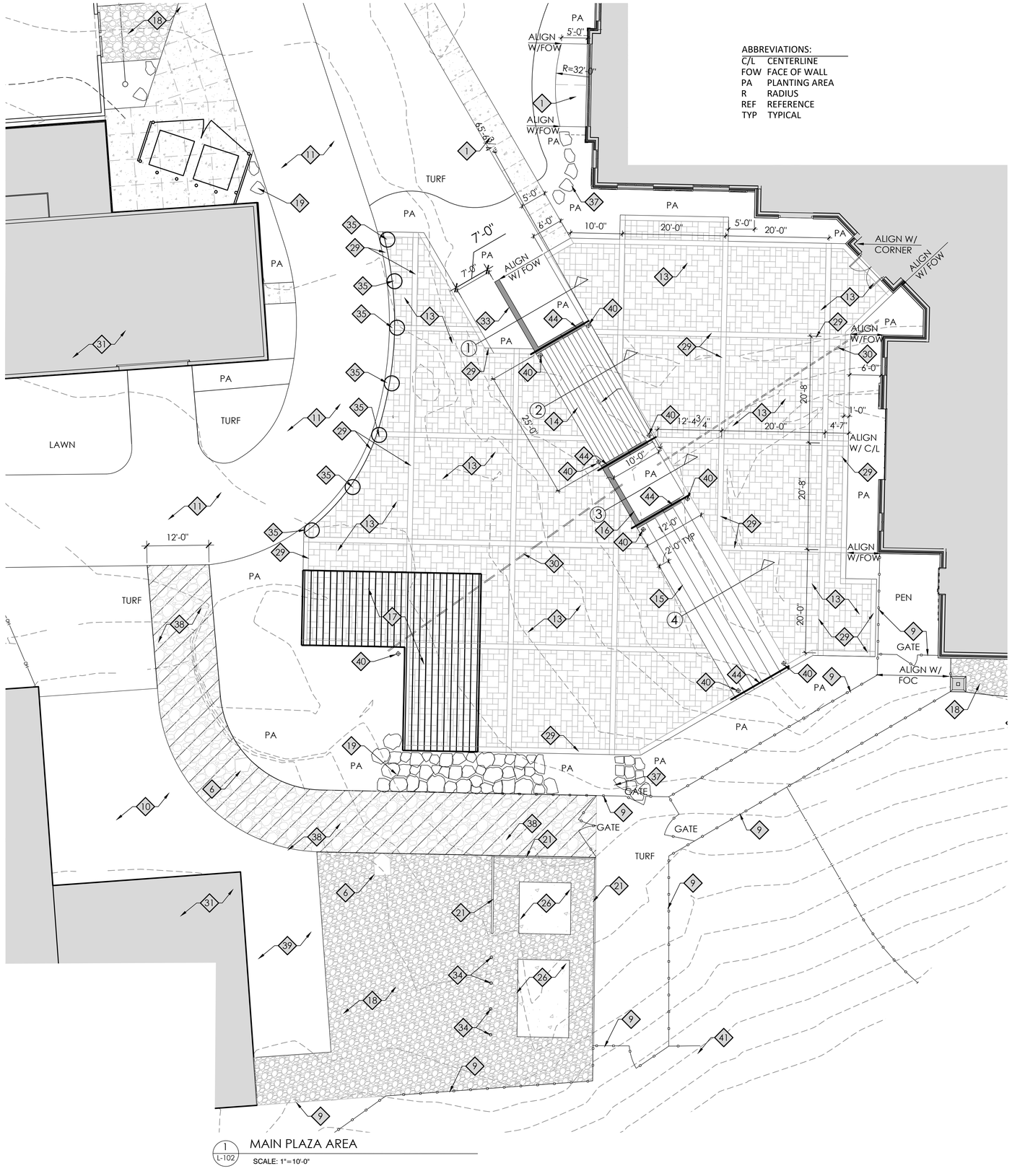
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Sheet Title

SITE LAYOUT & MATERIALS PLAN

Project Number	06398.04
Drawing Scale	1" = 20'
Sheet Number	L101
File Number	06398



CODED NOTES:

1. INSTALL 5" THICK CONCRETE PAVING. SEE DETAIL 1. SHEET L-201.
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SCALE IN FEET
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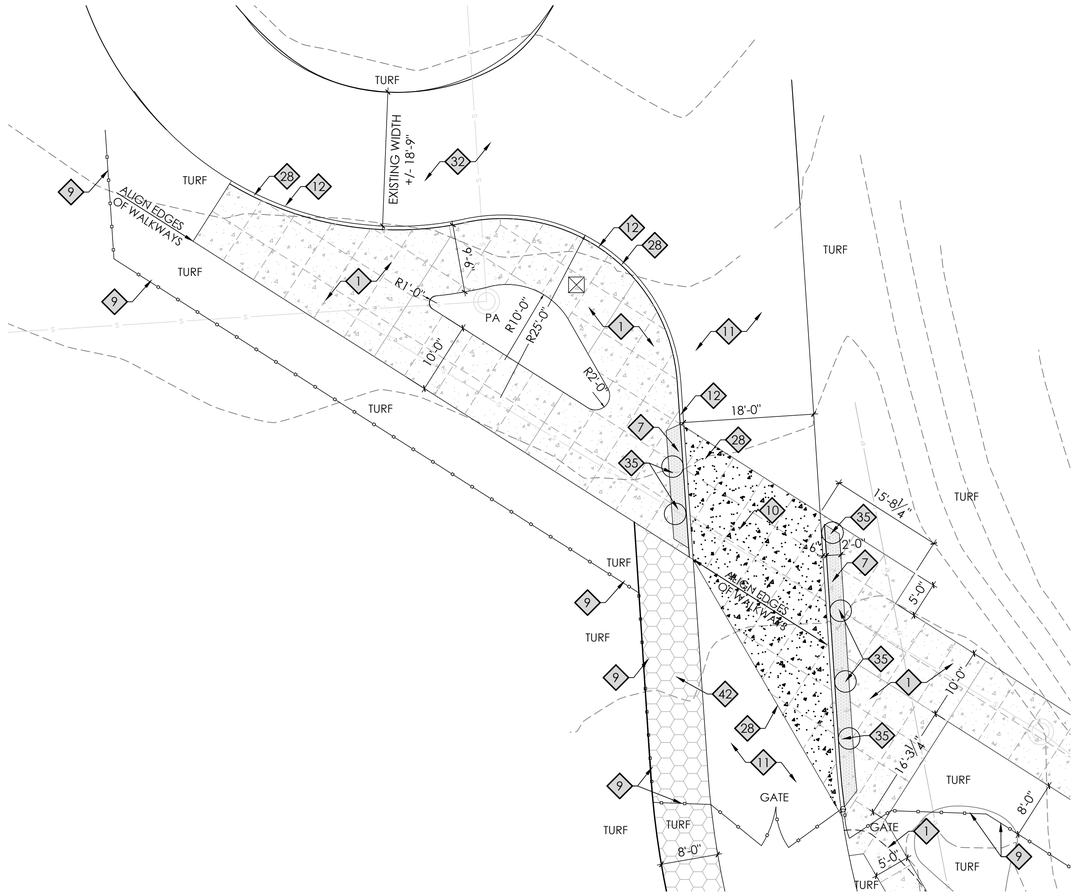
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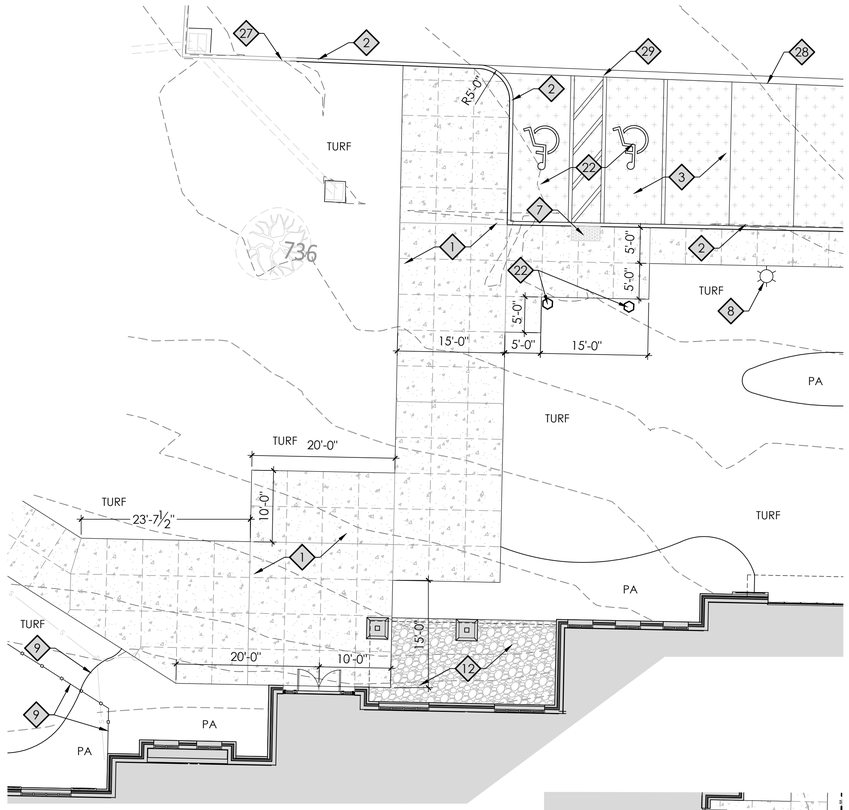
PLAZA LAYOUT & MATERIALS PLAN

Project Number	06398.04
Drawing Scale	1" = 10'
Sheet Number	L102
File Number	06398



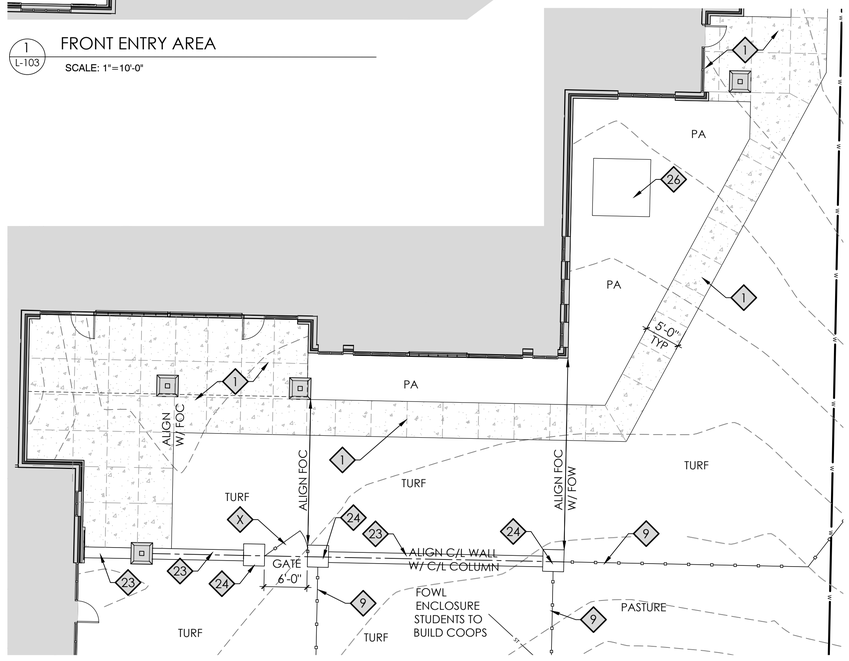
3 L-103 BUS DROP-OFF AREA

SCALE: 1"=10'-0"



1 L-103 FRONT ENTRY AREA

SCALE: 1"=10'-0"



2 L-103 S.E. PLAZA AREA

SCALE: 1"=10'-0"

CODED NOTES:

1. INSTALL 5" THICK CONCRETE PAVING. SEE DETAIL 1. SHEET L-201.
2. INSTALL 6" HT CONCRETE CURB. SEE DETAIL__, SHEET L-___.
3. INSTALL PERMEABLE PAVERS ON AGGREGATE BASE. SEE DETAIL___, SHEET L-201.
4. EXISTING STACKED STONE WALL. DEMO AND SALVAGE STONE.
5. RELOCATED STACKED STONE WALL. INSTALLATION BY OWNER.
6. CATCH BASIN. SEE CIVIL ENGINEERING PLANS.
7. INSTALL ADA TRUNCATED DOMES. SEE DETAIL 6, SHEET L-201.
8. INSTALL SALVAGED PARKING LOT LIGHTS. TYP OF 2
9. INSTALL 48" HT 4 RAIL FENCE. SEE DETAIL 8, SHEET L-200.
10. HEAVY DUTY CONCRETE PAVING. SEE DETAIL 5, SHEET C-200.
11. ASPHALT PAVING. SEE DETAIL 4, SHEET C-200.
12. INSTALL CONCRETE CURB AND GUTTER. SEE DETAIL 6, SHEET C-201.
13. INSTALL CAST PAVERS ON CONCRETE BASE. SEE DETAIL 2, SHEET L-201.
14. INSTALL CONCRETE STEPS. SEE DETAIL 2, SHEET L-200.
15. INSTALL CONCRETE AMPHITHEATER SEATING. SEE DETAIL 4, SHEET L-200.
16. INSTALL STONE VENEER PLANTER. SEE DETAIL 3 , SHEET L-200.
17. TRELLIS
18. INSTALL 6" DEPTH AGGREGATE PAVING. SEE DETAIL 8, SHEET L-201.
19. INSTALL SALVAGED BOULDERS.
20. RELOCATE SALVAGED MANURE BINS. INSTALL ON 8" THICK CONCRETE PAD.
21. INSTALL 6' HT. WOOD FENCE. SEE DETAIL 7, SHEET L-200.
22. INSTALL ADA COMPLIANT PARKING SPACE, WITH SIGNS. SEE DETAIL 6, SHEET L-201.
23. INSTALL 48" HT STONE VENEER WALL. SEE DETAIL 5, SHEET L-200.
24. INSTALL 60" HT STONE PILASTER. SEE DETAIL 6, SHEETL-200.
25. METER PIT. SEE MEP PLANS
26. INSTALL CONCRETE TRANSFORMER/GENERATOR PADS. SEE MEP PLANS
27. EXISTING CONCRETE CURB. PROTECT FROM DAMAGE.
28. SAWCUT EXISTING PAVEMENT. PATCH W/ASPHALT ALONG NEW CONCRETE BAND.
29. INSTALL 12" WIDE CONCRETE BAND. SEE DETAIL___, SHEET L-201.
30. INSTALL 2" DIA PVC SLEEVE UNDER PAVING.
31. EXISTING BUILDING. PROTECT FROM DAMAGE
32. EXISTING ASPHALT PAVING. PROTECT FROM DAMAGE.
33. INSTALL STONE VENEER RETAINING WALL. SEE DETAIL 1, SHEET L-200.
34. INSTALL 6" DIAMETER STEEL BOLLARD. SEE DETAIL 4, SHEET L200.
35. INSTALL 36" PLANTER. SEE DETAIL___, SHEET L-201.
36. CURB CUT. PROVIDE FLUSH TRANSITION FROM PARKING TO WALK.
37. STEP-STONE PATHWAY. INSTALLED BY OWNER. ADVISED BY CONTRACTOR.
38. INSTALL GRAVELPAVE2 AGGREGATE PAVING. SEE DETAIL 9, SHEET L-201.
39. EXISTING CONCRETE TO REMAIN. SAWCUT AT JOINT.
40. INSTALL LED LOW VOLTAGE LIGHTING.
41. EXISTING WIRE FARM FENCING TO REMAIN. PROTECT FROM DAMAGE.
42. INSTALL GRASSPAVE2 TURF PAVING. SEE DETAIL 5, SHEET L-201.
43. INSTALL BIO-SWALE. SEE PLANTING PLAN.
44. INSTALL METAL HANDRAIL.

ABBREVIATIONS:

C/L	CENTERLINE
FOC	FACE OF COLUMN
FOW	FACE OF WALL
PA	PLANTING AREA
R	RADIUS
REF	REFERENCE
TYP	TYPICAL
W/	WITH

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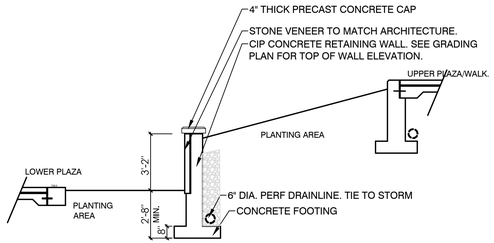
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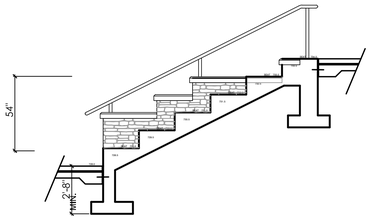
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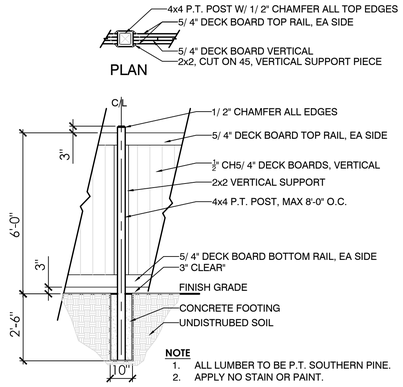
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ENLARGEMENTS LAYOUT & MATERIALS PLAN

Project Number	06398.04
Drawing Scale	1" = 10'
Sheet Number	L103
File Number	06398







1 PLAZA NORTH PLANTER

P-BU-BTN-02

1/4" = 1'-0"

SECTION-PLAN-ELEVATION

4 PLAZA-AMPHITHEATER SEATING, PLANTER WALL

P-BU-BTN-05

1/4" = 1'-0"

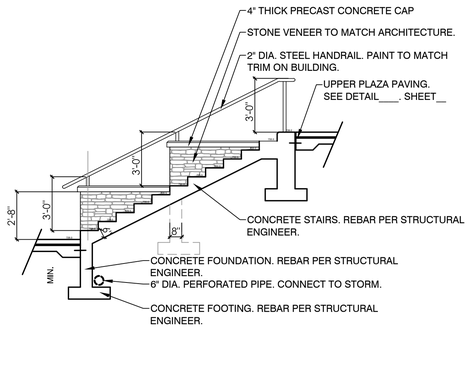
SECTION-PLAN-ELEVATION

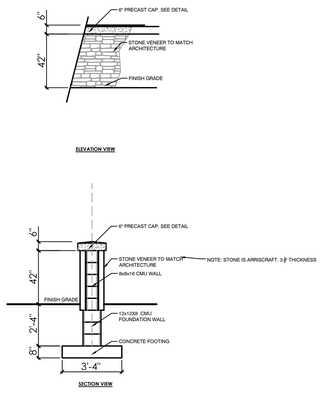
7 6' OPAQUE FENCE

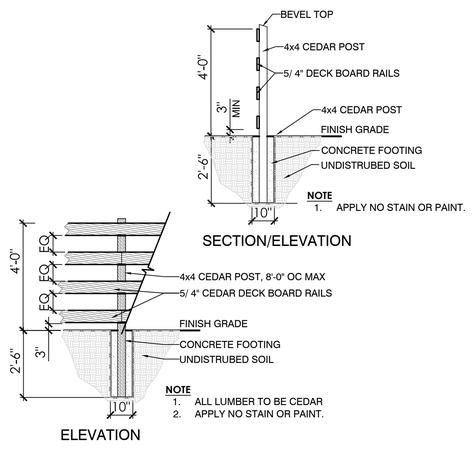
P-GO1-23

3/8" = 1'-0"

SECTION-PLAN-ELEVATION







2 PLAZA GRAND STAIRS & NORTH ELEVATION

P-BU-BTN-03

1/4" = 1'-0"

SECTION-PLAN-ELEVATION

5 STONE VENEER WALL

P-BU-BTN-06

1/4" = 1'-0"

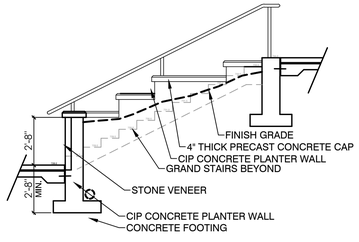
SECTION-PLAN-ELEVATION

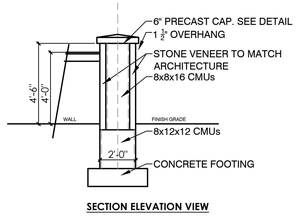
8 4 RAIL FENCE

P-BU-BTN-28

3/8" = 1'-0"

SECTION-PLAN-ELEVATION





SECTION ELEVATION VIEW

3 PLAZA CENTRAL PLANTER-N.WALL

P-BU-BTN-04

1/4" = 1'-0"

SECTION-PLAN-ELEVATION

6 STONE VENEER PILASTER

P-BU-BTN-07

1/4" = 1'-0"

SECTION-PLAN-ELEVATION

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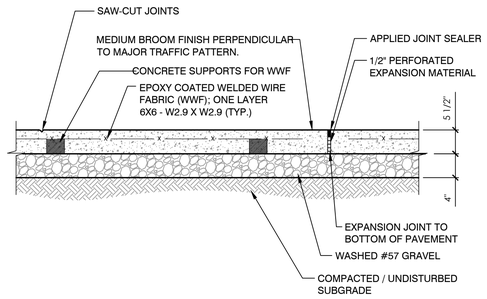
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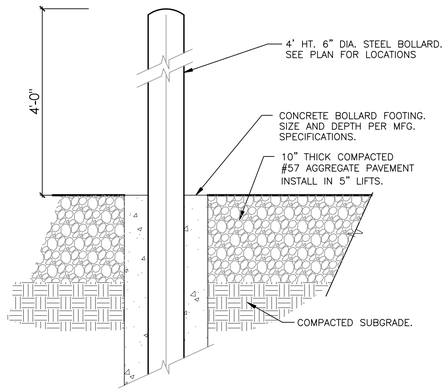
LANDSCAPE CONSTRUCTION DETAILS I

Project Number	06398.04
Drawing Scale	AS NOTED
Sheet Number	L-200
File Number	06398

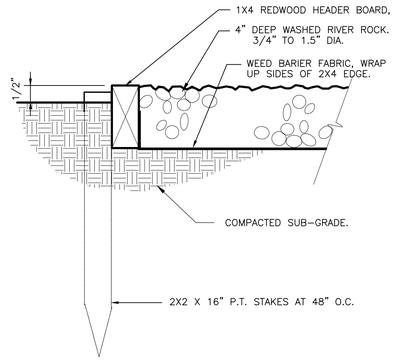


NOTES
1. CONTROL JOINTS 5' O.C. MAX. (SEE PLAN FOR ANY VARIATIONS)
2. EXPANSION JOINTS 25' O.C. MAX AND WHERE CONCRETE WALK ABUTS CONCRETE WALL OR CURB. (SEE PLANS FOR ANY VARIATIONS)
3. CONCRETE SHALL BE 4000 PSI AE

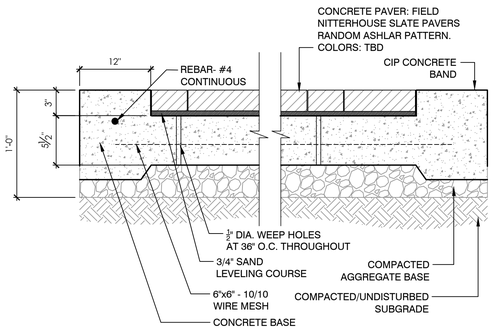
1 STANDARD CONCRETE SIDEWALK
1" = 1'-0" — P-BU-BTN-19 — SECTION



4 BOLLARD AT GENERATOR/ TRANSFORMER
1" = 1'-0" — P-BU-BTN-22

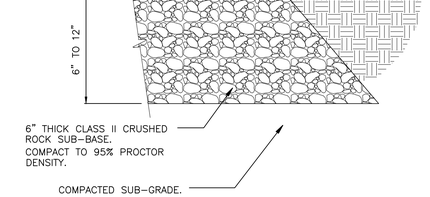


7 DECORATIVE AGGREGATE PAVING
3" = 1'-0" — P-BU-BTN-25

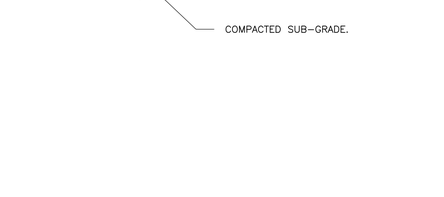


NOTES
1. CONTROL JOINTS 5' O.C. MAX. (SEE PLAN FOR ANY VARIATIONS)
2. EXPANSION JOINTS 25' O.C. MAX AND WHERE CONCRETE WALK ABUTS CONCRETE WALL OR CURB. (SEE PLANS FOR ANY VARIATIONS)
3. CONCRETE SHALL BE 4000 PSI AE

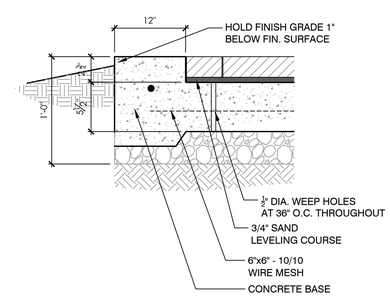
2 PAVER WALK WITH CONCRETE BASE
1 1/2" = 1'-0" — P-BU-BTN-20 — SECTION



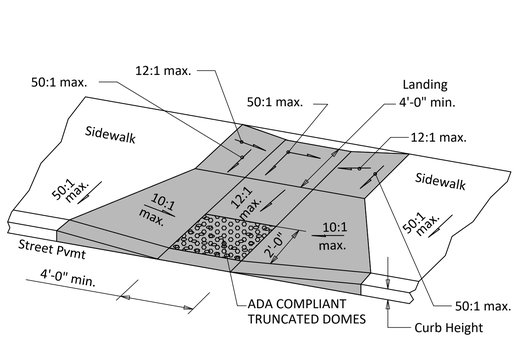
5 TURF PLASTIC REINFORCED PAVING
3" = 1'-0" — P-BU-BTN-23



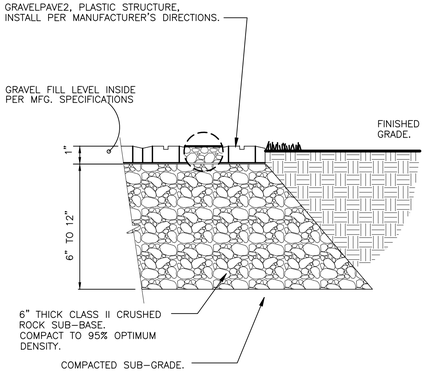
8 GRAVEL PAVING AT PENS
3" = 1'-0" — P-BU-BTN-26



3 UNIT PAVER EDGE CONDITION
1 1/2" = 1'-0" — P-BU-BTN-21 — SECTION



6 ADA CURB RAMP
NOT TO SCALE — ELEVATION



9 GRAVEL PLASTIC REINFORCED PAVING
3" = 1'-0" — P-BU-BTN-27

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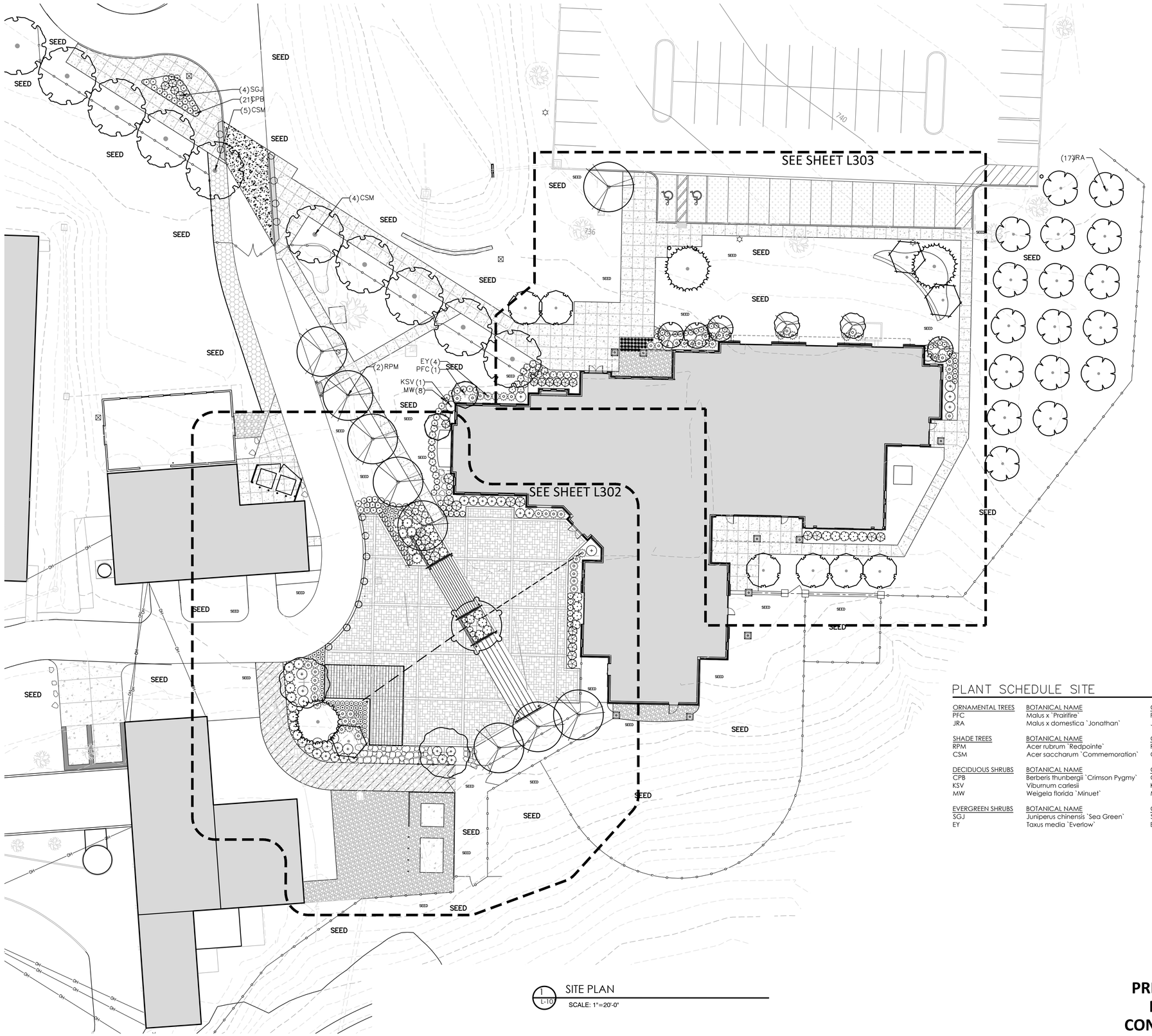
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Sheet Title
LANDSCAPE CONSTRUCTION DETAILS II

Project Number	06398.04
Drawing Scale	AS NOTED
Sheet Number	L-201
File Number	~~06398~~



1 L-10 SITE PLAN

SCALE: 1"=20'-0"

PLANT SCHEDULE SITE

	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY
ORNAMENTAL TREES					
PFC	Malus x `Prairifire`	Prairifire Crab Apple	6`-7` B&B		1
JRA	Malus x domestica `Jonathan`	Jonathan Apple	2" - 2 1/2" CAL. B&B	B&B	17
SHADE TREES	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY
RPM	Acer rubrum `Redpointe`	Redpointe Maple	2" - 2 1/2" CAL. B&B		2
CSM	Acer saccharum `Commemoration`	Commemoration Sugar Maple	3" - 3 1/2" CAL. B&B	B&B	9
DECIDUOUS SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY
CPB	Berberis thunbergii `Crimson Pygmy`	Crimson Pygmy Barberry	#3 CONT.		21
KSV	Viburnum carlesii	Korean Spice Viburnum	#3 CONT.		1
MW	Weigela florida `Minuet`	Minuet Weigela	#3 CONT.		8
EVERGREEN SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY
SGJ	Juniperus chinensis `Sea Green`	Sea Green Juniper	#3 CONT.		4
EY	Taxus media `Everlow`	Everlow Yew	15`-18` B&B		4

SCALE IN FEET

0 10 20 40 60

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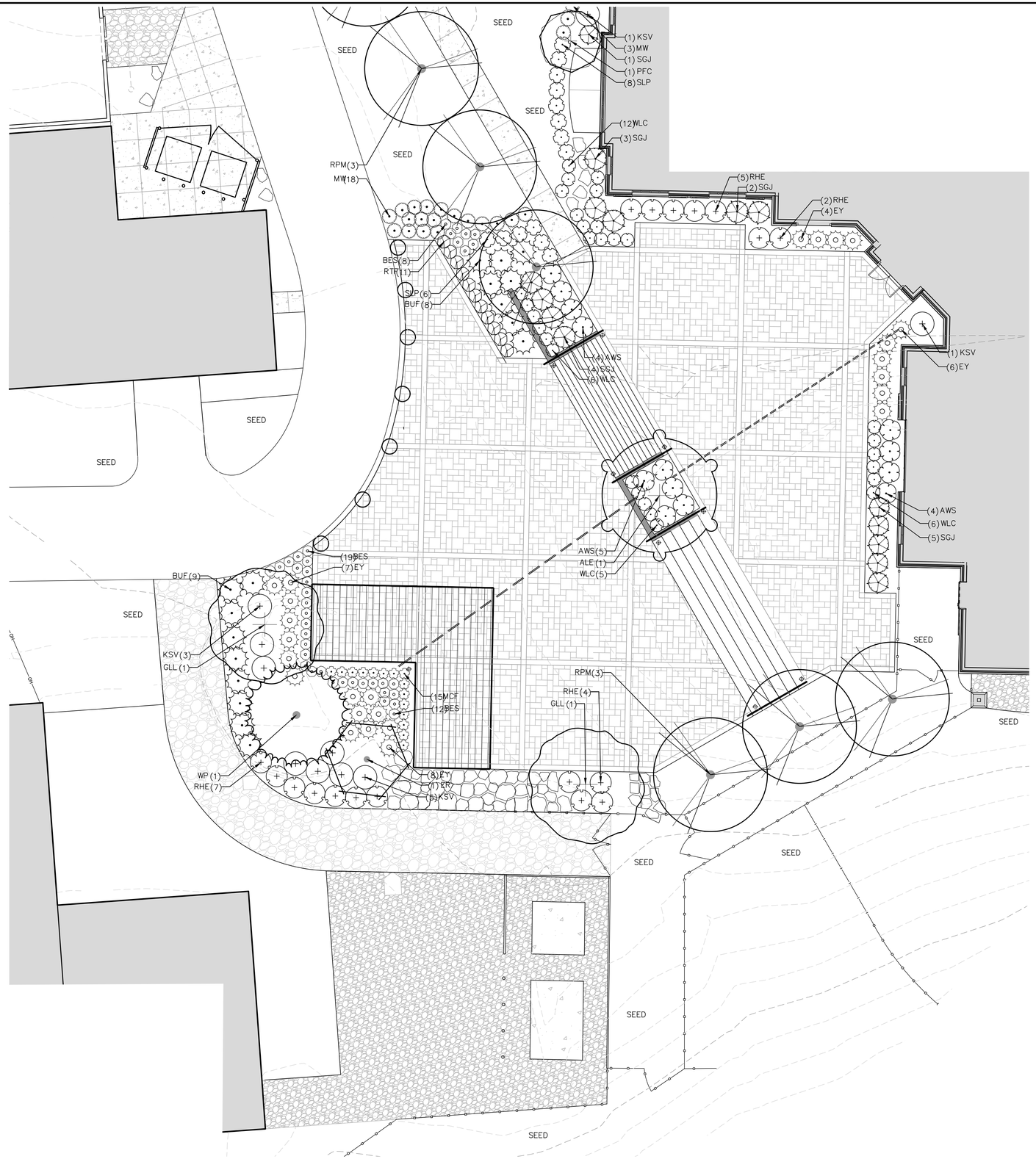
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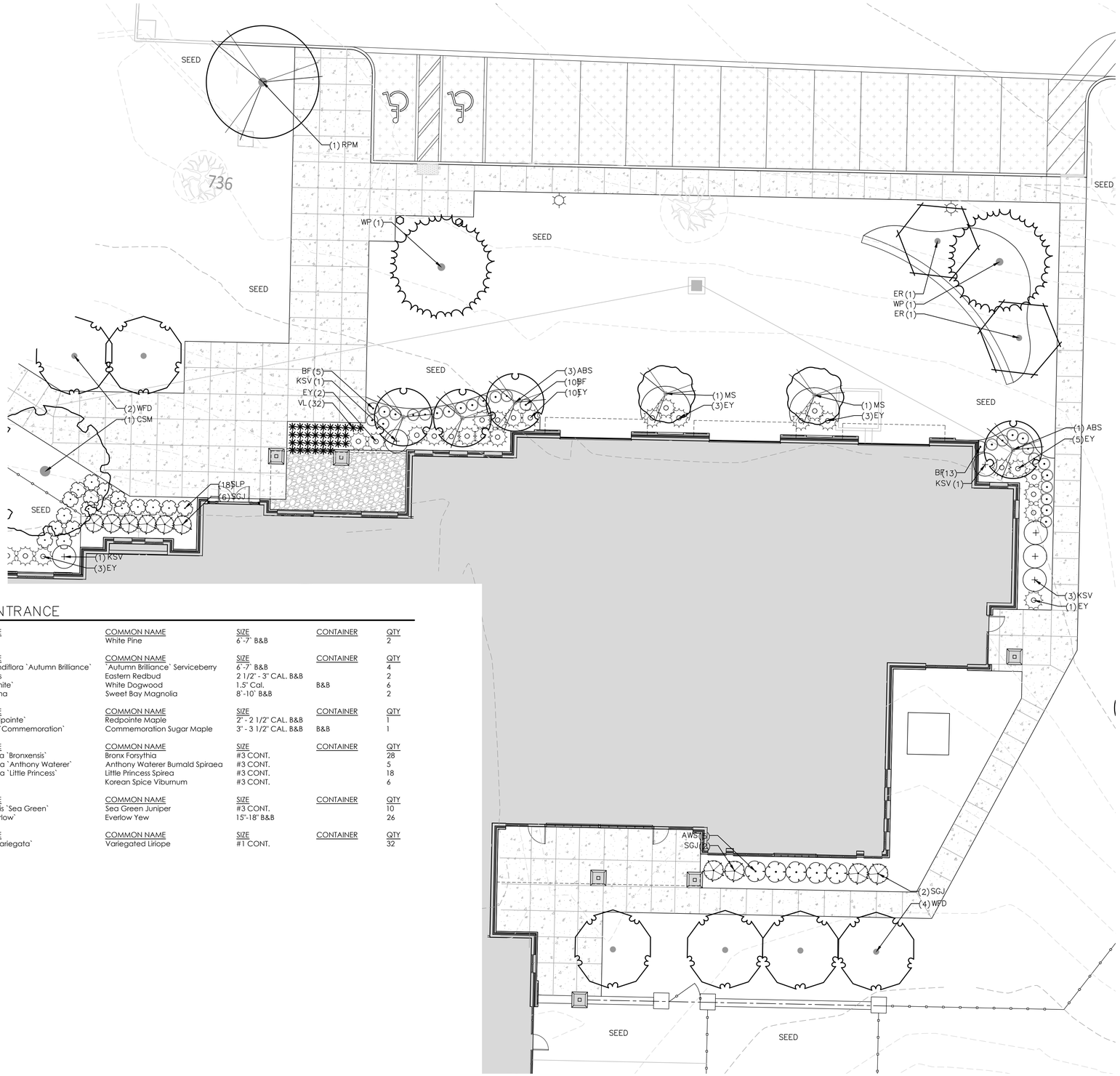
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SITE PLANTING PLAN

Project Number	06398.04
Drawing Scale	1" = 20'
Sheet Number	L301
File Number	06398


SEED
(1) KSV
(3) MW
(1) SGJ
(1) PFC
(8) SLP
(12) WLC
(3) SGJ
RPM(3)
MW(18)
(5) RHE
(2) SGJ
(2) RHE
(4) EY
BES(8)
RTF(1)
SLP(6)
BUF(8)
(4) AWS
(4) SGJ
(8) WLC
(1) KSV
(6) EY
(4) AWS
(6) WLC
(5) SGJ
AWS(5)
ALE (1)
WLC(5)
(19) BES
(7) EY
BUF(9)
KSV(3)
GLL (1)
(15) MCF
(12) BES
RPM(3)
RHE(4)
GLL (1)
WP (1)
RHE(7)
(8) EY
(1) ER
(5) KSV
SEED
SEED
SEED



PLANT SCHEDULE ENTRANCE

EVERGREEN TREES	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY
WP	Pinus strobus	White Pine	6`-7` B&B		2
ORNAMENTAL TREES	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**CONTAINER**	**QTY**
ABS	Amelanchier grandiflora `Autumn Brilliance`	`Autumn Brilliance` Serviceberry	6`-7` B&B		4
ER	Cercis canadensis	Eastern Redbud	2 1/2" - 3" CAL. B&B		2
WFD	Cornus florida `White`	White Dogwood	1.5" Cal.	B&B	6
MS	Magnolia virginiana	Sweet Bay Magnolia	8`-10` B&B		2
SHADE TREES	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**CONTAINER**	**QTY**
RPM	Acer rubrum `Redpointe`	Redpointe Maple	2" - 2 1/2" CAL. B&B		1
CSM	Acer saccharum `Commemoration`	Commemoration Sugar Maple	3" - 3 1/2" CAL. B&B	B&B	1
DECIDUOUS SHRUBS	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**CONTAINER**	**QTY**
BF	Forsythia viridissima `Bronxensis`	Bronx Forsythia	#3 CONT.		28
AWS	Spiraea x bumalda `Anthony Waterer`	Anthony Waterer Bumald Spiraea	#3 CONT.		5
SLP	Spiraea x bumalda `Little Princess`	Little Princess Spirea	#3 CONT.		18
KSV	Viburnum carlesii	Korean Spice Viburnum	#3 CONT.		6
EVERGREEN SHRUBS	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**CONTAINER**	**QTY**
SGJ	Juniperus chinensis `Sea Green`	Sea Green Juniper	#3 CONT.		10
EY	Taxus media `Everlow`	Everlow Yew	15"-18" B&B		26
PERENNIALS	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**CONTAINER**	**QTY**
VL	Liriope muscari `Variegata`	Variegated Liriope	#1 CONT.		32

2 L-103 S.E. PLAZA AREA

SCALE: 1"=10'-0"

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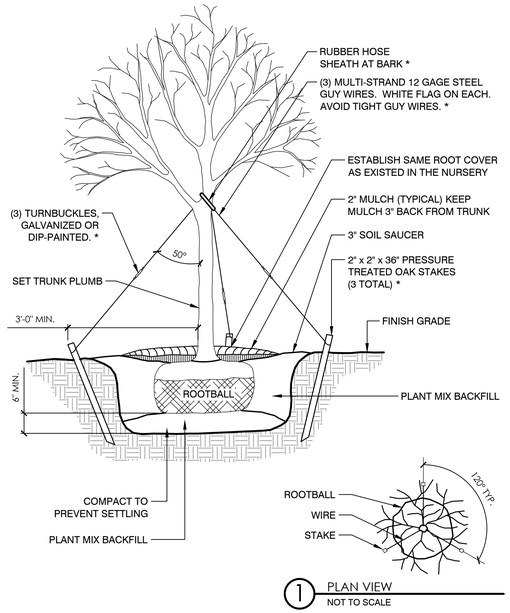
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Sheet Title

ENTRY PLANTING PLAN

Project Number	06398.04
Drawing Scale	1" = 10'
Sheet Number	L303
File Number	06398



1 PLAN VIEW
NOT TO SCALE

NOTES:

1. IF NOT READILY APPARENT, LOCATE TRUNK FLARE BY REMOVING TWINE, BURLAP, AND EXCESS SOIL.
2. DIG TREE HOLE AT LEAST TWO TIMES WIDER THAN THE ROOT BALL, WITH SIDES SLOPED TO AN UNEXCAVATED OR FIRM BASE. DIG HOLE TO A DEPTH SO THE LOCATED TRUNK FLARE, AT THE FIRST ORDER LATERAL ROOT, WILL BE AT FINISHED GRADE.
3. LIFTING ONLY FROM THE BOTTOM OF THE ROOT BALL, POSITION TREE ON FIRM PAD SO THAT IT IS STRAIGHT AND TOP OF FLARE IS LEVEL WITH THE SURROUNDING SOIL.
4. REMOVE ALL TWINE FROM ROOT BALL. IF PRESENT, REMOVE AND DISCARD THE TOP 3" OF BURLAP FROM THE ROOT BALL.
5. WITH CLEAN, SHARP PRUNING TOOLS, PRUNE OFF ANY SECONDARY/ADVENTITIOUS, GIRDLING, AND POTENTIAL GIRDLING ROOTS.
6. BACKFILL PLANTING HOLE WITH PLANT MIX (SEE GENERAL NOTES), AND THOROUGHLY WATER.
7. MULCH ENTIRE PLANTING SURFACE WITH COMPOSTED BARK MULCH APPLIED NO LESS THAN TWO INCHES (2") DEEP AND NO MORE THAN THREE INCHES (3") DEEP, LEAVING THREE INCHES (3") ADJACENT TO THE TREE TRUNK FREE OF MULCH.
8.* STAKE DECIDUOUS TREES WITH A 2 1/2" OR GREATER CALIPER.
9.* REMOVE STAKES 1 YEAR AFTER PLANTING.

1 DECIDUOUS TREE PLANTING AND GUYING
NOT TO SCALE 329303-01

PRELIMINARY NOT FOR CONSTRUCTION

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Project Manager	FCB
Drawn By	FCB
DWG	06398046-PLA
X-Ref(s)	06398046-BAS 06398044-IMP

Issue/Revision	No.	Date
PLANNING COMMISSION		04/20/21

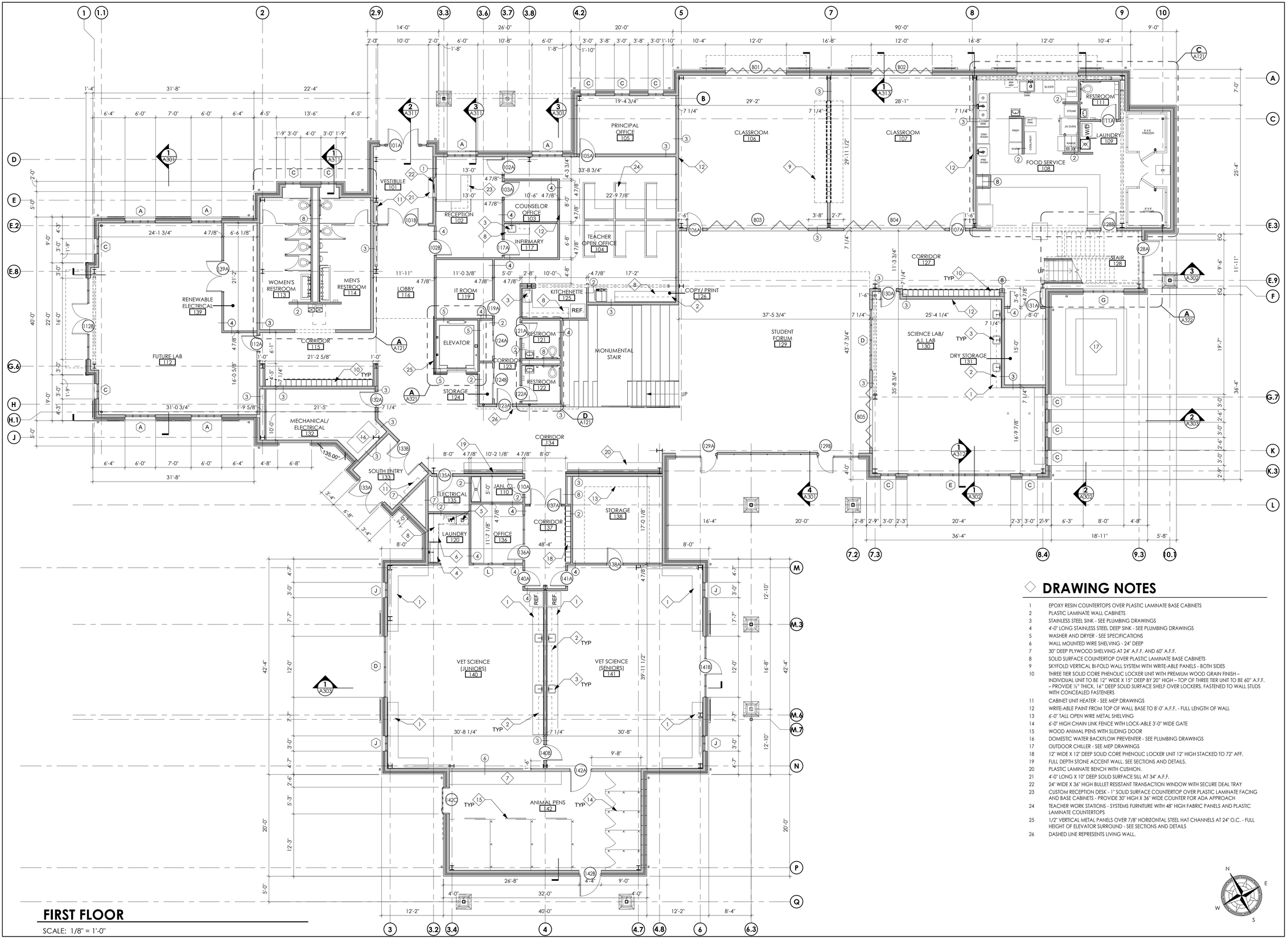
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Sheet Title

PLANTING DETAILS

Project Number	06398.04
Drawing Scale	AS SHOWN
Sheet Number	L304
File Number	06398



FIRST FLOOR

SCALE: 1/8" = 1'-0"

DRAWING NOTES

1. EPOXY RESIN COUNTERTOPS OVER PLASTIC LAMINATE BASE CABINETS
2. PLASTIC LAMINATE WALL CABINETS
3. STAINLESS STEEL SINK - SEE PLUMBING DRAWINGS
4. 4'-0" LONG STAINLESS STEEL DEEP SINK - SEE PLUMBING DRAWINGS
5. WASHER AND DRYER - SEE SPECIFICATIONS
6. WALL MOUNTED WIRE SHELVING - 24" DEEP
7. 30" DEEP PLYWOOD SHELVING AT 24" A.F.F. AND 60" A.F.F.
8. SOLID SURFACE COUNTERTOP OVER PLASTIC LAMINATE BASE CABINETS
9. SKYFOLD VERTICAL BI-FOLD WALL SYSTEM WITH WRITE-ABLE PANELS - BOTH SIDES
10. THREE TIER SOLID CORE PHENOLIC LOCKER UNIT WITH PREMIUM WOOD GRAIN FINISH – INDIVIDUAL UNIT TO BE 12" WIDE X 15" DEEP BY 20" HIGH – TOP OF THREE TIER UNIT TO BE 60" A.F.F. – PROVIDE ½" THICK, 16" DEEP SOLID SURFACE SHELF OVER LOCKERS, FASTENED TO WALL STUDS WITH CONCEALED FASTENERS
11. CABINET UNIT HEATER - SEE MEP DRAWINGS
12. WRITE-ABLE PAINT FROM TOP OF WALL BASE TO 8'-0" A.F.F. - FULL LENGTH OF WALL
13. 6'-0" TALL OPEN WIRE METAL SHELVING
14. 6'-0" HIGH CHAIN LINK FENCE WITH LOCK-ABLE 3'-0" WIDE GATE
15. WOOD ANIMAL PENS WITH SLIDING DOOR
16. DOMESTIC WATER BACKFLOW PREVENTER - SEE PLUMBING DRAWINGS
17. OUTDOOR CHILLER - SEE MEP DRAWINGS
18. 12" WIDE X 12" DEEP SOLID CORE PHENOLIC LOCKER UNIT 12" HIGH STACKED TO 72" AFF.
19. FULL DEPTH STONE ACCENT WALL. SEE SECTIONS AND DETAILS.
20. PLASTIC LAMINATE BENCH WITH CUSHION.
21. 4'-0" LONG X 10" DEEP SOLID SURFACE SILL AT 34" A.F.F.
22. 24" WIDE X 36" HIGH BULLET RESISTANT TRANSACTION WINDOW WITH SECURE DEAL TRAY
23. CUSTOM RECEPTION DESK - 1" SOLID SURFACE COUNTERTOP OVER PLASTIC LAMINATE FACING AND BASE CABINETS - PROVIDE 30" HIGH X 36" WIDE COUNTER FOR ADA APPROACH
24. TEACHER WORK STATIONS - SYSTEMS FURNITURE WITH 48" HIGH FABRIC PANELS AND PLASTIC LAMINATE COUNTERTOPS
25. 1/2" VERTICAL METAL PANELS OVER 7/8" HORIZONTAL STEEL HAT CHANNELS AT 24" O.C. - FULL HEIGHT OF ELEVATOR SURROUND - SEE SECTIONS AND DETAILS
26. DASHED LINE REPRESENTS LIVING WALL.

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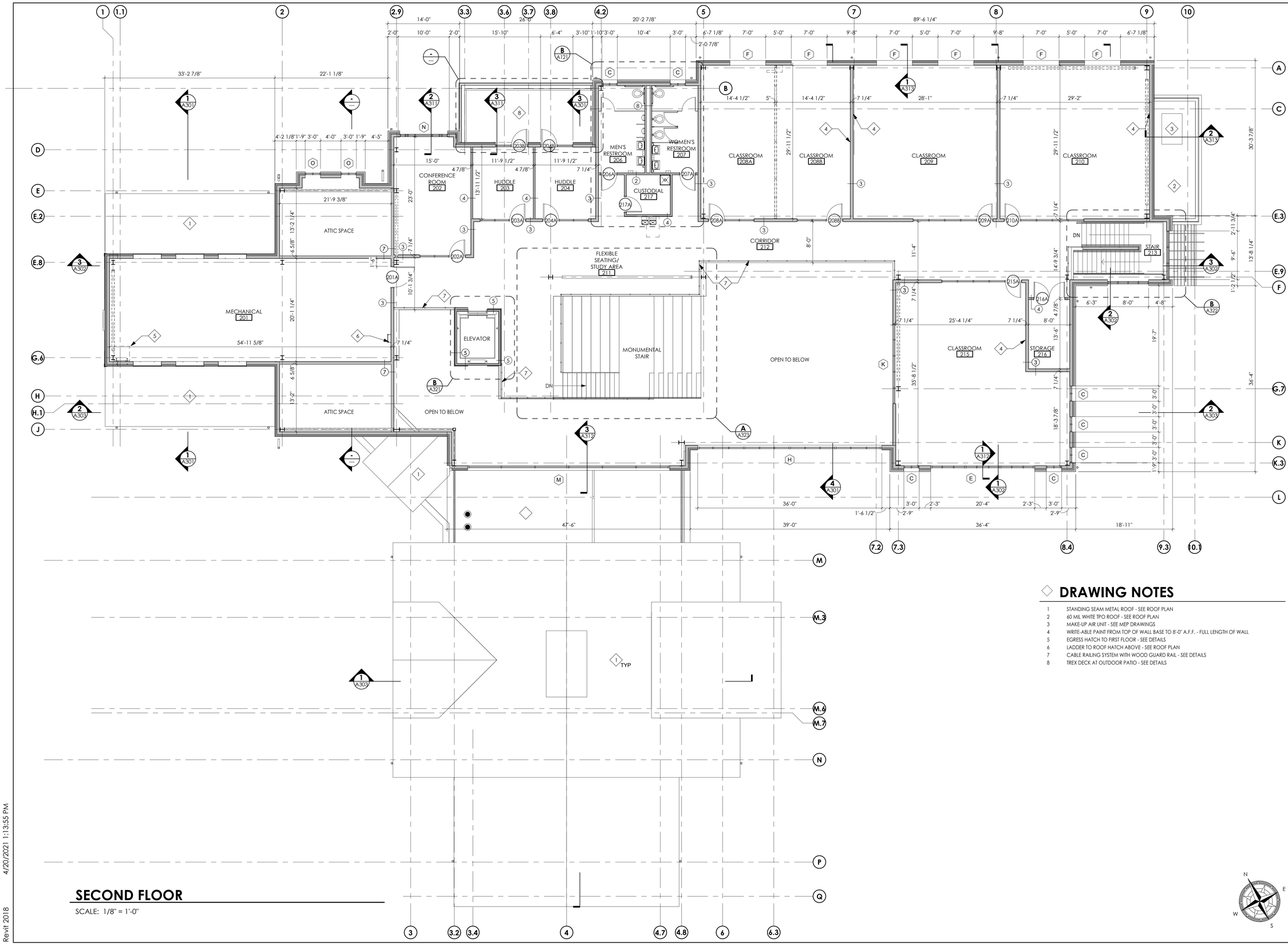
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Sheet Title
FIRST FLOOR PLAN

Project Number 06398.04
Drawing Scale 1/8" = 1'-0"

Sheet Number **A101**



SECOND FLOOR

SCALE: 1/8" = 1'-0"

DRAWING NOTES

1. STANDING SEAM METAL ROOF - SEE ROOF PLAN
2. 60 MIL WHITE TPO ROOF - SEE ROOF PLAN
3. MAKE-UP AIR UNIT - SEE MEP DRAWINGS
4. WRITE-ABLE PAINT FROM TOP OF WALL BASE TO 8'-0" A.F.F. - FULL LENGTH OF WALL
5. EGRESS HATCH TO FIRST FLOOR - SEE DETAILS
6. LADDER TO ROOF HATCH ABOVE - SEE ROOF PLAN
7. CABLE RAILING SYSTEM WITH WOOD GUARD RAIL - SEE DETAILS
8. TREX DECK AT OUTDOOR PATIO - SEE DETAILS

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Sheet Title
SECOND FLOOR PLAN

Project Number 06398.04
Drawing Scale 1/8" = 1'-0"

Sheet Number **A102**

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GENERAL NOTES

A. VERIFY ALL CONDITIONS PRIOR TO FABRICATION, ERECTION, AND INSTALLATION.
B. SEE STRUCTURAL DRAWINGS FOR DEPTHS OF FOUNDATIONS, FOOTINGS, COLUMN SIZES AND LOCATIONS.

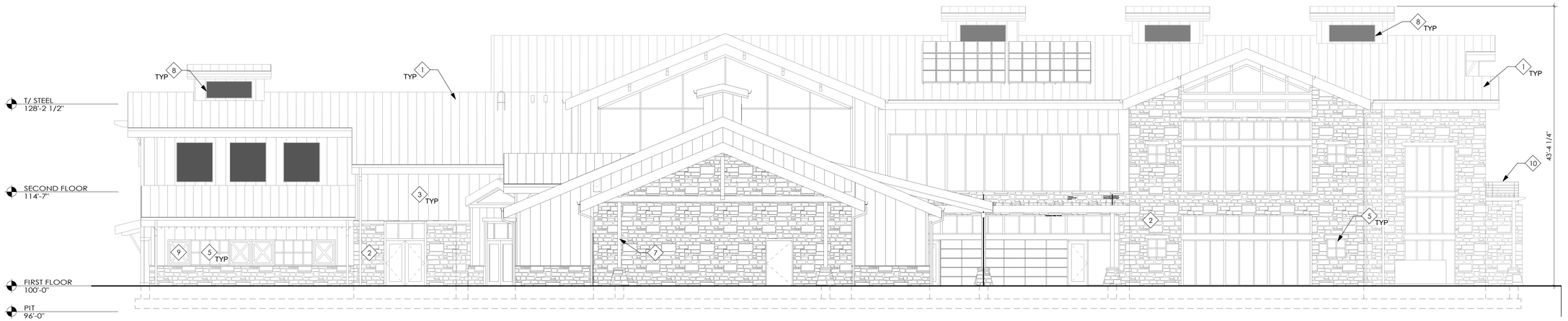
DRAWING NOTES

1 STANDING SEAM METAL ROOF OVER METAL FURRING WITH R-20 RIGID INSULATION OVER EXTERIOR GRADE PLYWOOD
2 SIMULATED STONE VENEER BASE WITH 4" CAST STONE CAP.
3 HARDIE-BOARD WOOD SIDING WITH VERTICAL BATTENS AT 16" O.C.
4 FIXED STEEL FRAMED WINDOW SYSTEM - SEE SCHEDULES
5 ALUMINUM STOREFRONT WINDOW - SEE SCHEDULES
6 4 1/2" ALUMINUM STOREFRONT WINDOW SYSTEM.
7 8X8 HEAVY TIMBER WOOD POST - RED CEDAR
8 PRE-FINISHED ALUMINUM LOUVER - SEE MECHANICAL DRAWINGS.
9 DECORATIVE WOOD BARN DOOR AND TRIM
10 ALUMINUM MECHANICAL SCREEN



NORTH ELEVATION

SCALE: 1/8" = 1'-0"



SOUTH ELEVATION

SCALE: 1/8" = 1'-0"

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Sheet Title
BUILDING ELEVATIONS

Project Number 06398.04
Drawing Scale 1/8" = 1'-0"

Sheet Number **A201**

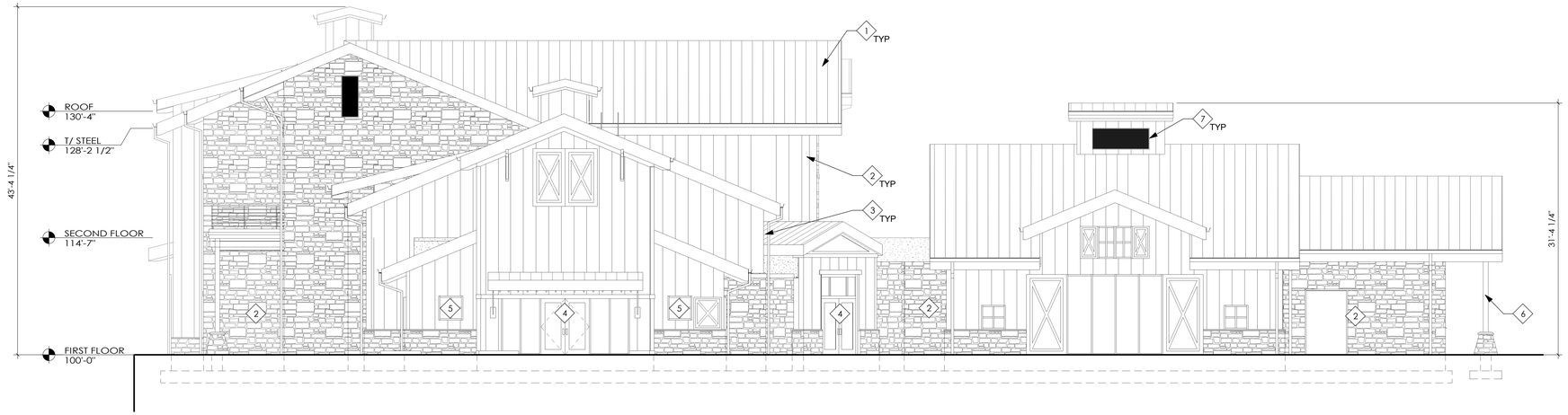
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GENERAL NOTES

A. VERIFY ALL CONDITIONS PRIOR TO FABRICATION, ERECTION, AND INSTALLATION.
B. SEE STRUCTURAL DRAWINGS FOR DEPTHS OF FOUNDATIONS, FOOTINGS, COLUMN SIZES AND LOCATIONS.

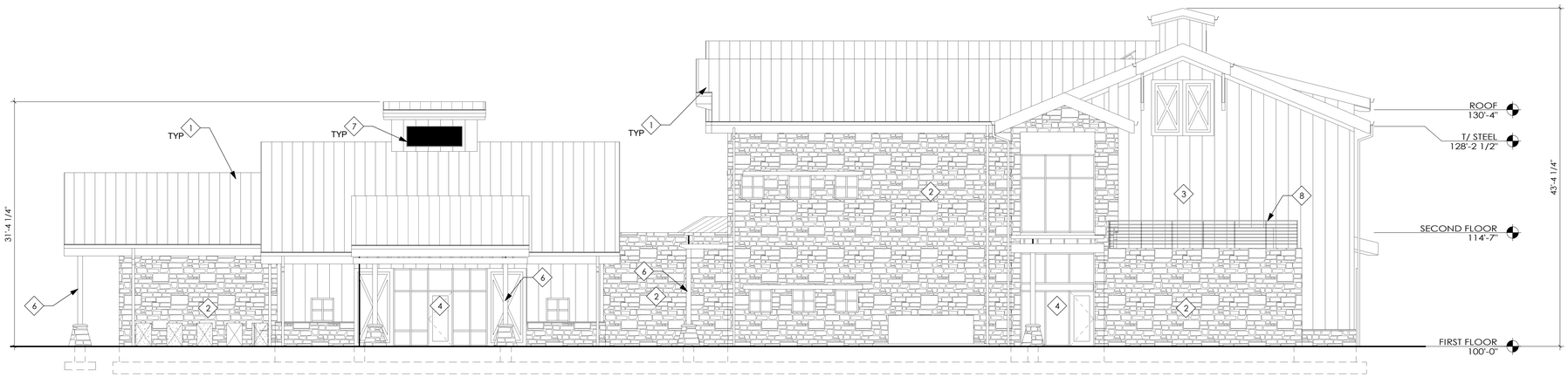
DRAWING NOTES

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2 SIMULATED STONE VENEER BASE WITH 4" CAST STONE CAP.
3 HARDIE-BOARD WOOD SIDING WITH VERTICAL BATTENS AT 16" O.C.
4 4 1/2" ALUMINUM STOREFRONT WINDOW SYSTEM.
5 ALUMINUM STOREFRONT WINDOW - SEE SCHEDULES
6 8X8 HEAVY TIMBER WOOD POST - RED CEDAR
7 PRE-FINISHED ALUMINUM LOUVER - SEE MECHANICAL DRAWINGS.
8 ALUMINUM MECHANICAL SCREEN



WEST ELEVATION

SCALE: 1/8" = 1'-0"



EAST ELEVATION

SCALE: 1/8" = 1'-0"

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Sheet Title
BUILDING ELEVATIONS

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Sheet Number **A202**

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