



**CITY OF OWOSSO  
PLANNING COMMISSION  
Regular Meeting**

Tuesday, May 28, 2019 at 6:30 p.m.  
Council Chambers – Owosso City Hall  
301 W. Main Street, Owosso, MI 48867

**AGENDA**

CALL TO ORDER

PLEDGE OF ALLEGIANCE

ROLL CALL

APPROVAL OF AGENDA – May 28, 2019

APPROVAL OF MINUTES – April 22, 2019

PUBLIC HEARING: None

OLD BUSINESS: None

NEW BUSINESS:

1. Site Plan – Memorial Healthcare
2. Site Plan – Consumers Energy

OTHER BOARD BUSINESS

PUBLIC COMMENTS AND COMMUNICATIONS

ADJOURNMENT

Next regular meeting will be on Monday, June 24, 2019, if any requests are received.

**Commissioners, please call Tanya at 989-725-0540 if you will be unable to attend this meeting**

The City of Owosso will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and recordings of printed materials being considered at the meeting, to individuals with disabilities at the meeting/hearing upon seventy-two (72) hours notice to the City of Owosso. Individuals with disabilities requiring auxiliary aids or services should contact the City of Owosso by writing or calling the following: Amy Kirkland, City Clerk, 301 W. Main St, Owosso, MI 48867 (989) 725-0500. The City of Owosso website is: [www.ci.owosso.mi.us](http://www.ci.owosso.mi.us)

**MINUTES  
REGULAR MEETING OF THE OWOSSO PLANNING COMMISSION  
COUNCIL CHAMBERS, CITY HALL  
MONDAY, APRIL 22, 2019 – 6:30 P.M.**

**CALL TO ORDER:** Vice-Chair Livingston called the meeting to order at 6:30 p.m.

**PLEDGE OF ALLEGIANCE:** Recited

**ROLL CALL:** Tanya Buckelew

**MEMBERS PRESENT:** Vice-Chair Livingston, Secretary Janae Fear, Commissioners Kirkland, Law and Taylor

**MEMBERS ABSENT:** Chairman Wascher, Commissioners Adams and Jenkins

**OTHERS PRESENT:** City Manager Nathan Henne, Building Official Brad Hissong

**APPROVAL OF AGENDA:**  
**MOTION BY SECRETARY FEAR, SUPPORTED BY COMMISSIONER KIRKLAND TO APPROVE THE AGENDA FOR APRIL 22, 2019.**

**YEAS ALL. MOTION CARRIED.**

**APPROVAL OF MINUTES:**  
**MOTION BY SECRETARY FEAR, SUPPORTED BY COMMISSIONER LAW TO APPROVE THE MINUTES FOR THE FEBRUARY 25, 2019 MEETING.**

**YEAS ALL. MOTION CARRIED.**

**PUBLIC HEARINGS:** NONE

**OLD BUSINESS:** NONE

**NEW BUSINESS:**

**1. Site Plan Review – J & H Family Store, 917 E. Main Street**

The architect for this project, Joe Grochowalski, spoke about the site plan. The current station and house will be demolished to allow for a new convenience store and gas station.

Craig Hoppen, Owner, spoke about getting a Brownfield for the site and working with the DEQ. In addition, the storage area on the north side of the building will be used for products like oil that customers can walk in and purchase. There will be a small checkout counter in the storage area.

Discussion regarding signage – the pole sign on the northeast corner will stay the same with a new coat of paint and a new monument sign will be added to the southeast corner.

A sidewalk will be added on Gould Street.

Discussion regarding the overhead door and per ordinance, the Planning Commission can approve the overhead door facing a street. This does not require a variance.

J & H Family Store will seek a variance in regards to the windows and the landscaping (Sec. 38-397 (a) (3) and (4)).

**MOTION BY COMMISSIONER TAYLOR, SUPPORTED BY COMMISSIONER LAW TO APPROVE THE SITE PLAN FOR THE J & H FAMILY STORE LOCATED AT 917 E. MAIN STREET AS DEPICTED ON THE PLAN PREPARED BY FEENSTRA & ASSOCIATES INC. CIVIL ENGINEERS & SURVEYORS, SUBJECT TO THE FOLLOWING:**

- 1. ZONING BOARD OF APPEALS VARIANCE APPROVALS**
- 2. BUILDING OFFICIAL, ENGINEER, PUBLIC UTILITIES DIRECTOR AND FIRE DEPARTMENT'S APPROVAL OF THE CONSTRUCTION DRAWINGS**
- 3. PLANNING COMMISSION APPROVES THE PLACEMENT OF THE OVERHEAD DOOR AS PER SEC. 38-397 (A)(5) OVERHEAD DOORS SHALL NOT FACE A PUBLIC STREET OR RESIDENTIAL DISTRICT. THE PLANNING COMMISSION CAN MODIFY THIS REQUIREMENT UPON A DETERMINATION THAT THERE IS GOOD OR NECESSARY CAUSE AND THE VISUAL IMPACT WILL BE MODERATED THROUGH USE OF BUILDING MATERIALS, ARCHITECTURAL FEATURES AND LANDSCAPING BEYOND THAT REQUIRED BY THE ORDINANCE.**

**RCV YEAS ALL. MOTION CARRIED.**

**OTHER BOARD BUSINESS:**

Matt Lafferty resigned from the planning commission to pursue a new career up north.

**PUBLIC COMMENTS AND COMMUNICATIONS: NONE**

**ADJOURNMENT**

**MOTION BY COMMISSIONER TAYLOR, SUPPORTED BY SECRETARY FEAR TO ADJOURN AT 7:15 P.M. UNTIL THE NEXT MEETING ON MAY 28, 2019.**

**YEAS ALL, MOTION CARRIED.**

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Janae L. Fear, Secretary



**Planned Unit Development Application**  
Please Print

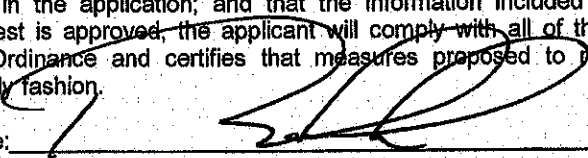
Submission of Application		
<p><b>Applications must be submitted 30 days prior to the meeting for review for completeness, along with the fees of: PUD zoning district review Cost + 25% and PUD site plan review \$500.00 + review fees in accordance with the schedule of fees adopted by the City Council to cover the costs of processing the application.</b></p> <p>All land for which application is made must be owned by or under the control of the applicant, and the parcel must be capable of being planned and developed as one integral unit including any non-contiguous parcels. The application must be signed by all applicants and must contain the materials described in this Section. Failure of the applicant to provide such requested information in a timely manner may delay the process of review.</p>		
Property Information		
Address:	826 W King	Parcel # 050-536-000-095-00
Applicant Information		
<b>Name of Owner or Lessee:</b> Memorial Healthcare (Attn: Brian Long, President, CEO)		
<b>Address:</b> 826 W. King St., Owosso, MI 48867		
Phone #:	Cell#:	Email:
989-729-4802	N / A	pclarizio@memorialhealthcare.org
<b>Name of Agent (if applicable):</b>		
<b>Address:</b>		
Phone #:	Cell#:	Email:
<b>Name of Architect, Engineer, Landscape Architect or Land Planner:</b> Edmund London & Associates (Attn: Jordan London, President)		
<b>Address:</b> 20750 Civic Center Drive, Suite 610, Southfield, Michigan 48076		
Phone #:	Cell #:	Email:
248-353-4820	N / A	jlonon@ela-architect.com

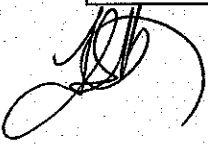
<b>Submission Guidelines</b> <i>Items that are bold and italicized cannot be waived</i>		
<b>Detailed site plan</b> shall include 10 copies of all required information including any documents rendered in color and a digital PDF of the Site Plan shall be forwarded to the City Planner.		
Waived Initials	Included	Planned Unit Development and Detailed Site Plan Requirements
	■	<i>A detailed narrative description of the applicant's intent and objectives (physical, social and environmental)</i>
	■	<i>The site plan shall be prepared by a professional architect, engineer, landscape architect or land planner and must contain the following information:</i>
	■	<i>A scale of not less than one (1) inch equals fifty (50) feet if the subject property is less than three (3) acres and one (1) inch equals one hundred (100) feet if three (3) acres or more</i>
	■	<i>Date, north point, scale, and area of the site in acres</i>
	■	<i>The dimensions of all lot and property lines, showing the relationship of the subject property to the abutting properties</i>
	■	<i>The location of all existing and proposed structures and utilities on the subject property and all existing structures within one hundred (100) feet to the subject property</i>
	■	<i>The location and layout of all existing and proposed drives and parking areas</i>
	■	<i>The location and right-of-way widths of all abutting streets and alleys</i>
	■	<i>The names and addresses of the architect, planner, designer, engineer, or person responsible for the preparation of the site plan</i>
	■	All water features; springs streams and creeks, lakes and ponds, wetlands, and flood plains
	■	Locations, heights and sizes of existing and proposed structures and other important features. Illustration of all proposed improvements and buildings, fences, landscaping, parking and screening, including location, height, footprint of each.
	■	A rendering of the exterior elevation of the proposed buildings and structures, on-site parking, sidewalks, and travel lanes
	■	Proposed setback from property lines and building separations distances
	■	The percentage of land covered by buildings, parking and landscape open space, or preserved open space. Percentage of land covered by buildings and impervious surfaces and that reserved for open space.
	N/A □	A land use tabulation summary shall be provided indicating types of uses, acreage for each land use, number of units, densities and land use intensities. Dwelling unit density where pertinent; including a density schedule demonstrating number of each dwelling type, if applicable.
	N/A □	Project phasing, if applicable.
	■	Location of public and private rights-of-way and easements contiguous to and within the proposed development which are planned to be continued, created, relocated or abandoned, including grades and types of construction of those upon the site. Location of public and private rights-of-way and easements contiguous to and within the proposed development which are planned to be continued, created, relocated or abandoned, including grades and types of construction of those upon the site.

	■	Curb-cuts, driving lanes, parking, and loading areas. Curb-cuts, driving lanes, parking and loading areas, including the number of parking spaces and parking calculations; vehicular circulation patterns and features, location and size of all parking spaces and the identification of service lanes and parking.
	■	Curb-cuts and driveways on adjacent properties.
	■	Location and type of drainage, sanitary sewers, storm sewers and other facilities, including surface and subsurface drainage for all impermeable surfaces on the site and all drainage calculations.
	■	Existing and proposed water main, sanitary and storm sewer, natural gas, electric, telephone, cable television and other utilities, the proposed location of connections to existing utilities and any proposed extensions thereof.
	■	Proposed changes to the topography of the site illustrated at no greater than two (2) foot contours.
	■	Soil erosion and sediment control measures which shall include preventative soil erosion devices or measures, both during and after any site work related to the development.
	■	Signage characteristics and on-site illumination. Detail on proposed signage including an illustration of all proposed signs, their surface area, height and nature of illumination
	■	A lighting plan
	OK <input type="checkbox"/>	Any additional material information necessary to consider the impact of the project upon adjacent properties and the general public, as may be requested by the Planning Commission.
	OK <input type="checkbox"/>	Any required approvals, permits, changes or modifications required by any applicable regulatory agency.
	N/A <input type="checkbox"/>	Special Groundwater Protection. [If applicable – requirements will be provided]

**Site Plan Review Process**

**After review and recommendation by City Staff, the applicant will submit 10 copies of the application and Site Plan for the Planning Commission meeting.**

<b>Authorization</b>	
<b>CERTIFICATION AND AFFIDAVIT:</b>	
The undersigned affirm(s) that he/she/they is/are the owner, lessee, owner's representative, contractor involved in the application; and that the information included in this application is correct. Further, if the request is approved, the applicant will comply with all of the requirements of the City of Owosso Zoning Ordinance and certifies that measures proposed to mitigate adverse impacts will be completed in a timely fashion.	
Signature: 	Date: <u>4/15/19</u>
Signature: _____	Date: _____
<i>If applicant is Incorporated or a Limited Liability Corporation a copy of the Articles of Incorporation are to be submitted with application.</i>	
<input checked="" type="checkbox"/> By checking this box permission is given for Planning Commission Members to make a site inspection if desired.	
Yes <input checked="" type="checkbox"/> No _____ Please indicate if the applicant will be tax exempt, applying and/or eligible for tax abatements, credits or deferments for this proposed project. If Yes, explain:	
<b>Office Use Only</b>	
Date received: <u>4-26-2019</u>	Hearing date: <u>5-28-2019</u>



**RECEIVED**  
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# CIB PLANNING

Community Image Builders

May 20, 2019

Planning Commission  
City of Owosso  
301 W. Main Street  
Owosso, Michigan 48867

**Subject: Memorial Healthcare Neuro/Ortho Wellness Center Site Plan Review.** Approximately 24.29 acres, located on the west side of State Highway M-52, immediately north of King Street. Zoned R-1, Residential and OS-1, Office, site plan not dated.

**Attention:** Mr. Brad Hissong, Building Official

Dear Planning Commissioners:

At your request, we have completed our review of the above site plan to construct a three (3) story Neuro/Ortho/Wellness Center at the front of the campus site along with expansions to existing parking lots. The Center property is currently undeveloped and located on M-52 on the north side of the main entrance to the hospital campus. The property with the hospital complex is zoned R-1, Residential, where hospitals are special land uses with conditions, and OS-1, Office where medical professional offices and facilities for human care are permitted uses.

The proposed neuro/wellness center is located on property zoned OS-1 and the adjoining parking lot expansion is on property zoned R1.

The opinions in this report are based on a review of the site plan submitted by the applicant and conformance to ordinance standards. Please note that the applicant and their design professionals shall be responsible for the accuracy and validity of information presented with the application. In reaching a decision on the application, the Planning Commission should consider our comments along with those from other staff and consultants, additional information provided by the applicant, and your own findings based on ordinance standards as part of your deliberation.

## REVIEW COMMENTS

*Section 36-390* of the City of Owosso Zoning Ordinance lists the submittal requirements for site plan review. Based on our review of the proposal, discussions with Mr. Nathan Henne, City Manager, meetings with the applicant and a visit to the site, we offer the following comments for your consideration:

**1. Information items.** The following information items need to be addressed on a revised site plan submission, for administrative review and approval:

17195 Silver Parkway, #309  
Fenton, MI 48430

Phone: 810-734-0000  
Email: [avantini@cibplanning.com](mailto:avantini@cibplanning.com)



- a. A date must be added to all pages of the site plan
- b. The building height indicated on all sheets must match

**2. Area and Bulk.** The proposed site was reviewed in accordance with *Article 16, Schedule of Regulations*, as described in the following table.

	Required	Provided	Comments
<b>NEURO WELLNESS CENTER (OS1 ZONING)</b>			
<b>Front Yard Building Setback (Shiawassee)</b>	50 ft.	50 ft.	In compliance
<b>Front Yard Building Setback (Jennett)</b>	10 ft.	35 ft.	In compliance
<b>Rear Yard Building Setback</b>	20 ft.	35 ft.	In compliance
<b>Maximum Building Lot Coverage (Impervious Surface)</b>	-	17.7%	In compliance

**3. Building Design & Materials.** The building has an attractive design and utilizes stone veneer as the primary building material, with cedar plank trim and spandrel glass trim. We are of the opinion that this meets the intent of the ordinance and enhances the entryway into the hospital complex. Material samples should be presented to the Planning Commission for review and approval.

**4. Building Height.** The maximum building height in the OS-1 District is 35 feet and the proposed Wellness Center is 39'10" tall. While the building height is appropriate given the scale of the hospital complex, a variance must still be obtained from the Zoning Board of Appeals.

**5. Mechanical Units.** A note must be added to the plan indicating that any roof-mounted mechanical units will be screened. Specific details including height and construction materials should be provided. The ground mounted generator and electric transformer are shown with Arbor Vitae surrounding the units.

**6. Dumpster.** A dumpster is located at the northwest corner of the proposed neuro wellness center. Enclosure façade details with material specification should be provided. Due to the close proximity of the generator and electrical transformer pads to the dumpster, the applicant may want to consider enclosing and constructing the units of the same materials as the dumpster enclosure.

**7. Parking Lot Requirements.** The following table lists the requirements for parking lot setbacks and design.

	Required	Provided	Comments
<b>PARKING LOT EXPANSION (R1 ZONING)</b>			
<b>Parking Setback -Ada Street</b>	50 ft.	25 ft.	<b>Not in compliance</b>
<b>Parking Setback – Residential lots to the north</b>	20 ft.	25 ft.	In compliance

<b>PARKING SPACE REQUIREMENTS</b>	Required	Provided	Comments
<b>Parking Spaces</b>	91 (neuro center) 190 (wellness center) TOTAL 281	115 (new) 166 (existing underutilized) TOTAL 281	In compliance
<b>Parking Aisle Width</b>	26 ft.	26 ft.	In compliance
<b>Parking Space Dimensions</b>	9 ft. x 18' 4" ft.	9 ft. x 18 ft.	In compliance
<b>Barrier-Free Parking Spaces*</b>	7 spaces	7 spaces	In compliance

\* barrier free spaces are subject to the State of Michigan Department of Labor, Construction Code Commission, Barrier Free Design Division regulations.

**8. Parking Lot Expansion.** The hospital complex is a special land use in the R-1, Residential District and the ordinance does not have any standards covering the expansion of special land uses. The parking lot expansion will therefore require only site plan approval. *Section 38-53(9)(d), Principal uses permitted subject to special conditions - general hospitals*, of the ordinance also states that “Off-street parking lots shall be set back eighty (80) feet from a major or secondary thoroughfare, fifty (50) feet from a local street and twenty (20) feet from an adjoining residential lot.” The parking expansion along Ada (and facing Jennett Street fails to meet this standard and will either have to be pulled back from the road or a variance applied for. In addition, *Section 38-381, Off-street parking space layout, standards, construction and maintenance states:* “The off-street parking area shall be provided with a continuous and obscuring wall not less than four (4) feet, six (6) inches in height measured from the surface of the parking area.” This wall shall be provided on all sides where the next zoning district is designated as a residential district. The proposed parking lot expansion is within and adjacent to a residential zoning district. A continuous obscuring wall is **not** proposed and fails to meet this standard. The applicant can either construct the obscuring wall or create a landscaped buffer along this north property line for review and waiver by the Planning Commission.

**9. Landscaping.** A separate landscape plan has been included in the site plan submission. We offer the following landscaping comments:

- a. **Parking lot landscaping:** The applicant is proposing to provide: 17 parking island and end caps with landscape planting and mulch including: Red Maple, Sugar Maple, Gingko Biloba, Buffalo Juniper, Compact Burning Bush, Dwarf Fothergilla, Day Lilies, and Reed Grasses. Parking lot landscape requirements are not provided in this Ordinance; however, the proposed trees and plantings are ample and a good mix of species that will break-up the expanse of parking, provide small areas of shade. Additionally, the proposed plantings meet the required spacing, planting size, and species indicated for any landscaping, greenbelt, or buffer required.
- b. **Street Frontage and Entrance:** In addition to several existing trees along Jennett Street and Shiawasee Street, the applicant is proposing: 4 Sugar Maple, 4 Norway Spruce, 2 Red Maple, 4 Snowdrift Crabapple, Buffalo Juniper and Grasses. Various shrubs flowering perennials are proposed around the circular entrance to the building.
- c. **Irrigation.** In order for the plantings to remain healthy, irrigation is needed throughout the site.

**9. Lighting Plan.** A photometric grid has been provided indicating that the intensity levels are acceptable. Pole-mounted, metal halide fixtures are proposed, and we recommend that they be replaced with LED fixtures since they use less energy, create less glare, and are easier to maintain. In addition, details must be provided for any building-mounted fixtures, for administrative review and approval.

**10. Existing Curb Cuts.** All existing curb cuts not in use must be removed, per the review letter from the Engineering Consultant.

**11. Other Approvals.** The proposed site plan must be reviewed and approved by the appropriate city departments, consultants, and agencies.

## **RECOMMENDATION**

Based upon the above comments, **we recommend approval of the Memorial Healthcare Neuro/Ortho Wellness Center Site Plan, conditioned upon the following:**

1. Submission of a revised site plan that satisfactorily addresses the items in this letter, for administrative review and approval;
2. The applicant obtaining a variance for the height of the building;
3. Details for the screening of roof- and ground-mounted mechanical units;
4. Details on construction and materials of the dumpster enclosure;
5. The applicant obtaining a variance for the parking lot setback to the east (Ada Street)
6. Planning Commission approval of a landscaped buffer instead of a wall along the north property line;
7. Material samples submitted to and accepted by the Planning Commission;
8. Replace the proposed pole-mounted metal halide fixtures with LED fixtures, and
9. Review and approval by the appropriate city departments, consultants, and agencies.

If you have any further questions, please contact us at 810-734-0000.

Sincerely,

**CIB Planning**

A handwritten signature in cursive script, enclosed in a thin black rectangular border. The signature reads "Carmine P. Avantini".

Carmine P. Avantini, AICP  
President

**CITY OF OWOSSO, MICHIGAN**

**SITE PLAN REVIEW APPLICATION AND CHECKLIST**

Approval of the site plan is hereby requested for the following parcel(s) of land in the City of Owosso. This application is submitted with three (3) copies of the complete site plan and payment of the appropriate review fees. Applicant shall also submit a digital version of the site plan to the community development director. Application must be filed least 25 days prior to a scheduled planning commission meeting for staff review and proper notices.

Accompanying any site plan required hereunder, the applicant shall provide from a licensed engineer soil borings at the proposed construction site to ascertain bearing capacity of foundations soils at the time of footing excavation to certify such soil conditions meet or exceed design capacity of the foundation to support the proposed structure. These requirements shall comply with policies of the City of Owosso, copies of which can be obtained from the Building Department.

The attached checklist has been completed to certify the data contained on the site plan. If the required data has not been provided, the appropriate box has been checked with a statement of explanation on why the data has not been provided. I understand that if my site plan is deemed to be incomplete, it may be returned by the City for revisions without being forwarded to the Planning Commission for consideration, until such time as the requirements have been adequately met. By signing this application, the applicant hereby grants full authority to the City of Owosso, its agents, employees, representatives and/or appointees to enter upon the undersigned lands/parcel(s) for the purposes of inspection and examination.

**Application Filed On:** \_\_\_\_\_

**Application Transmitted by City On:** \_\_\_\_\_

**Property Details:**

1. Name of Proposed Development: King and Gould Regulator Station
2. Property Street Address: 900 E. King Street
3. Location of Property: On the (north, south, east, west side) of King Street, between Dewey and Gould Streets.
4. Legal Description of Property: See attached.
5. Site Area (in acres and square feet): 11216.84 SFT; 0.26 acres
6. Zoning Designation of Property: R-1: One-Family Residential

**Ownership:**

1. Name of Title/Deed Holder: Consumers Energy; Contact: Joseph Lawson
2. Address: One Energy Plaza, Jackson, MI 49201
3. Telephone No: (517) 788-8912
4. Fax No: N/A
5. Email address: Joseph.LawsonIII@cmsenergy.com

**Applicant:**

1. Applicant (If different from owner above): See owner above.
2. Address: \_\_\_\_\_
3. Telephone No: \_\_\_\_\_
4. Fax No: \_\_\_\_\_



## SITE PLAN REVIEW CHECKLIST

Check the appropriate line. If item is marked as 'not provided', attach detailed explanation.

Item	Provided	Not Provided
1. Site location Map.	<u>  X  </u>	<u>      </u>
2. North arrow, scale (one (1) inch equals fifty (50) feet if the subject property is less than three (3) acres and one (1) inch equals one hundred (100) feet if three (3) acres or more.	<u>  X  </u>	<u>      </u>
3. Revision dates.	<u>  X  </u>	<u>      </u>
4. Signature and Seal of Architect/Surveyor/Engineer.	<u>  X  </u>	<u>      </u>
5. Area of site (in acres and square feet).	<u>  X  </u>	<u>      </u>
6. Boundary of the property outlined in solid line.	<u>  X  </u>	<u>      </u>
7. Names, centerline and right-of-way widths of adjacent streets.	<u>  X  </u>	<u>      </u>
8. Zoning designation of property.	<u>  X  </u>	<u>      </u>
9. Zoning designation and use of adjacent properties.	<u>  X  </u>	<u>      </u>
10. Existing and proposed elevations for building(s) parking lot areas and drives.	<u>  X  </u>	<u>      </u>
11. Direction of surface water drainage and grading plan and any plans for storm water retention/detention on site.	<u>  X  </u>	<u>      </u>
12. Required setbacks from property lines and adjacent parcels.	<u>  X  </u>	<u>      </u>
13. Location and height of existing structures on site and within 100 feet of the property.	<u>  X  </u>	<u>      </u>
14. Location and width of existing easements, alleys and drives.	<u>  X  </u>	<u>      </u>
15. Location and width of all public sidewalks along the fronting street right-of-way and on the site, with details.	<u>  X  </u>	<u>      </u>
16. Layout of existing/proposed parking lot, with space and aisle dimensions.	<u>      </u>	<u>N/A; No Parking Lot</u>
17. Parking calculations per ordinance.	<u>  X  </u>	<u>      </u>
18. Location of all utilities, including but not limited to gas, water, sanitary sewer, electricity, telephone.	<u>  X  </u>	<u>      </u>
19. Soil erosion and sedimentation control measures during construction.	<u>  X  </u>	<u>      </u>
20. Location and height of all exiting/proposed fences, screens, walls or other barriers.	<u>  X  </u>	<u>      </u>
21. Location and details of dumpster enclosure and trash removal plan.	<u>  X  </u>	<u>      </u>
22. Landscape plan indicating existing/proposed trees and plantings along frontage and on the site.	<u>  X  </u>	<u>      </u>
23. Notation of landscape maintenance agreement.	<u>  X  </u>	<u>      </u>
24. Notation of method of irrigation.	<u>  X  </u>	<u>      </u>
25. Lighting plan indicating existing/proposed light poles on site, along site's frontage and any wall mounted lights.	<u>  X  </u>	<u>      </u>
a. Cut-sheet detail of all proposed light fixtures.	<u>  X  </u>	<u>      </u>
26. Architectural elevations of building (all facades). Identifying height, Materials used and colors.	<u>  X  </u>	<u>      </u>
27. Existing/proposed floor plans.	<u>  X  </u>	<u>      </u>
28. Roof mounted equipment and screening.	<u>  X  </u>	<u>      </u>
29. Location and type of existing/proposed on-site signage.	<u>  X  </u>	<u>      </u>
30. Notation of prior variances, if any.	<u>  X  </u>	<u>      </u>
31. Notation of required local, state and federal permits, if any.	<u>  X  </u>	<u>      </u>

32. Additional information or special data (for some sites only)
- a. Environmental Assessment Study. \_\_\_\_\_ N/A
  - b. Traffic Study. Trip Generation. \_\_\_\_\_ N/A
  - c. Hazardous Waste Management Plan. \_\_\_\_\_ N/A
33. For residential development: a schedule indicating number of dwelling units, number of bedrooms, gross and usable floor area, parking provided, total area of paved and unpaved surfaces. \_\_\_\_\_ N/A
34. LLC establishments must have a current Plan of Operation. \_\_\_\_\_ N/A
35. Is property in the floodplain? No \_\_\_\_\_
36. Will this require MDEQ permitting? No \_\_\_\_\_
37. Performance Bond – when required. \_\_\_\_\_ N/A

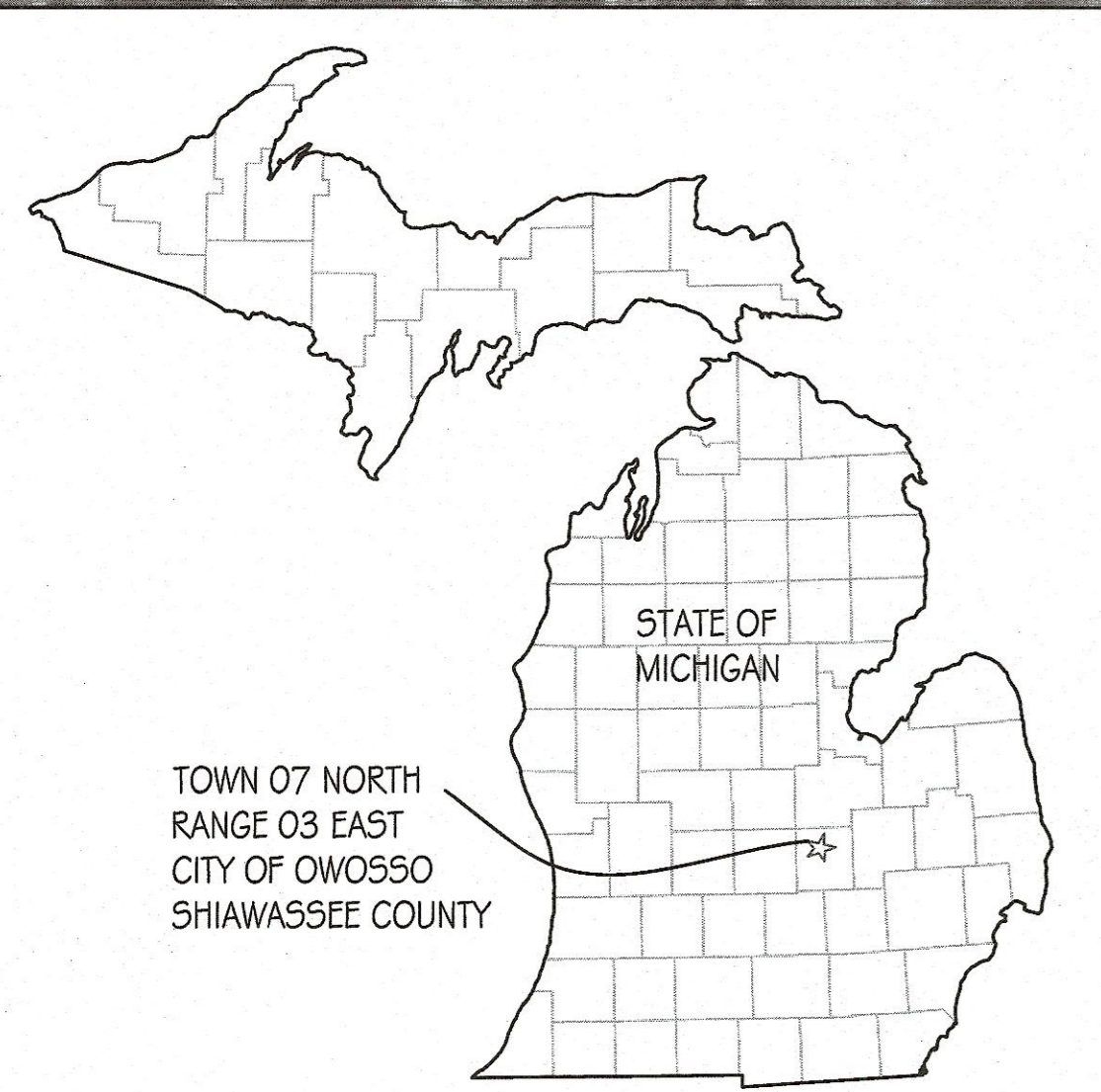
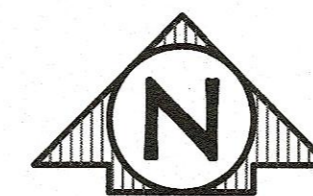
\*Additional data deemed necessary to enable to completion of an adequate review may be required by the Planning Commission, City and/or its consultants.

<u>2019 Meeting Date</u>	<u>Submittal Deadline</u>
January 28	December 28
February 25	January 25
March 25	February 22
April 22	March 22
May 28	April 26
June 24	May 24
July 22	June 21
August 26	July 26
September 23	August 23
October 28	September 27
November 25	October 25
December 9	November 8



**PROJECT SCOPE**

PREPARE A SITE PLAN AND OBTAIN ASSOCIATED PERMITS FOR CONSTRUCTION OF THE KING & GOULD REGULATOR STATION REBUILD ON CONSUMERS ENERGY PROPERTY IN THE CITY OF OWOSSO, MICHIGAN. THIS WILL INCLUDE THE CONSTRUCTION OF ONE NEW BUILDING, REMOVAL AND REPLACEMENT OF SIDEWALK, AND PARTIAL REPLACEMENT OF FENCING. ALL CONSUMER'S OWNED PIPING ON SITE, ABOVE AND BELOW GRADE, WILL BE REPLACED.



SITE PLAN FOR  
**CONSUMERS ENERGY  
KING & GOULD REGULATOR  
STATION REBUILD**

SECTION 18 T7N-R3E  
900 E. KING STREET  
OWOSSO, MI 48867  
SHIAWASSEE COUNTY, MI

**SHEET INDEX**

- 1 - COVER SHEET
- 2 - GENERAL NOTES SHEET
- 3 - DETAIL SHEET
- 4 - EX SURVEY & REMOVAL SHEET
- 5 - SITE PLAN SHEET
- 6 - GRADING AND SESC SHEET
- A-1 - BUILDING ELEVATIONS

**LOCAL AGENCY AND UTILITY INFORMATION**

AGENCY	UTILITY
CITY OF OWOSSO 301 W. MAIN STREET OWOSSO, MI 48867 (989) 725-0599	SITE PLAN
CITY OF OWOSSO 301 W. MAIN STREET OWOSSO, MI 48867 (989) 725-0550	ROAD
SHIAWASSEE COUNTY HEALTH DEPARTMENT ENVIRONMENTAL HEALTH 201 N. SHIAWASSEE STREET CORUNNA, MI 48817 (989) 743-2390	SESC
SHIAWASSEE COUNTY DRAIN COMMISSIONER 149 E. CORUNNA AVENUE CORUNNA, MI 48817 (989) 743-2398 TONY NEWMAN	STORM WATER
CITY OF OWOSSO 301 W. MAIN STREET OWOSSO, MI 48867 GLEN CHINAVARE	UTILITIES (SANITARY, STORM, AND WATER)
CONSUMERS ENERGY COMPANY 530 W. WILLOW STREET LANSING, MI 48906 MR. ADAM BERTRAM	GAS
DAYSTARR COMMUNICATIONS 207 N. BALL STREET OWOSSO, MI 48867 (989) 720-6000	TELEPHONE

**LEGAL DESCRIPTION**

PARCEL ID# 050-020-000-009-00

WARRANTY DEED - LIBER 258, PAGE 582 OF SHIAWASSEE COUNTY RECORDS

LOT NUMBER TEN (10) OF ADAMS SUBDIVISION OF LOT EIGHTEEN (18), BLOCK ONE (1), CITY ASSESSOR'S PLAT NO. ONE (1), ACCORDING TO THE RECORDED PLAT THEREOF.

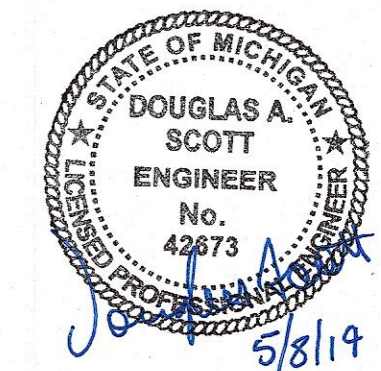
TOTAL SITE AREA: 11216.84 SFT; 0.257 ACRES

**OWNER INFORMATION**

CONSUMERS ENERGY  
1945 W. PARNALL RD  
JACKSON, MI 49201  
(517) 374-2272  
AMBRIA RUDDY

**ENGINEER INFORMATION**

ROWE PROFESSIONAL SERVICES COMPANY  
540 S. SAGINAW ST, SUITE 200  
FLINT, MI 48502  
(810) 341-7500  
DOUGLAS SCOTT, P.E.

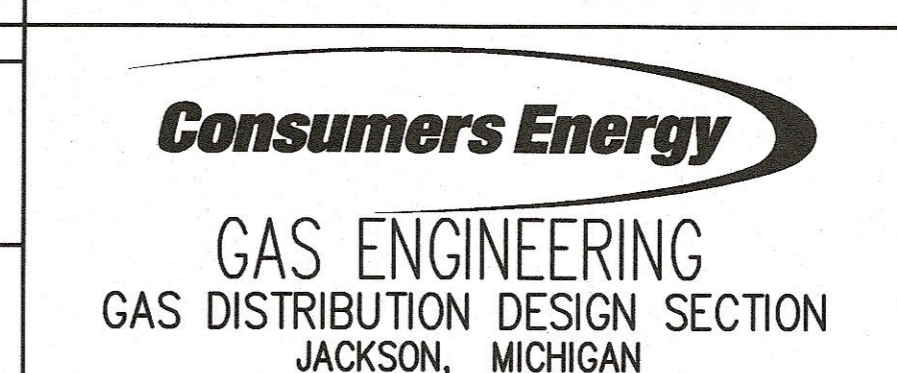


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REV.	SAP ORD.	DATE	BY	CHKD	APP.	APP.	DESCRIPTION

DRAWN	DATE	APPROVED	DATE
JOHN BRADY	4/11 2019	DOUGLAS SCOTT	4/17 2019
CHECKED	DATE		
KATIE LAMBERT	4/16 2019	-	-



KING & GOULD REGULATOR STATION REBUILD COVER SHEET			
FIELD AREA:	DRAWING NUMBER	SHEET	REV.
		1	20XX
SAP ORD.			
STA. NO.			

**GENERAL CONSTRUCTION NOTES**

**EMERGENCY CONTACTS**

BEFORE BEGINNING WORK ON THE PROJECT, THE CONTRACTOR SHALL PROVIDE THE OWNER AND ENGINEER WITH THE NAMES AND TELEPHONE NUMBERS OF EMERGENCY CONTACTS. AT LEAST ONE PERSON REPRESENTING THE CONTRACTOR SHALL BE AVAILABLE TO RESPOND TO EMERGENCIES THROUGHOUT THE LIFE OF THE PROJECT, 24 HOURS A DAY, 7 DAYS A WEEK.

**UNDERGROUND UTILITY IDENTIFICATION AND LOCATION**

THE CONTRACTOR SHALL CALL MISS DIG (811) A MINIMUM OF THREE WORK DAYS IN ADVANCE OF BEGINNING EXCAVATION. THE CONTRACTOR IS RESPONSIBLE TO IDENTIFY AND NOTIFY UTILITY AGENCIES WITHIN THE PROJECT AREA WHICH DO NOT PARTICIPATE IN THE MISS DIG NOTIFICATION PROGRAM.

**PUBLIC UTILITIES**

EXISTING UTILITIES ARE SHOWN BASED UPON RECORDS AND LOCATIONS PROVIDED BY UTILITY AGENCIES. THE INFORMATION SHOWN IS CONSIDERED APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. UNLESS THE PLANS SPECIFICALLY SHOW THAT EXISTING UTILITIES ARE TO BE MOVED, THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN EXISTING UTILITIES.

**VERIFICATION OF UNDERGROUND UTILITIES**

THE CONTRACTOR SHALL EXCAVATE AND LOCATE ALL EXISTING UTILITIES IN THE PROJECT AREA IN ADVANCE OF CONSTRUCTION TO VERIFY THEIR ACTUAL LOCATION. POTENTIAL CONFLICTS SHALL BE REPORTED TO THE ENGINEER. THE CONTRACTOR SHALL MAKE SUCH CHANGES TO GRADE AND ALIGNMENT OF PROPOSED WORK AS DIRECTED BY THE ENGINEER TO AVOID CONFLICTS, AT NO INCREASE IN COST TO THE OWNER.

**UTILITY SERVICE**

UNLESS SPECIFICALLY PROVIDED OTHERWISE IN THE CONTRACT DOCUMENTS, ALL EXISTING UTILITIES ARE TO REMAIN IN SERVICE DURING THE PROJECT.

**SOIL BORINGS / PAVEMENT CORES**

IF PROVIDED ON THE PLANS OR IN THE CONTRACT DOCUMENTS, LOGS OF SOIL BORINGS OR PAVEMENT CORES REPRESENT THE SUBSURFACE CONDITIONS ENCOUNTERED AT SPECIFIC POINTS. THE INFORMATION IS PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY.

**MAINTAINING TRAFFIC**

LOCAL AND EMERGENCY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES WITHIN THE PROJECT AREA.

WHEN EXCAVATION, FRESH CONCRETE, OR OTHER CONSTRUCTION WORK WILL RESULT IN THE CLOSURE OF A STREET OR DRIVEWAY FOR A PERIOD OF TIME, THE CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL AFFECTED RESIDENTS AND BUSINESSES IN ADVANCE.

THE CONTRACTOR SHALL NOTIFY EMERGENCY RESPONSE AGENCIES IN ADVANCE OF ROAD CLOSURES OR THE ESTABLISHMENT OF DETOURS.

**TRAFFIC SIGNS**

TRAFFIC SIGNS WHICH INTERFERE WITH CONSTRUCTION SHALL BE REMOVED AND REPLACED BY THE AGENCY HAVING JURISDICTION OVER THE STREETS OR ROADS IN THE PROJECT AREA. THE CONTRACTOR IS RESPONSIBLE TO CONTACT THE AGENCY TO ARRANGE FOR REMOVAL OF THE SIGN AND IS RESPONSIBLE TO PAY ANY FEES ASSOCIATED WITH THE REMOVAL AND REPLACEMENT OF THE SIGNS.

**SCHEDULE**

THE CONTRACTOR SHALL COMPLETE ALL WORK IN AN EXPEDITIOUS MANNER AND SHALL NOT STOP WORK ON THE PROJECT ONCE BEGUN.

**ALIGNMENT**

ALIGNMENT AND GRADES FOR CURB AND GUTTER (INCLUDING THROUGH RAMPS AND DRIVEWAY OPENINGS) SHOWN ON THE PLANS ARE FOR THE TOP, BACK OF CURB, UNLESS SPECIFICALLY SHOWN OTHERWISE ON THE PLANS.

THE HORIZONTAL ALIGNMENT SHOWN ON THE DRAWINGS FOR DRAINAGE STRUCTURES LOCATED IN THE CURB LINE IS TO THE CENTER OF THE CASTING.

THE HORIZONTAL ALIGNMENT SHOWN ON THE DRAWINGS FOR DRAINAGE STRUCTURES WHICH ARE NOT IN THE CURB LINE AND FOR MANHOLES IS TO THE CENTER OF THE STRUCTURE.

WHERE RIM ELEVATIONS ARE PROVIDED ON THE PLANS FOR MANHOLE CASTINGS, THE ELEVATION PROVIDED IS FOR THE TOP OF THE CASTING.

WHERE RIM ELEVATIONS ARE PROVIDED FOR INLET TYPE CASTINGS, THE ELEVATIONS ARE PROVIDED AS FOLLOWS:

- CURB INLETS - THE ELEVATION OF THE TOP OF CURB
- ALL OTHER INLETS - THE ELEVATION OF THE FLOW LINE

WHERE RIM ELEVATIONS ARE PROVIDED ON THE PLANS FOR INLETS OR MANHOLE CASTINGS, THE ELEVATIONS PROVIDED ARE CONSIDERED PRELIMINARY. THE CONTRACTOR SHALL MAKE THE FINAL ADJUSTMENT FOLLOWING THE ESTABLISHMENT OF ACTUAL GRADING AND PAVEMENT ELEVATIONS.

**CONSTRUCTION STAKING**

WHEN CONSTRUCTION STAKING IS TO BE PROVIDED BY THE ENGINEER OR OWNER, THE CONTRACTOR SHALL REQUEST STAKING AT LEAST THREE WORKING DAYS IN ADVANCE.

WHEN CONSTRUCTION STAKING IS TO BE PROVIDED BY THE ENGINEER OR OWNER, STAKING WILL BE PROVIDED ONE TIME. THE CONTRACTOR SHALL PROTECT AND PRESERVE SURVEY CONTROL AND STAKING. RE-STAKING WILL BE AT THE CONTRACTOR'S EXPENSE.

**SURVEY CORNERS, BENCHMARKS, AND CONTROL POINTS**

THE CONTRACTOR SHALL PRESERVE ALL GOVERNMENT CORNERS, PROPERTY CORNERS, BENCHMARKS, SURVEY CONTROL POINTS AND OTHER SURVEY POINTS WITHIN THE PROJECT AREA. WHERE CORNERS, BENCHMARKS, OR SURVEY POINTS ARE ENCOUNTERED WHICH WILL BE DISTURBED BY THE CONTRACTOR'S ACTIVITIES; A LICENSED SURVEYOR SHALL WITNESS THE POINT BEFORE DISTURBANCE AND SHALL RE-SET THE POINT FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL PAY THE SURVEYOR TO WITNESS AND TO RE-SET THE POINTS.

**PROTECTION OF TREES, SHRUBS, AND LANDSCAPING**

ALL TREES, SHRUBS, AND LANDSCAPING WITHIN THE CONSTRUCTION AREA WHICH ARE NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. DAMAGED TREES, SHRUBS, AND LANDSCAPING SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

**CONSTRUCTION SIGNING AND BARRICADING**

THE CONTRACTOR SHALL PROTECT HAZARDOUS AREAS WITH BARRICADES. BARRICADES LEFT IN PLACE AFTER SUNSET SHALL BE LIGHTED.

THE CONTRACTOR SHALL PROVIDE SUITABLE SANDBAGS OR OTHER SUITABLE MEASURES FOR ANCHORING OF TEMPORARY SIGNS AND BARRICADES, TO PREVENT THEIR TIPPING OR DISPLACEMENT BY WIND OR AIR FLOW FROM VEHICLES.

THE CONTRACTOR SHALL PROVIDE SIGNING, BARRICADES, FLAGGERS, CONES, AND OTHER TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE REQUIREMENTS OF THE AGENCY HAVING JURISDICTION OVER STREETS OR ROADS IN THE PROJECT AREA, THE CURRENT MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND THE PLANS AND SPECIFICATIONS.

THE CONTRACTOR SHALL COVER OR REMOVE TEMPORARY SIGNS DURING PERIODS WHEN THEY ARE NOT APPROPRIATE.

**TURF ESTABLISHMENT**

ALL DISTURBED AREAS WHICH ARE NOT TO BE SURFACED WITH PAVEMENT, AGGREGATE OR OTHER APPROVED SURFACES SHALL BE ESTABLISHED WITH TURF.

TURF AREAS SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE.

DISTURBED AREAS SHALL BE SURFACED WITH THREE INCHES OF SCREENED TOPSOIL.

THE CONTRACTOR IS RESPONSIBLE TO ESTABLISH TURF WHICH IS SUBSTANTIALLY FREE OF BARE SPOTS AND FREE OF WEEDS. THE GROUND SURFACE IN TURF AREAS SHALL BE SMOOTH AND PROVIDE A NATURAL TRANSITION TO ADJACENT, UNDISTURBED AREAS.

THE CONTRACTOR IS RESPONSIBLE TO PROVIDE WATERING, WEEDING, RESEEDING, AND REWORKING AS NECESSARY TO ESTABLISH TURF AREAS TO THE REQUIRED STANDARD.

**ADA COMPLIANCE**

ALL PROPOSED CONSTRUCTION SHALL COMPLY WITH THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT (ADA), AND APPLICABLE GUIDELINES OR STANDARDS. WHERE EXISTING CONDITIONS AND/OR THE REQUIREMENTS OF THE PLANS WILL RESULT IN FINISHED CONDITIONS THAT DO NOT MEET THE ADA REQUIREMENTS, GUIDELINES, OR STANDARDS; THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO REMOVE AND REPLACE WORK DETERMINED TO BE NOT IN ACCORDANCE WITH APPLICABLE REQUIREMENTS, GUIDELINES, OR STANDARDS.

**EARTHWORK**

EARTHWORK QUANTITIES, IF PROVIDED, ARE PROVIDED FOR THE CONTRACTOR'S INFORMATION. THE QUANTITIES WERE DEVELOPED USING THE AVERAGE END AREA METHOD. ASSUMPTIONS REGARDING TOPSOIL AND SHRINKAGE ARE STATED WITH THE ESTIMATES OF EXCAVATION AND FILL.

THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF THE EARTHWORK QUANTITIES, AND BASE HIS BID ON HIS DETERMINATION OF THE QUANTITIES OF WORK REQUIRED.

IF ADDITIONAL FILL MATERIAL MUST BE PROVIDED TO ATTAIN THE FINISH GRADES SHOWN ON THE PLANS, THE CONTRACTOR SHALL PROVIDE THE REQUIRED FILL MATERIAL, UNLESS A SPECIFIC BORROW AREA IS IDENTIFIED ON THE PLANS.

EXCESS SOILS RESULTING FROM EXCAVATION AND EARTHWORK SHALL BECOME THE CONTRACTOR'S PROPERTY AND DISPOSED OF PROPERLY, UNLESS AN AREA(S) HAS BEEN DESIGNATED FOR STOCKPILING OR "BLENDING IN" THE EXCESS MATERIAL WITHIN THE PROJECT LIMITS.

**BACKFILL AND EMBANKMENT**

BACKFILL OF AN EXCAVATION UNDER OR WITHIN THE ONE ON ONE INFLUENCE OF AN EXISTING OR PROPOSED ROAD, SIDEWALK, DRIVEWAY, PAVEMENT, OR AGGREGATE SURFACE, SHALL BE SAND, MEETING THE REQUIREMENTS OF GRANULAR MATERIAL CLASS III AS DESCRIBED IN THE CURRENT MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION. THE SAND BACKFILL SHALL BE COMPACTED TO AT LEAST 95% OF ITS MAXIMUM UNIT WEIGHT.

BACKFILL OF AN EXCAVATION WHICH IS NOT UNDER OR WITHIN THE ONE ON ONE INFLUENCE OF AN EXISTING OR PROPOSED ROAD, SIDEWALK, DRIVEWAY, PAVEMENT, OR AGGREGATE SURFACE MAY BE SUITABLE EXCAVATED MATERIAL OR OTHER SOIL, WHICH IS FREE OF ORGANIC MATTER, STONES AND ROCKS, ROOTS, BROKEN CONCRETE, FROZEN MATERIAL, OR DEBRIS. THE BACKFILL SHALL BE COMPACTED TO AT LEAST 90% OF ITS MAXIMUM UNIT WEIGHT.

THE CONTRACTOR SHALL INDICATE THE SOURCE OF SAND USED FOR BACKFILL TO THE ENGINEER, AND PROVIDE THE ENGINEER WITH THE RESULTS OF A GRADATION TEST PERFORMED ON A SAMPLE OF THE SAND. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN ADVANCE OF USING SAND FROM OTHER SOURCES.

EMBANKMENT USED TO BUILD THE SUBGRADE TO REQUIRED ELEVATION SHALL BE SUITABLE SOIL EXCAVATED FROM THE PROJECT SITE, OR FURNISHED BY THE CONTRACTOR FROM OTHER SOURCES. SUITABLE SOIL IS FREE FROM ORGANIC MATTER, ROCKS AND STONES, FROZEN MATERIAL, BROKEN CONCRETE, AND DEBRIS.

EMBANKMENT CONSTRUCTED OF GRANULAR SOILS SHALL BE COMPACTED IN LIFTS NOT EXCEEDING 10 INCHES TO AT LEAST 95% OF ITS MAXIMUM UNIT WEIGHT.

EMBANKMENT CONSTRUCTED OF COHESIVE SOILS SHALL BE COMPACTED IN LIFTS NOT EXCEEDING 6 INCHES TO AT LEAST 95% OF ITS MAXIMUM UNIT WEIGHT.

**DENSITY TESTING**

THE MAXIMUM DRY DENSITY OF SAND AND OTHER GRANULAR SOILS WILL BE DEFINED BY THE MODIFIED PROCTOR ASTM D1557, AS DESCRIBED IN THE MICHIGAN DEPARTMENT OF TRANSPORTATION'S DENSITY TESTING AND INSPECTION MANUAL.

THE MAXIMUM DRY DENSITY OF COHESIVE SOILS WILL BE DEFINED BY THE MODIFIED PROCTOR ASTM D1557, AS DESCRIBED IN THE MICHIGAN DEPARTMENT OF TRANSPORTATION'S DENSITY TESTING AND INSPECTION MANUAL.

**WORK HOURS**

UNLESS PROVIDED OTHERWISE IN THE CONTRACT DOCUMENTS OR LIMITED BY LOCAL ORDINANCE, THE CONTRACTOR SHALL WORK WITHIN OF THE FOLLOWING TIMES, UNLESS OTHERWISE APPROVED BY THE OWNER:  
 MONDAY THROUGH FRIDAY 7 A.M. TO 6 P.M.  
 SATURDAY 8 A.M. TO 6 P.M.

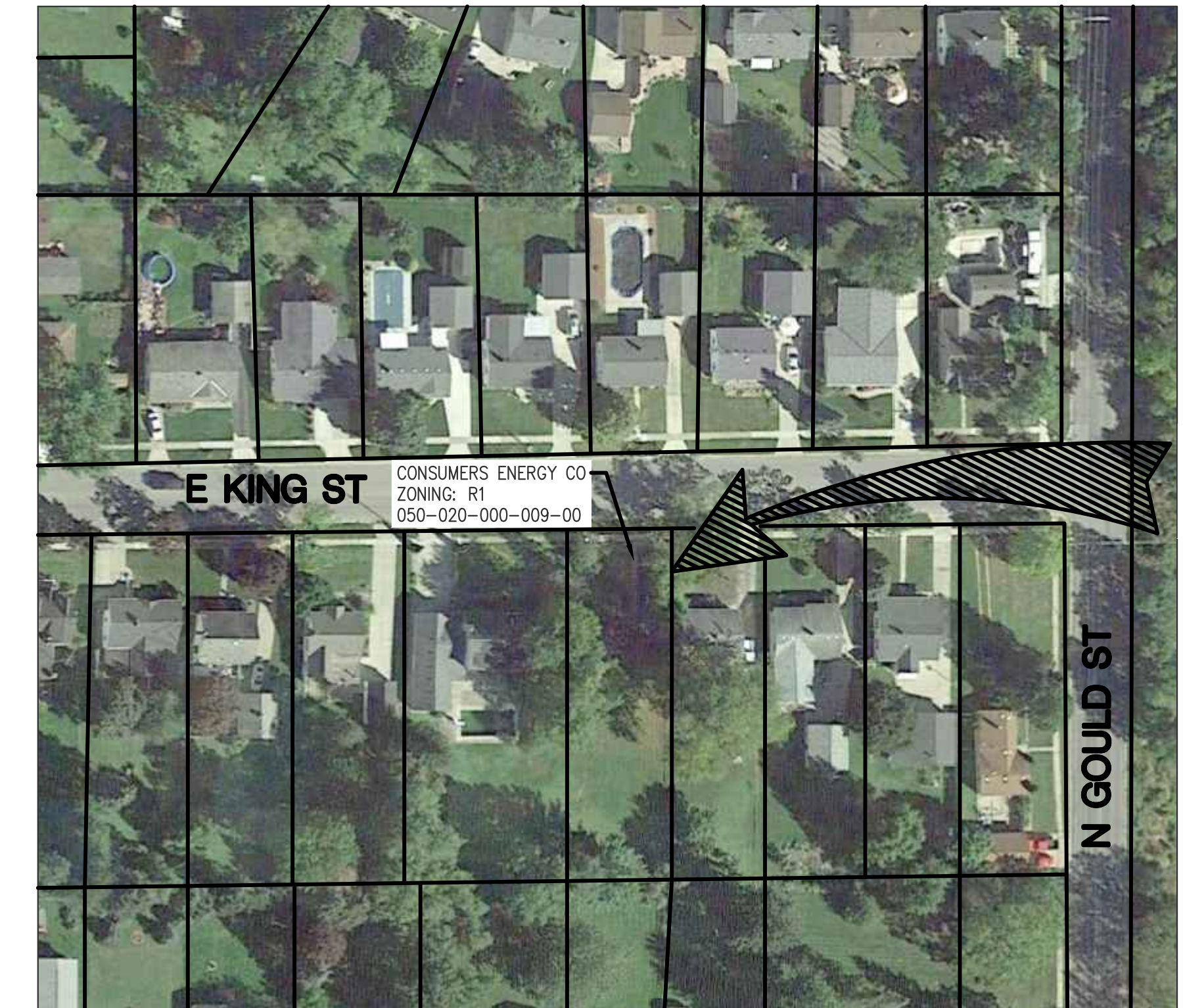
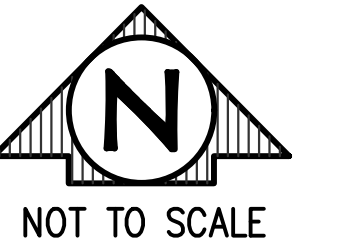
THE CONTRACTOR SHALL NOT WORK ON SUNDAYS OR HOLIDAYS, UNLESS OTHERWISE APPROVED BY THE OWNER.

**DRAINAGE**

THE CONTRACTOR SHALL MAINTAIN DRAINAGE OF THE PROJECT AREA AND ADJACENT AREAS. WHERE EXISTING DRAINAGE FACILITIES ARE DISTURBED OR BLOCKED BY CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY PROVISIONS FOR DRAINAGE.

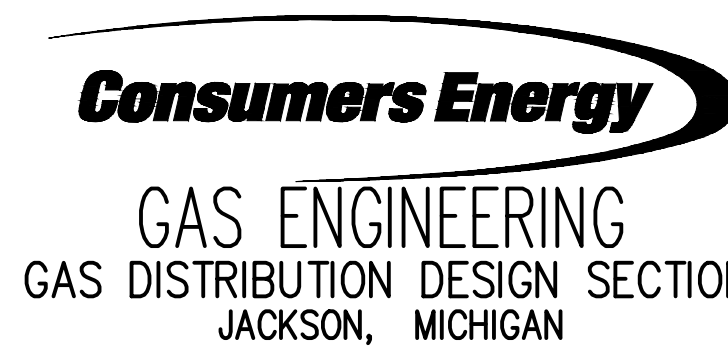
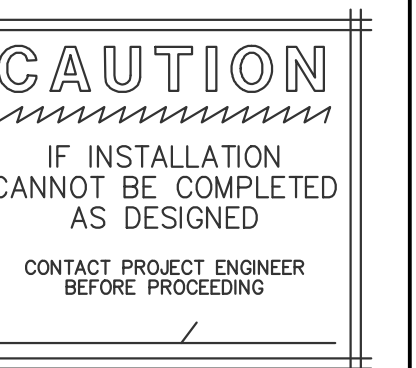
WHERE CONSTRUCTION HAS DISTURBED EXISTING DITCHES, SWALES, OR OTHER DRAINAGE FACILITIES; THE CONTRACTOR SHALL RESTORE THEM TO THEIR GRADES AND DIMENSIONS WHICH EXISTED PRIOR TO THE BEGINNING OF CONSTRUCTION, UNLESS DIRECTED OTHERWISE.

DRAINAGE SHALL NOT BE REROUTED ONTO ADJACENT PROPERTIES NOR ALLOWED TO DRAIN ONTO ADJACENT PROPERTIES AT AN INCREASED RATE, AS A RESULT OF THE CONTRACTOR'S WORK.



**KING & GOULD REGULATOR STATION REBUILD - SITE VICINITY MAP**

NOTE:  
 ZONING FOR ALL PARCELS IS DESIGNATED R-1: ONE-FAMILY RESIDENTIAL DISTRICT

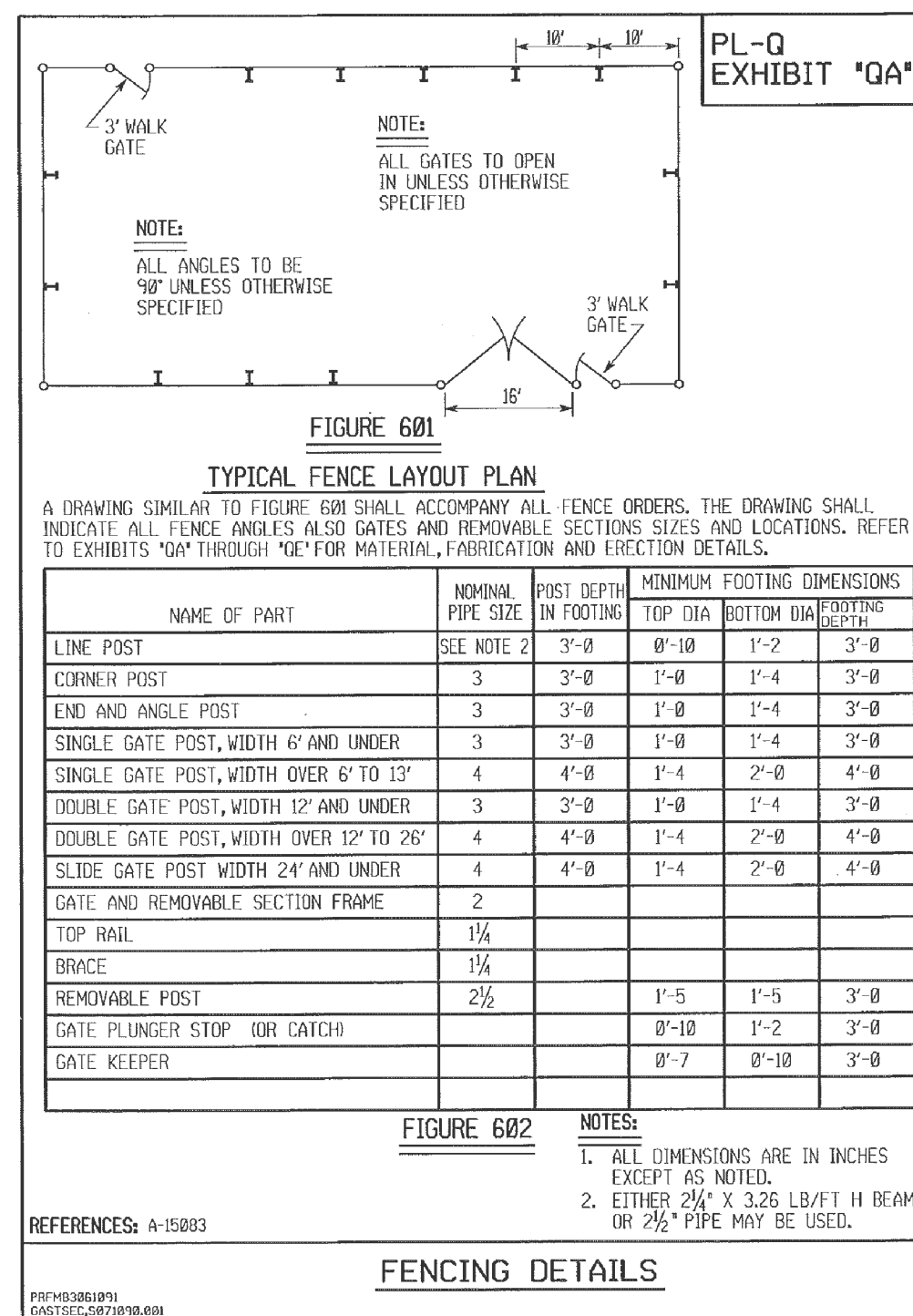


**KING & GOULD REGULATOR STATION REBUILD**  
 GENERAL NOTES SHEET

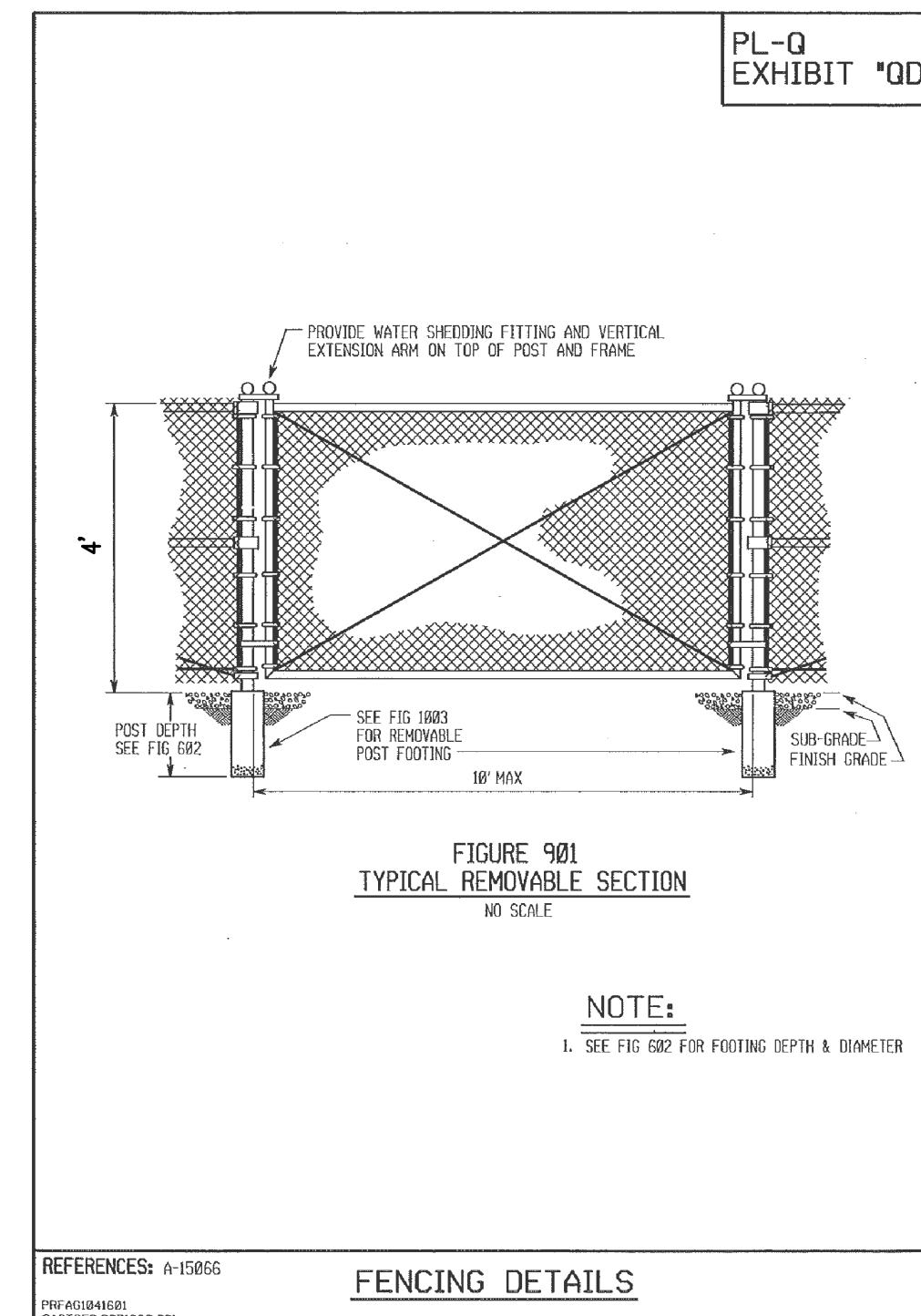
FIELD AREA:	200X
SAP ORD.	DRAWING NUMBER
STA. NO.	SHEET
	REV.
	2

REV.	SAP ORD.	DATE	BY	CHKD	APP.	APP.	DESCRIPTION

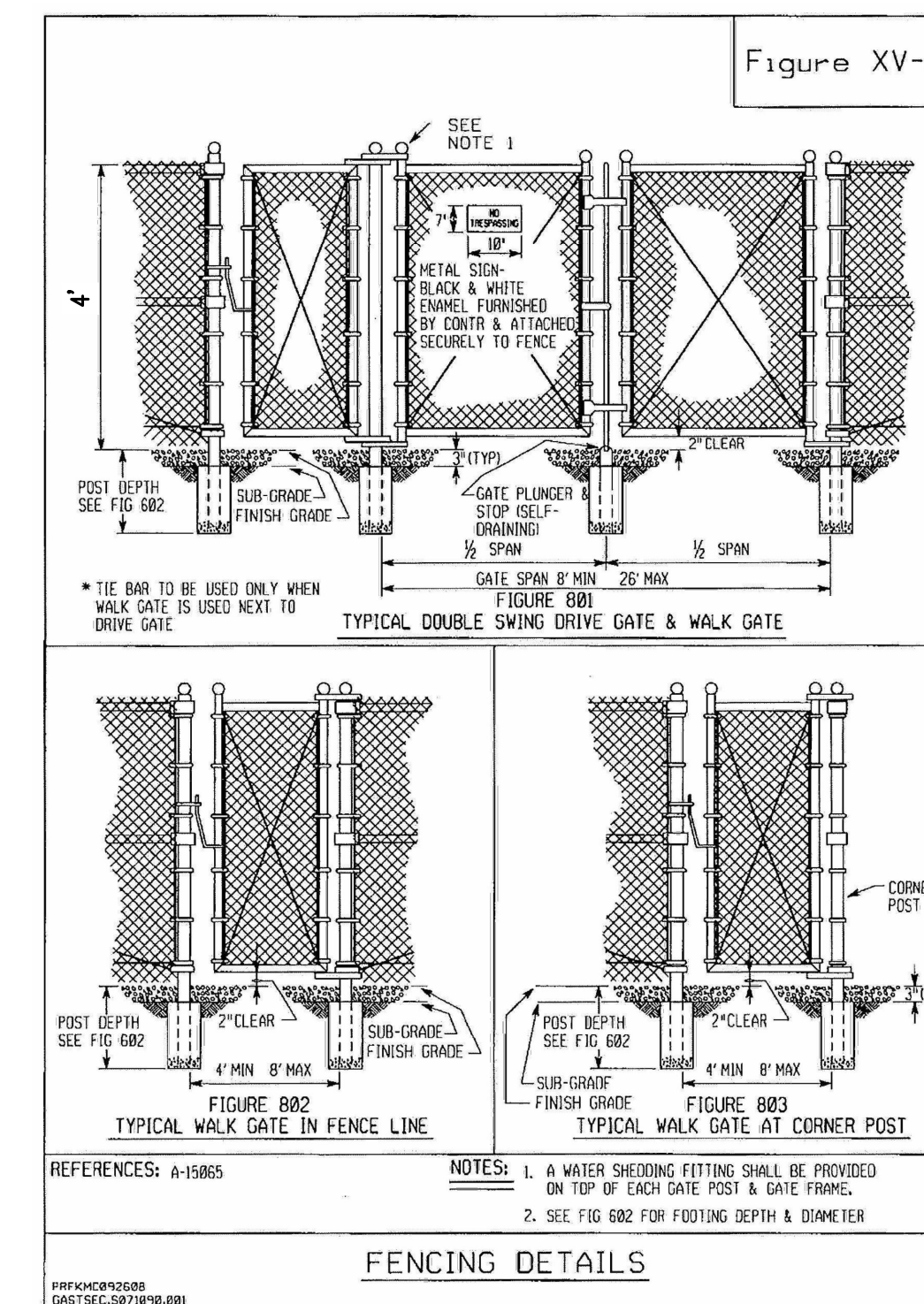
DRAWN	DATE	APPROVED	DATE
JOHN BRADY	4/11 2019	DOUGLAS SCOTT	4/17 2019
CHECKED	DATE		
KATIE LAMBERT	4/16 2019		



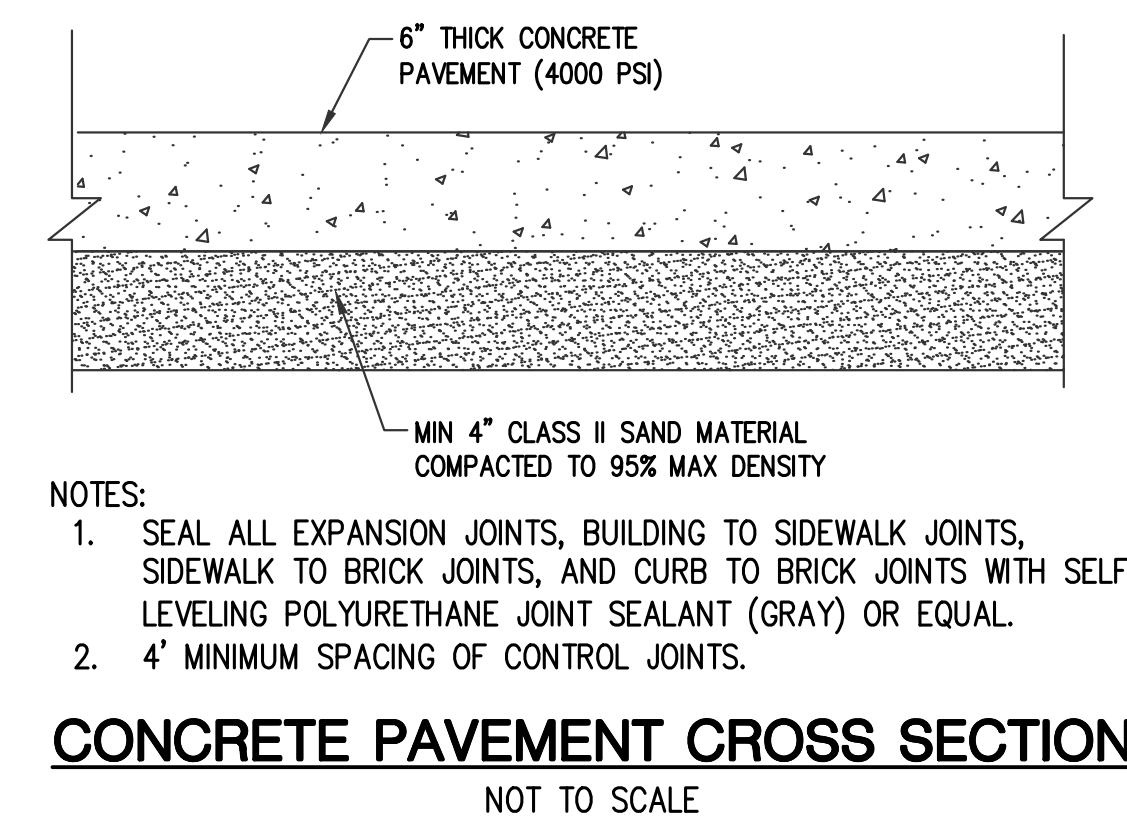
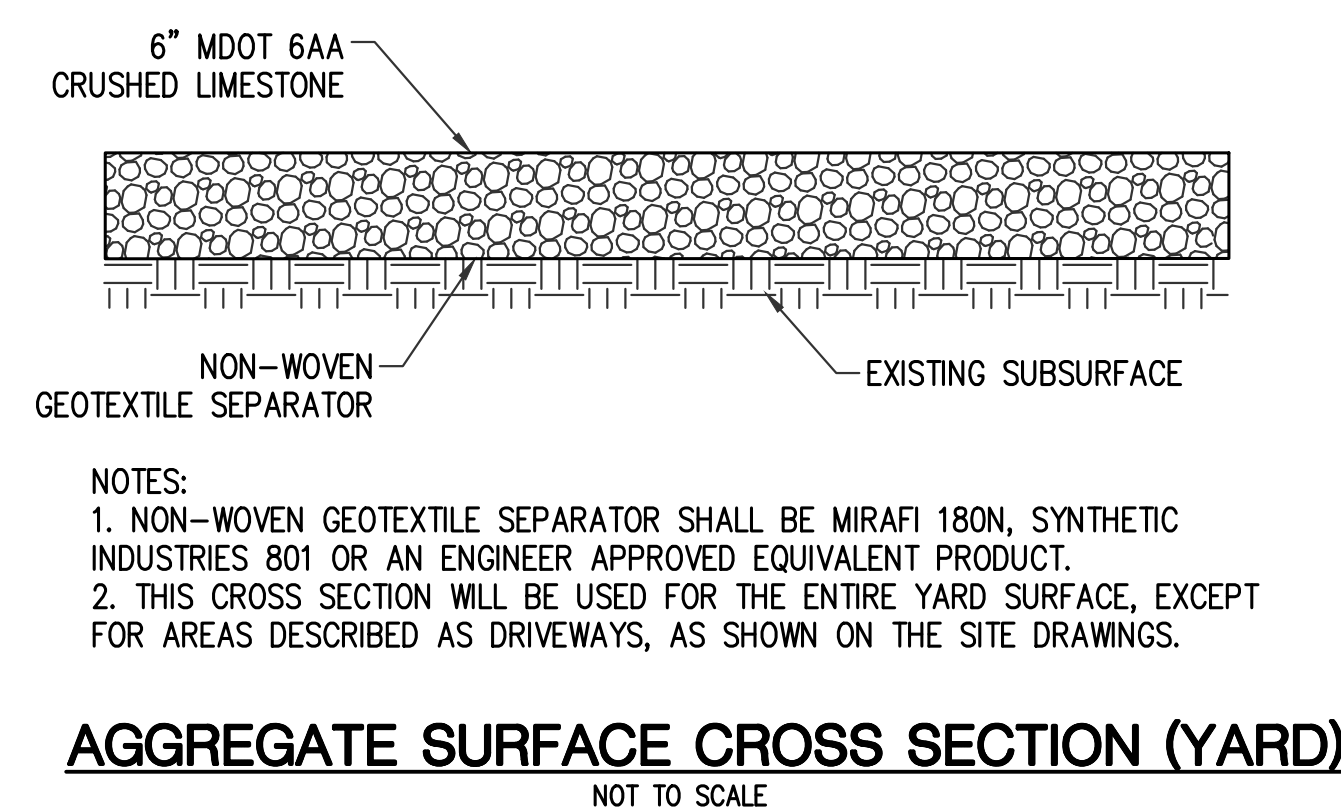
**FENCE DETAILS**  
NOT TO SCALE



**CHAIN LINK FENCE DETAIL**  
NOT TO SCALE

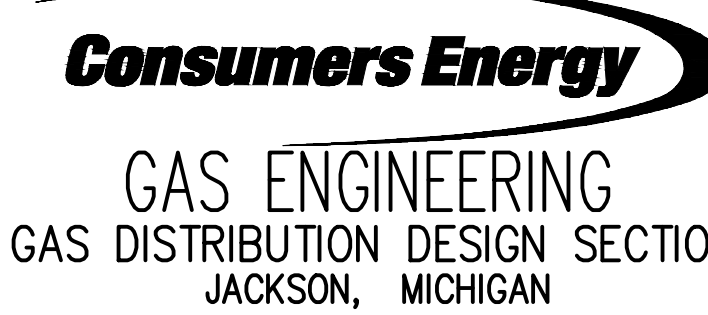


**FENCE AND GATE DETAIL**  
NOT TO SCALE



REV.	SAP ORD.	DATE	BY	CHKD	APP.	APP.	DESCRIPTION

DRAWN	DATE	APPROVED	DATE
JOHN BRADY	4/11 2019	DOUGLAS SCOTT	4/17 2019
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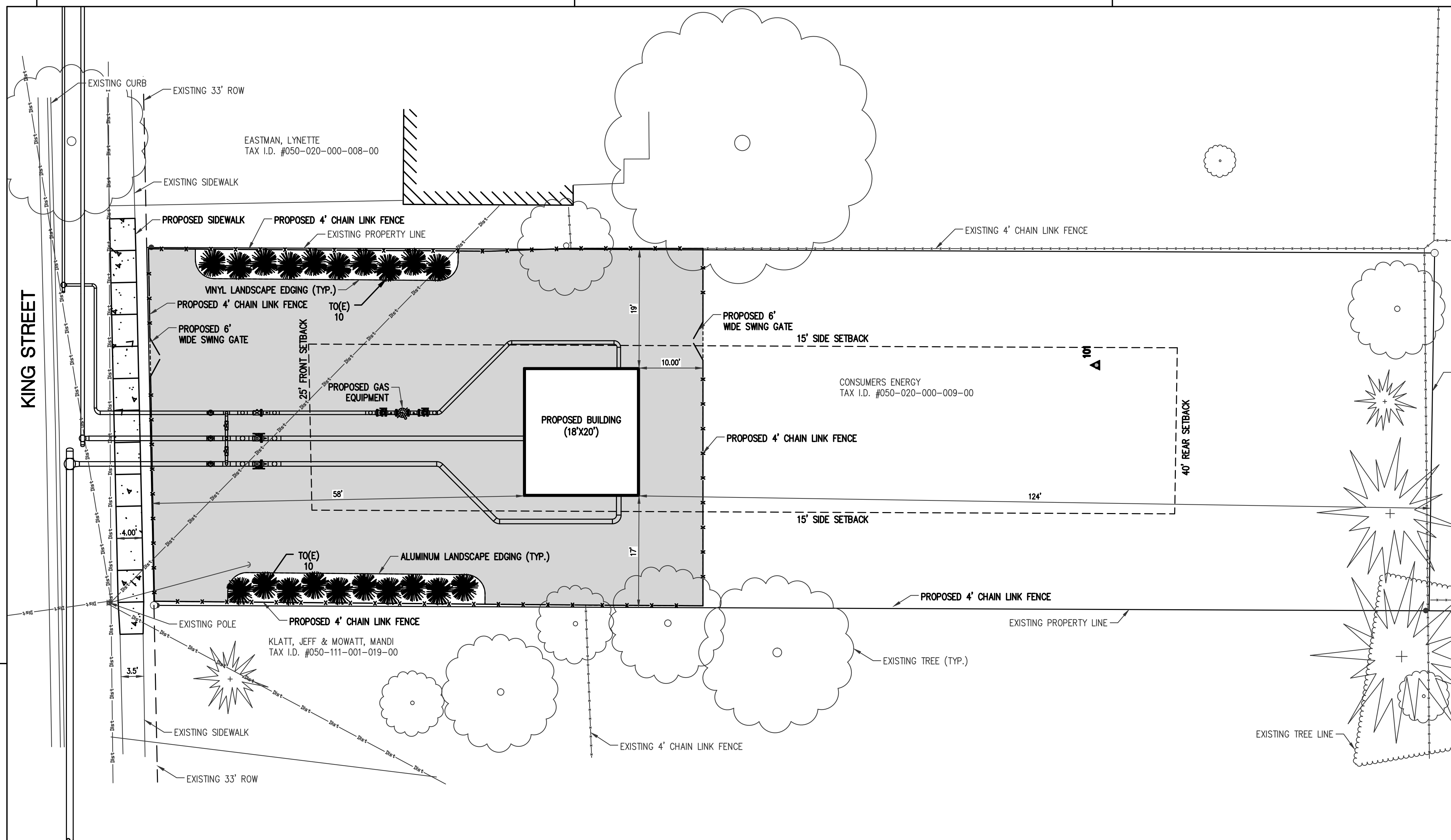
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**KING & GOULD REGULATOR STATION REBUILD  
DETAIL SHEET**

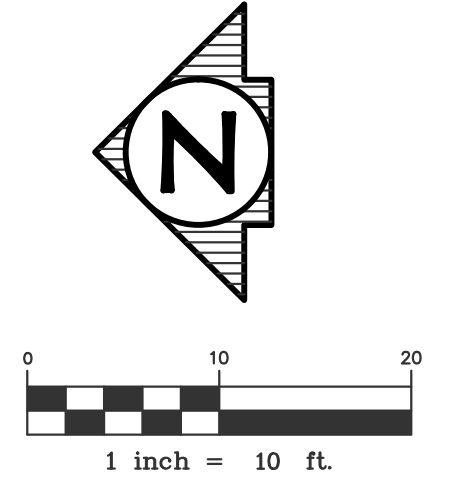
FIELD AREA:	200X		
SAP ORD.	DRAWING NUMBER	SHEET	REV.
		3	
STA. NO.			





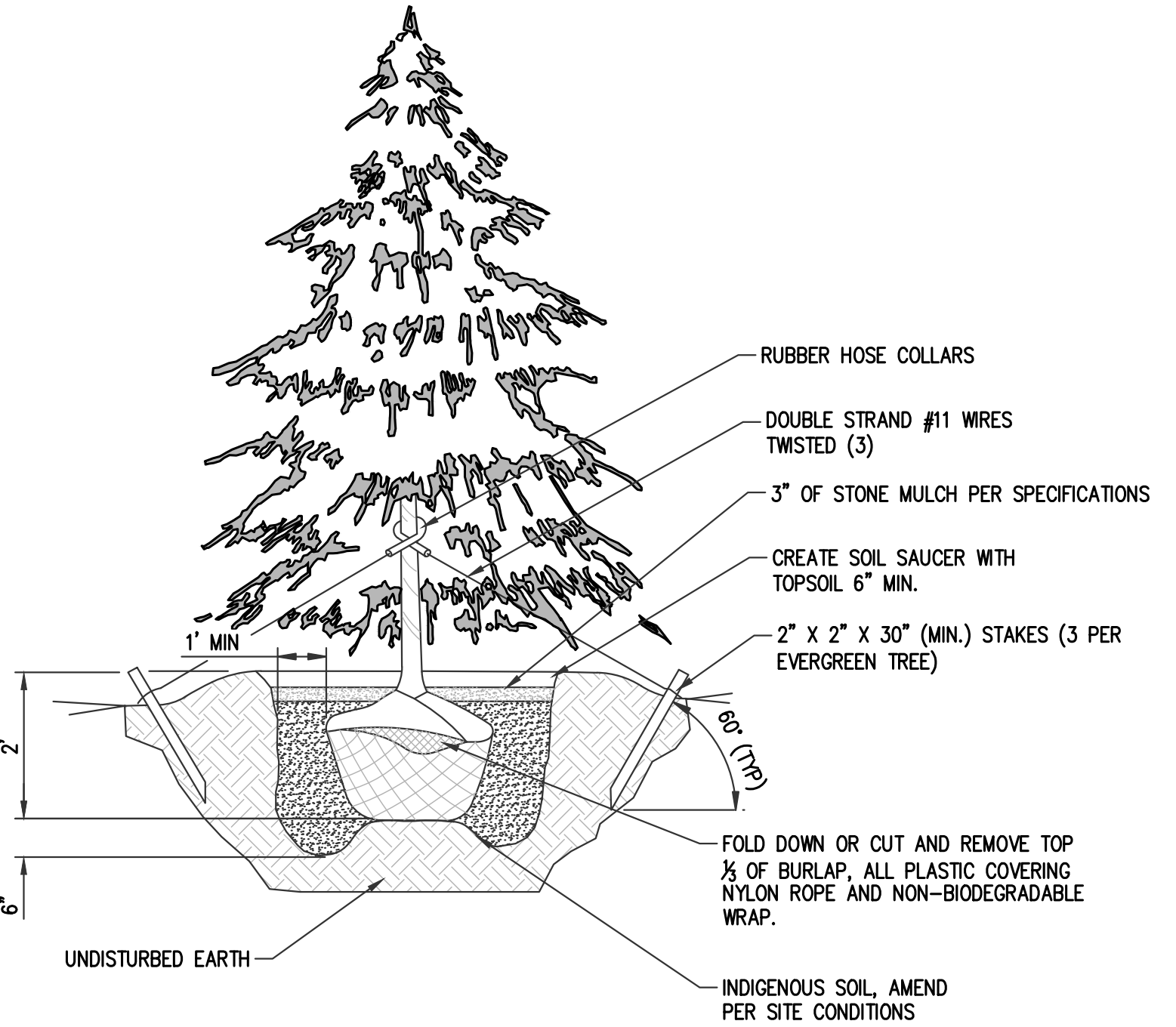
**SITE PLAN NOTES:**

- PERMANENT TRASH RECEPTACLES / DUMPSTERS ARE NOT PROPOSED FOR THIS SITE. ANY WASTE GENERATED ONSITE WILL BE REMOVED THE SAME DAY. TEMPORARY DUMPSTERS MAY BE ON SITE DURING CONSTRUCTION BUT WILL BE REMOVED PRIOR TO CONSTRUCTION COMPLETION.
- THE SITE WILL NOT BE REGULARLY OCCUPIED. EMPLOYEES WILL ROUTINELY VISIT THE SITE TO PERFORM REGULAR INSPECTIONS AND ROUTINE MAINTENANCE. THERE IS SUFFICIENT SPACE FOR THE ANTICIPATED PARKING NEEDS. THESE SPACES WILL NOT BE DELINEATED IN THE FIELD.
- THE FACILITY WILL NOT UTILIZE PUBLIC WATER OR SANITARY SEWER, NOR WILL THE SITE MAKE USE OF A PRIVATE WELL OR SEPTIC SYSTEM.
- THE SITE WILL BE SERVED BY ELECTRICAL SERVICE.
- THE SITE WILL PROVIDE LANDSCAPING ON THE EAST AND WEST SIDES OF THE PROPERTY TO SCREEN THE ADJACENT HOMES.
- THE PROPOSED PROJECT WILL NOT IMPACT ANY WETLANDS OR FLOODPLAINS.
- THE SITE WILL INCLUDE A SWING GATE AT THE SITE ENTRANCE. ALL GATES WILL BE LOCKED.
- THE NEW SIDEWALK ALONG KING STREET WILL REQUIRE A PERMIT FROM THE CITY OF OWOSSO. NO WORK SHALL TAKE PLACE WITHIN THE ROAD RIGHT OF WAY WITHOUT AN APPROVED PERMIT.
- THE ENTIRE SURFACE WITHIN THE FENCED AREA WILL BE COVERED WITH CRUSHED LIMESTONE.
- SIGNAGE WILL BE LIMITED TO 2'x1' CAUTION SIGNS MOUNTED ON THE FENCE AT VARIOUS LOCATIONS. SIGNAGE WILL BE SIMILAR TO EXISTING SIGNS.



**LEGEND**  
 [Symbol] PROPOSED GRAVEL SURFACE - YARD  
 [Symbol] PROPOSED CONCRETE SIDEWALK

DISTRICT SETBACK TABLE						
	DISTRICT	PRINCIPAL USE PERMITTED	MAX. HEIGHT	MINIMUM FRONT YARD	MINIMUM SIDE YARDS	MINIMUM REAR YARD
REQUIRED	R-1	ONE FAMILY RESIDENTIAL	30'	25'	15'	40'
PROVIDED	R-1	ONE FAMILY RESIDENTIAL	12'	58'	17'	124'



**TYPICAL EVERGREEN PLANTING DETAIL**  
NOT TO SCALE

**LANDSCAPE NOTES:**

- ALL LANDSCAPE MATERIALS SHALL BE HEALTHY AT THE TIME OF INSTALLATION.
- CONTRACTOR SHALL SUPPLY FINISH GRADE AND EXCAVATE AS NECESSARY TO SUPPLY A MINIMUM 6" TOPSOIL DEPTH IN ALL PLANTING BEDS AND 3" TOPSOIL IN ALL LAWN AREAS UNLESS NOTED OTHERWISE.
- ALL TOPSOIL SHALL BE IMPORTED AND SCREENED. EXISTING TOPSOIL MAY ONLY BE REUSED IF APPROVED BY THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL GUARANTEE ALL PLANTS TO BE IN A HEALTHY CONDITION FOR A PERIOD OF TWO YEARS FOLLOWING ACCEPTANCE. CONTRACTOR SHALL REPLACE WITHOUT COST TO THE OWNER ANY DEAD OR UNACCEPTABLE PLANTS, AS DETERMINED BY THE OWNER'S REPRESENTATIVE DURING AND AT THE END OF THE GUARANTEE PERIOD.
- ALL PLANTINGS SHALL CONFORM TO ANSI 260.1 OR CURRENT EDITION.
- AREAS SPECIFIED WITH PLANT MATERIAL SHALL BE FINE GRADED AND SEEDED FOR TURF ESTABLISHMENT.
- ALL EXCESS EXCAVATED MATERIALS AND DEBRIS WHICH ARE NOT ACCEPTED FOR DISPOSAL ON SITE BY THE OWNER SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF LEGALLY OFF SITE.
- ALL LANDSCAPE AREAS SHALL HAVE PROPER DRAINAGE THAT PREVENTS EXCESS WATER FROM STANDING ON LAWN AREAS OR AROUND TREES & SHRUBS.
- THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY MATERIAL NOT MEETING SPECIFICATIONS.
- THE CONTRACTOR SHALL PLACE 3" OF STONE MULCH IN LANDSCAPE BEDS FOR SPECIFICATIONS.
- ALUMINUM LANDSCAPE EDGING IS TO BE PLACED ALONG PLANTING BED EDGES WHERE MULCH AND LAWN MEET.

TREE SCHEDULE						
SYM	KEY	SIZE	BOTANICAL NAME	COMMON NAME	NOTES	QUANTITY
[Symbol]	TO(E)	6' HT.	THUJA OCCIDENTALIS 'EMERALD'	EMERALD ARBORVITAE	B & B	20

REV.	SAP ORD.	DATE	BY	CHKD	APP.	APP.	DESCRIPTION	REV.	SAP ORD.	DATE	BY	CHKD	APP.	APP.	DESCRIPTION

DRAWN	DATE	APPROVED	DATE
JOHN BRADY	4/11 2019	DOUGLAS SCOTT	4/17 2019
CHECKED	DATE		
KATIE LAMBERT	4/16 2019		

**ROWE PROFESSIONAL SERVICES COMPANY**

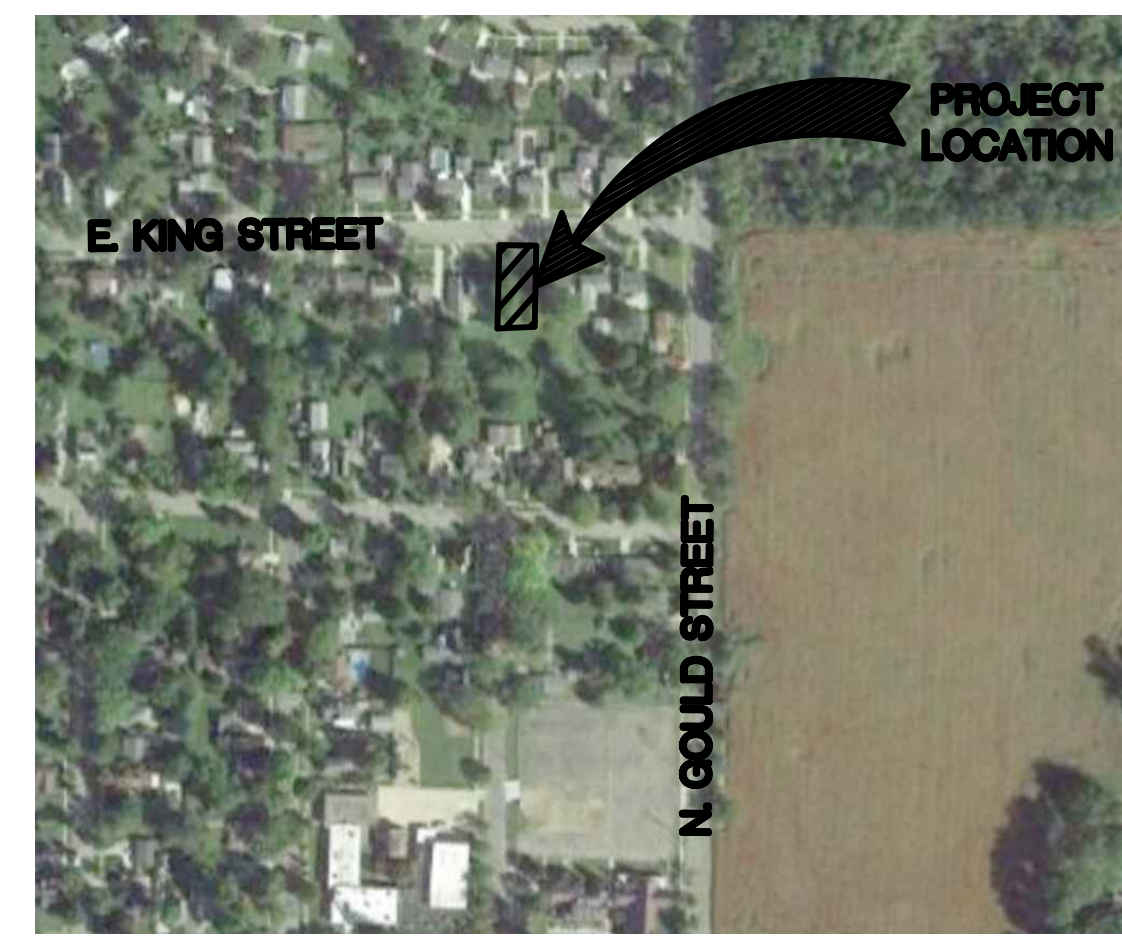
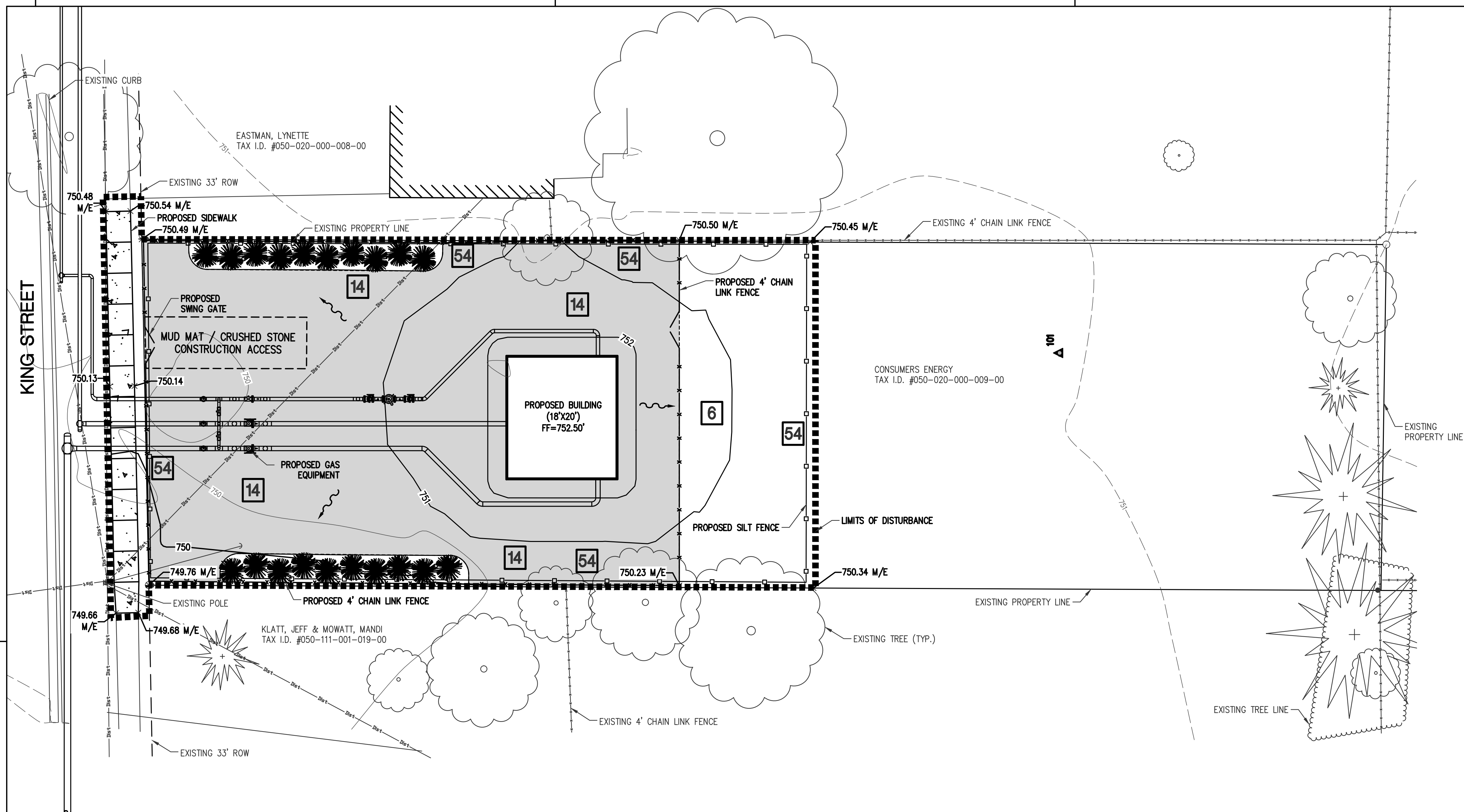
**GAS ENGINEERING**  
GAS DISTRIBUTION DESIGN SECTION  
JACKSON, MICHIGAN

**811**  
Know what's below. Call before you dig. www.call811.com

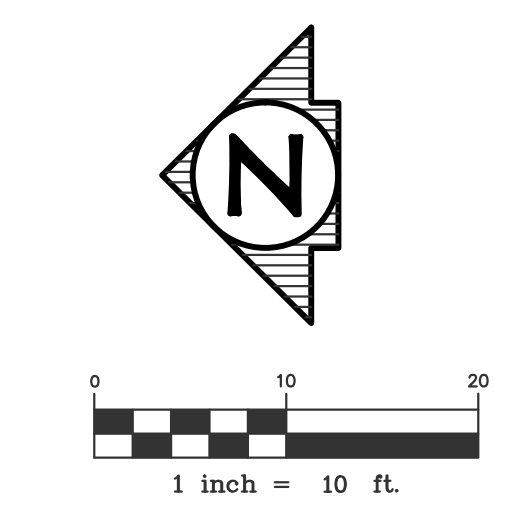
**CAUTION**  
IF INSTALLATION CANNOT BE COMPLETED AS DESIGNED CONTACT PROJECT ENGINEER BEFORE PROCEEDING

**KING & GOULD REGULATOR STATION REBUILD SITE PLAN SHEET**

FIELD AREA: 200X  
SAP ORD. DRAWING NUMBER SHEET REV.  
STA. NO. 5



**KING AND GOULD REGULATOR STATION REBUILD - LOCATION MAP**  
NOT TO SCALE



- LEGEND**
- PROPOSED GRAVEL SURFACE - YARD
  - PROPOSED CONCRETE SIDEWALK
  - EXISTING CONTOUR
  - PROPOSED CONTOUR
  - SILT FENCE
  - PROPOSED SPOT ELEVATION
  - SURFACE DRAINAGE FLOW
  - M/E MATCH EXISTING

**SESC PLAN NOTES:**

**OWNER INFORMATION**  
 CONSUMERS ENERGY  
 ONE ENERGY PLAZA  
 JACKSON, MI 49201  
 (517) 788-8912

**SITE ADDRESS**  
 900 E. KING STREET  
 OWOSSO, MI 48867  
 SHIAWASSEE COUNTY

**PROJECT NAME**  
 KING & GOULD REGULATOR STATION REBUILD

**PROXIMITY TO WATERS OF STATE**  
 APPROXIMATELY 1,800 FEET SOUTHWEST OF THE OSBURN DRAIN.

**100 YEAR FLOODPLAIN**  
 PER THE FEMA MAP PANEL 26155C0143C, DATED SEPTEMBER 29TH, 2011, THE SITE DOES NOT LIE IN THE SPECIAL FLOOD HAZARD ZONE AREA.

**AREA OF DISTURBANCE**  
 0.15 ACRES

**SESC REQUIREMENTS**

- EARTH MOVING ACTIVITY CAN NOT BEGIN WITHOUT A SOIL EROSION PERMIT. THE SOIL EROSION PERMIT MUST BE POSTED AND BE CLEARLY VISIBLE FROM THE ROAD.
- SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AS DESIGNATED ON PLANS AND/OR AS REQUIRED MUST BE INSTALLED PRIOR TO ANY EARTH MOVING ACTIVITIES.
- EARTH CHANGES TO A PROPERTY MUST NOT ADVERSELY AFFECT DRAINAGE TO SURROUNDING AREA.
- DETENTION/RETENTION/SEDIMENTATION PONDS MUST BE CONSTRUCTED AND STABILIZED PRIOR TO OTHER EARTH MOVING ACTIVITIES.
- OUTLETS OF DETENTION/RETENTION/SEDIMENTATION PONDS SHALL BE DESIGNED AND CONSTRUCTED TO REDUCE THE WATER FLOW TO A NON-EROSIVE VELOCITY. RIP-RAP MUST BE INSTALLED ON ALL STORM WATER OUTLETS.
- ALL EARTH MOVING SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED IN SUCH A MANNER THAT LIMITS THE EXPOSED AREA OF ANY DISTURBED LAND FOR THE SHORTEST POSSIBLE PERIOD OF TIME. THE SITE MUST BE STABILIZED WITHIN 5 CALENDAR DAYS AFTER FINAL GRADING OR EARTH MOVING ACTIVITY HAS BEEN COMPLETED.
- STONE ACCESS DRIVES, IF REQUIRED, MUST BE INSTALLED PRIOR TO CONSTRUCTION FOR PURPOSES OF MUD TRACKING.
- SOIL, SEDIMENT, AND MISCELLANEOUS DEBRIS MUST BE KEPT OFF STREETS AND OUT OF DRAINAGE DITCHES AND CATCH BASINS THROUGHOUT THE DURATION OF THE PROJECT.
- SILT FENCING, IF REQUIRED, MUST BE TRENCHED IN AND BACKFILLED. FENCING MAY BE TOEDOWN WITH PEA GRAVEL IF INSTALLED IN WINTER.
- STOCKPILING OF ANY EXCAVATED MATERIAL MUST BE KEPT CLEAR OF SENSITIVE AREAS. ADEQUATE CONTROLS MUST BE IN PLACE TO ENSURE THIS REQUIREMENT.
- EROSION CONTROL BLANKETS ARE REQUIRED ON SLOPES OF 4:1 OR STEEPER.
- ALL PERMANENT EROSION CONTROL MEASURES SHALL BE PERMANENTLY MAINTAINED BY THE OWNER OR HOMEOWNER ASSOCIATION.

PROJECT COMPLETION SCHEDULE												
CONSTRUCTION OPERATIONS												
CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
STRIP & STOCKPILE TOPSOIL / GRAVEL												
DEMOLITION												
YARD PIPING REPLACEMENT												
BUILDING ERECTION												
ROUGH GRADING												
FINISH GRADING / RESTORATION												
GUARDRAIL REPLACEMENT												
PUNCH LIST COMPLETION												

SOIL EROSION/SEDIMENTATION CONTROL												
OPERATION TIME SCHEDULE												
CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
STRIP & STOCKPILE TOPSOIL												
ROUGH GRADE SEDIMENT CONTROL												
TEMP. CONTROL MEASURES												
STORM FACILITIES												
SITE CONSTRUCTION												
PERM. CONTROL MEASURES												
FINISH GRADING												
REMOVE TEMP. CONTROL MEASURES												

**MICHIGAN UNIFIED KEYING SYSTEM**

<b>14</b>		AGGREGATE COVER	STABILIZES SOIL SURFACE. THIS WEARING SURFACE PERMITS CONSTRUCTION TRAFFIC IN ADVERSE WEATHER. MAY BE USED AS PART OF PERMANENT BASE CONSTRUCTION OF PAVED AREAS.
<b>54</b>		SILT FENCE	USES GEOTEXTILE FABRIC AND POSTS OR PALES. EASY TO CONSTRUCT AND LOCATE AS NECESSARY.
<b>6</b>		SEEDING WITH MULCH AND/OR MATTING	FACILITATES ESTABLISHMENT OF VEGETATIVE COVER. EFFECTIVE FOR DRAINAGES WITH LOW VELOCITY. SEEDS PLACED IN SMALL QUANTITIES BY EXPERIENCED PERSONNEL. SHOULD INCLUDE PREPARED TOPSOIL BED.



**ROWE PROFESSIONAL SERVICES COMPANY**

**Consumers Energy**

**GAS ENGINEERING**  
 GAS DISTRIBUTION DESIGN SECTION  
 JACKSON, MICHIGAN

<b>KING &amp; GOULD REGULATOR STATION REBUILD GRADING AND SESC SHEET</b>			
FIELD AREA:			200X
SAP ORD.	DRAWING NUMBER	SHEET	REV.
STA. NO.		6	

REV.	SAP ORD.	DATE	BY	CHKD	APP.	APP.	DESCRIPTION	REV.	SAP ORD.	DATE	BY	CHKD	APP.	APP.	DESCRIPTION

### TUBE STEEL PROPERTIES

ASTM A-500, GRADE "C",  $F_y = 50,000$  P.S.I.

14 - GAUGE	WALL FRAME, GIRTS, TRUSS WEBS, PURLINS, BRACING, AND BOTTOM CHORD DIMENSIONS: 2" x 2" x 0.083" AREA: $A = 0.636$ IN. <sup>2</sup> MOMENT OF INERTIA: $I = 0.391$ IN. <sup>4</sup> SECTION MODULUS: $S = 0.391$ IN. <sup>3</sup> RADIUS OF GYRATION: $r = 0.783$ IN. MAXIMUM TENSION STRENGTH: 14 K.S.I.
14 - GAUGE	TOP CHORD DIMENSIONS: 2" x 4" x 0.083" AREA: $A = 1.273$ IN. <sup>2</sup> MOMENT OF INERTIA: $I = 2.053$ IN. <sup>4</sup> SECTION MODULUS: $S = 1.021$ IN. <sup>3</sup> RADIUS OF GYRATION: $r = 1.270$ IN. MAXIMUM TENSION STRENGTH: 20 K.S.I.

### TOP CHORD CALCULATIONS

LENGTH / RADIUS OF GYRATION:  $l/r = 55.69 / 1.270 = 43.85$   
 ALLOWABLE AXIAL COMPRESSIVE STRESS:  $F_A = 25.26$  K.S.I.  
 ALLOWABLE BENDING STRESS:  $F_B = 30.0$  K.S.I.  
 COMPUTED AXIAL STRESS:  $f_a = \text{MAXIMUM FORCE/AREA OF TUBE}$   
 $f_a = 9.75 / 1.273 = 7.64$  K.S.I.  
 COMPUTED BENDING STRESS:  $f_b = \text{MAX. MOMENT/SECTION MODULUS}$   
 $f_b = 8.988 / 1.021 = 8.79$  K.S.I.  
 COMBINED AXIAL COMPRESSION AND BENDING:  
 $(f_a / F_A) + (f_b / F_B) \text{ LESS THAN OR EQUAL TO } 1$   
 $(7.64 / 25.26) + (8.79 / 30.0) = 0.301 < 1$  OK  
 SECTION MODULUS:  $S = \text{MOMENT / ALLOWABLE BENDING STRESS}$   
 $S = 1.021 = 8.988 / 30.0$   
 USE 2 - 14 GAUGE TUBES  $S = 1.021$   
 $0.300 < 1.021$  OK

4'-1 11/16" OR 55.69"  
 2'-6" 2'-0 11/16"  
 4.28  
 6.42  
 6.42  
 4.28

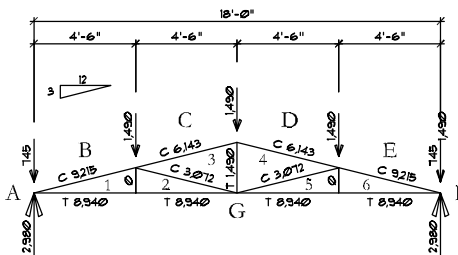
R1 = 105 R2 = 365  
 $4.64(R1) + 2.051(6.42) + 4.551(4.28) = 105$   
 $4.64(R2) + 0.263(4.28) + 2.583(6.42) = 365$   
 MAXIMUM MOMENT:  $M = 749$  FT. LBS.  
 $M = 149 (12) = 8,988$  IN. LBS.

### PURLIN CALCULATIONS

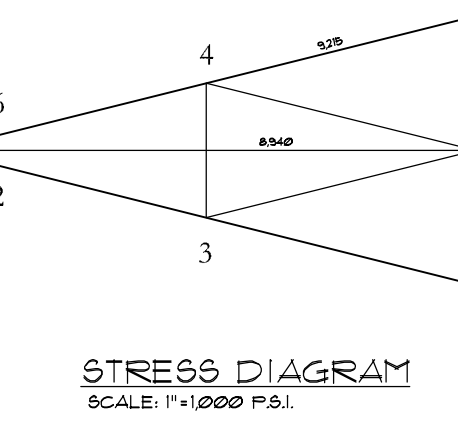
TOTAL PURLIN ROOF LOAD: 473 P.S.F.  
 PURLIN TRIBUTARY WIDTH: 30" O.C. = 473 (25) = 11825 P.L.F.  
 1'-0"

R1 = 414 R2 = 414

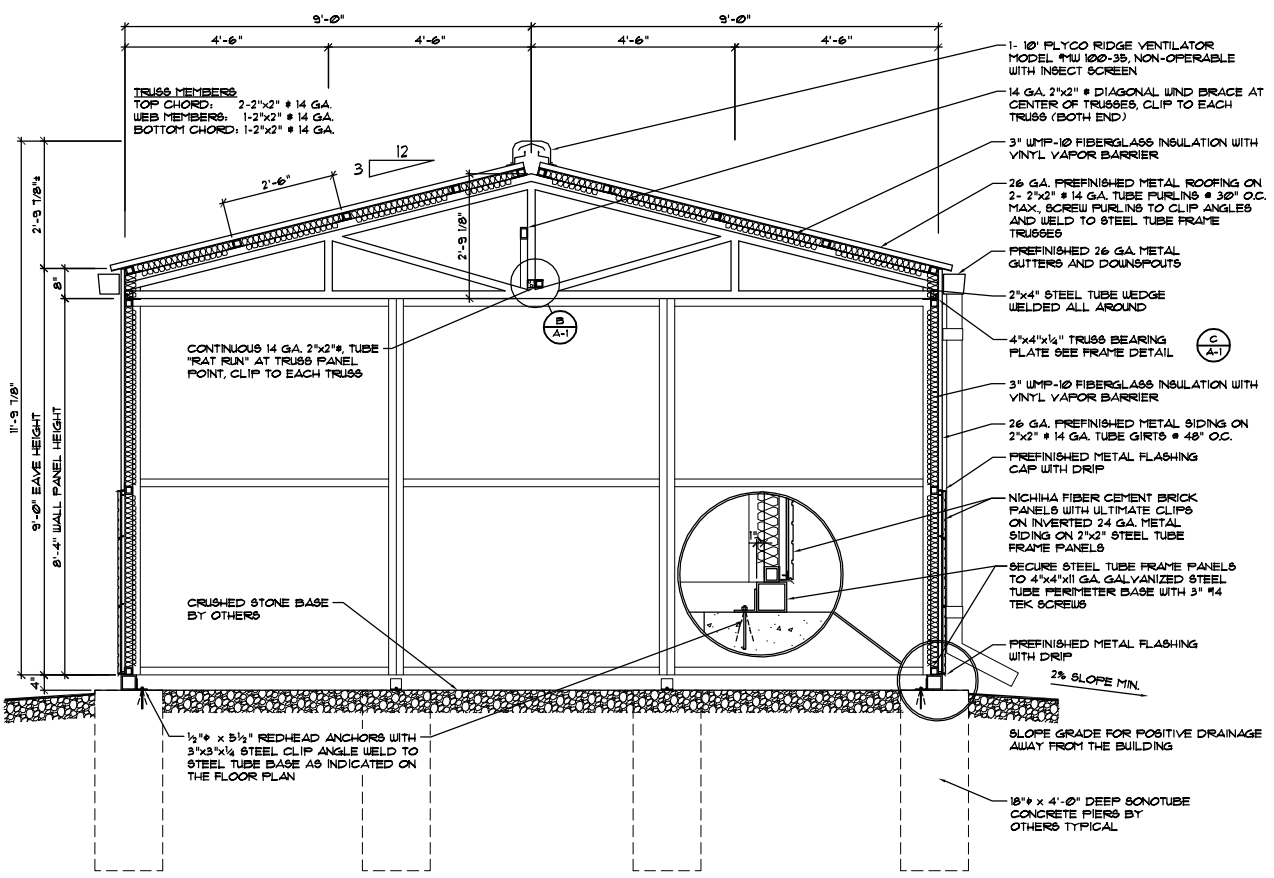
MOMENT:  $M = W(LX^2) / 8 = 724$  FT. LBS.  
 $M = 724 (12) = 8,688$  IN. LBS.  
 SECTION MODULUS:  $S = \text{MOMENT / ALLOWABLE BENDING STRESS}$   
 $S = 1.021 = 8,688 / 30,000 = 0.289$   
 USE 1 - 14 GAUGE TUBE  $S = 0.391$   
 $0.289 < 0.391$  OK



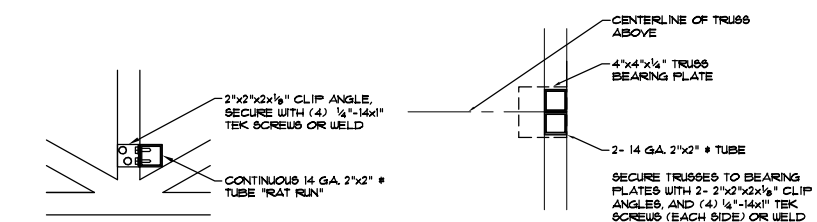
TRUSS DIAGRAM  
SCALE: 1/4" = 1'-0"



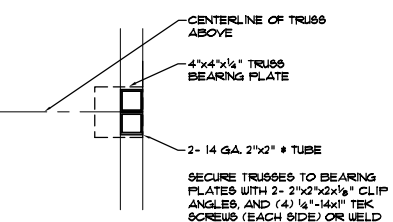
STRESS DIAGRAM  
SCALE: 1" = 1,000 P.S.I.



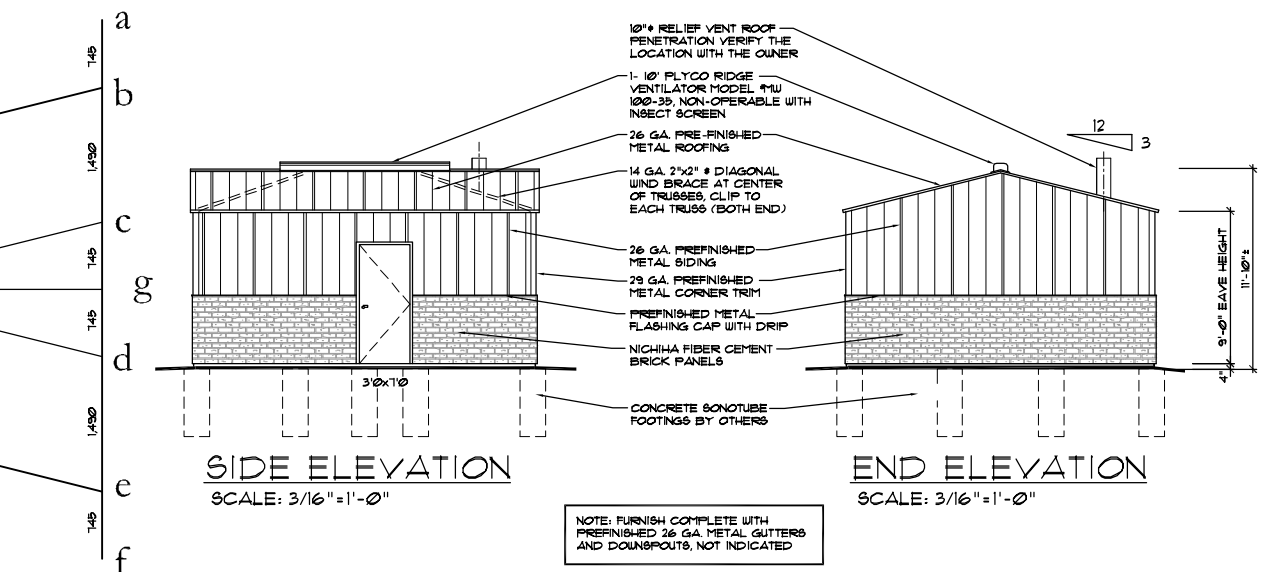
A BUILDING SECTION  
SCALE: 1/2" = 1'-0"



B FRAME DETAIL  
SCALE: 1 1/2" = 1'-0"



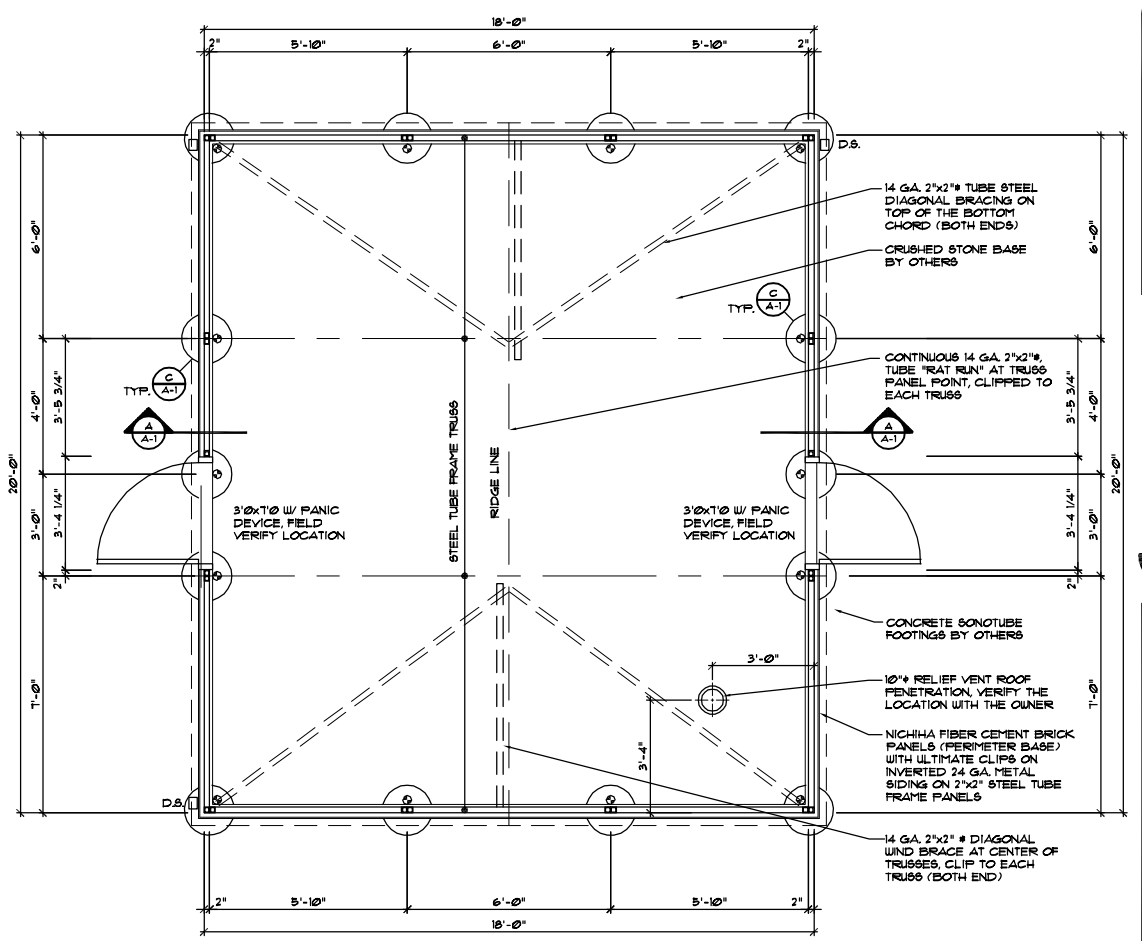
C FRAME DETAIL  
SCALE: 1 1/2" = 1'-0"



SIDE ELEVATION  
SCALE: 3/16" = 1'-0"

END ELEVATION  
SCALE: 3/16" = 1'-0"

NOTE: FURNISH COMPLETE WITH PREFINISHED 26 GA. METAL GUTTERS AND DOWNSPOUTS, NOT INDICATED



FLOOR / ROOF FRAMING PLAN  
SCALE: 3/8" = 1'-0"



### GENERAL NOTES

- Construction to comply with the 2015 Michigan Building Code.
- Do not scale drawings. (Use dimensions). Verify all existing dimensions and existing conditions before installation.
- All Building Plans shall be submitted to the Building Official for Plan Review. Notify Architect of any plan review comments prior to construction.
- Portable fire extinguishers shall be provided by the owner in accordance with the International fire code.
- Tube steel shall be A.S.T.M. A-500 grade "C". All other steel shall be A 36 grade.
- All welding shall be performed according to AWS and AISC Standards.
- Contractor shall provide temporary bracing for the structure and structural components until all final connections have been complete in accordance with the plans.

### CODE COMPLIANCE

CODE: 2015 MICHIGAN BUILDING CODE  
 USE GROUP: "U" UTILITY  
 REGULATORY BUILDING  
 TYPE OF CONSTRUCTION: 2-B NON COMBUSTIBLE WITHOUT AUTOMATIC SFRINKLER SYSTEM  
 IMPORTANCE FACTOR:  $I = 1$  CATEGORY III = U  
 SNOW LOAD ON FLAT ROOF:  $p_f = 0.7 (C_e) (C_d) (p_g) = 32.3$  P.S.F.  
 ROOF SLOPE FACTOR:  $C_s = 1.0$   
 SLOPED ROOF LOAD:  $p_s = (C_e) (p_f) = (1.0) (32.3) = 32.3$  P.S.F.  
 OCCUPANT LOAD: 1 PERSON

NOTES:  
 1. THIS BUILDING SHALL BE LOCATED GREATER THAN 10' FROM ANY PROPERTY LINE OR GREATER THAN 20 FEET FROM ANY OTHER BUILDING ON THE SAME SITE. NOTIFY ARCHITECT IF LESS.  
 2. THE FACED BUILDING INSULATION SHALL HAVE A FLAME SPREAD INDEX NOT GREATER THAN 25 AND A SMOKE DEVELOPMENT INDEX NOT GREATER THAN 50. THE BUILDER SHALL PROVIDE TO THE BUILDING OFFICIAL MANUFACTURERS LITERATURE WITH THIS INFORMATION FOR THEIR RECORDS.

### LOAD SUMMARY

GROUND SNOW LOAD =  $P_g = 35$  P.S.F.  
 EXPOSURE FACTOR:  $C_e = 1.0$   
 THERMAL FACTOR:  $C_t = 1.0$   
 IMPORTANCE FACTOR:  $I = 1$  CATEGORY III = U  
 SNOW LOAD ON FLAT ROOF:  $p_f = 0.7 (C_e) (C_d) (p_g) = 32.3$  P.S.F.  
 ROOF SLOPE FACTOR:  $C_s = 1.0$   
 SLOPED ROOF LOAD:  $p_s = (C_e) (p_f) = (1.0) (32.3) = 32.3$  P.S.F.

SNOW LIVE LOAD = 32.3 P.S.F.  
 TOP CHORD DEAD LOAD = 5 P.S.F.  
 BOTTOM CHORD DEAD LOAD = 5 P.S.F.  
 OTHER ADDITIONAL DEAD LOAD = 5 P.S.F.  
 TOTAL ROOF LOAD = 47.3 P.S.F.

ULTIMATE DESIGN WIND SPEED 120 MPH  
 3 - SECOND GUST WIND SPEED

SEISMIC INFORMATION:  
 DESIGN  $S_{ds} = 0.100$  x  $1.25 = 0.125$   
 THAN 25 AND A SMOKE DEVELOPMENT INDEX NOT GREATER THAN 50. THE BUILDER SHALL PROVIDE TO THE BUILDING OFFICIAL MANUFACTURERS LITERATURE WITH THIS INFORMATION FOR THEIR RECORDS.  
 SITE CLASS: "D", OCCUPANCY CATEGORY: III  
 SEISMIC DESIGN CATEGORY: "B"

### REVISIONS

NO.	DATE	DESCRIPTION

Thomas I. O'Brien  
 Architect Inc.  
 307 NORTH FIFTH STREET  
 ROSSMONT, MICHIGAN 48863  
 Phone: (888) 275-3075  
 E-Mail: thomas@tiorchitect.com

ELITE STEEL BUILDERS  
 P.O. BOX 928  
 KALKASKA, MICHIGAN 48646  
 PHONE: (231) 258-2004 FAX: (231) 258-4446

NEW REGULATOR BUILDING FOR:  
 CONSUMERS ENERGY CO.  
 KING and GOULD REGULATOR STATION  
 868 E. KING ST., OWD9550, MI. 48867

DATE: APRIL 23, 2019  
 PROJECT NUMBER: 201915-G  
 DRAWN BY: TIO  
 CHECKED BY: TIO  
 SHEET: A-1