

AGENDA
JAIL STUDY ADHOC COMMITTEE

DATE: Thursday, February 4, 2021
TIME: 11:30 AM
LOCATION: Courthouse, Safety Training Room 105A

1. Call to order
2. Public Comments
3. Approve minutes from previous meeting
4. Soil boring results
5. Discussion about current jail operating costs
 - a. Maintenance needs to maintain functionality
 - b. Utility operating costs
6. Discussion with Criminal Justice Coordinator regarding jail services and limitations
 - a. Structural/floor plan challenges
 - b. Services available to out of county inmates
 - c. Diversion methods and the potential impact on our jail population
7. Next meeting:
 - February 18, 2021; 9:00 am Wood County Courthouse, Room 114
8. Adjourn

Join by phone

+1-408-418-9388 United States Toll
Meeting number (access code): 146 318 5495

Join by WebEx App or Web

<https://woodcountywi.webex.com/woodcountywi/j.php?MTID=m4ecfde73ff770c464d8e8059cf13f7f7>
Meeting number (access code): 146 318 5495
Meeting password: JSA0204

MINUTES
JAIL STUDY ADHOC COMMITTEE

DATE: Thursday, January 21, 2021
TIME: 4:30 PM
LOCATION: Courthouse – Room 114

MEMBERS PRESENT: Adam Fischer, Laura Valenstein, Dave LaFontaine, Al Breu, Lee Thao, John Hokamp, Jake Hahn

OTHERS PRESENT: Supervisor Bill Winch, Supervisor Bill Clendenning, Supervisor Joseph Zurfluh, Janelle Krueger, Peter Kastenholz

The meeting was called to order by Vice Chair Fischer at 4:31 PM by no objection of the committee.

There were no public comments.

Vice Chair Fischer opened up the floor for nominations and Vice Chair Fischer nominated Supervisor Laura Valenstein for committee chair. Supervisor Hahn seconded and the motion carried.

Chair Valenstein opened up nominations for Vice Chair and Supervisor Thao nominated Supervisor Hahn as committee Vice Chair. Supervisor Hokamp seconded the motion. Motion carried.

Discussion followed on Key Goals and Objectives.

The committee discussed meeting the 1st Thursday of every month at 11:30 AM and the 3rd Thursday of every month at 9:00 AM in the Courthouse. Janelle Krueger, Criminal Justice Coordinator was selected by the committee to take minutes moving forward.

Chair Valenstein adjourned the meeting at 4:56 PM.

Minutes taken by Adam Fischer and in draft form until approved at next committee meeting

Preliminary Report of Geotechnical Exploration

Wood County Jail
400 Market Street; Wisconsin Rapids, Wisconsin
December 10, 2020
AET Project No. 12-21382

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1.0 INTRODUCTION

Wood County is in the preliminary stages of planning a new jail building or additions to the existing Wood County jail in Wisconsin Rapids, Wisconsin. To assist with planning and design, Mr. Reuben Van Tassel, Facilities Manager of the Wood County Maintenance Department, authorized American Engineering Testing, Inc. (AET) to conduct a preliminary subsurface exploration program at the site and perform a preliminary geotechnical engineering review for the project. This report presents the results of the above services and provides our engineering recommendations based on this data.

2.0 SCOPE OF SERVICE

AET's services were performed according to our proposal to the Wood County Maintenance Department dated October 1, 2020. The authorized scope consists of the following:

- Ten standard penetration test borings to depths of 15 feet each.
- Visual/manual classification and limited laboratory testing of the recovered soil samples.
- Geotechnical engineering review based on the gained data and preparation of this report.

These services are intended for preliminary geotechnical purposes. The scope is not intended to explore for the presence or extent of environmental contamination.

3.0 PROJECT INFORMATION

Wood County is considering the construction of either a new jail building (on the property to the south of the existing courthouse/jail) or an addition to the existing courthouse/jail building. Project details such as location/layout, number of stories, basement level, finished floor elevation, construction type, foundation loads, etc. are not available as of the date of this report. A project-specific geotechnical report will be needed for the project after those details are available; additional borings may be required depending on those details.

The above-stated information represents our understanding of the proposed construction and is an integral part of our engineering review. It is important we be contacted if there are changes from that described so we can evaluate if modifications to our recommendations are appropriate.

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4.0 SUBSURFACE EXPLORATION AND TESTING

Our subsurface exploration program for this project consisted of drilling a total of ten borings with standard penetration testing (SPT) and sampling on November 30 and December 1, 2020. The Samuels Group selected the number and locations of the borings. We selected the depths of the borings based on our understanding of the project and our knowledge of subsurface condition in the project vicinity. The boring locations are shown on Figure 1 in Appendix A. We measured the surface elevations at the borings with an engineer's level, using as our benchmark the finished floor elevation at the sally port door located on the east side of the building; we assigned that floor an arbitrary elevation of 100.0 feet.

Prior to drilling, we contacted Wisconsin Diggers Hotline to locate public underground utilities at the site. We drilled the borings using 3¼-inch-inside-diameter hollow-stem augers. Refer to Appendix A for details on the drilling and sampling methods, the classification methods, and the water level measurement details.

The boring logs are found in Appendix A and contain information concerning soil layering, geologic description, moisture condition, and USCS classifications. Relative density or consistency is also noted for the natural soils, which are based on the standard penetration resistance (N-value).

We performed six unconfined compressive strength tests (q_p , pocket penetrometer) and three sieve analysis tests on the recovered soil samples. The test results are included in Appendix A, either on the boring logs or on a separate sheet following the boring logs.

5.0 SITE CONDITIONS

5.1 Surface Observations

The parcel north of Avon Street is the existing Wood County Courthouse (and jail). The southern parcel is mostly bituminous-paved parking lot space. The ground surface generally slopes downward from north to south, with a maximum elevation difference among our borings of 13.4 feet. There is a retaining wall at the south edge of the Courthouse parcel, with a maximum exposed height of about 5 to 6 feet.

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TESTING, INC.**5.2 Subsurface Soils**

We measured about 6 to 8.5 inches of topsoil at the surface of five borings and about 3.5 to 6.5 inches of pavement at the surface of the remaining five borings. Below the surficial topsoil or pavement, we encountered fill to depths of up to 4.5 feet in our borings consisting mostly of sand with varying silt and gravel content. (There was “possible fill” to depths of 7 feet in boring B-03, 5 feet in B-04, and 5.5 feet in B-05.) The fill was various mixtures of sand, gravel, silt, and clay. There was buried topsoil from about 2 to 4.5 feet in boring B-02 and about 0.5 to 2 feet in B-04. We encountered concrete with rebar from about 1.2 to 2.7 feet in B-09.

Below the pavement, topsoil, fill, and/or concrete, we encountered mostly coarse alluvium and weathered bedrock. The coarse alluvium was very loose to medium dense sand with varying silt and gravel contents. The weathered bedrock was highly variable in composition, ranging from lean clays and silts to sands and gravels; the relative density and consistency of the materials was also highly variable, ranging from loose to very dense and soft to very stiff. We also encountered weathered sandstone in boring B-01 from about 5 to 9.5 feet deep, consisting of medium dense to very dense sand with silt.

5.3 Groundwater

We measured groundwater in borings B-06, B-08, and B-10 at depths of 6.0, 9.5, and 5.6 feet, respectively at the time of drilling. It appears these water levels are perched on the weathered bedrock. We did not observe water levels in our remaining borings. However, groundwater levels will fluctuate due to varying seasonal and annual rainfall and snow melt amounts and other factors. Piezometers would be needed to obtain long-term groundwater level measurements, which was beyond our scope of service.

6.0 PRELIMINARY RECOMMENDATIONS**6.1 Approach Discussion**

The discussion and preliminary recommendations of Section 6.0 are based on the ten borings we drilled for this preliminary exploration. Subsurface conditions will vary between our boring locations and it is possible some areas exist where conditions are less favorable than those encountered in our borings. A project-specific geotechnical report will be needed for the project after final details are available; additional borings may be required depending on those details.

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6.2 Building Discussion

Site Preparation

Site preparation for new buildings and/or additions should consist of removing all pavements, buried utilities, vegetation, organic soils, existing fill, and other unsuitable soils that are encountered. We anticipate subcut depths of about 2 to 7 feet at our boring locations, but it is possible deeper areas of soil correction could be needed.

Following excavation to the required depths and prior to the placement of new fill or concrete, the exposed soils should be surface compacted to densify soils loosened by the excavation process.

The non-organic coarse alluvium and granular fill (free of debris and organics) at the site should be suitable for re-use as fill in foundation and floor slab areas. If any imported fill is needed, we recommend it be non-organic granular soil with less than 12% by weight passing the No. 200 sieve and a maximum aggregate size of 2 inches. Fill placed to attain grade for foundation and/or slab support should be compacted in thin lifts, such that the entire lift achieves a minimum compaction level of 95% of the maximum modified Proctor dry density (ASTM D1557). For granular soils, we anticipate a lift thickness on the order of 8 inches may be appropriate.

Foundation Recommendations

Following site preparation as described above, new buildings and additions could be supported on conventional shallow foundations bearing on competent naturally-occurring soils, or on fill placed and compacted over a suitable subgrade. Perimeter footings for heated building spaces should bear a minimum of 4 feet below exterior grade for protection from frost penetration. Interior footings in heated areas should bear at least 18 inches below the finished floor elevation to provide confinement to the bearing stratum. Footings in unheated areas should be extended to a minimum of 5 feet below surrounding grade.

Based on the subsurface conditions we encountered and provided our recommendations are followed, it is our opinion structures on this site can be preliminarily designed based on a net maximum allowable soil bearing pressure of 3,000 psf, although higher values may be achievable, depending on site preparation techniques and actual foundation depths. It is our judgment this design pressure will have a factor of safety of at least 3 against the ultimate bearing capacity. With this design we estimate a maximum total building settlement of up to 1 inch, and differential settlements of half this amount over a 30-foot distance, if the bearing soils are not soft, wet,

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disturbed, or frozen at the time of construction. There would be some differential settlement between the existing building and any new additions.

Floor Slab Recommendations

Floor slabs at this site could be cast on-grade following site preparation as described previously in this section.

Below-Grade Wall Recommendations (Basements, Loading Docks)

Exterior backfill placed against below-grade walls (basements, loading docks, etc.) should be free-draining granular soil having less than 5% by weight passing the No. 200 sieve. The purpose of this free-draining fill is to facilitate drainage and reduce the risk of hydrostatic pressures against the basement walls. The wall backfill should be compacted to at least 95% of its maximum modified Proctor dry density. We anticipate a lift thickness on the order of 8 inches may be appropriate, although this should be reviewed in the field at the time of construction. Heavy towed or self-propelled compaction equipment should not be used for this backfill compaction, in order to avoid imparting permanent lateral stresses on the walls. Rather, manually-operated vibratory or impact compaction equipment should be used.

Drain pipes should be placed at the base of the wall backfill zone to collect and remove water that infiltrates the wall backfill. The invert of the drain pipes should be at or only a few inches above bottom of footing. The drains should consist of continuous 4-inch-diameter perforated PVC pipe, with at least 4 inches of free-draining gravel on all sides; this gravel should be in the size range of about 3/8 inch to 1 inch. The pipes and gravel should be completely enveloped by a geosynthetic filter fabric meeting the requirements of WisDOT 645, Type DF; fabrics that do not meet the requirements of Type DF are not suitable.

We anticipate that these walls would be sufficiently rigid that they would not yield or translate a sufficient amount to develop the full active earth condition. Thus, we recommend designing these walls for the partly mobilized active earth condition. Assuming that the moist unit weight of the compacted backfill would be approximately 125 pounds per cubic foot, we recommend using an equivalent fluid density of 55 pounds per cubic foot for the wall design. Loads next to the walls would impart lateral stresses in addition to the earth pressure. This surcharge load should be calculated as 0.5 times the adjacent vertical load(s).

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6.3 Pavement Discussion

Some of the near-surface soils at the site are relatively slow draining and highly frost susceptible. Depending on site grading and the desired level of pavement performance, some soil correction and/or a drainage layer may be necessary. However, this would best be determined during site design when site grading plans are available.

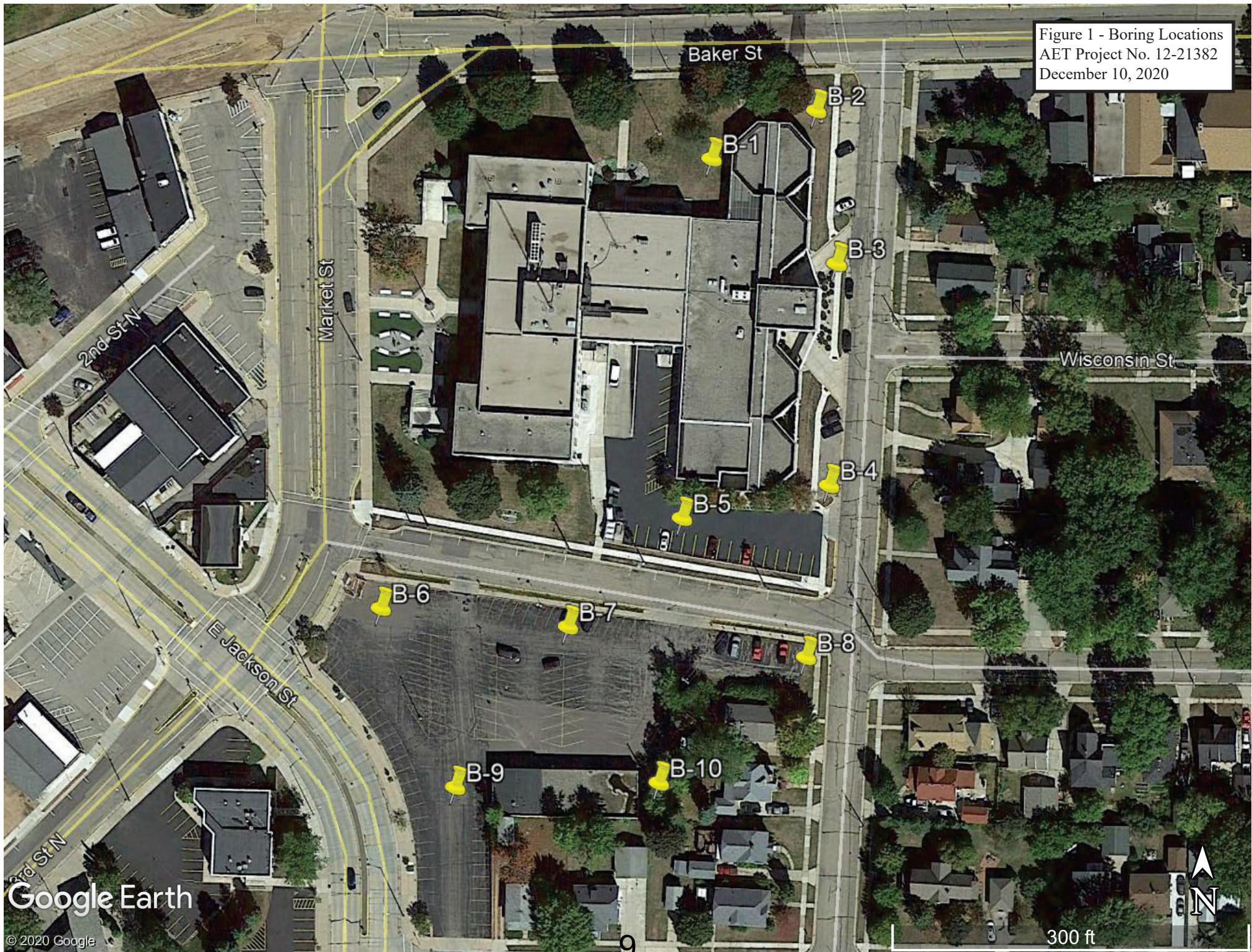
7.0 ASTM STANDARDS

When we refer to an ASTM Standard in this report, we mean that our services were performed in general accordance with that standard. Compliance with any other standards referenced within the specified standard is neither inferred nor implied.

8.0 LIMITATIONS

Within the limitations of scope, budget, and schedule, we have endeavored to provide our services according to generally accepted geotechnical engineering practices at this time and location. Other than this, no warranty, express or implied, is intended. Important information regarding risk management and proper use of this report is given in Appendix B entitled "Geotechnical Report Limitations and Guidelines for Use."

Figure 1 - Boring Locations
AET Project No. 12-21382
December 10, 2020



Hi Reuben,

In the north (existing) lot, based on our borings, I do not expect difficult excavation within the top 15 feet in the north (existing) site. Most of the weathered bedrock in this area is highly weathered and could be confused for soil.

In the south lot, based on our borings, excavation will become more difficult below a depth of about 10 to 12 feet, but excavation would still be reasonable using conventional equipment.

However, the characteristics of the weathered bedrock will vary away from our boring locations and some areas could be encountered where excavation is more difficult than anticipated.

We typically find that if we can drill into it with our normal drilling auger, the materials are excavatable.

Thanks for the question!

Thanks,
Ben



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Please read our email disclaimer at this [link](#) on our website.



Bill Summary- JAIL
Electric- 505816001

Bill date	Usage/kwh	Total bill
7/11/2018	105,300	\$11,116.59
8/9/2018	122,700	\$11,784.54
9/12/2018	111,900	\$10,564.95
10/10/2018	93,900	\$8,413.99
11/14/2018	78,300	\$7,077.72
12/12/2018	61,500	\$5,450.55
1/10/2019	57,900	\$4,497.03

PARTIAL 2018 **\$58,905.37**

2/13/2019	63,000	\$5,374.20
3/13/2019	53,700	\$4,051.68
4/11/2019	60,900	\$5,728.65
5/14/2019	70,800	\$5,831.33
6/12/2019	87,300	\$8,154.41
7/15/2019	94,200	\$9,233.95
8/13/2019	111,000	\$11,388.50
9/12/2019	105,300	\$8,707.33
10/14/2019	88,500	\$8,568.43
11/13/2019	72,600	\$6,614.82
12/12/2019	56,100	\$4,660.47
1/14/2020	56,400	\$4,457.94

TOTAL 2019 **\$82,771.71**

2/12/2020	49,800	\$4,807.77
3/12/2020	56,700	\$4,154.70
4/13/2020	63,300	\$4,781.70
5/12/2020	75,300	\$5,377.78
6/11/2020	89,700	\$7,518.11
7/14/2020	99,000	\$9,797.73
8/12/2020	93,000	\$9,466.76
9/14/2020	79,500	\$8,118.05
10/13/2020	64,500	\$6,257.90
11/12/2020	59,400	\$6,073.70
12/10/2020	52,200	\$5,215.51

TOTAL 2020 **\$71,569.71**



Bill Summary-JAIL

Meter: Gas - 0WG2363674 (Small Com Gas - Fg-2 (WGC))

Bill date	Natural gas used (Therms)	Natural gas charges	Previous balance and adjustments	Total bill
01/04/2021	3735	\$2,149.20	\$0.00	\$2,149.20
11/30/2020	2726	\$1,464.33	\$0.00	\$1,464.33
10/29/2020	2199	\$940.30	\$0.00	\$940.30
09/29/2020	1195	\$533.32	\$0.00	\$533.32
08/28/2020	563	\$236.38	\$0.00	\$236.38
07/30/2020	475	\$172.29	\$0.00	\$172.29
06/30/2020	645	\$283.23	\$0.00	\$283.23
06/02/2020	1523	\$644.23	\$43.66	\$687.89
04/29/2020	2200	\$1,058.58	\$0.00	\$1,058.58
03/30/2020	2339	\$1,281.09	\$0.00	\$1,281.09
03/03/2020	2993	\$1,764.93	\$0.00	\$1,764.93
01/31/2020	3128	\$1,783.99	\$0.00	\$1,783.99
TOTAL 2020				\$12,355.53

Bill date	Natural gas used (Therms)	Natural gas charges	Previous balance and adjustments	Total bill
01/03/2020	2787	\$1,588.18	\$0.00	\$1,588.18
11/25/2019	2231	\$1,265.96	\$0.00	\$1,265.96
10/28/2019	1225	\$596.83	\$0.00	\$596.83
09/26/2019	668	\$306.18	\$0.00	\$306.18
08/27/2019	638	\$257.43	\$0.00	\$257.43
07/30/2019	679	\$254.65	\$0.00	\$254.65
07/03/2019	721	\$273.10	\$0.00	\$273.10
05/30/2019	719	\$340.57	\$0.00	\$340.57
04/29/2019	836	\$534.52	\$0.00	\$534.52
03/28/2019	1747	\$1,102.17	\$0.00	\$1,102.17
02/27/2019	2808	\$1,771.41	\$0.00	\$1,771.41
01/29/2019	1732	\$1,098.34	\$0.00	\$1,098.34
TOTAL 2019				\$9,389.34