

Village of Hallam



September 6, 2018

P.O. Box 81 • Hallam, Nebraska 68368-0081

Chairperson Todd Wiltgen and Lancaster County Board of Commissioners
Jennifer Brinkman, Vice Chair
Deb Schorr, Commissioner
Roma Amundson, Commissioner
Bill Avery, Commissioner

RECEIVED
SEP 10 2018
LANCASTER COUNTY
BOARD

RE: Hallam ETJ


Dear County Commissioners:

I am writing this letter as Village Clerk of the Board of Trustees for the Village of Hallam, Nebraska. I have been directed to send this letter by the Board of Trustees to convey their concerns for the zoning and building permit requirements regarding the proposed Monolith Materials Plant northeast of the village and the desire to exclude this area from the extraterritorial zoning jurisdiction (ETJ). The Village of Hallam is providing the County Board written notification of a proposal to amend a zoning ordinance that will affect the extraterritorial zoning district of the village within Lancaster County.

In addition, we would like to provide some background information regarding Hallam's desire to have Lancaster County inspect and oversee construction as explained in the enclosed ordinance and map. The Village of Hallam has adopted the 2012 IBC and IRC Codes as amended by the City of Lincoln. The staff and Planning Commission have reviewed the industrial zoning codes and found many similarities. Monolith obtained a special use permit in May of 2016 as well as a change of zone for heavy industrial use. Monolith has done grading which was agreed upon with the knowledge that they would need to submit building permits and detailed plans prior to construction. To date, we have not received any building permits.

In conclusion, the Village Board appreciates your time and consideration of this correspondence. We look forward to hearing your comments and recommendations. The Village Board of Trustees would like to invite you to attend their next meeting to be held on Wednesday, October 3, 2018, at 7:00 p.m.

Sincerely,


Victoria K. Polak, CMC
Village Clerk

Enclosures: Ordinance and Map of Proposed ETJ Area

ORDINANCE NO. 18-19

AN ORDINANCE OF THE VILLAGE OF HALLAM, NEBRASKA AMENDING THE VILLAGE OF HALLAM OFFICIAL ZONING DISTRICT MAP ADOPTED BY REFERENCE PURSUANT TO HALLAM VILLAGE CODE; AND TO AMEND ARTICLE 3; SECTION 5.4 JURISDICTION; PROVIDING FOR REPEAL OF ALL ORDINANCES AND PARTS OF ORDINANCES IN CONFLICT HEREWITH; PROVIDING FOR PUBLICATION OF THIS ORDINANCE IN PAMPHLET FORM; AND PROVIDING FOR A TIME WHEN THIS ORDINANCE SHALL BE IN FULL FORCE AND EFFECT.

BE IT ORDAINED BY THE VILLAGE BOARD OF THE VILLAGE OF HALLAM, NEBRASKA:

Section 1. That the Village Board hereby adopts the following facts and determines that that the Official Zoning Map of the Village should therefore be amended, to-wit:

A. Facts: That the Planning Commission of the Village of Hallam has recommended and the Hallam Village Board hereby finds that it is reasonable and prudent for the Village to pass Lancaster County Nebraska zoning and building regulation responsibility for an area North East of the Village Limits; lying within the one-mile zoning jurisdiction of the village for the reason that an industrial complex is being constructed in this area that will be interconnected with the existing Nebraska Public Power electrical generating station (Sheldon Station); that said electrical generating station is outside of the one-mile zoning jurisdiction of the Village and the Village Board finds and determines that only one public authority should have zoning and regulatory jurisdiction over this interconnected complex, and as part of the proposed complex will be under Lancaster County jurisdiction,

B. Amendment of Zoning Map: Therefore, for the common good, health and safety of all Citizens of the Village of Hallam and Lancaster County, Nebraska, the Village of Hallam hereby amends its Official Zoning Map to exclude the proposed area of the complex that would otherwise be in the extra-territorial zoning jurisdiction of the Village, thereby giving Lancaster County Jurisdiction over the entire complex, all as shown on the Official Zoning Map attached hereby and incorporated herein by reference.

Section 2. That Article 2, Section 5.4 be amended as follows:

JURISDICTION

The Village Board of Trustees shall control and enforce zoning of all land within the Village Limits of Hallam and of the area within one mile thereof that is shown on the Official Zoning Map of the Village.

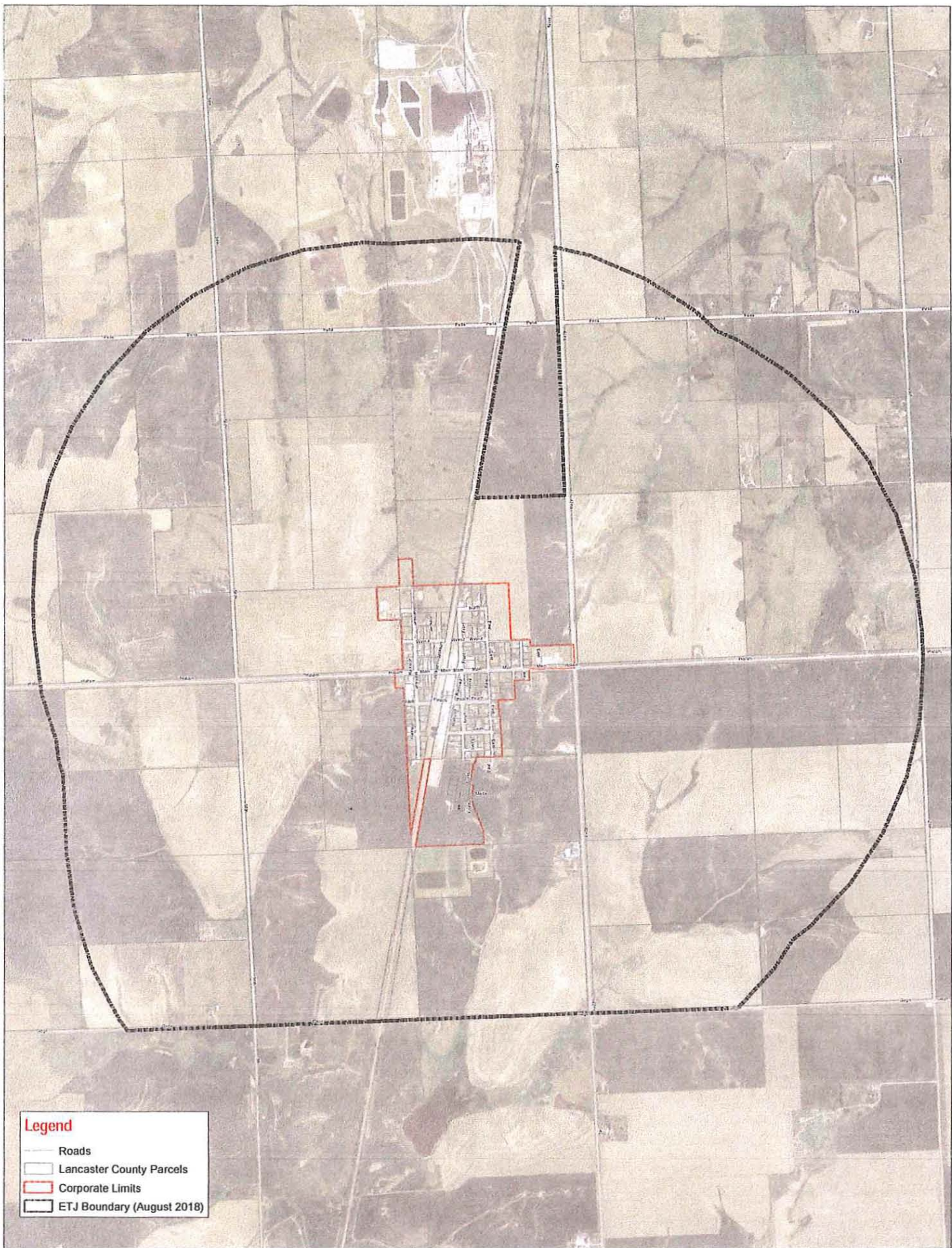
Section 3. That all ordinances and parts of ordinances in conflict herewith are hereby repealed.

Section 4. This ordinance shall take effect and be in full force from and after its passage and publication in pamphlet form as provided by law.

PASSED AND APPROVED this ____ day of September, 2018.

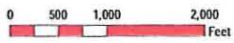
CHAIRPERSON

ATTEST: _____
VILLAGE CLERK
(SEAL)



- Legend**
- Roads
 - Lancaster County Parcels
 - ▭ Corporate Limits
 - ▭ ETJ Boundary (August 2018)

Village of Hallam, NE
 ETJ Update



Prepared by: **JE**
 Date: **10/1/2018**
 Project: **ETJ Update**
 Client: **Village of Hallam, NE**



**VILLAGE OF HALLAM
SPECIAL USE PERMIT APPLICATION
FOR CONSTRUCTION AND OPERATION OF A
CARBON BLACK MANUFACTURING PLANT**

BY

MONOLITH NEBRASKA, LLC

MONOLITH

Located at:

27077 SW 42 Street

Hallam, NE 68368

Prepared by



NAQS

ENVIRONMENTAL EXPERTS

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MAY 10, 2016

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**SECTION I:
SPECIAL USE APPLICATION**

Special Exception Permit No. _____

Receipt No. _____

Date: May 5, 2016

ADDRESS OR LOCATION: 27077 SW 42 Street, Hallam, NE 68368

APPLICATION FOR SPECIAL EXCEPTION PERMIT - HALLAM, NE

Under the provisions of The Zoning Ordinance - Village of Hallam Zoning Regulations the undersigned hereby applies for a Special Exception Permit to: construction and operation of a Carbon Black

Manufacturing plant in the I-2 Heavy Industrial Zoning District pursuant to 9.5 "Heavy Industrial District",

B. 32. "Any similar use that is determined by the Village Board of Trustees after referral to and recommendation by the Planning Commission to be of a heavy industrial nature similar to the above listed uses".

on the property described as Lot(s) 20NE
Block NA Addition: NA

Proposed development of the property is shown on plans attached hereto. Type and proposed use is as follows:
Carbon Black Manufacturing Plant.

NAME: Monolith Nebraska, LLC

ADDRESS: 8101 O Street, Suite 215, Lincoln, NE 68510

TELEPHONE: 402-413-5763 SIGNED: *J. Salinger*

DATE OF VILLAGE BOARD HEARING: _____

Approved: _____ Denied: _____

CONDITIONS: _____

Village Clerk

**SECTION II:
SITE PLAN AND SUPPORTING DOCUMENTS**

1. PROJECT DESCRIPTION

Note: Monolith plans to build in two phases (Olive Creek I and Olive Creek II), with the possibility of a third phase in the distant future (Olive Creek III). Parts 1 through 4 of Section II of this document refer to Olive Creek I, the initial phase. However, at the request of the Village of Hallam, Site Plans and building dimension lists have been submitted for Olive Creek II and Olive Creek III. This documentation can be found in Part 5 of Section II. With regards to operation, Olive Creek II and Olive Creek III will function in nearly the same way as Olive Creek I but at a higher production rate. Therefore, Part 2 of Section II would be an accurate representation of operations at Olive Creek II and Olive Creek III.

Legal Description: S30, T7, R6, 6th Principal Meridian, LOT 20 NE

Monolith Nebraska, LLC. (Monolith) proposes to construct and operate a carbon black manufacturing facility located north-northeast of Hallam, Nebraska (Olive Creek I). The carbon black facility will utilize a novel process using natural gas as feedstock to produce carbon black and tail gas (hydrogen gas (approximately 95.8% hydrogen) and small quantities of other gaseous by-products).

Carbon black is an important industrial chemical used in a wide variety of industrial applications. The majority of carbon black produced worldwide is used as reinforcing filler in the production of tires and industrial rubber. Carbon black is also commonly used as a pigment in plastics and other materials, although to a lesser degree. Recently, carbon black has been utilized to impart conductive or anti-static properties to the plastics it is mixed with. Carbon black will be packaged and sold to rubber and tire manufacturers. Additional customer types will be added as the market expands.

As mentioned above, the process at Monolith will utilize natural gas as a feedstock, which differentiates it from the traditional carbon black manufacturing facilities that use the Oil Furnace Process. The Oil Furnace Process uses a petroleum or coal oil feedstock that is heated and injected continuously into the combustion zone of a natural gas-fired furnace. Consequently, the Oil Furnace Process is capable of producing a relatively high amount of airborne pollutants. Because the process that will be used at Olive Creek I utilizes natural gas as feedstock, there will be no air pollution concerns in contrast to the Oil Furnace Process.

Olive Creek I (OCI) will be capable of producing approximately 10,000 metric tons per year (10 kMT) to 15 kMT of carbon black, which would be removed from the site via rail, tanker trucks, or super sacks. Hydrogen gas produced as a byproduct will be combusted in a Process Gas Combustor to abate any safety hazards presented by the hydrogen gas.

Water will be utilized at the facility in order to pelletize carbon black, for laboratory testing, general maintenance/cleanup, in emergency conditions, and for employee use (approximately 45 employees and 10 contractors). As the project is currently proposed, one or two new wells may be created in order to service the facility's domestic and process/emergency water needs, drawing approximately 7.2 gallons of water per minute (estimate excludes emergency water needs). Domestic wastewater, generated at an approximate rate of 2.6 gallons per minute, will be processed on-site. Laboratory wastewater will be separated from domestic wastewater destined for the facility's on-site wastewater treatment system. Maintenance activity wastewater will be treated on-site in a separate treatment system and be reused within the process, e.g., as pelletizer feed-water, etc.

During the initial stages of operation, process related wastewater will be treated and then discharged off-site. A National Pollutant Discharge Elimination System (NPDES) discharge permit will be obtained prior to the facility's operational phase so that process wastewater can be discharged to Waters of the United States. Monolith's eventual goal will be to recycle process wastewater back into the process, resulting in low or nonexistent discharge rates. The recycle of process wastewater will occur sometime

after OCIs projected start-up in the third quarter of 2017. No final decision has been made regarding the treatment of sanitary wastewater; however, the appropriate permits will be obtained once a final decision has been made.

2. DESCRIPTION OF OPERATIONS

Byproduct tail gas will be split two ways, first to be recycled for process control and cooling. Any tail gas remaining after the recycling process will be sent to the dryer burner and to a Process Gas Combustor (building 21).

The Olive Creek I plant will consist of two front-end reactors (building 19A) that are configured in parallel to share a common back end process. The purpose of the parallel reactor setup is to allow a quick return to production after the reactor that is in production is shut down for routine maintenance associated with the plasma-based production process. The parallel reactor is in a standby “ready to go” state, and can be brought on line by switching the piping connections to the back end process. The two reactors are not configured to run at the same time.

The output from the reactor will be collected, processed, and shipped as described below.

The process is initially started with only nitrogen in the system. The nitrogen is electrically heated until natural gas can be introduced and decomposed into carbon black and tail gas. Once tail gas is being produced, it will replace the nitrogen in the reactor.

In steady state operation, recycled tail gas is first preheated (using waste heat from the process) before being introduced into the reactor system. The tail gas is then electrically heated to generate a very high temperature plasma stream in the reactor. Natural gas is introduced into the hot tail gas stream in the reactor and is thermally decomposed into carbon and hydrogen with some impurities. Another controlled, recycled stream of tail gas is then introduced to cool the carbon black forming reaction for quality control. The carbon black is now formed and subsequent processing is done to cool, filter, pelletize, dry, package, and ship the product.

The tail gas/carbon laden process stream will be at ~ 1500 °C when it leaves the reactor and must be cooled to 250 °C, or less, prior to entering the Main Unit Filter (MUF), designated as building 19. Monolith will utilize a series of heat transfer units and 2 gas-to-gas heat exchangers (for preheating the tail gas and the natural gas) to reduce the product stream temperature from 1500 °C to approximately 250 °C. The heat transfer units are similar in design to a boiler, but their purpose is much different. Typically, boilers use hot air from combustion of a fuel to heat water in tubes and create steam. The heat transfer units used by Monolith will use cold water in tubes to cool the hot air stream from the reactors. Due to the heat exchange rate, the process of cooling the hot air will generate steam. Therefore, we have evaluated this process under appropriate federal air quality standards and determined that the standards do not apply. A portion of the cooling of the hot product stream cooling is also done by a heat exchanger to preheat the tail gas and a heat exchanger to preheat the natural gas. All of the heat transfer units and heat exchangers are in series with the hot product stream, and their design and sequence is engineered to achieve the proper product gas stream temperature at the preheating steps for the tail gas and for the natural gas, and finally to achieve the 250 °C or less inlet temperature to the MUF.

Once the carbon black stream is cooled it is sent to the MUF to separate the carbon black from the tail gas. The tail gas recycles back to the process through a cooler, and the excess is sent to the power plant for electricity generation (only for Olive Creek 2, not for Olive Creek 1). If the power plant is unable to consume the excess tail gas, it will be routed to a Process Gas Combustor. All of the excess tail gas for Olive Creek 1 is sent to the Process Gas Combustor.

The carbon black leaves the MUF through a standpipe, which is isolated by a rotary valve at the top and bottom. Nitrogen is purged underneath each rotary valve and into the standpipe to remove the remaining tail gas from the carbon black. Two filters protect the outgoing nitrogen flow from carrying

carbon dust particles. The carbon black from the MUF is discharged via the rotary valves into a pneumatic conveying line, which transfers the carbon black to the Classifier. The Classifier mills any trace amounts of hard carbon into an acceptable particle size. The carbon black is then further conveyed to the Process Filter (building 19D) by a pneumatic conveying line.

The main production stream of carbon black that is conveyed to the Process Filter contains three other streams of clean carbon black. The first stream is from the dryer Purge Filter (building 19F), the second from off-quality reprocessing, and the third from the packaging and loadout operations Dust Filter (building 19E). These processes will be discussed in more detail below.

From the Process Filter, the main stream of carbon black is sent to the pelletizer, via a hammer mill and surge bin. The hammer mill homogenizes the product to a uniform consistency and the surge bin smooths the flow of product to the carbon black feeder and pelletizer. The pelletizer is a horizontal pin mixer that mixes the carbon black with heated pelletizing water containing a binding agent. The pelletizing water is heated using waste heat from the process. The pellets contain 40% to 55% moisture; therefore, the next step is drying.

The dryer is a rotating, horizontal cylinder enclosed in an insulated housing where combustion gases from an attached burner flow through the annulus between the drum and housing to indirectly dry the carbon black pellets in the drum. The combustion gases are produced by a tail gas fired burner. The burner will be fired primarily on the tail gas (~ 95% hydrogen) but will also be capable of combusting natural gas during times when tail gas is not available during start up and shutdown. The water that is removed from the pellets exits the downstream end of the dryer drum in the form of a vapor and travels to the Purge Filter. The Purge Filter filters the carbon particles from the water vapor and the particles are then pneumatically conveyed to the Process Filter.

The production stream of dry carbon black pellets from the dryer drops into a bucket elevator (building 19I) that conveys the carbon black to the top of the silos. The product passes through a rotary screener and magnetic separator to remove impurities (carbon black cake and any tramp metallic materials). The product then drops into an off quality silo (building 19G), if necessary, or onto a screw conveyor that feeds the product silos (building 19H). The bucket elevator and screw conveyor are controlled by the Dust Filter. The materials collected by the Dust Filter are either pneumatically transferred to the Process Filter or placed in Intermediate Bulk Containers (IBC) bags.

From the silo, the product can be loaded in railroad hopper cars, hopper trucks, or packaged into IBC bags. The IBC bags are placed on pallets for truck shipments. The emissions from these operations are controlled by the dust collector.

In addition to the process equipment described above, Monolith will be installing a Housekeeping Vacuum System (building 39). The Housekeeping Vacuum System collects waste carbon black from maintenance operations (building 5), warehouse packaging (building 4), loading, and shipping equipment. The Housekeeping Vacuum Filter utilizes industry standard membrane technology filter bags. This is similar to the various process filters except that the Housekeeping Vacuum air/black mixture is at ambient temperature. The filter is emptied into IBC's and taken to a licensed sanitary land fill.

The MUF, Process Filter, Purge Filter, Dust Filter, Nitrogen Purged Standpipe, and House Vacuum Filter will all be fitted with particulate detectors in their stacks.

3. SUMMARY OF PERMITS REQUIRED

Monolith is in the process of obtaining several different permits from various regulatory agencies. Please refer to the table below for a summary of those permits. Any additional permitting needs that may arise will be acted upon to ensure that all proper permits are obtained.

Permit	Agency	Status
Air Quality Construction Permit	Lincoln-Lancaster County Health Department – Air Quality Division	Monolith plans to submit an Air Quality Construction Permit application in the latter half of May.
Access Point/Driveway Permit	Lancaster County Engineer	Permit issued and address obtained. Permit is included as Appendix B
NPDES Construction Stormwater General Permit	Nebraska Department of Environmental Quality	Monolith is in the process of obtaining an NPDES Construction Stormwater General Permit and will be obtained before land grading commences.
NPDES Industrial Stormwater General Permit	Nebraska Department of Environmental Quality	Monolith will obtain an Industrial Stormwater General Permit prior to the start-up of operations, as required.
NPDES Discharge Permit	Nebraska Department of Environmental Quality	Monolith will obtain a discharge permit prior to the start-up of operations, as required.
Class V UIC Permit	Nebraska Department of Environmental Quality	Monolith will obtain a Class V UIC Permit if a septic system is determined to be cost-effective.
Permit to Operate a Public Water System	Nebraska Department of Health and Human Services	Monolith is in the process of gathering the data required to apply for a Permit to Operate a Public Water System. This permit is needed due to the amount of employees that will be on-site.
Well Permit	Lower Platte South Natural Resources District	Monolith will obtain a Well Permit if wells installed are capable of pumping more than 50 gallons per minute.

4. VILLAGE OF HALLAM INDUSTRIAL DISTRICT REGULATIONS PERFORMANCE STANDARD DISCUSSION

9 INDUSTRIAL DISTRICT REGULATIONS

9.1 Scope

The following regulation shall apply to the Industrial Districts of the Village and are in addition to the requirements set forth in Article 4, General Provisions, and other applicable requirements of this Ordinance.

Response: Monolith will comply with all applicable regulations described in Articles 4 and 9 that apply to its operations.

9.2 General Requirements for Industrial Districts

A. *Schedule of Lot, Yard, and Bulk Regulations.* The regulations of Minimum Lot Dimensions, Minimum Yard Requirements, Maximum Height, and Maximum Coverage are contained in the Schedule of Lot, Yard, and Bulk Regulations which is part of this Ordinance and adopted by reference.

Response: Monolith consulted the Schedule of Lot Yard, and Bulk Regulations contained in the Village of Hallam Ordinances when designing the proposed facility.

B. *Signs.* Signs in industrial Districts shall be classified and permitted in accordance with the regulations contained in Article 4.

Response: General statement noted.

C. *Off-Street Parking and Loading.* Minimum off-street parking and loading spaces shall be required of each use in an Industrial District in accordance with the regulations in Article 4.

Response: Monolith consulted Article 4 of the Village of Hallam Ordinances when designing the proposed facility and it's parking and loading facilities.

D. *Site Plan.* For every individual structure and use erected, reconstructed, altered, or enlarged after the effective date of this Ordinance, a site plan shall be filled with the Planning Commission. No building permit shall be issued until said site plan is approved by the Planning Commission. The Planning Commission may recommend and the Village Board of Trustees may require additional standards and requirements as are necessary for the maximum protection of the environment and the health and safety of the citizens of the Village.

Response: Due to the large amount of structures proposed to be built, Monolith has discussed submitting a site plan for its entire proposed facility with the Village, rather than each individual building. The Village has indicated this would be acceptable.

9.3 Performance Standards

A. Any industrial use established after the effective date of this Ordinance shall be so operated as to meet the performance standards established hereinafter. Any use already established on the effective date of this Ordinance shall be permitted to continue provided that no alteration, expansion, enlargement, or modification shall be permitted which does not meet the herein performance standards or which effectively increases the degree of nonconformity to which existed prior to any

alteration, expansion, enlargement, or modification, as determined by the Village and the Lincoln City-Lancaster County Health Department.

Response: Monolith will comply with all applicable performance standards stipulated by the Village of Hallam Ordinances.

B. Points of measurement to determine compliance with the performance standards shall be the property line or lot line nearest the source which is the subject of measurement.

Response: General statement noted.

C. Physical Appearances. All operations shall be carried on within an enclosed building except that new materials or equipment in operable condition may be stored in the open. Normal daily wastes of an inorganic nature may be stored in containers not in a building when such containers are not readily visible from a street. The provisions of this paragraph shall not be construed to prohibit the display of merchandise or vehicles for sale or the storage of vehicles, boats, farm machinery, trailers, mobile homes, or similar equipment when in operable condition.

Response: All operations are carried on within enclosed structures such that process components and flows are not exposed to the atmosphere.

D. Fire Hazard. No operation shall involve the use of highly flammable gasses, acid, liquids, grinding processes, or other inherent fire hazards. This provision shall not be construed to prohibit the use of normal heating fuels, motor fuels, and welding gasses when handled in accordance with other regulations of the Village.

Response: Monolith's proposed plant would produce a byproduct tail gas composed of approximately 95.8% Hydrogen. A portion of this tail gas would be reused within the carbon black production process. Any excess tail gas that cannot be reused in the process would be destroyed in a Process Gas Combustor. No permanent tail gas storage will be present on-site.

E. No operation shall be carried on which involves noise to the receiving land-use in excess of the following table:

<u>Receiving Land-Use</u>	<u>1 Hour Energy (Leq) Average</u>
Residential	55
Commercial	65
Industrial	75

Note: Leq in the energy average, not the arithmetic average.

Response: All equipment has been designed to meet the applicable noise limits described above.

F. Sewage and Liquid Wastes. No operation shall be carried on which involves the discharge into a sewer, water course, or the ground, liquid waste of any radioactive or poisonous nature or chemical waste which are detrimental to normal sewage plant operation or corrosive and damaging to sewer pipes and installations. The final approval and the permit issued by the Lincoln City-Lancaster County Health Department indicating that the proposed use meets the environmental standards will be required before a building permit is issued.

Response: Monolith will obtain all proper waste permits from the LLCHD and/or NDEQ.

G. Air Contaminants. The final approval and the permit issued by the Lincoln City-Lancaster County Health Department indicating that the proposed use meets the environmental standards and County Resolution 3155, as amended, will be required before a building permit is issued.

Response: Monolith will obtain an air quality construction permit from the LLCHD. The application will be submitted May, 2016.

H. Odor. The emission of odors shall conform to the regulations of County Resolution 3155, as amended.

Response: Monolith has determined that the facility as proposed will not produce objectionable odors in any significant quantity.

I. Gasses. The emission of gasses shall conform to the regulations of County Resolution 3155, as amended.

Response: Monolith has determined that no gasses, aside from those permitted by an air quality construction permit, will be emitted by the facility as proposed.

J. Vibration. All machines, including punch presses and stamping machines shall be so mounted as to minimize vibration and in no case shall such vibration exceed 0.05 inches/second Rms vertical velocity and the regulations of County Resolution 3155, as amended.

Response: All equipment has been designed to meet the applicable vibration limits described above.

K. Glare and Heat. All glare, such as welding arcs and open furnaces shall be shielded so that they shall not be visible from the zoning lot line. No heat from furnaces or processing equipment shall be sensed at the zoning lot line to the extent of raising the temperature of air or materials more than 5 degrees Fahrenheit.

Response: All equipment has been designed to meet the applicable glare and heat limits described above.

9.4 General Industrial District

A. Purpose. The I-2 Industrial District is intended to provide an environment suitable for industrial activities that do not create appreciable nuisances, hazards, or threats to the natural environment or surrounding development.

This district is intended to provide for a variety of industrial operations which are capable of meeting modern performance and environmental standards.

Response: Monolith has determined that its operations are not consistent with the General Industrial District. Therefore, Monolith will apply for I-2 Heavy Industrial District zoning on the property.

9.5 Heavy Industrial District

A. Purpose. The I-2 Heavy Industrial District is intended to provide the widest range of industrial operations for those industries which conform to reasonable environmental specifications for pollution and nuisance free operations, and meet the minimum requirements specified by the Environmental Control Agency and other state agencies concerned with health and environment.

Response: Monolith will take every reasonable step required to ensure its operations are pollution and nuisance free, and has already begun complying with various state and federal permitting processes related to the environment and health.

B. Permitted Special Use. Any special use permitted in the I-1 General Industrial District. Uses and structures which are customarily accessory and incidental to any permitted use shall be permitted in the district provided they are clearly subordinate to the principal use.

1. Any use permitted in the I-1 General Industrial District
2. Stone, rock, gravel and sand stationary plant
3. Fertilizer storage or processing
4. Ammonia, bleaching powder or chlorine manufacture
5. Asphalt manufacturing or refining
6. Cement, lime, gypsum, or plaster-of-paris manufacture
7. Coke ovens
8. Fat rendering
9. Fireworks or explosives manufacture
10. Glue, size, or gelatin manufacture
11. Gunpowder manufacture or storage
12. Incinerator or reduction of garbage, dead animal, offal, or refuse
13. Iron, steel, brass, or copper foundries
14. Smelters
15. Sulphuric, nitric, or hydrochloric acid manufacture
16. Tanning, curing, or storage of rawhides or skins
17. Boiler works
18. Burlap manufacture
19. Coal and coke yards
20. Coal tar products manufacture
21. Creosote treatment or manufacture
22. Heat product manufacture
23. Manufacture, fabrication, or treatment of sheet or shaped metal products including such industries as construction materials and machinery, heating, ventilating, and plumbing equipment
24. Fabrication, manufacture and treatment of lumber or wood products
25. Abattoirs
26. Alfalfa dehydrating plants
27. Oiled, rubber, or leather goods manufacture
28. Packing houses
29. Vinegar manufacture
30. Yeast plants
31. Junk, salvage, auto wrecking operations
32. Any similar use that is determined by the village board of trustees after referral to and recommendation by the Planning Commission to be of a heavy industrial nature similar to the above listed uses

Response: Monolith has determined that their operations fall under number 32 above because operation of a Carbon Black Manufacturing plant will be similar to some of the above listed operations.

C. Additional Standards. In addition to the performance standards established in Section 9.3, the following requirements shall apply.

Response: Please see below for a discussion of the performance standards described in Section 9.3 of the Village of Hallam zoning ordinances.

1. **Appearance.** Junk, salvage, auto wrecking and similar operations shall be shielded from view from streets and from adjacent properties in another zone by means of a solid wall or fence (including solid entrance and exit gates) not less than six (6) feet in height.

Response: Not applicable.

2. **Fire Hazard.** All flammable substances involved in any activity established in this zone shall be handled in conformance with the standards of the National Board of Fire Underwriters and any additional regulations of the Village.

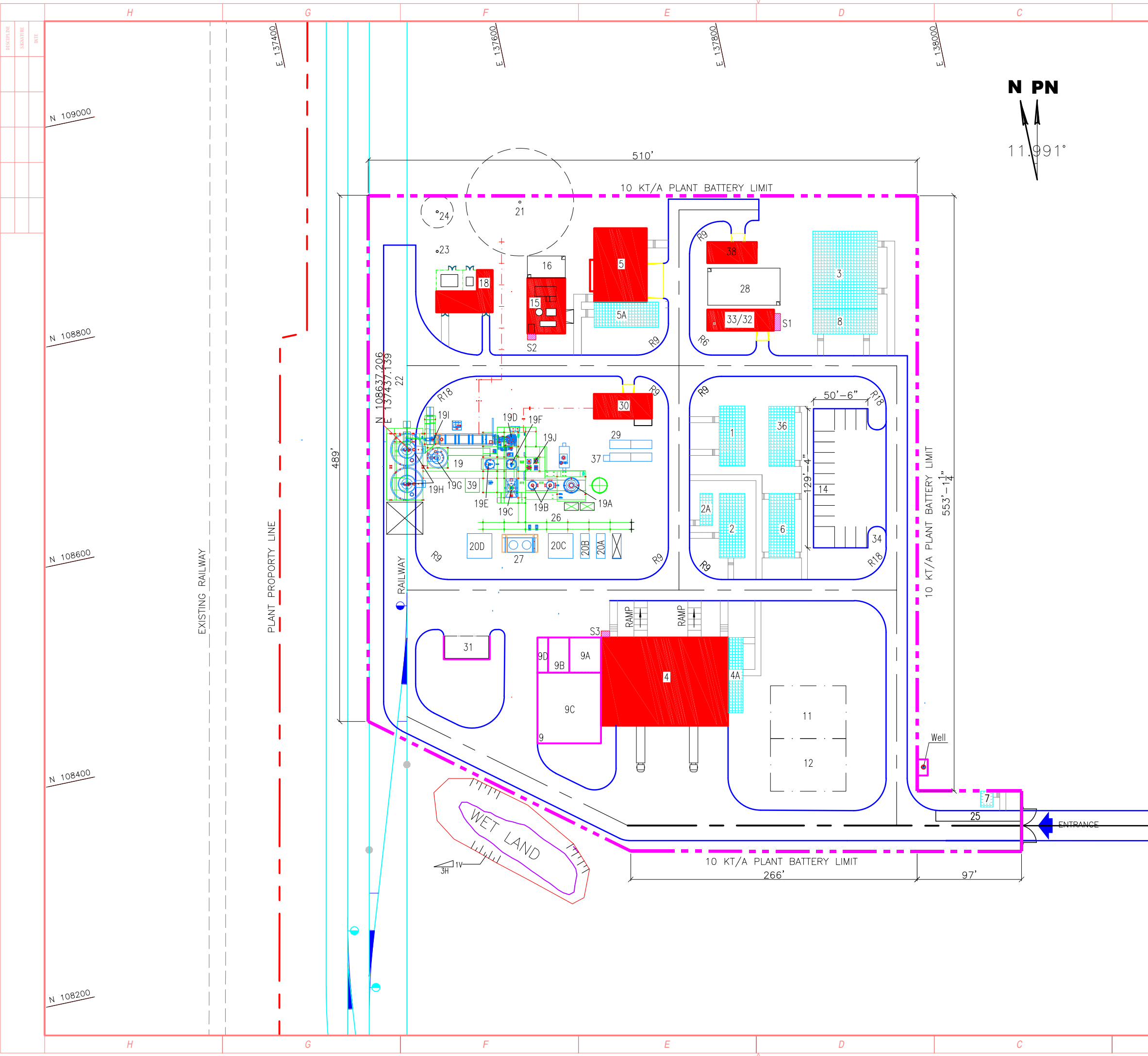
Response: Monolith will comply with all applicable NFPA standards that apply to its operations. The design and specifications will be sent to the State Fire Marshal's Office for review and approval. Additionally, Monolith will comply with all applicable Village of Hallam regulations that apply to its operations.

5. SITE PLAN

This section contains the Site Plan for Monolith's proposed facilities: Olive Creek I, Olive Creek II, and Olive Creek III. The Site Plan consists of the following:

1. Olive Creek I Detail Site Plan
2. Olive Creek I Overview Site Plan
3. Olive Creek II Overview Site Plan
4. Olive Creek III Overview Site Plan
5. Olive Creek I Building Dimension List
6. Olive Creek II & III Building Dimension List

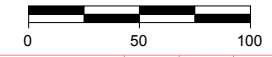
5.1 OLIVE CREEK I DETAIL SITE PLAN



- 1 - Central Control Room with Office
- 2 - Laboratory with Office
- 2A- Secondary Laboratory
- 3 - Administrative Office
- 4 - Warehouse
- 4A- Warehouse Office
- 5 - Maintenance and Stores
- 5A - Maintenance Office
- 6 - Bath House
- 7 - Security Guard House
- 8 - Central Canteen
- 9 - Storage
 - 9A - Pallet Storage Area
 - 9B - Chemicals Storage Area
 - 9C - Off-Quality IBCs Storage Area
 - 9D - Hazardous and Non-Hazardous Waste Area
- 11 - Contractors' Laydown Area
- 12 - Laydown Area
- 14 - Parking Lot
- 15 - Waste Water Treatment Station
- 16 - Waste Water Pond
- 18 - Electrical Station
- 19 - ISBL - Carbon Black Unit
 - 19A - Reactor
 - 19B - Product Cooler
 - 19C - MUF
 - 19D - Process Filter
 - 19E - Dust Filter
 - 19F - Purge Filter
 - 19G - Off Quality Silo
 - 19H - Quality Silo (2)
 - 19I - Bucket Elevator
 - 19J - Hydrogen Preheater
- 20 - OSBL - Utility Systems
 - 20A - Compressor
 - 20B - Argon
 - 20C - Chiller
 - 20D - Nitrogen
- 21 - Combustor
- 22 - Rail Spur
- 23 - Power Supply Drop Point
- 24 - Natural Gas Battery Limits Tie-in Point
- 25 - Weight Scale
- 26 - Pipe rack
- 27 - Fin-Fan Cooler
- 28 - Firewater Tank
- 29 - Torch Power Supply
- 30 - MCC (Motor Control Center)
- 31 - H2 Tube Trailer Area
- 32 - Demin Water
- 33 - Pump House
- 34 - Green Space
- 35 - Rail Scale (Future)
- 36 - Project Management Team Office
- 37 - Magnetic Coil Power Supply
- 38 - R/O Water System
- 39 - Housekeeping Vacuum System
- 40 - Pipe Rack to Combustor

Note:
1 - All Dimensions And Elevations Are In Feet.

- Legend:
- Battery Limit
 - Shelter
 - Permanent Building
 - Leased Trailer
 - + Process Equipment
 - Tornado Shelter
 - Walkway



A	ISSUED FOR INFORMATION	ZHOU FG	ZHOU FG	XU SH	28-MAR-16
REV	DESCRIPTION	DRW'G'D	PRC'D	CHK'D	APP'D

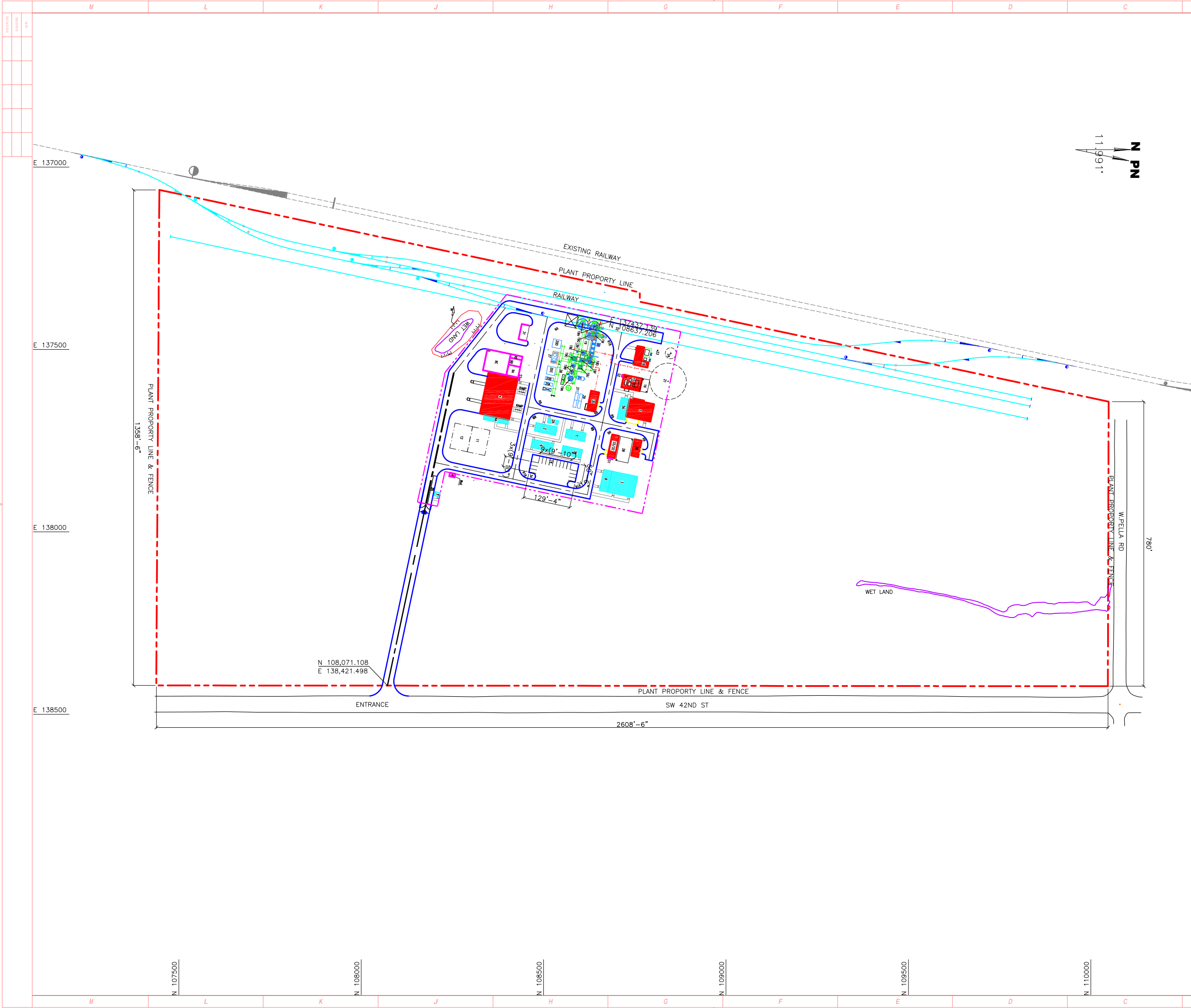
THIS DRAWING IS ONLY VALID FOR THE CUSTOMER PROJECT. ANY DISCLOSURE OR COPY OF THIS DRAWING IS NOT PERMITTED WITHOUT THE WRITTEN APPROVAL OF BEIJING WORLEYPARSONS OR THE CUSTOMER OF THE PROJECT.

MONOLITH NEBRASKA, LLC.

WorleyParsons BEIJING WORLEYPARSONS ENGINEERING CO., LTD.

PROJECT NAME MONOLITH NEBRASKA CB&H PLANT OLIVE CREEK - I (10KT)	DRAWING NAME OLIVE CREEK I DETAIL SITE PLAN					
GENERAL						
PROJ. NO. CC1611D1077	PHASE DED	DISCIPLINE GP	SCALE 1:500	DRAWING NO. 16077-000-GP-DPP-0001	SHEET NO. 1/1	REV. A

5.2 OLIVE CREEK I OVERVIEW SITE PLAN



- 1 - Central Control Room with Office
- 2 - Laboratory with Office
- 2A- Secondary Laboratory
- 3 - Administrative Office
- 4 - Warehouse
- 4A- Warehouse Office
- 5 - Maintenance and Stores
- 5A - Maintenance Office
- 6 - Bath House
- 7 - Security Guard House
- 8 - Central Canteen
- 9 - Storage
 - 9A - Pallet Storage Area
 - 9B - Chemicals Storage Area
 - 9C - Off-Quality IBCs Storage Area
 - 9D - Hazardous and Non-Hazardous Waste Area
- 11 - Contractors' Laydown Area
- 12 - Laydown Area
- 14 - Parking Lot
- 15 - Waste Water Treatment Station
- 16 - Waste Water Pond
- 18 - Electrical Station
- 19 - ISBL - Carbon Black Unit
 - 19A - Reactor
 - 19B - Product Cooler
 - 19C - MUF
 - 19D - Process Filter
 - 19E - Dust Filter
 - 19F - Purge Filter
 - 19G - Off Quality Silo
 - 19H - Quality Silo (2)
 - 19I - Bucket Elevator
 - 19J - Hydrogen Preheater
- 20 - OSBL - Utility Systems
 - 20A - Compressor
 - 20B - Argon
 - 20C - Chiller
 - 20D - Nitrogen
- 21 - Combustor
- 22 - Rail Spur
- 23 - Power Supply Drop Point
- 24 - Natural Gas Battery Limits Tie-in Point
- 25 - Weight Scale
- 26 - Pipe rack
- 27 - Fin-Fan Cooler
- 28 - Firewater Tank
- 29 - Torch Power Supply
- 30 - MCC (Motor Control Center)
- 31 - H2 Tube Trailer Area
- 32 - Demin Water
- 33 - Pump House
- 34 - Green Space
- 35 - Rail Scale (Future)
- 36 - Project Management Team Office
- 37 - Magnetic Coil Power Supply
- 38 - R/O Water System
- 39 - Housekeeping Vacuum System
- 40 - Pipe Rack to Combustor
- 018 - Main Electrical Station
- 026 - Overall Piperick

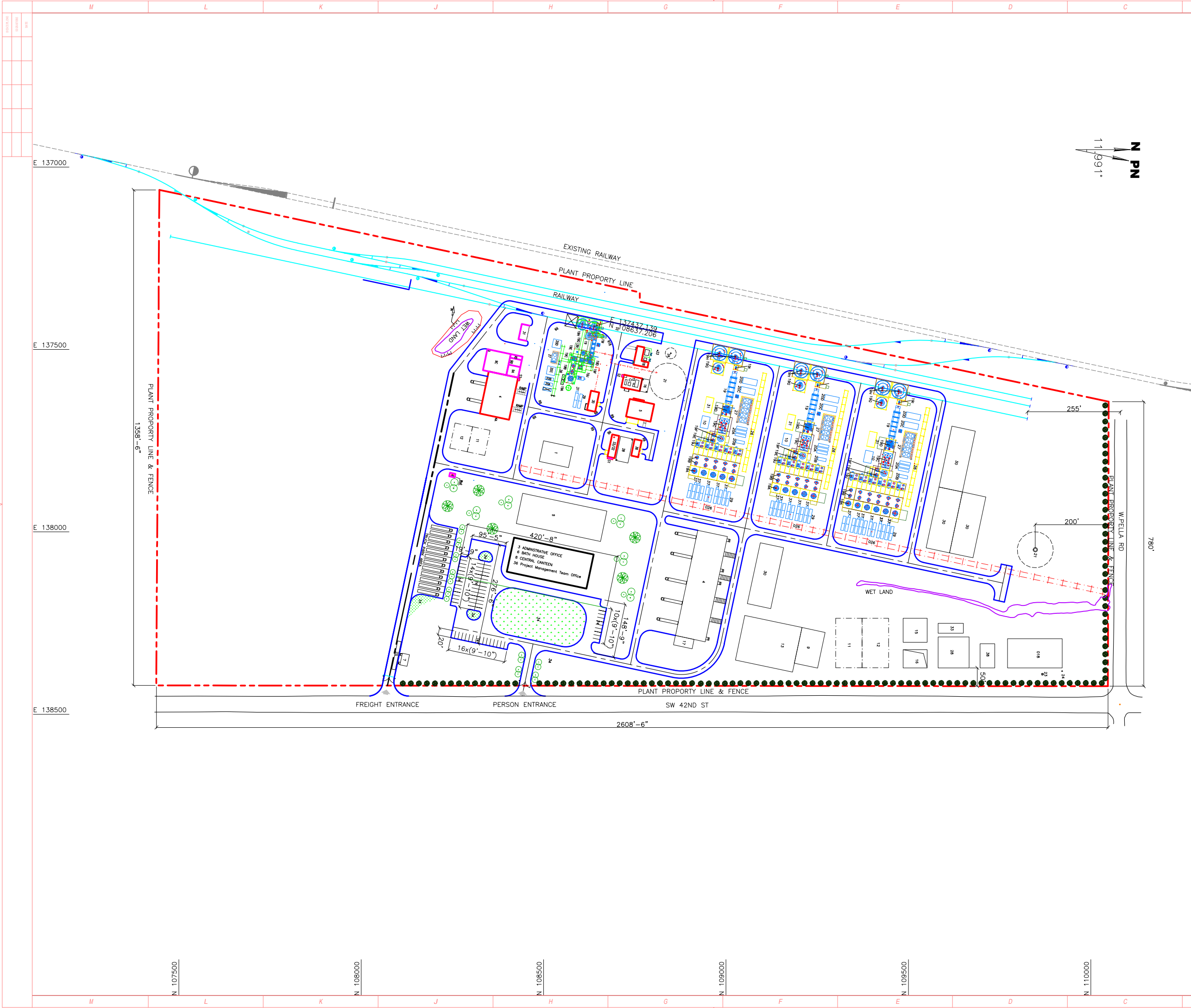
Note:
1 - All Dimintions And Elevations Are In Feet.

Legend:

S/N	LEGEND	NAME	S/N	LEGEND	NAME
1		Pipe Rack	5		Gravel
2		New Road	6		Walkway
3		Existing Road	7		Arbor & Bush
4		Grass	8		Trees

A		ISSUED FOR INFORMATION		ZHOU PG	ZHOU PG	XU SH	28-MAR-14
REV		DESCRIPTION	DATE	BY	CHK'D	APP'D	DATE
MONSIEH NEBRASKA, LLC. BEIJING WOLFEYPARSONS ENGINEERING CO., LTD.							
PROJECT NAME MONSIEH NEBRASKA CHEM PLANT OLIVE CREEK - I (18K7)				SHEET NO. OLIVE CREEK I OVERVIEW SITE PLAN			
SHEET NO. GENERAL		SCALE 1:1000		DATE 1607-000-EP-001		SHEET TOTAL 1/1	
CC16101077	DES	GP	1:1000	1607-000-EP-001	1/1		

5.3 OLIVE CREEK II OVERVIEW SITE PLAN



- 1 - Central Control Room with Office
- 2 - Laboratory with Office
- 2A- Secondary Laboratory
- 3 - Administrative Office
- 4 - Warehouse
- 4A- Warehouse Office
- 5 - Maintenance and Stores
- 5A - Maintenance Office
- 6 - Bath House
- 7 - Security Guard House
- 8 - Central Canteen
- 9 - Storage
 - 9A - Pallet Storage Area
 - 9B - Chemicals Storage Area
 - 9C - Off-Quality IBCs Storage Area
 - 9D - Hazardous and Non-Hazardous Waste Area
- 11 - Contractors' Laydown Area
- 12 - Laydown Area
- 14 - Parking Lot
- 15 - Waste Water Treatment Station
- 16 - Waste Water Pond
- 18 - Electrical Station
- 19 - ISBL - Carbon Black Unit
 - 19A - Reactor
 - 19B - Product Cooler
 - 19C - MUF
 - 19D - Process Filter
 - 19E - Dust Filter
 - 19F - Purge Filter
 - 19G - Off Quality Silo
 - 19H - Quality Silo (2)
 - 19I - Bucket Elevator
 - 19J - Hydrogen Preheater
- 20 - OSBL - Utility Systems
 - 20A - Compressor
 - 20B - Argon
 - 20C - Chiller
 - 20D - Nitrogen
- 21 - Combustor
- 22 - Rail Spur
- 23 - Power Supply Drop Point
- 24 - Natural Gas Battery Limits Tie-in Point
- 25 - Weight Scale
- 26 - Pipe rack
- 27 - Fin-Fan Cooler
- 28 - Firewater Tank
- 29 - Torch Power Supply
- 30 - MCC (Motor Control Center)
- 31 - H2 Tube Trailer Area
- 32 - Demin Water
- 33 - Pump House
- 34 - Green Space
- 35 - Rail Scale (Future)
- 36 - Project Management Team Office
- 37 - Magnetic Coil Power Supply
- 38 - R/O Water System
- 39 - Housekeeping Vacuum System
- 40 - Pipe Rack to Combustor
- 018 - Main Electrical Station
- 026 - Overall Piperick

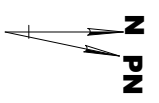
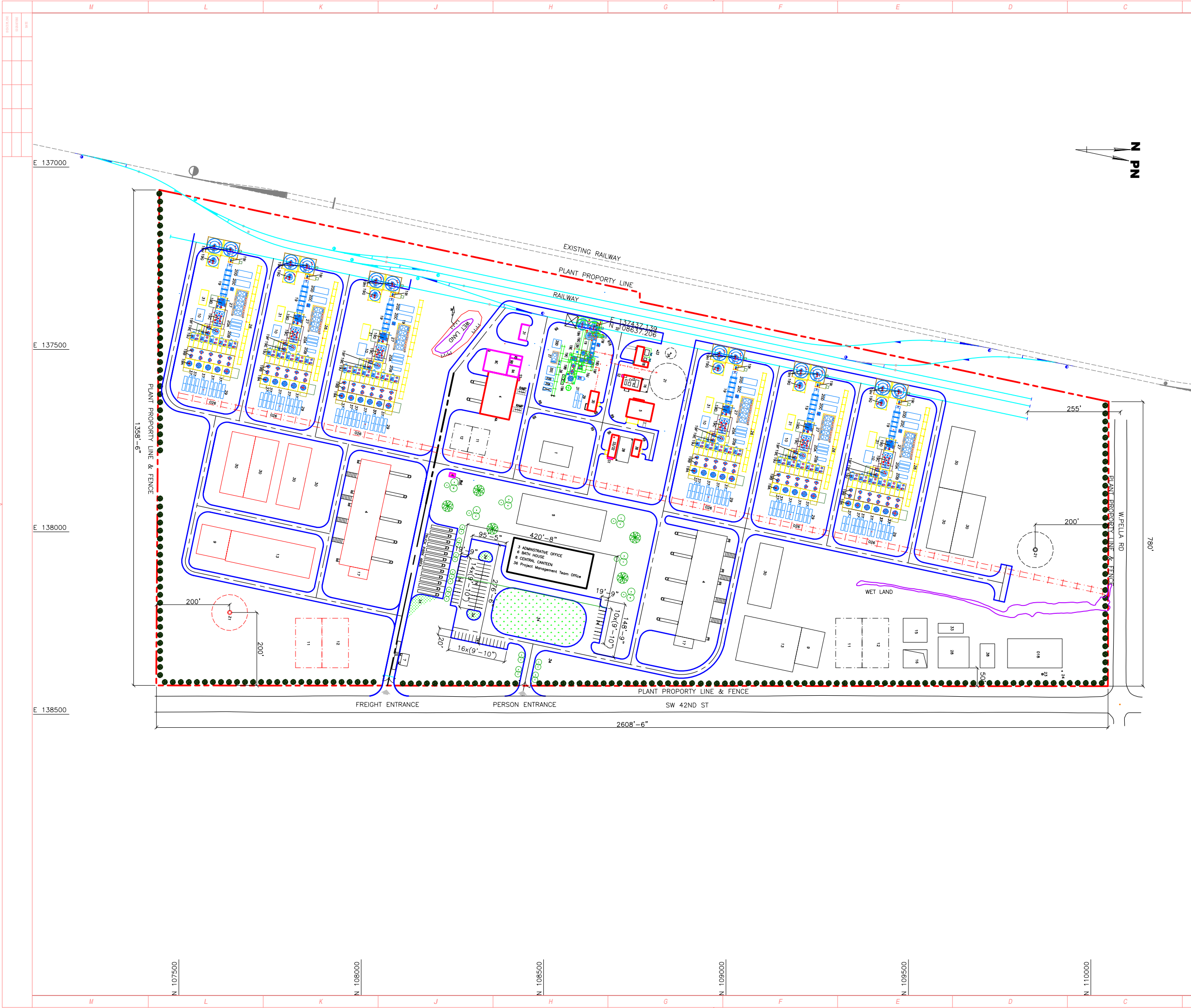
Note:
1 - All Dimentions And Elevations Are In Feet.

Legend:

S/N	LEGEND	NAME	S/N	LEGEND	NAME
1		Pipe Rack	5		Gravel
2		New Road	6		Walkway
3		Existing Road	7		Arbor & Bush
4		Grass	8		Trees

A	ISSUED FOR INFORMATION	ZHOU PG	ZHOU PG	XU SH	28-MAR-14
B	REVISION	DATE	BY	REASON	
MONOLITH NEBRASKA, LLC. BEIJING WOLFEY-PARSONS ENGINEERING CO., LTD.					
PROJECT NAME: MONOLITH NEBRASKA 220MT CMH PLANT ±25% COST ESTIMATE			OLIVE CREEK II OVERVIEW SITE PLAN		
GENERAL					
CC1610107A	ENG. SERVICE	GP	1:1000	160714-000-GP-DPP-0001	1/1 A

5.4 OLIVE CREEK III OVERVIEW SITE PLAN



- 1 - Central Control Room with Office
- 2 - Laboratory with Office
- 2A- Secondary Laboratory
- 3 - Administrative Office
- 4 - Warehouse
- 4A- Warehouse Office
- 5 - Maintenance and Stores
- 5A - Maintenance Office
- 6 - Bath House
- 7 - Security Guard House
- 8 - Central Canteen
- 9 - Storage
 - 9A - Pallet Storage Area
 - 9B - Chemicals Storage Area
 - 9C - Off-Quality IBCs Storage Area
 - 9D - Hazardous and Non-Hazardous Waste Area
- 11 - Contractors' Laydown Area
- 12 - Laydown Area (Process Equipment)
- 14 - Parking Lot
- 15 - Waste Water Treatment Station
- 16 - Waste Water Pond
- 18 - Electrical Station
- 19 - ISBL - Carbon Black Unit
 - 19A - Reactor
 - 19B - Product Cooler
 - 19C - MUF
 - 19D - Process Filter
 - 19E - Dust filter
 - 19F - Purge Filter
 - 19G - Off Quality Silo
 - 19H - Quality Silo (2)
 - 19I - Bucket Elevator
 - 19J - Hydrogen Preheater
- 20 - OSBL - Utility Systems
 - 20A - Compressor
 - 20B - Argon
 - 20C - Chiller
 - 20D - Nitrogen
- 21 - Combustor
- 22 - Rail Spur
- 23 - Power Supply Drop Point
- 24 - Natural Gas Battery Limits Tie-in Point
- 25 - Weight Scale (100 Ton Capacity)
- 26 - Pipe rack
- 27 - Fin-Fan Cooler
- 28 - Firewater Tank
- 29 - Torch Power Supply
- 30 - MCC (Motor Control Center)
- 31 - H2 Tube Trailer Area
- 32 - Demin Water
- 33 - Pumphouse
- 34 - Green Space
- 35 - Rail Scale (Future)
- 36 - Project Management Team Office
- 37 - Magnetic Coil Power Supply
- 38 - R/O Water System
- 39 - Housekeeping Vacuum System
- 40 - Pipe Rack to Combustor
- 018 - Main Electrical Station
- 026 - Overall Pipherick

Note:
1 - All Dimentions And Elevations Are In Feet.

Legend:

S/N	LEGEND	NAME	S/N	LEGEND	NAME
1		Pipe Rack	5		Gravel
2		New Road	6		Walkway
3		Existing Road	7		Arbor & Bush
4		Grass	8		Trees

A		ISSUED FOR INFORMATION		ZHOU PG	ZHOU PG	XU SH	28-MAR-14
B		CHECKED		SHI P	YANG D	SHI P	SHI P
MONOLITH NEBRASKA, LLC.				MONOLITH NEBRASKA, LLC.			
BEIJING WOLFEPARSONS ENGINEERING CO., LTD.				BEIJING WOLFEPARSONS ENGINEERING CO., LTD.			
PROJECT NAME		MONOLITH NEBRASKA 450T CHH PLANT		PROJECT NO.		15077B-000-EP-DPP-0001	
GENERAL		PRELIMINARY LAYOUT		SHEET NO.		1/1	
CC16101077B		ENG. SERVICE		GP		1:1000	

5.5 OLIVE CREEK I BUILDING DIMENSION LIST

**MONOLITH NEBRASKA CB&H PLANT
OLIVE CREEK- I (10KT) BUILDING/AREA LIST**

DOC. NO. 16077-000-ST-LST-0001 REV. C DATE: May.06, 2016

S/N	Building/Area Name	Temporary or Permanent	Buildings' Area(m ²)	Outside Dimension(m)	Building/Area Type	Foundation Type	Remark
1	Central Control Room with Office	T	134	7.3X18.3X4(H)	Leased Trailer		
2	Laboratory with Office	T	134	7.3X18.3X4(H)	Leased Trailer		
2A	Secondary Laboratory	T	34	3.7X9.1X4(H)	Leased Trailer		
3	Administrative Office	T	401	18.3X21.9X4(H)	Leased Trailer		
4	Warehouse	P	900	25X36X8(H)	Prefabricated Steel, Enclosed Building	RC Strip Foundation	
4A	Warehouse Office	T	92	4.3X21.3X4(H)	Leased Trailer		
5	Maintenance and Stores	P	334	15.4X21.7X4.5(H)	Prefabricated Steel, Enclosed Building	RC Isolated Foundation	
5A	Maintenance Office	T	134	7.3X18.3X4(H)	Leased Trailer		
6	Bath House	T	134	7.3X18.3X4(H)	Leased Trailer		
7	Security Guard House	T	17	3.7X4.6X4(H)	Leased Trailer		
8	Central Canteen	T	134	7.3X18.3X4(H)	Leased Trailer		
9	Storage						
	9A. Pallet Storage Area	P	91	9.1x10x4.5(H)	Prefabricated Steel, Open Structure	RC Isolated Foundation	
	9B. Chemicals Storage Area	P	61	6.1x10x4.5(H)	Prefabricated Steel, Open Structure	RC Isolated Foundation	
	9C. Off-Quality IBCs Storage Area	P	368	18.3X20.1X4.5(H)	Prefabricated Steel, Open Structure	RC Isolated Foundation	
	9D. Hazardous and Non-Hazardous Waste Area	P	30	3X10X4.5(H)	Prefabricated Steel, Open Structure	RC Isolated Foundation	
11	Contractors' Laydown Area	T	317	14.9X21.3	Gravel Covered Area		
12	Laydown Area	T	317	14.9X21.3	Gravel Covered Area		
14	Parking Lot	T	590	15X39.3	Gravel Covered Area		
15	Waste Water Treatment Station	P	150	10X15X5.3(H)	Prefabricated Steel, Enclosed Building	RC Isolated Foundation	
16	Waste Water Pond	P	85	6.7X12.7X4.3 (Depth)	RC Underground Water Tank	RC MAT Foundation	
18	Electrical Station	P	192	12X16X6(H)	Prefabricated Steel, Enclosed Building	RC Isolated Foundation	
19	ISBL-Carbon Black Unit	P	N/A	26X56X39(H)	Modular Steel Structure, Open Structure	RC Pile Foundation	
	19A. Reactor	P	476	8.5X8X30(H)	Steel Structure	RC Pile Foundation	
	19B. Product Cooler	P	180	9X8X30(H)	Steel Structure	RC Pile Foundation	
	19C. MUF	P	600	8X7.5X39(H)	Steel Structure	RC Pile Foundation	
	19D. Process Filter	P	680	8.5X8X39(H)	Steel Structure	RC Pile Foundation	
	19E. Dust Filter	P	120	5X6X22(H)	Steel Structure	RC Pile Foundation	
	19F. Purge Filter	P	96	4X6X22(H)	Steel Structure	RC Pile Foundation	

**MONOLITH NEBRASKA CB&H PLANT
OLIVE CREEK- I (10KT) BUILDING/AREA LIST**

DOC. NO. 16077-000-ST-LST-0001 REV. C DATE: May.06, 2016

S/N	Building/Area Name	Temporary or Permanent	Buildings' Area(m ²)	Outside Dimension(m)	Building/Area Type	Foundation Type	Remark
	19G. Off Quality Silo	P	65	5.7X5.7X11(H)	Steel Structure	RC Pile Foundation	
	19H. Quality Silo (2)	P	684	18.8X9.1X36(H)	Steel Structure	RC Pile Foundation	
	19I. Bucket Elevator	P	90	3X3X43(H)	Steel Structure	RC Pile Foundation	
	19J. Hydrogen Preheater	P	280	8X7X16(H)	Steel Structure	RC Pile Foundation	
20	OSBL- Utility Systems						
	20A. Compressor	P	17.5	2.5X7	RC Foundation	RC MAT Foundation	
	20B. Argon	P	17.5	2.5X7	RC Foundation	RC MAT Foundation	
	20C. Chiller	P	49	7X7	RC Foundation	RC MAT Foundation	
	20D. Nitrogen	P	49	7X7	RC Foundation	RC MAT Foundation	
21	Combustor	P	1.13	1.2(D)X11.2(H)	RC Foundation	RC MAT Foundation	
22	Rail Spur	P	N/A	N/A	Gravel Roadbed		
23	Power Supply Drop Point	P	N/A	N/A	N/A		
24	Natural Gas Battery Limits Tie-in Point	P	N/A	N/A	N/A		
25	Weight Scale	P	72	3X24	RC Baseplate	RC MAT Foundation	
26	Pipe Rack	P	84	2X42X5(H)	Prefabricated Steel, Open Structure	RC Isolated Foundation	
27	Fin-Fan Cooler	P	54	5.2X10.3X2.5(H)	RC Foundation	RC MAT Foundation	
28	Firewater Tank	P	221.5	10.7X20.7X5.7 (Depth)	RC Partly Underground Water Tank	RC MAT Foundation	
29	Torch Power Supply	P	4X15	2.5X6X3(H)	N/A	RC MAT Foundation	
30	MCC (Motor Control Center)	P	126	7X18X6(H)	Prefabricated Steel, Enclosed Building	RC Isolated Foundation	
31	H2 Tube Trailer Area	P	85.8	6.6X13	RC Wall	RC MAT Foundation	
32	Demin Water	P	N/A	N/A	RC Foundation	RC MAT Foundation	
33	Pump House	P	118	6.25X18.9X5.7(H)	Prefabricated Steel, Enclosed Building	RC Isolated Foundation	
34	Green Space	T	N/A	NA	N/A		
35	Rail Scale (Future)	P	N/A	N/A	RC Foundation		
36	Project Management Team Office	T	134	7.3X18.3X4(H)	Leased Trailer		
37	Magnetic Coil Power Supply	P	3	1.75X1.75X1.75(H)	RC Foundation	RC MAT Foundation	
38	R/O Water System	P	89	6.1X14.6X5.7(H)	Prefabricated Steel, Enclosed Building	RC Isolated Foundation	
39	Housekeeping Vacuum System	P	16	4X4	RC Foundation	RC Isolated Foundation	
40	Pipe Rack to Combustor	P	240	2X60X6.1(H)	Prefabricated Steel, Open Structure	RC Isolated Foundation	

5.6 OLIVE CREEK II & III BUILDING DIMENSION LIST

MONOLITH NEBRASKA CB&H PLANT OLIVE CREEK II & OLIVE CREEK III BUILDING/AREA LIST							Dec.9,2015
S/N	Building/Area Name	Temporary or Permanent	Buildings' Area(m ²)	Outside Dimension(m)	Building/Area Type	FOUNDATION TYPE	Remark
NOTE: All building heights given twenty percent safety factor to account for potential design changes.							
1,2	Control Room and Laboratory	P	875	17.5X25X9.6(H)	2 story building	RC spread footing	
3,6,8,36	Administrative Office(Include Bath house, Canteen and PMT office)	P	2040	30X68X9.6(H)	3 story building	RC spread footing	
4	Warehouse with Office	P	2250	25X90X9.6(H)	Prefabricated Steel, enclosed building	RC STRIP FOUNDATION	
5	Maintenance/Stores Warehouse with Office	P	1800	25X72X5.4(H)	Prefabricated Steel, enclosed building	RC ISOLATED FOUNDATION	
7	Security Guard House	P	60	6X10X4.8(H)	Prefabricated Steel, enclosed building	RC ISOLATED FOUNDATION	
9	Pallet storage area	P	600	20X30X4.8(H)	Prefabricated Steel, open structure	RC ISOLATED FOUNDATION	
		P	625	25x25x4.8(H)	Prefabricated Steel, open structure	RC ISOLATED FOUNDATION	For 450 KT
10	Chemical Storage Area	P	4X70	7X10X4.8(H)	Prefabricated Steel, open structure	RC ISOLATED FOUNDATION	
11	Contract Laydown Area	P	880	22X40	Gravel Covered Area		
12	Process equipment laydown area	P	880	22X40	Gravel Covered Area		
13	Off-quality IBC's Storage Area	P	1824	38X48X5.4(H)	Prefabricated Steel, open structure	RC ISOLATED FOUNDATION	
			1872	26x72x5.4(H)	Prefabricated Steel, open structure	RC ISOLATED FOUNDATION	For 450 KT
14	Parking Lot	P	6250	50X125	Concrete Paving Area		
15	Wastewater Treatment Station	P	400	20X20X6.4(H)	Prefabricated Steel, enclosed building	RC ISOLATED FOUNDATION	
16	Wastewater Pond	P	300	15X20	Underground RC Tank		
17	Hazardous and Non-hazardous waste area	P	128	8X16X4.8(H)	Prefabricated Steel, open structure	RC ISOLATED FOUNDATION	
018	Main Electrical Substation	P	1104	24X46X7.2(H)	Prefabricated Steel, enclosed building		For 450 KT
19	ISBL-CB&H Plant	P	4X4400	40X110X60(H)	Prefabricated Steel, open structure	RC PILE FOUNDATION	
	A. Reactor	P	2240	8X40X36(H)	Prefabricated Steel, open structure	RC PILE FOUNDATION	
	B. Air Product Cooler	P	1200	10X40X36(H)	Prefabricated Steel, open structure	RC PILE FOUNDATION	
	C. MUF	P	1152	12X16X61.2(H)	Prefabricated Steel, open structure	RC PILE FOUNDATION	
	D. Process Filter	P	800	8X10X61.2(H)	Prefabricated Steel, open structure	RC PILE FOUNDATION	

MONOLITH NEBRASKA CB&H PLANT OLIVE CREEK II & OLIVE CREEK III BUILDING/AREA LIST							Dec.9,2015
S/N	Building/Area Name	Temporary or Permanent	Buildings' Area(m ²)	Outside Dimension(m)	Building/Area Type	FOUNDATION TYPE	Remark
	E. Dust Filter	P	160	4X8X30(H)	Prefabricated Steel, open structure	RC PILE FOUNDATION	
	F. Purge Filter	P	384	8X8X30(H)	Prefabricated Steel, open structure	RC PILE FOUNDATION	
	G. Off quality SILO	P	200	10X10X15.6(H)	Prefabricated Steel, open structure	RC PILE FOUNDATION	
	H. SILO (2)	P	351	13X27X48(H)	Prefabricated Steel, open structure	RC PILE FOUNDATION	
	I. Bucket Elevator	P	115	3.6X3.2X60(H)	Prefabricated Steel, open structure	RC PILE FOUNDATION	
	J. Hydrogen Preheater	P	720	6X40X14.4(H)	Prefabricated Steel, open structure	RC PILE FOUNDATION	
	OSBL- Utility Systems						
20	20A-Compressor	P	12X19.8	2.2X9	RC Foundation	RC MAT FOUNDATION	
	20B-Argon	P	4 X17.5	2.5X7	RC Foundation	RC MAT FOUNDATION	
	20C-Chiller	P	4X60	5X12	RC Foundation	RC MAT FOUNDATION	
	20D-Nitrogen	P	4X60	5X12	RC Foundation	RC MAT FOUNDATION	
21	Combustor (2)	P	N/A	2(D)X59.04(H)	RC Foundation	RC MAT FOUNDATION	
22	Rail Spur	P	N/A	N/A	Gravel Roadbed		
23	Power Supply Drop Point	P	N/A	N/A	N/A		
24	Nature gas battery Limits/Tie-in Point	P	N/A	N/A	N/A		
25	Weight-Scale	P	72	3X24	RC Baseplate		
026	Overall Pipe Rack	P	3180	4X795X8.94(H)	Prefabricated Steel, open structure	RC ISOLATED FOUNDATION	
26	Pipe Rack	P	4X252	3X84X7.2(H)	Prefabricated Steel, open structure	RC ISOLATED FOUNDATION	
27	Fin-Fan Cooler	P	4X210	10X21X4.2(H)	RC Foundation	RC MAT FOUNDATION	
28	Fire/Process Water Tank(if needed)	P	676	26X26	RC Foundation	RC UNDERGROUND WATER TANK	
29	Torch Power Supply	P	80X15	2.5X6X3.6(H)	N/A		
30	Motor Control Center	P	4X1040	20X52X7.2(H)	Prefabricated Steel, enclosed building		
31	H2 Tube Trailer Area	P	4 X85.8	6.6X13	RC Wall	RC MAT FOUNDATION	
32	Demin Water Tank	P	N/A	N/A	RC Foundation	RC MAT FOUNDATION	

**MONOLITH NEBRASKA CB&H PLANT
OLIVE CREEK II & OLIVE CREEK III BUILDING/AREA LIST**

Dec.9,2015

S/N	Building/Area Name	Temporary or Permanent	Buildings' Area(m²)	Outside Dimension(m)	Building/Area Type	FOUNDATION TYPE	Remark
33	Pump House	P	168	8X21X7.8(H)	Prefabricated Steel, enclosed building	RC ISOLATED FOUNDATION	
34	Green Space	T	N/A	NA	N/A		
35	Rail Weight Scale	P	Pending	Pending	RC Foundation		
37	Magnetic Coil Power Supply	P	4 X3	1.75X1.75X 2.1(H)	RC Foundation		
38	R/O Water System	P	240	12X20X6.84(H)	Prefabricated Steel, enclosed building	RC ISOLATED FOUNDATION	
39	Housekeeping Vacuum System	P	4X16	4X4	RC Foundation	RC ISOLATED FOUNDATION	

**APPENDIX A:
DRIVEWAY PERMIT**

FLAGGED
 RESIDENTIAL **COMM**
 FIELD
 CODES-BLDG. PERMIT

LANCASTER COUNTY ENGINEERING DEPARTMENT
444 Cherrycreek Road, Building C
Lincoln, NE 68528
(402)441-7681

PERMIT # **7865**

**DRIVEWAY APPLICATION
ONE ACCESS ONLY**

ADDRESS 27077 SW 42nd Street

DATE: March 4, 2016

Application is hereby made to the Lancaster County Engineering Department, pursuant to Resolution #3708, by

Luhrs Hallam Investments LLC 7376 N. 122 Ave Cr. Omaha 68142

to construct a private driveway from the County road to the adjacent property of the applicant, said property being described as Lot 20, I.T. 30-7-6 onto SW 42nd St.

NAQS Environmental Experts - Clark Smith 301 S. 9th Lincoln 68508

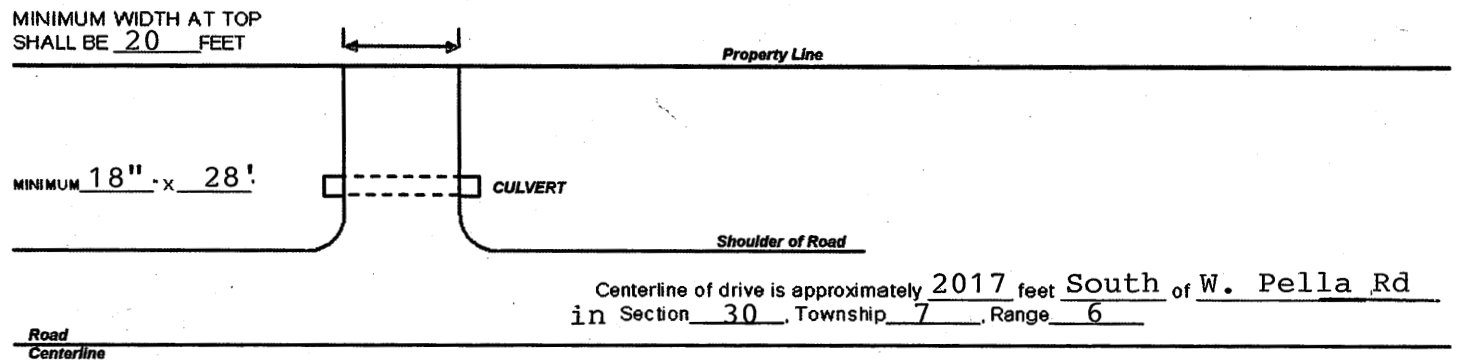
The private driveway shall have a minimum width of 20 feet. Where a culvert is required beneath the private driveway, as determined by an authorized representative of this Department, a 18"x28' **CORRUGATED METAL PIPE CULVERT*** shall be installed by the applicant at his or her own expense.

The general features of the private driveway are indicated on the sketch below and all pertinent information (such as sizes, distances and dimensions) is shown. Said private driveway at the property line of the applicant shall be 6 inches below the shoulder line of the road. No drive shall be located within 24' of any drive on adjacent property. The road onto which this private driveway shall connect is surfaced with Gravel materials and said surfacing has a width of 32 feet at this location.

NOTE: IF DRIVEWAY APPROACH ON PUBLIC RIGHT-OF-WAY IS GOING TO BE PAVED, THE FOLLOWING CONDITIONS APPLY: WE RECOMMEND SAID DRIVEWAY BE 4" CONCRETE OR 5" ASPHALT WITH 20' RADIUS FLARE, DRIVEWAY SHALL BE SLOPED TO PREVENT DRAINAGE ONTO THE STREET, DRIVEWAY SHALL BE INSPECTED PRIOR TO INSTALLATION. MAINTENANCE AND UPKEEP OF ANY PAVED, CONCRETE OR ASPHALT DRIVEWAY, SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER THAT THE DRIVEWAY SERVES. IF DRIVEWAY ACCESS IS TO A GRAVELED COUNTY ROAD, ASPHALT OR CONCRETE DRIVEWAY SHALL STOP AT THE PROPERTY LINE AND SHALL NOT ENCROACH ON THE COUNTY RIGHT-OF-WAY.

FIELD CHECK AND RECOMMENDATION FOR APPROVAL BY: Harold Baker DISTRICT 3 SUPERVISOR

*If concrete pipe is desired by applicant, said applicant will be responsible for all costs incurred for cleaning and maintenance or replacement at such time that may be designated by the Lancaster County Engineering Department.



COMMENTS: _____

I (We) agree to construct the private driveway in accordance with the above information within **three (3)** months from the date of issuance of this permit. It is my (our) understanding that this permit may be canceled at any time by the applicant prior to the construction of the work, and that this permit is valid for only **three (3)** months from the date of issuance; however, if more time is required, contact this office at **441-7681** for time extension approval. **DO NOT APPLY FOR A SECOND PERMIT! I (We) further agree, to relinquish any and all other accesses/driveways to the above referenced property.**

Mr. Luhrs
PHONE: 402-598-5511 (HOME)
402-489-1111 (WORK)
Clark

SIGNED: Clark Smith
APPLICANT

The above application is hereby approved disapproved, subject to the general rules and regulations governing this work and subject to such regulations as the County may deem necessary.

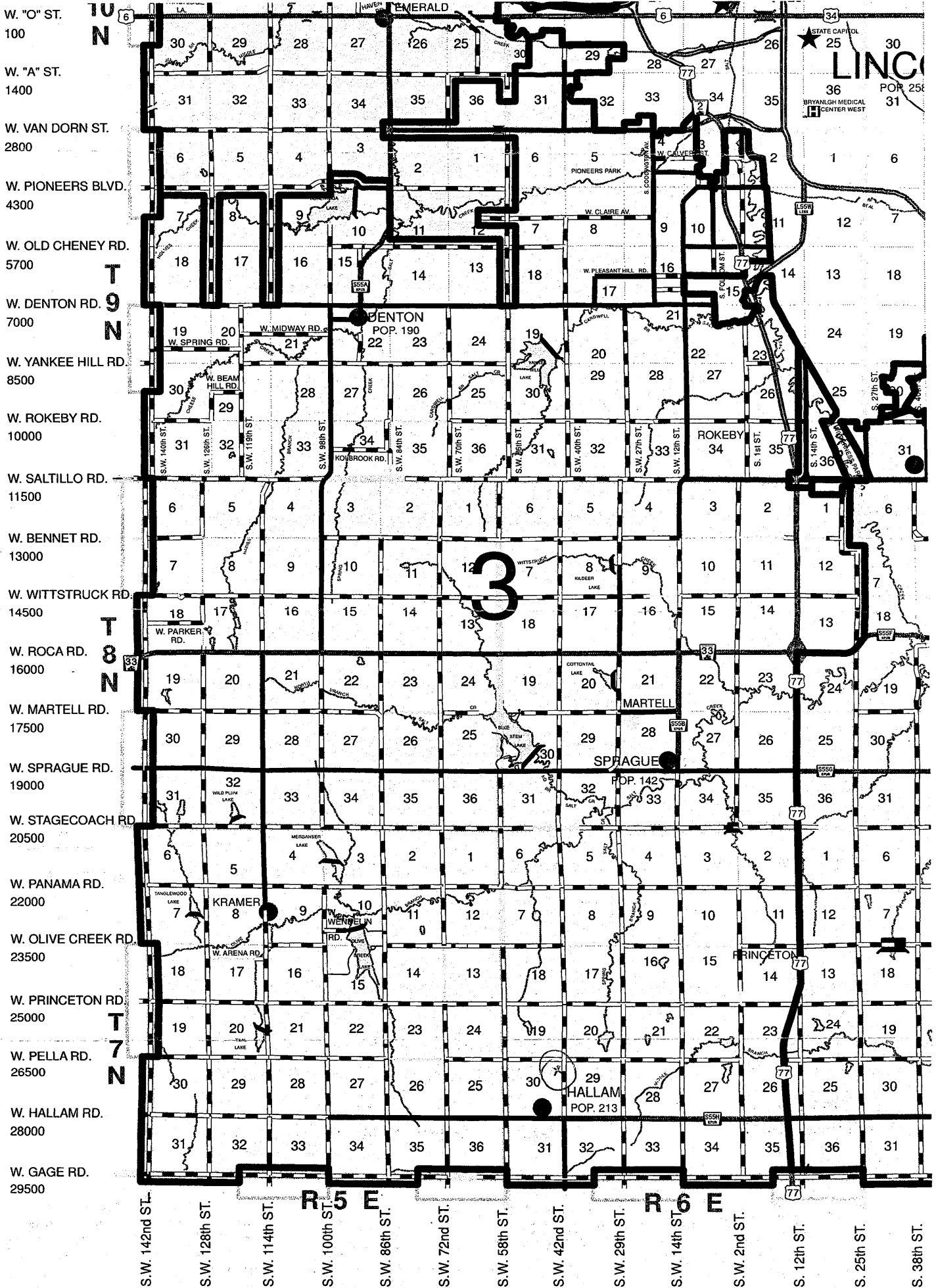
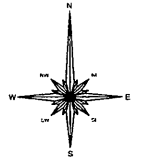
DATE: 3/21/16
ACCESSACCESS PERMIT.WPD

SIGNED: Jane L. Hottel
LANCASTER COUNTY SURVEYOR

LANCASTER COUNTY, NEBRASKA

MAINTENANCE DISTRICT #3

Harold Baker - District Supervisor



**APPENDIX B:
LEASE AGREEMENT**

GROUND LEASE

This Ground Lease ("Lease") is made as of this 31st day of December, 2015 (the "Effective Date"), by and between Luhrs Hallam Investments, LLC, a Nebraska limited liability company ("Landlord"), and Monolith Nebraska, LLC, a Delaware limited liability company ("Tenant").

1. Premises. The Landlord, for and in consideration of the covenants and agreements hereinafter set forth, hereby demises and leases to Tenant, and Tenant hereby rents from Landlord, the 64.08 acre parcel owned by Landlord near Hallam, Nebraska and legally described on Exhibit A attached hereto (the "Premises") in accordance with the terms and conditions contained herein.

2. Initial Term. The Initial Term of this Lease shall commence on the 31st day of December, 2015 (the "Commencement Date"), and shall continue for a period of twenty-five (25) years until December 30, 2041 (the "Termination Date"), at which time it shall terminate ("Initial Term"), unless sooner terminated or extended as provided herein. Each twelve (12) month period during the Initial Term or any Renewal Term will be a "Term Year." The first Term Year will run from the Commencement Date through the day immediately prior to the Commencement Date in the next calendar year, and each subsequent Term Year will run for a similar twelve (12) month period.

3. Renewal Option. Provided that Tenant is not in default under the terms of this Lease, Tenant shall have the option to Lease said Premises for two (2) additional terms of twenty (20) years each on the same terms and conditions. Tenant agrees to notify said Landlord in writing of Tenant's desire to exercise its renewal option at least six (6) months prior to the Termination Date of the Initial Term or any Renewal Term.

4. Possession. Landlord shall deliver the Premises on the Commencement Date. If Tenant takes possession prior to the Commencement Date, the rental for the interim period shall be paid by Tenant on a pro rata basis.

5. Use. Tenant enters into this Lease for the purpose of studying, developing, testing, permitting, constructing, storing materials, construction staging, operating, maintaining, repairing and replacing a carbon black manufacturing facility (the "Facilities"), including all activities necessary, incidental or convenient to that use, and any other lawful uses consistent with the operation of the Facilities, including, without limitation the right to control and restrict access to and from the Premises. The Facilities shall use natural gas as a feedstock and shall not use crude oil as a feedstock. Tenant agrees that it is familiar with the zoning of the Premises and that its use of the Premises will comply therewith. Tenant will have the right to use the Premises to develop, construct, and operate the Facilities. Tenant shall be entitled to construct and install any and all buildings, improvements, fixtures, machinery, equipment and appurtenances on the Premises necessary and convenient to the construction, operation, maintenance, repair and replacement of the Facilities, including, without

limitation, roads, pipelines, utilities, industrial, electrical, rail, and natural gas facilities ("Improvements"). Landlord acknowledges that in connection with the construction of the Facilities and Improvements, Tenant will need to grant to certain third parties easements across the Premises, including, without limitation, for construction, operation, maintenance, repair, and replacement of electrical lines, substations, transformers, and other facilities, roads, rail tracks, and pipelines and natural gas facilities, and Landlord shall reasonably cooperate with Tenant to grant such easements. Provided, however, any easements granted hereunder shall not be permanent and shall terminate upon termination of this Lease.

6. Development Rights and Entitlements. Tenant shall be responsible for obtaining, maintaining and complying with any and all entitlements, approvals, permits, authorizations, variances, consents, waivers, licenses, and certificates from governmental or quasi-governmental authorities required for the development, use, and operation of the Facilities and Improvements (the "Development Rights and Entitlements") pursuant to applicable Laws, including but not limited to zoning and land use laws and regulations. Landlord shall reasonably and promptly cooperate with Tenant, at no cost to Landlord, as requested by Tenant to obtain or maintain any Development Rights and Entitlements or any amendments thereto required in connection with the development of the Facilities and Improvements, including, without limitation, by signing any permit applications, permits, owner consents or affidavits as requested by Tenant.

7. Rent. Tenant shall pay to Landlord an annual rent for the Premises during the Initial Term and any Renewal Term as set forth on the attached Exhibit B. Annual rent for the first Term Year will be payable on or before the Commencement Date.



8. Taxes. From and after the Commencement Date Tenant shall be responsible for and shall pay prior to delinquency, any and all real and personal property taxes, general and special assessments, and other similar charges ("Taxes") levied on or assessed against the Premises, the Facilities, the Improvements and any other improvements, facilities, personal property or fixtures to be constructed, placed or located on the Premises by or on behalf of Tenant due for each Tax Year of the Lease, as defined below.

Landlord will submit to Tenant within ten (10) days of Landlord's receipt a copy of all notices, tax bills and other correspondence Landlord receives from any taxing authorities regarding any Taxes Tenant is required to pay hereunder and it is a condition to Tenant's obligations to timely pay those Taxes that Tenant is obligated to pay hereunder that Tenant receives the real property tax bill no later

than ten (10) business days prior to the delinquency date for such Taxes. To the extent permitted by the applicable taxing authority Tenant shall pay said Taxes and special assessments directly and shall provide written confirmation to Landlord on or before the due date of each Tax payment that said Tax payment has been made. In the event Tenant shall fail to pay any Tax when due, Landlord may, but shall not be obligated to, pay any such Taxes and charge such amount so paid, plus all of its costs and expenses, as additional rent to Tenant and Tenant shall pay such sum to Landlord within thirty (30) days of billing. Tenant may, at its sole cost and expense, contest, after prior written notice to Landlord and by appropriate legal proceedings conducted in good faith and with due diligence, the amount or validity or application, in whole or in part, of any Taxes; provided; however, that Tenant shall first make all contested payments, under protest if it desires, unless such proceedings shall operate to suspend the collection thereof from Landlord, or post a bond or other security for the payment thereof reasonably satisfactory to Landlord and the applicable taxing authority. Notwithstanding anything herein to the contrary, in no event shall Tenant be responsible or liable for any business license fee or tax, inheritance, estate, succession, or gift tax imposed on Landlord or any income tax specifically payable by Landlord.

For the purposes of this section, "Tax Year" shall mean the calendar year that substantially corresponds with each Term Year, notwithstanding the fact that each Term Year commences on December 31 of the previous calendar year, such that the 2016 calendar year is the Tax Year for the first Term Year, 2017 is the Tax Year for the second Term Year, etc. For clarification, Landlord shall pay Taxes due for the 2015 tax year (which are delinquent one-half April 1, 2016 and one-half August 1, 2016), and Tenant shall pay Taxes due for 2016 (which are delinquent one-half April 1, 2017 and one-half August 1, 2017) and each subsequent calendar year during the term of the Lease, including the final Tax Year, notwithstanding the fact that the Lease will terminate on December 30 of that Tax Year.

9. Utilities. Tenant shall be solely responsible for the costs of constructing, repairing, replacing, and maintaining all utility improvements on or serving the Premises. The Landlord shall not be required to furnish to the Tenant any facilities or services of any kind, such as, but not limited to, water, steam, heat, gas, electricity, waste removal, or telephone. Tenant shall be solely responsible for and shall promptly pay all utility charges. Tenant shall arrange for direct billing to Tenant of all utility charges.

10. Maintenance and Repair Expenses. Tenant shall be solely responsible for the operation and management of the Facilities. Tenant shall pay all expenses of every kind and nature whatsoever attributable to the Premises, commencing on the Commencement Date and continuing during the term of this Lease and any renewal term, including, but not limited to the following: all repairs to and maintenance of the Premises and all Improvements placed on the Premises by the Tenant. Nothing in this Lease shall require the Tenant to continuously operate the Facilities or the Improvements except as otherwise determined by Tenant, in Tenant's sole discretion.

11. Construction of Facilities. Tenant will develop and construct the Improvements on the Premises at Tenant's sole cost and expense. Landlord shall have no financial obligation or other obligation of any kind under this Lease, except as specifically set forth herein. Landlord consents to Tenant's location of the Improvements at any location upon the Premises, including at or near the property lines. Furthermore, in the event that any private agreements or restrictions or any Applicable Laws impose setback requirements or otherwise restrict the location or configuration of any Improvement to be placed upon the Premises, Landlord shall reasonably cooperate with Tenant, at Tenant's sole cost and expense, in connection with such requirements and/or restrictions, including, without limitation, to obtain all waivers or variances from such requirements and/or restrictions as Tenant reasonably may deem necessary for the operation of the Facilities. Landlord shall reasonably and promptly execute such further documents evidencing Landlord's agreement to the elimination of such setback or configuration requirements as Tenant may reasonably request.

12. Ownership of Improvements. All Improvements constructed or installed on the Premises by or on behalf of Tenant are, and shall remain, the property of Tenant; all such Improvements may be removed by Tenant in its sole discretion, at any time, and Landlord shall have no right, title or interest therein. Without limiting the foregoing, the parties agree that all Improvements constructed or installed on the Premises by or on behalf of Tenant, whether prior to or after the Commencement Date, are hereby severed by agreement and intention of the parties and shall remain severed from the Premises, shall be considered with respect to the interests of the parties hereto as the sole property of Tenant or such other party designated by Tenant, and, even though attached to or affixed to or installed upon the Premises, shall not be considered to be fixtures or a part of the Premises and shall not be or become subject to the lien of any mortgage or deed of trust heretofore or hereafter placed on the Premises by Landlord. Landlord hereby waives all rights or claims, whether by statutory or common law, that it may have in any such Improvements

13. Insurance.

A. Tenant shall maintain, or cause to be maintained, with respect to the Premises, commencing on the dates set forth below and continuing for the remaining duration of this Lease and any extensions thereof (except as otherwise set forth below), insurance policies customary for the construction and operation of the Facilities. Such policies shall be issued by a company or companies qualified, permitted or admitted to do business in the State of Nebraska and shall include, but are not limited to, the following types (or their equivalent) and amounts:

TYPE	AMOUNT

B. Landlord Additional Insured. Tenant agrees that with respect to the above required insurance:

- i. Landlord shall be named on all policies, except workers' compensation policies, as an additional insured, as its interest may appear. Landlord agrees to promptly endorse insurance checks or otherwise release insurance proceeds, provided no Event of Default is continuing hereunder.
- ii. Landlord shall annually be provided with a certificate of insurance evidencing the above required insurance at the time the policies are required to be obtained and thereafter with certificates evidencing renewals or replacements of said policies of

insurance at least thirty (30) days prior to the commencement of the next subsequent Term Year.

- iii. Landlord shall be provided with thirty (30) days advance notice, in writing, of cancellation or material change in coverage.

C. **Additional Insurance.** Landlord may review Tenant's required insurance as stated herein from time to time, but not more frequently than every three (3) years during the Term, and Landlord reserves the right to require reasonable additional limits or coverages in order to reflect standard limits for similar policies. Tenant agrees to comply with any such reasonable request by Landlord.

D. **Blanket Policies.** If any blanket general insurance policy of Tenant complies with the requirements of this Section, such insurance shall fulfill the requirements set forth herein.

E. **Subrogation.** Anything in this Lease to the contrary notwithstanding, Landlord and Tenant each hereby waives any and all rights of recovery, claims, actions, or causes of action against the other, its agents, officers, and employees for any injury, death, loss, or damage that may occur to Persons or the Premises, or any personal property of such party therein, by reason of fire, the elements, or any other cause which is insured against under the terms of the policies of insurance that are maintained by Landlord or Tenant or that Tenant is required to provide hereunder, regardless of cause or origin, including negligence by the party hereto, its agents, officers, or employees, and each party covenants that no insurer shall hold any right of subrogation against the other, except in the case (and only in the case) that such waiver of subrogation invalidates coverage under such policy.

14. Condition of the Property.

A. By taking possession of the Premises, Tenant accepts the Premises "AS-IS, WHERE-IS, AND WITH ALL FAULTS" and acknowledges that the Premises are in good and satisfactory condition at the time Tenant takes possession of the Premises. Landlord makes no representation or warranty as to the condition of the Premises.

B. The Tenant shall have the right to construct Improvements to the Premises (all of which shall be considered to be the property of Tenant during the term) and to make all alterations or additions thereto and to remove, remodel, demolish, and rebuild the same. Landlord has no obligation to make any improvements to the Premises. All alterations or additions will be done in accordance with applicable laws. The cost of all alterations or additions shall be paid by Tenant. Tenant shall, at all times, keep the Premises in good repair and shall also keep the same in a clean, sanitary and safe condition and in compliance with all Applicable Laws.

15. Representations and Warranties.

A. Representations and Warranties of Landlord.

1. Formation. Landlord is a limited liability company duly formed and validly existing under the laws of the State of Nebraska. The Landlord formation instruments and agreements that have previously been made available to Tenant are true, complete and correct copies of such documents, accurately reflect the entirety of the instruments and agreements by which the Landlord is governed, are in full force and effect and have not been modified, amended or otherwise altered in any respect except as specifically disclosed to Tenant.

2. Authority. Landlord has all requisite power and authority to enter into, deliver and perform this Lease and the memorandum attached hereto as Exhibit D (collectively, the "Lease Documents"). The execution, delivery and performance of the Lease Documents by Landlord have been duly and validly approved by Landlord and any and all persons or entities whose approval is necessary to the validity hereof or thereof, and no other action on the part of Landlord is necessary to approve the Lease Documents and/or to consummate the transactions contemplated in the Lease Documents. This Lease and each of the Lease Documents has been, or as of the date required by Tenant, will have been, duly and validly executed and delivered by Landlord and, assuming due and valid authorization, execution and delivery by Tenant, this Lease constitutes a valid and binding obligation of Landlord, enforceable against Landlord in accordance with its terms.

3. No Violations or Defaults. Neither the execution and delivery of the Lease Documents by Landlord nor the consummation by Landlord of the transactions contemplated in the Lease Documents, nor compliance by Landlord with the terms and provisions of any one or more of the Lease Documents will: (a) violate any provision of the instruments or agreements by which the Landlord is formed and/or governed or (b) violate any of the terms or provisions of any instrument or obligation by which Landlord or any Affiliate of Landlord is bound. An "Affiliate" shall mean any entity that, directly or indirectly controls, is controlled by, or is under common control with the subject entity. The term "control" means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such entity, whether through the ownership of voting securities, by contract, judicial order or otherwise.

4. Consents and Approvals. Except for consents and approvals that have been obtained by Landlord prior to the Effective Date, no consents or approvals of, or filings or registrations with any court, administrative agency, commission or other governmental authority or instrumentality, or with any other third party are necessary in connection with the execution, delivery and performance of this Lease and the Lease Documents by Landlord.

5. Legal Proceedings. Neither Landlord nor any Affiliate of Landlord is a party to any, and to Landlord's knowledge, there are no pending or threatened legal, administrative, arbitral or other proceedings, claims, actions or governmental or regulatory investigations of any kind or nature whatsoever pertaining to the Premises or challenging the validity or

propriety of this Lease, the Lease Documents and/or the transactions contemplated in this Lease and/or the Lease Documents. To Landlord's knowledge, there is no injunction, writ or governmental order, judgment or similar decree applicable to Landlord or any of its Affiliates which imposes any restrictions on Landlord or any of its Affiliates with respect to the Lease or the Premises.

B. Representations and Warranties of Tenant.

1. Formation. Tenant is a limited liability company duly formed and validly existing under the laws of the State of Delaware. Tenant's formation instruments and agreements that have previously been made available to Landlord are true, complete and correct copies of such documents, accurately reflect the entirety of the instruments and agreements by which the Tenant is governed, are in full force and effect and have not been modified, amended or otherwise altered in any respect except as specifically disclosed to Landlord.

2. Authority. Tenant has all requisite power and authority to enter into, deliver and perform the Lease Documents. The execution, delivery and performance of the Lease Documents by Tenant have been duly and validly approved by Tenant and any and all persons or entities whose approval is necessary to the validity hereof or thereof, and no other action on the part of Tenant is necessary to approve the Lease Documents and/or to consummate the transactions contemplated in the Lease Documents. This Lease and each of the Lease Documents has been, or as of the Effective Date will have been, duly and validly executed and delivered by Tenant and this Lease constitutes a valid and binding obligation of Tenant, enforceable against Tenant in accordance with its terms.

3. No Violations or Defaults. Neither the execution and delivery of the Lease Documents by Tenant nor the consummation by Tenant of the transactions contemplated in the Lease Documents, nor compliance by Tenant with the terms and provisions of any one or more of the Lease Documents will: (a) violate any provision of the instruments or agreements by which the Tenant is formed and/or governed or (b) violate any of the terms or provisions of any instrument or obligation by which Tenant or any Affiliate of Tenant is bound.

4. Consents and Approvals. Except for consents and approvals obtained by Tenant prior to the Effective Date, no consents or approvals of, or filings or registrations with any court, administrative agency, commission or other governmental authority or instrumentality or with any other third party are necessary in connection with the execution, delivery and performance of this Lease and the Lease Documents by Tenant.

5. Legal Proceedings. Neither Tenant nor any Affiliate of Tenant is a party to any, and to Tenant's knowledge, there are no pending or threatened legal, administrative, arbitral or other proceedings, claims, actions or governmental or regulatory investigations of any kind or nature whatsoever challenging the validity or propriety of this Lease, the Lease Documents and/or transactions contemplated in this Lease and/or the Lease Documents. To Tenant's knowledge, there is no injunction, writ or

governmental order, judgment or similar decree applicable to Tenant or any of its Affiliates which imposes any restrictions on Tenant or any of its Affiliates with respect to the Lease.

16. Default.

A. Subject to the rights of Lenders as provided in Section 25, each of the following occurrences shall be deemed an "Event of Default": (i) failure or omission by Tenant to pay any amounts required to be paid pursuant to this Lease when due hereunder, and such failure or omission has continued for thirty (30) days after written notice from the other party; (ii) the failure or omission of either party to comply with or violate any of the covenants, agreements, stipulations, or conditions herein, and such violation or default shall continue for a period of thirty (30) days after the receipt of written notice from the other party specifying such violation or default in reasonable detail, or if such failure or omission cannot reasonably be cured within such thirty (30) period, the defaulting party has commenced a cure of such default within such thirty (30) day period and is proceeding diligently with such cure; (iii) if either party shall be adjudged bankrupt or files a petition in bankruptcy or for any arrangements under the Bankruptcy Code or becomes insolvent or has appointed a Receiver of its property; or (iv) if Tenant abandons the Premises. For the purposes of this section abandonment of the Premises shall mean: (a) Tenant has ceased all operations on the Premises for a period of 12 months and (b) Tenant fails to respond to any notice from the Landlord during said period. Notwithstanding anything to the contrary herein, temporarily ceasing operations on the Premises shall not constitute abandonment as long as Tenant continues to pay rent and comply with all the terms and conditions of this Lease.

B. Remedies for Tenant's Default. Upon the occurrence of an Event of Default by Tenant, Landlord shall be entitled, at its election, to terminate this Lease, reenter the Premises and take possession thereof (subject, however, to the rights of Subtenants pursuant to Section 24 and Lenders pursuant to Section 25) or, if Landlord does not terminate Tenant's right to possession of the Premises, keep this Lease in full force and effect and collect rent and other charges from Tenant as and when due under this Lease, provided that Landlord shall have the obligation to mitigate damages. If Landlord elects to terminate this Lease, then all rights and obligations of the parties shall terminate, except that Landlord shall have the right to sue for and collect all rent and other amounts with respect to which Tenant shall then be in default, and all damages to Landowner by reason of such Event of Default, Landlord having the obligation to mitigate damages, and Tenant shall surrender the Premises to Landlord. In the event of a termination by Landlord as set forth in this Section, Tenant shall properly complete the Required Remediation, as defined in Section 21, within twelve (12) months of the date on which the Lease was terminated, or such other time period mutually agreed upon by the parties. If Tenant fails to complete the Required Remediation within twelve (12) months after termination of this Lease or if Tenant abandons the Premises, as set forth above, then Landlord may do so, in which case Tenant shall reimburse

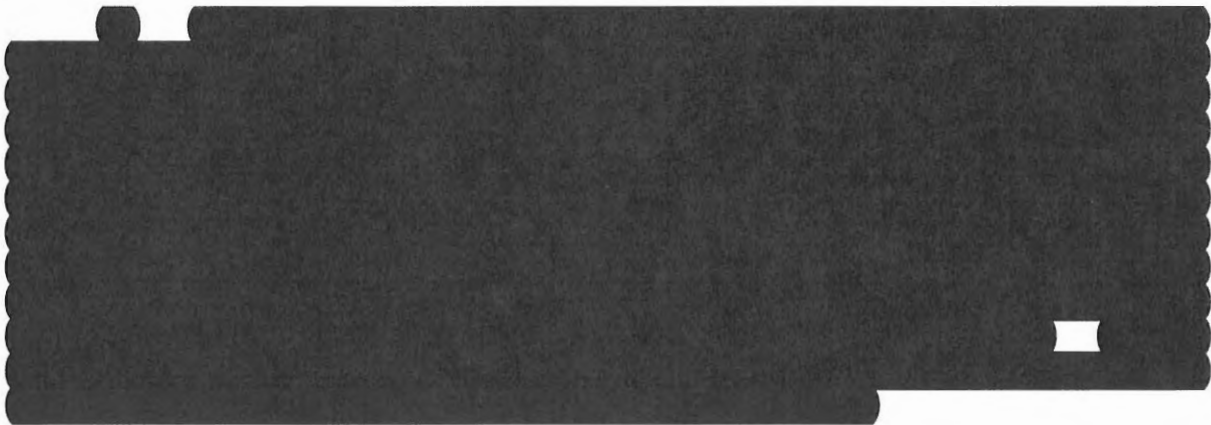
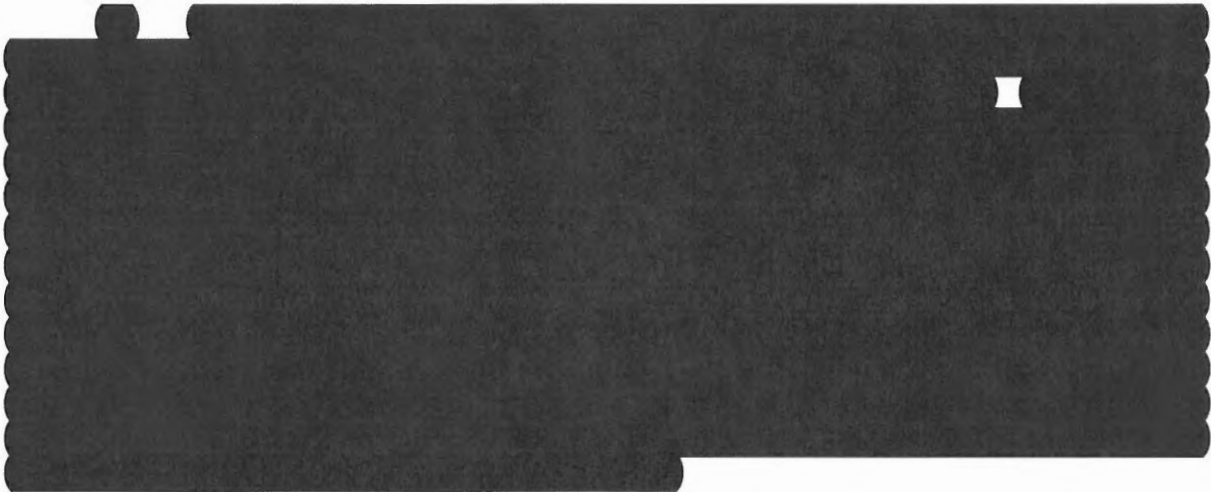
Landlord for the reasonable costs of performing the Required Remediation incurred by Landlord.

C. Remedies for Landlord's Default. Upon the occurrence and during the continuation of an Event of Default by Landlord, Tenant may, at its option, and in addition to and cumulatively of any other rights Tenant may have at law or in equity or under this Lease, (a) cure the Landlord Event of Default on Landlord's behalf, in which event Landlord shall reimburse Tenant on demand for all sums so expended by Tenant, or (b) enforce, except as otherwise specifically provided in this Lease to the contrary, any of its rights provided at law or in equity. Tenant shall have the right but not the obligation after providing at least thirty (30) days' prior written notice to Landlord to perform, acquire, or satisfy any lien, encumbrance, agreement or obligation of the Landlord which is a lien or encumbrance on the Premises or Improvements and any such amount paid by Tenant may be offset by Tenant from Rent next due and payable under this Lease. The parties acknowledge that if Landlord provides a substitution of collateral to release the lien from the Premises pursuant to Section 52-142 the Nebraska Construction Lien Act, said lien shall be satisfied for the purposes of this section.

17. Liens. The Tenant hereby covenants and agrees that during the term of this Lease, Tenant shall pay for all labor performed, and materials used by or furnished to the Tenant or claimed to be furnished to the Tenant or to any contractor employed by the Tenant and shall hold the Landlord and the Premises harmless and free from any lien or claim therefor. In the event any Contractor's, Mechanic's or Materialman's Lien shall be placed on the Landlord's interest in violation of the foregoing sentence, the Tenant shall take all steps necessary to see that it is removed within thirty (30) days of its being filed; however, Tenant may contest such lien provided that Tenant first posts a surety bond in favor of and insuring the Landlord, in an amount sufficient to remove the lien pursuant to the terms of the Nebraska Lien Laws.

18. Requirements of Law. Tenant shall, at its expense, promptly observe and comply with all present and future laws, ordinances, requirements, orders, directions, rules and regulations of all governmental authorities having or claiming jurisdiction, directly or indirectly, over the Premises, including, but not limited to zoning, the federal Occupation Safety and Health Act, the Americans with Disability Act, or similar federal, state and local requirements pertaining to the Tenant's use of the Premises, whether the same are in force at the commencement of this Lease or may in the future be passed, enacted or directed ("Applicable Laws"). Tenant shall also procure and maintain during the term of the Lease each and every permit, license, certificate or other authorization required in connection with the lawful and proper construction and use of the Premises and the Improvements, as now or hereafter constituted.

19. Covenant to Hold Harmless. Tenant agrees to indemnify, defend, and hold Landlord harmless from and against any and all claims, damages, or causes of action and all liability, cost or expense specifically including court costs and attorney's fees that directly or indirectly arise out of or are in any way connected



22. Holding Over. If Tenant remains in possession after the Termination Date without the written consent of Landlord, Tenant shall be deemed to be a trespasser. If Tenant shall have paid, and Landlord shall have accepted, rent in respect to such holding over, Tenant shall be deemed to be occupying the Premises only as a Tenant from year-to-year subject to all the covenants, agreements or obligations of this Lease.

23. Environmental Laws.

A. As used herein, the term "Hazardous Material" means any "hazardous substances", "pollutants", "hazardous waste", or "toxic materials" as defined by the Comprehensive Environmental Resource Conservation and Recovery Act of 1989 ("CERCLA"), 42 U.S.C. 9601 et seq., as amended, Resource Conservation and Recovery Act of 1976 ("RCRA"), 42 U.S.C. 6901 et seq., as amended, the Toxic Substance Control Act (or any regulations promulgated under the foregoing) or any other present or future federal state or local law, ordinance, rule or regulation,

including without limitation extremely flammable substances, explosives, radioactive materials, oil, petroleum or petroleum products or hazardous substances, and any substance which is or becomes regulated by any federal, state or local governmental authority.

B. Tenant will not store, use or dispose of any Hazardous Material or any hazardous, toxic, corrosive, explosive, reactive or radioactive matter in, or about the leased Premises or Property except in the form and limited amounts necessary to operate the Facilities in a commercially reasonable and lawful manner. At all times during the term of this Lease, Tenant shall comply with all environmental laws and permitting requirements impacting the leased Premises. Tenant hereby agrees that it shall be fully liable for all environmental related costs and expenses arising after the Commencement Date, unless Tenant is able to affirmatively prove such conditions were not caused by Tenant or related to the construction and/or operation of the Facilities or Tenant's use of the Premises. Tenant shall give immediate notice to the Landlord of any violation or potential violation of the provisions of this Section.

C. Except to the extent caused by the negligent or intentional act or omission of Landlord or Landlord's directors, officers, partners, agents or employees, Tenant shall defend, indemnify and hold harmless Landlord and its directors, officers, partners, agents or employees from and against any claims, demands, penalties, fines, liabilities, settlements, damages, costs or expenses (including, without limitation, attorney and consultant fees, court costs and litigation expenses) of whatever kind or nature, known or unknown, contingent or otherwise, arising out of or in any way related to (i) the presence, disposal, release, or threatened release of any such Hazardous Material which is on, from, or affecting the soil, water, vegetation, buildings, personal property, persons, animals, or otherwise; (ii) any personal injury (including wrongful death) or property damage (real or personal) arising out of or related to such Hazardous Material; (iii) any lawsuit brought or threatened, settlement reached or government order relating to such Hazardous Material; and/or (iv) any violation of any laws applicable thereto. The provisions of this paragraph shall be in addition to any other obligations and liabilities Tenant may have to Landlord at law or equity and shall survive the transactions contemplated herein and shall survive the termination of this Lease.

24. Assignment and Subletting. Subject to the below, Tenant may only pledge or assign this Lease with Landlord's consent, in advance in writing. Tenant and the prospective assignee shall cooperate with Landlord to provide all relevant information and documentation requested by Landlord in order for Landlord to evaluate the proposed assignment. The foregoing notwithstanding, (a) Landlord's consent to an assignment or sublease will not be required in the case of: (i) the assignment, sublease, license, or sublicense to any Affiliate of Tenant, or (ii) any collateral assignment, pledge, grant of a security interest in, or other encumbrance of all or any part of Tenant's interests hereunder pursuant to Section 25; and (b) Landlord's consent must be obtained, but shall not be unreasonably withheld, delayed, or conditioned, in the case of any assignment of Tenant's interest in the

Lease to any entity that acquires all of Tenant's interest in the Facilities and is a Qualified Assignee (as defined below). For the avoidance of doubt, a change in control of Tenant shall be permissible without the necessity of obtaining Landlord's consent in connection with any financing or refinancing or the development, construction, purchase, installation and/or operation of the Facilities, or any portion thereof, whether such financing or refinancing takes the form of debt or equity investments through publicly or privately traded equity or any other form, including, without limitation, any transaction whereby an equity and/or tax equity investor directly or indirectly provides financing or refinancing for the Project and/or purchases ownership interests of Tenant, its parent or any affiliated entity or assignee of Tenant. Any person or entity to whom Tenant assigns all of its right, title and interest under this Lease in compliance with the terms of this Lease shall be referred to herein as (and is included within the definition of) "Tenant". The rights contained in this Lease shall inure to the benefit of Tenant and its Affiliates, successors, assigns, permittees, licensees, lessees, employees and agents. "Qualified Assignee" as used herein shall mean an assignee (including, any Affiliate of Tenant) meeting the following criteria:

A. With the same or a higher financial net worth as Tenant as of the Effective Date;

B. With experience operating or owning similar projects or which has engaged, for this Project and pursuant to a binding operations and maintenance agreement, a third party manager with experience operating or owning commercial scale carbon black facilities; and

C. Whose proposed use of the Premises is consistent with the uses permitted hereunder.

25. Leasehold Encumbrances. Tenant shall have the right to encumber its leasehold interest under this Lease by mortgage, deed of trust, collateral assignment, pledge, or otherwise (together, a "Mortgage") to a bank, savings and loan, insurance company or other party ("Lender"). Each right and privilege of Tenant under this Lease shall inure to the benefit of any Lender and such Lender may perform any of Tenant's obligations on Tenant's behalf. Performance by a Lender shall be deemed to be performance by Tenant insofar as Landlord is concerned. In the event any Mortgage is foreclosed, the foreclosing Lender may succeed to the Tenant's interest under this Lease in accordance with the terms hereof. Landlord hereby agrees to the following for the benefit of any Lender, provided that written notice of such Lender's name and mailing address is given to Landlord and Tenant:

A. Landlord shall not terminate this Lease (or Tenant's rights hereunder) for any Event of Default without first advising such Lender, in writing, of such Event of Default and permitting such Lender to cure such Event of Default on behalf of Tenant within sixty (60) days after Landlord has given notice to such Lender, which notice may be given concurrently with the notice of default provided to Tenant pursuant to Section 16 of this Lease. If, during such sixty (60) day period the Lender takes action to cure such Event of Default but is unable, by reason of the nature of the default involved, to cure such failure within such period and continues to attempt to cure such Event of Default diligently and

without unnecessary delays, Landlord shall not terminate this Lease. Further, if any Event of Default is not cured within the sixty (60) day period, or such longer period as provided in the immediately preceding sentence, and: (1) the Lender shall have given the notices to Landlord necessary to commence foreclosure of the liens of its Mortgage prior to the expiration of such sixty (60) day period; and (2) the party acquitting tenant's interest under this lease pursuant to foreclosure or an assignment in lieu of foreclosure fully cures any Event of Default reasonably susceptible of being cured by the purchaser at the foreclosure within sixty (60) days after such foreclosure, then Landlord will not terminate this Lease (or Tenant's rights hereunder) because of the occurrence of such Event of Default provided that foreclosure is diligently prosecuted. Landlord shall accept amounts paid or actions taken by or on behalf of any Lender to cure any Event of Default. Nothing under this Section shall be construed to obligate a Lender to either cure any Events of Default or foreclose the liens and security interests under its Mortgage as a consequence of an Event of Default, regardless of whether such Event of Default is subsequently cured.

B. Those Events of Default, which by their very nature, may not be cured by the Lender (as, for example, the bankruptcy of Tenant) shall not constitute grounds of enforcement of rights, recourses or remedies hereunder by Landlord including termination of this Lease, if a Lender either before or immediately after a foreclosure of its Mortgage (1) makes all payments and performs all obligations hereunder capable of being performed by the Lender and (2) thereafter continues to comply with those provisions of this Lease with which, by their very nature, the Lender may comply.

C. If a Lender enforces the rights and remedies pursuant to the terms of its Mortgage (including foreclosure of any liens or security interests encumbering the estates and rights of Tenant under this Lease) such enforcement shall not constitute an Event of Default by Tenant hereunder. Lender need not obtain Landlord's consent to exercise its remedies and rights (including foreclosure of any liens) provided Lender sends Landlord written notice thereof.

D. In the event a Lender should foreclose the liens and security interests of its permitted mortgage and should, as a result of such foreclosure, succeed to the rights of Tenant hereunder, then such Lender shall be subject to all the terms and conditions of this Lease and shall be entitled to all the rights and benefits of this Lease.

E. In the event that this Lease is terminated for any reason or rejected or disaffirmed pursuant to bankruptcy law or any other law affecting creditor's rights, then, so long as a Lender has cured any monetary Events of Default and is making commercially reasonable efforts to cure any non-monetary Events of Default (other than the bankruptcy of Tenant) as provided herein, Landlord shall, immediately upon written request from such Lender received within ninety (90) days after any such termination, rejection or disaffirmance, without demanding additional consideration therefor, enter into a new agreement in favor of such Lender, which new agreement shall (i) contain the same covenants, agreements, terms, provisions

and limitations as this Lease (except for any requirements that have been fulfilled by Tenant or a Sublessee prior to such termination, rejection or disaffirmance), (ii) be for a term commencing on the date of such termination, rejection or disaffirmance, and continuing for the remaining term of this Lease before giving effect to such termination, rejection or disaffirmance, (iii) enjoy the same priority as this Lease over any lien, encumbrance or other interest created by Landlord; and (iv) be entered into at no cost or expense to Landlord; and, until such time as such new agreement is executed and delivered, the Lender may enter, use and enjoy the Premises as if this Lease were still in effect, subject to the obligation to comply with all duties and liabilities of Tenant hereunder in connection with such entry upon and corresponding use of the Premises. At the option of the Lender, the new agreement may be executed by a designee of such Lender, without the Lender assuming the burdens and obligations of Tenant thereunder. If more than one Lender makes a written request for a new agreement pursuant hereto, then the same shall be delivered to the Lender whose Mortgage is senior in priority.

F. No Amendment or Termination of Lease. Where Tenant has given written notice to Landlord in accordance with this Section of the name and mailing address of a Lender, (i) Landlord shall not agree to any material modification or amendment to this Lease and (ii) Landlord shall not accept a surrender or termination of this Lease; in each such case without the prior written consent of each such Lender.

G. Cooperation. At Tenant's request and sole expense, Landlord shall use its commercially reasonable efforts to cooperate in a prompt manner with Tenant's efforts to obtain financing from a Lender, including the amendment of this Lease to include any provision that may reasonably be requested by an existing or proposed Lender, and shall execute such additional documents as may reasonably be required to evidence such Lender's rights hereunder; provided that Landlord shall have no obligation to grant a lien on or security interest in the fee title to any portion of the Premises in favor of any Lender and shall not be obligated to enter into any modification of this Lease which has a material adverse economic effect on Landlord or otherwise materially alters the respective rights and responsibilities of Landlord or Tenant hereunder. Further, Landlord shall, within twenty (20) days after written notice from Tenant or any existing or proposed Lender, execute and deliver thereto a certificate to the effect that (i) Landlord recognizes such entity as a Lender under this Lease, and (ii) will accord to such entity all the rights and privileges of a Lender as set forth herein.

26. Sale or Encumbrance of Reversionary Estate by Landlord. Landlord shall have the right to sell Landlord's fee estate subject to the terms and provisions of the Lease, on the condition that the purchaser shall agree in writing to Tenant that purchaser takes the fee estate subject to this Lease and will perform this Lease under its terms as Landlord hereunder, in which case upon Landlord's request Tenant shall attorn and recognize purchaser as Tenant's landlord under this Lease and shall promptly execute and deliver any instrument reasonably necessary to evidence such attornment. Landlord shall be entitled to grant a lien or otherwise encumber Landlord's fee estate in all or any portion of the Premises (a "Landlord Mortgage") provided, however, any such Landlord Mortgage entered into

by Landlord with respect to the Premises shall be subject and subordinate to this Lease, or any extensions pursuant to the terms hereof or any new lease made pursuant to Section 25.E. If requested by Tenant, Landlord shall obtain and deliver to Tenant, at Tenant's sole cost and expense, a non-disturbance and subordination agreement from the beneficiary of any Landlord Mortgage in a form reasonably acceptable to Tenant and any Lender, evidencing compliance with this Section. If any beneficiary of a Landlord Mortgage shall succeed to the rights of Landlord under this Lease, then at such party's request Tenant shall attorn and recognize such mortgagee or beneficiary as Tenant's landlord under this Lease and shall promptly execute and deliver any instrument reasonably necessary to evidence such attornment. Upon such attornment this Lease shall continue in full force and effect as, or as if it were, a direct lease between such successor landlord and Tenant.

27. Estoppel Certificate and Memorandum of Lease.

A. Estoppel Certificate. Either party, at the request of the other party hereto, shall execute an estoppel certificate, which estoppel certificate shall, to the best of the knowledge of the person certifying, state as follows: (i) whether this Lease has been supplemented or amended, and if so, the manner in which it has been supplemented or amended; (ii) whether this Lease is in full force and effect; and (iii) whether an Event of Default has occurred and continues to exist, and if so, the nature of such default.

B. Memorandum of Lease. On execution of this Lease, a memorandum hereof, which memorandum shall be in the same form as Exhibit D attached hereto, shall be filed in the office of the Register of Deeds for Lancaster County, Nebraska.

28. Waiver of Breach, not Waiver of Subsequent Breaches. No breach of any lease term by Tenant shall be considered waived by Landlord by acceptance of rent, or conduct or inaction, express or implied.

29. Enjoyment of Premises. Landlord covenants that the Landlord has full authority to execute this Lease and that on the Tenant faithfully performing the terms, covenants and conditions hereof, including the prompt payment of the rent, the Tenant shall and may quietly and peacefully have, hold and enjoy the leased Premises during the term hereof.

30. Termination by Tenant.

A. Prior to the commencement of any construction on the Premises, Tenant may terminate the Lease at any time upon written notice of termination. The Lease shall continue in full force and effect through the end of the Term Year in which Tenant provides such written notice.

B. After commencement of any construction on the Premises, Tenant may terminate the Lease by providing [REDACTED] prior written notice of

termination. [REDACTED]

31. Termination by Landlord. Except as provided in Section 16 above, Landlord may not terminate the Lease during the Initial Term or any Renewal Term.

32. Time is of the Essence. It is hereby agreed that time is of the essence of this Lease and all provisions herein relating thereto shall be strictly construed.

33. Binding on Heirs and Assigns. The terms hereof shall bind and benefit the heirs, executors, administrators, successors and assigns of the Landlord and Tenant.

34. Notification. Any notice, designation, consent or approval required or permitted hereunder shall be in writing and either: (i) delivered personally, (ii) sent by email or other electronic means of which there is a permanent record, or (iii) mailed by certified mail, return receipt requested, addressed to the parties at their respective principal business addresses or residences. Any notice forwarded by mail in accordance with the terms of this section shall be deemed to have been delivered to the other party three (3) business days following the date of mailing. Addresses for purposes of this section unless otherwise designated in a subsequent written notice are as follows:

Landlord: Luhrs Hallam Investments, LLC
c/o Robert L. Luhrs
7376 N 122 Ave Circle
Omaha, NE 68142-1670
Email: rlluhrs@aol.com

With a copy to: Andrew R. Willis
Cline, Williams, Wright, Johnson & Oldfather, LLP
233 South 13th Street, Suite 1900
Lincoln, NE 68508
Email: awillis@clinewilliams.com

Tenant: Monolith Nebraska, LLC
Attn: Rob Hanson
1700 Seaport Blvd., Suite 110
Redwood City, CA 94063
Email: rob.hanson@monolithmaterials.com

With a copy to: Holland & Hart LLP
Attn: Sam Edwards
555 17th St, Suite 3200
Denver, CO 80202
Email: sedwards@hollandhart.com

35. Modification of Lease. No modification of this Lease shall be effective unless

it is in writing and is signed by the Tenant and Landlord.

36. Nonmerger. The fee title held by Landlord shall not merge with and terminate the leasehold interest held by Tenant under any circumstances (whether voluntary or involuntary or effected by the Landlord or Tenant).

37. Brokers. Each of Landlord and Tenant warrants and represents to the other that there are no brokers' commissions, finders' fees or any other charges due to any broker, agent or other party in connection with the negotiation or execution of this Lease. Each party shall indemnify, defend, protect and hold the other party harmless from and against all damages, losses, costs, expenses (including reasonable attorneys' fees), liabilities and claims with respect to any claims made by any broker or finder based upon such broker's or finder's representation or alleged representation of such indemnifying party.

38. Miscellaneous.

A. The captions of this Lease are for convenience only and are not to be construed as part of this Lease and shall not be construed as defining or limiting in any way the scope or intent of the provisions hereof.

B. If any term or provision of this Lease shall to any extent be held invalid or unenforceable, the remaining terms and provisions hereof shall not be affected thereby, but each term and provision of this Lease shall be valid and enforced to the fullest extent permitted by law.

C. Choice of Law. This Agreement shall be governed by, and construed in accordance with, the internal laws of the State of Nebraska. Any legal action or proceeding with respect to this Agreement or any document related hereto shall be brought only in the district courts of Nebraska, or the United States District Court for the District of Nebraska, in either case located in Lincoln, Nebraska, and, by execution and delivery of this Agreement, each party hereto hereby accepts for itself and in respect of its property, generally and unconditionally, the jurisdiction of the aforesaid courts. The parties hereto hereby irrevocably waive any objection, including, without limitation, any *forum non conveniens*, which any of them may now or hereafter have to the bringing of such action or proceeding in such respective jurisdictions.

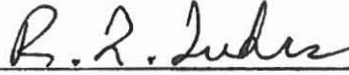
D. All oral negotiations between the parties are merged herein. There are no oral covenants or agreements made by either party hereto except as expressly set forth in writing herein.

E. All payments to be made under this Lease shall be made without notice or demand, unless otherwise provided herein.

IN WITNESS WHEREOF, the parties hereto have caused this Lease to be executed the day and year first above written.

"LANDLORD"

LUHRS HALLAM INVESTMENTS, LLC,
a Nebraska limited liability company



Robert L. Luhrs, Member

"TENANT"

MONOLITH NEBRASKA, LLC,
a Delaware limited liability company

By: Monolith Materials, Inc.,
Managing Member

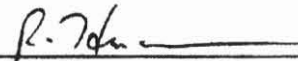
By: 
Rob Hanson, CCO

EXHIBIT A
Legal Description

Lot Twenty (20), in the Northeast Quarter of Section Thirty (30),
Township Seven (7) North, Range Six (6) East of the 6th P.M.,
Lancaster County, Nebraska.

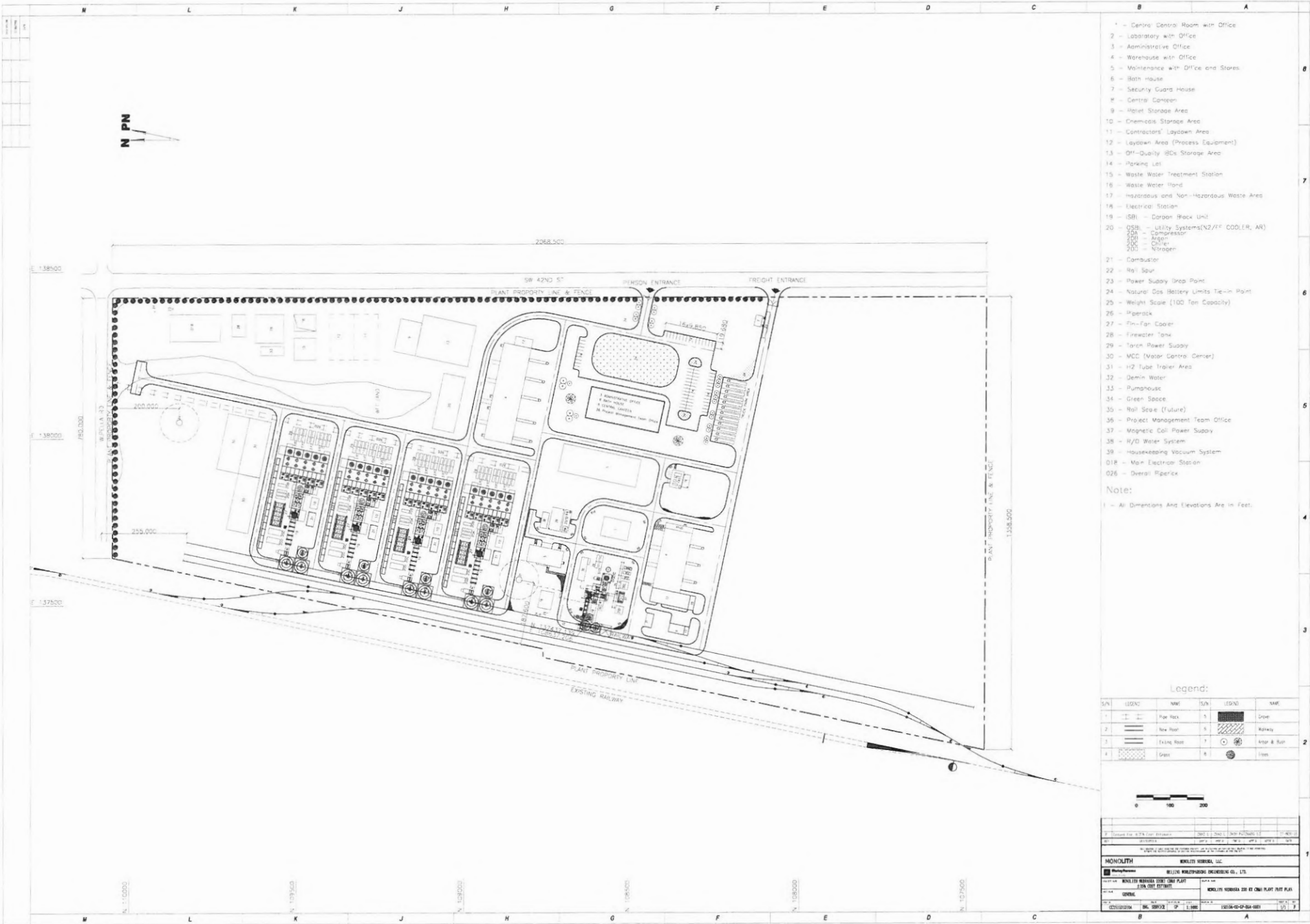
EXHIBIT B
Annual Rent Amounts

Initial Term	
Lease Year	Annual Rent
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

First Renewal Term	
Lease Year	Annual Rent
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	

Second Renewal Term	
Lease Year	Annual Rent
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	
65	

EXHIBIT C
Site Plan



- 1 - Central Control Room with Office
- 2 - Laboratory with Office
- 3 - Administrative Office
- 4 - Warehouse with Office
- 5 - Maintenance with Office and Stores
- 6 - Bath House
- 7 - Security Guard House
- 8 - Central Corridor
- 9 - Waste Storage Area
- 10 - Chemical Storage Area
- 11 - Contractors' Laydown Area
- 12 - Laydown Area (Process Equipment)
- 13 - Off-Quality BDCs Storage Area
- 14 - Parking Lot
- 15 - Waste Water Treatment Station
- 16 - Waste Water Pond
- 17 - Hazardous and Non-Hazardous Waste Area
- 18 - Electrical Station
- 19 - ISBI - Carbon Back Unit
- 20 - OSB - Utility Systems (N2/FF COOLER, AR)
- 20A - Compressor
- 20B - Argon
- 20C - Oxygen
- 20D - Nitrogen
- 21 - Combustor
- 22 - Rail Spur
- 23 - Power Subdy (Prep Point)
- 24 - Natural Gas Battery Limits Tie-in Point
- 25 - Weight Scale (100 Ton Capacity)
- 26 - Pierack
- 27 - Fin-Fin Cooler
- 28 - Firewater Tank
- 29 - Turbin Power Supply
- 30 - MCC (Water Control Center)
- 31 - H2 Tube Trailer Area
- 32 - Demin Water
- 33 - Pumphouse
- 34 - Green Space
- 35 - Rail Spue (future)
- 36 - Project Management Team Office
- 37 - Magnetic Coil Power Supply
- 38 - H/O Water System
- 39 - Housekeeping Vacuum System
- 01R - Main Electric Station
- 026 - Derrail Riferick

Note:
1 - All Dimensions And Elevations Are in Feet.

Legend:

S/N	SYMBOL	NAME	S/N	SYMBOL	NAME
1	[Symbol]	Pipe Rack	5	[Symbol]	Drove
2	[Symbol]	New Road	6	[Symbol]	Walkway
3	[Symbol]	Existing Road	7	[Symbol]	Anchor & Bolt
4	[Symbol]	Grass	8	[Symbol]	Iron



MONOLITH CHEMICAL INDUSTRIES, INC. PROJECT: MONOLITH CHEMICAL INDUSTRIES, INC. 200 FT CHU PLANT P&ID PLAN

DATE: 10/20/2011

BY: [Name]

SCALE: AS SHOWN

PROJECT NO: 120104-01-001-001

EXHIBIT D

After recording please return to:
Andrew R. Willis
Cline Williams Wright Johnson
& Oldfather, LLP
233 South 13th Street, Suite 1900
Lincoln, NE 68508

MEMORANDUM OF LEASE

KNOW ALL MEN BY THESE PRESENTS that Luhrs Hallam Investments, LLC, a Nebraska limited liability company ("Landlord") and Monolith Nebraska, LLC, a Delaware limited liability company ("Tenant") have entered into that certain ground lease ("Lease") of property legally described as:

Lot Twenty (20), in the Northeast Quarter of Section Thirty (30), Township Seven (7) North, Range Six (6) East of the 6th P.M., Lancaster County, Nebraska.

The term of said lease commenced on December 31, 2015, and shall terminate on December 30, 2041. Provided, the term of the lease may be renewed for two (2) additional twenty (20) year terms if the Tenant is not in default of the lease.

This memorandum is not a complete summary of the terms of the Lease. The terms of the transaction referred to herein are contained in the Lease. This document is intended only to provide record notice of the Lease referred to herein. Provisions of this Memorandum shall not be used in interpreting the provisions of the Lease. In the event of a conflict between this Memorandum and the unrecorded Lease, the unrecorded Lease shall control.

(Signature and notary page follows)

IN WITNESS WHEREOF, the parties hereto have caused this Memorandum to be executed as of the 23 day of December, 2015.

"LANDLORD"

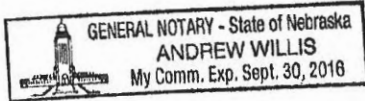
LUHRS HALLAM INVESTMENTS, LLC,
a Nebraska limited liability company

R. L. Luhrs

Robert L. Luhrs, Member

STATE OF NEBRASKA)
) ss.
COUNTY OF LANCASTER)

The foregoing instrument was acknowledged before me this 23rd day of December, 2015 by Robert L. Luhrs, Member of Luhrs Hallam Investments, LLC, a Nebraska limited liability company, on behalf of said company.



Andrew Willis

Notary Public

Please See Attached
Acknowledgement
From Notary Public

"TENANT"

MONOLITH NEBRASKA, LLC,
a Delaware limited liability company

By: Monolith Materials, Inc.,
Managing Member

By: Rob Hanson
Rob Hanson, CCO
Robert

STATE OF California)
) ss.
COUNTY OF San Mateo)

The foregoing instrument was acknowledged before me this ___ day of _____, 2015 by Rob Hanson, Chief Commercial Officer of Monolith Materials, Inc., as Managing Member of Monolith Nebraska, LLC, a Delaware limited liability company, on behalf of the company.

Notary Public

Please See Attached
Acknowledgement
From Notary Public

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)

County of San Mateo)

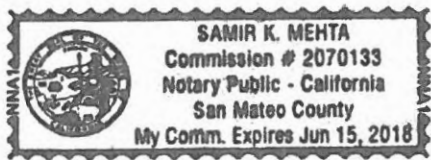
On 18th DEC, 2015 before me, Samir K Mehta, Notary Public
Date Here Insert Name and Title of the Officer

personally appeared ROBERT HANSON
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature Samir K. Mehta
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: GROUND LEASE Document Date: _____

Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: _____

Signer's Name: _____
 Corporate Officer — Title(s): _____
 Partner — Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: _____

MASSACHUSETTS
COMMISSIONERS OF REVENUE
RECEIVED
MAY 10 1913

**APPENDIX C:
OVERVIEW OF FIRE SUPPRESSION SYSTEM**

FIRE SUPPRESSION SYSTEM DESCRIPTION

1.1 General principles

The philosophy shall be focused on the ability of fire protection systems to:

- Provide cooling to plant in order to prevent escalation of the initial fire incident,
- Extinguish pool fires where retained by bunding,
- Extinguish electrical fires in Control Rooms, Local Equipment Rooms, Switchrooms, Instrument Rooms and similar spaces,
- Extinguish cellulosic fires and limit subsequent smoke development,
- For control of gas fires, the most effective strategy is to shut-off the source of fuel. Firewater cannot generally extinguish a gas fire without shutoff source, but can provide cooling of plant and equipment thus minimizing the likelihood of escalation or assisting in a means of escape by attenuation of radiation.
- Areas protected by firewater systems shall have drains sized to accommodate process leaks plus anticipated firewater flows and dispose of these in a safe and environmentally acceptable manner.
- Active firefighting systems shall be designed assuming that there will be only one major fire at a time

1.2 Firewater supply

The facility will have its own independent fire water resource: fire water tank, fire water pump sets. The fire water makeup will be coming from a well(s) for 10KT plant.

1.2.1 Fire water demand

The total fire water demand for the facility shall be based upon the largest single fire scenario identified-process unit with flow rate not less than "X" gpm (not defined yet).

1.2.2 Fire water storage

One fire water tank will be provided for largest single fire scenario for not less than 2 hours. Fire water tanks shall be designed in accordance with regulations requirements.

1.2.3 Firewater Pumps

A 100% electrical fire pump will be installed. Another 100% diesel fire pump will be installed for standby, 2x100% jockey pumps will be used to hold the pressure of fire water piping.

1.3 Types of suppression Fire Protection & Application

In the context of this document active fire protection systems take the form of the following:

- Firewater Monitors
- Firewater Hydrants
- Hose Reels and standpipe
- Portable / mobile extinguishers

1.4 Firefighting suppression system components

1.4.1 Firewater Distribution

The firewater pumps shall discharge into a ring main supplying hydrants, monitors, and hose reels. The ring main shall, as far as practicable, be run such that it is protected from accident events. Block valves shall be located to isolate sections of the main to allow maintenance without affecting the rest of the plant's individual users.

1.4.2 Yard hydrant:

Yard hydrant should be capable of providing "X" gpm (not defined yet). Yard hydrant should be provided at a spacing of no more than what is required by regulations.

1.4.3 Fire monitor:

Fire monitors will be used to protect open high-rise structure: carbon black process unit.

1.4.4 Hose reel and standpipe:

Hose Reels shall be considered where space to manoeuvre hydrant hoses is limited or where quick response is necessary.

Hose Reels (conventional surface or recess mounted) and class II standpipe system shall be considered in occupied buildings.

1.4.5 Portable / mobile extinguishers

According to the property of combustible materials and the hazard level of the fire, a certain quantity of movable fire extinguishers shall be provided at different locations to put out small initial fires.

1.5 Proposed fire protection facilities for process units and buildings

S/N	Building/Area Name	Proposed Fire Protection Facilities
1	Central Control Room with Office	Extinguishers Hydrant
2	Laboratory with Office	Extinguishers Hydrant
2A	Secondary Laboratory	Extinguishers Hydrant
3	Administrative Office	Extinguishers Hydrant
4	Warehouse	Hose reel Extinguishers Hydrant
4A	Warehouse Office	Extinguishers Hydrant
5	Maintenance and Stores	Hose reel Extinguishers Hydrant
5A	Maintenance Office	Extinguishers Hydrant
6	Bath House	Extinguishers Hydrant
7	Security Guard House	Extinguishers Hydrant
8	Central Canteen	Extinguishers Hydrant
9	Storage	
	9A. Pallet Storage Area	Extinguishers Hydrant
	9B. Chemicals Storage Area	Extinguishers Hydrant
	9C. Off-Quality IBCs Storage Area	Extinguishers Hydrant
	9D. Hazardous and Non-Hazardous Waste Area	Extinguishers Hydrant
11	Contractors' Laydown Area	Hydrant
12	Laydown Area	Hydrant
14	Parking Lot	Hydrant
15	Waste Water Treatment Station	Hose reel Extinguishers Hydrant

16	Waste Water Pond	Hydrant
18	Electrical Station	Extinguishers
19	ISBL-Carbon Black Unit	
	19A. Reactor	Hose reel Hydrant Monitor
	19B. Product Cooler	Hose reel Hydrant Monitor
	19C. MUF	Hose reel Hydrant Monitor
	19D. Process Filter	Hose reel Hydrant Monitor
	19E. Dust Filter	Hose reel Hydrant Monitor
	19F. Purge Filter	Hose reel Hydrant Monitor
	19G. Off Quality Silo	Hose reel Hydrant Monitor
	19H. Quality Silo (2)	Hose reel Hydrant Monitor
	19I. Bucket Elevator	Hose reel Hydrant Monitor
	19J. Hydrogen Preheater	Hose reel Hydrant Monitor
20	OSBL- Utility Systems	
	20A. Compressor	Hydrant
	20B. Argon	Hydrant
	20C. Chiller	Hydrant
	20D. Nitrogen	Hydrant
21	Combustor	Hydrant
22	Rail Spur	Hydrant
23	Power Supply Drop Point	Hydrant
24	Natural Gas Battery Limits Tie-in Point	Hydrant
25	Weight Scale	Hydrant
26	Pipe Rack	Hydrant Monitor
27	Fin-Fan Cooler	Hydrant
28	Firewater Tank	Hydrant
29	Torch Power Supply	Extinguishers
30	MCC (Motor Control Center)	Extinguishers
31	H2 Tube Trailer Area	Extinguishers

		Hydrant
32	Demin Water	Hose reel Extinguishers Hydrant
33	Pump House	Hose reel Extinguishers Hydrant
34	Green Space	N/A
35	Rail Scale (Future)	Hydrant
36	Project Management Team Office	Extinguishers Hydrant
37	Magnetic Coil Power Supply	Extinguishers
38	R/O Water System	Hose reel Extinguishers Hydrant
39	Housekeeping Vacuum System	Extinguishers Hydrant Monitor
40	Pipe Rack to Combustor	Hydrant

**APPENDIX D:
DRAINAGE MAP**



NO.	REVISIONS	DATE

**PHASE 1
OVERVIEW EXHIBIT**

**MONOLITH
HALLAM, NEBRASKA**

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PROJECT: 111270200
 DATE: 5/10/2016

SHEET: **1**

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