

TDS

TELECOM

VICINITY MAP

UG FOOTAGE: 18'



EXISTING UTILITIES, STRUCTURES, SITE INFORMATION AND RIGHT OF WAY DIMENSIONS SHOWN HEREIN ARE DEPICTED ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF ENGINEERING. NO SURVEY WAS PERFORMED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY CABLE FOOTAGES, PLACEMENT LOCATIONS, AND RIGHT OF WAY DIMENSIONS AND TO DISCUSS ANY DISCREPANCIES (PERCEIVED OR ACTUAL) WITH THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK. FURTHERMORE, IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND MAINTAIN PROPER SEPARATION FROM EXISTING UTILITIES ACCORDING TO THE LOCAL LAWS AND GUIDELINES.



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☒ VILLAGE OF ALLOUEZ

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SHEET TITLE:

COVER SHEET

PERMIT ID:

GB_AL0914GA_NODE

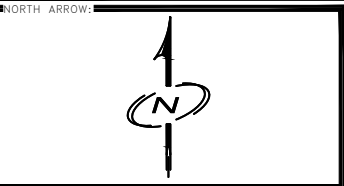
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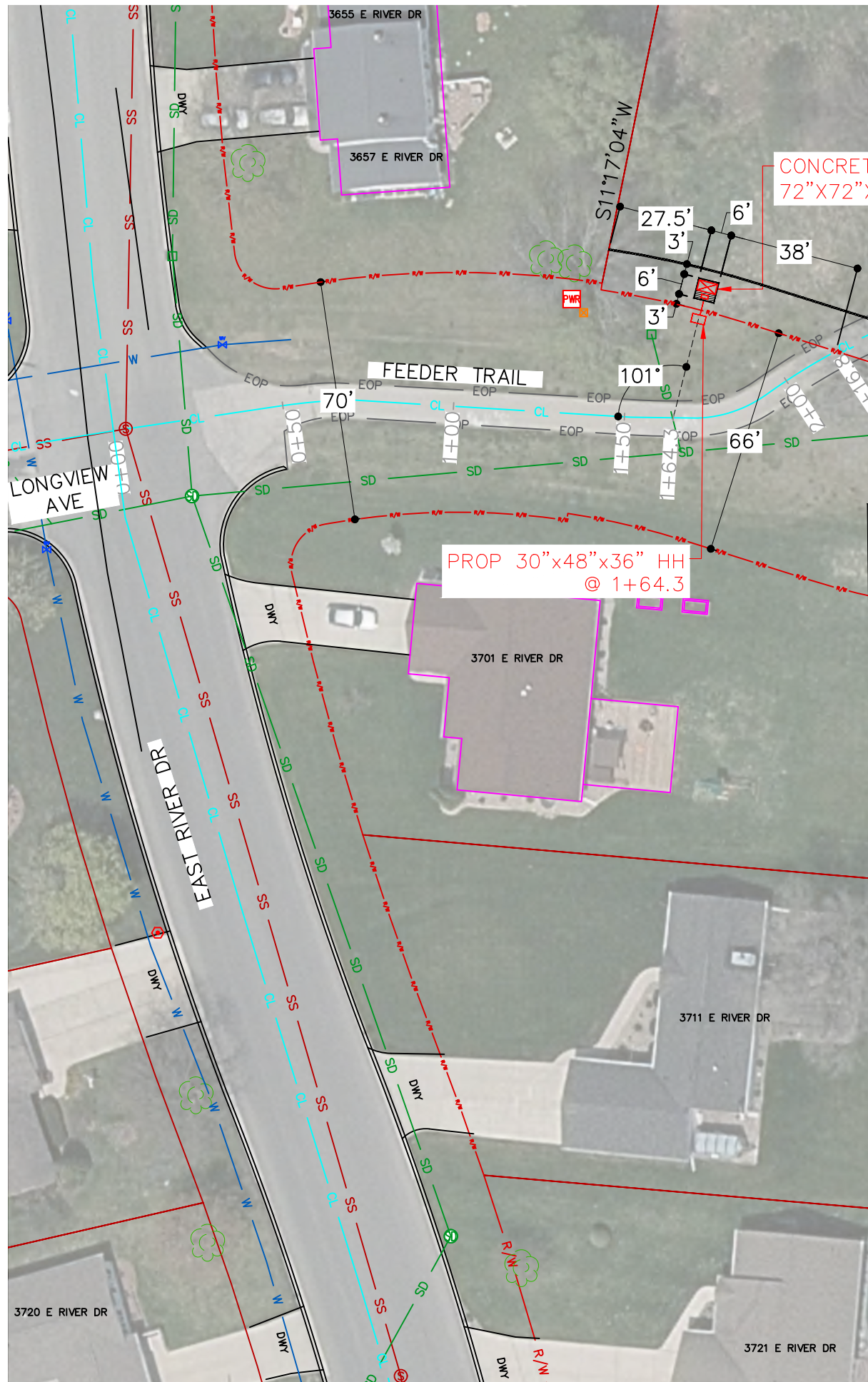
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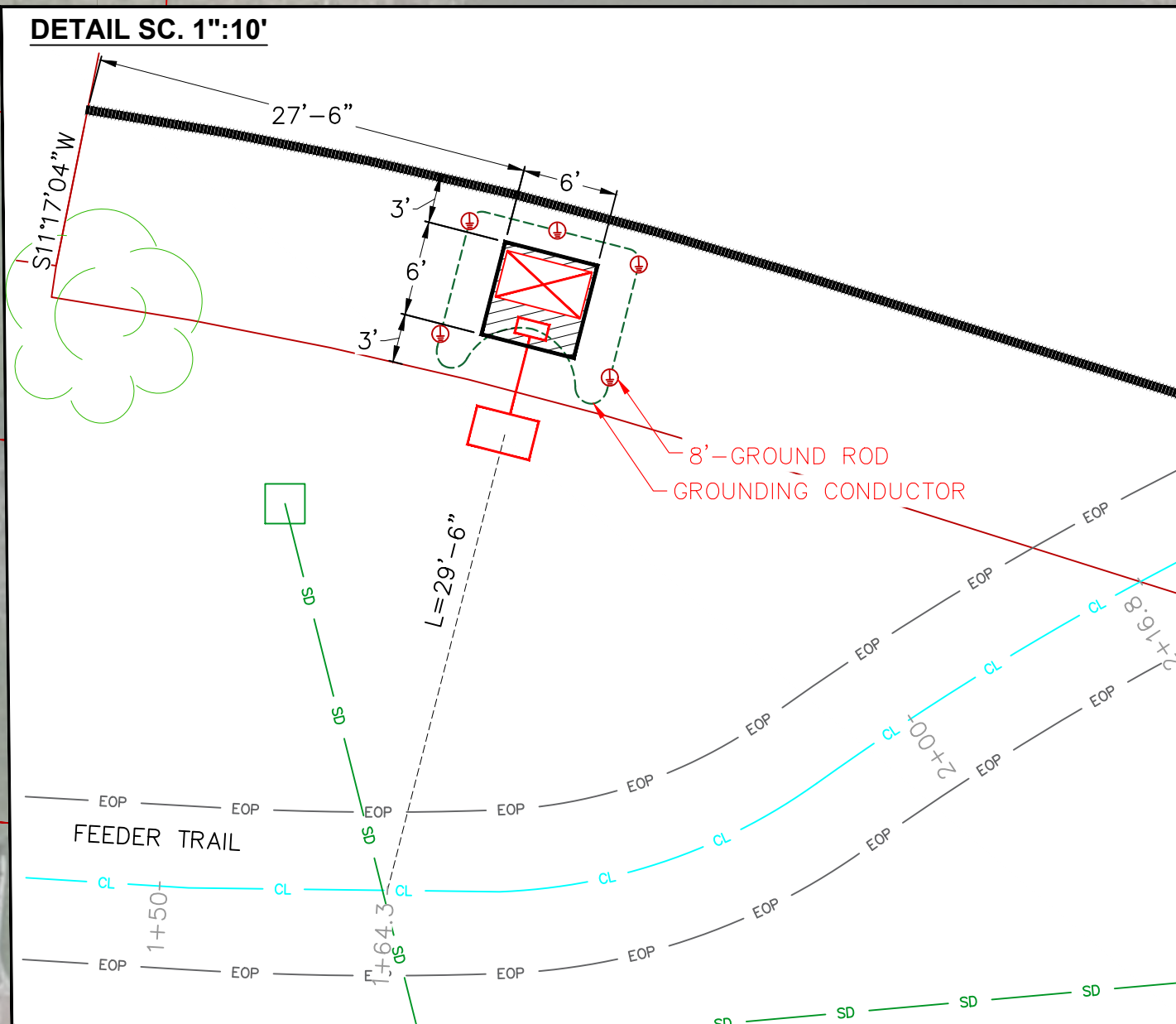
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NOTE: RESTORE DISTURBED AREA TO ITS ORIGINAL CONDITION, IF NOT BETTER CONDITION.

NOTE: FOR SCREENING THE CABINET, PLANT REGEL'S BORDER PRIVET 3-4 FEET APART (BOTANICAL NAME: LIGUSTRUM OBTUSIFOLIUM VAR. REGELIANUM)



SHEET TITLE:

DESIGN

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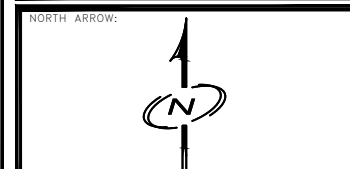
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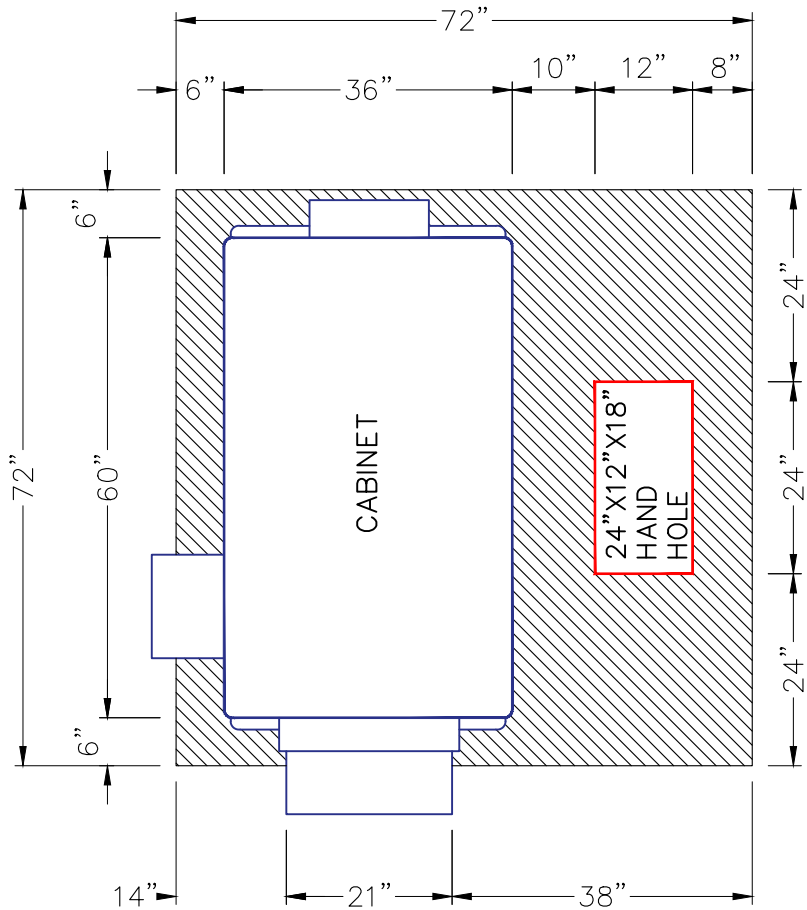


SCALE: 1" = 40'

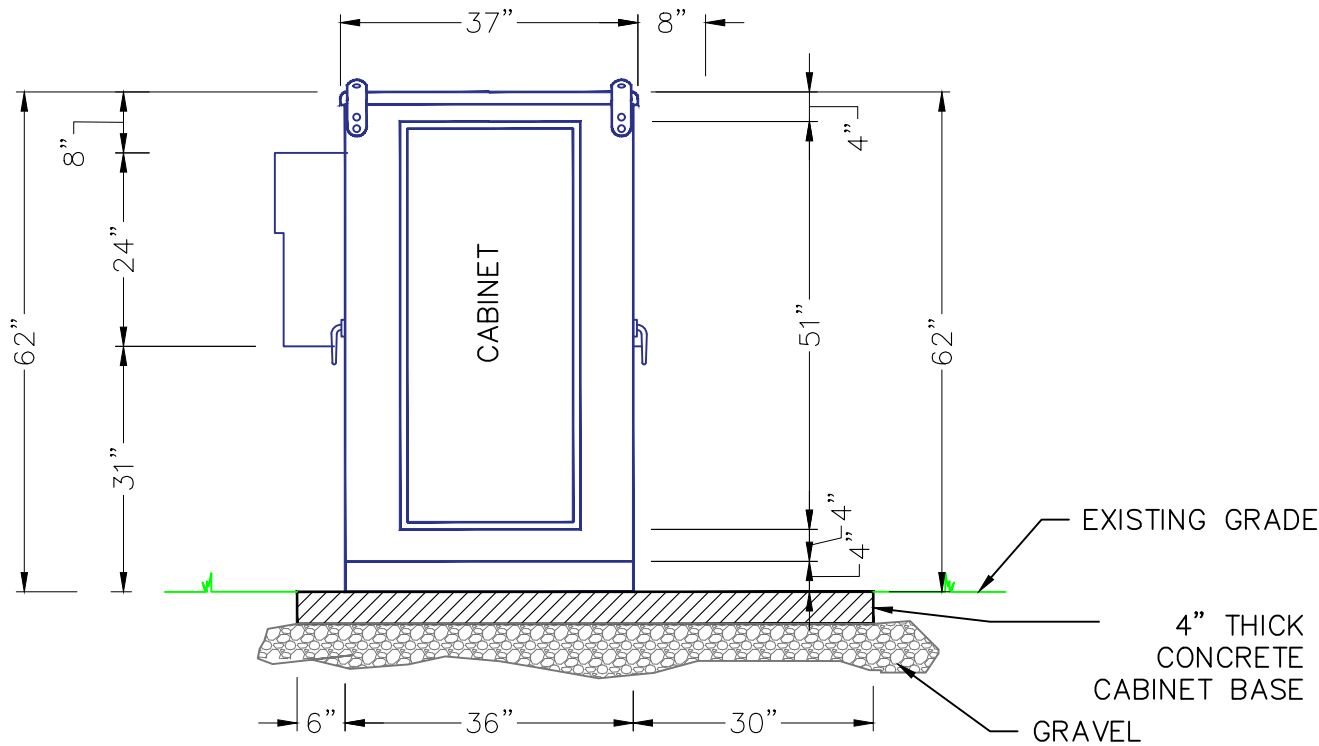
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NODE CABINET DETAIL
 (AM58P-6036-60RU-VIK)

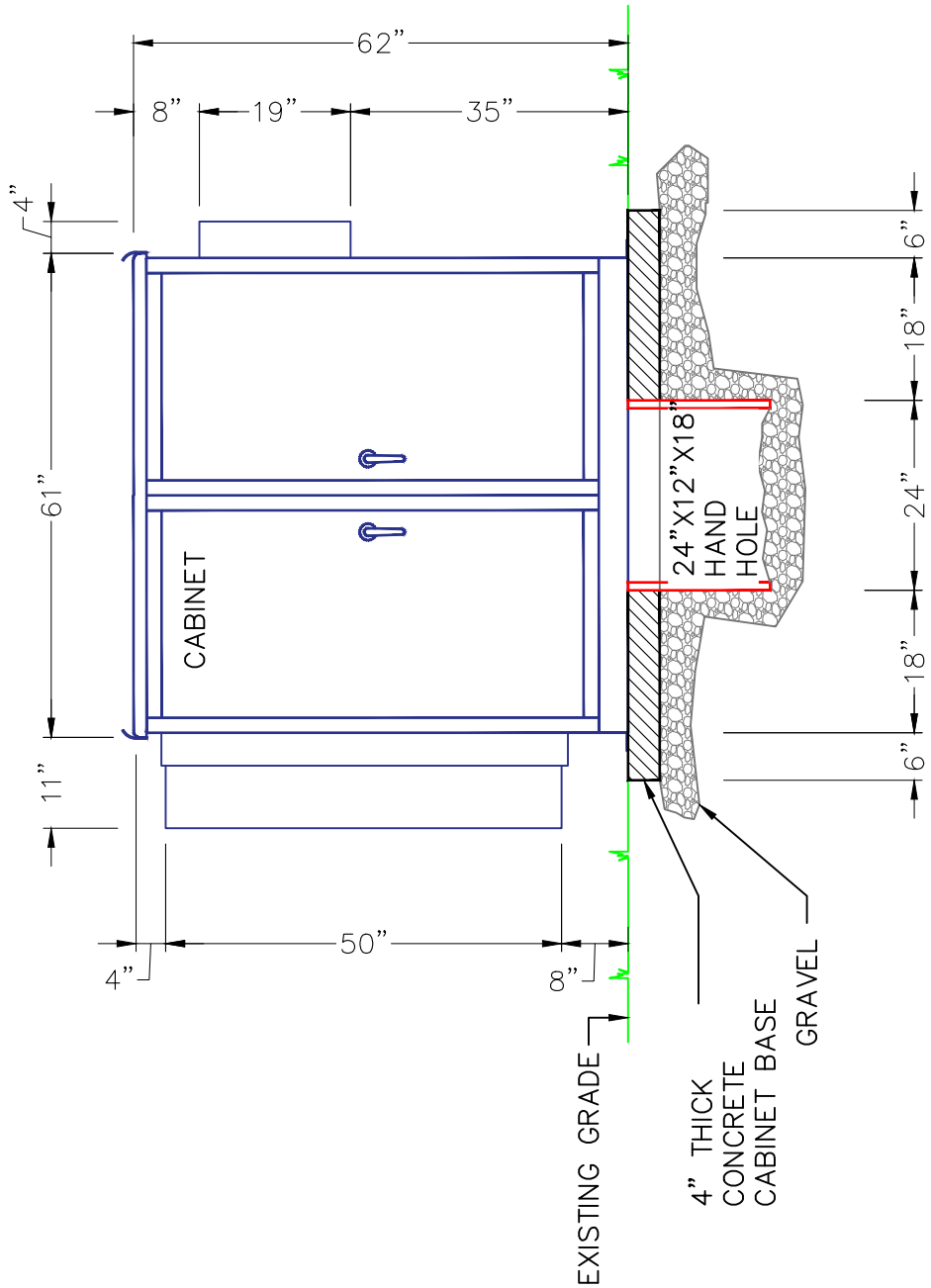
PLAN VIEW



SIDE VIEW



FRONT VIEW



-CONSTRUCTED OUT OF .125 ALUMINUM, POWDER COAT BEIGE IN COLOR, FRONT & REAR ACCESS DOOR WITH 3PT S/S PAD-LOCKABLE DOOR LATCHES,
 -FOR SCREENING THE CABINET, PLANT REGEL'S BORDER PRIVET 3-4 FEET APART (BOTANICAL NAME: LIGUSTRUM OBTUSIFOLIUM VAR. REGELIANUM)



SHEET TITLE:

CABINET VIEW

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SCALE: 1" = 2'

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Ground Field Diagram and Notes (Generic) – Macro Cabinet
BM20 Unit Detail Typical Drawing

Ground Rod Specifications

1. All ground rods are to be a minimum $\frac{5}{8}$ " diameter copper plated steel.
2. All ground rods are to be a minimum of 8' in length. All ground rods at the site should be equal in length. Placement depth should not exceed 20'.
3. The minimum spacing between ground rods is to be 8' or two thirds the length of the rod (whichever is greater).
4. All ground rods must be driven a minimum of 24" below final grade.
5. All ground rods must be driven a minimum of one half their length below the frost line of the region.

Primary Ring Conductor

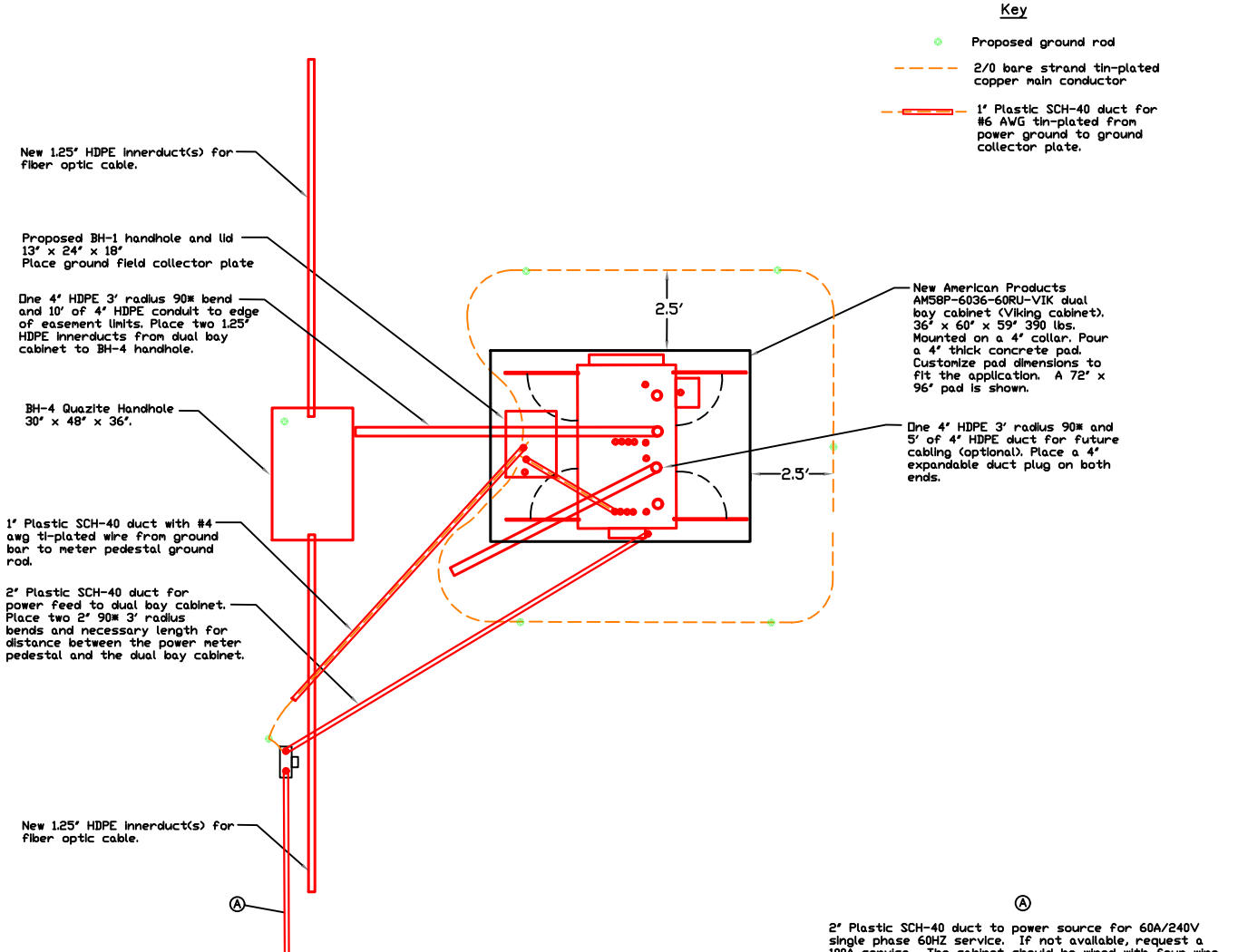
1. The conductor shall be soft drawn tin plated copper (95% conductance upon annealing).
2. The conductor should be a minimum of 1awg per foot. Example: A six rod ring approximately 50' in circumference will require 2/0 wire.
3. Conductor wire placement is to be done minimizing sharp bends and angles.
4. Conductor wire shall be placed in one continuous piece if possible.
5. In cases where a ring configuration is not possible, a linear chain may be substituted on opposing vectors from the cabinet.
6. The conductor shall be placed at a 20" minimum depth below final grade.
7. In locations where the soil has high acidity or where frost heave is a concern, the ring is to be shaded with a 4" diameter covering of sand or fine aggregate.
8. Maintain a minimum 8' distance from the nearest non-interacting metallic element such as other ground fields, electrical cables or electrical conduits. Where electrical voltages exceed 480V, additional spacing is required.

Ground Field Connections

1. The ground rod to primary ring conductor shall be made with an exothermic weld making use of a mold specific to the application being welded. Non-molded exothermic welds are not permitted.
2. All welds are to be made using the mold manufacturer's procedures.
3. The primary conductor to ground field collector plate shall be made with a Thomas and Betts compression lug matching the size and type of conductor. A minimum 10T crimping tool must be used for all grounding connections.
4. All fasteners shall be of either 18-8 or 316 series stainless steel torqued to the approximate specification for the fastener using flat washers on both sides of the fastener assembly and a split washer on the nut-end of the fastener. Lock-nuts are not permitted.
5. All connections are to be made with a bolt passing through the ground plate and lug consisting of a bolt, two flat washers, a split-ring and nut.
6. All torqued fasteners shall be marked with torque marks on top of each nut with black paint.
7. The nut-side of the fastener assemble shall be accesible for inspection whenever possible.

Ground Ring Collector Plates

1. The minimum size is to be 10" x 2" x $\frac{1}{4}$ " tin coated copper buss plate with landings for $\frac{1}{4}$ " x $\frac{5}{8}$ " and $\frac{3}{8}$ " x 1" lugs.
2. No alterations to the ground plate are to be made.
3. Isolation cherries are required on the connections to the concrete handhole or BH-2 handhole.
4. The grounding test plate is to be placed inside a concrete or plastic enclosure. The recommended solution is use of Quazite 13" x 24" x 18" handhole.
5. The enclosure housing the collector plate must be placed atop a minimum of 8" of pea gravel to assure proper drainage.



Viking Cabinet Attachment to Ground Ring Collector Plate

A single conductor connection between the cabinet ground point and the ground ring collector buss shall be made using 4awg green insulated copper wire if the site does not involve a tower. If a tower is part of the construction, a dual conductor connection is needed.

1. Conductors attaching the cabinet to the ground collector buss shall be placed inside 1" non-metallic conduit where the path to the collector buss runs through earth.
2. Connections to fixtures outside the cabinet (such as cross-connect cabinets or towers) must be made directly to the collection buss. It is recommended to use conduit around these connections wherever possible.
3. When all of the components are outdoors (such as installations making use of E3 DSLAMs), special attention to grounding is required. Two ground connectors must be used – one attaching the electronics and power plant, the second connecting any cross-connect fixture. Both conductors are to be attached to separate ends of the collection buss with the ground field and utility meter connection between.
4. All ground collections made above or below grade must be collected on the copper buss collector plate. It is not permissible to collect grounds on a steel or galvanized surface.

- * No ground conductors may pass through a completely enclosed metallic structure.
- * A minimum bend radius of 6" must be maintained for all conductors.

①
2" Plastic SCH-40 duct to power source for 60A/240V single phase 60HZ service. If not available, request a 100A service. The cabinet should be wired with four wire THWN-2, 6AWG Copper (Black, Red, White, Green). Galvanized rigid conduit is preferred if the power feed is entering the meter pedestal above grade. If the power is entering the meter pedestal below grade, use SCH40 plastic duct instead. Contact the local power company in advance to confirm if they will use what is proposed. They may prefer provide and place their own materials instead to enter the meter pedestal.

AC Service and Load-Center Interconnectivity

1. NFPA 70 requires the utility to have a separate ground field than the telecom ground field with a minimum of two $\frac{5}{8}$ " ground rods placed 8' apart. Non-reversible connections to the top of each ground stake is required NEC, although cad welding is recommended.
2. NFPA 70 Section 20017-800.100(D) now requires a minimum of a 6awg connection between the ground field and the utility ground when the ground rods are within a 25' radius of each other.
3. The best practice would be to bring the 6awg for the utility bond to the ground collector buss through a length of conduit using a compression lug on the buss. This will allow for future removal to test the ground field.
4. If for some reason it is not possible to bring the utility ground to the collector buss, a #6 bond between the closest two stakes of the ground fields is permitted.
5. A minimum of 8' between the closest ground-stake of the utility ground and the telecom ground must be maintained. In cases where the meter is mounted to the same physical structure, the ground field is to be installed to attain minimum clearances.



SHEET TITLE:

GROUND FIELD
DIAGRAM

PERMIT ID:

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