

AGENDA ITEM
23c

ARF-3023

REGULAR SESSION AGENDA

Date: 02/22/2011

CenterPoint T&C Agreement

Submitted For:

Don Brady

Facilities Management & Planning

Submitted By: Laura Dougherty,
Facilities
Management &
Planning

Department: Facilities Management & Planning

Type of Item: Discussion Item

Renewal Agreement/
Appointment:

Reviewed by County Yes

Attorney's Office:

Multiple Originals Y/N?: Y

Information

SUMMARY OF ITEM

Deliberate and take all appropriate action on the Terms & Conditions for Underground Electric Service agreement with CenterPoint Energy (CNP) in regard to the University Branch Library.

SPECIAL HANDLING

Attachments

Link: CenterPoint T&C Agmt

2-24-11 copy received

FM 110190

TERMS & CONDITIONS UNDERGROUND ELECTRIC SERVICE

FOR

**Fort Bend County
University Branch Library
14010 University Blvd.**

Job #56545014

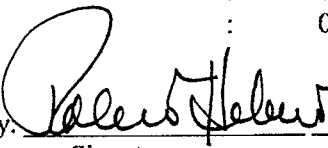
**CenterPoint Energy (CNP)
Major Underground Department
P. O. Box 1700; Houston, Texas 77251-1700**

REFERENCE FORT BEND COUNTY DRAWINGS:

Site Plan	Drawing #: <u>E-101</u>	Dated: <u>March 1, 2010</u>
Utility Plan	Drawing #: <u>E-101</u>	Dated: <u>March 1, 2010</u>
Electrical One-Line	Drawing #: <u>E-501</u>	Dated: <u>March 1, 2010</u>
Load Analysis	Drawing #: <u>E-501</u>	Dated: <u>March 1, 2010</u>

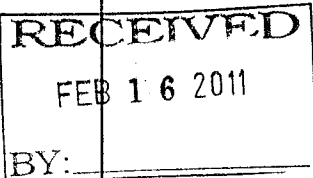
REFERENCE CENTERPOINT ENERGY SPECIFICATIONS:


Service Standards	:	February 16, 2009
Emergency Generators	:	007-231-82
Ready-Mix Concrete	:	007-221-01
Harmonic Distortion	:	007-231-83

Reviewed And Agreed To By:  County Judge February 22, 2011
FORT BEND COUNTY Signature Title Date

Robert Hebert
Print Name

If this Terms & Conditions package is signed by anyone other than an official from Fort Bend County, it will not be considered valid. A valid signature will be considered an acceptance of all information contained within this Terms & Conditions package.



						CenterPoint Energy Houston, Texas		
						WRITTEN	AAO	02/08/11
						CHECKED	RJG	02/08/11
						APPROVED	MEM 	02/08/11
						SHEET 1 OF 14 SHEETS		
NO.	DATE	ITEMS REVISED	BY	CH	APP			

GENERAL

- A. These Terms and Conditions are for a service arrangement for Fort Bend County. Fort Bend County and/or its contractors/representatives are herein referred to as the Customer.
- B. Service to be provided by CenterPoint Energy (CNP) from (1) 750 kVA, 34.5 kV – 480Y/277 V, three phase, four wire, pad mounted transformer.
- C. The CNP Major Underground Department (MUD) Engineering representative is Akin Oyekenu at 713-207-6152 or Adewemimo.Oyckenu@CenterPointEnergy.com.

The CNP Key Accounts representative is Charles Cunningham at 713-207-3832.

The CNP Service Area Consultant is Bryan Anderson at 281-561-3211.

- D. The Customer must comply with all CNP Service Standards, the National Electrical Code, the National Electrical Safety Code, all Occupational Safety and Health Administration (OSHA) requirements, the International Building Code and all local governing body codes.
- E. During installation of CNP equipment, CNP will make every effort to preserve the Customer's landscaping, parking areas, or other facilities. However, any cost that has been quoted to the Customer does not include any special replacements or repairs to these items. The Customer shall be solely responsible for any expenses associated with replacements or repairs to its facilities.
- F. The service arrangement outlined in these Terms and Conditions is based on the Customer drawings referenced on page 1. Any changes in the design as illustrated in the referenced drawings may impact CNP's ability to meet the Customer's requested service date.

Any changes, additions, deletions, rearrangements, relocations, rerouting, reduction of clearances, etc., of the Customer's and/or CNP's service facilities illustrated in these Terms and Conditions shall have the MUD's approval and may require a revised Terms and Conditions. It is the Customer's responsibility to coordinate the location of all Customer installed facilities outlined in these Terms and Conditions with all other structures and/or appurtenances not shown in the referenced drawings.

- G. Contact the MUD Engineering representative concerning Customer drawing revisions, information submission, questions, Terms and Conditions revision requests, etc.
- H. Hard copy submittals may be mailed to the MUD Engineering representative (address – 3000A Harrisburg Blvd. – Houston, Texas 77003). Electronic submittals may be e-mailed to the MUD Engineering representative. The MUD Engineering representative will; “approve the submittals”, “approve the submittals as noted” or “not approve the submittals”. The Customer shall not install any item that requires CNP approval before receiving an official approval from the MUD. CNP shall not be responsible for any installed item that has not received MUD approval.

SERVICE CONNECTION

- A. The Customer's maximum number of secondary cables that can be terminated in CNP's pad mount transformer is 8-750 MCM cables per phase. The Customer shall advise the MUD Engineering representative, about the type, size and number of secondary conductors. Ampacity equivalent sets of cable must be individually approved by the MUD Engineering representative prior to installation by the Customer. If the Customer's cable requirements exceed this specified maximum limit, it cannot be served directly from the pad mounted transformer. The Customer shall then install, own, and maintain a cable tap box (CTB) (See Section D).
- B. On installations not utilizing a CTB, the Customer shall furnish, own, and maintain all secondary service conduit and cable underground into the secondary opening of the transformer pad. Secondary conductors shall be extended a minimum of seven feet (7') above the transformer pad. **The Customer shall not install the secondary cables until after the transformer has been set. CNP will terminate the secondary cables in the transformer.**
- C. To accommodate future expansion, the Customer may install up to 8-4" secondary conduits into the transformer pad.
- D. On installations utilizing a CTB, CNP shall furnish, own, install and terminate the secondary cable from the transformer to the CTB at the Customer's expense. The Customer shall furnish, install, own and maintain the CTB, the CTB pad, and 8-4" conduits from the secondary opening of the transformer pad to the CNP side of the CTB pad. The Customer shall install and terminate the secondary cable from its side of the CTB to its switchgear. Typical three-phase CTB drawings are available upon request. The Customer shall submit three (3) drawings of the proposed CTB to the MUD Engineering representative for approval prior to fabrication.
- E. The initial available short circuit current is 16,957 amperes symmetrical, with an X/R ratio of 8.0.
- F. The ultimate available short circuit current is 34,366 amperes symmetrical, with an X/R ratio of 3.1.
- G. Customers receiving electrical service from multiple sources will be required to install a permanent plaque or directory at each source in accordance with Article 230.2 of the National Electrical Code (NEC). These plaques are to signify that there is more than one electrical service to the building. The Customer shall keep the power from each source separate throughout its entire electrical system. This requirement is for the life of the service.
- H. A protective device coordination study for the Customer's service relative to CNP's protective devices may be requested by contacting the MUD Engineering representative.

ACCESS

The Customer must provide a twelve foot (12') minimum width, fourteen foot (14') minimum vertical clearance, all weather, vehicle access road designed for HS-20-44 loading as recognized by the American Association of State Highway Officials (AASHO), for CNP personnel and equipment to the proposed pad mounted equipment location. If the access road and the pad mounted equipment location have not been completed and passed final inspection (see Final Inspection, page 7) at the time the Customer requests the equipment be set, the equipment can only be set under the following conditions.

- A. The MUD has determined that the access route is dry and readily accessible to CNP's normal installation equipment.
- B. The Customer shall be responsible for all expenses associated with the repair and/or replacement of CNP pad mounted equipment damaged by additional construction activity. Damage to CNP equipment may result in delays to the Customer's requested service date.
- C. CNP will not complete the underground construction (i.e. pulling & terminating cable, energizing the service, etc.) until the access road and pad mounted equipment location have passed final inspection (see Final Inspection, page 7).

The Customer must provide a thirty two foot (32') minimum vertical clearance over all equipment pads for CNP trucks and equipment.

The Customer must maintain these requirements for the life of the service.

CNP will utilize the Customer's parking and driveway facilities for the required access.

EMERGENCY GENERATION AND SECONDARY LOAD TRANSFER

Customer installed Emergency Generators and/or Secondary Load Transfer schemes shall meet the requirements of the CNP Specification on Customer Emergency Generation and Secondary Load Transfer, Specification 007-231-82, latest revision (available upon request). This requirement is for the life of the service.

Generator exhaust must be located and/or directed away from CNP's equipment.

HARMONIC DISTORTION

The Customer shall meet the requirements of the CNP Specification on Limitation of Harmonic Distortion on the Distribution System, Specification 007-231-83, latest revision (available upon request). This requirement is for the life of the service.

METERING

- A. The Customer's metering arrangement must comply with CNP Service Standards, Section 400 or 500 as applicable.
- B. The metering current and potential transformers (CT's and PT's) will be installed in the secondary compartment of the transformer provided all service from the transformer is through one meter. If all the services are not through one meter, the Customer shall inform the MUD Engineering representative, so that alternate metering provisions can be arranged (separate CT and PT cans as required for each service).
- C. All Retail Customers must be metered separately.
- D. Meter Room and/or Modular Meter installations must have CNP written approval prior to the purchase/installation of materials/equipment. The Customer must submit applicable drawings to the MUD Engineering representative for approval.

FACILITIES INSTALLED BY THE CUSTOMER

All facilities are to be installed per the attached construction specifications. The Customer or its contractor is to request a preconstruction meeting prior to starting the required underground construction by calling the number listed below.

All facilities shall be inspected by CNP after the conduit is installed, pads are formed, reinforcing rods installed, etc. but prior to the pouring of concrete. CNP recommends that the Customer complete the pouring of concrete on the day the facilities are inspected and approved. The Customer will insure that all inspected and approved facilities remain in the approved condition until the concrete pour has been completed. If there is damage to the inspected and approved facilities prior to the pouring of concrete, the facilities must be re-inspected by CNP before the Customer begins the pouring of concrete. CNP reserves the right to require the Customer to break out any unapproved concrete pours at its expense.

CNP will make a reasonable attempt to complete all inspection requests. To insure that inspection requests can be fulfilled, they should be made twenty-four (24) hours in advance (Mon. - Fri.; between 9:00 a.m. and 3:00 p.m., holidays excluded) to the Major Underground Department at (713) 207-6229. Job #56545014 must be provided as the inspection identification number.

PRECAST MANHOLES

CNP will allow the Customer the option to install either poured-in-place or approved precast manholes. The use of precast manholes is approved for all locations where the vehicular loading does not exceed AASHO HS-20-44 Highway Loading (72,000 pounds).

CNP's current approved supplier is Oldcastle Precast, 13600 South Wayside Road, Houston, Texas 77048, (713) 934-7900. **Three (3) copies of the supplier's drawing must be submitted to the Engineering contact, for approval prior to procurement and/or installation.**

CNP also recommends the installation of the required duct bell terminators by the manhole supplier on all precast manholes. Manholes are to be placed on a minimum of six inch (6") leveled base of sand or crushed rock to insure uniform distribution of soil pressure on the floor. CNP must inspect this requirement prior to the installation of the manhole inside the exposed pit.

The use of precast necks is not approved. The Customer must comply with CNP's Distribution Standard #675-100 for installation of the neck, casting and cover.

DUCTBANK INSTALLATION

All proposed conduit for CNP's use is to be installed in straight runs, unless otherwise indicated on CNP drawings. Any conduit bends must be installed with a twenty foot (20') minimum radius, unless indicated otherwise on CNP drawings. Conduit turn-ups into any equipment pad and/or pole pedestal must have a minimum five foot (5') radius. Any deviations from these requirements shall have written approval from the MUD Engineering representative prior to installation.

During installation, the minimum depth for a conduit run must be referenced to the final grade.

The Customer is to delay installation of approximately the last twenty feet (20') of the conduit run and the pole pedestal to any terminal pole until the pole has been set by CNP. Before trenching to the base of any terminal pole, the Customer must securely brace the pole. The Customer must request staking and setting of any terminal pole by contacting the MUD Engineering representative.

The Customer must provide a jet line in each conduit installed. This jet line shall extend a minimum of seven feet (7') beyond the end of each conduit.

For installations not utilizing a blanket easement document (see Easement Instrument section, page 7), the Customer shall also install a #14 American Wire Gage (AWG) or larger aluminum or copper 600 volt insulated conductor in one of the conduits. The conductor must be electrically continuous. For manhole installations, the electrically continuous conductor must also be looped through each manhole lid and tied to a concrete insert in the neck of each manhole. This conductor is to facilitate surveying of the duct bank by CNP. The duct bank cannot be surveyed until this conductor is installed as prescribed. The Customer must take adequate measures to assure the conductor will be in place until all necessary surveying is completed. After surveying of the duct bank is completed, but prior to CNP installing any primary cable, the Customer may retrieve its conductor at its option.

Conduit ends shall be plugged with a duct cap or other type capping device. The use of rags to plug conduits is not acceptable. If the conduit is installed in stages, the Customer must keep each section of conduit capped until the new section is installed. If, prior to CNP using any conduit, the conduit is found to be blocked, the Customer will be responsible, at its expense, for removing the obstruction.

CLEARANCES

Final approval for the location of the pad mount equipment and/or other proposed electrical installation is contingent upon proper clearance, as determined by CNP, from cooling towers, vents, buildings, structures, etc., and other underground utilities. It is in the Customer's and CNP's best interest to have all service equipment in a contamination-free environment to avoid unscheduled outages and/or premature equipment failures. Therefore, prior to any construction, the Customer shall inform the MUD Engineering representative of any existing or future contamination or pollutants which may affect the equipment so that necessary clearances can be secured.

The MUD Engineering representative shall be notified promptly if the Customer intends to install any obstructions such as walls, hedges, bushes, trees, etc., around the transformer and/or any associated equipment so that additional clearances and access can be secured. Any proposed enclosure surrounding CNP's equipment must be louvered, and both a profile and a cross-sectional view of the proposed louvered enclosure shall be submitted for approval prior to installation.

If, in the future, there is a problem with contamination of CNP's equipment, or proper clearances are not maintained, CNP reserves the right to relocate the equipment at the Customer's expense.

CLEARANCES (Continued)

CNP will not allow other facilities to pass beneath its equipment pads. A one foot (1') minimum horizontal clearance shall be maintained between CNP pads and all other facilities.

A one foot (1') minimum vertical clearance must be maintained between CNP duct banks and all non-CNP facilities crossing the duct bank.

A five foot (5') minimum horizontal clearance must be maintained between CNP duct banks and other facilities running parallel to the duct bank. CNP will not allow joint trenching between CNP duct banks and other facilities.

FINAL INSPECTION

After the Customer has advised CNP that all "Customer installed" facilities pertaining to this service arrangement have been completed and inspected, a final on-site inspection will be made by a MUD representative. This final inspection will verify that all Customer installed facilities are in accordance with these Terms and Conditions. The Customer (or its contractor) and the Key Account representative will be advised of any needed corrections and/or changes. When all necessary corrections and/or changes have been completed, CNP's portion of the construction may begin.

EASEMENT INSTRUMENT

CNP will prepare an instrument for easements to be granted by the property owner after all installations for CNP's use have been completed according to these Terms and Conditions. The service cannot be energized until CNP has accepted the signed instrument for all easements.

The Customer also has the option of signing a blanket easement document. Use of the blanket easement allows the service to be energized before the final signed instrument for all easements has been completed. The Customer may request use of the blanket easement document by contacting the MUD Engineering representative.

CNP will need access to and from the proposed easements. CNP will use these easements, as shown on the attached sketches, for the purposes of erecting, installing, operating, maintaining, replacing, inspecting and removing electrical distribution facilities. The Customer shall keep these easements free and clear of any obstructions (trees, shrubs, other structures, etc.) that may endanger or interfere with the efficiency, safety, and proper operation of the proposed facilities for the life of the service.

The service arrangement in these Terms and Conditions will require an easement from the third-party property owner on whose property a portion of the duct bank would be installed. The Customer shall be responsible for obtaining a written agreement from the third party. Prior to construction, the original written agreement must be sent to the MUD Engineering representative. If this contingency cannot be met, these Terms & Conditions must be revised.

INDEMNIFICATION AND LIABILITY LIMITS

REFER TO ADDENDUM TO "TERMS AND CONDITIONS TO UNDERGROUND ELECTRIC SERVICE" (attached)



SHEET 8 OF 14
JOB # 56545014

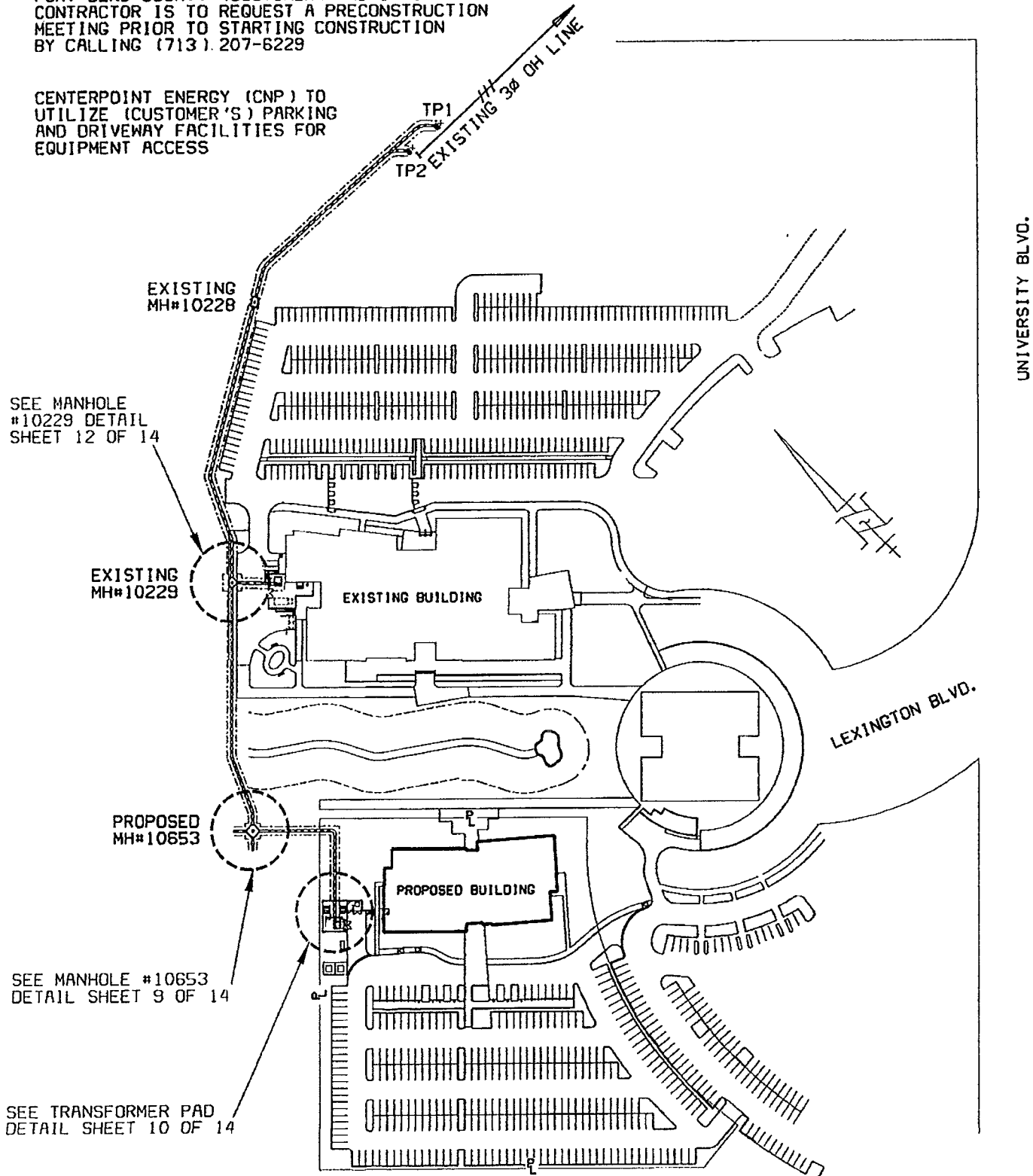
WORKING SKETCH

LAMBERT	SECTION	KEY MAP	FUNCTIONAL LOCATION	SCALE	CIRCUIT	ORDER NO.
4749	C2	607H		N. T. S.	IM46	56561047

FORT BEND COUNTY (CUSTOMER) AND/OR ITS CONTRACTOR IS TO REQUEST A PRECONSTRUCTION MEETING PRIOR TO STARTING CONSTRUCTION BY CALLING (713) 207-6229

CENTERPOINT ENERGY (CNP) TO UTILIZE (CUSTOMER'S) PARKING AND DRIVEWAY FACILITIES FOR EQUIPMENT ACCESS

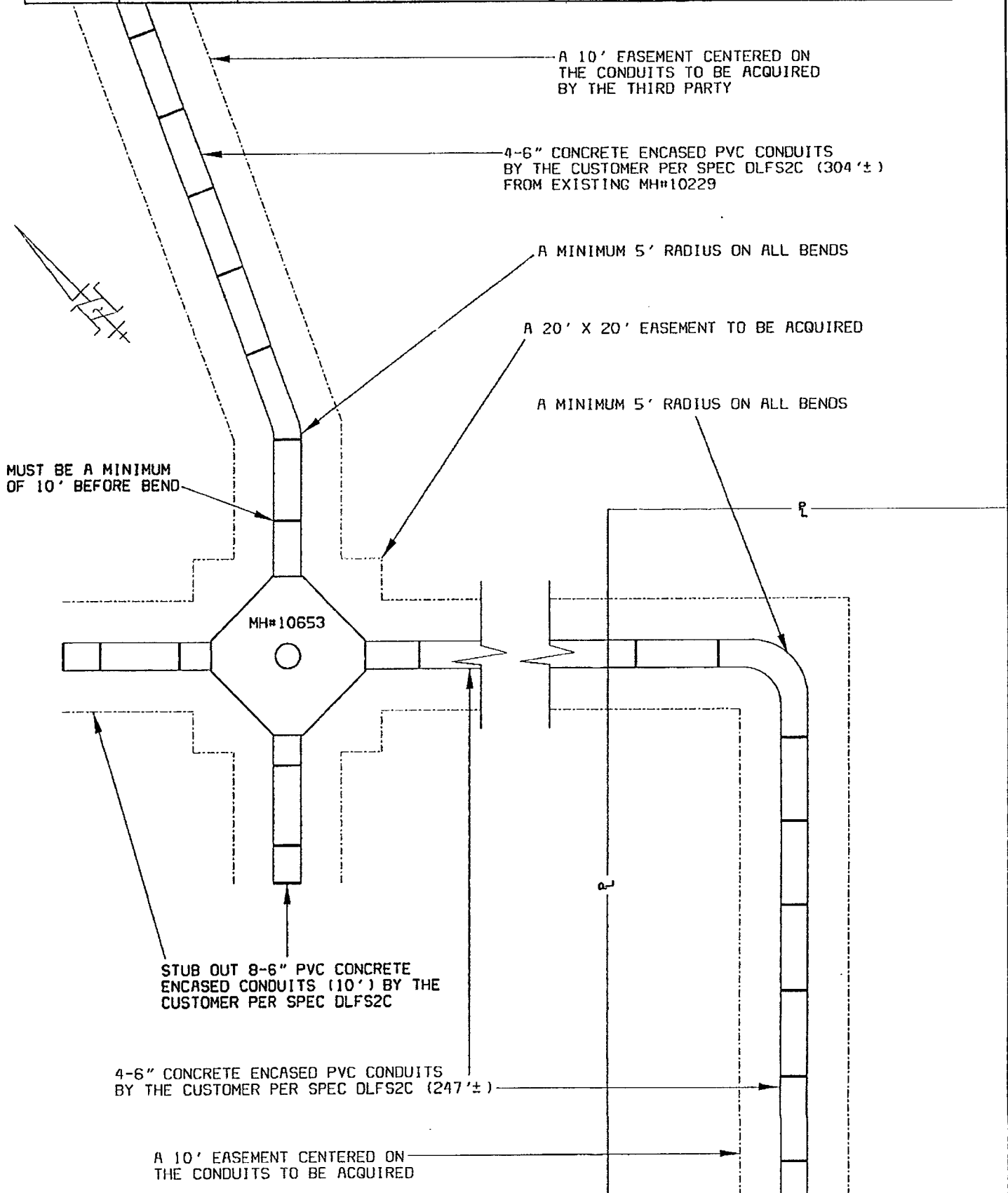
HWY 59 SOUTH





WORKING SKETCH

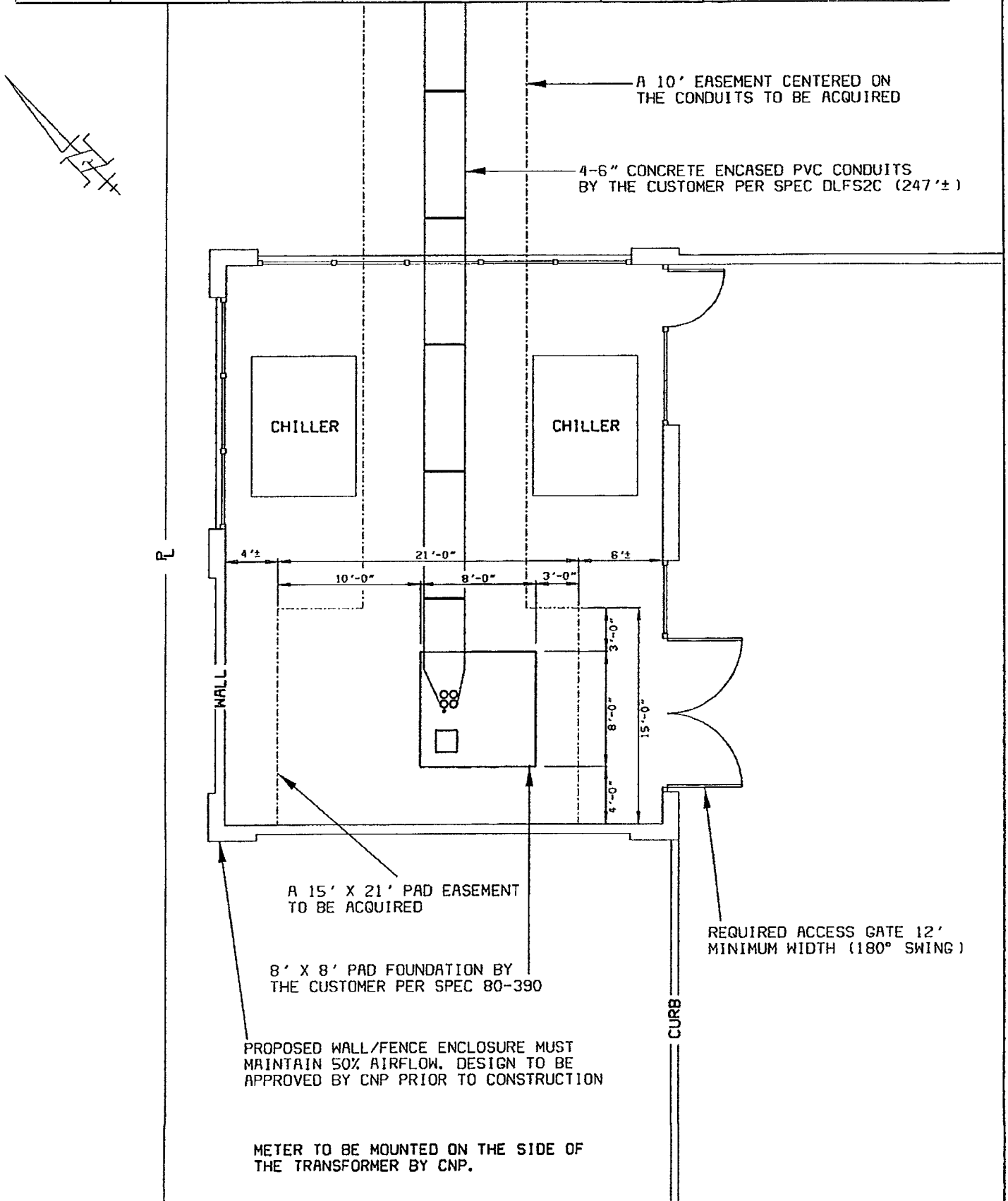
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4749	C2	607H		N.T.S.	IM46	56561047

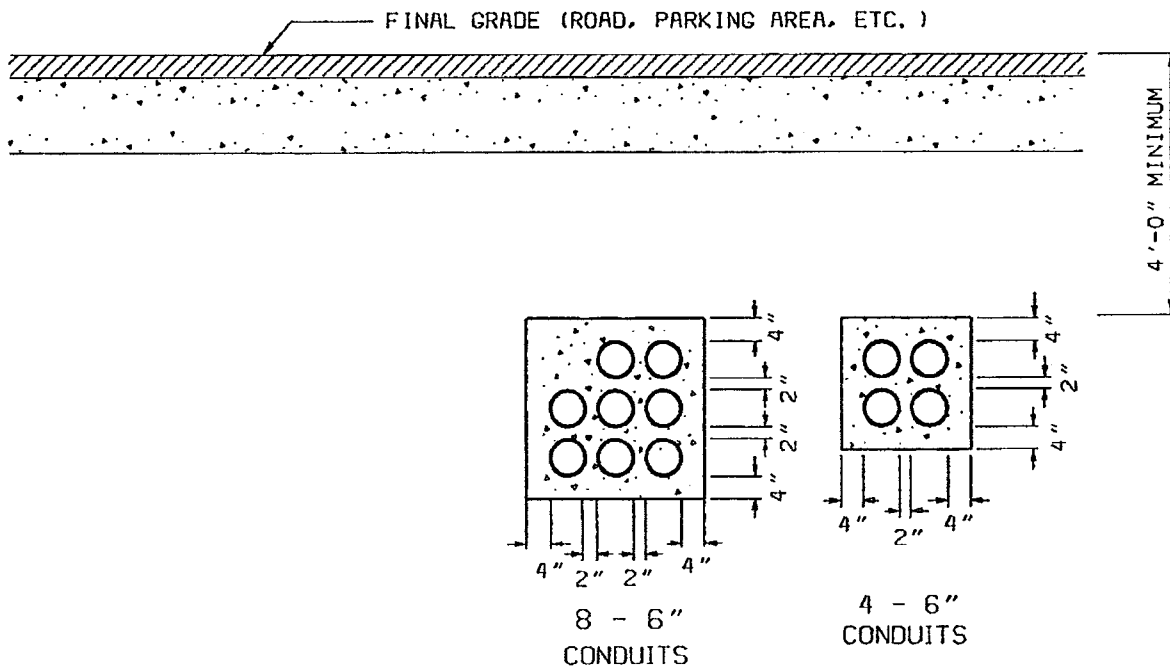




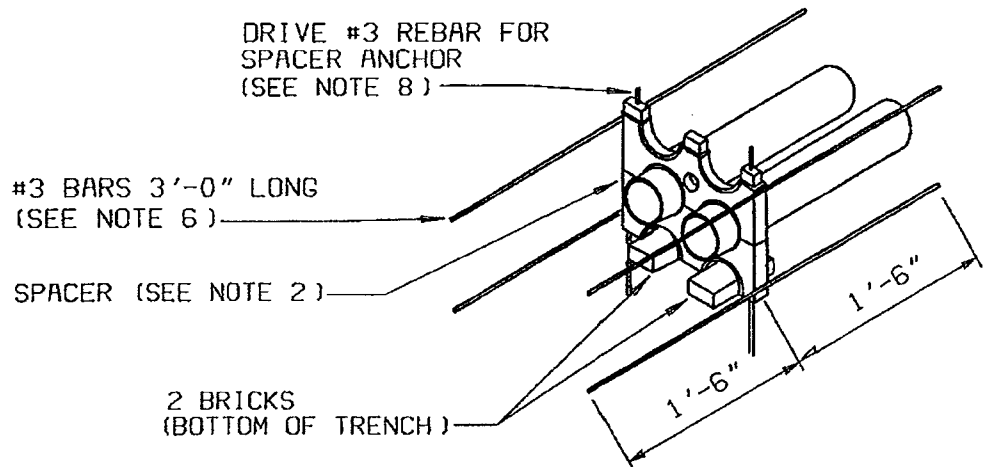
WORKING SKETCH

LAMBERT	SECTION	KEY MAP	FUNCTIONAL LOCATION	SCALE	CIRCUIT	ORDER NO.
4749	C2	607H		N. T. S.	IM46	56561047





NOTE:
THE CUSTOMER AND/OR ITS CONTRACTOR
IS TO REQUEST A PRECONSTRUCTION MEETING
PRIOR TO STARTING CONSTRUCTION BY CALLING
(713) 207-6229.

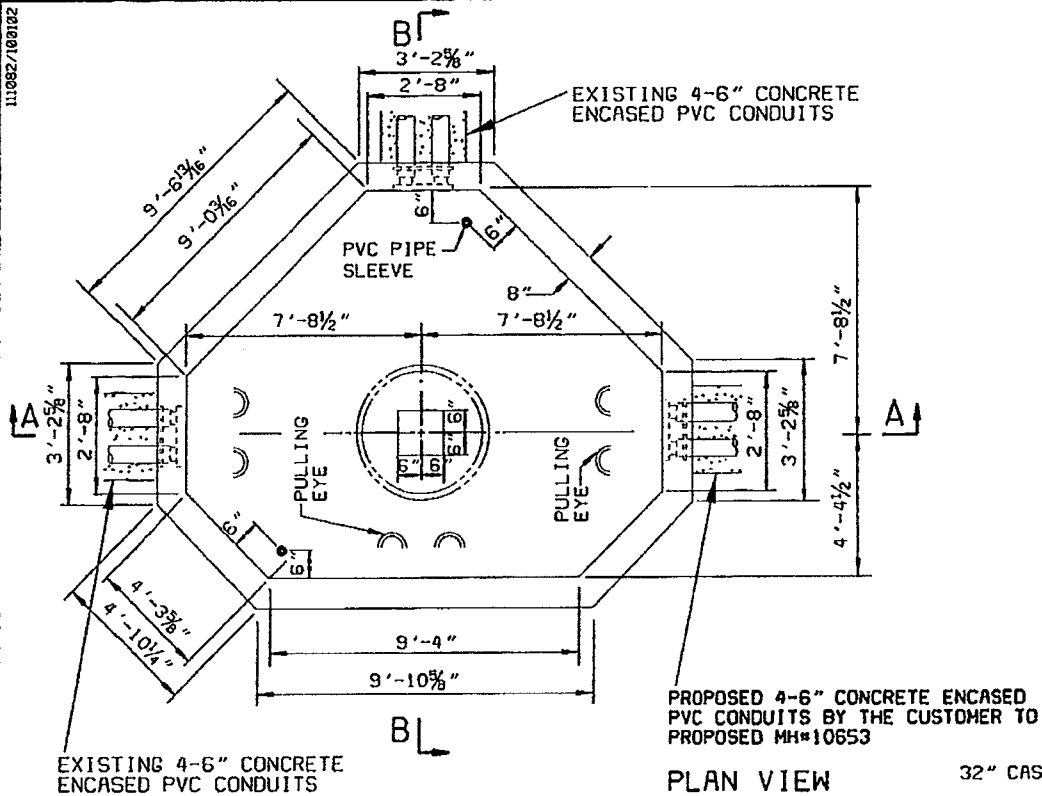


NOTES:

1. CONDUIT TO BE PVC, MINIMUM GRADE TYPE EB.
2. SPACERS SHOULD BE INSTALLED NOT MORE THAN 10'-0" APART.
3. CONDUITS TERMINATING AT MANHOLES SHOULD BE SLOPED 0.5% DOWN TOWARD MANHOLE.
4. ALL EXTERIOR CONCRETE COVER DIMENSIONS ARE MINIMUM.
5. CONCRETE SHALL BE IN ACCORDANCE WITH CNP SPECIFICATION 007-221-01, LATEST REVISION.
6. PLACE REINFORCING BARS IN 4 CORNERS OF THE CONCRETE WHERE SPACERS ARE USED.
7. ON COLD JOINT CONCRETE POUR USE #5 REBAR (3'-0" IN LENGTH, EXPOSED 1'-6").
8. LENGTH OF REBAR FOR SPACER ANCHOR WILL VARY PER DUCT BANK HEIGHT.
9. CONDUITS ENDS SHALL BE PLUGGED WITH A DUCT CAP OR OTHER TYPE OF CAPPING DEVICE.
10. A ONE FOOT VERTICAL CLEARANCE MUST BE MAINTAINED BETWEEN CNP'S DUCTBANK AND ALL NON-CNP FACILITIES CROSSING THE DUCTBANK.
11. A FIVE FOOT HORIZONTAL CLEARANCE MUST BE MAINTAINED BETWEEN CNP'S DUCTBANK AND ALL NON-CNP FACILITIES RUNNING PARALLEL TO THE DUCTBANK (JOINT TRENCHING NOT PERMITTED).
12. INSTALL JET LINE IN ALL CONDUITS AND A #14 AWG WIRE IN ONE CONDUIT.

THREE PHASE DUCTBANK
FEEDER

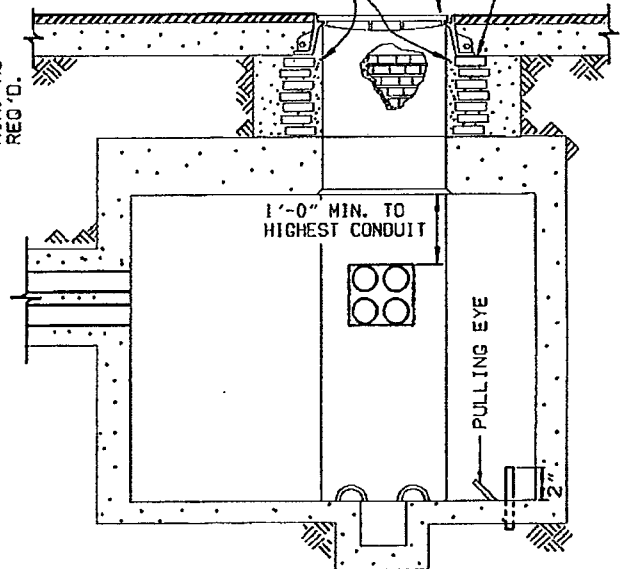
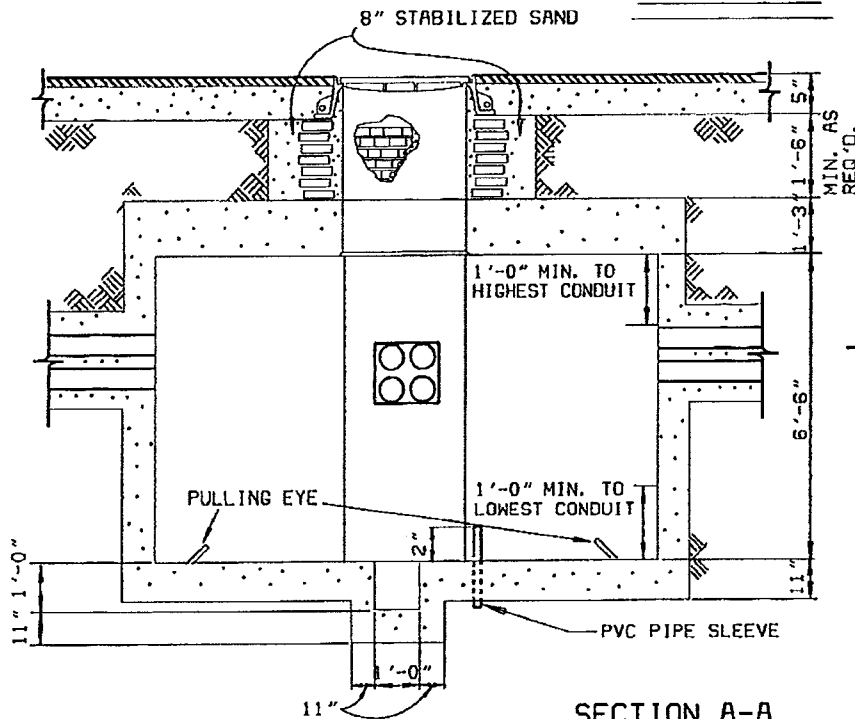
BASED ON DISTRIBUTION STANDARD DLFS2C



32" CASTING WITH COVER

1 1/2" GROUT

BRICK



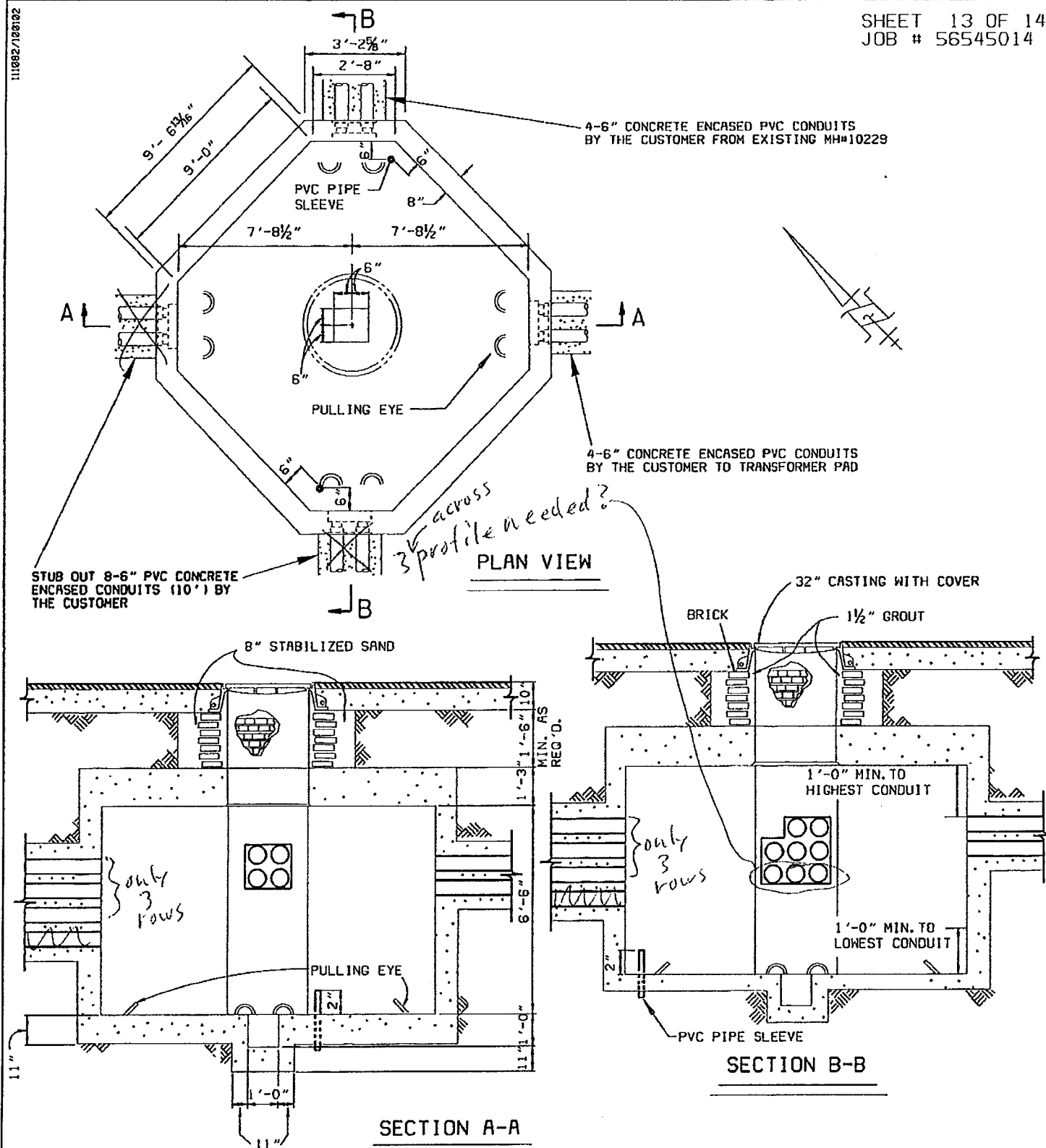
NOTES:

1. ONLY CNP PERSONNEL ARE ALLOWED INTO MANHOLE #10229
2. CUSTOMER TO EXPOSE SOUTHWEST SIDE OF MANHOLE.
3. CUSTOMER TO SHORE SIDES OF EXPOSED DITCH PER OSHA STANDARDS.
4. CUSTOMER TO TIE INTO THE EXISTING 4-6" PVC CONCRETE ENCASED CONDUIT STUB OUTS.

MH# 10229

LARGE THREE WAY MANHOLE
12KV & 35KV

BASED ON DISTRIBUTION STANDARD MH300

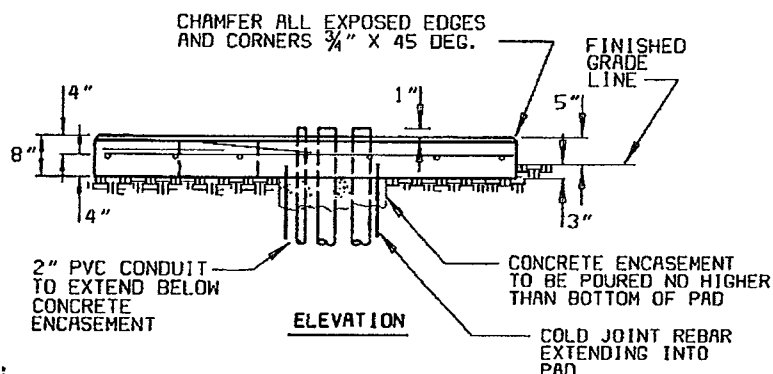
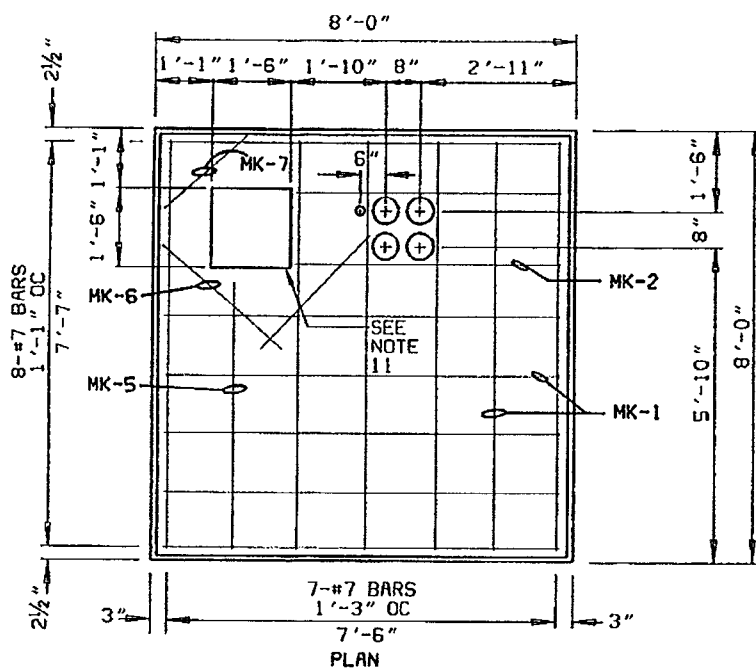


NOTES:

1. CNP RECOMMENDS THE INSTALLATION OF THE REQUIRED DUCTBELL TERMINATORS BY THE MANHOLE SUPPLIER ON ALL PRECAST MANHOLES.
2. MANHOLES ARE TO BE PLACED ON A MINIMUM OF SIX (6) INCH LEVELED BASE OF SAND OR CRUSHED ROCK TO INSURE UNIFORM DISTRIBUTION OF SOIL PRESSURE ON THE FLOOR.
3. CNP MUST INSPECT THIS REQUIREMENT PRIOR TO THE INSTALLATION OF THE MANHOLE INSIDE THE EXPOSED PIT.
4. THE USE OF PRECAST NECKS IS NOT APPROVED.

MH#10653

LARGE FOUR WAY MANHOLE
12KV & 35KV
BASED ON DISTRIBUTION STANDARD MH400



NOTES:

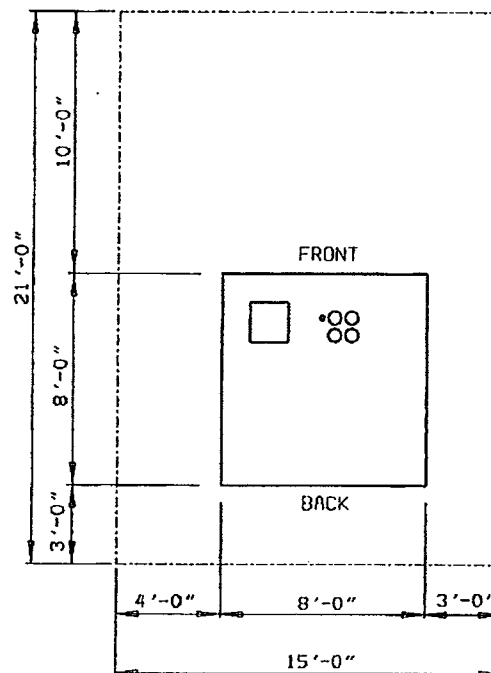
1. CONCRETE SHALL BE IN ACCORDANCE WITH CNP SPECIFICATION 007-221-01, LATEST REVISION (MINIMUM COMPRESSION IN 28 DAYS, 3000 PSI).
2. REINFORCING STEEL SHALL BE INTERMEDIATE GRADE DEFORMED BARS IN ACCORDANCE WITH A.S.T.M. SPECIFICATION A-615, GRADE 60, OR BETTER.
3. ALL SPLICES IN REINFORCING SHALL LAP A LENGTH EQUAL TO 24 BAR DIAMETERS.
4. ALL DIMENSIONS ON REINFORCING ARE TO THE CENTER OF BARS.
5. CONCRETE SHALL BE THOROUGHLY WORKED AROUND REINFORCING, ANY EMBEDDED FIXTURES AND INTO ALL CORNERS OF FORMS.
6. IF REQUIRED, GROUT SHALL BE A MIXTURE OF 1 PART CEMENT TO 2 PARTS SAND WITH ENOUGH WATER TO PRODUCE A WORKABLE MIXTURE.
7. CONCRETE IS TO BE POURED ONLY WHEN THE ATMOSPHERIC TEMPERATURE IS A MINIMUM 40° F. AND RISING.
8. STRIP BACK ALL VEGETATION AND APPROXIMATELY 3" OF TOP SOIL. REMOVE ALL LOOSE CLODS AND STONES. BACKFILL AND THOROUGHLY COMPACT ALL CONDUIT TRENCHES AND HOLES BEFORE CONCRETE IS PLACED.
9. REINFORCING SHALL HAVE A MINIMUM OF 2 1/2" CONCRETE COVER. SLOPE PAD 1" FRONT TO BACK.
11. THE SQUARE OPENING IS FOR THE CUSTOMER'S SECONDARY CONDUITS AND FOR CNP'S METERING CONDUIT.
12. CNP WILL NOT ALLOW OTHER FACILITIES TO PASS BENEATH ITS EQUIPMENT PADS. A ONE FOOT MINIMUM HORIZONTAL CLEARANCE SHALL BE MAINTAINED BETWEEN CNP PADS AND ALL OTHER FACILITIES.
13. THE SECONDARY OPENING IS TO BE BACKFILLED WITH SAND TO WITHIN 4" OF THE TOP OF THE PAD.

REINFORCING SCHEDULE PER FOUNDATION

MARK	QTY.	SIZE	LENGTH	REMARKS
MK-1	12	#7	7'-7"	STRAIGHT
MK-2	2	#7	5'-0"	STRAIGHT
MK-3	0	#7	2'-4"	STRAIGHT
MK-4	0	#7	5'-0"	STRAIGHT
MK-5	1	#7	4'-6"	STRAIGHT
MK-6	2	#7	3'-0"	STRAIGHT
MK-7	1	#7	2'-0"	STRAIGHT

MATERIAL ESTIMATE PER FOUNDATION

DESCRIPTION	QTY.
REINFORCING STEEL #7	232 LBS
CONCRETE (5 SACK)	1 3/4 CU. YDS.
2" PVC CONDUIT	5 FT
TYPE EB OR BETTER PVC CONDUIT, 90 DEG, 60" R	4



MINIMUM EASEMENT REQUIREMENTS

EQUIPMENT WEIGHT
20,000 LBS
MAXIMUM

150-1000 KVA, 3 PHASE
PMT FOUNDATION, 12KV & 35 KV
(SPECIAL APPLICATION)
BASED ON DISTRIBUTION STANDARD 80-390

**ADDENDUM TO “TERMS AND CONDITIONS TO UNDERGROUND ELECTRIC
SERVICE”**

This Addendum is dated as of the Effective Date (as defined below) and is between CENTERPOINT HOUSTON ELECTRIC, LLC (the “Company”) and Fort Bend County (“Customer”). The Company and Customer are referred to in this Addendum individually as a “Party” and collectively as the “Parties.”

Customer is the owner and operator of Fort Bend County– University Branch Library located at 14010 University Blvd., Sugarland, TX, 77479. (“Property”). (“Facilities”) shall mean any facilities, equipment, cable, or other material referred to in the Agreement installed and owned by the customer or his contractor at 14010 University Blvd., Sugarland, TX 77479.

Contemporaneously with the execution of this Addendum, Customer and the Company are entering into THE TERMS AND CONDITIONS TO UNDERGROUND ELECTRIC SERVICE (the “Agreement”) under which underground electric service will be provided to the Facility. “Effective Date” means the date that the Agreement is signed, as indicated by the date next to the customer signature on the cover sheet of the Agreement.

Because of certain laws and regulations applicable to Customer, the Parties desire to set forth their understanding regarding those laws and regulations and the related allocation of certain risks and liabilities between them.

The Parties therefore agree as follows:

1. Applicability. This Addendum is being executed in connection with and will be deemed to be a part of the Agreement. No provision of the Agreement stating that the Agreement contains the entire understanding of the Parties with respect to its subject matter or other provision in the Agreement of the type typically referred to as a “merger clause” will apply to this Addendum. To the extent that the terms and provisions of this Addendum conflict with the terms and provisions of the Agreement, the terms and provisions of this Addendum control. Notwithstanding the execution of this Addendum, the Agreement remains in full force and effect, except as otherwise provided in this Addendum.

2. Customer as Governmental Entity.

(a) Customer represents and warrants that it is a governmental entity, and that as a governmental entity it is subject to constitutional and statutory limitations on its ability to be bound by certain terms and conditions of the Agreement, which may include terms and conditions relating to: liens on government property; disclaimers and limitations of warranties; disclaimers and limitations of liability for damages; waivers, disclaimers, and limitations on legal rights, remedies, requirements, commitment of future funding, and processes; limitations of time in which to bring legal action; control of litigation or dispute resolution; indemnities; and confidentiality of information, and to the extent that any provisions of the Agreement, including this Addendum, would violate any such restrictions, the Customer will not be bound by such provisions. Any terms or provisions of this Addendum that are less restrictive than those in the Agreement with respect to Customer’s obligations will be null and void and will have no force or

effect if the representation and warranty that Customer is a governmental entity is not true or to the extent that the more restrictive term in the Agreement would be enforceable against Customer under Applicable Laws (as defined below).

(b) Terms and conditions in the Agreement relating to limitations of the type described in Section 2(a) will only be binding on Customer to the extent they are valid and enforceable under all applicable laws, including all state and federal laws, rules and regulations, the constitutions of the United States and the State of Texas and the laws of the United States and the State of Texas ("Applicable Laws").

3. Maintenance. Except to the extent expressly set forth in a written agreement between the Parties, the Company will not be required to maintain equipment, cable, or other material that is owned by Customer. Customer acknowledges that it is Customer's sole responsibility to follow the proper administrative or internal procedures to cause its Facilities and any related equipment to be properly maintained. Customer also acknowledges that Company reserves the right, in accordance with Company Tariff, to discontinue service if Customer has failed, or the Company has determined, in its sole discretion, that Customer has failed, to maintain the Property and facilities or any related equipment, cable or other material in a manner that causes or could cause a safety hazard to person or property.

4. Installation. Customer understands that all facilities, equipment, cable and other material referred to in the Agreement must comply with all specifications set forth in said Agreement and the Permanent Easement and/or Right to Pull before the Company installs any equipment or provides electrical service. During the installation of any equipment to be installed by the Company under the Agreement, the Company will use every effort to preserve Customer's landscaping, parking areas, or other facilities. However, any cost that has been quoted to Customer does not include any special replacements or repairs to these items. The Company shall not be responsible for any expenses associated with replacements or repairs to Customer's property, and Customer hereby waives any claims for such expenses that it has or may have against the Company.

5. THIRD PARTY INDEMNIFICATION.

FORT BEND COUNTY SHALL ENSURE (WHETHER THROUGH CONTRACT, CONTRACT AMENDMENT, OR OTHERWISE) THAT ITS CONTRACTORS, SUPPLIERS AND SUBCONTRACTORS (OF ANY TIER) AGREE TO PROTECT, DEFEND, INDEMNIFY AND HOLD CENTERPOINT ENERGY, ITS CORPORATE AFFILIATES AND THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES AND AGENTS, FREE AND HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS, DEMANDS, CAUSES OF ACTION, SUITS OR OTHER LITIGATION (INCLUDING ALL COSTS THEREOF AND ATTORNEY'S FEES) OF EVERY KIND AND CHARACTER ARISING IN FAVOR OF FORT BEND COUNTY OR ANY THIRD PARTY (INCLUDING, BUT NOT LIMITED TO, PERSONNEL FURNISHED BY CONTRACTOR OR ITS SUPPLIERS AND SUBCONTRACTORS OF ANY TIER) ON ACCOUNT OF BODILY INJURY, DEATH OR DAMAGE TO OR LOSS OF PROPERTY, IN ANY WAY OCCURRING, INCIDENT TO, ARISING OUT OF OR IN CONNECTION WITH THE WORK PERFORMED OR TO BE PERFORMED HEREUNDER OR OCCURRING, INCIDENT TO, ARISING OUT OF OR IN

CONNECTION WITH THE PRESENCE OF FORT BEND COUNTY PERSONNEL, AGENTS, SUPPLIERS AND SUBCONTRACTORS (AND THEIR RESPECTIVE PERSONNEL) ON THE PREMISES, ALL REGARDLESS OF WHETHER SUCH INJURY, DEATH OR DAMAGE IS CAUSED BY THE JOINT, CONCURRENT, CONTRIBUTING OR COMPARATIVE NEGLIGENCE OR FAULT, BUT NOT THE SOLE NEGLIGENCE OR FAULT, OF CENTERPOINT ENERGY, ITS CORPORATE AFFILIATES, OR THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES OR AGENTS.

6. Further Assurances. If at any time after the date of this Addendum any further action is necessary or appropriate to carry out the purposes of this Addendum, Customer shall use all commercially reasonable efforts to take, or cause to be taken, that action.

7. Assignment. Customer shall not assign any part of its rights or delegate any performance under this Addendum, voluntarily or involuntarily, whether by merger, consolidation, dissolution, operation of law, or any other manner, without the Company's prior written consent. Any purported assignment of rights or delegation of performance in violation of this Section 6 is void and of no effect.

8. Modification; Waiver. No amendment of this Addendum will be effective unless it is in writing and signed by the Parties. No waiver of satisfaction of a condition or nonperformance of an obligation under this Addendum will be effective unless it is in writing and signed by the Party granting the waiver, and no such waiver will constitute a waiver of satisfaction of any other condition or nonperformance of any other obligation. To be valid, any document signed by a Party in accordance with this Section 7 must be signed by an officer or other representative of that Party authorized to do so.


In addition, nothing in this Addendum or the Agreement shall be construed as a waiver or relinquishment by the Company of any right that it has or may have hereafter to discontinue service for or on account of default in the performance of Customer's obligations under this Addendum or the Agreement, including payment of any bill owing or to become owing thereafter, or for any other reason or cause stated in the Company's Tariff.

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The Parties are signing this Addendum as of the Effective Date.

COMPANY:

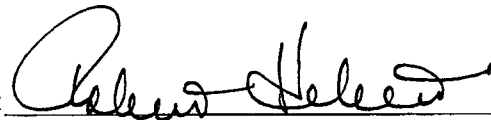
CENTERPOINT ENERGY HOUSTON
ELECTRIC, LLC

By: 
Name: Mark E. Mitchell
Title: Engineering Manager

CUSTOMER:

FORT BEND COUNTY

By signing this Addendum, the person purporting to sign this Addendum on behalf of Customer is representing and warranting to the Company that the person has the legal authority to bind Customer and has been duly authorized by Customer to sign and deliver this Addendum to the Company.

By: 
Name: Robert Hebert
Title: County Judge
Date: February 22, 2011

SPECIFICATION FOR

**Customer Emergency Generation
and Secondary Load Transfer**


**CENTERPOINT ENERGY
ELECTRIC DISTRIBUTION ENGINEERING
P.O. BOX 1700 HOUSTON, TEXAS 77251**

REFERENCE DRAWINGS:

REFERENCE SPECIFICATIONS:

National Electrical Code
CNP Specification 007-231-76
PUCT Substantive Rule 25.212
IEEE Standard 519-1992 (or latest revision)



						WRITTEN		R.W. Comfort
						CHECKED		
						APPROVED	11-16-88	L.G. Pond
1	7-11-07	Complete Revision	SLJ	WSC	RKM / LSN		SHEET 1 of 14 SHEETS	
NO.	DATE	ITEMS REVISED	BY	CH	APP		007	231 82

CONTENTS

<u>Article No.</u>	<u>Title</u>	<u>Page No.</u>
1.0	SCOPE	3
2.0	POLICY ON EMERGENCY GENERATION	3
3.0	POLICY ON SECONDARY LOAD TRANSFER	4
4.0	APPROVAL	5
	FIGURES	7-14

1.0 SCOPE

- 1.1 Hereafter, CenterPoint Energy will be designated as "CNP" and the Contractor, Customer, or Facility Owner will be designated as "Customer".
- 1.2 This specification covers the minimum requirements for the operation of customer owned emergency generation, and the operating procedures for secondary load transfer on the customer's distribution system. The requirements in this specification are in addition to those stated in the National Electrical Code (NEC) and all other applicable governing authorities.

2.0 POLICY ON EMERGENCY GENERATION

- 2.1 Customer owned emergency generation must be connected to the customer's load through either an open-transition type transfer switch or a key interlocked two breaker/switch arrangement.
- 2.2 The open-transition type transfer switch or interlocked two breaker/switch arrangement must be designed to prevent the electrical and/or physical connection between the CNP distribution system and the customer generator bus. See Figures 1, 2, 3 and 4 on sheets 7, 8, 9 and 10 for the acceptable connections of the emergency generator to the customer's bus.
- 2.3 Exceptions to the above requirements (i.e. operating an emergency generator in parallel with the CNP system through the use of a closed transition transfer switch) will be granted under the following conditions.
 - 2.3.1 Customers utilizing a closed transition transfer switch with their emergency generator must install protective devices in accordance with Public Utility Commission of Texas (PUCT) Substantive Rule 25.212 and specified in the CNP Specification for Customer Generation on the Distribution System (007-231-76). These protective devices must be installed at the interconnection point between CNP and the customer.
 - 2.3.2 The level of voltage and current distortion produced by the customer's generator must be in accordance with IEEE Standard 519-1992 (or latest revision).
- 2.4 Customers served from an existing CNP secondary network system will not be allowed to operate their emergency generators in parallel with CNP.
- 2.5 Generator(s) and its exhaust must be located where it will not interfere with CNP personnel or equipment. The location of the generator must be approved by CNP prior to installation.
- 2.6 Customers may not install or use any transfer switch on the high side (CNP side) of the meter or any transfer switch between the meter and the meter socket jaws. Customer owned standby generators must be located on the load side (customer side) of the meter, behind the main breaker (switch).

REVISION NO. 1

SPECIFICATION NO.

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SHEET 3 of 14 SHEETS

3.0 POLICY ON SECONDARY LOAD TRANSFER

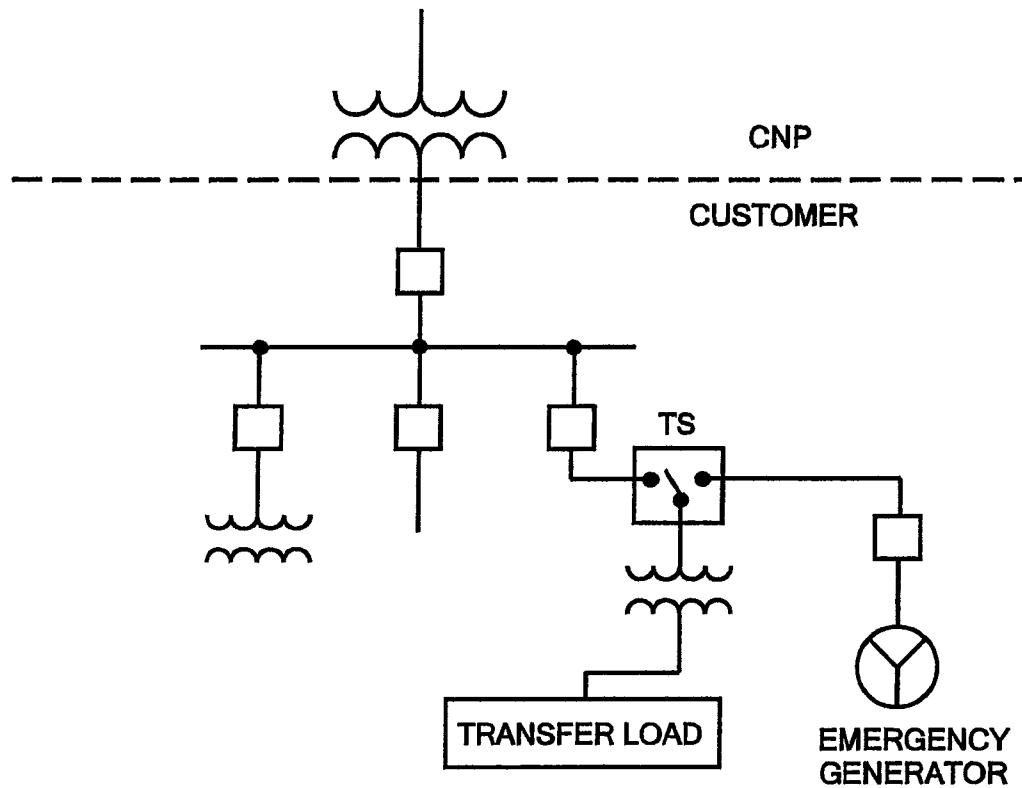
- 3.1 The following policy applies to customers whose split load is served from two feeds on the CNP distribution system. These feeds may or may not originate from electrically separate circuits.
- 3.2 Customers should design their distribution system in such a manner that the distribution buses served from each feed shall always be electrically isolated from each other. See Figure 5 on sheet 11 for illustration.
- 3.3 (A) Customers served from two CNP feeds where CNP provides manual transfer service may be allowed to transfer pre-approved loads (in accordance with Section 3.6 below) from one CNP feed to the other in the event of a circuit outage. (B) Customers served from two or three CNP feeds where CNP provides automatic transfer service may be allowed to transfer pre-approved loads (in accordance with Section 3.6 below) in the event of a secondary outage on the CNP service to the affected customer.
- 3.4 The secondary load transfer for either Sections 3.3(A) or 3.3(B) shall be done manually. Automatic load transfer by the customer will not be permitted without CNP Engineering approval. Prior to the transfer of load, the customer must manually shed pre-approved loads on the receiving feed. The magnitude of load to be shed must be equal to or greater than the amount of load to be transferred, so that the normal load level of the receiving feed is never exceeded. These limits will be provided to the customer as a condition for electric service. This condition applies to Section 3.3(A). Customers served from two or three circuit automatic transfer service are typically provided service from either a normal circuit with a second as the back up or from a split service arrangement. Upon the loss of a circuit CNP equipment is relayed to automatically transfer to the non affected circuit(s). This CNP automatic transfer typically occurs within a few seconds, utilizing open transition rollover. Normalization occurs within an eighty second closed transition rollback. In a CNP split load arrangement a fault between the customer's service and the low side of CNP transformers may occur. Under this condition automatic transfer does not occur, because the fault could either be due to CNP or the customer's equipment. If the fault occurs on the customer's equipment, the customer will not be allowed to transfer loads. If the fault occurred on CNP equipment, CNP may isolate the service and the customer may manually transfer pre-approved loads. The magnitude of loads to be transferred shall not overload CNP transformers. This condition applies to Section 3.3(B).
- 3.5 Where system capacity is available, customers served from a CNP underground network system may be allowed to manually transfer (in accordance with Section 3.6 below) pre-approved loads. Typical network services consist of multiple CNP transformers connected in parallel. In network and spot network services that do not have a CNP tie breaker the customer can transfer loads as long as the rating of the customer's secondary bus or cables are not exceeded. In services containing a CNP tie breaker, the customer may manually transfer loads from one of their services to another provided the rating of the tie breaker is not exceeded and/or a fault does not exist on the secondary side of either CNP equipment or the customer's service(s).

- 3.6 All load transfers shall be done utilizing open-transition transfer switches/breakers. See Figure 6 on sheet 12 for illustration.
- 3.7 If the customer utilizes a three breaker/switch arrangement to transfer critical load between their two buses, the breaker/switch schemes must use both keyed and hard wire auxiliary contacts to operate feeder and tie breakers/switches. Electromechanical, electronic and keyed control of these devices will require that the tie breaker/switch cannot close unless one of the feeder breakers/switches is opened. See Figure 7 on sheet 13.
- 3.8 Secondary Load Transfer Capability will only be offered in conjunction with separate contractual arrangements between CNP and the customer, and where provisions to assure adequate circuit capacity and compliance with this specification have been made.

4.0 APPROVAL

- 4.1 The following items must be submitted to the CNP Manager of Distribution Engineering or designated representative for approval.
- 4.2 Emergency Generation
 - 4.2.1 The customer must submit 2 copies of their detailed electrical system (drawings and schematics) showing their emergency generator, transformers, circuit breakers, transfer switches and key interlocked scheme. CNP Engineering personnel will approve only those portions of the drawing which apply to the operation and connection of the generator to the customer's load. A copy of the transfer switch instruction book and descriptive literature must also be submitted for approval. In lieu of hard copies, compatible electronic file formats are acceptable for submission.
- 4.3 Secondary Load Transfer
 - 4.3.1 The customer must submit a load transfer schedule detailing the exact amount of load to be shed on the receiving feed prior to load transfer and the exact amount of load to be transferred. The format of this load transfer schedule shall be in accordance with Figure 8 on sheet 14.
 - 4.3.2 The customer must submit 2 copies of their detailed electrical system (drawings and schematics) showing all transfer switches. A copy of the transfer switch instruction book and descriptive literature must also be submitted for approval. In lieu of hard copies, compatible electronic file formats are acceptable for submission.

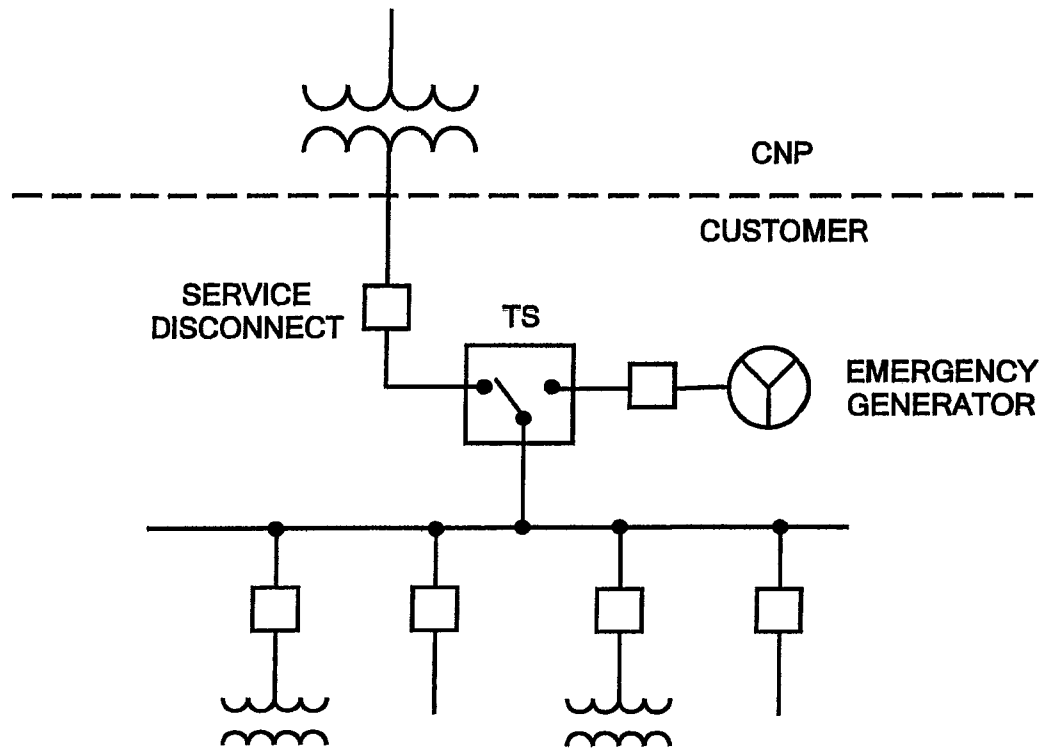
- 4.3.3 Customers utilizing a three breaker/switch arrangement for load transfer must provide a detailed control wiring diagram of the breaker/switch operation. The wiring diagram must show the electromechanical and key interlocks used to prevent the closing of the tie breaker/switch before one of the feeder breakers/switches is opened. See Figure 7 on sheet 13 for illustration.
- 4.3.4 After receipt of the above, CNP Engineering personnel will review the documents for approval. The amount of load the customer proposes to transfer from one CNP feed to another will be approved by CNP personnel. In all cases CNP personnel will verify that existing CNP facilities (Transformer Capacity, Secondary Bus Work, etc.) can accommodate the Load Transfer. If approval is granted, an Operation Agreement will be prepared detailing the operating procedures to be followed by the customer while transferring load between CNP feeds. The Operation Agreement will also specify the maximum load that the customer will be allowed to transfer. Final written approval will not given until the customer has reviewed and signed this Agreement, and one signed copy has been received by CNP personnel.



ACCEPTABLE CONNECTION OF EMERGENCY GENERATOR TO
CUSTOMER DISTRIBUTION BUS.

TS - TRANSFER SWITCH

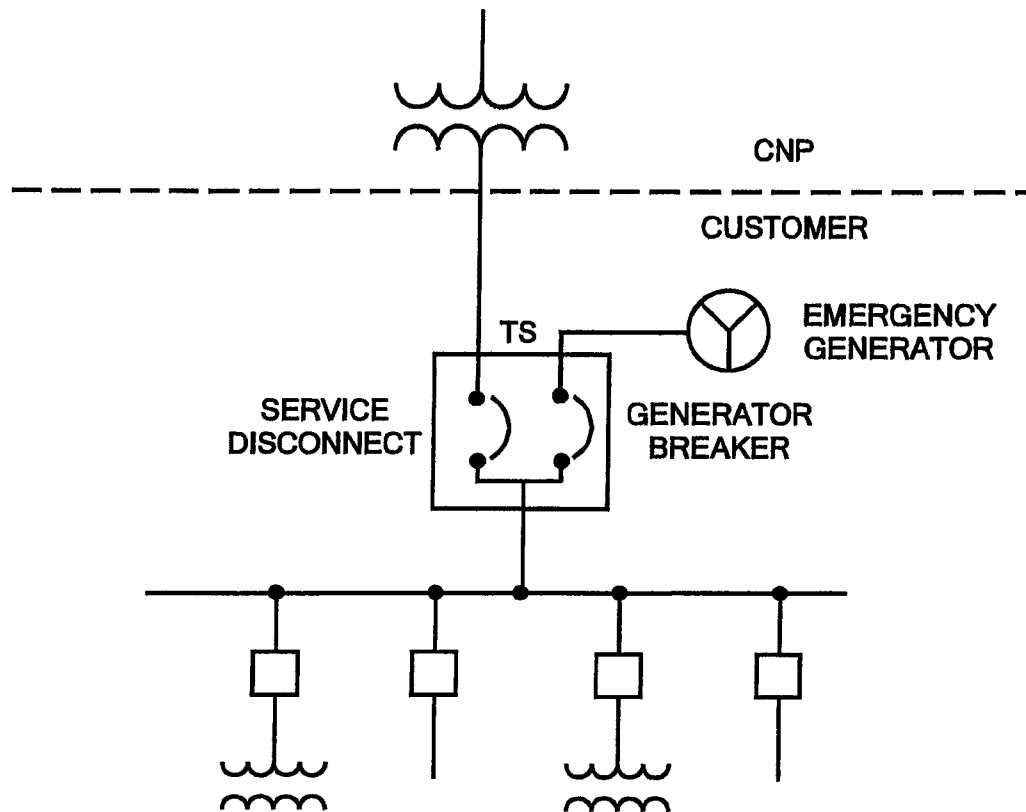
FIGURE 1



ACCEPTABLE CONNECTION OF EMERGENCY GENERATOR TO
CUSTOMER DISTRIBUTION BUS.

TS - TRANSFER SWITCH

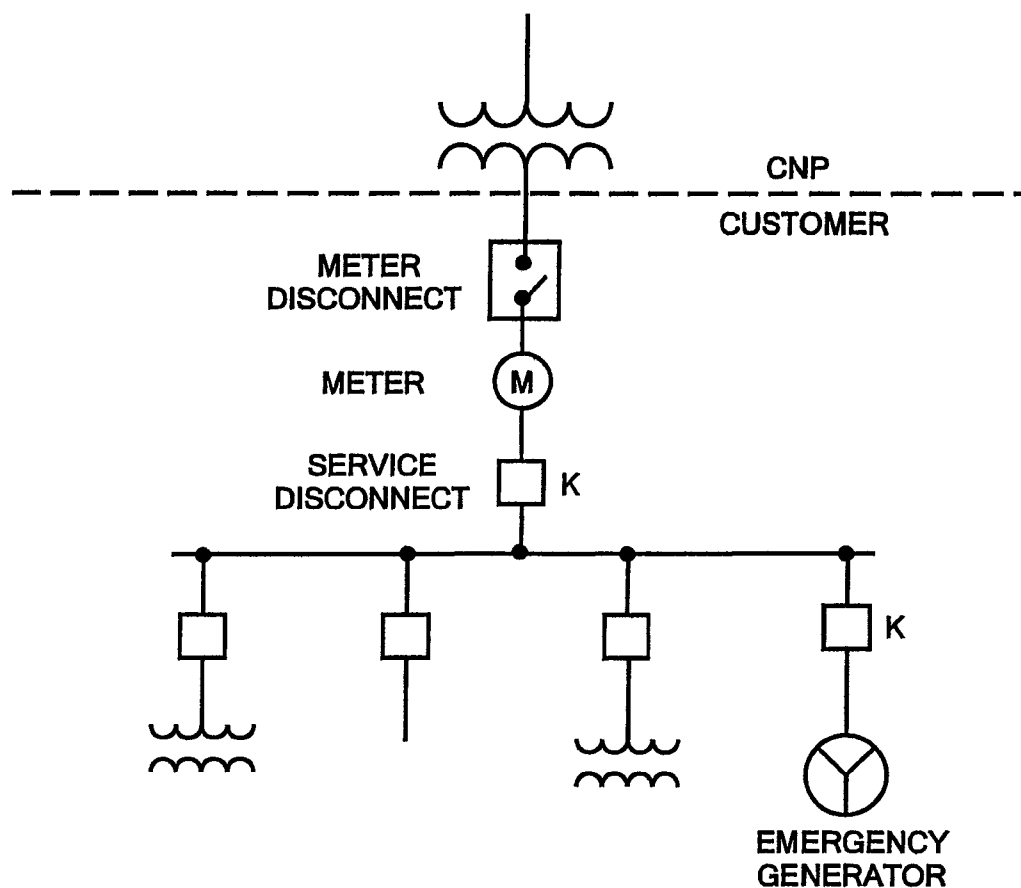
FIGURE 2



ACCEPTABLE CONNECTION OF EMERGENCY GENERATOR TO
CUSTOMER DISTRIBUTION BUS UTILIZING TWO BREAKER
TRANSFER SWITCH WITH ELECTRICAL AND MECHANICAL
INTERLOCKS

TS - TRANSFER SWITCH

FIGURE 3

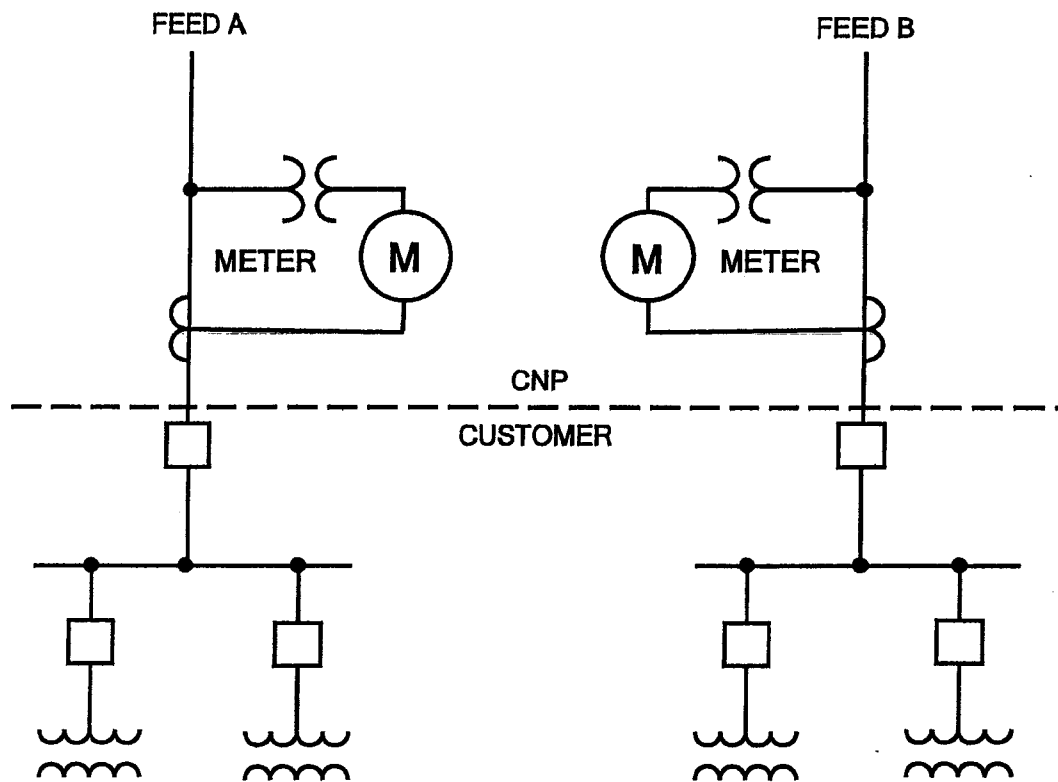


ACCEPTABLE CONNECTION OF EMERGENCY GENERATOR TO CUSTOMER DISTRIBUTION BUS UTILIZING KEY INTERLOCKED SERVICE DISCONNECT/BREAKER AND GENERATOR BREAKER/ ISOLATION SWITCH.

METER DISCONNECT IS ONLY REQUIRED FOR 480 V SELF-CONTAINED METER INSTALLATIONS AND IT CANNOT BE UTILIZED IN THE KEY INTERLOCK SCHEME.

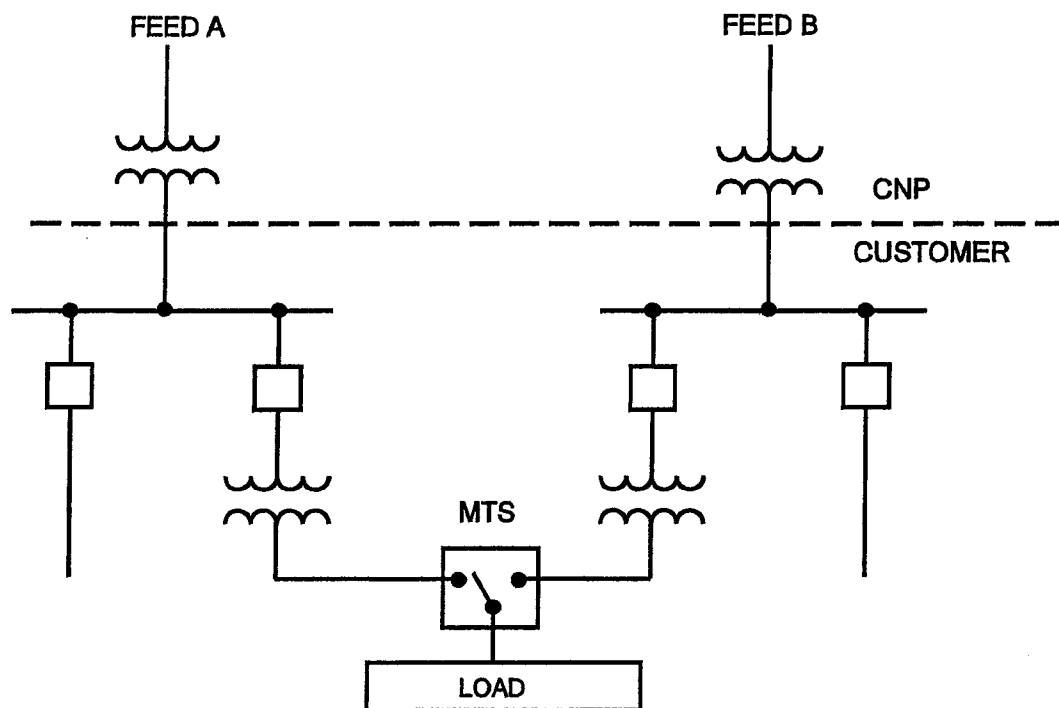
K - KEY INTERLOCKS

FIGURE 4



ACCEPTABLE ARRANGEMENT FOR CUSTOMERS
FED FROM TWO SEPERATE FEEDS.

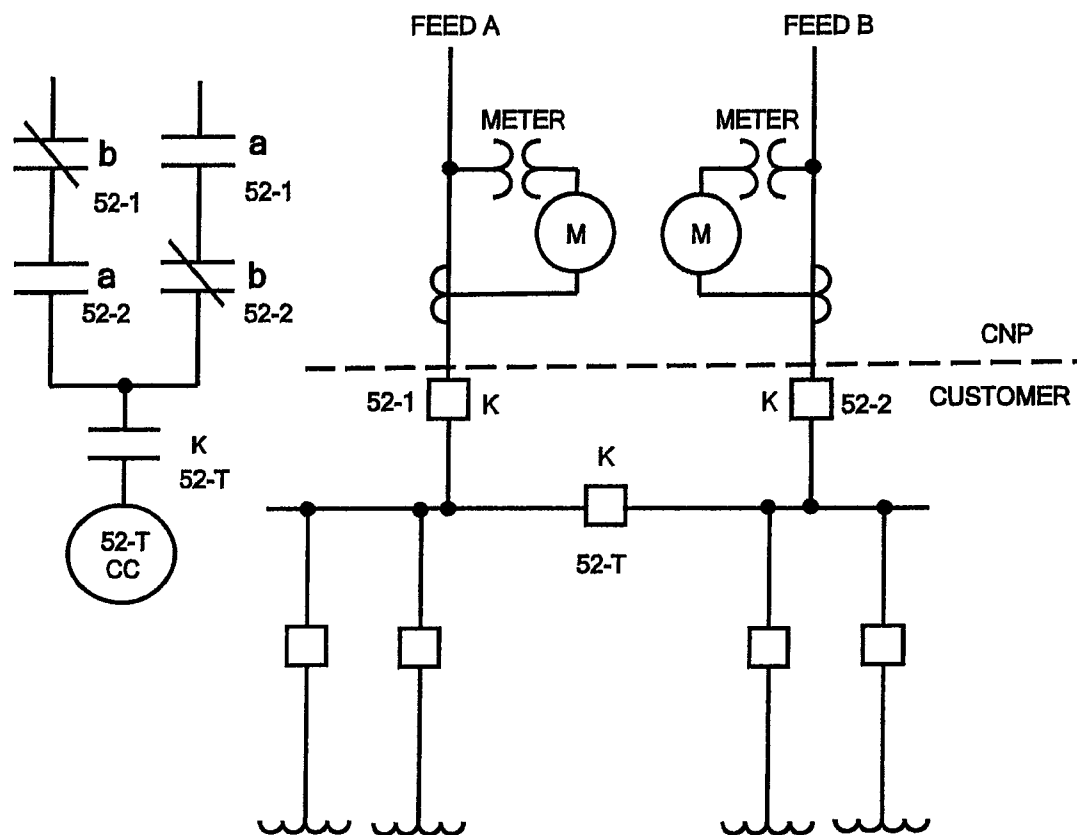
FIGURE 5



ACCEPTABLE SECONDARY LOAD TRANSFER SCHEME.

MTS - MANUAL TRANSFER SWITCH

FIGURE 6



ACCEPTABLE CONTROL SCHEME FOR KEY INTERLOCKED SWITCHES /
BREAKERS UTILIZED FOR SECONDARY LOAD TRANSFER.

52-T
CC - TIE BREAKER / SWITCH CLOSE COIL

52-1, 52-2 - CUSTOMER MAIN FEEDER BREAKERS (K - KEY INTERLOCKS)

52-T - CUSTOMER TIE BREAKER / SWITCH (K - KEY INTERLOCKS)

FIGURE 7

EMERGENCY LOAD TRANSFER SCHEDULE

CUSTOMER'S CIRCUIT NO.	CIRCUIT (LOAD) DESCRIPTION	<u>CNP FEED "A"</u>		<u>CNP FEED "B"</u>	
		NORM.	EMER.	NORM.	EMER.
1)	PUMP	1100	900	1000	1100
2)	AEROBIC DIGESTERS	1250	1500	1320	1200
3)	AIR COMPRESSORS	1620	1500	1400	1300
TOTAL CONNECTED LOAD (KVA)		3970	3900	3720	3600

NOTE: NORMAL LOAD LEVELS APPLY WHEN BOTH CNP FEEDS ARE ENERGIZED.

EMERGENCY LOAD LEVELS APPLY WHEN ONE OF THE CNP FEEDS IS DE-ENERGIZED AND THE CRITICAL LOAD IS TRANSFERRED TO THE REMAINING ENERGIZED FEED.

THE ABOVE TABLE IS FOR ILLUSTRATION ONLY.

FIGURE 8