

Interstate 10 at Monroe Street

Interchange Improvements

In the City of Indio

Project No. C7-0048

Federal Aid No. STPLN-5956(294)

Imperial Irrigation District (IID)

Developer Energy Planning Guide 2025, Rev 54

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Developer Energy PLANNING GUIDE

REVISION 5.4



Imperial Irrigation District Energy Department 2025



IID

A century of service.

**IMPERIAL IRRIGATION DISTRICT
CUSTOMER SERVICE OPERATIONS**



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GENERAL INFORMATION

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1.0 GENERAL INFORMATION

- 1.0.1 As a Developer or Contractor (collectively “Customer”) involved in today’s new residential and/or commercial developments, you are well aware of how timing can make the difference between the success and failure of any project. The importance of establishing and adhering to realistic construction schedules is equally as important to the success of a project as project funding.
- 1.0.2 With current and projected demands increasing for residential and commercial units within the Imperial Irrigation District’s (IID) service area, it is important for Developers to establish a comprehensive development plan for the successful marketing of their projects.
- 1.0.3 The IID likewise must also set schedules to keep pace with the demands for electrical service. In that regard, the following information is provided as a guide to assist the Developer in the planning and scheduling of projects.
- 1.0.4 The estimated construction cost undergoes regular review and adjustment every six months following the initial construction invoice letter date. This process allows for potential refinements and ensures that the current cost to provide services remains up- to -date (Per Regulation 15-B). IID Construction resources must be scheduled to perform work assigned within the six months of the dated construction invoice letter date issued, in order to avoid cost revisions. If there is a delay by the customer in processing all necessary project requirements including, but not limited to compliance with the California Environmental Quality Act, permitting, acquisition of necessary rights of way, easements, electrical equipment procurement, IID shall be under no obligation to perform any work or activity unless Customer has deposited funds to pay for such work pursuant to the updated Construction cost Invoice and all customer’s project requirements are completed.

1.1 REQUIREMENTS FOR ELECTRIC SERVICE

- 1.1.1 Complete and sign all applicable forms in the Customer Information Packet located in the back of this document. Please contact your Customer Project Development Services project manager with questions or assistance in completing the forms.
- 1.1.2 A non-refundable advance design fee payment (applied as a credit toward the construction costs).
- 1.1.3 An AutoCAD electronic file along with the requirements listed in 1.11 below are required for your proposed project.

1.2 ADVANCE ENGINEERING FEES

1.2.1 An advance engineering fee must be paid to IID before a commitment will be granted. The advance fee will be determined as follows:

1.2.1.1 Engineering fees will be determined by the Customer Project Development Services project manager in accordance with Section I, Requirements for Electric Service, letter C.

1.2.1.2 Switch and/or feeder work design.

1.2.1.3 The Engineering Fee will be paid to begin engineering a project and will be applied as a credit toward the IID cost of the project if it goes to completion.

1.2.1.4 If the project is cancelled, the Engineering Fee is non-refundable.

1.2.1.5 Any design changes that result in the redesign of project and therefore alters prior scheduled IID commitments will require an additional non-refundable Engineering Fee. Please contact a Customer Project Development Services project manager for appropriate design fee costs. District office locations and contact numbers are listed on page 2.

1.3 ELIGIBILITY FOR ENGINEERING DESIGN

1.3.1 The IID's Customer Project Development Services Section schedules the preparation of the job package schedule based on receipt of all required customer information.

Job preparation will not begin until job is placed on the engineering schedule. To be placed on the engineering schedule, the developer must complete and submit the following:

1.3.1.1 Completion of all related IID forms found in the Customer Information Packet located at the end of this document.

1.3.1.2 Payment of engineering fee. (See 1.2)

1.3.1.3 Plans, drawings and load data. (See 1.11)

1.4 JOB PACKAGE PREPARATION

1.4.1 The time required to prepare a job package for construction will vary depending upon the size of job, complexity of work, and right-of-way access, environmental, and/or permit requirements.

IID will provide and mail a cost letters to the responsible party as shown in Customer application located at the end of this document.

1.5 JOB PACKAGE RELEASE

- 1.5.1 The job will be released for Construction Scheduling when the conditions contained within the Customer Information Packet have been met and the IID's job package has been approved.

1.6 CONSTRUCTION SCHEDULE

- 1.6.1 Based upon the estimated request date for service, the job package is released and placed on the IID's construction schedule. Schedule may be obtained from Customer Project Development Services project manager.
- 1.6.2 IID's goal is to provide timely and economical electric service. In order to achieve this goal, the Developer should promptly provide the information requested and keep the Customer Project Development Services project manager informed of project status.

1.7 UNDERGROUND FACILITIES

- 1.7.1 When underground facilities are to be included, IID will provide a complete set of underground duct, vault, transformer pad and riser pole system installation drawings and associated specifications for each project or phase.
- 1.7.2 It is the responsibility of the Developer to provide and install, at Developer's expense, the complete underground conduit and vault system, including any street lighting systems required by the city, county or other governing agency having jurisdiction.
- 1.7.3 Lighting systems must be approved in advance of installation by the governing agency having jurisdiction.
- 1.7.4 IID will provide a point of service.
- 1.7.5 IID will provide an Underground Power Inspector during the installation of conduit and vault systems with the exception of street light systems.
- 1.7.6 Any request for inspections on a project must be scheduled with IID a minimum of 48 business hours in advance. Failure to schedule and/or obtain an inspection and approval for any portion of the lighting or underground power system may result in the total rejection of the system.

1.8 LIABILITY

- 1.8.1 To eliminate any misunderstandings concerning IID's assumption of liability for personal injury or property damage prior to or following the completion of the underground duct and vault system by the Developer.
- 1.8.2 The Developer will be required to acknowledge in writing that the IID accepts no responsibility for safety, maintenance, repairs, corrections for

any on-site or off-site electrical distribution system equipment or facilities until the system and facilities are occupied by IID.

1.8.3 The acknowledgement will be executed through the completion of the Indemnification Agreement (Form IID-700C 6-07). The Indemnification Agreement is required prior to obtaining electrical power service for the development project.

1.8.4 Those persons executing the statement must be legally authorized by the Developer to execute the statement, which shall be binding on all parties having ownership of, or contractual interest in, the land and/or development project. This will allow the application to be placed on the engineering schedule.

1.9 OCCUPATION OF FACILITIES

1.9.1 It is the responsibility of the Developer to supply and maintain all necessary safeguards and to ensure a safe working environment during and after the construction and/or installation of the underground power system.

1.9.2 It is IID's policy to occupy only those portions of the system for which a service request has been made and all line extension charges and connect fees have been paid.

1.9.3 Only those portions of the system which are actually occupied by the IID will be released from the Developer's responsibility. The Developer shall continue to be responsible for the maintenance, repairs, safety, corrections and the liability for the balance of the unoccupied and de-energized portions of the power system, until such time that IID takes possession.

1.9.4 Any portion of an existing underground system installed in advance of service needs of the Developer that is not occupied by the IID shall require a full and complete re-inspection. The IID will not establish construction and/or cable installation schedules in advance of the requirement.

1.9.5 Upon completion of the duct and vault system and acceptance of the installation as meeting IID's standards for installation conformance only, IID will assume ownership of all such facilities, except conduits, vaults and enclosures that are on, within or a part of a building or structure or that are not occupied by the IID.

1.10 SPECIAL SERVICE CONDITIONS

1.10.1 During the initial review of any project, IID may determine that special service conditions exist due to one or more of the following conditions:

1.10.1.1 Existing distribution and/or transmission facilities do not have the capacity to serve the project.

- 1.10.1.2 Special or additional rights-of-way or easements may be required to serve the project.
- 1.10.1.3 Special voltage and/or load demands could be imposed on existing facilities by the project.
- 1.10.1.4 All rights-of-way determined necessary to extend electrical service to any project shall be the sole responsibility of the customer to acquire. Contact Real-Estate Section: Imperial Valley (760) 339-9239.
- 1.10.1.5 New Substation Required
- 1.10.2 Under these conditions the Developer will be required to:
 - 1.10.2.1 Substation requirements; refer to Substation standard RGSTD-1001 Substation site requirements
 - 1.10.2.2 Provide any additional rights-of-way or easements that the District determines necessary to provide electrical service to said project.
- 1.11 PLANS, DRAWINGS AND LOAD DATA
 - 1.11.1 IID requires the Developer to provide the following to IID's Customer Project Development Services the following:
 - 1.11.1.1 Approved street lighting plan.
NOTE: In the District's Riverside County service area, the Developer shall submit lighting proposals first to the county of Riverside and then to the District's Customer Project Development Services for service points.
 - 1.11.1.2 Water, sewer and drainage plans.
 - 1.11.1.3 Street improvement plans.
 - 1.11.1.4 Precise grading and landscaping plans.
 - 1.11.1.5 Site plans with building(s) shown.
 - 1.11.1.6 Parcel and overall project map with phasing.
 - 1.11.1.7 Graphic scales on all AutoCAD drawings.
 - 1.11.1.8 All parcel map property corners or tract map boundary corners shall be tied to section or ¼ section corners. Final maps shall identify all property lines.
 - 1.11.1.9 One hard copy of total connected electrical loads for each building style or floor plan.

1.11.1.10 Items to be included into their own separate layers are as follows:

1.11.1.10.1 Land Parcel Layer

1.11.1.10.2 Right of Way Layer

1.11.1.10.3 Centerline layer including Street Centerline Annotation

1.11.1.10.4 Public Utility Easement (P.U.E.) Layer

1.11.2 Refer to 1.11 above for proposed residential subdivisions, commercial projects and apartment projects. All land base or base map data must first be acquired from either the county of Imperial or the county of Riverside (as appropriate). The land base information will include NAD-83, zone 6 state plane coordinates, the appropriate existing parcel map, street, road and any other known right-of-way boundaries. Known surveyed benchmark locations and/or GPS data points should also be included, wherein they are available. Ultimately, the proposed project should be designed inside the county area of the submittal and all the information to be provided in AutoCAD digital form.

1.12 CONFLICT

1.12.1 In the event of a conflict between the Developers Energy Planning Guide and Contractor Notes; Contractor Notes will take precedence.

1.13 CONTRACTOR RESPONSIBILITY

1.13.1 These specifications cover the requirements for furnishing and installing certain portions of electrical underground distribution facilities not detailed in the attached IID issued Contractors Drawings.

1.13.2 Whenever a manufacturer's material or equipment is referred to by name, type, or catalog number, this material or equipment is satisfactory, and "or approved equal" requires that other manufacturer's material or equipment will be acceptable only if it is of equal quality and approved by the IID before purchase.

1.13.3 It will be the responsibility of the contractor to conform to local regulations and obtain any necessary permits in the performance of these specifications and comply with all IID drawings and documents in their entirety.

1.13.4 Inspection service will be provided by the IID. Materials and workmanship shall at all times be open to inspection by the IID Inspector.
Inspection schedules are subject to a minimum 4 hour advance notice and are by appointment only Imperial (0) 4 2 00 or a unita (0) 5 2

- 1.13.5 Any work failed/rejected by the IID Inspector shall be corrected in a matter satisfactory to the IID Inspector prior to the continuation of work. The IID Inspector shall have final authority to pass, fail or approve corrected measures. Work will not continue until the IID Inspector has inspected and passed the electrical system.
- 1.13.6 The required material and work includes furnishing and installing the following:
- 2.0 METERING
 - 3.0 TRENCHING, BORING, CONDUITS, ENCASEMENT, CONCRETE
 - 4.0 SECONDARY, TEMPORARY POWER
 - 5.0 TRANSFORMER PADS, VAULTS, SECTOR SLEEVES
 - 6.0 EQUIPMENT & BUILDING CLEARANCES
 - 7.0 SLOPE & RETAINING WALLS
 - 8.0 TREE CLEARANCES
 - 9.0 PRIMARY RISERS
 - 10.0 APPENDIX
 - 11.0 CUSTOMER INFORMATION PACKET
- 1.13.7 All work shall follow the best modern practice both in the manufacturer and the installation of underground facilities. All work shall be done by artisans skilled in their various trades.
- 1.13.8 All rights-of-way determined necessary to extend electrical service to any project shall be the sole responsibility of the customer to acquire. For information regarding all real estate and right-of-way matters please contact the IID Real Estate Section: **Imperial alley a uinta (0)**

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METERING

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2.1 Questions Regarding Metering Equipment

- 2.1.1 If any question arises, and the answer does not appear to be available in these pages, it is imperative that you call the Customer Project Development Services Office of IID.

Imperial Valley Office: (760) 482-3300
Coachella Valley Office: (760) 398-5841

- 2.1.2 The most common service alterations are an upgrade to the electric service panel. Upgrades are generally needed when a family exceeds its existing service due to remodeling, room additions, or installation of a new major electric appliance. Another common upgrade of electric service involves moving the overhead service drop underground. This is generally done as a safety precaution when families decide to add a backyard pool, deck or patio, or simply to improve aesthetics
- 2.1.3 The customer shall carry the responsibility to ensure the project of upgrading the electrical service panel complies with the most recent issue of the National Electric Code (NEC), EUSERC, and any other federal, state, or local codes that apply
- 2.1.4 Once the customer's service equipment is installed, the county or the city with jurisdiction requires that the installation pass an electrical inspection before the IID can complete the connection to the electrical system
- 2.1.5 The customer is responsible for requesting and passing the inspection
- 2.1.6 If you are looking to make this type of service change or alteration, you will be required to follow your city or county building department requirements prior to contacting the IID
- 2.1.7 It is the customer's responsibility to be aware of any applicable local codes and ordinances
- 2.1.8 Ringless meter panels are not acceptable. This applies to all residential and commercial meter panels
- 2.1.9 IID and Authority Having Jurisdiction (AHJ) Responsibility lines. The Imperial Irrigation District responsibility stops at the meter. The AHJ responsibility starts at the bottom of the meter.

2.2 Who Provides Metering Equipment

- 2.2.1 All meter sockets, meter socket enclosures, metering transformer cabinets, and switchboard service sections will be provided, installed, owned and maintained by the customer. If the customer wants advanced metering (i.e. pulse metering, modem access, load profile, etc.) The customer will pay the extra cost to provide this service.
- 2.2.2 400 amp rated panels may utilize the class 320 self-contained meters for residential use only
 - 2.2.2.1 Meter will be installed in an accessible location (see 2.4)
- 2.2.3 600 amp rated residential panels must comply with the following criteria
 - 2.2.3.1 Meter will be installed in an accessible location (see 2.4)
 - 2.2.3.2 Meter panel must be approved by IID Meter Dept. prior to purchase and installation
 - 2.2.3.3 Installation must comply with all applicable Authority having Jurisdiction (AHJ) and Imperial Irrigation District (IID) requirements

2.3 Who installs the Meter

- 2.3.1 Meters will be installed and the service connected and energized by the IID only after the following:
 - 2.3.1.1 Metering equipment has been provided and properly installed
 - 2.3.1.2 After an inspection clearance has been given to the IID by the appropriate Authority Having Jurisdiction (AHJ)
 - 2.3.1.3 All outstanding fees have been paid

2.4 Meter accessibility

- 2.4.1 Meters and metering equipment will be so placed as to be at all times readily accessible for inspection, reading, testing and maintenance. Prior to energizing the service the customer is required to provide IID with a copy of keys. Lock box will be provided by IID.
- 2.4.2 As defined by the electrical codes, readily accessible means, "Capable of being reached quickly, for operation, renewal or inspections, without requiring those to whom ready access is requisite to climb over or remove obstacles or to resort to portable ladders, chairs, etc."

2.5 Service and Meter Location

- 2.5.1 Care must be taken in selecting a proper and convenient location for the meter and service disconnect switch or circuit breaker. The location shall comply with applicable codes, laws and ordinances of the authority having jurisdiction (AHJ) of inspection.
- 2.5.2 On new installations, it is necessary that the location for the meter be approved by the IID. This can be accomplished by the customer or contractor calling the Customer Project Development Services Office and requesting a service and meter location. Meter and service disconnect location must be approved by the IID.
- 2.5.3 Whenever any addition, alteration or renewal is contemplated to existing service conduits, service entrance conductors or metering equipment, the customer or contractor shall contact the Customer Project Development Services Office for an approved service and meter location. This is imperative to provide advice regarding correction of any existing unacceptable condition.
- 2.5.4 Meters and metering equipment may be located at a point other than adjacent to the overhead service drop attachment or to the underground service terminating enclosure upon approval by the Customer Project Development Services Office of the IID.
- 2.5.5 Customer equipment, load wires, load management equipment, etc. are not allowed in the unmetered sections of the panel including pull and metering section. Taps for fire alarms and fire pumps are not allowed in the pull section and or CT Metering section of panel

2.6 Meter Locations Requiring Enclosure

- 2.6.1 Whenever the meter is located in any place where excessive moisture, vibration, noise, fumes, dust or similar deteriorating agents will interfere with its operation, it must be enclosed or housed in a manner which is approved by the IID.
- 2.6.2 Whenever the meter is mounted in a school, or such a location that is accessible to heavy pedestrian/student traffic, it must be suitably enclosed or housed. Access must be given to IID employees. Please consult the IID Customer Project Development Services Office, Imperial Valley (760) 482-3300, Coachella Valley (760) 398-5841.
- 2.6.3 Residential services above 400 amps (see 2.2.3)

2.7 Unacceptable Meter Locations

- 2.7.1 For reasons of public safety, maintenance of service, reliability of service, and reliability of metering, it is not permissible to install meters and metering equipment:
- 2.7.2 Inside any individual residential occupancy, carports, or garages
- 2.7.3 In a substation area or in a transformer vault containing transformers or high-voltage equipment.
- 2.7.4 In a location not readily accessible for reading, hazardous or unsuitable for entry by meter readers or service personnel (*including alleyways, storage rooms, and pedestrian traffic areas, etc.*)
- 2.7.5 In a restroom, bath, shower, powder, toilet room, etc.
- 2.7.6 In an elevated area (*such as a balcony or mezzanine*) or a depressed area (*such as a basement, cellar or underground room*) that does not have access by means of a ramp or clear stairway of normal tread and rise conforming to building code requirements
- 2.7.7 On a surface/place where excessive moisture, vibration, noise, fumes, dust or similar deteriorating agents will interfere with its operation, unless it is enclosed in a manner approved by IID
- 2.7.8 In an alleyway where meter is subject to potential vehicular damage
- 2.7.9 In a room containing mechanical equipment
- 2.7.10 Inside any building, unless located within an acceptable meter room. (Customer must provide key prior to energizing service).

2.8 Meter Locations

2.8.1 Residential Occupancies

- 2.8.1.1 For single and multi-family residential buildings, meters and metering equipment will be installed outdoors and may be mounted on surface or semi-flush on exterior building wall.
- 2.8.1.2 In large multi-family residential high-rise buildings, the IID may at its option, establish more than one meter location for groups of individual meter facilities. Consult the Engineering Section (Customer Project Development Services Office) of the IID for approval of service plans and meter locations in these cases.

2.8.2 Commercial and Industrial

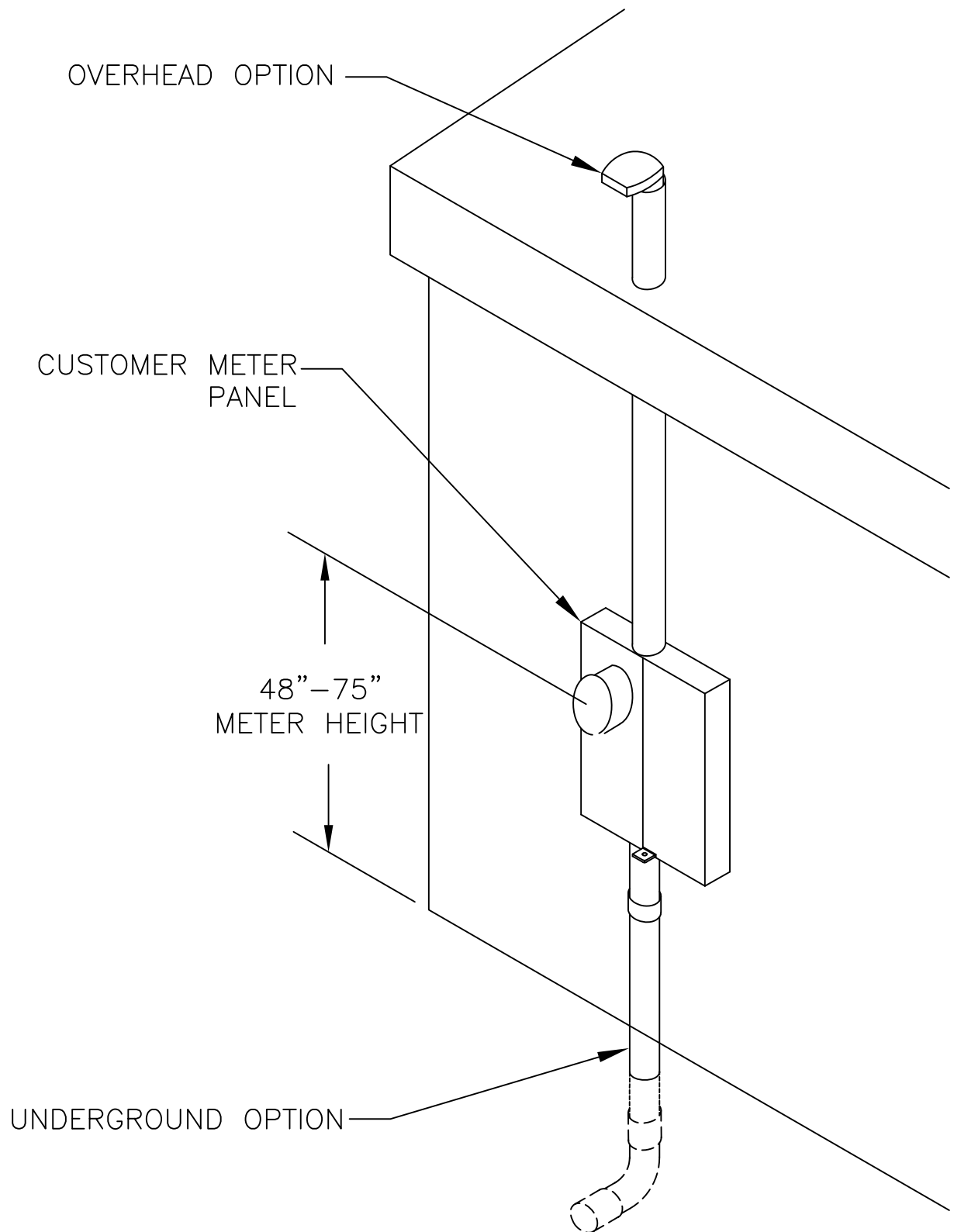
- 2.8.2.1 For single occupancy buildings, meters and metering equipment may be installed:
- 2.8.2.2 Outdoors and mounted on surface or semi-flush on exterior building wall
- 2.8.2.3 In a room within a building approved by the IID for the location of electric meters, with provision for proper illumination and with access only by a door (with provision for IID lockbox, customer is required to furnish keys to access door prior to energizing of panel) opening to the outside of the building.
- 2.8.2.4 Outside the security gates.
- 2.8.2.5 The IID reserves the right to install meter/communication equipment.
- 2.8.2.6 In multi-occupancy building, extensive shopping centers or buildings exceeding two floors, the IID may, at its option, establish more than one meter location for groups of individual meter facilities. Consult the IID Customer Project Development Services Office for approval of service plans in these cases.

2.9 Meter Markings

- 2.9.1 Where meters are grouped at a common location for a multiple-occupancy building, either residential or commercial, each meter socket panel or its related service disconnect shall be clearly and permanently marked by the contractor or customer, prior to meters being installed, to indicate the occupancy served. Labeling must be approved by IID.

2.10 Meter Heights

- 2.10.1 When a single meter is wall or surface mounted, either indoors or outdoors, the minimum height of the meter shall be 4' (48 inches) and the maximum height shall be 6' 3" (75 inches). These heights are measured from the standing surface to the center line of the meter. Multi-metered packs as measured from finished grade please consult IID Customer Project Development Services Office. Residential refer to 2.8.1. Commercial refer to 2.8.2.



IMPERIAL IRRIGATION DISTRICT



DRAWN BY	O. HAM
REVISED BY	F. FIMBRES
APPROVED BY	E. MARTINEZ
REVISION	REV 0
DATE	11/13/2024

ELEVATION VIEW
EXTRUDED METER PANEL
HEIGHT

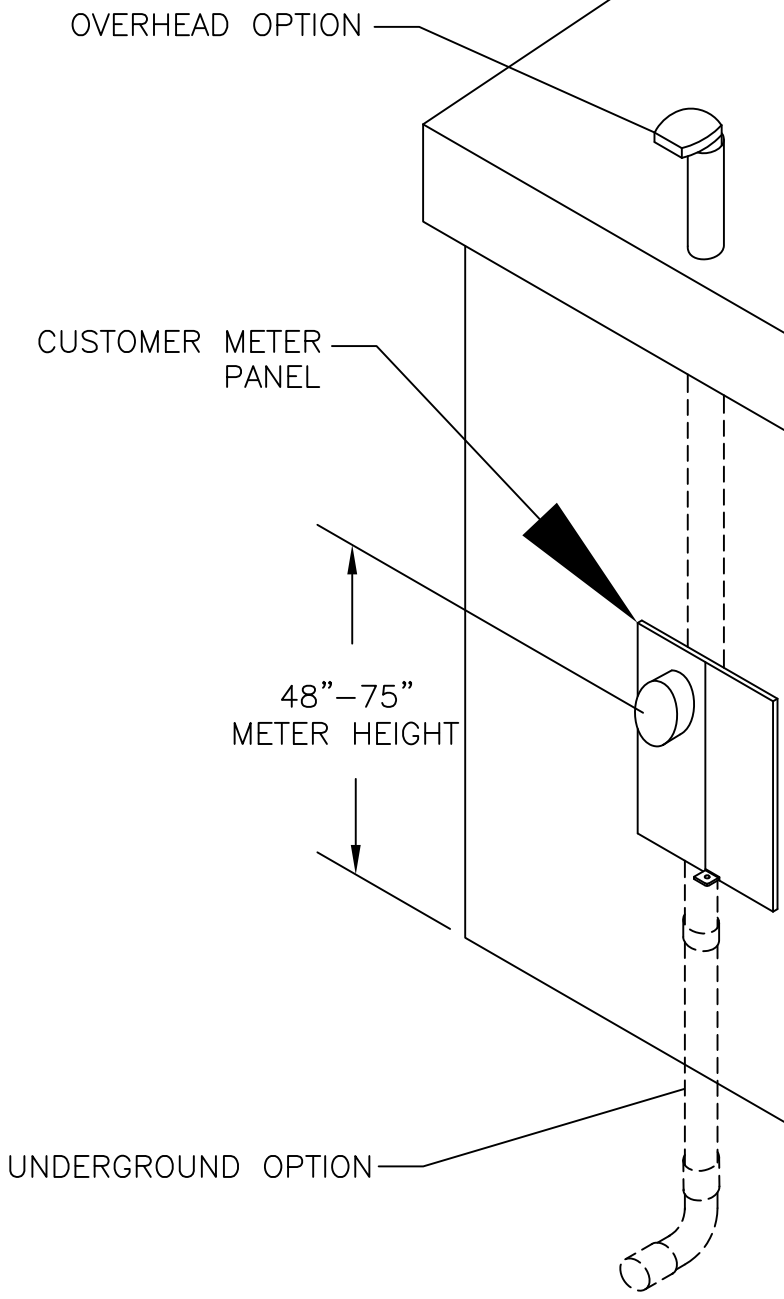
WHAT'S CHANGED? NEW TITLE BLOCK AND NEW STANDARD NUMBER

664

MET

SHEET 1 OF 1

100



IMPERIAL IRRIGATION DISTRICT



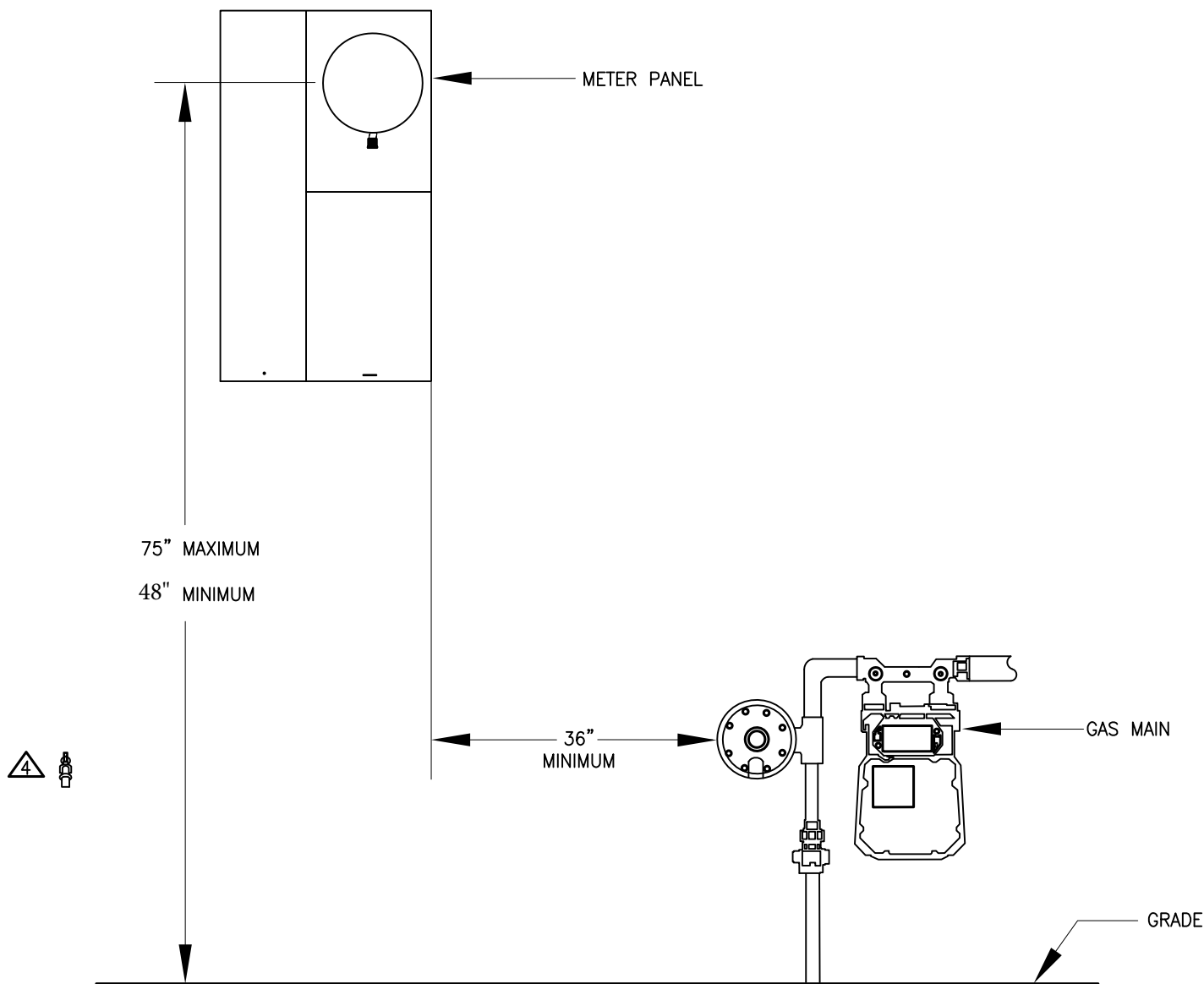
DRAWN BY	O. HAM
REVISED BY	F. FIMBRES
APPROVED BY	E. MARTINEZ
REVISION	REV 0
DATE	11/13/2024

ELEVATION VIEW FLUSHMOUNT METER PANEL HEIGHT	
WHAT'S CHANGED? NEW TITLE BLOCK AND NEW STANDARD NUMBER	
665	

MET

SHEET 1 OF 1

110



- NOTES:
- 1. SIZE AND DIMENSIONS OF PANELS WILL VARY. DRAWING IS NOT TO SCALE.
 - 2. THIS DRAWING PERTAINS TO BOTH OVERHEAD AND UNDERGROUND ELECTRIC SERVICE APPLICATIONS.
 - 3. MAINTAIN 3 FEET CLEAR, LEVEL, AND UNOBSTRUCTED WORK SPACE IN FRONT OF ELECTRIC SERVICE EQUIPMENT.
 - 4. PLUMBING FIXTURES MUST BE LOCATED 18" MINIMUM FROM THE OUTSIDE EDGE OF METER PANEL.

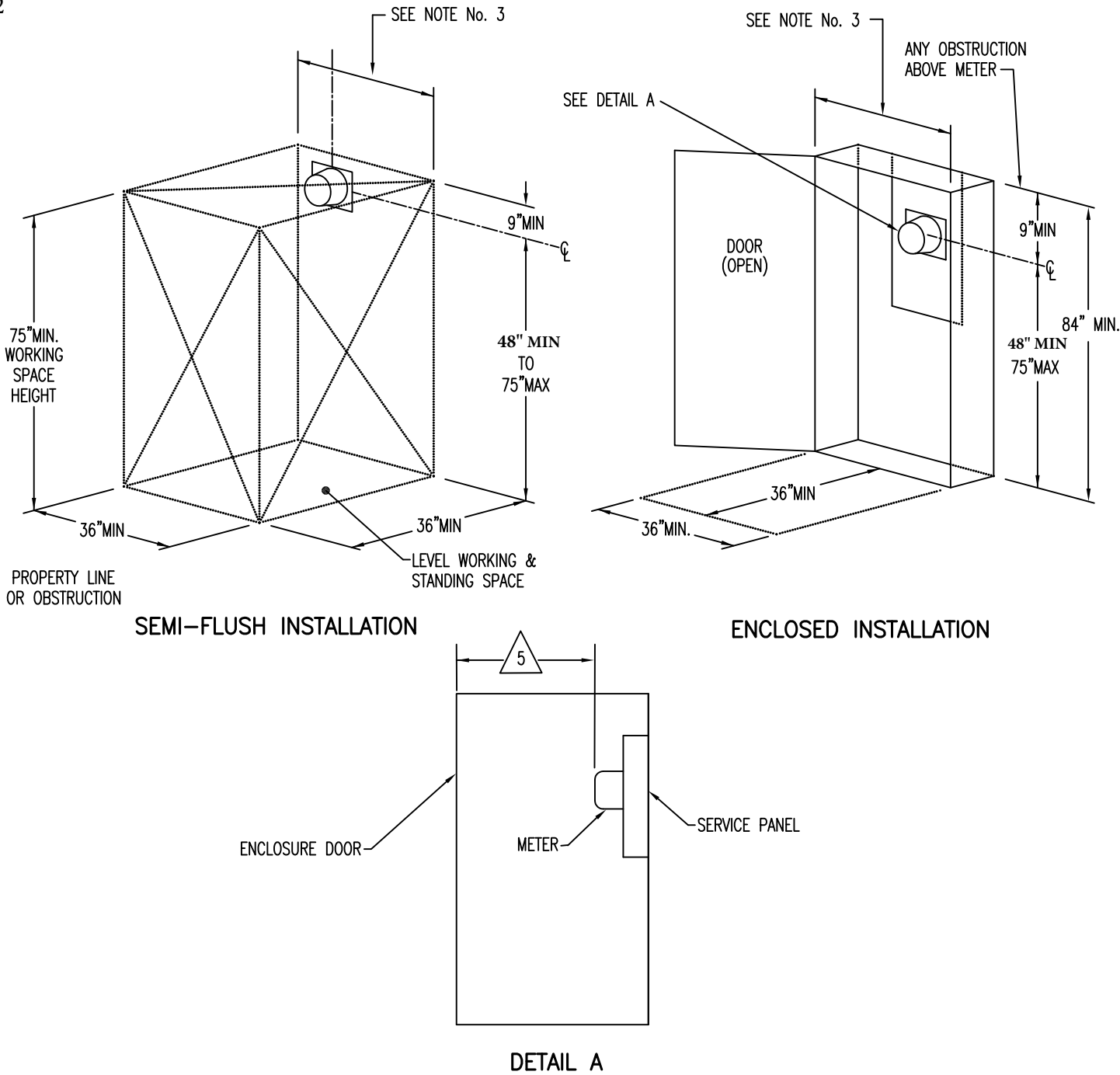
IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	FF	 METER PANEL DISTANCE FROM GAS MAIN AND PLUMBING FIXTURES
REVIEWED	FF	
APPROVED	EGM	
REVISION	02	
DATE	02-25-2020	
		210.4

2.11 Planning and Grouping for Additional Meters

- 2.11.1 When there is a need to locate and install additional service and metering equipment after the originally-planned electric service for a building is installed and energized:
- 2.11.2 The additional meters shall be grouped with those meters already in service, and should be installed in accordance with the established meter location plan for the building.
- 2.11.3 The added service equipment must be located and installed in conformance with applicable codes, laws, and ordinances of the inspection authority having jurisdiction.

2.12 Working Space in Front of Meter

- 2.12.1 To permit access to the metering installation and to provide working safety for personnel, a level working and standing space located entirely on the property of the customer is to be provided for at all meter installations.
- 2.12.2 The working space, to be kept clear and unobstructed, shall extend a minimum of 3' (three feet) from the face of the meter socket or metering transformer enclosure.
- 2.12.3 The width of the working space should permit ready access to the complete metering installation and in no case be less than 3' (three feet).
- 2.12.4 The height clearance for the working space should be no less than 7' (seven feet). See Standard 615.
- 2.12.5 The working space clearance on panels rated 3R with outside doors must be a minimum of 2' (two feet) clearance beyond the edge of the outside doors when the doors are open and locked at 90° (ninety degrees) from the panel.
- 2.12.6 When housekeeping pad is more than 2" (two and one half inches) above final grade, the pad shall extend a minimum of 3' (three feet) beyond the leading edge of service entrance (pull section) and metering sections.



NOTES:

- 1. SOCKETS WITH APPROVED SEALING RINGS SHALL BE FURNISHED, INSTALLED, AND WIRED BY THE ELECTRICAL CONTRACTOR.
- 2. CARE SHOULD BE EXERCISED TO DESIGN CABINET SUCH THAT NEITHER THE ROOF NOR THE DOOR FRAME WILL INTERFERE WITH THE CLEARANCES OR THE INSTALLATION OF THE METER.
- 3. METER TO BE INSTALLED WITH 10" MINIMUM CLEARANCE TO THE NEAREST SIDE WALL OR OTHER OBSTRUCTION.
- 4. 3' x 3' LEVEL WORKING/STANDING AREA TO BE FREE OF VEHICULAR TRAFFIC INCLUDING A DRIVE THRU.

5 11" MIN. AND 15" MAX. CLEARANCE FROM FRONT OF METER TO INSIDE OF CLOSET DOOR

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	FF	 SINGLE SELF CONTAINED METER RESIDENTIAL SERVICE 0-600 VOLTS
REVIEWED	FF	
APPROVED	EGM	
REVISION	04	
DATE	02-25-2020	615

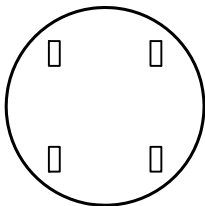
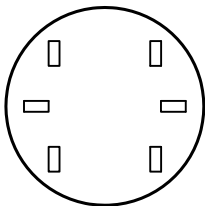
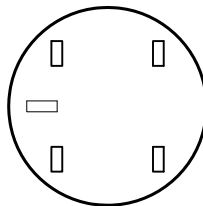
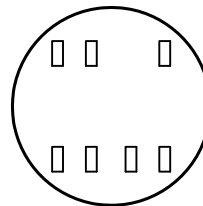
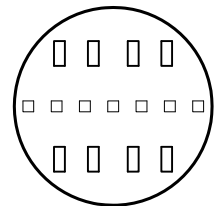
2.13 Meter Socket Requirements

- 2.13.1 All meter sockets will conform to NEMA-EEI Standard MSJ-7, be Underwriter's Laboratories approved and meet Electric Utility Service Equipment Requirements Committee (EUSERC) requirements.
- 2.13.2 Meter sockets for single-phase, 3-wire, 120/240 volt, service shall be 200 amperes and have four terminals. For 200 amperes rating 250 KCMIL terminal lugs will be supplied and for 400 ampere rating 300 KCMIL terminal lugs will be supplied.
- 2.13.3 Meter sockets for Network 3-wire, 120/208 volt, service shall be 200 amperes and have five terminals. For 200 amperes rating 250 KCMIL terminal lugs will be supplied.
- 2.13.4 Meter sockets for three-phase, 4-wire, 120/208 volt-wye and 120/240 volt-delta shall be 200 amperes and have seven (7) terminals. These self-contained service panels will be limited to 200 ampere rating and be supplied with 250 KCMIL AL-CU terminal lugs
- 2.13.5 Meter sockets for transformer-rated metering will be 20 amperes with terminal arrangement, depending on the type of service. See table of socket terminal arrangements, Standard 608 on page 18.

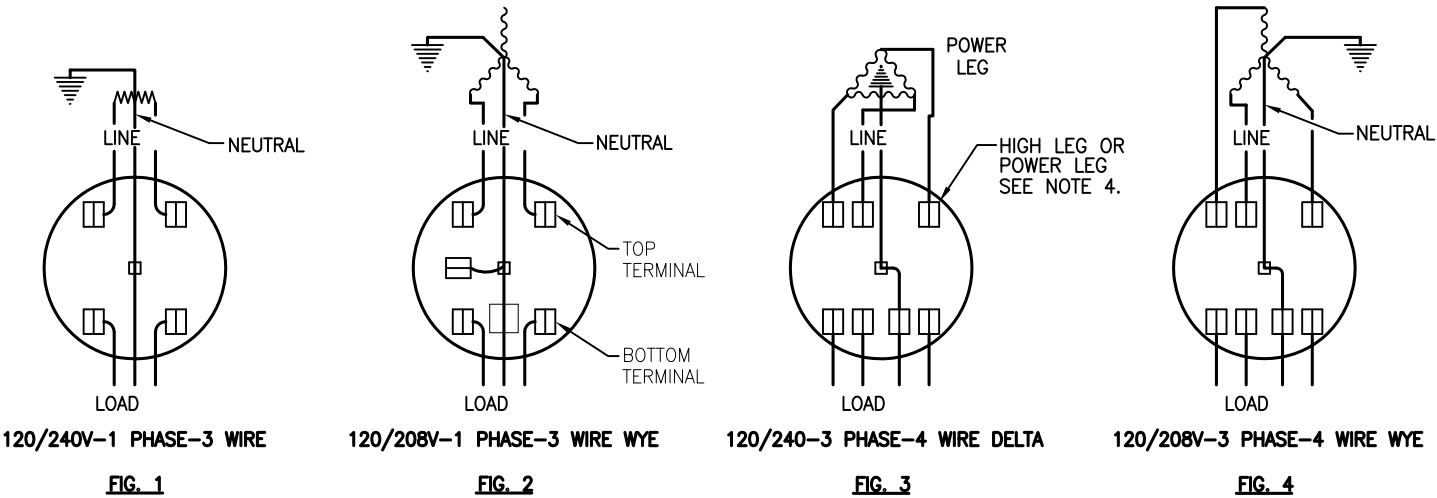
METER SOCKET CLIP ARRANGEMENT:

THE NUMBER OF SOCKET CLIPS AND THEIR ARRANGEMENT VARIES WITH THE TYPE OF SERVICE SUPPLIED TO THE CUSTOMER. THE FOLLOWING TABLE LISTS THIS REQUIREMENT.

PHASE	SERVICE VOLTAGE	SERVICE CAPACITY	SOCKET CLIP ARRANGMENT	METERING TYPE
1	120/240 3 Wire	200 Amps	Exhibit 1	Self-contained 1B4 Meter
1	120/240 3 Wire	*400 Amps	Exhibit 1	Self-contained Class 320 Residential use only
Network	120/208 3 Wire	200 Amps	Exhibit 3	**Self-contained 5 Clip 4A5 Meter
1	120/240 3 Wire	400-600 Amps	Exhibit 2	CT Metering 6 Clip 2B6 Meter
3	120/208 4 Wire Y	200 Amps	Exhibit 4	Self-contained 7 Clip 4D7Z7 Meter
3	120/208 4 Wire Y	400 to 3000 Amps	Exhibit 5	CT Metering 15 Clip 5DY3 Meter
3	120/240 4 Wire Delta	200 Amps	Exhibit 4	Self-contained 7 Clip 4DYZ7 Meter
3	120/240 4 Wire Delta	400 to 600 Amps	Exhibit 5	CT Metering 15 Clip 5DY3 Meter
3	277/480 4 Wire Y	25 to 4000 Amps	Exhibit 5	CT Meter 15 Clip 5DY3 Meter
If customer requires 5KV or higher, they must consult IID Customer Service Operations Office				
* 400 Amp Class 320 panels are not allowed for use on commercial accounts				
** See Standard 614, Fig 2 for 5 th clip location				

**EXHIBIT 1****EXHIBIT 2****EXHIBIT 3****EXHIBIT 4****EXHIBIT 5**

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>GR</i>	 METER SOCKET CLIP ARRANGEMENTS
REVIEWED	<i>PS</i>	
APPROVED	<i>MS</i>	
REVISION	REV 2	
DATE	11-17-2016	
		608



FRONT VIEWS SHOWN

NOTES:

- 1. LINE CONDUCTORS SHALL BE CONNECTED TO THE TOP TERMINALS OF SOCKET AND LOAD CONDUCTORS CONNECTED TO THE BOTTOM TERMINALS OF THE SOCKET.
- 2. POTENTIAL TAPS INCLUDING THE NEUTRAL TAP, SHALL BE LOCATED BEHIND SEALED PANELS.
- 3. CLAMPED OR BOLTED CONNECTIONS IN METERING EQUIPMENT ENCLOSURES SHALL BE PERMITTED, INCLUDING THE NEUTRAL CONNECTION.
- 4. HIGH LEG OR POWER LEG WILL BE CONNECTED ON THE RIGHT HAND SIDE, LOCATED ON TOP OF METER SOCKET. THE CUSTOMER IS RESPONSIBLE FOR LOCATION OF HIGH LEG OR POWER LEG AFTER METER.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 CONNECTION DIAGRAM FOR SELF-CONTAINED METER SOCKETS
REVIEWED		
APPROVED		
REVISION	REV 2	
DATE	5-20-2013	614

2.14 Barricades

2.14.1 Permanent barricades may be required to provide the clearance where the working space is exposed to vehicles or hazardous conditions.

2.15 Sealing of Meters and Metering Equipment

2.15.1 All meters and enclosures for meters, metering equipment, and service entrance equipment on the line side of the meter (except as approved for access to replace fuses used for over-current protection) will be sealed by the IID. The IID seal shall not be broken except by an authorized IID representative.

2.15.2 No person is permitted to tamper or in any way interfere, with a meter or its connections as placed by the IID.

2.16 Service Riser and Meter Switch

2.16.1 All service and metering installations shall comply with applicable codes, laws, and ordinances of the inspection authority having jurisdiction (AHJ).

2.17 Meter Pedestals (manufactured homes)

2.17.1 Residential

2.17.1.1 A meter pedestal is a structure that supports service equipment. If a meter pedestal is required for the project, it is the customer's responsibility to purchase and install it.

2.17.1.2 The NEC requires that manufactured homes have a disconnect switch installed within 30' from the home on the side of the home facing normal public access. Normally, the meter socket is installed at this same location.

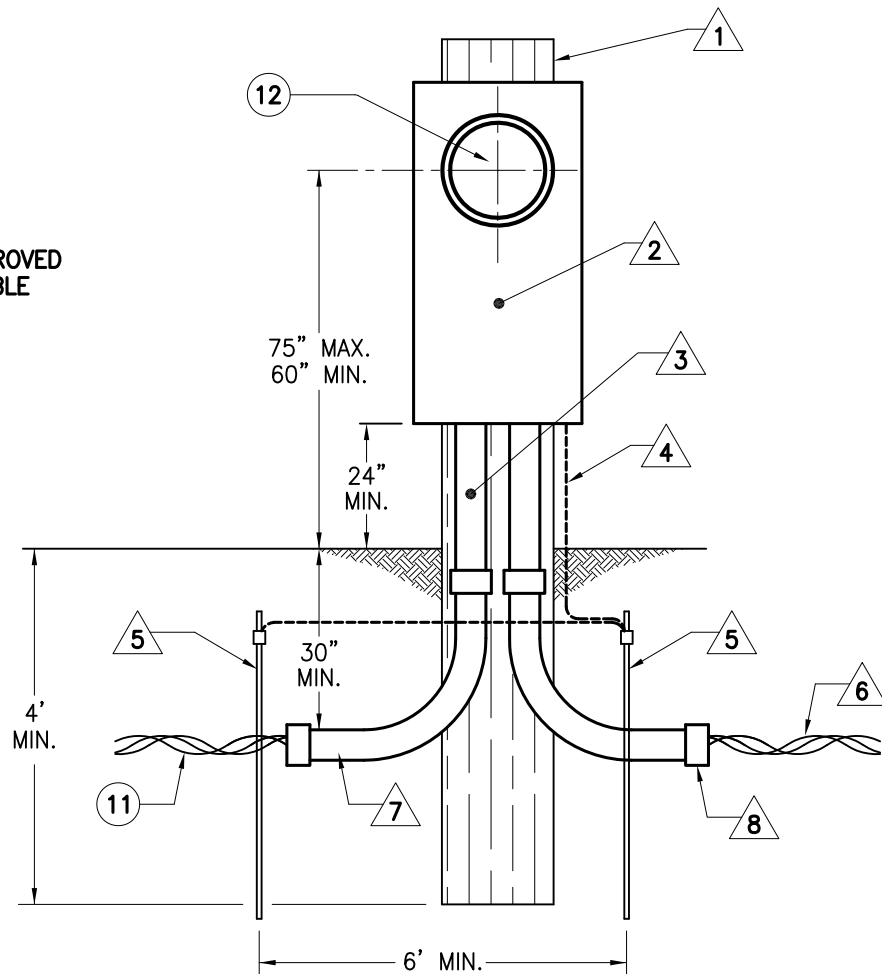
2.17.1.3 There are two options for meter pedestals:

2.17.1.3.1 Custom built standard 181.4 custom built pedestal is one that the customer or electrical contractor builds. (See 2.18.1.3.1.1)

2.17.1.3.2 Factory built standard 181.41 a factory built pedestal is one that is UL approved and purchased by the customer or contractor. (See 2.18.1.3.2.1)

2.17.1.3.3 For residential pedestals refer to EUSERC 307.

NOTE:
INSTALLATION TO BE APPROVED
AND TAGGED BY APPLICABLE
INSPECTING AUTHORITY.



METER PEDESTALS

A METER PEDESTAL IS A STRUCTURE THAT SUPPORTS SERVICE EQUIPMENT. IF A METER PEDESTAL IS REQUIRED FOR THE PROJECT, IT IS THE CUSTOMER'S RESPONSIBILITY TO PURCHASE AND INSTALL IT.

THE NEC REQUIRES THAT MANUFACTURED HOMES HAVE A DISCONNECT SWITCH INSTALLED WITHIN 30 FEET OF THE HOME ON THE SIDE OF THE HOME FACING NORMAL PUBLIC ACCESS. NORMALLY, THE METER SOCKET IS INSTALLED AT THIS SAME LOCATION.

THERE ARE TWO OPTIONS FOR METER PEDESTALS:

- 1) CUSTOM BUILT – STANDARD NUMBER 181.4 STATES, A CUSTOM BUILT PEDESTAL IS ONE THAT THE CUSTOMER OR ELECTRICAL CONTRACTOR BUILDS.
- 2) FACTORY BUILT – STANDARD NUMBER 181.41 STATES, A FACTORY BUILT PEDESTAL IS ONE THAT IS PURCHASED.

△ ITEMS OWNED AND INSTALLED BY CUSTOMER/CONTRACTOR

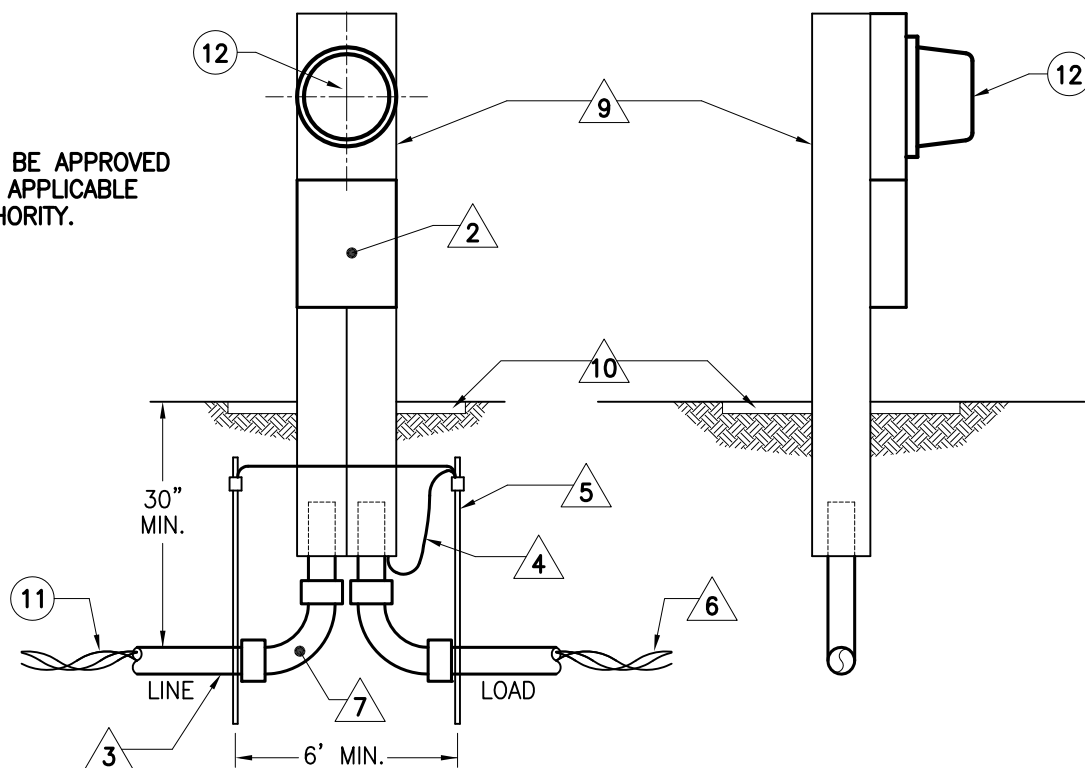
1. 6" X 6" X 10' MIN FULLY PRESSURE-TREATED POST
2. SERVICE ENTRANCE EQUIPMENT
3. SERVICE CONDUIT
4. GROUND WIRE (IN ACCORDANCE WITH NEC)
5. GROUND RODS (IN ACCORDANCE WITH NEC 250-56)
6. CUSTOMER CONDUCTORS
7. ELBOW, 90° BEND, 24" MIN RADIUS
8. COUPLING

○ ITEMS OWNED AND INSTALLED BY IID

11. SERVICE WIRE
12. METER

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 CUSTOM BUILT METER PEDESTAL
REVIEWED	<i>PD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 5	
DATE	6-6-2013	181.4

NOTE:
INSTALLATION TO BE APPROVED
AND TAGGED BY APPLICABLE
INSPECTING AUTHORITY.



METER PEDESTALS

A METER PEDESTAL IS A STRUCTURE THAT SUPPORTS SERVICE EQUIPMENT. IF A METER PEDESTAL IS REQUIRED FOR THE PROJECT, IT IS THE CUSTOMER'S RESPONSIBILITY TO PURCHASE AND INSTALL IT.

THE NEC REQUIRES THAT MANUFACTURED HOMES HAVE A DISCONNECT SWITCH INSTALLED WITHIN 30 FEET OF THE HOME ON THE SIDE OF THE HOME FACING NORMAL PUBLIC ACCESS. NORMALLY, THE METER SOCKET IS INSTALLED AT THIS SAME LOCATION.

THERE ARE TWO OPTIONS FOR METER PEDESTALS:

- 1) CUSTOM BUILT – STANDARD NUMBER 181.4 STATES, A CUSTOM BUILT PEDESTAL IS ONE THAT THE CUSTOMER OR ELECTRICAL CONTRACTOR BUILDS.
- 2) FACTORY BUILT – STANDARD NUMBER 181.41 STATES, A FACTORY BUILT PEDESTAL IS ONE THAT IS PURCHASED.

△ ITEMS OWNED AND INSTALLED BY CUSTOMER/CONTRACTOR

1. N/A
2. SERVICE ENTRANCE EQUIPMENT
3. SERVICE CONDUIT
4. GROUND WIRE (IN ACCORDANCE WITH NEC)
5. GROUND RODS (IN ACCORDANCE WITH NEC 250-56)
6. CUSTOMER CONDUCTORS
7. ELBOW, 90° BEND, 24" MIN RADIUS
8. COUPLING (WHEN APPLICABLE)
9. FACTORY – BUILT METER PEDESTAL
10. CONCRETE STABILIZER PAD 36" X 2" MINIMUM

○ ITEMS OWNED AND INSTALLED BY IID

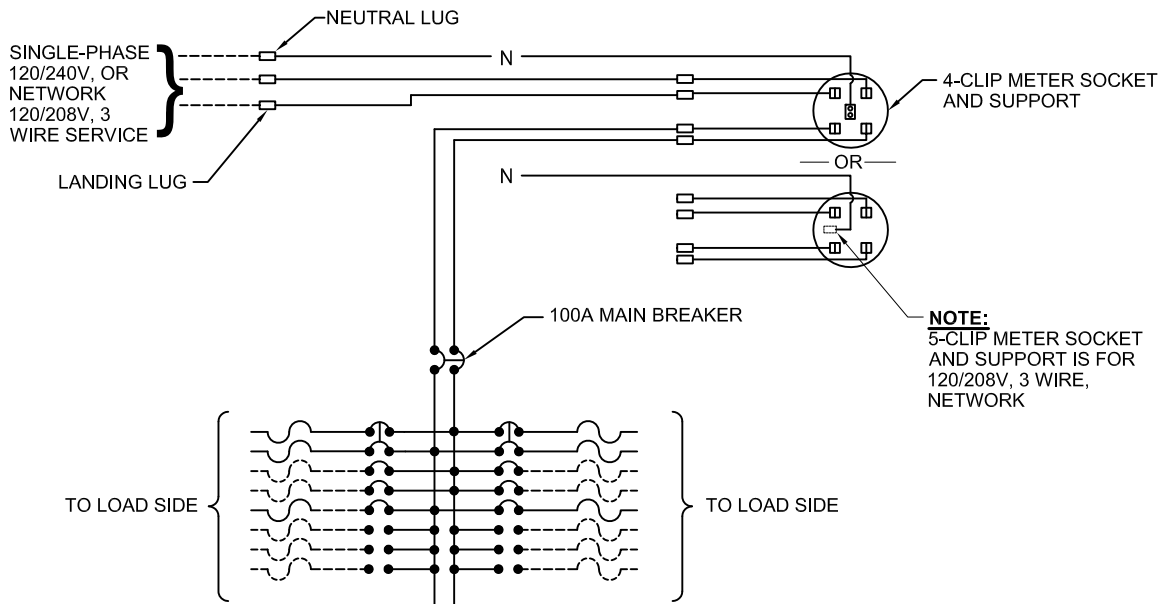
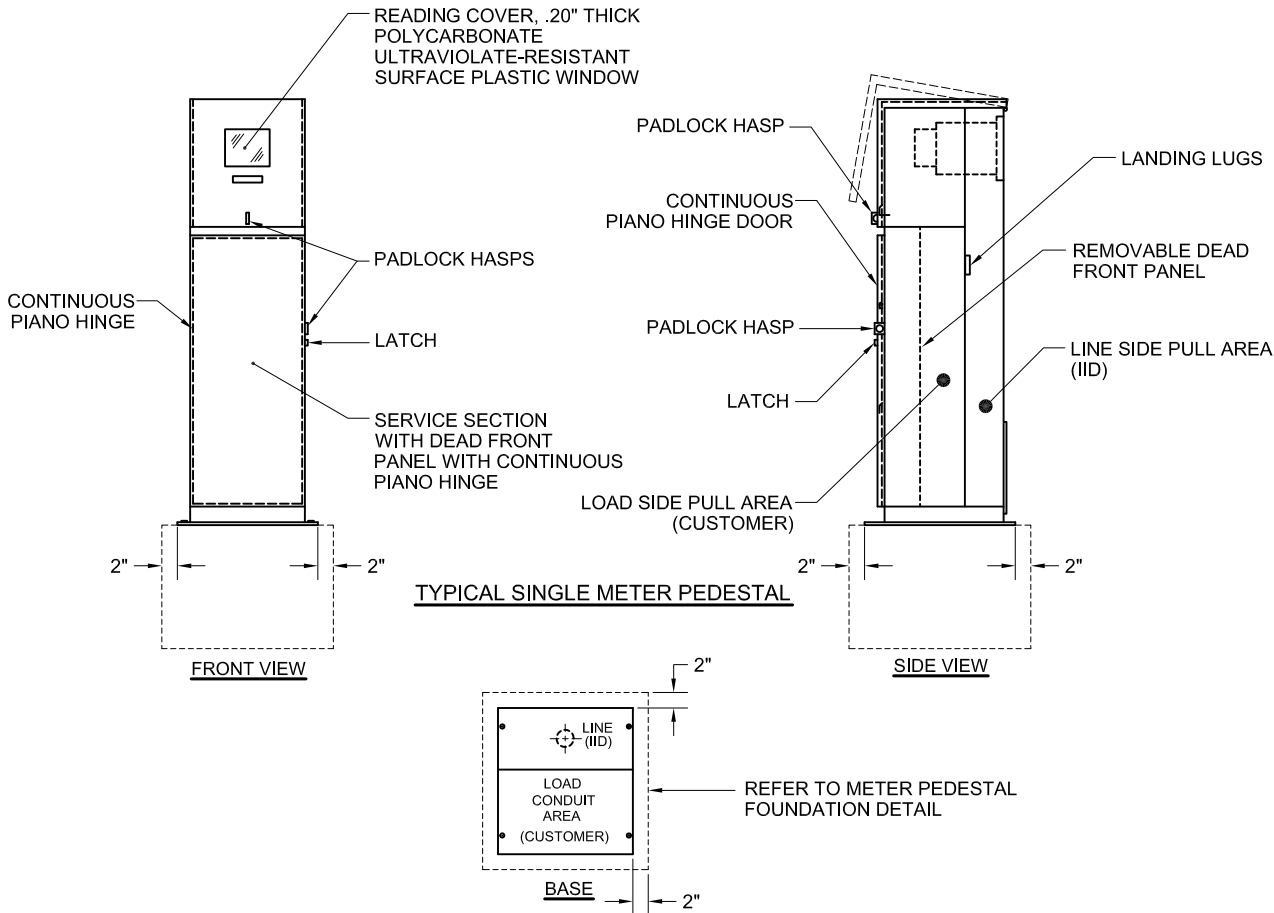
11. SERVICE WIRE
12. METER

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 FACTORY BUILT METER PEDESTAL
REVIEWED	<i>rs</i>	
APPROVED	<i>ms</i>	
REVISION	REV 6	
DATE	6-6-2013	181.41

2.17.2 Commercial

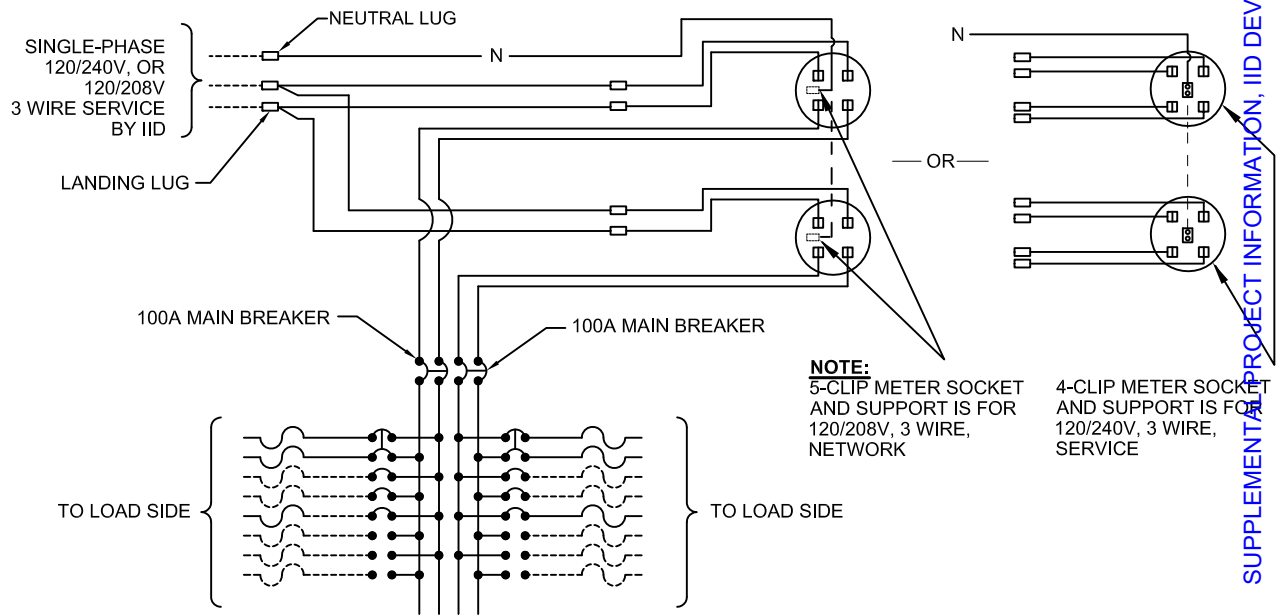
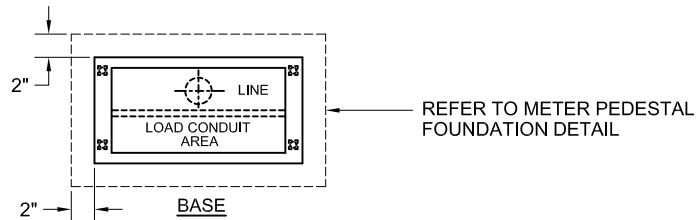
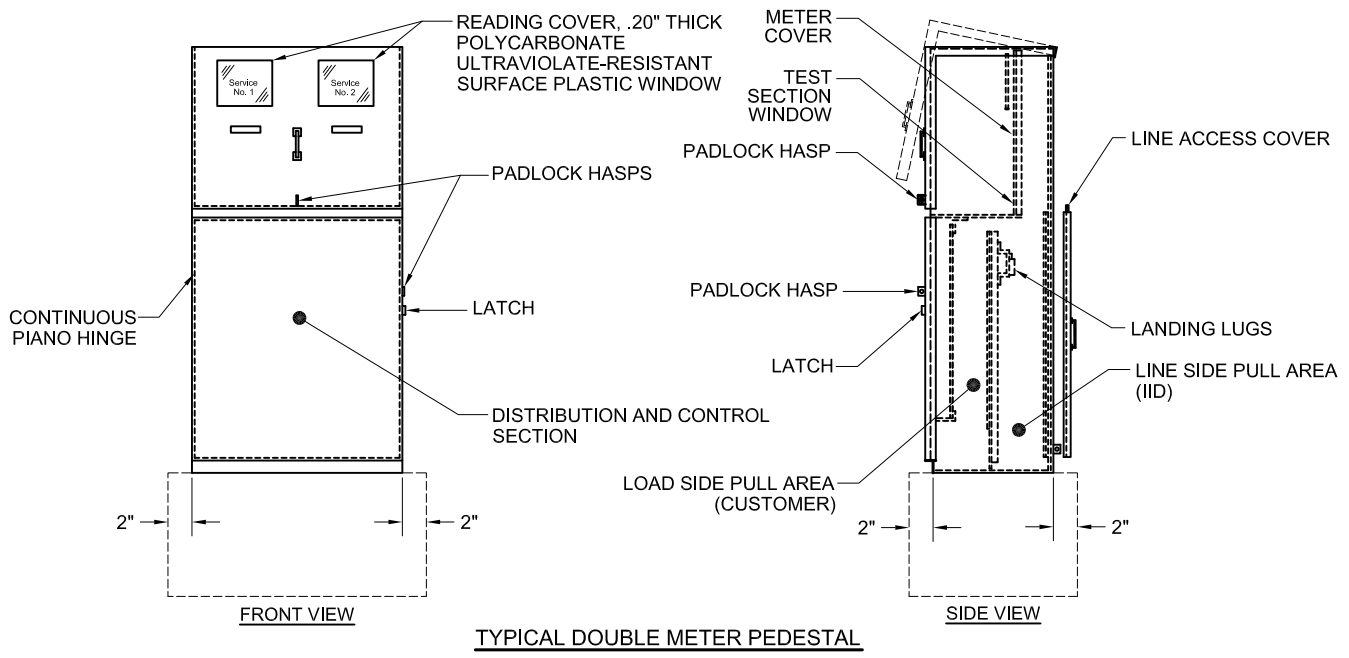
- 2.17.2.1 Customer shall provide detailed drawing of meter pedestal to the Imperial Irrigation District including model / catalog number, manufacturer name, etc. Meter Pedestal shall be installed only after approval by appropriate Imperial Irrigation District Customer Project Development Services office, Imperial Valley (760) 482-3300, Coachella valley (760) 398-5841.
- 2.17.2.2 Customer shall provide an appropriate meter panel wiring diagram that clearly indicates all customer-service wiring connections are connected on the load side of the meter.
- 2.17.2.3 Service equipment enclosure and metering equipment shall meet the requirements of the Imperial Irrigation District (IID). The meter area shall have a sealable, lockable, weather tight cover.
- 2.17.2.4 Service equipment enclosures shall be factory wired and conform to NEMA standards
- 2.17.2.5 The exterior door shall have provisions for padlocking. The padlock hole shall be a minimum diameter of ¼" or 11 mm
- 2.17.2.6 Landing lugs for incoming service conductors shall be compatible with either copper or aluminum conductors sized to suit the conductors shown on the plan. Landing lugs shall be copper or tin-plated aluminum. Neutral bus shall be rated for 125 Amp and be suitable for copper or aluminum conductors unless otherwise specified. The terminal shall include but not be limited to:
 - 2.17.2.6.1 Incoming terminals (landing lugs)
 - 2.17.2.6.2 Neutral lugs
 - 2.17.2.6.3 Solid neutral terminal strip
- 2.17.2.7 Voltage ratings of service equipment shall conform to the service voltages indicated on the plans
- 2.17.2.8 Meter test bypass facilities will only be allowed if approved by the Imperial Irrigation District Meter shop in the service area pedestal is being installed. If approved the pedestal shall have the following additions:
 - 2.17.2.8.1 Windows for inspection of by-pass blocks
 - 2.17.2.8.2 Test block area will be locked and only assessable to the Imperial Irrigation District
- 2.17.2.9 Meter sockets shall be 5 socket clip type which will allow 120/208 volt or 120/240 volt service

- 2.17.2.10 Maximum height of the pedestal will be 48"
- 2.17.2.11 Meter Pedestal shall have a Utility Side (Line Side) and a Load Side (Customer Side) that are separated by non-removable panel
- 2.17.2.12 Construction will be NEMA 3R, rain tight
- 2.17.2.13 All nuts, bolts and screws will be stainless steel
- 2.17.2.14 Minimum clearance shall be required for front and back of service equipment enclosure per National Electrical Code, Article 110.26, "Spaces about Electrical Equipment (600 Volts, Nominal, or Less)"
- 2.17.2.15 Grounding electrode (ground rod) will be installed on the Load Side (Customer Side) of the Pedestal, and will be 5/8" x 10'
- 2.17.2.16 All loads shall be connected after the Utility meter. Meter Pedestals with un-metered loads will not be energized by the Imperial Irrigation District. Services that are currently metered and part of the load is un-metered will be changed to metered load
- 2.17.2.17 Provide Imperial Irrigation District Customer Operations with an application package including approved street improvement plans, site plan, proposed panel location, panel voltage and panel main size panel specification, pedestal type, manufacturer, catalog number, one line schematics, pedestal drawings, etc.
- 2.17.2.18 Dual and single meter pedestals shall be allowed within the Imperial Irrigation District
- 2.17.2.19 Residential pedestals cannot be used on commercial accounts commercial customers must use commercial type pedestals



120/240V SERVICE WIRING DIAGRAM (TYPICAL)

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 COMMERCIAL METER PEDESTAL SINGLE SOCKET, 1Ø
REVIEWED		
APPROVED		
REVISION	REV 04	
DATE	11-17.2016	185.51



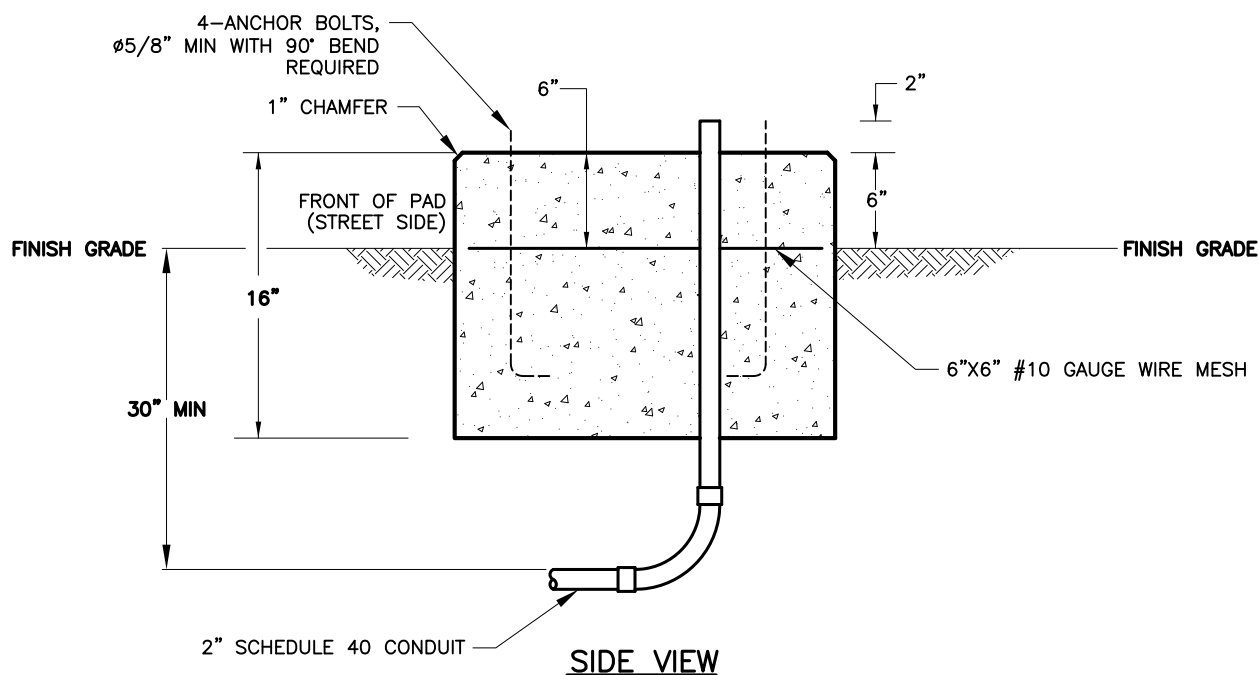
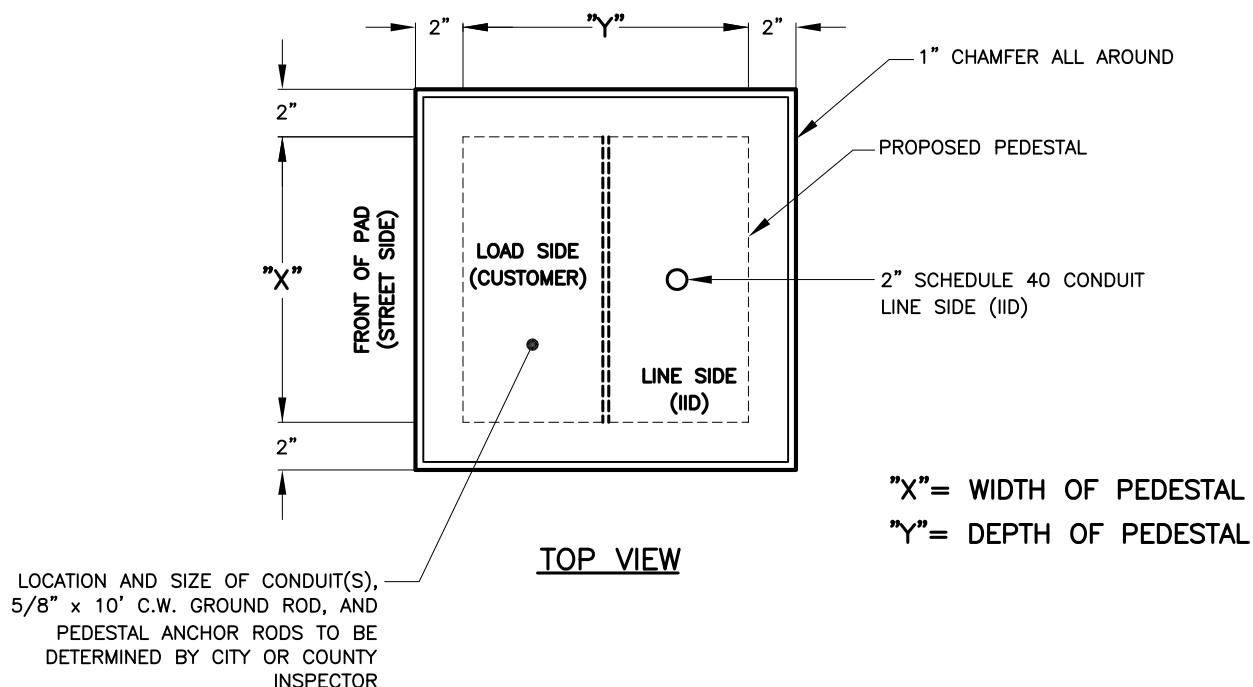
120/240V SERVICE WIRING DIAGRAM (TYPICAL)

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>JR</i>	 COMMERCIAL METER PEDESTAL DUAL SOCKET, 1Ø
REVIEWED	<i>PD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 04	
DATE	11-17-2016	185.511

2.17.3 Commercial Meter Pedestal Foundation and Conduit Requirements

- 2.17.3.1 Foundation shall extend 2" minimum beyond edge of service equipment, 6" minimum above elevation and 16" in depth. (See attached drawing)
- 2.17.3.2 Pedestals shall be mounted to the foundation utilizing appropriate mounting materials utilizing manufacturer approved method. Plan showing mounting method shall be provided to the Imperial Irrigation District for final approval.
Imperial Irrigation District contact information:

Imperial Valley (760)-482-3300
Coachella Valley (760)-398-5841
- 2.17.3.3 Precast pads are not to be used.
- 2.17.3.4 Conduit shall be: PVC heavy wall schedule 40 for below ground installation and schedule 80 for above ground installation.
- 2.17.3.5 Conduit will be a minimum of 2" PVC schedule 40 for below ground installation. The PVC will extend above the foundation 2"
- 2.17.3.6 Conduit depth shall comply with the Imperial Irrigation District standard which states that secondary conduit will be 30" below grade, measured from the top of the conduit. Sweep and riser pipe will be glued
- 2.17.3.7 2" conduit shall be provided by contractor for line side used by the Imperial Irrigation District, the conduit will be placed in the foundation to ensure that when the pedestal is installed the line side conduit will be in the line side of the pedestal.
- 2.17.3.8 Load side conduit(s) shall be set at a distance that allows the load side conduit(s) to be located inside the load side of the cabinet. Line and load side conduits will be placed and separated by their respective pedestal areas.



NOTES:

1. LOCATION AND DIRECTION OF METER PAD TO BE DETERMINED BY I.I.D. CUSTOMER SERVICE OPERATIONS DEPARTMENT:
IMPERIAL AT (760) 482-3300;
COACHELLA AT (760) 398-5841
2. ALL SWEEPS TO BE P.V.C. SCHEDULE 40, CONCRETE ENCASEMENT NOT REQUIRED.
3. ALL CONDUIT(S) ON LINE SIDE (IID) TO BE 2" PVC SCHEDULE 40.

		IMPERIAL IRRIGATION DISTRICT	
DRAWN BY	<i>JR</i>		COMMERCIAL METER PEDESTAL FOUNDATION DETAIL
REVIEWED	<i>ES</i>		
APPROVED	<i>MS</i>		
REVISION	REV 01		
DATE	5-07-2013	181.5	

2.18 Gang-Connection of Self-Contained Meter Sockets

- 2.18.1 Multiple meter sockets for residential customers may be connected to a single set of service entrance conductors when the multiple metering equipment is factory bussed and wired.

2.19 Self-contained Panels 480 volt

- 2.19.1 IID does not allow 277/480-volt self-contained metering. All 277/480-volt services will require instrument transformer metering installed (CT and PT metering). All new 277/480 volt services will require instrument transformer metering installed (CT and PT metering). Existing 480 volt 3 wire services that are upgraded or for some other reason must be replaced or rebuilt, shall be upgraded to 277/480 volts, 4 wire wye service. Existing idle 480 volt 3 wire services that have not been active for 12 months or longer will be removed from service. The customer will be responsible for upgrading to 277/480 volts, 4 wire wye service when the reconnection is requested.
- 2.19.2 If the panel is a self-contained 480 volt meter panel and has a failure or is damaged by vandalism, it must be upgraded:
- 2.19.2.1 Upgrade to 277/480 Current Transformer (CT) panel
- 2.19.2.2 IID does not install self-contained 480 volt meters.
- 2.19.2.3 The customer will be responsible for installing the 4 wire CT panel and paying for all costs related to the new CT panel.
- 2.19.3 IID will upgrade service to 277/480 volt 4 wire as follows:
- 2.19.3.1 IID will upgrade the transformer bank and will install the 4 wire, if feasible.

2.20 Instrument Transformer Meter Panels

- 2.20.1 When an existing CT meter panel 480 volt has a failure or is damaged by vandalism, if the customer can make repairs (breaker, cabling and / or panel accessories replacement only), and CT meter panel can accept a grounded conductor, IID will provide a temporary grounded conductor from the existing transformer bank. This will be provided at NO cost to the customer. This is not a permanent solution and must be addressed by the customer in a timely manner.
- 2.20.2 The customer will be responsible installing the 4 wire CT panel and paying for all costs related to the new CT panel. The customer must submit an application to upgrade service within 5 working days. It is IID's intent to expedite the application and design process to limit the inconvenience caused to the customer.
- 2.20.3.1 IID will upgrade service to 277/480 volt 4 wire as follows:

2.20.3.2 IID will upgrade the transformer bank and will extend the 4 wire, if feasible.

2.21 If an existing CT meter panel 480 volts has a failure or is damaged by vandalism, and the panel, bus bar and mounting brackets are damaged, it will be considered non-repairable and the customer will be required to upgrade to a CT panel that meets IID standards. The upgrade will consist of a new CT panel 4 wire upgrade.

2.22 IID will upgrade service to 277/480 volt 4 wire, as follows:

2.23.1 IID will upgrade the transformer bank and will extend the 4 wire if feasible.

2.23 Instrument Transformer-Rated Meters

2.23.1 When the electrical supply needs of the customer exceed the capacity of the self-contained meter, current transformers which connect to the service entrance conductors will be used. For voltages of 277 and above, potential transformers will be used to reduce the voltage to the transformer-rated meter.

2.23.2 The transformer-rated meter, when inserted in its socket, is connected directly to the instrument transformers, and an instrument transformer rated multiplier is applied to the billing register of the meter.

2.23.3 The customer furnishes and installs an approved current transformer panel. This can be either an EUSERC approved stand-up panel or a wall mounted EUSERC approved instrument transformer combination metering can. Refer to pages 21 & 22.

2.24 Instrument Transformer Combination Metering Can

2.24.1 When the electric service does not exceed 400 amperes, a combination CT/Meter can is one type of enclosure which the customer may furnish to house metering equipment. The IID will furnish and install the necessary metering equipment (i.e. CT's, PT's, test switch, meter, etc.) The customer must use the 50,000 AIC rated current transformer mounting base within the enclosure.

2.24.2 Panel drawings with appropriate EUSERC numbers must be submitted for approval for all CT rated panels. IID Distribution Engineering staff must approve fault current ratings of panels. Contact IID Customer Project Development Services Office

2.24.3 Consult EUSERC acceptability sheets for IID metering requirements per the EUSERC numbers.

2.24.4 Bussing from the pull section through the metering section must be density rated per UL-891 and such material used shall be specified on submitted panel drawings, supplied by customer.

- 2.24.5 CT metering at the customer's EUSERC approved panel is normal practice. Metering at pad mounted transformer is an exception which is subject to approval by IID
- 2.24.6 Bottom-fed half-pull section panels are acceptable up to 800 amperes. For panels 1,000 amperes and above there must be a full-height pull section
- 2.24.7 All stand-up panels must be bolted down securely to the foundation beneath the panel
- 2.24.8 On 277/480 volt CT panels rated 1,000 amperes or above, the service disconnect must have a ground fault device per NEC 230-95. Prior to panel being energized, there must be a certified test on site of ground fault device in service disconnect per NEC 230-95. A copy of the field test should be sent to applicable distribution supervisor and Imperial Irrigation District meter shop.
- 2.24.9 Each CT rated panel will require its own individual single main disconnect, in series with panel busing, which is pad lockable
- 2.24.10 For each self-contained meter, and CT-rated switchboard the customer shall furnish and install an over-current protection circuit breaker.
- 2.24.11 For self-contained meters and CT-rated switchboards, the pull-out fuse style is not acceptable

IMPERIAL IRRIGATION DISTRICT

	DRAWN BY	P. SAMANO	METERING DEVELOPER ENERGY PLANNING GUIDE	MET
	REVISED BY	O. HAM		
	APPROVED BY	F. FIMBRES	WHAT'S CHANGED? NEW TITLE BLOCK AND NEW STANDARD NUMBER	SHEET 2 OF 2
	REVISION	REV 0		260
	DATE	3/5/2025		

2.25 Manufacturers' drawings are required by IID to be submitted prior to fabrication or installation of the services and metering equipment. Specific instances are:

1. All single self-contained metering equipment, 0-600 volts
2. All multiple self-contained metering equipment, 0-600 volts
3. All instrument transformer rated metering equipment, 0-600 volts
4. All standard switchboard service sections, 0-600 volts
5. Standard switchboard service sections rated 400 amps and above
6. Standard switchboard service sections rated 1000 amps and above
7. Specially engineered switchboards
8. High voltage switchboards

2.26 Items to be included in the Manufacturer drawing submittals are:

1. Serving Utility Name
2. Contractor name and address (if available)
3. Equipment Distributor
4. Job Site Address (if available)
- 1: Service type and Voltage – 3-Phase, 4 Wire, 208V, etc.
- 2: Amperage ratings of pull and CT sections
- 3: Available Fault Current Rating- AIC (if available)
- 4: Short Circuit Current Rating- RMS Symmetrical
- 5: Frame and amperage of all pull outs or breakers
- 6: NEMA rating and UL listing
- 7: Copper or Aluminum Bus
- 8: Elevation drawings – front view – line up
- 9: One-line drawings of pull sections, metering section and main breaker
- 10: EUSERC drawing reference pages
- 11: Conduit area, overhead view
- 12: Dimension of sections- height, width and depth
- 13: Barriers between sections-utility and non-utility
- 14: Number of clips in meter socket
- 15: UG positions per phase
- 16: Locking provisions for main devices
- 17: Housekeeping pad requirements if needed- 2 ½" max height. (If available)
- 18: Section Numbering

IMPERIAL IRRIGATION DISTRICT

	DRAWN BY	O. HAM	IID REQUIREMENTS FOR MANUFACTURER'S DRAWINGS	MET
	REVISED BY	C. LAND		
	APPROVED BY	F. FIMBRES	WHAT'S CHANGED? NEW TITLE BLOCK AND NEW STANDARD NUMBER	SHEET 1 OF 1
	REVISION	REV 0		200
	DATE	11/12/2024		

2.27 Automatic Transfer Switches (ATS)

- 2.27.1 Automatic Transfer Switches (ATS) or Manual Transfer Switches (MTS) must include a one-line diagram, an operation scheme, and equipment specifications including ATS and MTS equipment specifications. All documents are to be provided to the IID Customer Project Development Services Office

2.28 Primary Metering

- 2.28.1 Medium voltage panels (over 1,000 volts), in addition to submitting all applicable EUSERC drawings, located in section 2.
- 2.28.2 An insulated safety barrier must be installed in front of the section with current transformers. The main disconnect device on Medium Voltage Panels are to be located after the Meter Section

EUSERC PAGES ACCEPTABILITY SECTION

DRAWING	ACCEPTABILITY	DRAWING	ACCEPTABILITY	DRAWING	ACCEPTABILITY
301	ACCEPTABLE	328B	ACCEPTABLE	405	BLANK PAGE
301A	ACCEPTABLE	329	BLANK PAGE	406	BLANK PAGE
301B	ACCEPTABLE	329A	ACCEPTABLE	407	NOT APPLICABLE
302	UNACCEPTABLE	329B	ACCEPTABLE	408	ACCEPTABLE
302A	ACCEPTABLE	330	ACCEPTABLE	409	UNACCEPTABLE
302B	ACCEPTABLE	331	UNACCEPTABLE	410	BLANK PAGE
303	UNACCEPTABLE	332	ACCEPTABLE	411	ACCEPTABLE
304	ACCEPTABLE	333	UNACCEPTABLE	412	BLANK PAGE
305	ACCEPTABLE	334	BLANK PAGE	413	BLANK PAGE
305A	ACCEPTABLE	335	BLANK PAGE	414	NOT APPLICABLE
306	ACCEPTABLE	336	UNACCEPTABLE	415	BLANK PAGE
307	ACCEPTABLE	337	UNACCEPTABLE	416	ACCEPTABLE
308	ACCEPTABLE	338	UNACCEPTABLE	417	BLANK PAGE
308A	ACCEPTABLE	339	CONSULT	418	ACCEPTABLE
309	UNACCEPTABLE	340	BLANK PAGE	419	BLANK PAGE
310	ACCEPTABLE	341	BLANK PAGE	420	NOT APPLICABLE
311	CONSULT	342	ACCEPTABLE	501	ACCEPTABLE
312	CONSULT	343	ACCEPTABLE	502	UNACCEPTABLE
313	ACCEPTABLE	343A	ACCEPTABLE	503	UNACCEPTABLE
314	ACCEPTABLE	344	CONSULT	515	UNACCEPTABLE
315	ACCEPTABLE	345	ACCEPTABLE	516	UNACCEPTABLE
316	UNACCEPTABLE	346	BLANK PAGE	517	UNACCEPTABLE
317	UNACCEPTABLE	347	ACCEPTABLE	518	UNACCEPTABLE
318	UNACCEPTABLE	348	ACCEPTABLE	519	UNACCEPTABLE
319	ACCEPTABLE	349	ACCEPTABLE	520	ACCEPTABLE
320	ACCEPTABLE	350	BLANK PAGE	G1	ACCEPTABLE
321	UNACCEPTABLE	351	NOT APPLICABLE	G2	ACCEPTABLE
322	ACCEPTABLE	352	BLANK PAGE	G3	ACCEPTABLE
323	UNACCEPTABLE	353	ACCEPTABLE	G4	ACCEPTABLE
324	ACCEPTABLE	354	ACCEPTABLE	G5	UNACCEPTABLE
325	ACCEPTABLE	401	ACCEPTABLE	G6	UNACCEPTABLE
326	ACCEPTABLE	401A	BLANK PAGE	G7	ACCEPTABLE
327	ACCEPTABLE	402	BLANK PAGE	G8	UNACCEPTABLE
328	BLANK PAGE	403	BLANK PAGE		
328A	ACCEPTABLE	404	NOT APPLICABLE		

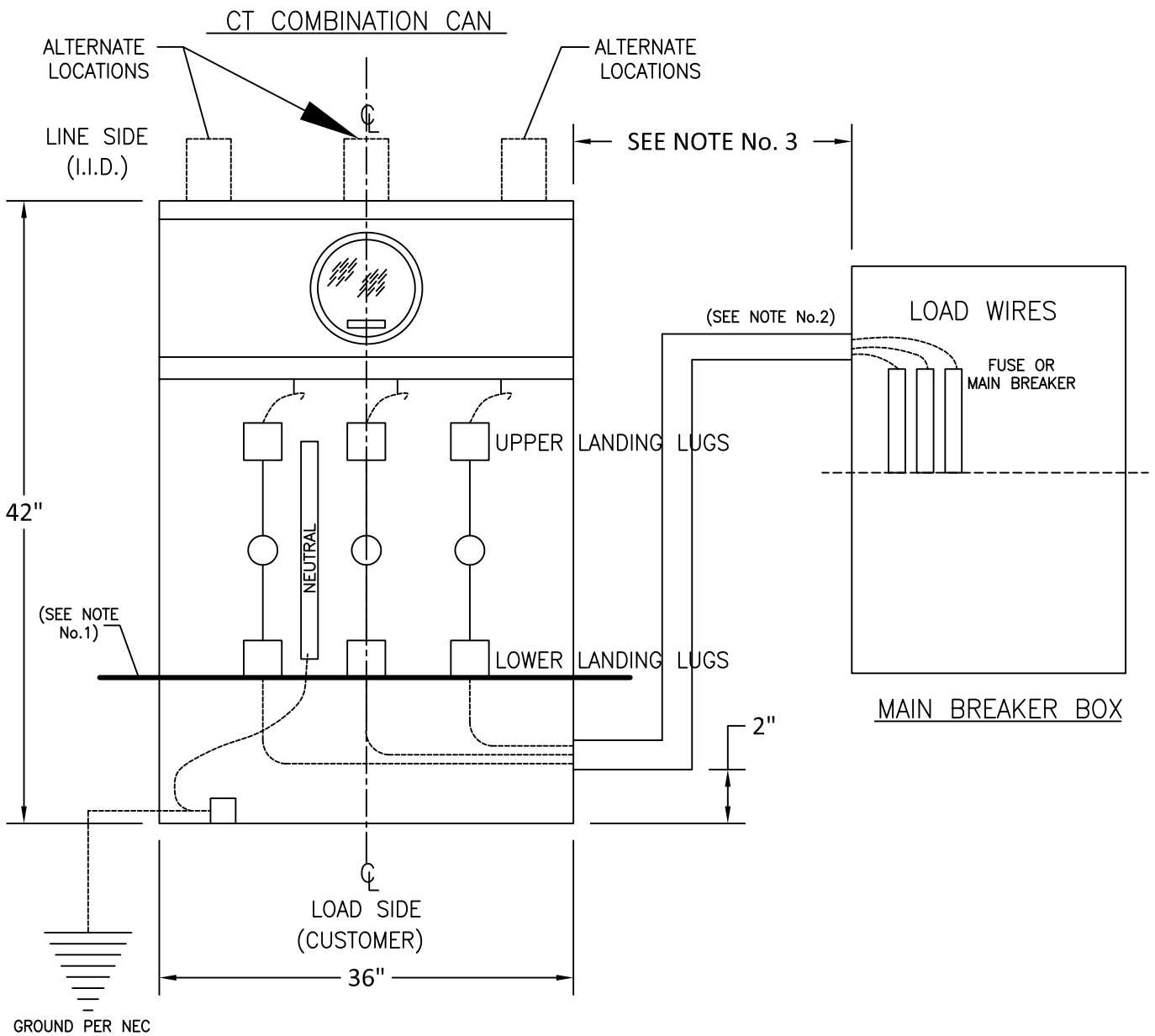
Meter Socket Configuration Tables (No. of Clip Sockets)

SINGLE PHASE SELF CONTAINED							THREE PHASE SELF CONTAINED							
120 2 WIRES	208 2 WIRES	240 2 WIRES	277 2 WIRES	480 2 WIRES	120/208 3 WIRES	120/240 3 WIRES	240/480 3 WIRES	277/480 3 WIRES	120/208 4 WIRES	120/240 4 WIRES	240 3 WIRES	277/480 4 WIRES	480 3 WIRES	240/480 4 WIRES
N/A	N/A	N/A	N/A	N/A	N/A	4	N/A	N/A	7	7	N/A	N/A	N/A	N/A

SINGLE PHASE TRANSFORMER RATED							THREE PHASE TRANSFORMER RATED							
120 2 WIRES	208 2 WIRES	240 2 WIRES	277 2 WIRES	480 2 WIRES	120/208 3 WIRES	120/240 3 WIRES	240/480 3 WIRES	277/480 3 WIRES	120 3 WIRES	120/208 4 WIRES	120/240 4 WIRES	240 3 WIRES	277/480 4 WIRES	480 3 WIRES
N/A	N/A	N/A	N/A	N/A	N/A	6	N/A	N/A	N/A	13	13	N/A	13	N/A

IMPERIAL IRRIGATION DISTRICT

	DRAWN BY	O. HAM	EUSERC PAGES ACCEPTABILITY SECTION	MET
	REVISED BY	C. LAND		
	APPROVED BY	F. FIMBRES	WHAT'S CHANGED? NEW TITLE BLOCK AND NEW STANDARD NUMBER	SHEET 1 OF 1 210
	REVISION	REV 0		
	DATE	11/12/2024		



NOTE:

1. NO CUSTOMER WIRES MAY EXIT ABOVE LOWER LANDING LUG PAD.
2. NO GUTTER BOXES ALLOWED BEFORE FUSES OR MAIN BREAKER.
3. DISCONNECT OR MAIN BREAKER SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC) 10 FT. TAP RULE 240.21 (B) (1).
4. REFER TO EUSERC DRAWING 314.

IMPERIAL IRRIGATION DISTRICT



DRAWN BY	O. HAM
REVISED BY	F. FIMBRES
APPROVED BY	F. FIMBRES
REVISION	REV 0
DATE	11/12/2024

**STANDARD OVERHEAD SERVICE CONFIGURATION
CT COMBINATION ENCLOSURE**

WHAT'S CHANGED? NEW TITLE BLOCK AND NEW STANDARD NUMBER

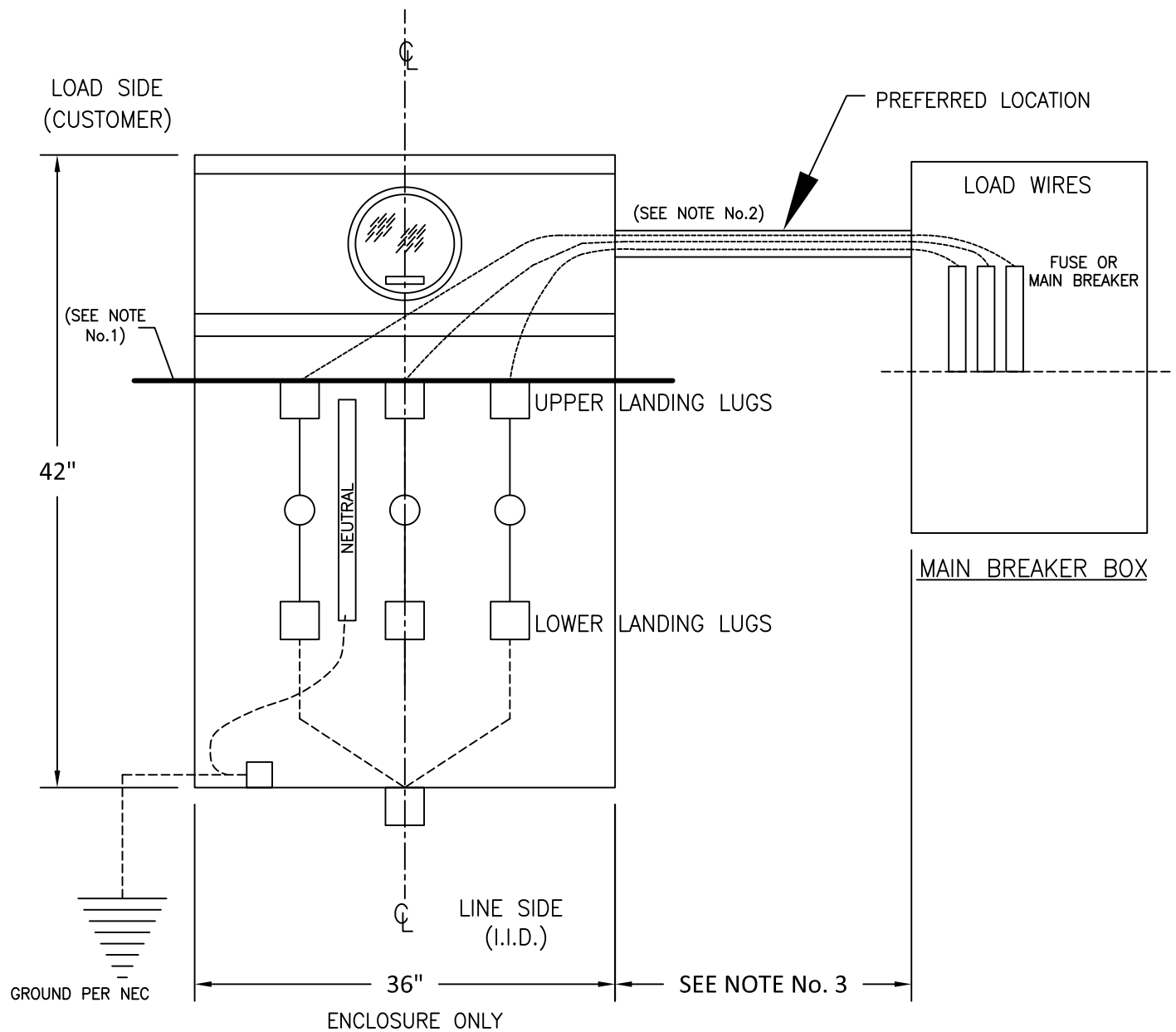
610

MET

SHEET 1 OF 1

220

CT COMBINATION ENCLOSURE



NOTE:

1. NO CUSTOMER WIRES MAY EXIT BELOW UPPER LANDING LUG PAD.
2. NO GUTTER BOXES ALLOWED BEFORE FUSES OR MAIN BREAKER.
3. DISCONNECT OR MAIN BREAKER SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC) 10 FT. TAP RULE 240.21 (B) (1).

IMPERIAL IRRIGATION DISTRICT

STANDARD OVERHEAD SERVICE CONFIGURATION
CT COMBINATION ENCLOSURE
UNDERGROUND SERVICE

WHAT'S CHANGED? NEW TITLE BLOCK AND NEW STANDARD NUMBER

611

MET

SHEET 1 OF 1

230

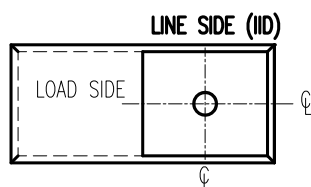


FIGURE A

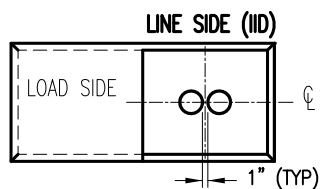


FIGURE B

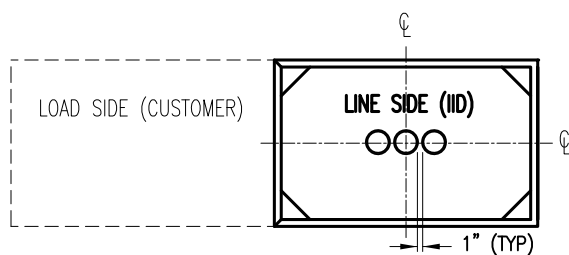


FIGURE C

FIGURE	AMPERAGE	VOLTAGE / PHASE	NUMBER OF CONDUITS
A	100 – 400	120/240 - 1Ø	1
A	200	120/208 - 3Ø	1
A	200	277/480 - 3Ø	1
B	600	120/240 - 1Ø	2
B	300 – 500	120/208 - 1Ø	2
B	300 – 500	277/480 - 3Ø	2
C	600 – 800	120/208 - 3Ø	3
C	600 – 800	277/480 - 3Ø	3

NOTE:

1. FOR CONDUIT SPECIFICATIONS, PLEASE SEE CUSTOMER SERVICE PROPOSAL CONTRACTOR'S NOTES.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 ELECTRIC METERING SERVICE AND EQUIPMENT STANDARD CONDUIT CONFIGURATION
REVIEWED		
APPROVED		
REVISION	REV 01	
DATE	9-16-2013	620

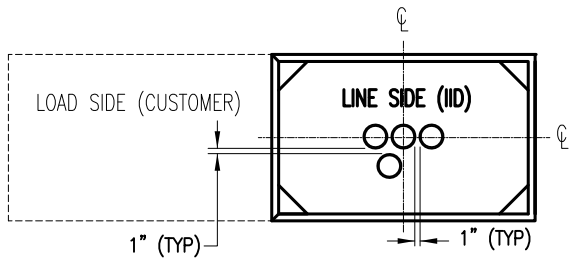


FIGURE D

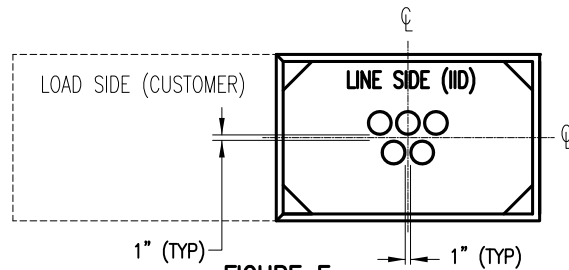


FIGURE E

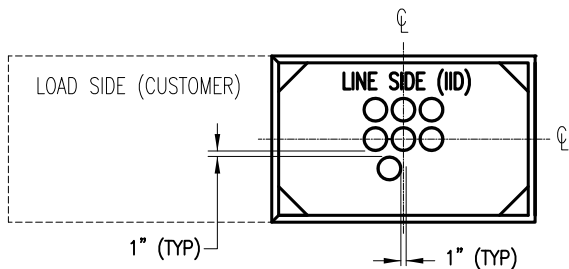


FIGURE F

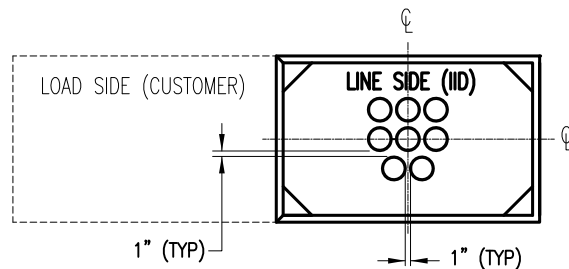


FIGURE G

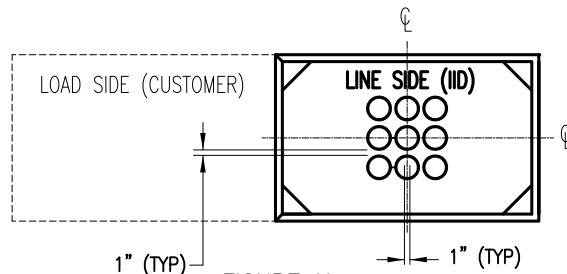


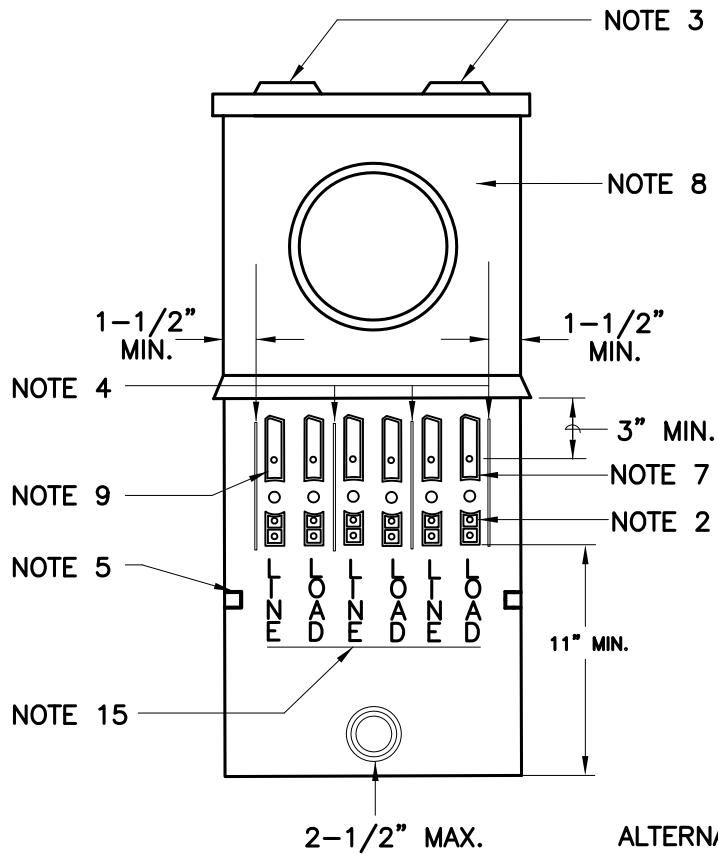
FIGURE H

FIGURE	AMPERAGE	VOLTAGE / PHASE	NUMBER OF CONDUITS
D	1000 – 1200	277/480 - 3Ø	4
E	1600	120/208 - 3Ø	5
E	1600	277/480 - 3Ø	5
F	2000 – 3000	120/208 - 3Ø	7
F	2000 – 3000	277/480 - 3Ø	7
G	2500	120/208 - 3Ø	8
G	2500	277/480 - 3Ø	8
H	4000	277/480 - 3Ø	9

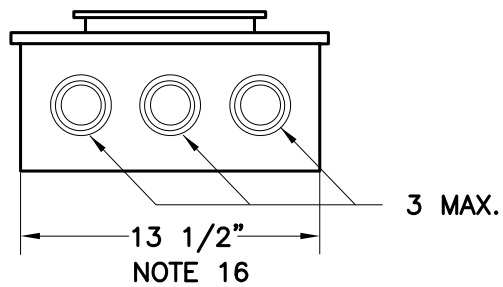
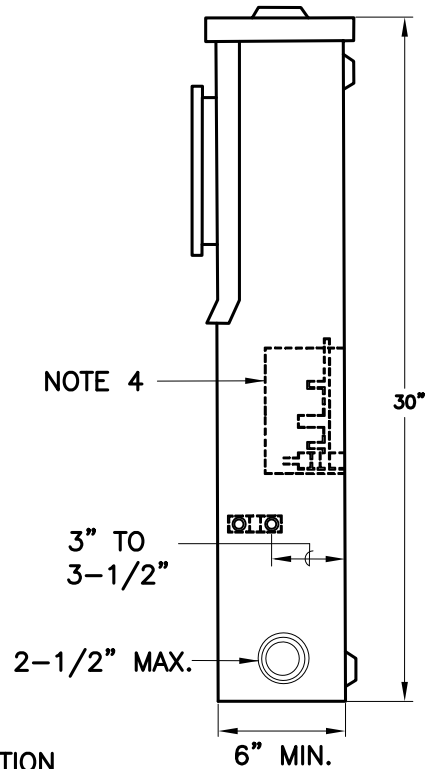
NOTE:

1. FOR CONDUIT SPECIFICATIONS, PLEASE SEE CUSTOMER SERVICE PROPOSAL CONTRACTOR'S NOTES.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 ELECTRIC METERING SERVICE AND EQUIPMENT STANDARD CONDUIT CONFIGURATION
REVIEWED		
APPROVED		
REVISION	REV 01	
DATE	9-16-2013	
		620.1



ALTERNATE POSITION
FOR NEUTRAL LUG



NOTES ON 305.1

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 SAFETY SOCKET BOX WITH FACTORY INSTALLED TEST-BYPASS FACILITIES 200 AMPERE, 0 - 600 VOLTS
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	10-12-2016	305

NOTES:

1. THIS DEVICE MAY BE USED FOR COMMERCIAL, MULTI-FAMILY RESIDENTIAL (NOT SEPARATED METERED) AND OTHER TYPES OF OCCUPANCIES.
2. CABLE TERMINATING FACILITATES SHALL BE ALUMINUM BODIED MECHANICAL LUGS WITH A RANGE OF NO. 1/0 AWG THROUGH NO. 250 KCMIL.
3. HUBS CAPPED OFF IS USED FOR UNDERGROUND FEED AND PERMANENTLY LABELED: **"DO NOT BREAK SEALS, NO FUSES INSIDE"**.
4. RIGID INSULATING BARRIERS.
5. INSULATED BONDABLE VERTICAL LAY-IN, DOUBLE NEUTRAL LUG WITH NO. 250 KCMIL WIRE CAPACITY, MOUNTED ON EITHER SIDEWALL.
6. TEST-BYPASS BLOCKS SHALL BE BUSSED OR WIRED TO SOCKET JAWS OR TERMINALS.
7. UPPER TEST CONNECTOR STUDS.
8. ALL PANELS SHALL BE INDEPENDENTLY REMOVABLE. METER PANEL SHALL BE PROVIDED WITH A SEALING RING AND THE METER SOCKET SHALL BE RIGIDITY MOUNTED ON SUPPORT AND ATTACHED TO THE METER PANEL. TEST-BYPASS COVER PANEL SHALL BE SEALABLE AND PERMANENTLY LABELED: **"DO NOT BREAK SEALS, NO FUSES INSIDE"**.
9. TEST-BYPASS BLOCK DETAIL ON DWG. 312.
10. FOR 3-PHASE, 4 WIRE, CONNECT 7TH JAW TO BODY OF NEUTRAL LUG WITH NO. 12 MIN. COPPER WIRE, WHITE IN COLOR.
11. FOR 3-PHASE, WIRE DELTA, IDENTIFY RIGHT HAND TEST-BYPASS BLOCK (2 POLES) AS POWER LET. IDENTIFICATION TO BE ORANGE IN COLOR.
12. FOR 3-PHASE, 3 WIRE, INSTALL BUS TO CONNECT LINE AND LOAD POLES TOGETHER AT TOP OF CENTER TEST-BYPASS BLOCK AND CONNECT 5TH JAW TO THIS BUS, USING NO. 12 MIN. COPPER WIRE. COLOR SHALL BE OTHER THAN WHITE, GRAY, GREEN OR ORANGE.
13. FOR 1-PHASE, 3 WIRE, PROVIDE TWO TEST-BYPASS BLOCKS MOUNTED IN THE OUTER POSITIONS AND A FOUR JAW SOCKET.
14. FOR 1-PHASE, 3 WIRE, PROVIDE TWO TEST-BYPASS BLOCKS MOUNTED IN THE OUTER POSITIONS AND A FOUR JAW SOCKET.
15. TEST-BYPASS BLOCK CONNECTION SEQUENCES SHALL BE LINE-LOAD FROM LEFT TO RIGHT AND SHALL BE CLEARLY IDENTIFIED IN 3/4" MINIMUM BLOCK LETTERS.
16. MINIMUM WIDTH OF ACCESS OPENING SHALL BE 11-1/2".

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY			SAFETY SOCKET BOX WITH FACTORY INSTALLED TEST-BYPASS FACILITIES 200 AMPERE, 0 -600 VOLTS
REVIEWED			
APPROVED			
REVISION	REV 1		
DATE	10-12-2016	305.1	

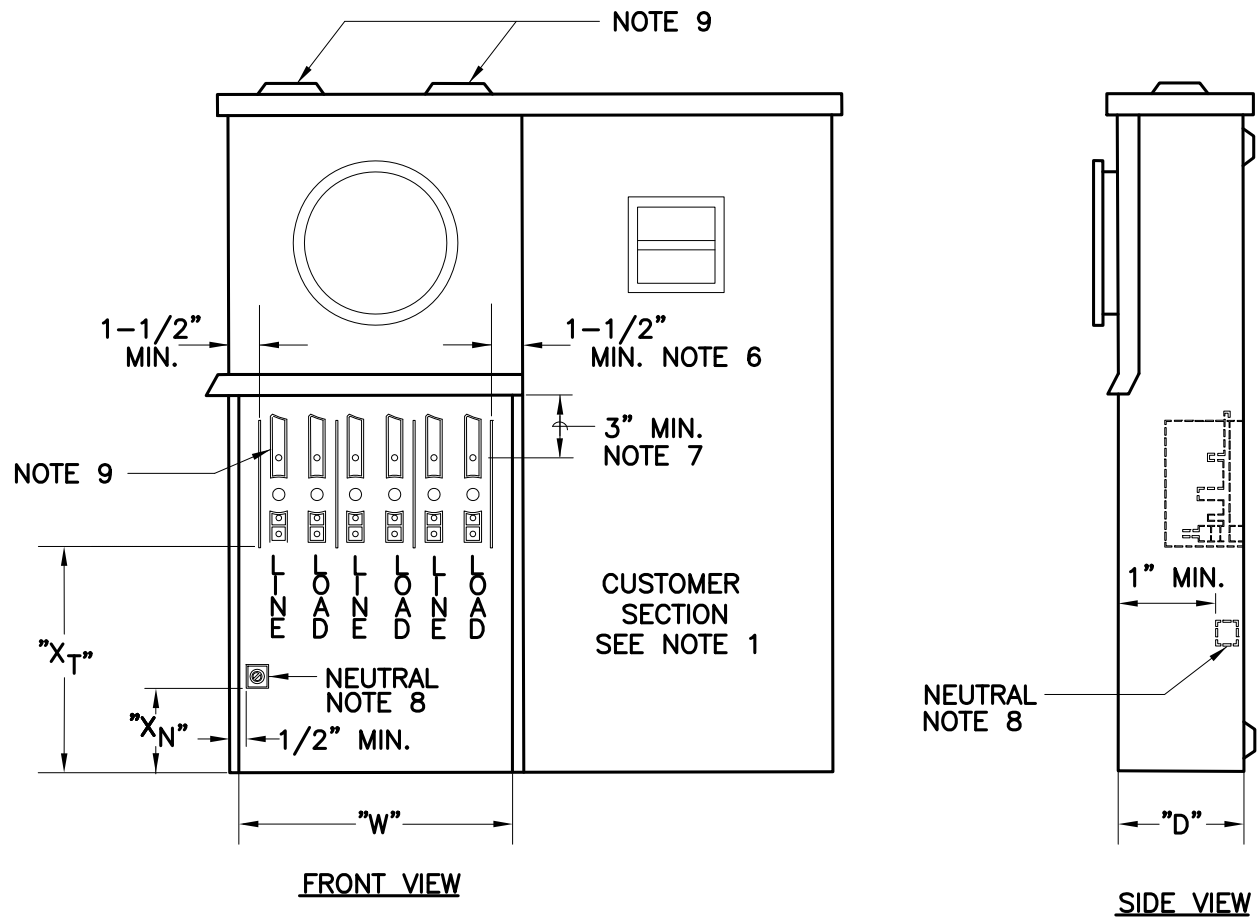


TABLE – MINIMUM DIMENSIONS

PANEL TYPE	PANEL RATING* (AMPERS)	"D"	"W" SEE NOTE 4	"X/T"	"X/N"
STANDARD	100	4-1/2	11-1/2	8	5
HEAVY-DUTY	200	6	13-1/2	11	8

* CONTINUOUS-DUTY

NOTES:

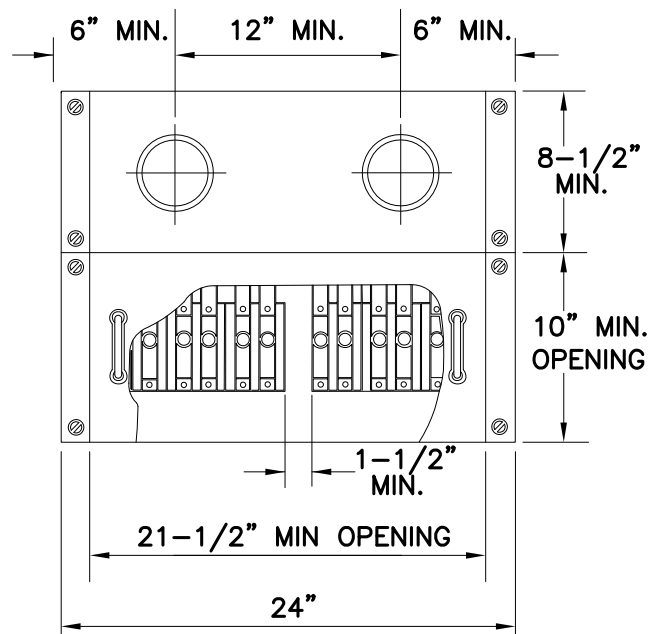
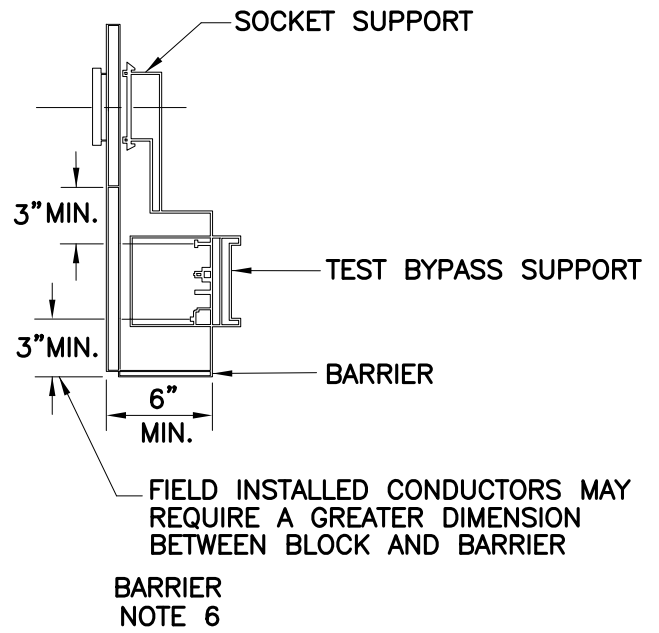
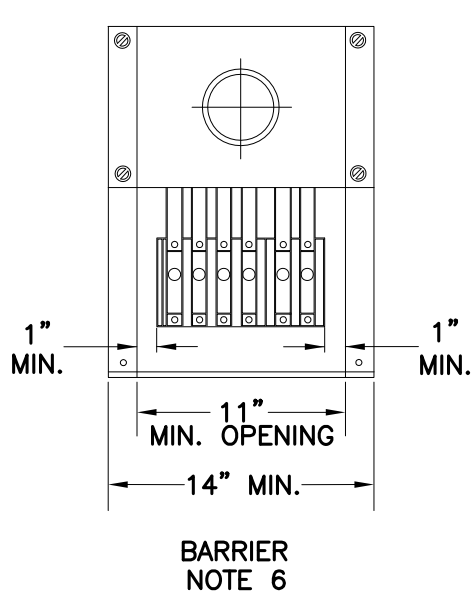
1. THE PANEL SHOWN ABOVE IS TYPICAL WITH THE CUSTOMER'S DISTRIBUTION SECTION LOCATED TO THE SIDE OF THE METERING COMPARTMENT. THE DISTRIBUTION SECTION MAY ALSO BE LOCATED BELOW THE TEST-BYPASS COMPARTMENT (OVERHEAD SUPPLY ONLY) OR ABOVE THE METER PANEL.
2. METER SOCKET SHALL BE MOUNTED ON A RIGID SUPPORT AND ATTACHED TO THE METER SOCKET PANEL.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 COMBINATION SAFETY-SOCKET PANEL WITH FACTORY INSTALLED TEST BLOCKS AND SERVICE DISCONNECT, 100 AND 200 AMPERES, 0 – 600 VOLTS
REVIEWED	<i>rs</i>	
APPROVED	<i>ms</i>	
REVISION	REV 1	
DATE	10-13-2016	
		305A

NOTES:

3. ALL PANELS SHALL BE INDEPENDENTLY REMOVABLE. METER PANEL SHALL BE PROVIDED WITH A SEALING RING AND THE METER SOCKET SHALL BE RIGIDLY MOUNTED ON A SUPPORT AND ATTACHED TO THE METER PANEL. TEST-BYPASS COMPARTMENT COVER SHALL BE SEALABLE.
4. MINIMUM TEST COMPARTMENT ACCESS OPENING DIMENSION.
5. TEST-BYPASS BLOCKS WITH RIGID INSULATING BARRIERS SHALL BE FURNISHED INSTALLED, AND BUSSED OR WIRED TO THE METER SOCKET BY THE MANUFACTURER AS FOLLOWS:
 - A. FOR SINGLE PHASE, 3-WIRE, PROVIDE TWO TEST-BYPASS BLOCKS MOUNTED IN THE OUTER POSITIONS AND 4-JAW SOCKET. FOR 120/208 VOLTS, SINGLE PHASE 3-WIRE, PROVIDE TWO TEST-BYPASS BLOCKS MOUNTED IN THE OUTER POSITIONS AND A 5-JAW SOCKET CONNECT THE 5TH JAW OF THE METER SOCKET TO THE NEUTRAL LUG WITH A WHITE NO. 12 AWG (MINIMUM) COPPER WIRE.
 - B. FOR THREE PHASE, 3-WIRE, PROVIDE THREE TEST-BYPASS BLOCKS AND A 5-JAW METER SOCKET-CONNECT THE LINE AND LOAD POLES TOGETHER AT THE TOP OF THE CENTER POSITION TEST-BYPASS BLOCK WITH A BUS SECTION AND CONNECT THE BUS TO THE 5TH JAW OF THE METER SOCKET WITH A NO. 12 AWG (MINIMUM) COPPER WIRE. COLOR USED TO IDENTIFY THE WIRE SHALL NOT BE EITHER WHITE, GRAY, GREEN OR ORANGE.
 - C. FOR THREE PHASE, 4-WIRE, PROVIDE THREE TEST-BYPASS AND A 7-JAW METER SOCKET-CONNECT THE 7TH JAW OF THE METER SOCKET TO THE NEUTRAL LUG WITH A WHITE NO. 12 AWG (MINIMUM) COPPER WIRE. FOR 120/240 VOLTS, 4-WIRE DELTA, THE RIGHT HAND TEST-BYPASS BLOCK SHALL BE THE POWER LEG (MEASURES 208 VOLTS-TO-GROUND) AND SHALL BE IDENTIFIED WITH AN ORANGE COLOR.
 - D. TEST-BYPASS BLOCK CONNECTION SEQUENCE SHALL BE LINE-LOAD FROM LEFT TO RIGHT AND SHALL BE CLEARLY IDENTIFIED IN 3/4" MINIMUM BLOCK LETTERS.
 - E. CABLE TERMINALS SHALL BE ALUMINUM-BODIED MECHANICAL LUGS WITH A RANGE OF NO. 6 AWG THROUGH 1/0 AWG FOR THE 100 AMPERE TEST-BYPASS BLOCK AND NO. 1/0 AWG THROUGH 250 KCMIL FOR THE 200 AMPERE TEST-BYPASS BLOCK.
6. 1-1/2" (MINIMUM) DIMENSION MEASURED FROM COMPARTMENT SIDE TO THE TEST-BYPASS BLOCK RIGID INSULATING BARRIER.
7. 3" (MINIMUM) DIMENSION MEASURED FROM THE UPPER TEST CONNECTOR STUD (STUD "A") TO THE SOCKET METER COVER.
8. THE NEUTRAL TERMINAL MAY BE PROVIDED AS FOLLOWS:
 - A. A SINGLE MECHANICAL LUG OR LAY-IN LUG, LOCATED ON EITHER SIDE OR SIDE WALL. THE LUG SHALL BE MOUNTED ON A NEUTRAL BUS BAR EXTENDING INTO, AND TERMINATING IN, THE CUSTOMER SECTION.
 - B. TWO MECHANICAL LUGS OR LAY-IN LUGS, LOCATED ON EITHER SIDE OR SIDE WALL. THE NEUTRAL CONDUCTOR PROVIDED FROM ONE OF THE LUGS TO THE NEUTRAL BUS IN THE CUSTOMER SECTION MAY BE FACTORY OR FIELD INSTALLED.
 - C. OVERHEAD SUPPLY ONLY - A SINGLE INSULATED, BONDABLE, VERTICAL, LAY-IN LUG LOCATED ON EITHER SIDE OR SIDE WALL WITH THE NEUTRAL CONDUCTOR INSTALLED UNBROKEN THROUGH THE LUG AND TERMINATING ON THE NEUTRAL BUS IN THE CUSTOMER SECTION.
9. TEST-BYPASS BLOCK DETAIL ON DWG. 312.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 COMBINATION SAFETY-SOCKET PANEL WITH FACTORY INSTALLED TEST BLOCKS AND SERVICE DISCONNECT, 100 AND 200 AMPERES, 0 - 600 VOLTS
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	10-13-2016	
		305A.1



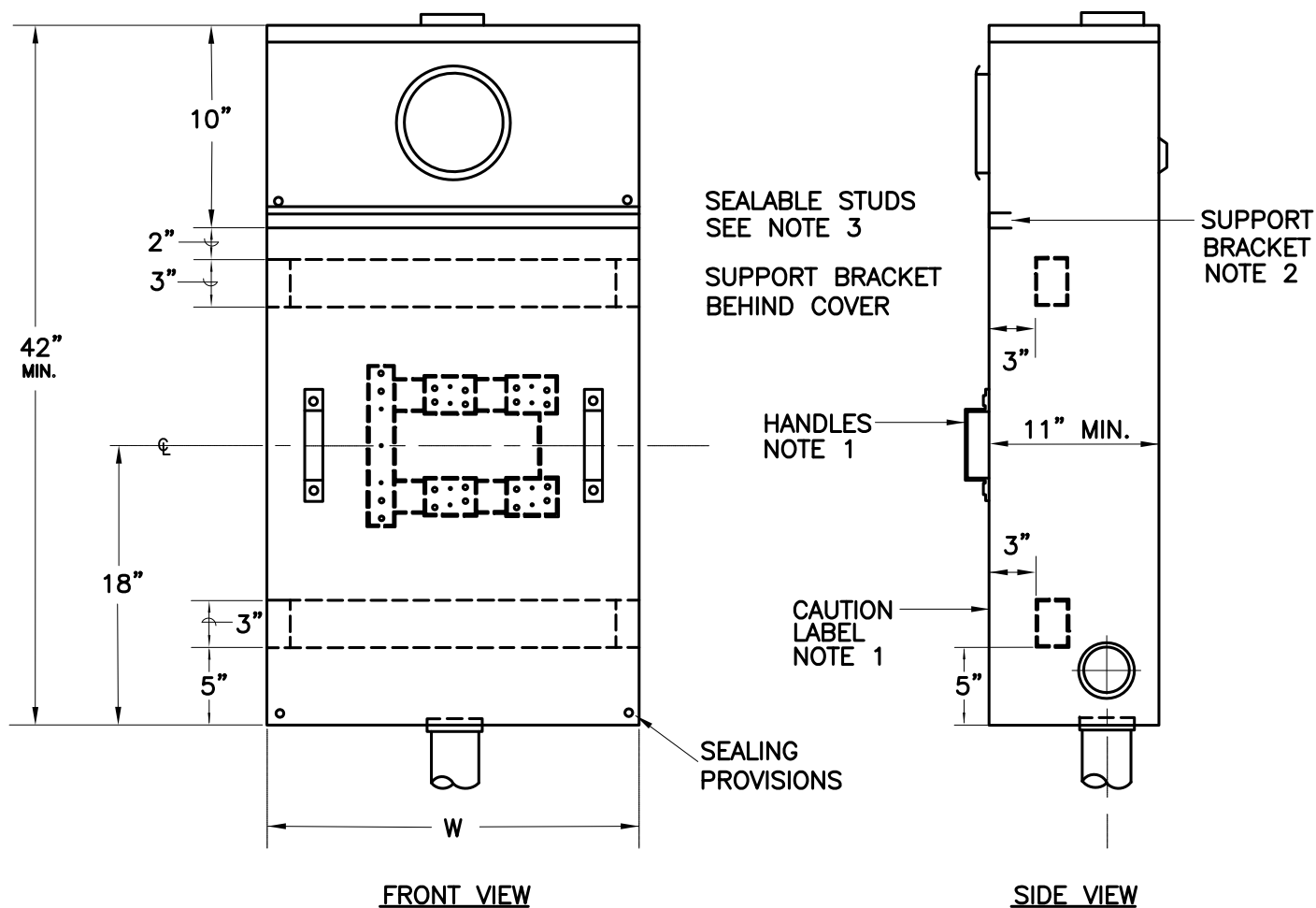
TEST-BYPASS BLOCK WITH
4 RIGID INSULATING BARRIERS
(SEE NOTE 1)

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>GR</i>	 SELF-CONTAINED METERS INSTALLED IN SWITCHBOARDS 0 - 200 AMPS, 0 - 600 VOLTS
REVIEWED	<i>FD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 1	
DATE	10-18-2016	306

NOTES:

1. TEST-BYPASS BLOCKS WITH RIGID INSULATING BARRIERS SHALL BE FURNISHED, INSTALLED, AND WIRED OR BUSSED TO THE METER SOCKET BY THE MANUFACTURER. CONNECTION SEQUENCE SHALL BE LINE-LOAD FROM LEFT TO RIGHT AND SHALL BE IDENTIFIED IN 3/4" BLOCK LETTERS.
2. METERED CONDUCTORS SHALL NOT PASS THROUGH ADJACENT METERING COMPARTMENTS EXCEPT IN ENCLOSED WIRE WAYS. TO INSURE PROPER IDENTIFICATION OF CABLES IN FACTORY CABLED EQUIPMENT, METERED CABLES (EXCEPT IN THE TEST-BYPASS AREA), SHALL BE EITHER PHYSICALLY BARRIERED OR BUNDLED SO AS TO SEPARATE THEM FROM UNMETERED CABLE OR PERMANENTLY MARKED AND ISOLATED FROM UNMETERED CABLES. PHYSICAL BARRIERS WILL NOT BE REQUIRED IF THE UNMETERED CONDUCTORS ARE BUS.
3. METER PANELS SHALL BE REMOVABLE WITH A MAXIMUM OF TWO METERS PER PANEL. METER PANELS SHALL BE PROVIDED WITH A SEALING RING FOR EACH METER SOCKET AND EACH METER SOCKET SHALL BE RIGIDLY MOUNTED ON A SUPPORT AND ATTACHED TO THE METER PANEL.
4. TEST-BYPASS BLOCK COVER PANEL SHALL BE SEALABLE AND FITTED WITH A LIFTING HANDLE. ALL PANELS EXCEEDING 16" IN WIDTH SHALL REQUIRE TWO LIFTING HANDLES.
5. WHEN A NEUTRAL IS REQUIRED FOR METERING OR TESTING, AN INSULATED NEUTRAL TERMINAL SHALL BE PROVIDED BEHIND EACH TEST-BYPASS COVER PANEL. THE TERMINAL SHALL BE READILY ACCESSIBLE WHEN THE COVER PANEL IS REMOVED AND SHALL BE INDIVIDUALLY CONNECTED TO THE NEUTRAL BUS WITH A MINIMUM SIZE NO. 12 AWG COPPER WIRE.
6. A FACTORY-INSTALLED, FULL-WIDTH INSULATING BARRIER SHALL BE LOCATED AT THE BOTTOM OF EACH TEST-BYPASS COMPARTMENT. IN ADDITION, A FULL WIDTH AND DEPTH ISOLATING BARRIER SHALL BE LOCATED BELOW THE BOTTOM TEST-BYPASS COMPARTMENTS AND ABOVE THE LOAD TERMINALS OF THE METER DISCONNECT DEVICES. IF A FACTORY-INSTALLED REAR LOAD WIREWAY IS PROVIDED, THE ISOLATING BARRIER SHALL EXTEND BACK TO THAT WIREWAY. VENTILATION OPENINGS, WHEN PROVIDED, SHALL NOT EXCEED A MAXIMUM DIAMETER OF 3/8". A SLOT IN THE ISOLATING PROVIDED FOR THE LOAD CONDUCTORS SUPPLIED FROM THE TEST-BYPASS BLOCKS SHALL BE A MAXIMUM OF 3" IN DEPTH AND MAY EXTEND TO THE WIDTH OF THE METER DISCONNECT DEVICES. THE SLOT MAY NOT BE LOCATED IN THE LOCATED IN THE FRONT 6" OF THE TEST-BYPASS COMPARTMENT INSULATING BARRIER.
7. FOR 3 PHASE, 4 WIRE, CONNECT 7TH JAW OF METER SOCKET TO BODY OF NEUTRAL LUG WITH A WHITE NO. 12 AWG COPPER WIRE.
8. FOR 3 PHASE, 4 WIRE DELTA, IDENTIFY RIGHT HAND TEST-BYPASS BLOCK (2 POLES) AS POWER LEG. IDENTIFICATION TO BE ORANGE IN COLOR.
9. FOR 3 PHASE 3 WIRE, INSTALL BUS TO CONNECT LINE AND LOAD POLES TOGETHER AT TOP OF CENTER TEST-BYPASS BLOCK AND CONNECT 5TH JAW OF METER SOCKET TO THIS BUS USING MINIMUM NO. 12 AWG COPPER WIRE. COLOR USED TO IDENTIFY THE WIRE SHALL NOT BE WHITE, GRAY, GREEN, OR ORANGE.
10. FOR 1 PHASE, 3 WIRE, OMIT CENTER TEST-BYPASS BLOCK.
11. FOR 1 PHASE, 3 WIRE, 208Y/120 VOLTS, OMIT CENTER TEST-BYPASS BLOCK AND CONNECT 5TH JAW OF METER SOCKET TO BODY OF NEUTRAL LUG WITH WHITE NO. 12 AWG COPPER WIRE.
12. SEPARATE LINE AND LOAD CONDUCTORS SHALL BE INSTALLED BY THE CONTRACTOR OR MANUFACTURER FOR EACH METER SOCKET.
13. ALL ACCESS PANELS SHALL BE SEALABLE. SEE DRAWING 300, II (I).
14. ALL PANELS SHALL BE INDEPENDENTLY REMOVABLE. METER PANEL SHALL BE PROVIDED WITH A SEALING RING AND THE METER SOCKET SHALL BE RIGIDLY MOUNTED ON SUPPORT AND ATTACHED TO THE METER PANEL. TEST-BYPASS COMPARTMENT COVER PANEL SHALL BE SEALABLE AND PERMANENTLY LABELED: **"DO NOT BREAK SEALS. NO FUSES INSIDE"**

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY			SELF-CONTAINED METERS INSTALLED IN SWITCHBOARDS 0 – 200 AMPS, 0 – 600 VOLTS
REVIEWED			
APPROVED			
REVISION	REV 1		
DATE	10-18-2016	306.1	



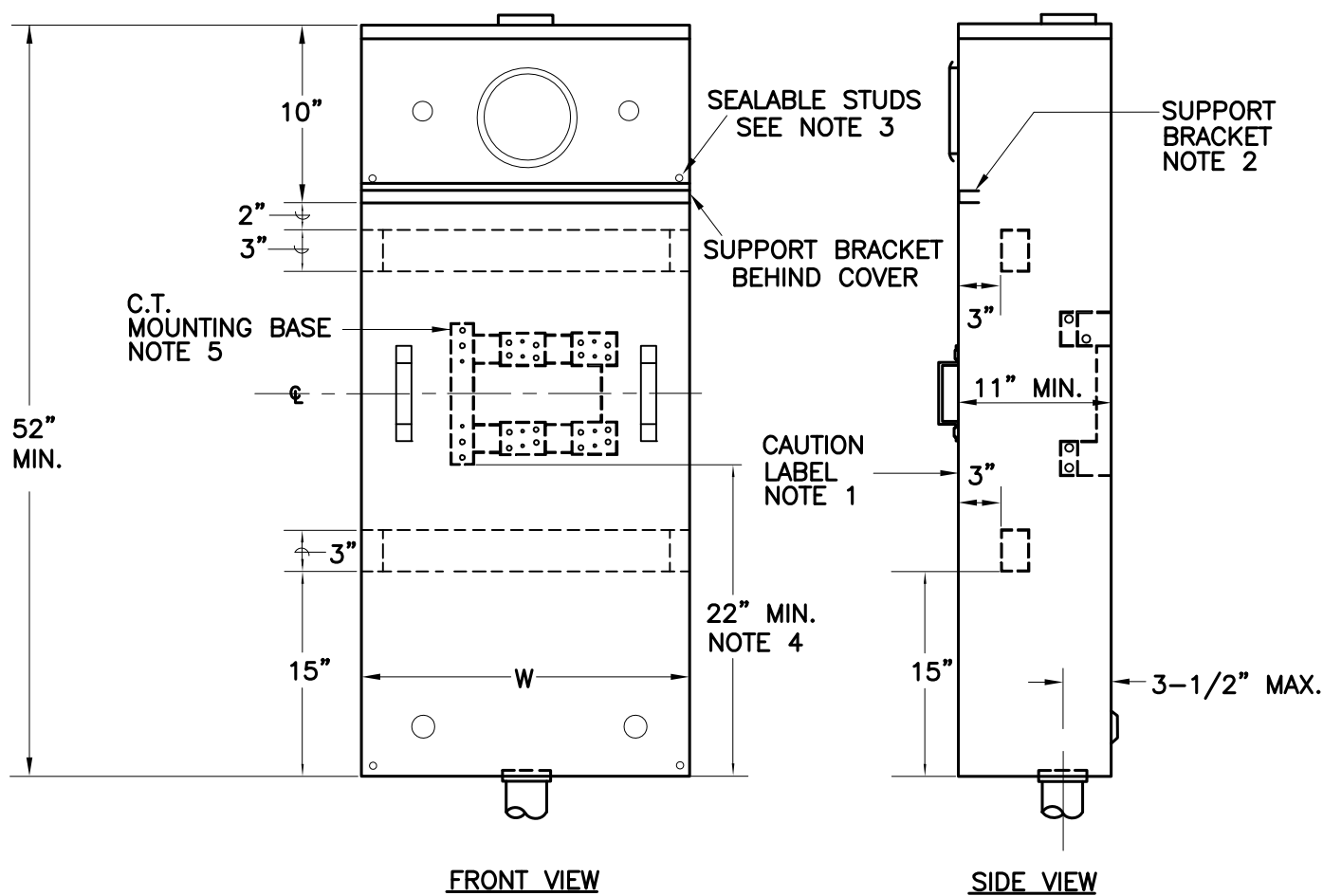
MINIMUM BOX DIMENSTIONS	
W (MIN.)	
3 PHASE, 4 WIRE WYE OR DELTA	SINGLE PHASE 3 WIRE
36"	24"

NOTES:

1. THE CURRENT-TRANSFORMER COMPARTMENT COVER PANEL(S) SHALL BE LIMITED TO A MAXIMUM OF 9 SQUARE FEET IN AREA, SHALL HAVE TWO LIFTING HANDLES AND A CAUTION LABEL READING **"DO NOT BREAK SEALS, NO FUSES INSIDE"**.
2. A PANEL SUPPORT BRACKET SHALL BE PROVIDED AS SHOWN FOR THE METER AND CURRENT TRANSFORMER PANELS. THE METER PANEL SHALL BE ATTACHED TO THE BRACKET WITH SECURING SCREWS TO PREVENT THE PANEL FROM PULLING OUT WHEN THE METER IS REMOVED FROM THE SOCKET.
3. THE METER PANEL AND CURRENT TRANSFORMER COMPARTMENT COVER SHALL BE SEALABLE. SEE DRAWING 300, NOTE II(I).
4. SEE DRAWINGS 328A, 328B, AND 329B FOR CT, MOUNTING BASE DETAILS.
5. CONSULT THE UTILITY FOR 800 AMPERE APPLICATIONS.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>GR</i>	 COMBINATION CURRENT – TRANSFORMER CABINET AND METER SOCKET PANEL FOR OVERHEAD SERVICE 0 – 400 AMPERES, MAXIMUM 0 – 600 VOLTS
REVIEWED	<i>PD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 1	
DATE	10-11-2016	
		313

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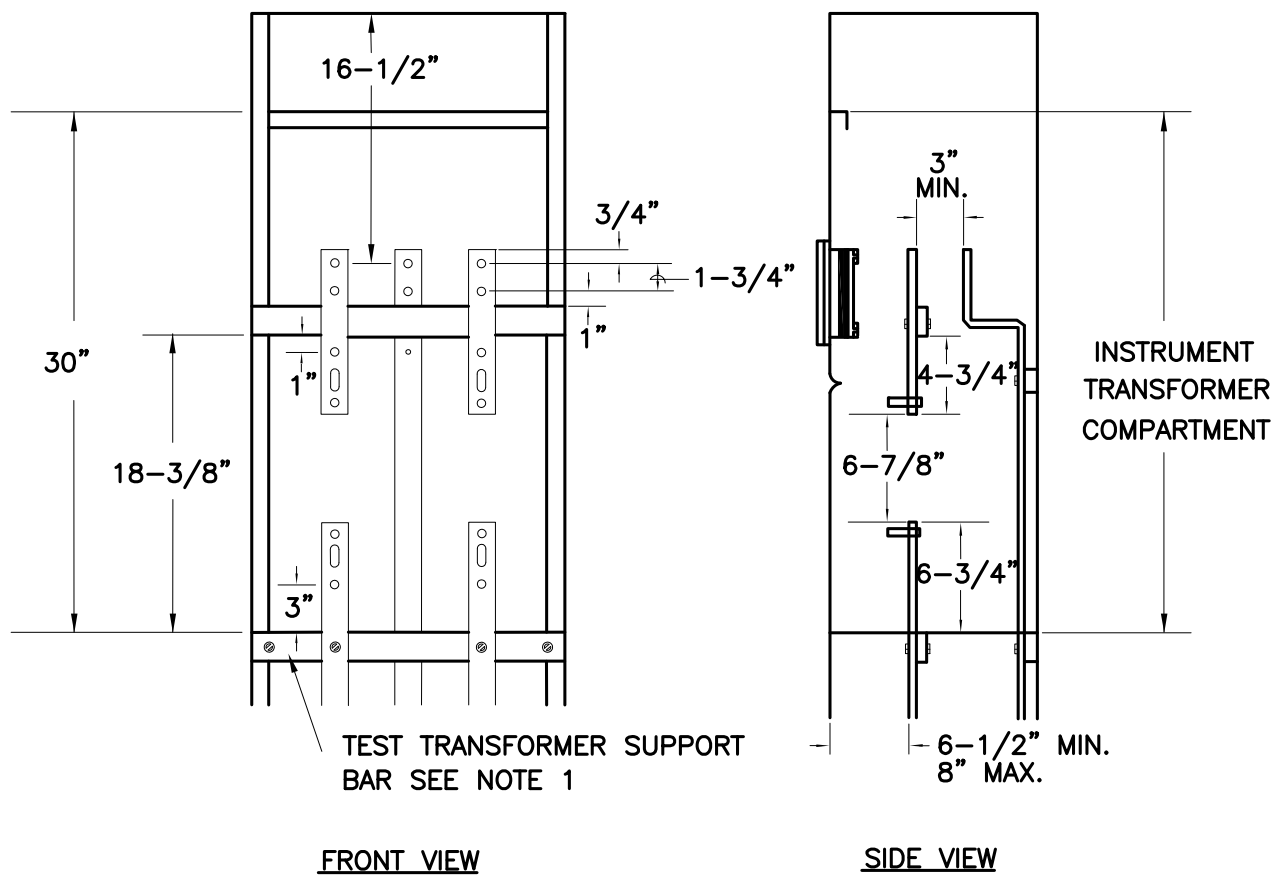
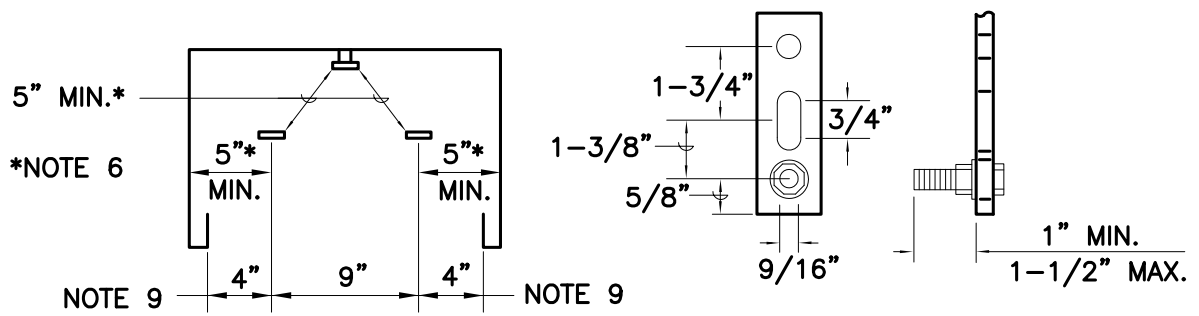
MINIMUM BOX DIMENSIONS	
W (MIN.)	
3 PHASE, 4 WIRE WYE OR DELTA	SINGLE PHASE 3 WIRE
36"	24"

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>GR</i>	 COMBINATION CURRENT-TRANSFORMER CABINET AND METER SOCKET PANEL FOR UNDERGROND SERVICE 0 - 400 AMPERES, MAXIMUM 0 - 600 VOLTS
REVIEWED	<i>GR</i>	
APPROVED	<i>MS</i>	
REVISION	REV 1	
DATE	10-11-2016	
		314

NOTES:

1. THE CURRENT–TRANSFORMER COMPARTMENT COVER PANEL(S) SHALL BE LIMITED TO A MAXIMUM OF 9 SQUARE FEET IN AREA, SHALL HAVE TWO LIFTING HANDLES AND A CAUTION LABEL READING **"DO NOT BREAK SEALS, NO FUSES INSIDE"**.
2. A PANEL SUPPORT BRACKET SHALL BE PROVIDED AS SHOWN FOR THE METER AND CURRENT TRANSFORMER PANELS.
THE METER PANEL SHALL BE ATTACHED TO THE BRACKET WITH SECURING SCREWS TO PREVENT THE PANEL FROM PULLING OUT WHEN THE METER IS REMOVED FROM THE SOCKET.
3. THE METER PANEL AND CURRENT TRANSFORMER COMPARTMENT COVER SHALL BE SEALABLE. ALL COVER PANELS, REMOVABLE ACCESS PANELS AND HINGED PANELS FOR COMPARTMENTS CONTAINING UNMETERED CONDUCTORS SHALL BE SEALABLE. WHEN A RACEWAY OR CONDUIT FOR METER SECONDARY WIRING IS NECESSARY, SUCH A RACEWAY OR CONDUIT SHALL BE SEALABLE. NO REMOVABLE PANEL OR COVER REQUIRING SEALING SHALL BE LOCATED BEHIND OTHER PANELS, COVERS OR DOORS (EXCEPT RAIN-TIGHT ENCLOSURE DOORS).
NOTE: CARRIAGE BOLTS MAY BE USED TO SECURE COVER PANELS IN PLACE OF SEALING PROVISIONS WHEN THE BOLTS ARE INSTALLED AT THE FACTORY AND DO NOT REQUIRE FIELD REMOVAL AND INSTALLATION TO COMPLETE ASSEMBLY OF THE SWITCHBOARD SECTIONS.
4. THE TERMINATION HEIGHT DIMENSION IS MEASURED FROM THE CENTER LINE OF LOWEST TERMINATING BOLTS OR THE BOTTOM OF THE MECHANICAL LUGS, THE HEIGHT OF THE LOWEST NEUTRAL CABLE TERMINATION BOLT MAY BE REDUCED TO 20" MIN.
5. SEE DRAWINGS 328A, 328B, 329A AND 329B FOR CT, MOUNTING BASE DETAILS.
6. CONSULT THE UTILITY FOR 800 AMPERE APPLICATIONS.
7. LUGS FOR TERMINATION THE CUSTOMER'S GROUND WIRE (OR OTHER GROUNDING CONDUCTORS) SHALL BE LOCATED OUTSIDE OF THE SEALABLE SECTION AND SHALL BE DESIGNED TO READILY PERMIT THE CUSTOMER'S NEUTRAL SYSTEM TO BE ISOLATED, WHEN NECESSARY, FROM THE SERVING AGENCY.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 COMBINATION CURRENT–TRANSFORMER CABINET AND METER SOCKET PANEL FOR UNDERGROND SERVICE 0 – 400 AMPERES, MAXIMUM 0 – 600 VOLTS
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	10–11–2016	
		314.1



IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>GR</i>	 INSTRUMENT-TRANSFORMER COMPARTMENT FOR SWITCHBOARDS 0 - 600 AMPERES SINGLE PHASE 120/240 VOLT 3 WIRE
REVIEWED	<i>GR</i>	
APPROVED	<i>MB</i>	
REVISION	REV 1	
DATE	10-19-2016	
		319

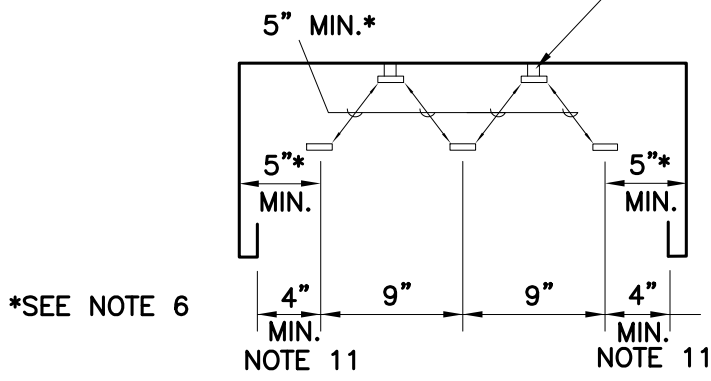
NOTES:

1. BUS ARRANGEMENT AND SUPPORTS SHALL BE PROVIDED AS SHOWN, EXCEPT THE NEUTRAL BUS MAY BE LOCATED AT EITHER SIDE OR ON EITHER SIDE WALL. BUS SUPPORTS SHALL BE CONSTRUCTED OF A CONTINUOUS BAR OF INSULATING MATERIAL AND SHALL BE RIGID TO PREVENT MISALIGNMENT OF THE BUS UNITS WITH THE CABLES IN PLACE.
2. THE BUS UNITS MAY BE SUPPLIED FROM THE TOP OR BOTTOM, AND SHALL BE ANCHORED TO PREVENT TURNING. BUS UNITS SHALL BE CONSTRUCTED OF RECTANGULAR BUS AND WHEN LAMINATED SHALL HAVE NO SPACE BETWEEN LAMINATIONS. BUS DIMENSIONS SHALL BE PROVIDED AS FOLLOWS:

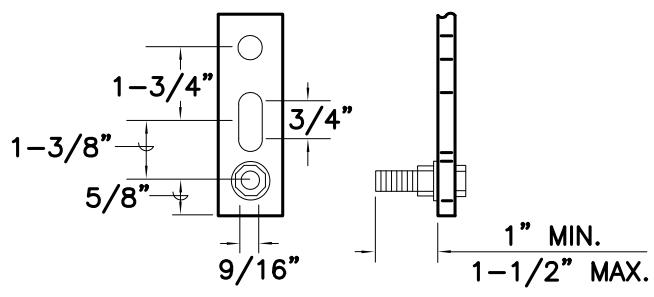
MINIMUM: 1/4" X 2"
MAXIMUM: 3/4" X 2"
3. BUS UNIT SHALL BE PROVIDED WITH A FIXED STUD AS SHOWN FOR MOUNTING THE CURRENT TRANSFORMERS. EACH SHALL:
 - A. CONSIST OF A 1/2" STEEL BOLT AND SHALL BE PROVIDED WITH A SPRING WASHER AND A NUT. THE SPRING WASHER MAY BE EITHER A CONE-TYPE (BELLEVILLE) WASHER OR A SPLIT-RING WASHER AND FLAT WASHER.
 - B. BE SECURED IN PLACE. "SECURED IN PLACE" SHALL MEAN THAT THE STUD WILL NOT TURN, BACK-OUT, OR LOOSEN IN ANY MANNER WHEN TIGHTENING OR LOOSENING THE ASSOCIATED NUTS (INCLUDING CROSS-THREADED SITUATIONS).
4. WHEN THE COMPARTMENT IS SUPPLIED FROM HORIZONTAL CROSS-BUSSING, THE BUSSING SHALL PASS THROUGH THE COMPARTMENT OR IN THE SEALED AREA ABOVE THE COMPARTMENT.
5. EXCEPT FOR CONDUCTORS SUPPLYING THE INSTRUMENT-TRANSFORMER COMPARTMENT, AND THE GROUND BUS, NO OTHER CONDUCTORS OR DEVICES SHALL BE INSTALLED IN, OR ROUTED THROUGH, THE COMPARTMENT OR THE SEALED AREA ABOVE THE COMPARTMENT. THE GROUND BUS SHALL NOT INFRINGE ON UTILITY COMPARTMENT SPACE, OR REDUCE ANY CLEARANCES. CUSTOMER CONNECTIONS TO THE GROUND BUS SHALL NOT BE ALLOWED IN THE INSTRUMENT TRANSFORMER COMPARTMENT.
6. A CLEAR UNOBSTRUCTED WORK SPACE SHALL BE PROVIDED AROUND THE CURRENT-TRANSFORMER BUS UNITS FROM THE BARRIER TO THE UPPER SUPPORT BAR.
7. TAPS FOR ATTACHMENT OF METER SHALL BE PROVIDED ON THE NEUTRAL BUS UNIT SHOWN, OR WHEN THE COMPARTMENT IS SUPPLIED FROM CROSS-BUSSING, A TAP MAY BE PROVIDED ON THE NEUTRAL CROSS-BUSS, OR ON A BUS BAR EXTENSION PROVIDED FROM THE NEUTRAL CROSS-BUS. A 10-32 SCREW AND WASHER SHALL BE PROVIDED FOR THE NEUTRAL BUS. TAP LOCATIONS SHALL BE CENTERED BETWEEN PHASE BUS UNITS, OR AT EITHER SIDE, AND SHALL BE CENTERED BETWEEN PHASE BUS UNITS, OR AT EITHER SIDE, AND SHALL BE READILY ACCESSIBLE UNDER ENERGIZED CONDITIONS AND WITH THE CURRENT-TRANSFORMER IN PLACE.
8. THE BARRIER SHALL BE CONSTRUCTED OF A RIGID INSULATING MATERIAL RESISTANT TO ARC TRACKING, AND SHALL BE SECURED IN PLACE WITH A MAXIMUM DEFLECTION OF 1/2" FROM AN APPLIED FORCE OF 25 POUNDS DOWNWARD. OPENINGS IN THE BARRIER (I.E. PERIPHERAL GAPS AROUND BARRIER, CUTOUTS AROUND BUS BARS, AND HOLE DIAMETERS PROVIDED FOR VENTILATION) SHALL NOT EXCEED 3/8". THE BARRIER SHALL BE ATTACHED WITH NONCONDUCTIVE FASTENERS.
9. DIMENSION MEASURED TO INSIDE EDGE OF THE COMPARTMENT ACCESS OPENING.
10. TORQUE LABELS SHALL BE PROVIDED IN EACH UTILITY COMPARTMENT WHERE NUT AND BOLT ASSEMBLIES USING CONE-TYPE (BELLEVILLE) WASHERS ARE USED FOR UTILITY TERMINATIONS, TEST-BYPASS BLOCK CIRCUIT CLOSING NUTS OR FOR SECURING CURRENT-TRANSFORMERS OR CURRENT TRANSFORMER BUS REMOVABLE LINKS. LABELS SHALL BE READILY VISIBLE AND SHALL NOT BE INSTALLED ON ANY REMOVABLE OR HINGES COVER PANEL.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 INSTRUMENT-TRANSFORMER COMPARTMENT FOR SWITCHBOARDS 0 – 600 AMPERES SINGLE PHASE 120/240 VOLT 3 WIRE
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	10-19-2016	
		319.1

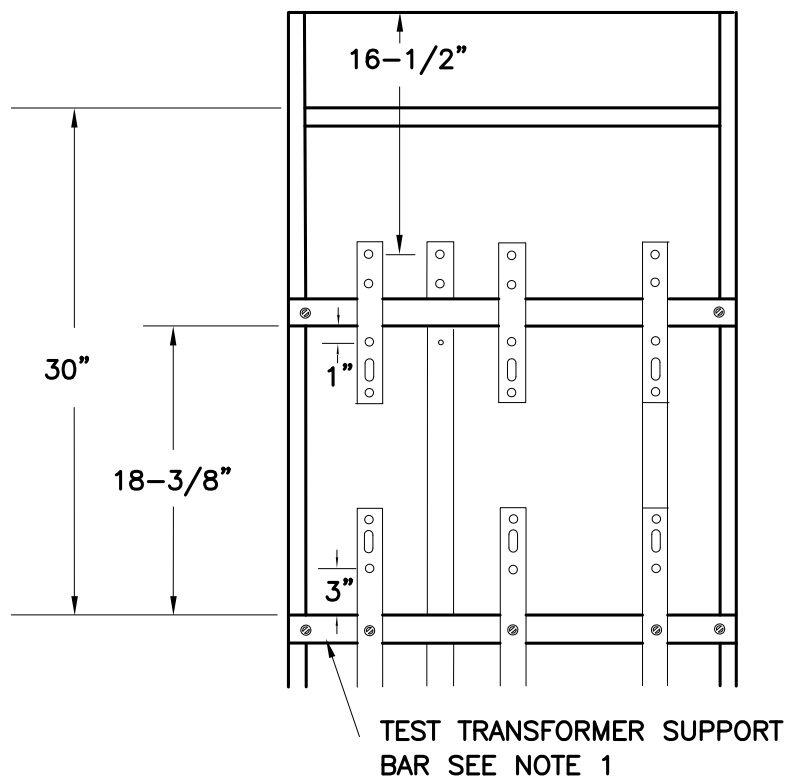
ALTERNATE NEUTRAL
LOCATIONS, SEE NOTE 1



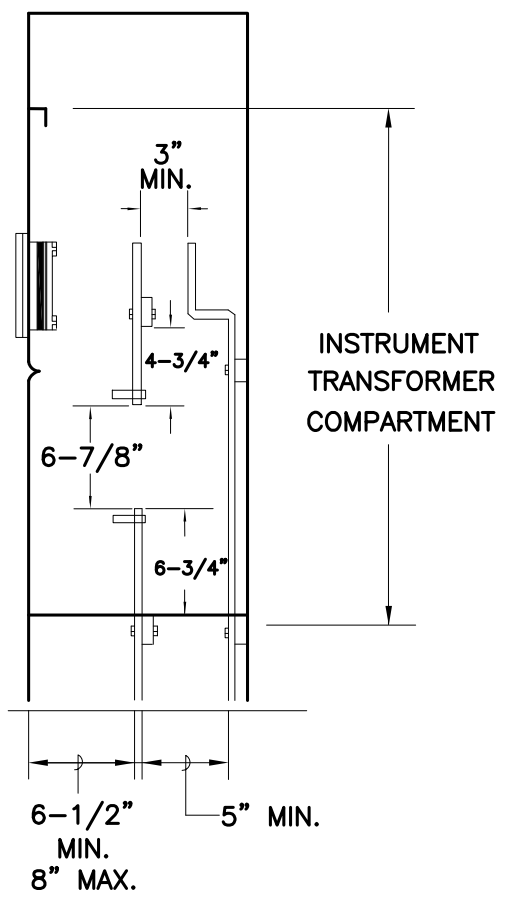
TOP VIEW



BUS DRILLING DETAIL
TYPICAL 6 LOCATIONS
NOTE 3



FRONT VIEW



SIDE VIEW

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 INSTRUMENT-TRANSFORMER COMPARTMENT FOR SWITCHBOARDS 0 - 1000 AMPERES, 0 - 600 VOLTS THREE PHASE 4-WIRE
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	10-20-2016	320

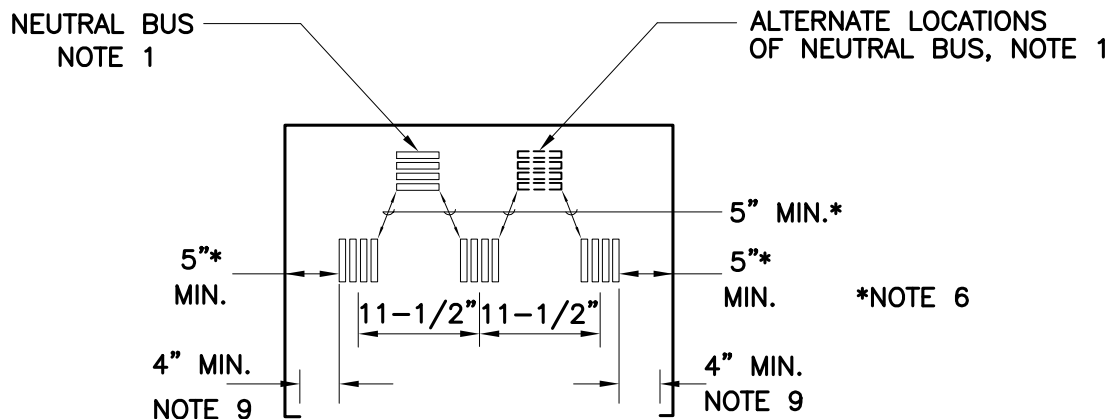
NOTES:

1. BUS ARRANGEMENT AND SUPPORTS SHALL BE PROVIDED AS SHOWN, EXCEPT THE NEUTRAL BUS MAY BE LOCATED AT EITHER SIDE OR ON EITHER SIDE WALL. (NOTE: NEUTRAL BUS NOT REQUIRED FOR 3-PHASE 3-WIRE SERVICE.) BUS SUPPORTS SHALL BE CONSTRUCTED OF A CONTINUOUS BAR OF INSULATING MATERIAL AND SHALL BE RIGID TO PREVENT MISALIGNMENT OF THE BUS UNITS WITH THE CABLES IN PLACE.
2. THE BUS UNITS MAY BE SUPPLIED FROM THE TOP OR BOTTOM, AND SHALL BE ANCHORED TO PREVENT TURNING. BUS UNITS SHALL BE CONSTRUCTED OF RECTANGULAR BUS AND WHEN LAMINATED SHALL HAVE NO SPACE BETWEEN LAMINATIONS. BUS DIMENSIONS SHALL BE PROVIDED AS FOLLOWS:

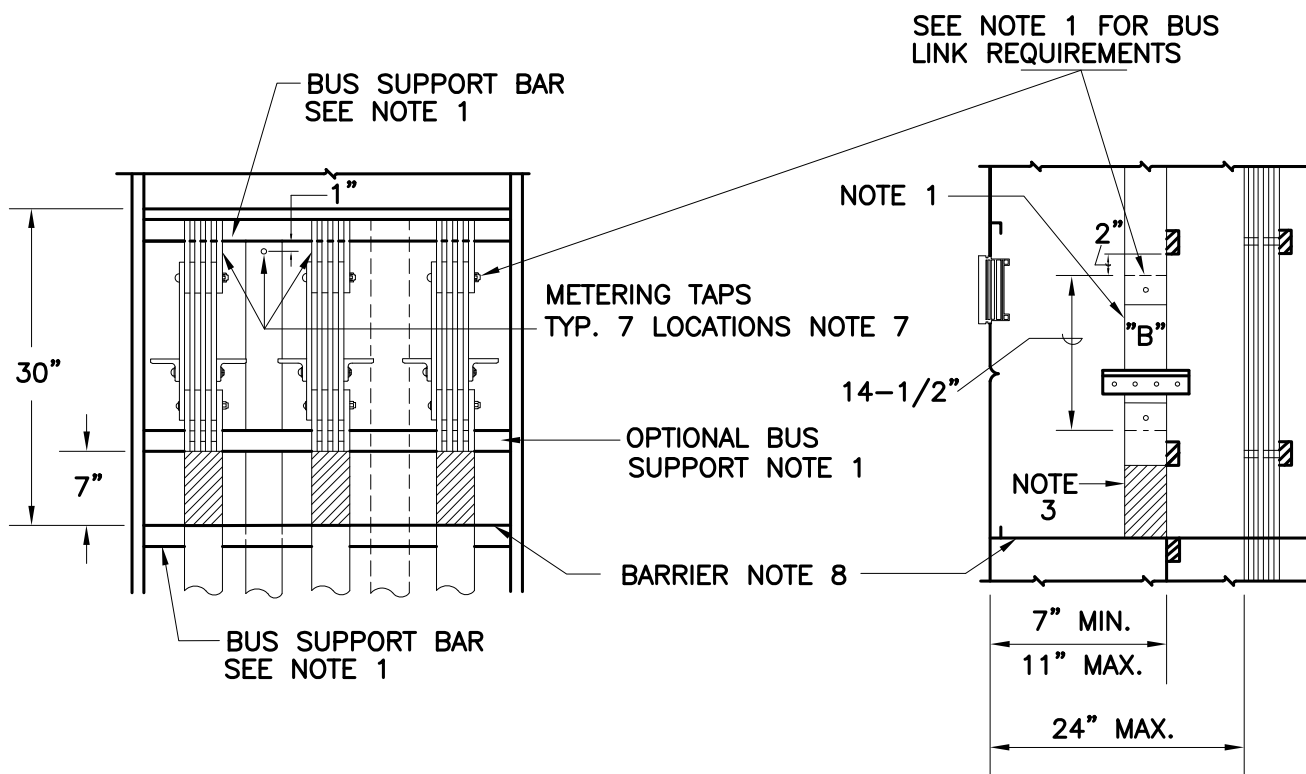
MINIMUM: 1/4" X 2"

MAXIMUM: 3/4" X 2"
3. BUS UNIT SHALL BE PROVIDED WITH A FIXED STUD AS SHOWN FOR MOUNTING THE CURRENT TRANSFORMERS. EACH SHALL:
 - A. CONSIST OF A 1/2" STEEL BOLT AND SHALL BE PROVIDED WITH A SPRING WASHER AND A NUT. THE SPRING WASHER MAY BE EITHER A CONE-TYPE (BELLEVILLE) WASHER OR A SPLIT-RING WASHER AND FLAT WASHER. ALL PARTS SHALL BE PLATED TO PREVENT CORROSION.
 - B. BE SECURED IN PLACE. "SECURED IN PLACE" SHALL MEAN THAT THE STUD WILL NOT TURN, BACK-OUT, OR LOOSEN IN ANY MANNER WHEN TIGHTENING OR LOOSENING THE ASSOCIATED NUTS (INCLUDING CROSS-THREADED SITUATIONS).
4. WHEN THE COMPARTMENT IS SUPPLIED FROM HORIZONTAL CROSS-BUSSING, THE BUSSING SHALL PASS THROUGH THE COMPARTMENT OR IN THE SEALED AREA ABOVE THE COMPARTMENT.
5. EXCEPT FOR CONDUCTORS SUPPLYING THE INSTRUMENT-TRANSFORMER COMPARTMENT, AND THE GROUND BUS, NO OTHER CONDUCTORS OR DEVICES SHALL BE INSTALLED IN, OR ROUTED THROUGH, THE COMPARTMENT OR THE SEALED AREA ABOVE THE COMPARTMENT. THE GROUND BUS SHALL NOT INFRINGE ON UTILITY COMPARTMENT SPACE, OR REDUCE ANY CLEARANCES. CUSTOMER CONNECTIONS TO THE GROUND BUS SHALL NOT BE ALLOWED IN THE INSTRUMENT TRANSFORMER COMPARTMENT.
6. A CLEAR UNOBSTRUCTED WORK SPACE SHALL BE PROVIDED AROUND THE CURRENT-TRANSFORMER BUS UNITS FROM THE BARRIER TO THE UPPER SUPPORT BAR.
7. TAPS FOR ATTACHMENT OF METER SHALL BE PROVIDED ON THE NEUTRAL BUS UNIT SHOWN, OR WHEN THE COMPARTMENT IS SUPPLIED FROM CROSS-BUSSING, A TAP MAY BE PROVIDED ON THE NEUTRAL CROSS-BUSS, OR ON A BUS BAR EXTENSION PROVIDED FROM THE NEUTRAL CROSS-BUS. A 10-32 SCREW AND WASHER SHALL BE PROVIDED FOR THE NEUTRAL BUS. TAP LOCATIONS SHALL BE CENTERED BETWEEN PHASE BUS UNITS, OR AT EITHER SIDE, AND SHALL BE CENTERED BETWEEN PHASE BUS UNITS, OR AT EITHER SIDE, AND SHALL BE READILY ACCESSIBLE UNDER ENERGIZED CONDITIONS AND WITH THE CURRENT-TRANSFORMER IN PLACE.
8. THE BARRIER SHALL BE CONSTRUCTED OF A RIGID INSULATING MATERIAL RESISTANT TO ARC TRACKING, AND SHALL BE SECURED IN PLACE WITH A MAXIMUM DEFLECTION OF 1/2" FROM AN APPLIED FORCE OF 25 POUNDS DOWNWARD. OPENINGS IN THE BARRIER (I.E. PERIPHERAL GAPS AROUND BARRIER, CUTOUTS AROUND BUS BARS, AND HOLE DIAMETERS PROVIDED FOR VENTILATION) SHALL NOT EXCEED 3/8". THE BARRIER SHALL BE ATTACHED WITH NONCONDUCTIVE FASTENERS.
9. A REMOVABLE LINK SHALL BE INSTALLED IN THE RIGHT SIDE PHASE BUS FOR 3-PHASE, 3-WIRE SERVICE.
10. THE POWER LEG BUS FOR A 4-WIRE DELTA SERVICE SHALL BE IDENTIFIED BY AN ORANGE OUTER FINISH OR BY TAGGING OR OTHER EFFECTIVE MEANS.
11. DIMENSION MEASURED TO INSIDE EDGE OF THE COMPARTMENT ACCESS OPENING.
12. TORQUE LABELS SHALL BE PROVIDED IN EACH UTILITY COMPARTMENT WHERE NUT AND BOLT ASSEMBLIES USING CONE-TYPE (BELLEVILLE) WASHERS ARE USED FOR UTILITY TERMINATIONS, TEST-BYPASS BLOCK CIRCUIT CLOSING NUTS OR FOR SECURING CURRENT-TRANSFORMERS OR CURRENT-TRANSFORMER BUS REMOVABLE LINKS. LABELS SHALL BE READILY VISIBLE AND SHALL NOT BE INSTALLED ON ANY REMOVABLE OR HINGES COVER PANEL.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 INSTRUMENT-TRANSFORMER COMPARTMENT FOR SWITCHBOARDS 0 – 600 AMPERES THREE PHASE 4-WIRE
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	10-20-2016	
		320.1



TOP VIEW



FRONT VIEW

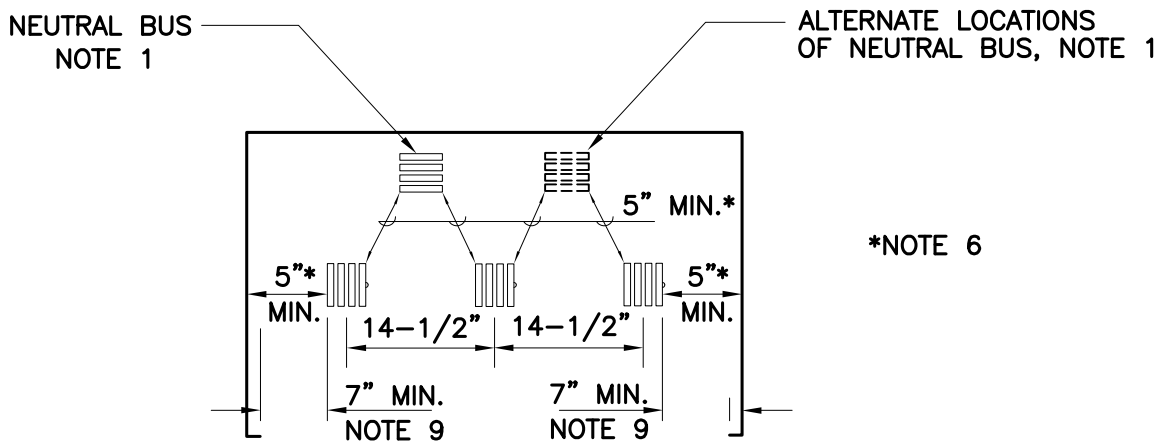
SIDE VIEW

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>GR</i>	 INSTRUMENT-TRANSFORMER COMPARTMENT SWITCHBOARDS 1001-3000 AMPERES 0-600 VOLTS 3 PHASE 4-WIRE
REVIEWED	<i>GR</i>	
APPROVED	<i>MS</i>	
REVISION	REV 1	
DATE	10-20-2016	

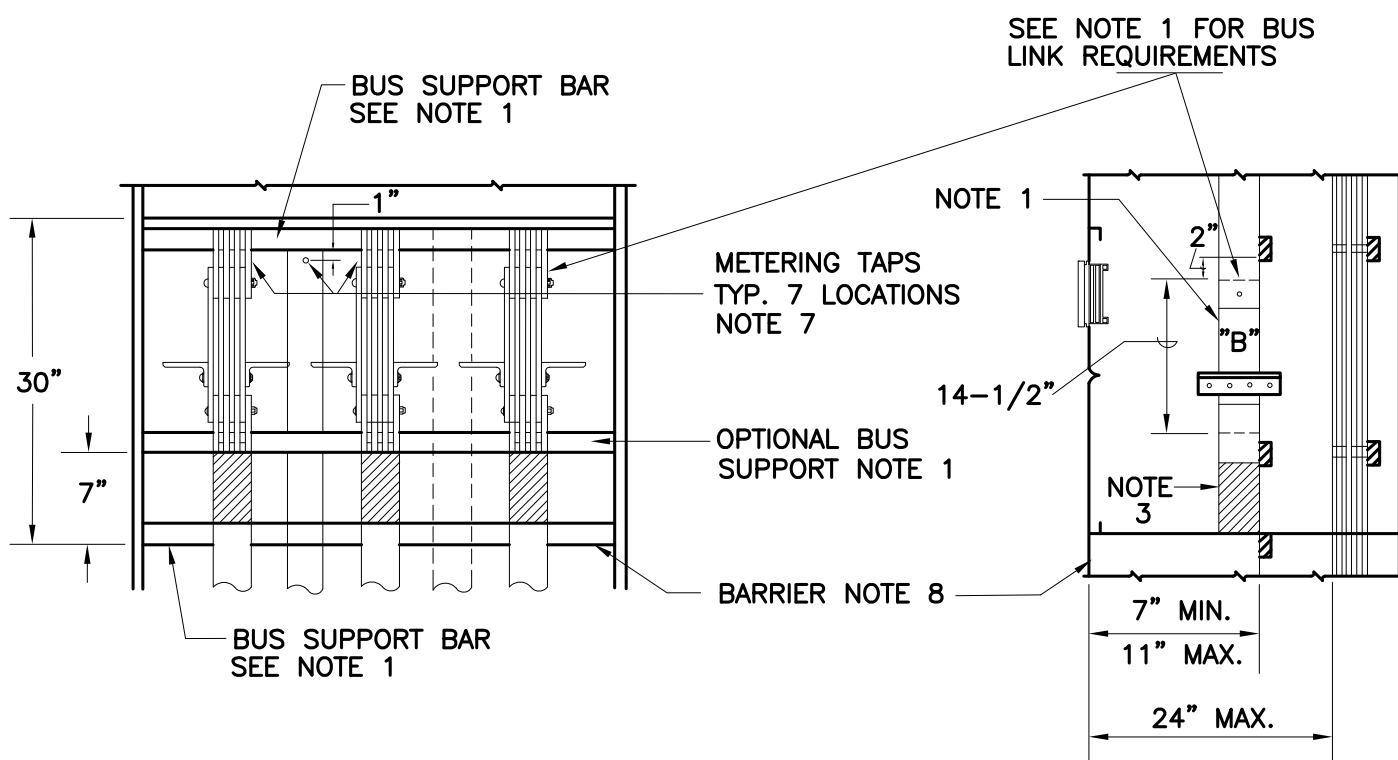
NOTES:

1. BUS ARRANGEMENT AND SUPPORTS SHALL BE PROVIDED AS SHOWN, EXCEPT THE NEUTRAL BUS MAY BE LOCATED AT EITHER SIDE OR ON EITHER SIDE WALL. (NOTE: NEUTRAL BUS NOT REQUIRED FOR 3-PHASE 3-WIRE SERVICE.) BUS UNITS SHALL BE ANCHORED SO THAT BUSSES WILL REMAIN IN POSITION WHEN SECTION "B" IS REMOVED. FOR DETAILS OF SECTION "B" AND THE INSULATED CURRENT-TRANSFORMER SUPPORT, SEE DRAWING 330 AND 331. BUS UNITS SHALL BE CONSTRUCTED OF RECTANGULAR BUS AND WHEN LAMINATED SHALL HAVE NO SPACE BETWEEN
2. THE BUS UNITS MAY BE SUPPLIED FROM THE TOP OR BOTTOM, AND SHALL BE CONSTRUCTED OF RECTANGULAR BUS. MAXIMUM ALLOWABLE BUS SIZE SHALL BE FOUR 1/4" X 4" BARS SPACED 1/4".
3. THE BUS UNITS SHALL BE INSULATED AS SHOWN AND THE INSULATING MATERIAL SHALL BE RATED FOR THE SERVING VOLTAGE. ROUND BUS CORNERS AS NECESSARY TO PREVENT DAMAGE TO INSULATION.
4. WHEN THE COMPARTMENT IS SUPPLIED FROM HORIZONTAL CROSS-BUSSING, THE BUSSING SHALL PASS THROUGH THE COMPARTMENT OR IN THE SEALED AREA ABOVE THE COMPARTMENT.
5. EXCEPT FOR CONDUCTORS SUPPLYING THE INSTRUMENT-TRANSFORMER COMPARTMENT, AND THE GROUND BUS, NO OTHER CONDUCTORS OR DEVICES SHALL BE INSTALLED IN, OR ROUTED THROUGH, THE COMPARTMENT OR THE SEALED AREA ABOVE THE COMPARTMENT. THE GROUND BUS SHALL NOT INFRINGE ON UTILITY COMPARTMENT SPACE, OR REDUCE ANY CLEARANCES. CUSTOMER CONNECTIONS TO THE GROUND BUS SHALL NOT BE ALLOWED IN THE INSTRUMENT TRANSFORMER COMPARTMENT.
6. A CLEAR UNOBSTRUCTED WORK SPACE SHALL BE PROVIDED AROUND THE CURRENT-TRANSFORMER BUS UNITS FROM THE BARRIER TO 2" ABOVE THE REMOVABLE CURRENT-TRANSFORMER BUS SECTIONS ("B").
7. A 10-32 TAP FOR ATTACHMENT OF METER WIRING SHALL BE PROVIDED AS FOLLOWS:
 - A. ONE TAP FOR EACH UPPER AND LOWER PHASE BUS UNIT WITH A 10-32 SCREW AND WASHER PROVIDED FOR EACH PHASE BUS IN EITHER THE UPPER OR LOWER POSITION.
 - B. ONE TAP ON THE NEUTRAL BUS AS SHOWN, OR WHEN THE COMPARTMENT IS SUPPLIED FROM CROSS-BUSSING, OR ON A BUS BAR EXTENSION PROVIDED FROM THE NEUTRAL CROSS-BUS. A 10-32 SCREW AND WASHER SHALL BE PROVIDED FOR THE NEUTRAL BUS. TAP LOCATIONS SHALL BE ACCESSIBLE UNDER ENERGIZED CONDITIONS AND WITH THE CURRENT-TRANSFORMERS IN PLACE.
8. THE BARRIER SHALL BE CONSTRUCTED OF A RIGID INSULATING MATERIAL RESISTANT TO ARC TRACKING, AND SHALL BE SECURED IN PLACE WITH A MAXIMUM DEFLECTION OF 1/2" FROM AN APPLIED FORCE OF 25 POUNDS DOWNWARD. OPENINGS IN THE BARRIER (I.E. PERIPHERAL GAPS AROUND BARRIER, CUTOUTS AROUND BUS BARS, AND HOLE DIAMETERS PROVIDED FOR VENTILATION) SHALL NOT EXCEED 3/8". THE BARRIER SHALL BE ATTACHED WITH NONCONDUCTIVE FASTENERS.
9. DIMENSION MEASURED TO INSIDE EDGE OF THE COMPARTMENT ACCESS OPENING.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 INSTRUMENT-TRANSFORMER COMPARTMENT SWITCHBOARDS 1001-3000 AMPERES 0-600 VOLTS 3 PHASE 4-WIRE
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	10.24.2016	322.1



TOP VIEW



FRONT VIEW

SIDE VIEW

TABLE 1

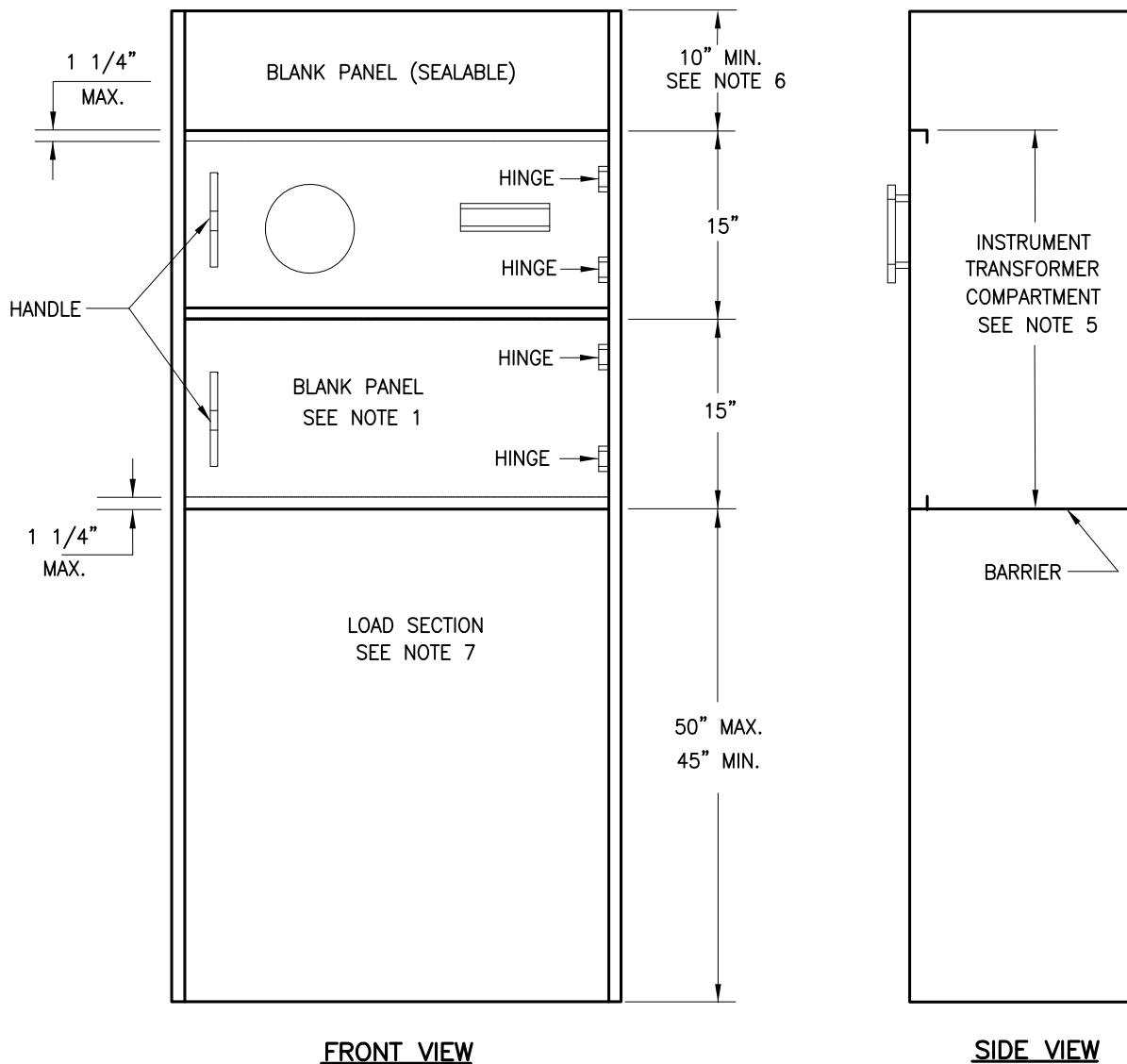
MAXIMUM ALLOWABLE BUS
FOUR 1/4" X 4" BARS SPACED 1/4"
SIX 1/4" X 5" BARS SPACED 1/4"
FIVE 3/8" X 5" BARS SPACED 3/8"

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>GR</i>	 INSTRUMENT-TRANSFORMER COMPARTMENT SWITCHBOARDS 3001 AMPERES & ABOVE, 0-600 VOLTS THREE PHASE 4-WIRE
REVIEWED	<i>GR</i>	
APPROVED	<i>MS</i>	
REVISION	REV 1	
DATE	10-24-2016	

NOTES:

1. BUS ARRANGEMENT AND SUPPORTS SHALL BE PROVIDED AS SHOWN, EXCEPT THE NEUTRAL BUS MAY BE LOCATED AT EITHER SIDE OR ON EITHER SIDE WALL. (NOTE: NEUTRAL BUS NOT REQUIRED FOR 3-PHASE 3-WIRE SERVICE.) BUS UNITS SHALL BE ANCHORED SO THAT BUSES WILL REMAIN IN POSITION WHEN SECTION "B" IS REMOVED. FOR DETAILS OF SECTION "B" AND THE INSULATED CURRENT-TRANSFORMER SUPPORT, SEE DRAWING 330 FOR 4" AND DRAWING 331 FOR 5" BUS. CONSULT SERVING AGENCY FOR THE USE OF BUS LARGER THAN 5". BUS SUPPORTS SHALL BE CONSTRUCTED OF A CONTINUOUS BAR OF INSULATING MATERIAL.
2. THE BUS UNITS MAY BE SUPPLIED FROM THE TOP OR BOTTOM, AND SHALL BE CONSTRUCTED OF RECTANGULAR BUS. FOR MAXIMUM ALLOWABLE BUS SIZES, SEE TABLE 1.
3. BUS UNITS SHALL BE INSULATED AS SHOWN AND THE INSULATING MATERIAL SHALL BE RATED FOR THE SERVING VOLTAGE. ROUND BUS CORNERS AS NECESSARY TO PREVENT DAMAGE TO INSULATION.
4. WHEN THE COMPARTMENT IS SUPPLIED FROM HORIZONTAL CROSS-BUSSING, THE BUSSING SHALL PASS THROUGH THE COMPARTMENT OR IN THE SEALED AREA ABOVE THE COMPARTMENT.
5. EXCEPT FOR CONDUCTORS SUPPLYING THE INSTRUMENT-TRANSFORMER COMPARTMENT, AND THE GROUND BUS, NO OTHER CONDUCTORS OR DEVICES SHALL BE INSTALLED IN, OR ROUTED THROUGH, THE COMPARTMENT OR THE SEALED AREA ABOVE THE COMPARTMENT. THE GROUND BUS SHALL NOT INFRINGE ON UTILITY COMPARTMENT SPACE, OR REDUCE ANY CLEARANCES. CUSTOMER CONNECTIONS TO THE GROUND BUS SHALL NOT BE ALLOWED IN THE INSTRUMENT TRANSFORMER COMPARTMENT.
6. A CLEAR UNOBSTRUCTED WORK SPACE SHALL BE PROVIDED AROUND THE CURRENT-TRANSFORMER BUS UNITS FROM THE BARRIER TO 2" ABOVE THE REMOVABLE CURRENT-TRANSFORMER BUS SECTIONS ("B").
7. A 10-32 TAP FOR ATTACHMENT OF METER WIRING SHALL BE PROVIDED AS FOLLOWS:
 - A. ONE TAP FOR EACH UPPER AND LOWER PHASE BUS UNIT WITH A 10-32 SCREW AND WASHER PROVIDED FOR EACH PHASE BUS IN EITHER THE UPPER OR LOWER POSITION.
 - B. ONE TAP ON THE NEUTRAL BUS AS SHOWN, OR WHEN THE COMPARTMENT IS SUPPLIED FROM CROSS-BUSSING, A TAP MAY BE PROVIDED ON THE NEUTRAL CROSS-BUS, OR ON A BUS BAR EXTENSION PROVIDED FROM THE NEUTRAL BUS. TAP LOCATIONS SHALL BE CENTERED BETWEEN PHASE BUS UNITS, OR AT EITHER SIDE, AND SHALL BE READILY ACCESSIBLE UNDER ENERGIZED CONDITIONS AND WITH THE CURRENT-TRANSFORMERS IN PLACE.
8. THE BARRIER SHALL BE CONSTRUCTED OF A RIGID INSULATING MATERIAL RESISTANT TO ARC TRACKING, AND SHALL BE SECURED IN PLACE WITH A MAXIMUM DEFLECTION OF 1/2" FROM AN APPLIED FORCE OF 25 POUNDS DOWNWARD. OPENINGS IN THE BARRIER (I.E. PERIPHERAL GAPS AROUND BARRIER, CUTOUTS AROUND BUS BARS, AND HOLE DIAMETERS PROVIDED FOR VENTILATION) SHALL NOT EXCEED 3/8". THE BARRIER SHALL BE ATTACHED WITH NONCONDUCTIVE FASTENERS.
9. DIMENSION MEASURED TO INSIDE EDGE OF THE COMPARTMENT ACCESS OPENING.

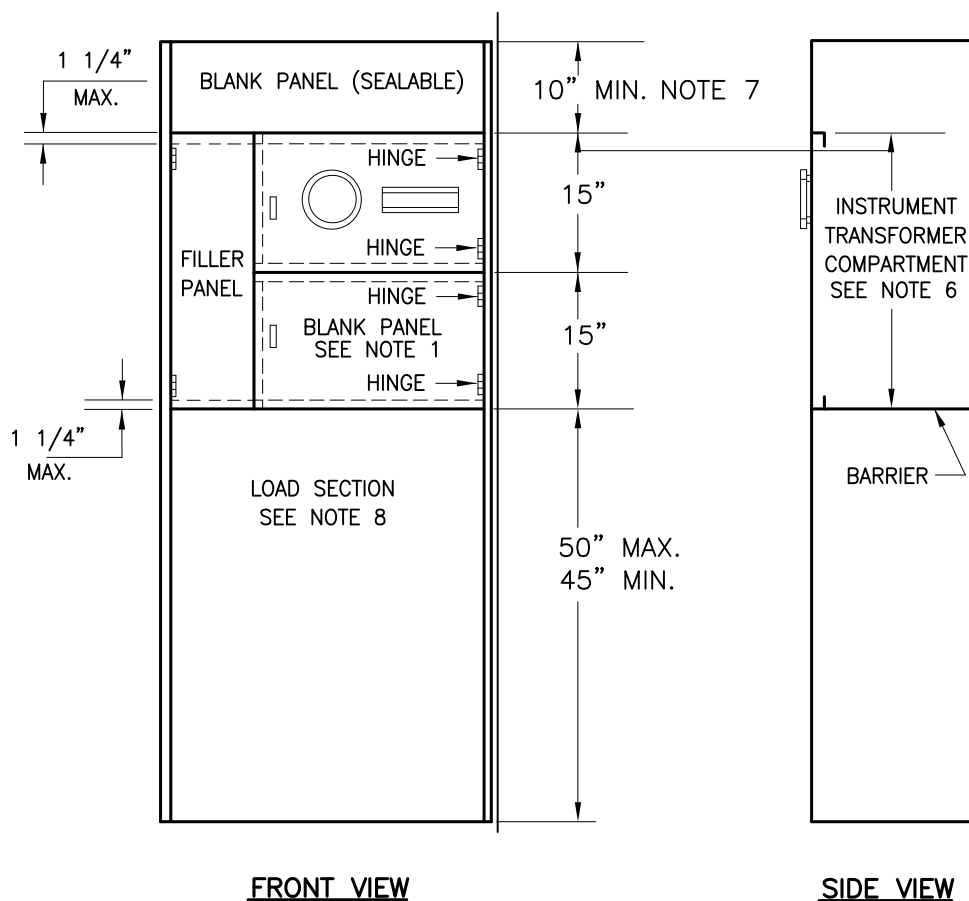
IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 INSTURMENT-TRANSFORMER COMPARTMENT SWITCHBOARDS 3001 AMPERES & ABOVE, 0-600 VOLTS THREE PHASE 4-WIRE
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	10-25-2016	
		324.1



NOTES:

1. SOCKET METER PANEL WITH BLANK METER PANEL SHOWN. CONSULT SERVING UTILITY REGARDING ALTERNATE METER PANEL ARRANGEMENTS. BLANK METER PANEL SHALL BE CONSTRUCTED OF 12 GAUGE (MINIMUM) STEEL. SEE DRAWING 332 FOR SOCKET METER PANEL DETAILS.
2. METER PANELS SHALL BE EQUIPPED WITH STOPS TO PREVENT INWARD SWINGING BEYOND THE FRONT SURFACE OF THE SERVICE SECTION.
3. HINGES SHALL BE READILY INTERCHANGEABLE, LEFT OR RIGHT, ON THE JOB SITE.
4. REMOVABLE OR HINGED PANELS ENCLOSING UNMETERED BUS OR CABLE SHALL BE SEALABLE. SEE DRAWING 300, NOTE II(I).
5. FOR REQUIREMENTS REGARDING INSTRUMENT – TRANSFORMER COMPARTMENTS, SEE;
 - 0 TO 1000 AMPERES SEE DRAWINGS 319, 320
 - 1001 TO 3000 AMPERES SEE DRAWINGS 321, 322
 - 3001 AMPERES AND ABOVE SEE DRAWINGS 323, 324
6. DIMENSION MAY BE REDUCED IF THE SERVICE SECTION IS SUPPLIED FROM HORIZONTAL CROSS – BUSSING OR BUS DUCT.
7. WHEN USED AS A UTILITY TERMINATING SECTION IN A BOTTOM – FED SERVICE SECTION, SEE DRAWING 327.
8. FOR OUTDOOR APPLICATIONS, SEE DRAWING 354 FOR WEATHERPROOF ENCLOSURE REQUIREMENTS.

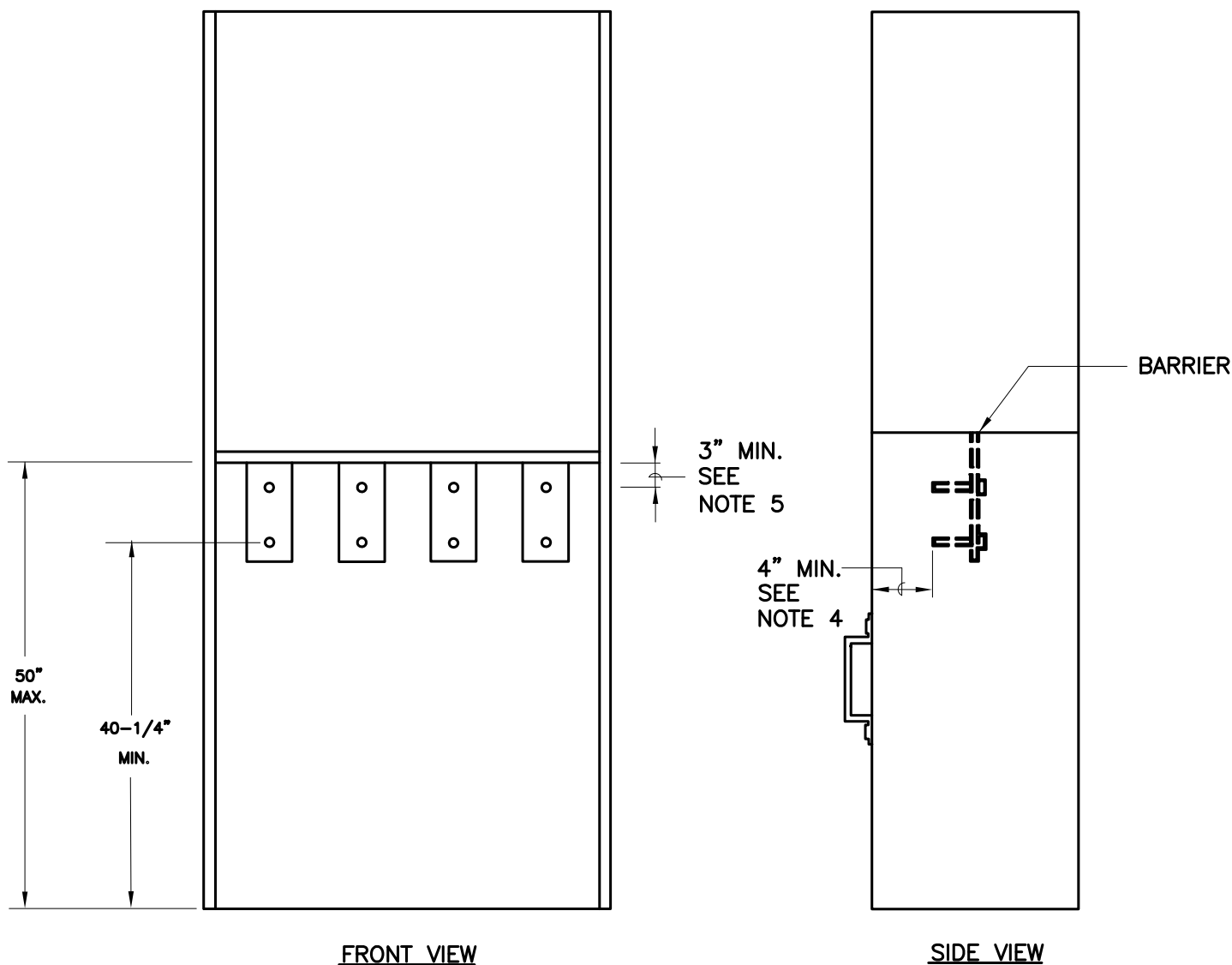
IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>GR</i>	 STANDARD SWITCHBOARD SERVICE SECTION WITH INSTRUMENT – TRANSFORMER COMPARTMENT 0 – 600 VOLTS
REVIEWED	<i>PR</i>	
APPROVED	<i>MS</i>	
REVISION	REV 1	
DATE	10–11–2016	
		325



NOTES:

1. SOCKET METER PANEL WITH BLANK METER PANEL SHOWN. CONSULT SERVING UTILITY REGARDING ALTERNATE METER PANEL ARRANGEMENTS. BLANK METER PANEL SHALL BE CONSTRUCTED OF 12 GAUGE (MINIMUM) STEEL. SEE DRAWING 332 FOR SOCKET METER PANEL DETAILS.
2. FILLER PANELS SHALL BE USED WHERE THE SERVICE SECTION WIDTH EXCEEDS THE METER PANEL WIDTH. METER PANELS, EITHER SOCKET OR BLANK, SHALL NOT BE HINGED TO HINGED FILLER PANELS. NON-HINGED FILLER PANELS SHALL NOT EXTEND INTO THE REQUIRED INSTRUMENT-TRANSFORMER COMPARTMENT ACCESS OPENING.
3. METER PANELS AND FILLER PANELS SHALL BE EQUIPPED WITH STOPS TO PREVENT INWARD SWINGING BEYOND THE FRONT SURFACE OF THE SERVICE SECTION.
4. HINGES SHALL BE READILY INTERCHANGEABLE, LEFT OR RIGHT, ON THE JOB SITE.
5. REMOVABLE OR HINGED PANELS ENCLOSING UNMETERED BUS OR CABLE SHALL BE SEALABLE. SEE DRAWING 300, NOTE 11(I).
6. FOR REQUIREMENTS REGARDING INSTRUMENT-TRANSFORMER COMPARTMENTS, SEE;
 0 TO 1000 AMPERES SEE DRAWINGS 319, 320
 1001 TO 3000 AMPERES SEE DRAWINGS 321, 322
 3001 AMPERES AND ABOVE SEE DRAWINGS 323, 324
7. DIMENSION MAY BE REDUCED IF THE SERVICE SECTION IS SUPPLIED FROM HORIZONTAL CROSS-BUSSING OR BUS DUCT.
8. WHEN USED AS A UTILITY TERMINATING SECTION IN A BOTTOM-FED SERVICE SECTION, SEE DRAWING 327.
9. FOR OUTDOOR APPLICATIONS, SEE DRAWING 354 FOR WEATHERPROOF ENCLOSURE REQUIREMENTS.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>GR</i>	 STANDARD SWITCHBOARD SERVICE SECTION INSTRUMENT-TRANSFORMER COMPARTMENT FILLER PANEL, 0-600 VOLTS
REVIEWED	<i>GR</i>	
APPROVED	<i>MS</i>	
REVISION	REV 1	
DATE	10-25-2016	
		326



SWITCHBOARD RATING (AMPERES)	MINIMUM ACCESS OPENING DIMENSION (W) - SEE NOTE 8
	4 - WIRE
BELOW 400	CONSULT SERVING AGENCY
400 - 800	24"
801 - 1000	30"

NOTES:

1. THE PULL SECTION MAY SUPPLY EITHER A CURRENT-TRANSFORMER COMPARTMENT OR A MAIN SERVICE DISCONNECT DEVICE.
2. VEGETATION CLEARANCE TO BE 5 FT. RADIAL FROM SURFACE OF STRUCTURE.
 - A. INDEPENDENT OF OTHER EQUIPMENT AND WITHOUT DISTURBING ADJACENT PANELS.
 - B. SEALABLE, PROVIDED WITH TWO LIFTING HANDLES, AND LIMITED TO A MAXIMUM OF 9 SQUARE FEET IN AREA.
3. THE PANEL SHALL BE EQUIPPED WITH TERMINATING FACILITIES COMPLYING WITH DRAWING 347. TERMINATING FACILITIES SHALL BE SECURED TO PREVENT MISALIGNMENT AND SHALL BE RIGID WITHOUT THE INSTALLATION OF CURRENT-TRANSFORMERS.
4. THE CLEARANCE FROM THE ENERGIZED BUS TO THE PULL SECTION REMOVABLE ACCESS COVERS MAY BE REDUCED IF A SAFETY BARRIER IS PROVIDED BY THE MANUFACTURER. FOR ADDITIONAL CLEARANCE AND BARRIER REQUIREMENTS, SEE DRAWING 347, NOTE 12.
5. A VERTICAL CLEARANCE OF 3" MINIMUM SHALL BE MAINTAINED BETWEEN THE CENTERLINE OF THE TOP BOLTS OF THE TERMINATING FACILITIES TO ANY OBSTRUCTION.

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY		 COMBINATION SWITCHBOARD SERVICE SECTION AND PULL SECTION 0 – 600 VOLTS, 1000 AMPERES MAXIMUM	
REVIEWED			
APPROVED			
REVISION	REV 1		
DATE	10-10-2016	327	

NOTES:

6. WHEN THE UPPER SECTION IS:

- A. AN INSTRUMENT—TRANSFORMER COMPARTMENT, SEE DRAWINGS 325 AND 326 FOR ADDITIONAL SERVICE SECTION REQUIREMENTS.
- B. A MAIN SERVICE DISCONNECT DEVICE.

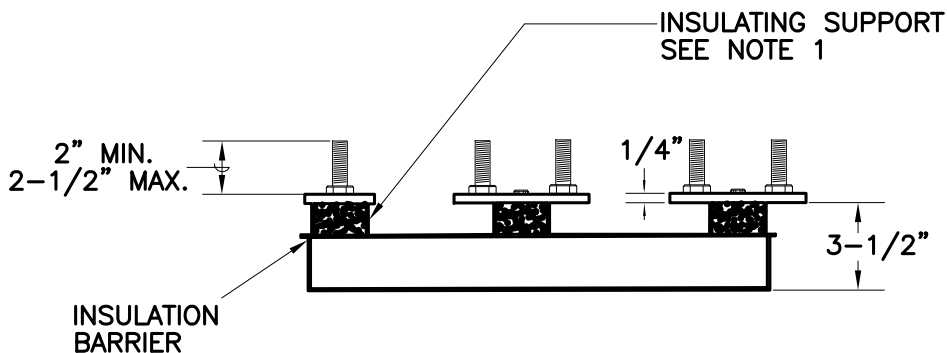
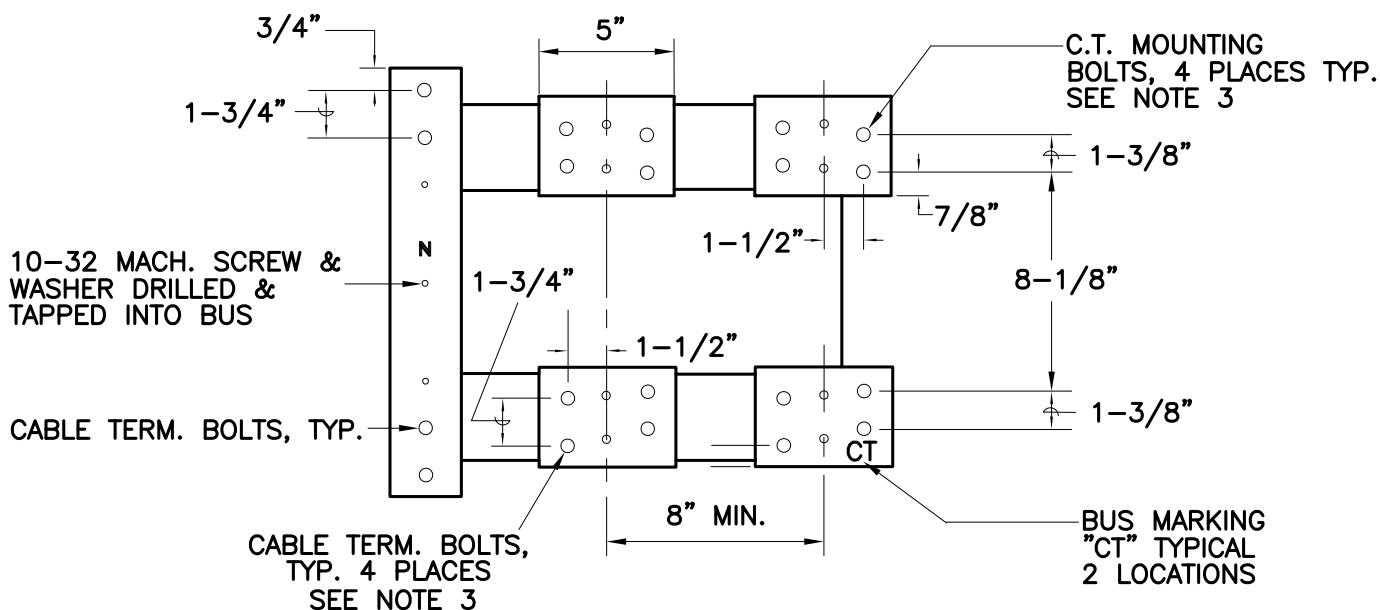
(1.) A FULL WIDTH AND DEPTH, INSULATED, RIGID BARRIER SHALL BE PROVIDED TO SEPARATE THE PULL SECTION AND MAIN SERVICE DISCONNECT COMPARTMENT.

(2.) THE MAIN SERVICE DISCONNECT COVER SHALL BE SEALABLE.

7. SEALING PROVISIONS FOR REMOVABLE COVERS SHALL CONSIST OF TWO DRILLED STUD AND WING—NUT ASSEMBLIES LOCATED ON OPPOSITE SIDES OF THE COVER. HINGED COVERS SHALL BE SEALED ON THE UNSUPPORTED SIDE. SEE DRAWING 300, NOTE II(I).

8. THE MINIMUM PULL SECTION ACCESS OPENING (W) IS MEASURED BETWEEN THE LEFT SIDE AND RIGHT SIDE RETURN FLANGES.

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY			COMBINATION SWITCHBOARD SERVICE SECTION AND PULL SECTION 0 – 600 VOLTS, 1000 AMPERES MAXIMUM
REVIEWED			
APPROVED			
REVISION	REV 1		
DATE	10-10-2016		
		327.1	



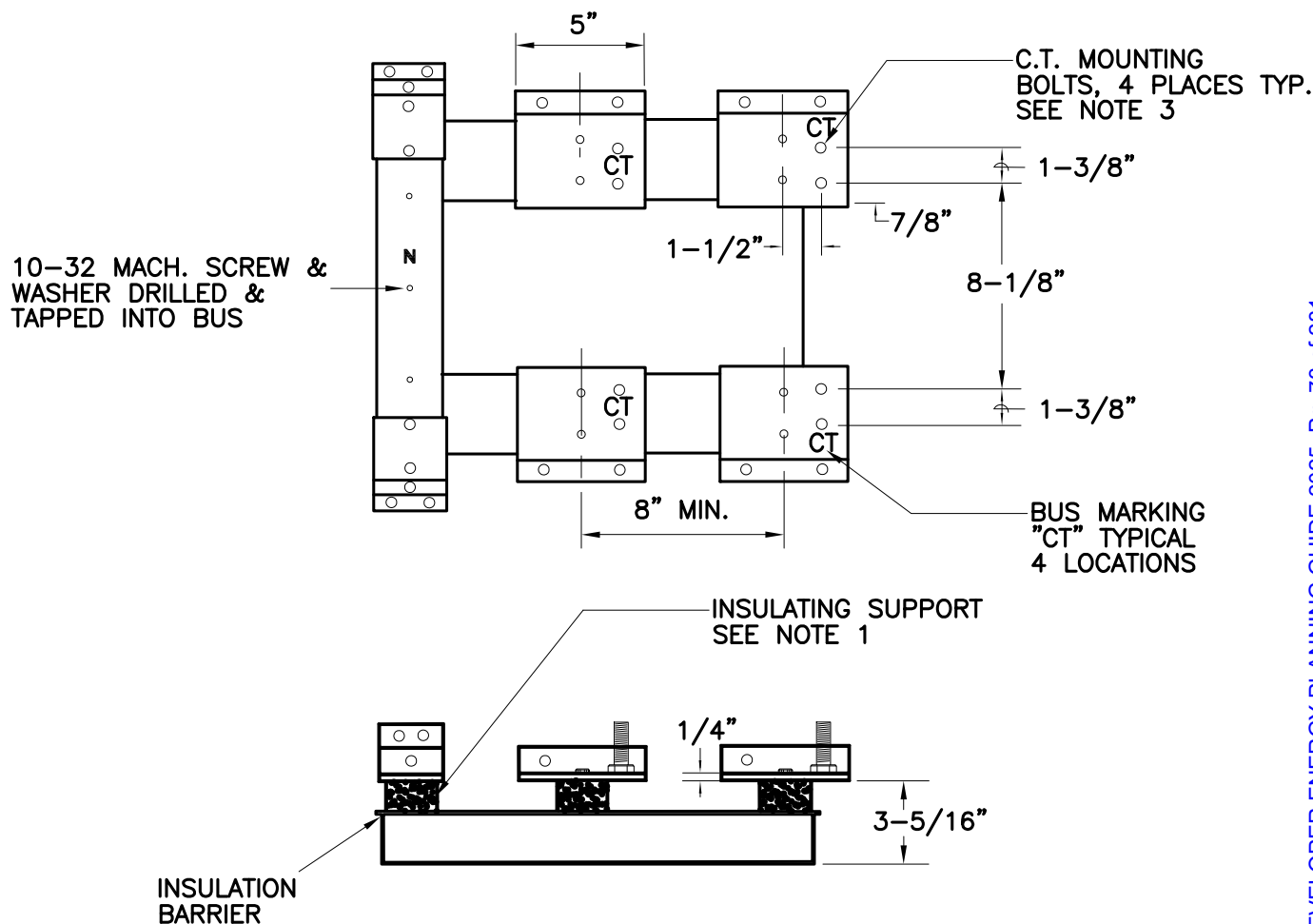
NOTES:

1. INSULATED SUPPORTS SHALL BE RATED FOR THE SERVING VOLTAGE AND HAVE SUFFICIENT MECHANICAL STRENGTH FOR THE APPLICATION.
2. MOUNTING BASE ACCEPTS BAR TYPE CURRENT TRANSFORMERS ONLY.
3. TWO 1/2" STEEL BOLTS SHALL BE PROVIDED FOR EACH CABLE TERMINATING AND CURRENT-TRANSFORMER MOUNTING POSITION. EACH BOLT SHALL BE FURNISHED WITH A SPRING WASHER AND A NUT. THE SPRING WASHER MAY BE EITHER A CONE-TYPE (BELLEVILLE) OR A SPLIT-RING WASHER AND A FLAT WASHER. BOLTS SHALL BE SECURED IN PLACE AND SPACED AS SHOWN. ALL PARTS SHALL BE PLATED TO PREVENT CORROSION.

"NOTE: WHEN BELLEVILLE WASHERS ARE USED, THE MANUFACTURER SHALL PROVIDE A LABEL WITH THE REQUIRED TORQUE SETTINGS. THIS LABEL SHALL BE IN A READILY VISIBLE LOCATION WITHIN THE COMPARTMENT THAT THE WASHERS ARE BEING UTILIZED AND SHALL NOT BE INSTALLED ON THE METER OR FILLER PANELS".

4. FOR APPLICATIONS, SEE DRAWINGS 313 & 314.

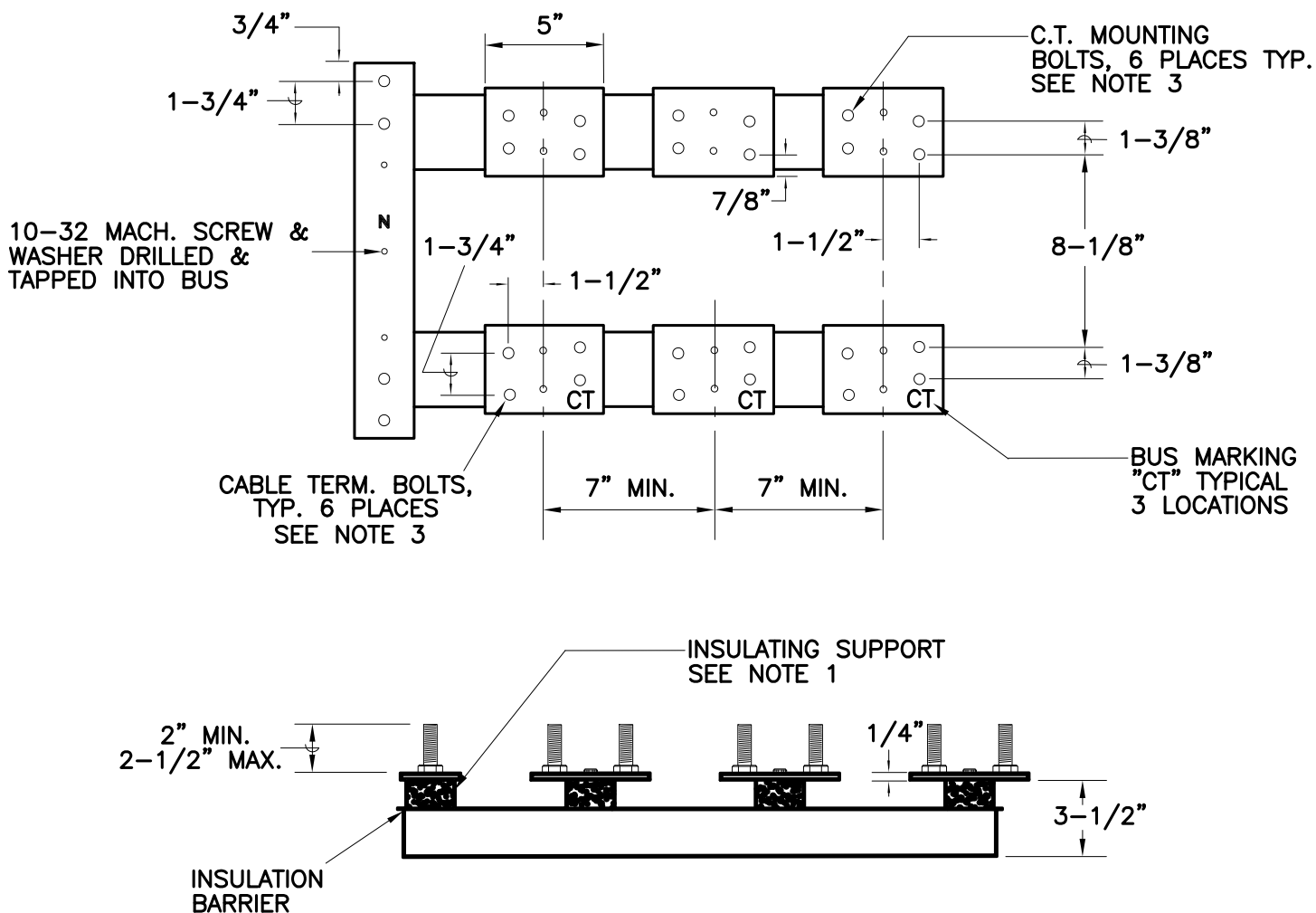
IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>GR</i>	 CURRENT-TRANSFORMER MOUNTING BASE SINGLE-PHASE 201 - 400 AMPERES MAXIMUM, 0 - 600 VOLTS
REVIEWED	<i>FD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 1	
DATE	10-18-2016	
		328A



NOTES:

1. MOUNTING BASE ACCEPTS BAR TYPE CURRENT TRANSFORMERS ONLY.
2. TWO 1/2" STEEL BOLTS SHALL BE PROVIDED FOR EACH CABLE TERMINATING AND CURRENT-TRANSFORMER MOUNTING POSITION. EACH BOLT SHALL BE FURNISHED WITH A SPRING WASHER AND A NUT. THE SPRING WASHER MAY BE EITHER A CONE-TYPE (BELLEVILLE) OR A SPLIT-RING WASHER AND A FLAT WASHER. BOLTS SHALL BE SECURED IN PLACE AND SPACED AS SHOWN. ALL PARTS SHALL BE PLATED TO PREVENT CORROSION.
"NOTE: WHEN BELLEVILLE WASHERS ARE USED, THE MANUFACTURER SHALL PROVIDE A LABEL WITH THE REQUIRED TORQUE SETTINGS. THIS LABEL SHALL BE IN A READILY VISIBLE LOCATION WITHIN THE COMPARTMENT THAT THE WASHERS ARE BEING UTILIZED AND SHALL NOT BE INSTALLED ON THE METER OR FILLER PANELS".
3. TERMINATION'S FOR SERVICE CONDUCTORS SHALL BE ONE POSITION MIN., ALUMINUM-BODIED MECHANICAL LUGS WITH A WITH A RANGE ACCEPTING ON NO. 4 AWG THROUGH 600 KCMIL CONDUCTOR OR TWO NO. 1 AWG THROUGH 250 KCMIL CONDUCTORS.
4. FOR APPLICATIONS, SEE DRAWINGS 313 & 314.

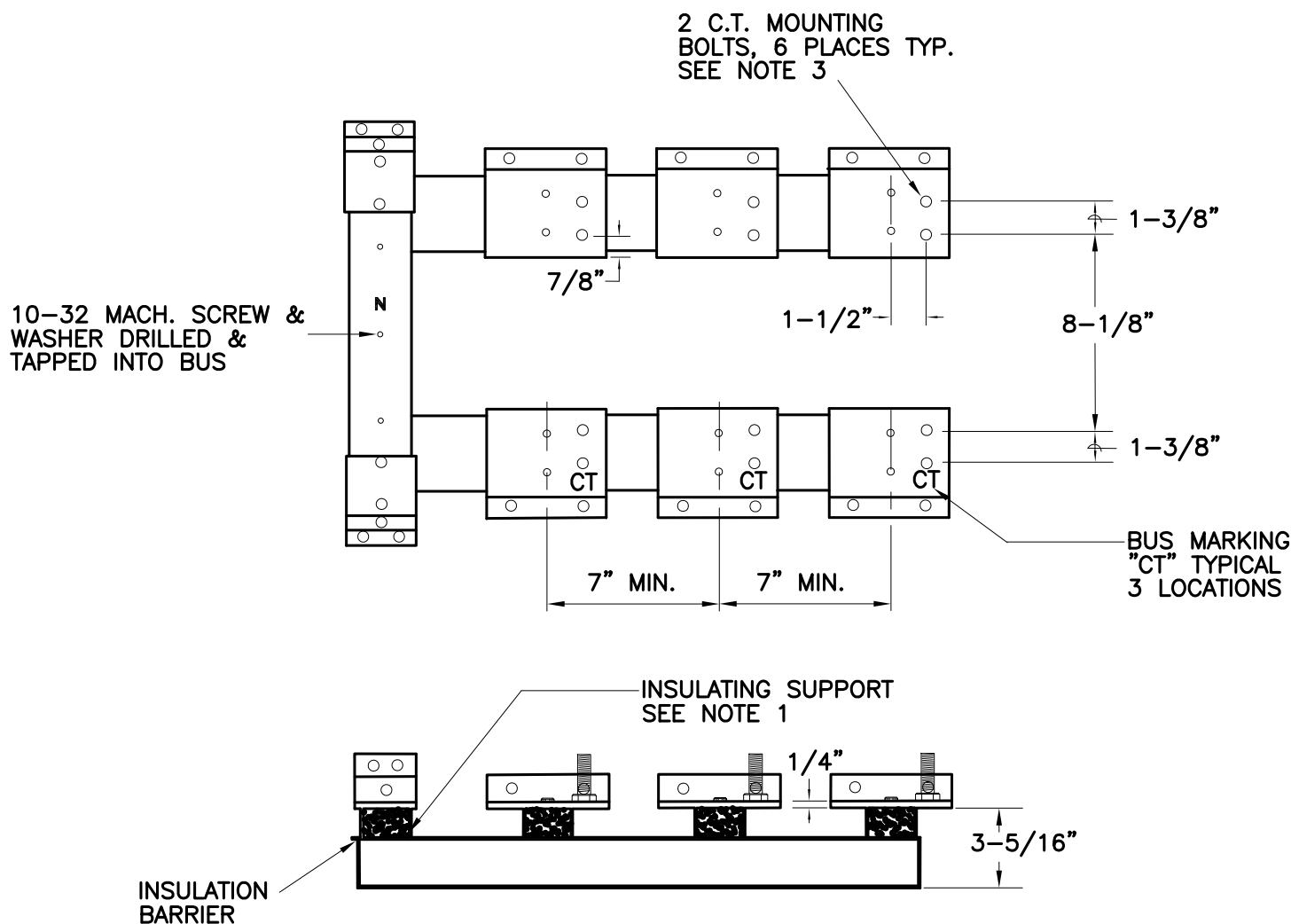
IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>GR</i>	30000000  CURRENT-TRANSFORMER MOUNTING BASE SINGLE-PHASE 201 - 400 AMPERES MAXIMUM, 0 - 600 VOLTS
REVIEWED	<i>FD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 1	
DATE	10-19-2016	
		328B



NOTES:

1. INSULATED SUPPORTS SHALL BE RATED FOR THE SERVING VOLTAGE AND HAVE SUFFICIENT MECHANICAL STRENGTH FOR THE APPLICATION.
2. MOUNTING BASE ACCEPTS BAR TYPE CURRENT TRANSFORMERS ONLY.
3. TWO 1/2" STEEL BOLTS SHALL BE PROVIDED FOR EACH CABLE TERMINATING AND CURRENT-TRANSFORMER MOUNTING POSITION. EACH BOLT SHALL BE FURNISHED WITH A SPRING WASHER AND A NUT. THE SPRING WASHER MAY BE EITHER A CONE-TYPE (BELLEVILLE) OR A SPLIT-RING WASHER AND A FLAT WASHER. BOLTS SHALL BE SECURED IN PLACE AND SPACED AS SHOWN. ALL PARTS SHALL BE PLATED TO PREVENT CORROSION.
 "NOTE: WHEN BELLEVILLE WASHERS ARE USED, THE MANUFACTURER SHALL PROVIDE A LABEL WITH THE REQUIRED TORQUE SETTINGS. THIS LABEL SHALL BE IN A READILY VISIBLE LOCATION WITHIN THE COMPARTMENT THAT THE WASHERS ARE BEING UTILIZED AND SHALL NOT BE INSTALLED ON THE METER OR FILLER PANELS".
4. FOR APPLICATIONS, SEE DRAWINGS 313 & 314.
5. CONSULT THE SERVING UTILITY FOR 800 AMPERE APPLICATIONS.

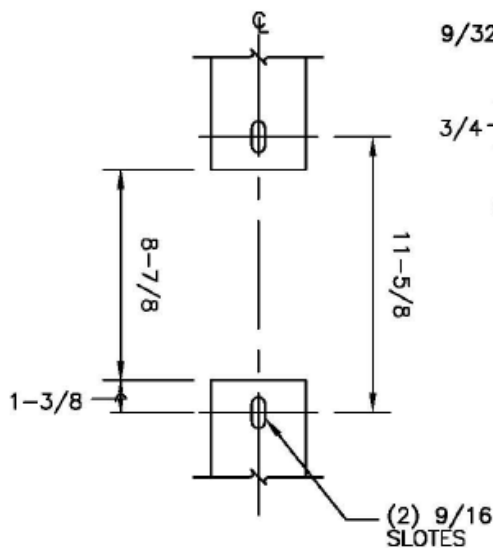
IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>GR</i>	 CURRENT-TRANSFORMER MOUNTING BASE THREE-PHASE FOUR WIRE 201 - 400 AMPERES MAXIMUM, 0 - 600 VOLTS
REVIEWED	<i>FD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 1	
DATE	10-19-2016	
		329A



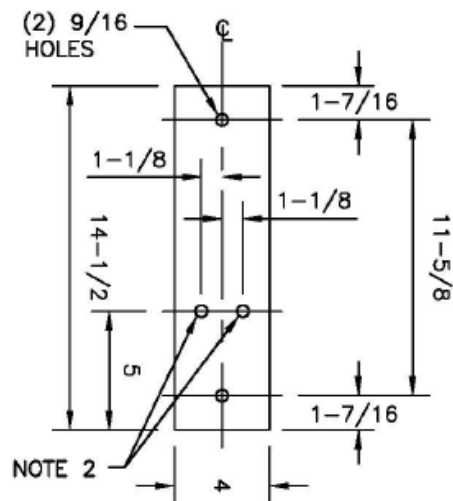
NOTES:

1. INSULATED SUPPORTS SHALL BE RATED FOR THE SERVING VOLTAGE AND HAVE SUFFICIENT MECHANICAL STRENGTH FOR THE APPLICATION.
2. MOUNTING BASE ACCEPTS BAR TYPE CURRENT TRANSFORMERS ONLY.
3. TWO 1/2" STEEL BOLTS SHALL BE PROVIDED FOR EACH CABLE TERMINATING AND CURRENT-TRANSFORMER MOUNTING POSITION. EACH BOLT SHALL BE FURNISHED WITH A SPRING WASHER AND A NUT. THE SPRING WASHER MAY BE EITHER A CONE-TYPE (BELLEVILLE) OR A SPLIT-RING WASHER AND A FLAT WASHER. BOLTS SHALL BE SECURED IN PLACE AND SPACED AS SHOWN. ALL PARTS SHALL BE PLATED TO PREVENT CORROSION.
 "NOTE: WHEN BELLEVILLE WASHERS ARE USED, THE MANUFACTURER SHALL PROVIDE A LABEL WITH THE REQUIRED TORQUE SETTINGS. THIS LABEL SHALL BE IN A READILY VISIBLE LOCATION WITHIN THE COMPARTMENT THAT THE WASHERS ARE BEING UTILIZED AND SHALL NOT BE INSTALLED ON THE METER OR FILLER PANELS".
4. FOR APPLICATIONS, SEE DRAWINGS 313 & 314.
5. CONSULT THE SERVING UTILITY FOR 800 AMPERE APPLICATIONS.

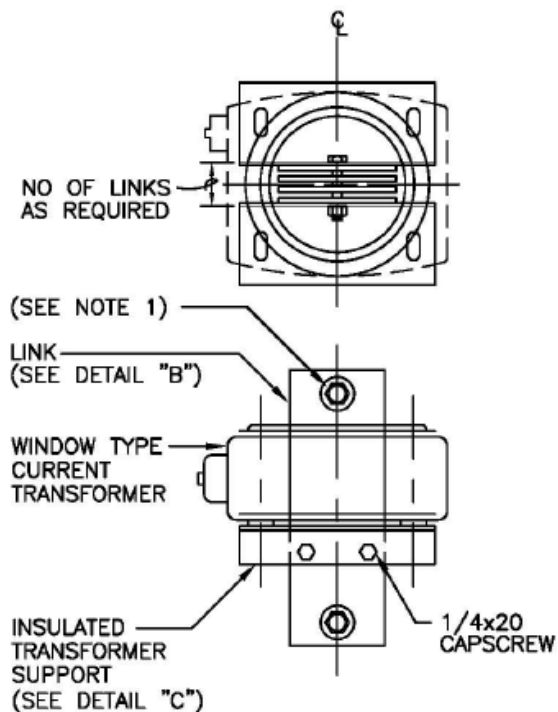
IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>GR</i>	 CURRENT-TRANSFORMER MOUNTING BASE THREE-PHASE FOUR WIRE 201 - 400 AMPERS MAXIMUM, 0 - 600 VOLTS
REVIEWED	<i>FD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 1	
DATE	10-19-2016	
		329B



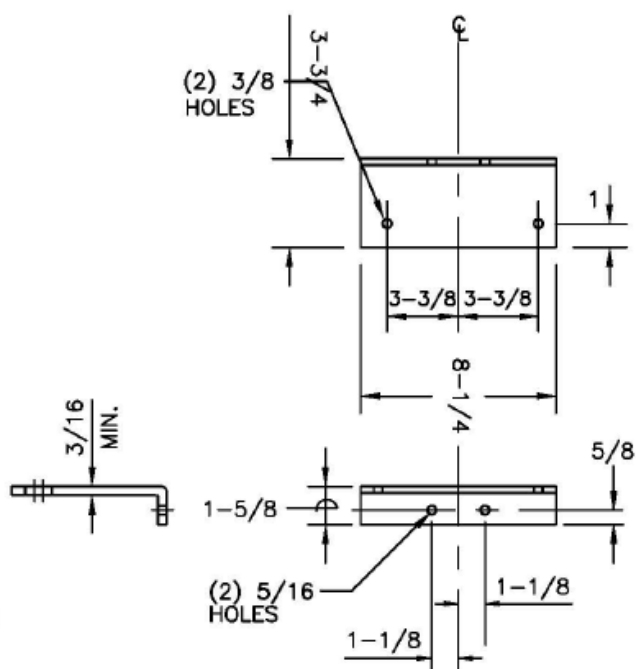
DETAIL "A"
DRILLING AND SPACING OF BUS



DETAIL "B"
1/4x4 LINK
(SAME MATERIAL AS BUS)



REMOVABLE LINK
(FURNISHED BY MANUFACTURER)



DETAIL "C"
INSULATED SUPPORT FOR
CURRENT TRANSFORMER
(MATERIAL: INSULATING, NON-TRACKING)

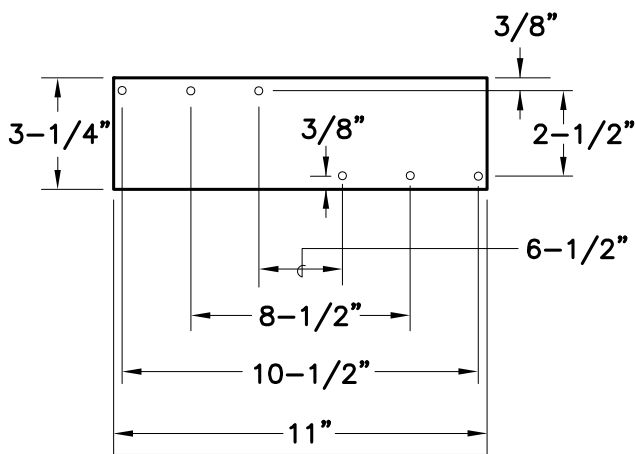
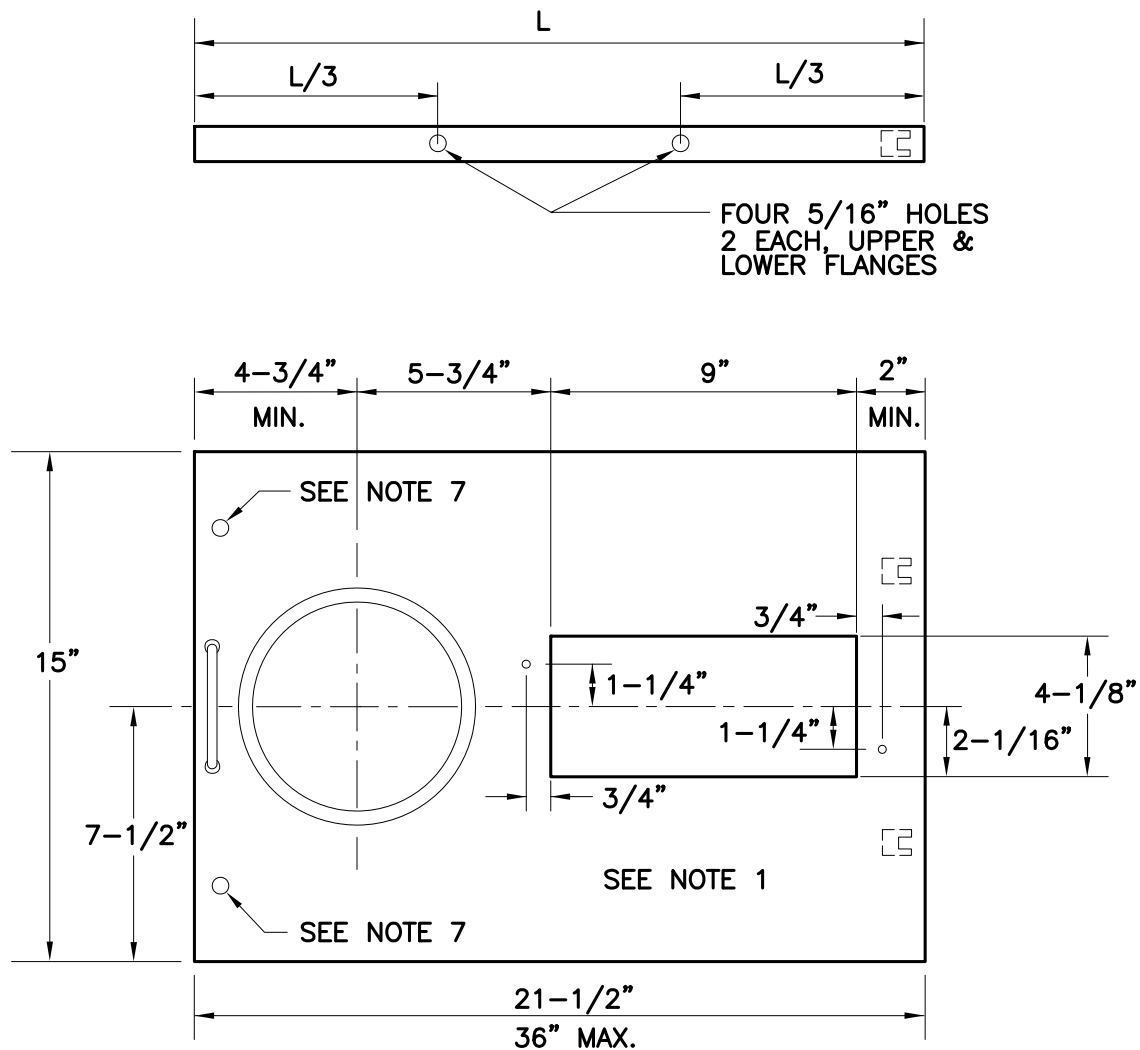
ALL DIMENSIONS SHOWN ARE IN INCHES

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	FF	 REM E I D RRE R S RMERS PP R R I S R ME R S RMER MP R ME S I 4 I S, 0 00 S
REVIEWED	FF	
APPROVED	CB	
REVISION	02	
DATE	10-22-2020	

NOTES:

1. Manufacturer shall secure the removable bus link to the upper and lower current transformer bus units using 1/2 inch hex-head (grade 5) steel bolts with associated washers and nut. Each bolt shall be provided with a flat washer, a spring washer and a nut. Spring washer may be either a cone-type (belleville) washer or a split-ring washer with a flat washer. All washers (belleville or flat) shall be 2 1/4 inches minimum.
"Note: When belleville washers are used, the manufacturer shall provide a label with the required torque setting. This label shall be in a readily visible location within the compartment that the washers are being utilized and shall not be installed on the meter or filler panels."
2. Drill and tap two holes as shown on the outer bus units for 1/4 inch x 20 capscrews.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	FF	 REMI DISTRICT S I S, 0 00 ED R S RRE R S RMER MP R ME S I 4
REVIEWED	FF	
APPROVED	CB	
REVISION	02	
DATE	10-22-2020	



TEST SWITCH MOUNTING

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 15" HINGED METER PANEL 0 - 600 VOLTS
REVIEWED	<i>LD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 1	
DATE	10-26-2016	332

NOTES:

1. THE PANEL SHALL BE CONSTRUCTED OF 12 GAUGE (MINIMUM) STEEL AND SHALL BE HINGED AT THE TEST SWITCH SIDE BY THE MANUFACTURER. THE PANEL SHALL BE FURNISHED WITH A METER SOCKET, SEALING RING, AND A SLOTTED OPENING AND REMOVABLE PLATE EDGES SHALL BE SMOOTH TO PREVENT DAMAGE TO METER RING.
NOTE: WHEN A CAST METER MOUNTING RING IS PROVIDED, THE SCREWS USED TO ATTACH TO THE METER PANEL SHALL PROVIDE A MINIMUM 1/8" CLEARANCE BETWEEN THE SCREW HEADS AND THE BACK OF THE RING.
2. THE REMOVABLE PLATE SHALL BE ATTACHED TO THE REAR OF THE PANEL WITH SCREWS THAT DO NOT PROTRUDE THROUGH THE FACE OF THE PANEL.
3. THE METER SOCKET SHALL BE DESIGNED FOR BACK CONNECTION.
4. THE PANEL SHALL BE EQUIPPED WITH HINGES. THE HINGES SHALL PERMIT THE PANEL TO OPEN TO 90-DEGREES, AND SHALL BE EASILY INTERCHANGEABLE, RIGHT OR LEFT, ON THE METER SOCKET PANEL. REMOVABLE PIN TYPE HINGES ARE REQUIRED, THE PIN SHALL BE REMOVABLE FROM THE TOP.
5. THE PANEL SHALL BE EQUIPPED WITH A HANDLE ON THE UNSUPPORTED END. THE HANDLE SHALL BE INTERCHANGEABLE, RIGHT OR LEFT, ON THE METER SOCKET PANEL. REMOVABLE PIN TYPE HINGES ARE REQUIRED, THE PIN SHALL BE REMOVED FROM THE TOP.
6. THE PANEL SHALL SUPPORT A 25-POUND LOAD APPLIED AT THE UNSUPPORTED END WHEN FULLY OPENED WIT A MAXIMUM SAG OF 1/8".
7. STUD AND WING NUT ASSEMBLIES SHALL BE SEALABLE WHEN USED.
8. SEE SECTION 200 FOR CORRECT METER SOCKET CONFIGURATION.
9. TEST SWITCH MOUNTING HOLES SHALL BE LOCATED ON THE TOP LEFT AND BOTTOM RIGHT FOR SAFETY.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 15" HINGED METER PANEL 0 - 600 VOLTS
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	10-26-2016	
		332.1

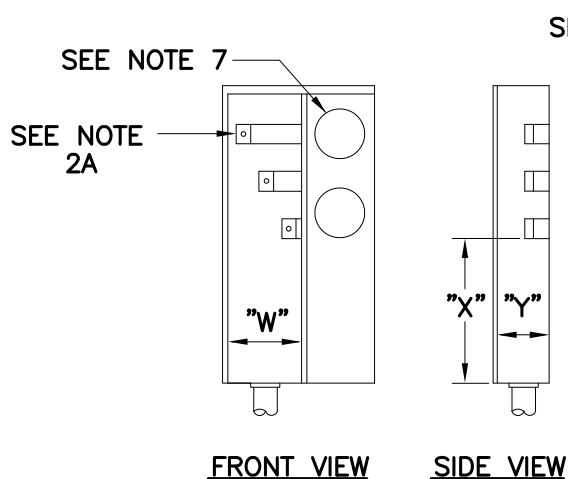


FIGURE 1

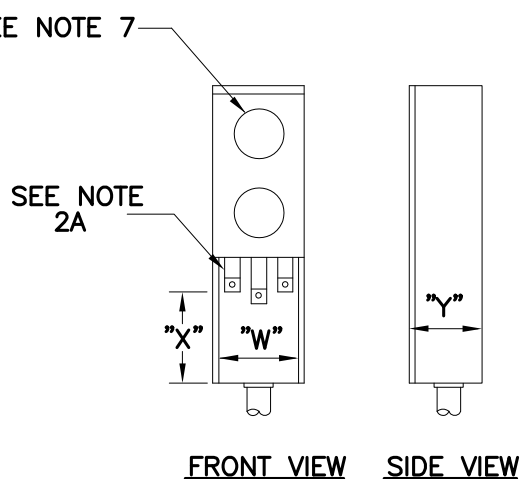


FIGURE 2

TYPICAL SERVICE TERMINATING ARRANGEMENT. TWO (2) METERS (0 – 200 AMPS)

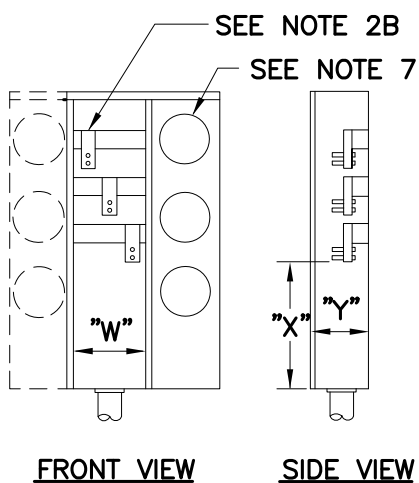


FIGURE 3

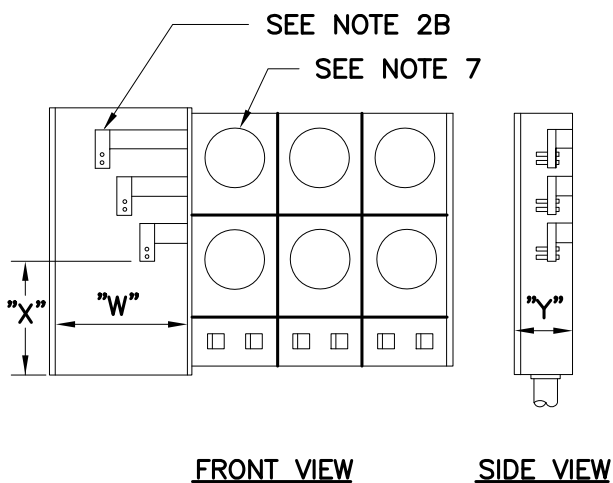


FIGURE 4

TYPICAL SERVICE TERMINATING ARRANGEMENT. 3 –6 METERS (201 – 600 AMPS)

EQUIPMENT RATING	"W"	"Y"	"X"
AMPERES (CONTINUOUS)	NOTE 6		NOTES 3 & 4
0-200 AMPS	6-1/2" MIN.	5-1/2" MIN.	11" MIN.
201-600 AMPS	10-1/2" MIN.	6" MIN.	22" MIN.

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY		 COMBINATION TERMINATING ENCLOSURE & MULTI-METER PANELS, RESIDENTIAL SERVICES 6 – METER MAXIMUM SINGLE PHASE 3-WIRE, 600 AMP MAX. 0-600 VOLTS	
REVIEWED			
APPROVED			
REVISION	REV 1		
DATE	10-26-2016	342	

NOTES:

1. PULL SECTION COVERS SHALL BE:
 - A. INDEPENDENT OF OTHER SERVICE EQUIPMENT AND REMOVABLE WITHOUT DISTURBING ADJACENT PANELS.
 - B. REMOVABLE, SEALABLE, PROVIDED WITH TWO LIFTING HANDLES AND LIMITED TO A MAXIMUM SIZE OF 9 SQUARE FEET IN AREA. SEE DRAWING 300, GENERAL NOTES FOR HANDLE AND SEALING REQUIREMENTS.
2. METER PANELS, EITHER SOCKET OR BLANK, SHALL NOT BE HINGED TO A HINGED FILLER PANEL. NON-HINGED FILLER PANELS SHALL
 - A. FOR EQUIPMENT RATED 200 AMPERES (FIGURES 1 AND 2), TERMINATIONS MAY BE ALUMINUM-BODIED, MECHANICAL LUGS WITH A RANGE OF NO. 4 AWG THROUGH 250 KCML. SEE DRAWING 301 FOR TERMINATION CLEARANCE AND SPACING REQUIREMENTS.
 - B. FOR EQUIPMENT RATED 201-600 AMPERES (FIGURES 3 AND 4), TERMINATIONS SHALL BE TWO 1/2" STEEL BOLTS AS SHOWN. SEE DRAWING 347 FOR ADDITIONAL BOLT DETAILS AND TERMINATION CLEARANCE AND SPACING REQUIREMENTS.
3. THE NEUTRAL TERMINATION POSITION SHALL BE IDENTIFIED. A BONDING SCREW OR JUMPER SHALL BE PROVIDED IF THE NEUTRAL TERMINAL IS INSULATED FROM THE ENCLOSURE.
4. FOR EQUIPMENT RATED UP TO 200 AMPERES, THE NEUTRAL TERMINATION HEIGHT MAY BE REDUCED TO 8-12".
5. CROSS-BUSSING OF A DIFFERENT PHASE OR POTENTIAL INSTALLED BEHIND OR BELOW ANY TERMINATING POSITION SHALL BE FULLY INSULATED OR BARRIERED. INSULATING BARRIERS SHALL BE RIGID, NON-FLAMMABLE, RATED FOR THE SERVING VOLTAGE, RESISTANT TO ARC TRACKING, RESISTANT TO PUNCTURE OR DAMAGE BY IMPACT AND ATTACHED WITH NON-CONDUCTIVE FASTENERS.
6. THE MINIMUM PULL SECTION ACCESS OPENING (W) IS MEASURED BETWEEN THE LEFT SIDE AND RIGHT SIDE RETURN FLANGES.
7. SEE DRAWING 353 FOR METER SOCKET AND PANEL REQUIREMENTS.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 COMBINATION TERMINATING ENCLOSURE & MULTI-METER PANELS, RESIDENTIAL SERVICES 6 - METER MAXIMUM SINGLE PHASE 3-WIRE, 600 AMP MAX. 0-600 VOLTS
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	10-26-2016	
		342.1

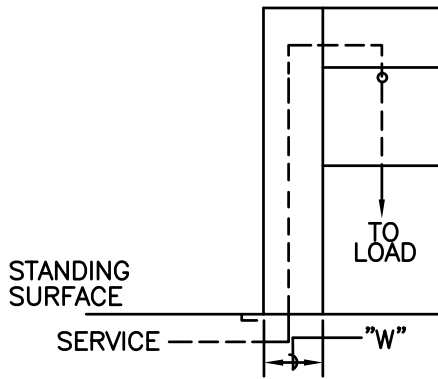


FIGURE 1
400 AMP MAXIMUM
(SEE 345-FIG. 1 FOR DETAILS)
SWITCHBOARD
FULL PULL SECTION

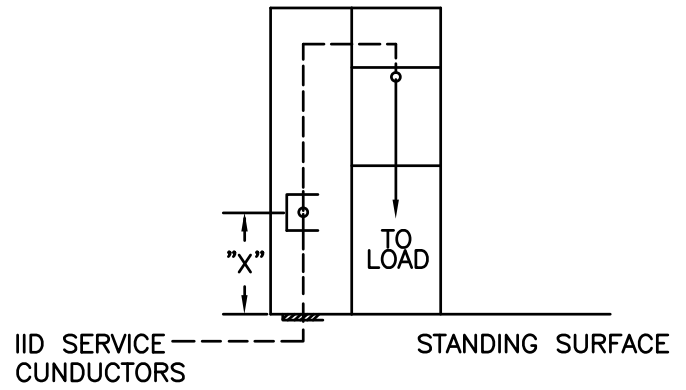


FIGURE 2
401 TO 600 AMP MAXIMUM
(SEE 345-FIG. 2 FOR DETAILS)
FULL PULL SECTION WITH
CUSTOMER TERMINATION BRACKET

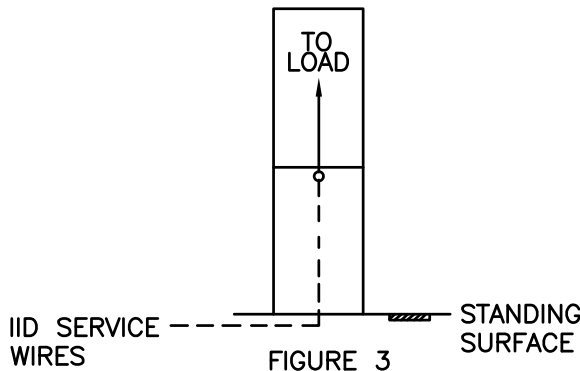


FIGURE 3
601 TO 1000 AMP MAXIMUM
(SEE 345-FIG. 3 FOR DETAILS)

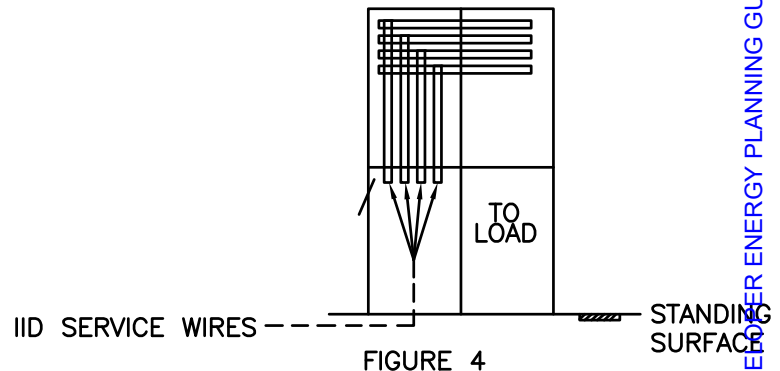


FIGURE 4
1001 TO 4000 AMP MAXIMUM
(SEE 345-FIG. 4 FOR DETAILS)

BOTTOM FEED HALF PULL SECTION FULL PULL SECTION SWITCHBOARD

TABLE 1 MINIMUM PULL SECTION DIMENSIONS – SEE NOTE 10

SWITCHBOARD RATING (AMPERES)	MINIMUM ACCESS OPENING DIMENSION (W) - NOTE 4		TERMINATOIN HEIGHT (X)	CUSTOMER BUSSING
	3- WIRE	4-WIRE		
BELOW 400	CONSULT SERVING AGENCY			OPTIONAL
401 - 600	24"	24"	42" MIN. - 72" MAX.	OPTIONAL
601 - 800	24"	24"	42" MIN. - 72" MAX.	REQUIRED
801 - 1000	24"	30"		
1001 - 1200	24"	30"		
1201 - 2000	30"	35"	60" MIN. - 72" MAX.	REQUIRED
2001 - 3000		42"		
3001 - 4000		44"	60" MIN. - 72" MAX.	REQUIRED

NOTE:
BOTTOM FED PANELS ARE ACCEPTABLE UP TO 1000 AMPERES. FOR PANELS ABOVE 1,000 AMPERES THERE MUST BE A FULL HEIGHT PULL SECTION.

IMPERIAL IRRIGATION DISTRICT			
Drawn By	Sergio Avila		UNDERGROUND SERVICE TERMINATIONS STANDARD SWITCHBOARD SERVICE CONNECTION 400 TO 4000 AMP, 0 – 600 VOLTS
Reviewed	Alfred Ornelas		
Approved	Francisco Fimbres		
Revision	REV-4		
Date	3/25/2022		
		345	

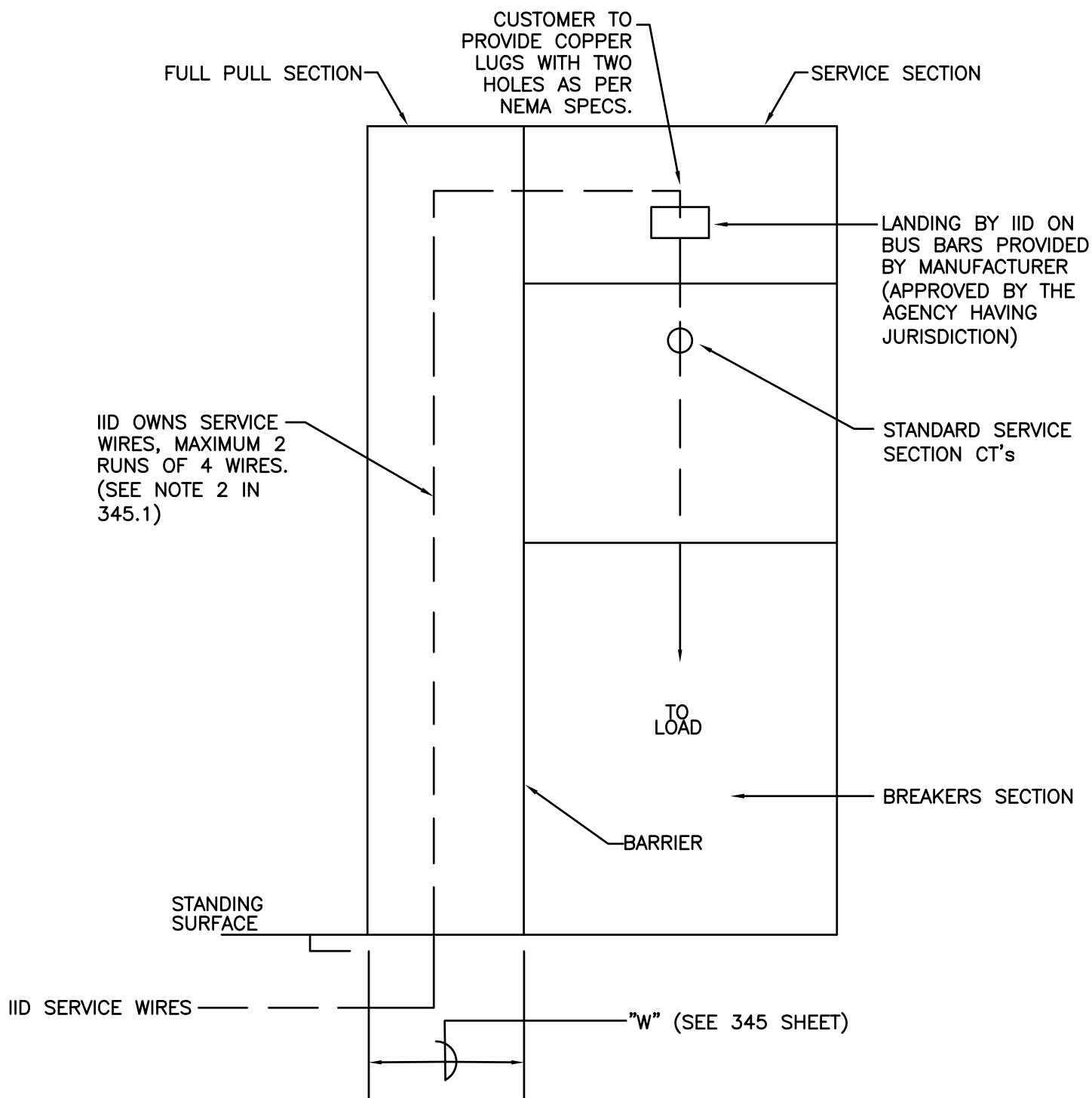
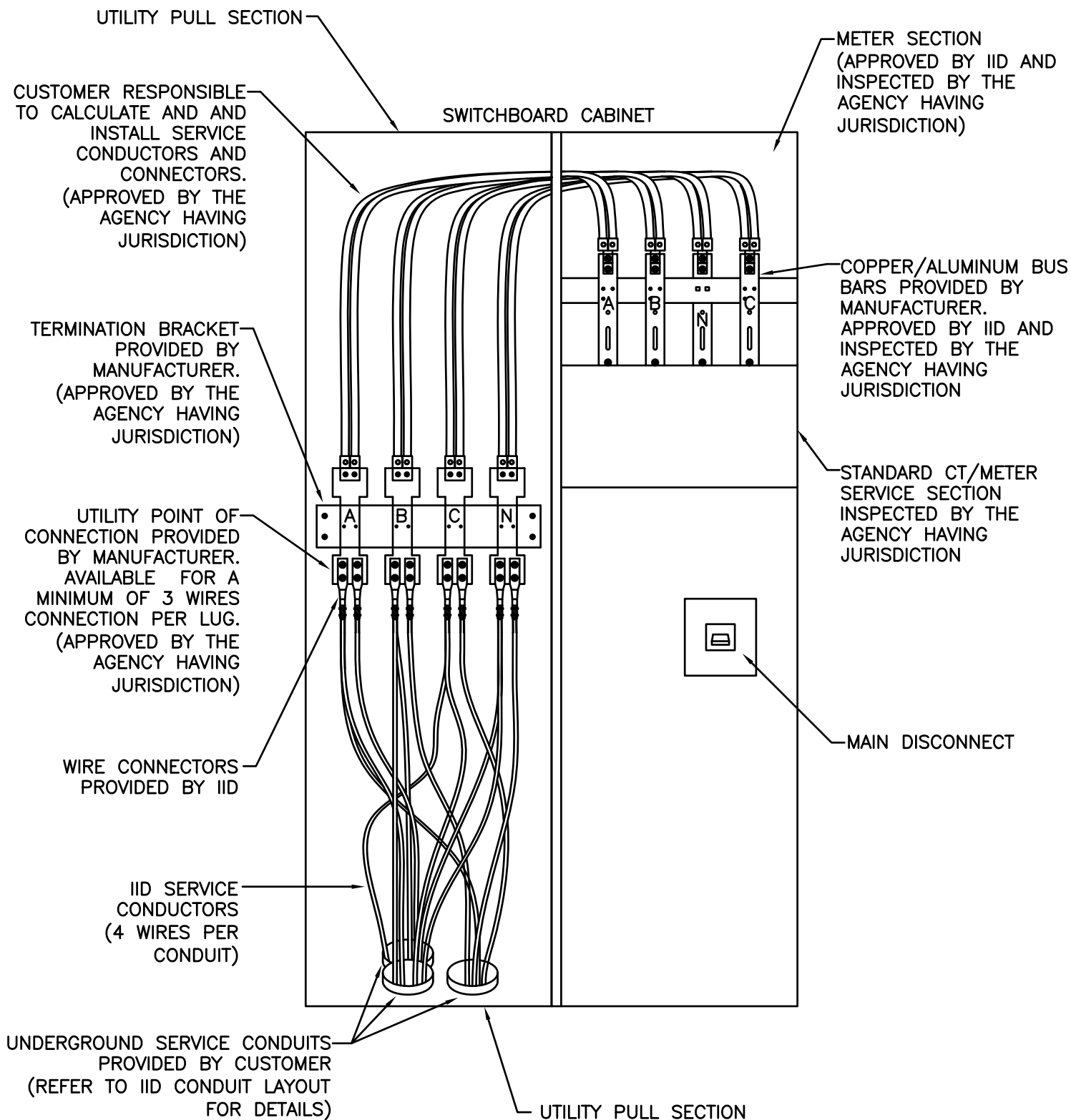


FIGURE 1
UP TO 400 AMP MAXIMUM

SWITCHBOARD FULL PULL SECTION (SEE NOTES ON 345.1)

IMPERIAL IRRIGATION DISTRICT		
Drawn By	Sergio Avila	 UNDERGROUND SERVICE TERMINATIONS STANDARD SWITCHBOARD SERVICED CONNECTION UP TO 400 AMP MAX 0 - 600 VOLTS
Reviewed	Alfred Ornelas	
Approved	Francisco Fimbres	
Revision	REV-4	
Date	3/25/2022	345 (FIG. 1)



SWITCHBOARD FULL PULL SECTION WITH CUSTOMER TERMINATION BRACKET.
(SEE NOTES ON 345.1, 347.1, AND 347.2)

IMPERIAL IRRIGATION DISTRICT		
Drawn By	Sergio Avila	 UNDERGROUND SERVICE TERMINATIONS STANDARD SWITCHBOARD SERVICE CONNECTION 401 TO 600 AMP, 0 – 600 VOLTS
Reviewed	Alfred Ornelas	
Approved	Francisco Fimbres	
Revision	REV-4	
Date	3/25/2022	345 (FIG. 2)

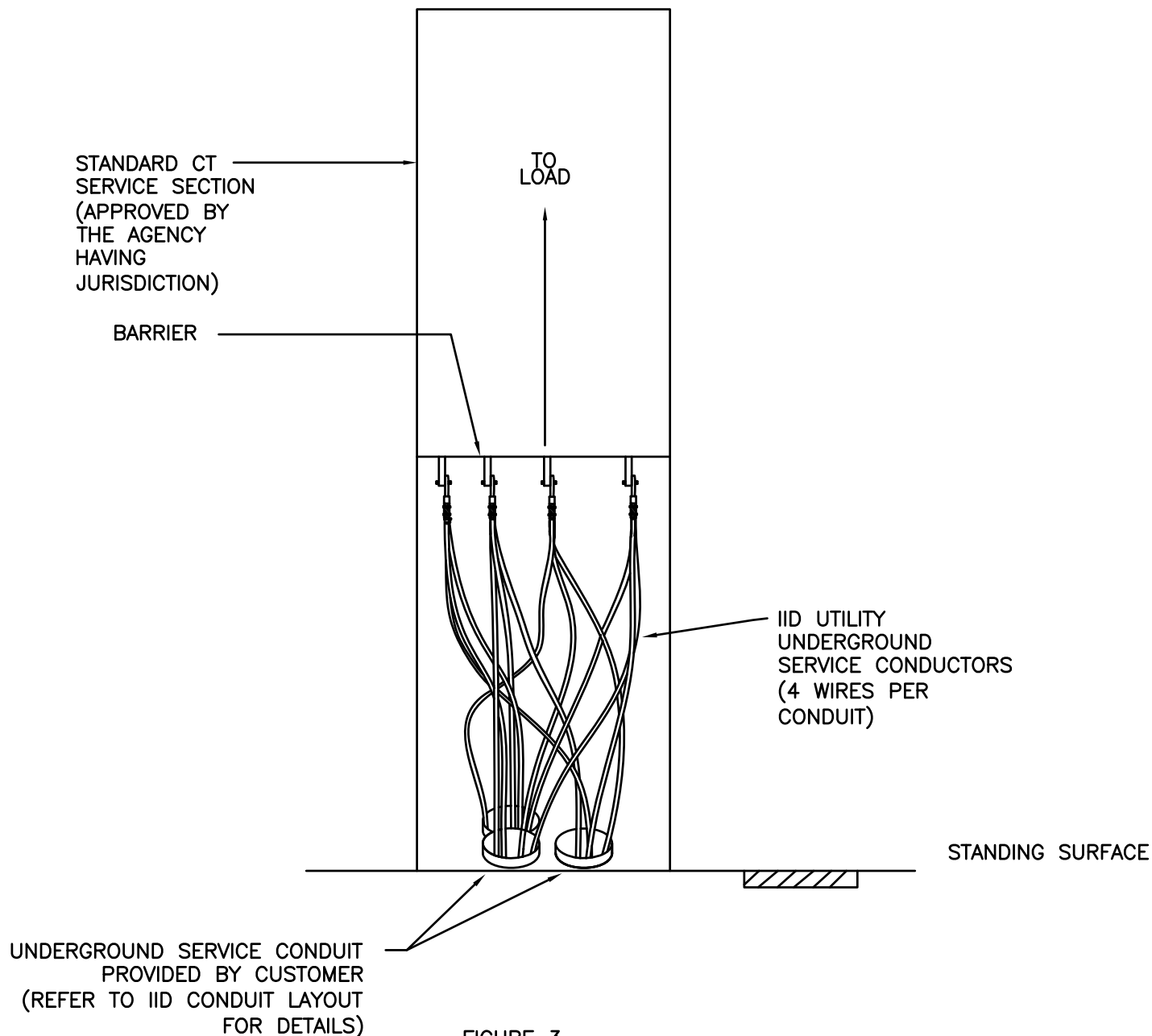
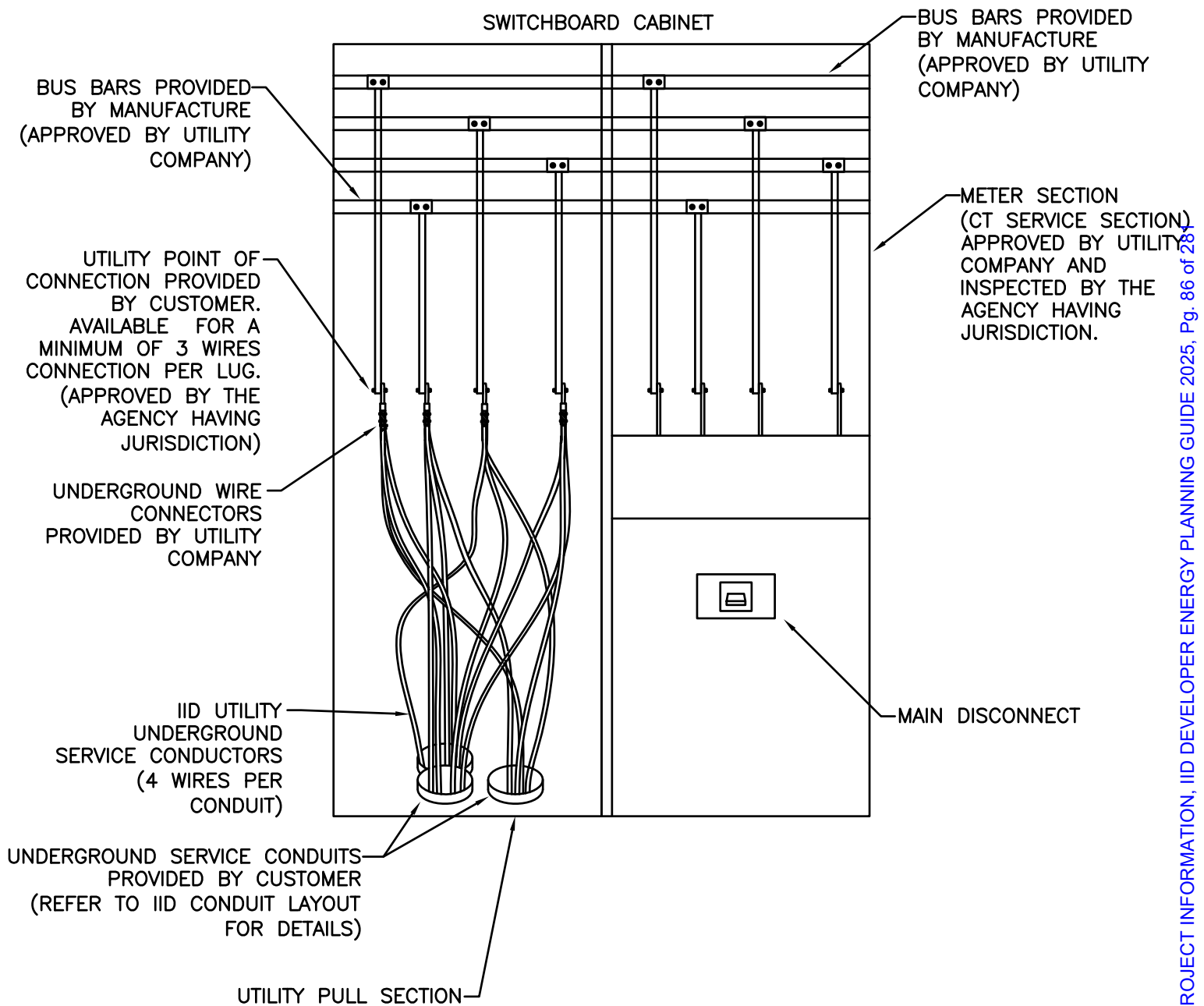


FIGURE 3

601 TO 1000 AMP MAXIMUM

SWITCHBOARD BOTTOM FEED HALF PULL SECTION
(SEE NOTES ON 345.1)

IMPERIAL IRRIGATION DISTRICT		
Drawn By	Sergio Aviula	 UNDERGROUND SERVICE TERMINATIONS STANDARD SWITCHBOARD SERVICE CONNECTION 601 TO 1000 AMP, 0 – 600 VOLTS
Reviewed	Alfred Ornelas	
Approved	Francisco Fimbres	
Revision	REV-4	
Date	3/25/2022	
		345 (FIG. 3)



NOTE:
 BOTTOM FED PANELS ARE ACCEPTABLE UP TO 1,000 AMPERES. FOR PANELS ABOVE 1,000 AMPERES THERE MUST BE A FULL HEIGHT PULL SECTION.

FULL PULL SECTION SWITCHBOARD (SEE NOTES ON 345.1)

IMPERIAL IRRIGATION DISTRICT		
Drawn By	Sergio Avila	 UNDERGROUND SERVICE TERMINATIONS STANDARD SWITCHBOARD SERVICED CONNECTION 1001 TO 4000 AMP, 0 - 600 VOLTS
Reviewed	Alfred Ornelas	
Approved	Francisco Fimbres	
Revision	REV-4	
Date	03/25/2022	345 (FIG. 4)

NOTES:

1. A SWITCHBOARD FULL PULL SECTION IN FIGURE 1, A FULL PULL SECTION WITH TERMINATION BRACKET IN FIGURE 2, A COMBINATION SWITCHBOARD SERVICE SECTION AND PULL SECTION (BOTTOM FEED) WITH BUS BARS IN FIGURE 3, OR A FULL PULL SECTION WITH BUS BARS SHOWN IN FIGURE 4 SHALL BE PROVIDED FOR UNDERGROUND SERVICES.
2. BUS BARS OR CABLES MAY EXTEND FROM THE PULL SECTION INTO SWITCHBOARD SERVICE SECTIONS RATED UP TO 600 AMPERES (REFER TO DRAWING 345 FIG. 1 & 2 FOR DETAILS). BUS BARS ARE REQUIRED WHEN THE SERVICE SECTION RATING EXCEEDS 600 AMPERES OR MULTIPLE METERING IS SUPPLIED (SEE DRAWING 345 FIGURE 3 & 4).
3. THE CUSTOMER WILL BE RESPONSIBLE FOR SUBMITTING THE SWITCHBOARD SPECS TO IID FOR REVIEW AND APPROVAL. WRITTEN APPROVAL WILL BE PROVIDED TO THE CUSTOMER PRIOR TO PURCHASE.
4. THE CUSTOMER WILL BE RESPONSIBLE TO DETERMINE THE SIZE, TYPE AND NUMBER OF CONDUCTORS TO UTILIZE WHEN THE TYPE OF SWITCHBOARD, AS SHOWN IN DRAWING 345 FIG. 2, IS UTILIZED. IT WILL BE CUSTOMER RESPONSIBILITY FOR SUBMITTING SWITCHBOARD APPROVAL INSPECTION LETTER FROM THE AGENCY HAVING JURISDICTION PRIOR TO IID CONSTRUCTION.
5. THE CUSTOMER WILL OWN, OPERATE AND MAINTAIN THE TERMINATION BRACKET USED AS POINT OF CONNECTION IN THE UTILITY PULL SECTION AS WELL AS THE CONDUCTORS THAT GO FROM THE TERMINATION BRACKET UP TO THE METER SECTION. ALSO, THE CUSTOMER WILL BE RESPONSIBLE FOR REPAIR THEM FOR ANY TYPE OF DAMAGE ON HIS OWN EXPENSES (SEE DRAWING 345 FIG. 2).
6. THE CUSTOMER WILL BE RESPONSIBLE FOR CALLING IID FOR TEMPORARY DISCONNECT PRIOR TO ANY TYPE OF OPERATION OR MAINTENANCE TO THE TERMINATION BRACKET INSTALLED IN UTILITY PULL SECTION, AS WELL AS ANY REPAIR, OPERATION OR MAINTENANCE TO THE CONDUCTORS THAT GO FROM THE TERMINATION BRACKET UP TO THE METERING SECTION (SEE DRAWING 345.2 FIG. 2).
7. WHEN THE SERVICE SECTION IS SUPPLIED FROM A SWITCHBOARD PULL SECTION AS SHOWN IN DRAWING 345 FIG. 1, THE BUS BARS OR CABLES SHALL ENTER THROUGH THE SIDE OF THE SEALABLE SECTION ABOVE THE CURRENT-TRANSFORMER COMPARTMENT, OR BY MEANS OF HORIZONTAL CROSS-BUSING IN BACK OF THE METERING COMPARTMENT.
8. WHEN HORIZONTAL CROSS BUSING EXISTS THE SWITCHBOARD PULL SECTION BELOW THE TERMINATING FACILITIES, THE LOWEST CROSS BUS UNIT AND THE TRANSITION BUSSING SUPPLYING THE CROSS BUS UNITS SHALL NOT BE LESS THAN TWO FEET ABOVE THE BOTTOM OF THE ENCLOSURE OR MORE THAN 8" FROM THE BACK OF THE INCLOSURE.
9. THE MINIMUM PULL SECTION ACCESS OPENING (W) IS MEASURED BETWEEN THE LEFT SIDE AND RIGHT SIDE RETURN FLANGES.
10. SIDE OR REAR ENTRY OF SERVICE ENTRANCE CABLES INTO THE PULL SECTION MAY REQUIRE GREATER DIMENSIONS THAN SHOWN IN TABLE 1. CONSULT THE SERVING AGENCY FOR REQUIREMENTS.
11. ALL TERMINATING ENCLOSURES (I.E. PULL BOXES AND PULL SECTIONS) SHALL HAVE FULL FRONT ACCESS. COVER PANELS BE REMOVABLE, SEALABLE, PROVIDED WITH TWO LIFTING HANDLES, AND LIMITED TO A MAXIMUM OF 9 SQUARE FEET IN AREA.
12. SEALING PROVISIONS SHALL CONSIST OF TWO DRILLED STUD AND WING-NUT ASSEMBLIES ON OPPOSITE SIDES OF THE PANELS.
13. SEE DRAWING 347 FOR CONSTRUCTION DETAILS AND CLEARANCE REQUIREMENTS FOR TERMINATING FACILITIES IN PULL BOXES AND PULL SECTION.
14. GROUNDING BUS, WHEN PROVIDED, SHALL BE LOCATED AT THE REAR OF THE TERMINATING ENCLOSURE.

IMPERIAL IRRIGATION DISTRICT		
Drawn By	Sergio Avila	 UNDERGROUND SERVICE TERMINATIONS STANDARD SWITCHBOARD SERVICED CONNECTIONS 400 TO 4000 AMP, 0 – 600 VOLTS
Reviewed	Alfred Ornelas	
Approved	Francisco Fimbres	
Revision	REV-4	
Date	3/25/2022	
		345.1

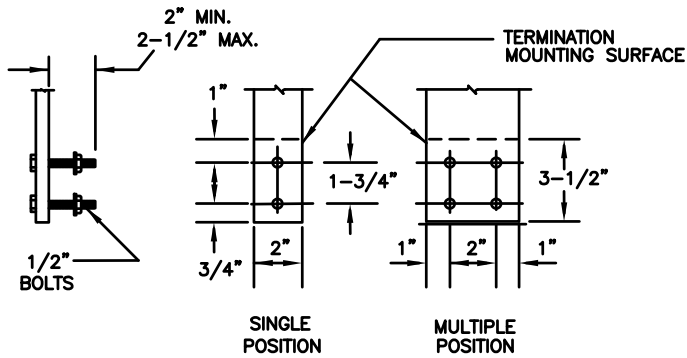


FIGURE 1
TERMINATING BOLT AND DRILLING DETAIL
OF TERMINATING FACILITIES

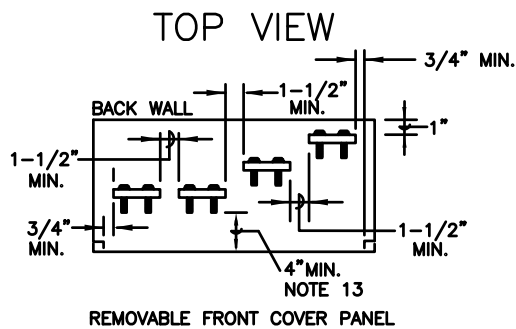


FIGURE 2
SPACING REQUIREMENTS FOR TERMINATING
FACILITIES (SIDE BY OR STAGGERED)

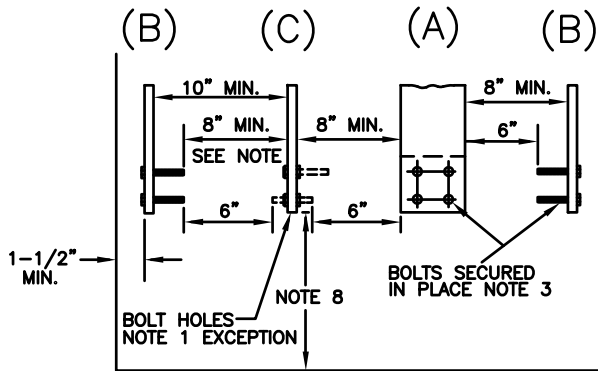


FIGURE 3
SPACING REQUIREMENTS FOR TERMINATING FACILITIES
ACCESSIBLE FROM (A) FRONT ONLY, (B) ONE SIDE ONLY,
OR (C) FROM EITHER SIDE. SEE NOTE 3 AND 4

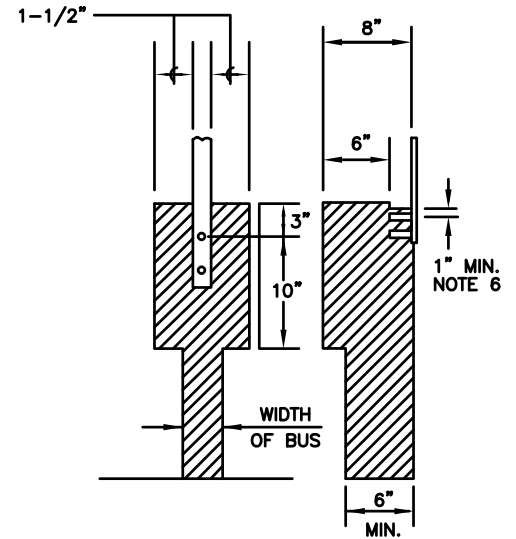


FIGURE 4
REQUIRED UNOBSTRUCTED
WORKING SPACE FOR ALL TERMINATIONS.

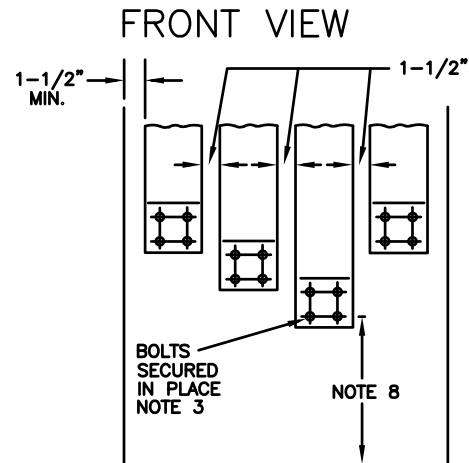


FIGURE 5
SPACING REQUIREMENTS FOR
TOP TO BOTTOM STAGGER
OF TERMINATING FACILITIES

NOTE:

4" MIN. REQUIRED (ASSURE 1" MINIMUM CLEARANCE
FROM BODY OF TERMINATING LUG WHEN IN PLACE
TO FRONT PANEL).

EXCEPTION: SEE NOTE 4 & 5

IMPERIAL IRRIGATION DISTRICT		
Drawn By	Sergio Avila	 UNDERGROUND SERVICE TERMINATING FACILITIES IN PULL BOXES OR PULL SECTIONS 0 - 600 VOLTS
Reviewed	Alfred Ornelas	
Approved	Francisco Fimbres	
Revision	REV-4	
Date	3/25/2022	
		347

NOTES:

1. TWO LANDING POSITION IS REQUIRED FOR EACH 400 AMPERES OF SERVICE AMPACITY OR FRACTION THEREOF (I.E., TWO POSITION FOR UP TO 600 AMPERES, THREE POSITIONS FOR 600 THROUGH 800 AMPERES, FOUR POSITIONS FOR 1,000 AMPERES, ETC.). EACH LANDING POSITION SHALL CONSIST OF TWO 1/2 INCH STEEL BOLTS. THE BOLTS SHALL EXTEND FROM 2-INCHES TO 2-1/2 INCHES FROM THE MOUNTING SURFACE AND BE SPACED ON 1-3/4 INCH VERTICAL CENTERS. WHEN MULTIPLE LANDING POSITIONS PER PHASE ARE REQUIRED, THE HORIZONTAL SPACING BETWEEN THE BOLT POSITIONS SHALL BE 2 INCHES (MINIMUM).

EXCEPTION: EDGEWISE TERMINATING FACILITIES MAY CONSIST OF 9/16 INCH HOLES HAVING THE SAME SPACING AS SPECIFIED FOR THE 1/2 INCH BOLTS AS SPECIFIED ABOVE AND IN FIGURE 1 OF 347. THE UNOBSTRUCTED WORKING SPACE SHALL BE PROVIDED ON BOTH SIDES OF THE TERMINATION BUS (SEE FIGURE 3 OF 347).

2. EACH TERMINATING BOLT SHALL BE PROVIDED WITH A SPRING WASHER AND A NUT. THE SPRING WASHER MAY EITHER A CONE-TYPE (BELLEVILLE) WASHER OR A SPLIT-RING AND A FLAT WASHER. ALL PARTS SHALL BE PLATED TO PREVENT CORROSION.

NOTE: WHEN BELLEVILLE WASHERS ARE USED, THE MANUFACTURER SHALL PROVIDE A LABEL WITH THE REQUIRED TORQUE SETTINGS. THIS LABEL SHALL BE IN A READILY VISIBLE LOCATION WITHIN THE COMPARTMENT THAT THE WASHERS ARE BEING UTILIZED.

3. TERMINATING BOLTS MUST BE SECURED IN PLACE. "SECURED IN PLACE" SHALL MEAN THAT THE STUDS WILL NOT TURN, BACK OUT, OR LOOSEN IN ANY MANNER WHEN TIGHTENING OR LOOSENING TERMINAL NUTS (INCLUDING CROSS-THREADED SITUATIONS). TERMINATING BOLTS SHALL NOT BE USED TO SECURE THE TERMINATION BUS IN PLACE.
4. IN THE TERMINAL MOUNTING AREA, WHICH IS DEFINED AS THE AREA OF THE TERMINATING FACILITIES SHOWN IN FIGURE 1 OF 347, A CLEAR SPACE (BARREL OF PROXIMITY) OF 1-1/2 INCHES MINIMUM IS REQUIRED AROUND ANY TERMINATING FACILITY INCLUDING ITS BOLTS AND BOLT HEADS, ANY OTHER BUS, ANY OTHER TERMINATING FACILITY, OR ANY GROUNDED SURFACE, EXCEPT:
 - A. THE MINIMUM CLEARANCE TO THE BACK OF THE PULL SECTION MAY BE REDUCED TO 1 INCH.
 - B. THE MINIMUM CLEARANCE TO ANY FULLY INSULATED HORIZONTAL BUS BEHIND THE TERMINATING FACILITY MAY BE REDUCED TO 1 INCH.
 - C. THE NEUTRAL TERMINATING FACILITY MAY HAVE A MINIMUM CLEARANCE OF 1 INCH FROM ANY GROUNDED SURFACE.

5. EACH TERMINATING FACILITY SHALL HAVE AN UNOBSTRUCTED WORKING SPACE, ACCESSIBLE FROM THE FRONT OF THE PULL SECTION AS VIEWED FROM THE ACCESS COMPARTMENT OPENING, IN FRONT OF THE ENTIRE MOUNTING SURFACE AS SHOWN IN FIGURE 4 OF 347.

EXCEPTION: FOR TERMINATING FACILITIES WITH BOLTS FACING THE ACCESS OPENING AS SHOWN IN FIGURE 2, THE REQUIRED 1-1/2 INCH SIDE CLEARANCE (BUS TO ACCESS OPENING RETURN FLANGE) MAY BE REDUCED TO 3/4 INCH.

6. THE CLEARANCE DIRECTLY ABOVE THE MEASURED FROM THE CENTER OF THE TOP TERMINATION BOLT MAY BE REDUCED TO 1 INCH TO EITHER AN INSULATED SURFACE OR BUS OF THE SAME POTENTIAL.
7. NO MORE THAN ONE TERMINATION FACILITY MAY BE MOUNTED ALONG ANY SIDEWALL.
8. SEE EUSERC DRAWING NUMBERS 302A, 302B, 342, 343, AND 345 FOR THE MINIMUM DISTANCE FROM THE LOWEST BOLT ON THE TERMINATION FACILITY TO THE BOTTOM OF THE TERMINATION ENCLOSURE.
9. TERMINATING FACILITIES SHALL BE SECURED TO PREVENT TURNING OR BUS MISALIGNMENT WHEN THE CABLES ARE INSTALLED.
10. THE NEUTRAL TERMINATING FACILITY SHALL BE PERMANENTLY IDENTIFIED IN CLEARLY VISIBLE BLOCK LETTERING READING EITHER "NEUTRAL" OR "N".
11. FOR 120/240 VOLT THREE PHASE 4-WIRE DELTA SERVICES, THE POWER LEG (MEASURING 208-VOLT-TO-GROUND) SHALL BE IDENTIFIED WITH AN ORANGE COLOR.
12. CROSS-BUSSING OF A DIFFERENT PHASE OR POTENTIAL INSTALLED BEHIND OR BELOW ANY TERMINATING POSITION SHALL BE FULLY INSULATED OR BARRIERED. INSULATING BARRIERS SHALL BE RIGID, NON-FLAMMABLE, RATED FOR THE SERVING VOLTAGE, RESISTANT TO ARC TRACKING, RESISTANT TO PUNCTURE OR DAMAGE BY IMPACT AND ATTACHED WITH NON-CONDUCTIVE FASTENERS.

IMPERIAL IRRIGATION DISTRICT		
Drawn By	Sergio Avila	 UNDERGROUND SERVICE TERMINATING FACILITIES IN PULL BOXES OR PULL SECTIONS 0 - 600 VOLTS
Reviewed	Afred Ornelas	
Approved	Francisco Fimbres	
Revision	REV-4	
Date	3/25/2020	
		347.1

NOTES:

13. FOR SWITCHBOARD PULL SECTIONS, THE MINIMUM CLEARANCE FROM ANY ENERGIZED PART TO A REMOVABLE ACCESS COVER PANEL SHALL BE 4 INCHES. THIS CLEARANCE MAY BE REDUCED TO 1-1/2 INCHES WHEN A SAFETY BARRIER IS PROVIDED BY THE MANUFACTURER. THE SAFETY BARRIER SHALL:
 - A. BE CONSTRUCTED OF A RIGID INSULATING MATERIAL, RESISTANT TO DAMAGE BY IMPACT OR PUNCTURE, WITH A MINIMUM THICKNESS OF 1/8 INCH.
 - B. EXTEND A MINIMUM OF 10 INCHES BELOW TERMINATING BUS AND EXTEND UPWARD TO COVER ALL ENERGIZED PARTS THAT INFRINGE INTO THE 4 INCH MINIMUM CLEARANCE DIMENSION, AND BE REMOVABLE.
 NOTE: BRACKETS AND ASSOCIATED HARDWARE USED TO MOUNT THE SAFETY BARRIER SHALL NOT EXTEND INTO THE PROVIDED ACCESS OPENING.
 - C. HAVE A CAUTION SIGN AFFIXED TO THE BARRIER READING "WARNING: THE BARRIER MUST BE INSTALLED BEFORE REPLACING PULL SECTION COVERS". ADDITIONAL CAUTION SIGNS SHALL BE AFFIXED TO EXTERIOR OF EACH SECTION ACCESS COVER READING "DO NOT REPLACE PULL SECTION COVERS UNTIL SAFETY BARRIER IS IN PLACE".
 - D. SCREWS OR BOLTS REQUIRING SPECIAL TOOLS FOR INSTALLATION OR REMOVAL ARE NOT ACCEPTABLE.

IMPERIAL IRRIGATION DISTRICT		
Drawn By	Sergio Avila	 UNDERGROUND SERVICE TERMINATING FACILITIES IN PULL BOXES OR PULL SECTIONS 0 – 600 VOLTS
Reviewed	Alfred Ornelas	
Approved	Francisco Fimbres	
Revision	REV-4	
Date	3/25/2022	
		347.2

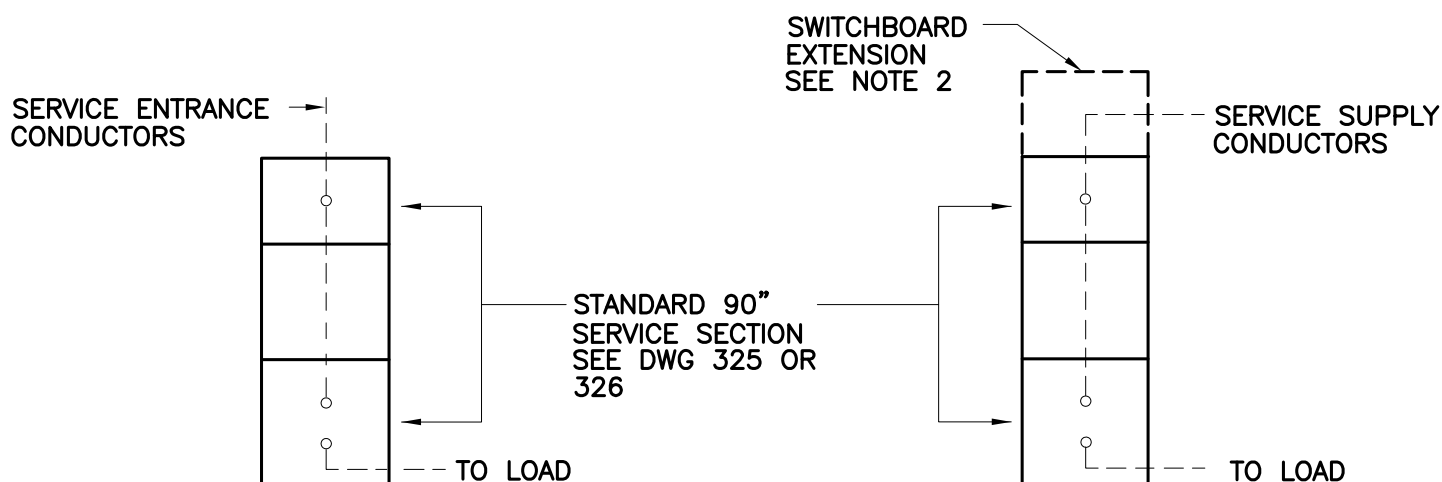


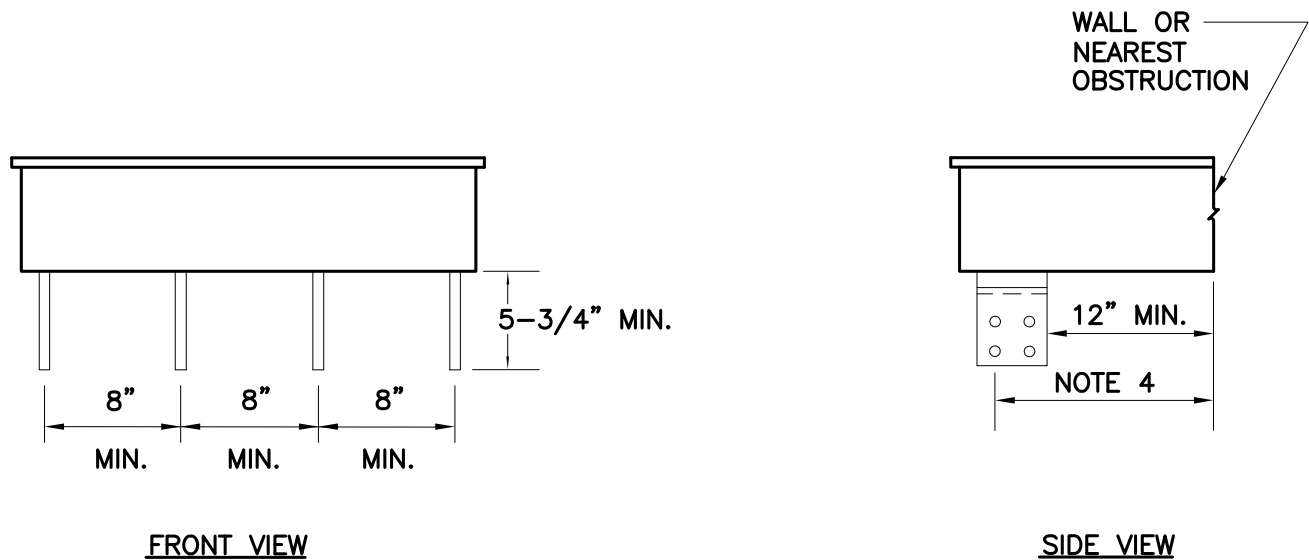
FIGURE 1

FIGURE 2

NOTES:

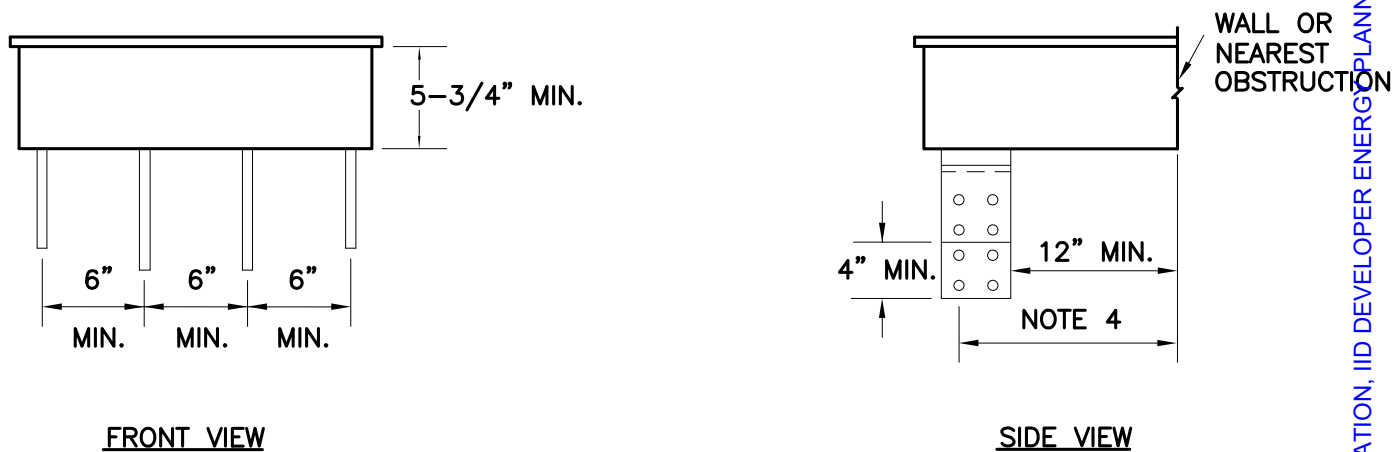
1. THE SERVICE ENTRANCE CONDUCTORS, FIGURE 1, EITHER CABLE OR BUS BAR, ARE FURNISHED AND INSTALLED BY THE CUSTOMER IN THE FOLLOWING MANNER:
 - A. WHEN SWITCHBOARDS ARE SERVED THROUGH BUS BAR CONDUCTORS, THE CONDUCTORS SHALL ENTER THROUGH THE TOP, OR AT THE SIDE OR BACK IN THE UPPER 10" SECTION.
 - B. WHEN SWITCHBOARDS ARE SERVED THROUGH CABLE CONDUCTORS, THE CONDUCTORS SHALL ENTER THROUGH THE TOP OF THE BOARD ONLY, AS SHOWN FIGURE 1.
2. WHEN THE SERVING AGENCY OR CUSTOMER REQUIRES INCOMING CONDUITS FROM THE SIDE OR REAR FOR THE SERVICE CONDUCTORS, AN EXTENSION AS SHOWN IN FIGURE 2, OR OTHER SPECIAL DESIGNED TERMINATION MAY BE REQUIRED. CONSULT THE SERVING AGENCY FOR THE EXTENSION DIMENSIONS.
3. THE DIRECTION OF FEED IS FROM TOP TO BOTTOM IN THE STANDARD SWITCHBOARD SERVICE SECTION. LOAD CONDUCTORS SHALL LEAVE BELOW THE METERING COMPARTMENT AND MAY NOT BE ROUTED BACK THROUGH THE CURRENT TRANSFORMER COMPARTMENT IN ORDER TO EXIT THE SERVICE SECTION.
4. SERVICE ENTRANCE CONDUCTORS SHALL BE CONNECTED TO THE BUSSING IN THE SERVICE SECTION WITH LUGS APPROVED BY THE SERVING AGENCY FOR THE TYPE CONDUCTORS USED.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 OVERHEAD SERVICE TERMINATION STANDARD SWITCHBOARD SERVICE SECTION 0 TO 600 VOLTS
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	11-3-2016	348



TERMINATING FACILITIES SAME LENGTH (4-WIRE SHOWN)

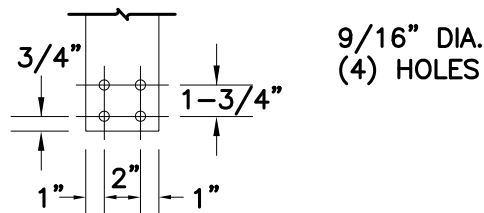
FIGURE 1



TERMINATING FACILITIES STAGGERED (4-WIRE SHOWN)

FIGURE 2

CLEARANCES INDICATED ARE FOR
SINGLE LUG MOUNTING ONLY,
NOT MULTIPLE STACKING LUGS



DRILLING DETAIL FOR TERMINALS
(800 AMPERE TERMINAL SHOWN)
SEE NOTE 1, 2 AND 3

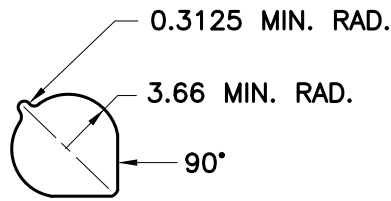
FIGURE 3

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>JK</i>	 BUSWAY SERVICE HEAD, SINGLE LUG MOUNTING SINGLE PHASE 3-WIRE AND THREE PHASE 3-WIRE THREE PHASE 4-WIRE, 0 - 600 VOLTS
REVIEWED	<i>PD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 1	
DATE	11-7-2016	349

NOTES:

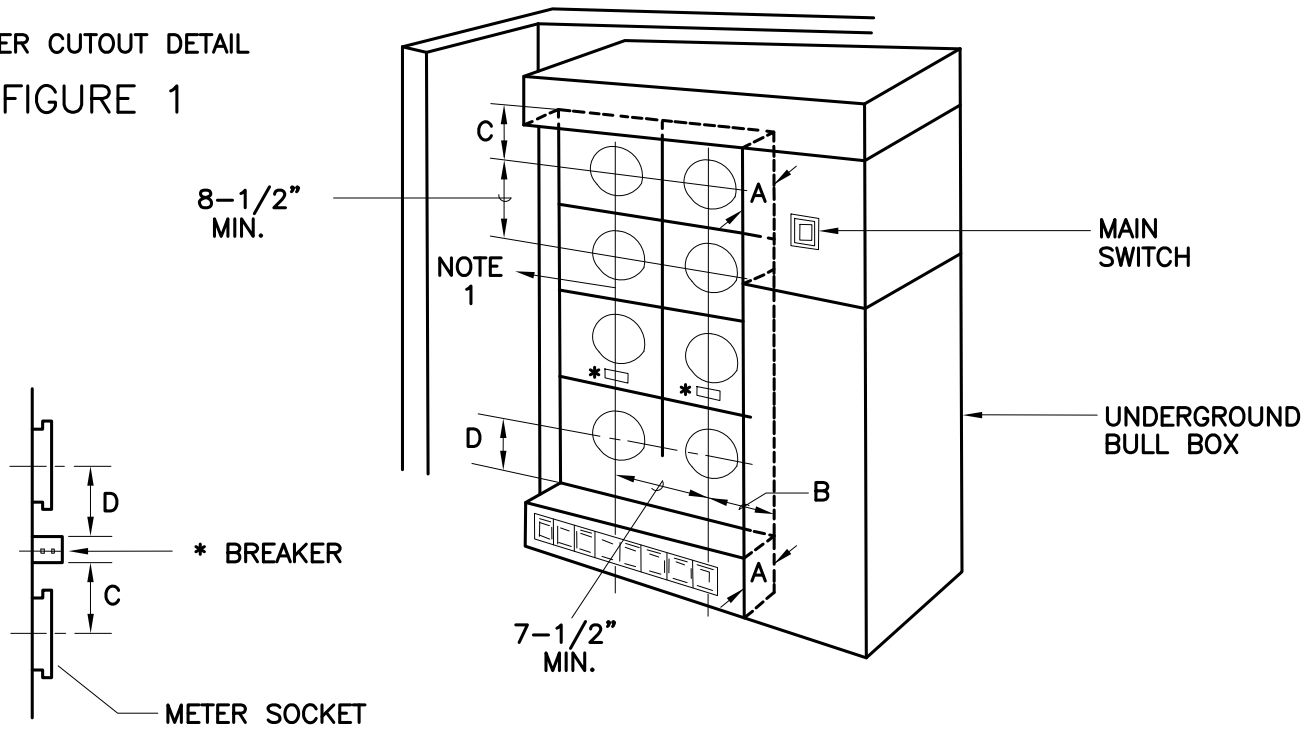
1. ONE TERMINAL LANDING POSITION IS REQUIRED FOR EACH 400 AMPERES OF SERVICE AMPACITY (OR PORTION THEREOF). EACH LANDING POSITION SHALL CONSIST OF TWO 9/16" HOLES SPACED ON 1-3/4" VERTICAL CENTERS. WHEN MULTIPLE LANDING POSITIONS ARE REQUIRED, THE HORIZONTAL SPACING BETWEEN LANDING POSITIONS SHALL BE 2" (MINIMUM).
2. NEUTRAL TERMINAL SHALL BE PERMANENTLY MARKED BY THE MANUFACTURER.
3. FOR 240/120 VOLTS THREE PHASE 4-WIRE SERVICES, THE POWER LEG ("C" PHASE) TERMINAL SHALL BE PERMANENTLY MARKED IN ORANGE COLOR BY THE MANUFACTURER.
4. THE MAXIMUM DIMENSION FROM THE BUILDING OR NEAREST OBSTRUCTION TO THE OUTERMOST LANDING POSITION SHALL NOT EXCEED 25" UNLESS APPROVED BY THE SERVING UTILITY.
5. SERVICE HEADS WITH ENCLOSED TERMINATING POSITIONS ARE NOT PERMITTED.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 BUSWAY SERVICE HEAD, SINGLE LUG MOUNTING SINGLE PHASE 3-WIRE AND THREE PHASE 3-WIRE THREE PHASE 4-WIRE, 0 - 600 VOLTS
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	11-7-2016	349.1



METER CUTOUT DETAIL

FIGURE 1



SIDE VIEW DETAIL

FIGURE 2

* ALTERNATE BREAKER POSITION BELOW METER SOCKET
SEE SIDE VIEW DETAIL FOR CLEARANCE DIMENSION.

DIMENSIONS - INCHES			
"A" (PROTRUSIONS)	"B" MIN.	"C" MIN.	"D" MIN.
0 (NO PRTRUSION)	3-3/4"	4"	4-3/4"
GREATER THAN 0" TO 1-1/8"	4-1/4"	4"	4-3/4"
GREATER THAN 1-1/8" TO 2"	4-1/4"	4-1/4"	6-1/4"
GRATER THAN 2" T 4"	6-1/4"	4-1/4"	8"
GRATER THAN 4" T 11" MAX.	6-1/4"	10"	8"

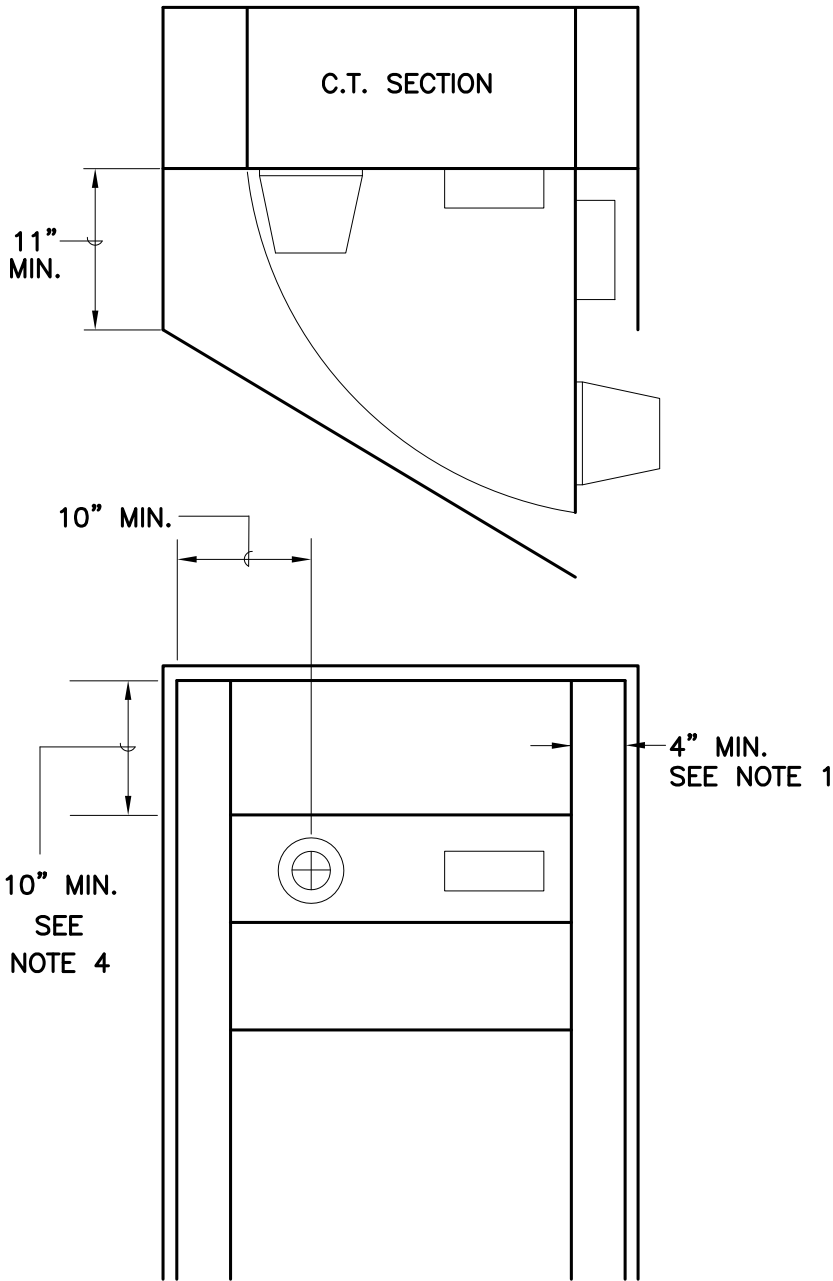
IMPERIAL IRRIGATION DISTRICT			
DRAWN BY		 CLEARANCES FOR RESIDENTIAL MULTIPLE METERING INSTALLATIONS	353
REVIEWED			
APPROVED			
REVISION	REV 1		
DATE	11-7-2016		

NOTES:

1. WHERE AN ADJACENT WALL OR OTHER OBSTRUCTION EXTENDS MORE THAN 11" PERPENDICULAR FROM THE FACE OF THE METER PANEL, A 10" MINIMUM DIMENSION TO THE METER SOCKET AXIS IS REQUIRED. FOR OBSTRUCTIONS EXTENDING 11" OR LESS FROM THE METER PANEL, THE SIDE CLEARANCE SHALL CONFORM TO THAT OF DIMENSION "B".
2. PANELS SHALL BE REMOVABLE TO PROVIDE ACCESS TO THE CUSTOMERS EQUIPMENT WITH THE UTILITY METERS AND TAMPERPROOF SEALING RINGS IN PLACE. WHEN THERE IS MORE THAN ONE METER SOCKET PER PANEL, THE MINIMUM METER CUTOUT OPENING, AS DETAILED IN FIGURE 1 ABOVE SHALL APPLY.
3. UNDERGROUND LUGS SHALL NOT BE PLACED UNDER ANY SOCKET COVER.
TERMINAL IS INSULATED FROM THE ENCLOSURE.
4. DIMENSION "B" SHALL BE INCREASED BY THE AMOUNT THAT THE MAIN SWITCH DOOR, INCLUDING OPERATING HANDLE, REDUCES THE CLEARANCE WHEN OPENED 90 DEGREES.
5. SEE DRAWING 300 II D METER HEIGHTS FOR METER MAXIMUM AND MINIMUM HEIGHTS.
TERMINAL IS INSULATED FROM THE ENCLOSURE.
6. REMOVABLE METER PANEL COVERS SHALL NOT EXCEED 6 SQUARE FEET IN AREA.
7. DISTRIBUTION CONDUCTORS SHALL BE BARRIERED FROM METERING COMPARTMENT.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 CLEARANCES FOR RESIDENTIAL MULTIPLE METERING INSTALLATIONS
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	11-7-2016	
		353.1

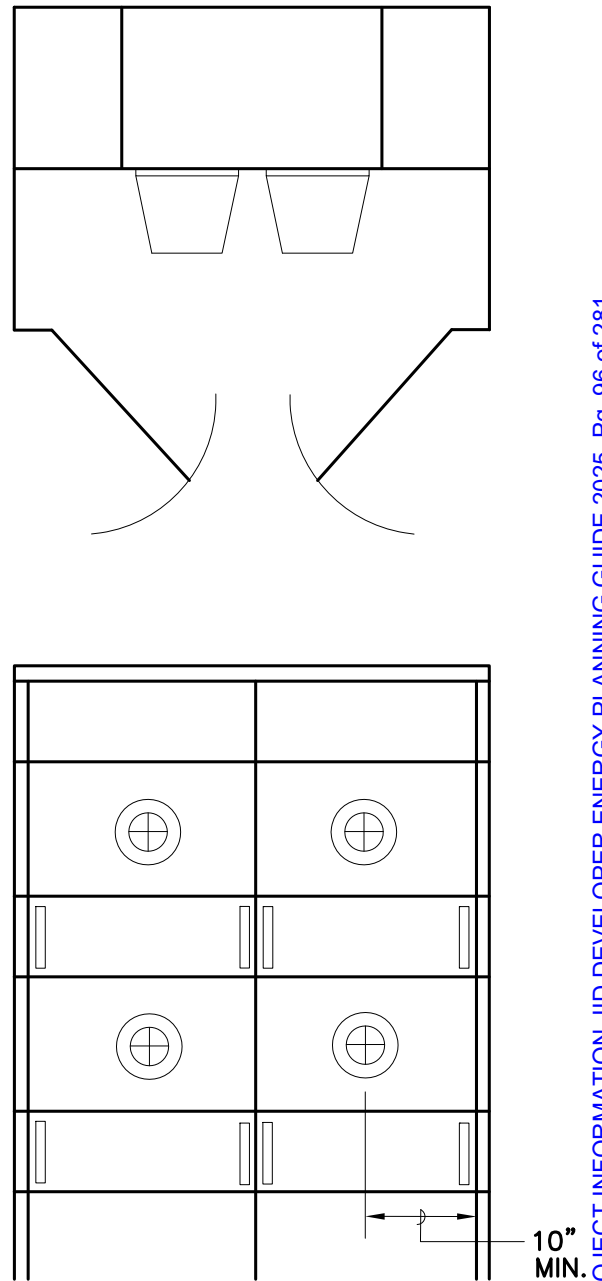
TOP VIEW



FRONT VIEW

FIGURE 1

TOP VIEW



FRONT VIEW

FIGURE 2

NOTES:

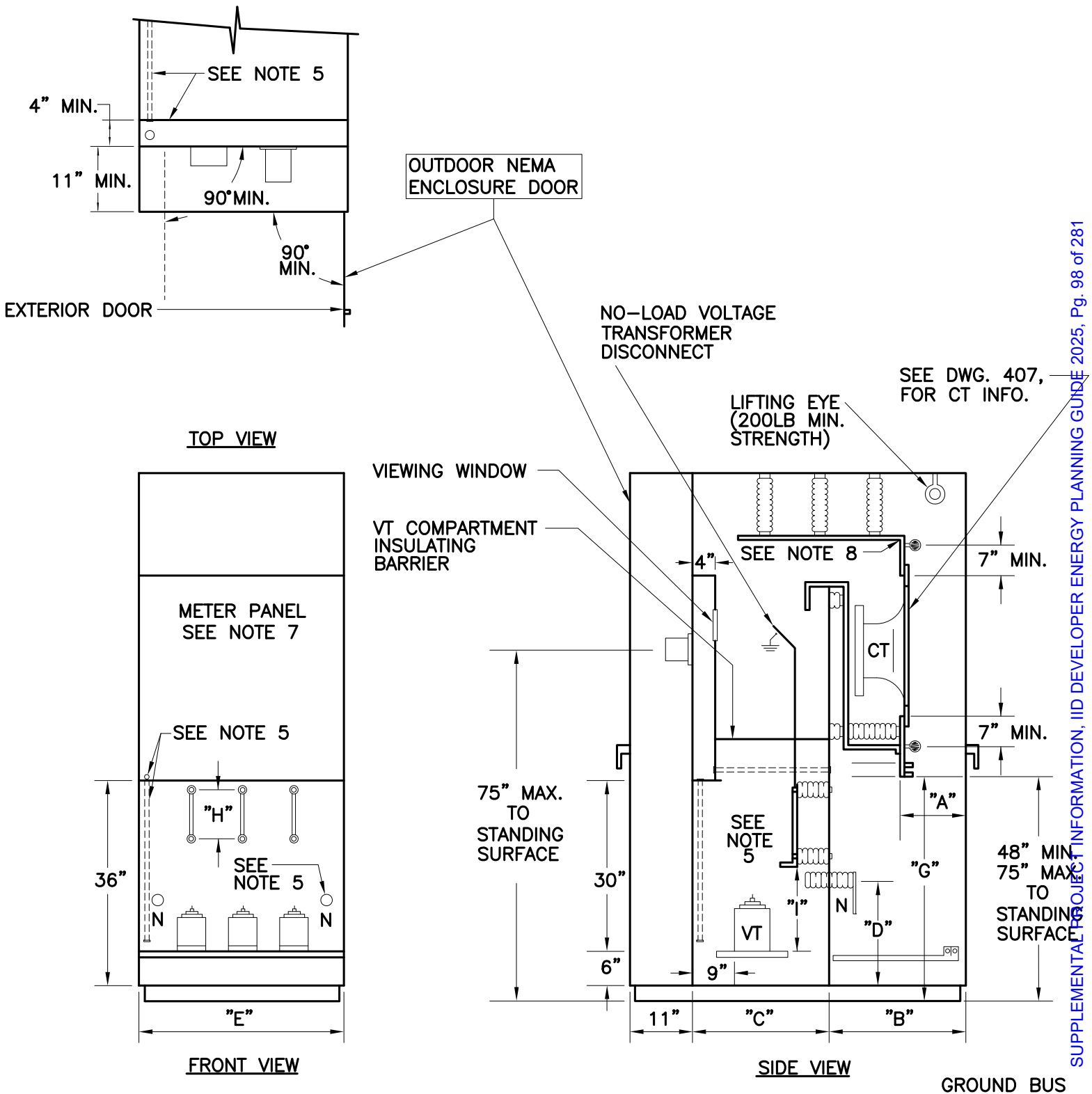
- HINGED METER PANEL SHALL BE CAPABLE OF BEING OPENED 90-DEGREES WITH METER AND TEST FACILITIES IN PLACE, AND PROVIDE THE FOLLOWING CLEARANCES TO ANY OBSTRUCTION - 11" AT THE METER SOCKET AND 4" AT THE TEST-SWITCH SLOTTED OPENING. SEE DRAWING 332 FOR HINGED METER PANELS CONSTRUCTION DETAILS.
- METER PANELS, EITHER SOCKET OR BLANK, SHALL NOT BE HINGED TO A HINGED FILLER PANEL. NON-HINGED FILLER PANELS SHALL VAULT LID WILL HAVE AN OFFSET OF 12" (1') BEHIND SIDEWALK.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>GR</i>	 OUTDOOR OR RAIN TIGHT ENCLOSURES FOR SWITCHBOARDS 0 - 600 VOLTS
REVIEWED	<i>RD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 1	
DATE	10-11-2016	354

NOTES:

3. ENCLOSURE DOORS PROVIDING ACCESS TO UTILITY COMPARTMENTS (I.E., METERING SECTIONS AND PULL SECTIONS) SHALL BE:
 - A. EQUIPPED WITH A DEVICE TO SECURE THE DOORS IN THE OPEN POSITION AT 90-DEGREES OR MORE.
 - B. SECURED IN THE CLOSED POSITION WITH A SINGLE, HANDLE-OPERATED, LATCHING SYSTEM. WHEN PROVIDED WITH A LOCKING MEANS, EACH DOOR, OR SET OF DOORS, SHALL BE EQUIPPED WITH AN APPROVED DOUBLE-LOCKING DEVICE, ACCEPTING PADLOCKS WITH A 5/16" LOCK SHAFT, TO ALLOW ACCESS BY BOTH THE SERVING UTILITY AND THE CUSTOMER.
4. DIMENSION MAY BE REDUCED IF THE SERVICE SECTION IS SUPPLIED FROM HORIZONTAL CROSS-BUSSING OR BUS DUCT.

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY			OUTDOOR OR RAIN-TIGHT ENCLOSURES FOR SWITCHBOARDS 0 – 600 VOLTS
REVIEWED			
APPROVED			
REVISION	REV 1		
DATE	10-11-2016		
		354.1	



SUPPLEMENTAL PROJECT INFORMATION, IID DEVELOPER ENERGY PLANNING GUIDE 2025, Pg. 98 of 281

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 HIGH VOLTAGE METERING ENCLOSURE 2400 TO 15000 VOLT SERVICE
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	11-7-2016	401

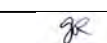
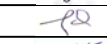
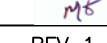
SPECIFICATIONS	VOLTAGE RATING	
	4800 MAX.	4801 - 15000
MINIMUM BARE BUS CLEARANCE PHASE TO GROUND	3-1/2"	6"
MINIMUM BARE BUS CLEARANCE PHASE TO PHASE	5"	7-1/2"
DIMENSION "A"	5" MIN. 10" MAX	8" MIN.
	10" MAX.	10" MAX.
DIMENSION "B"	24" MIN.	24" MIN.
DIMENSION "C"	24" MIN.	24" MIN.
DIMENSION "D"	18" MIN.	18" MIN.
DIMENSION "E"	48" MIN.	48" MIN.
DIMENSION "G" (*SEE NOTE BELOW)	36-3/4" MIN.	36-3/4" MIN.
DIMENSION "H" FUSE MOUNTING (**) CLIP CENTER	8-1/2"	11-1/2"
DIMENSION "H" FUSE FERRULE DIAMETER	1-5/8"	1-5/8"
DIMENSION "I"	18"	18"

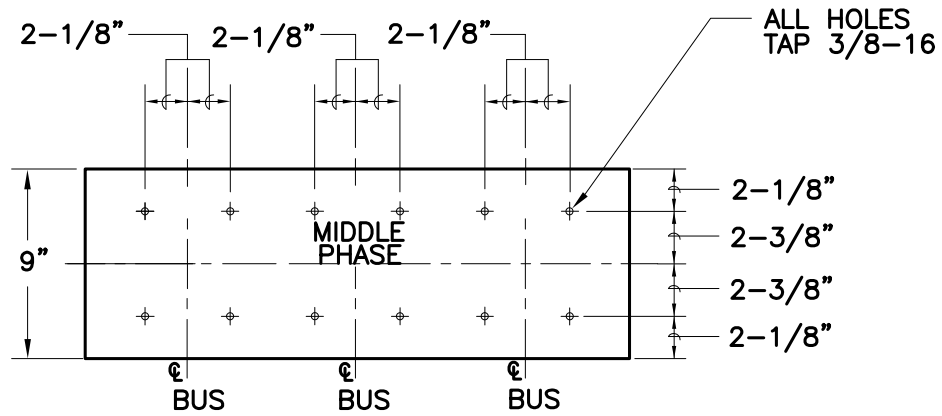
* DIMENSION "G" APPLIES WHEN USED AS A CABLE TERMINATION SECTION. CONSULT UTILITY.

** FUSE CENTERLINE SHALL BE ADJUSTED TO ALLOW FUSE VOLTAGE SELECTION AT NOT LESS THAN 70% OF THE ACTUAL SYSTEM VOLTAGE APPLICATION.

NOTES:

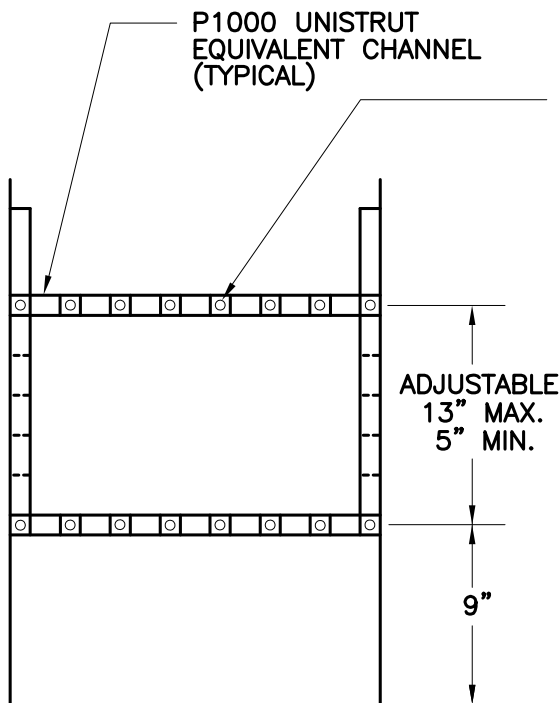
1. FOR REAR ACCESS DOOR REFER TO DWG 400, NOTE 7.
2. CONSULT SERVING UTILITY FOR NEUTRAL REQUIREMENTS IN 4 WIRE APPLICATIONS.
3. PROVIDE FULL VOLTAGE AND BIL INSULATED NEUTRAL BUSHING FOR CONNECTION TO V.T. COMPARTMENT.
4. PRIMARY TAPS FOR V.T.'S SHALL BE CONNECTED TO LINE SIDE OF METERING C.T.'S.
5. ONE INCH NON METALLIC V.T. AND C.T. CONDUITS SHALL BE LOCATED ON HINGED SIDE OF THE METER PANEL AT MAXIMUM HEIGHT OF 75" ABOVE THE STANDING SURFACE.
6. THE GROUNDING BUS SHALL EXTEND ON EITHER LEFT OR RIGHT SIDE OF THE ACCESS AREA OF THE C.T. COMPARTMENT. THE GROUNDING TERMINALS FOR USE WITH THE BALL STUDS SHALL BE TWO ALUMINUM-BODIED MECHANICAL LUGS ACCEPTING A RANGE OF 6 AWG THROUGH 250 KCMIL CONDUCTORS, AND SHALL BE IDENTIFIED WITH A LABEL READING **"SAFETY GROUNDING POINT FOR UTILITY USE ONLY"**
7. FOR SINGLE SOCKET METER PANEL REQUIREMENTS SEE DRAWING 408. FOR DUAL SOCKET PANEL REQUIREMENTS SEE DRAWING 409.
8. BALL STUDS (1/2" - 13 THREADS WITH INSULATING COVERS) FOR THE ATTACHMENT OF SAFETY GROUNDS SHALL BE PROVIDED ON THE LINE AND LOAD SIDE OF THE CURRENT TRANSFORMER (C.T.) BUS UNITS. THE STUDS SHALL BE LOCATED NO LESS THAN 7" FROM THE END OF THE BUS UNIT AND ORIENTED TOWARD THE COMPARTMENT ACCESS OPENING.

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY			HIGH VOLTAGE METERING ENCLOSURE 2400 TO 15000 VOLT SERVICE TITLE#3
REVIEWED			
APPROVED			
REVISION	REV 1		
DATE	11-7-2016	401.1	

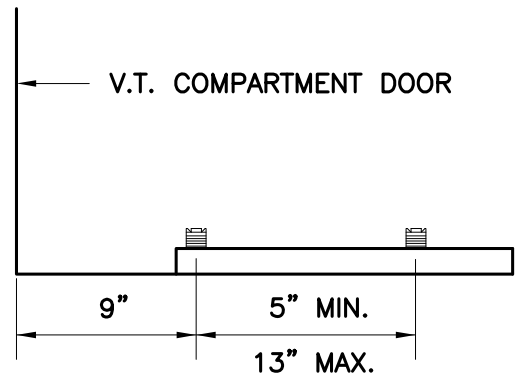


CURRENT TRANSFORMER MOUNTING BASE

NOTE: CENTER THE MOUNTING BASE BETWEEN THE UPPER AND LOWER CURRENT – TRANSFORMER BUS UNITS.



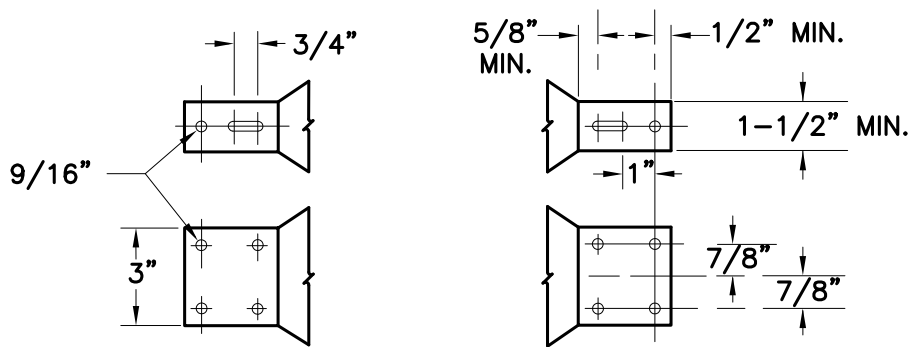
TOP VIEW OF COMPARTMENT
VOLTAGE TRANSFORMER
MOUNTING RAIL DETAIL



SIDE VIEW OF V.T. MOUNTING

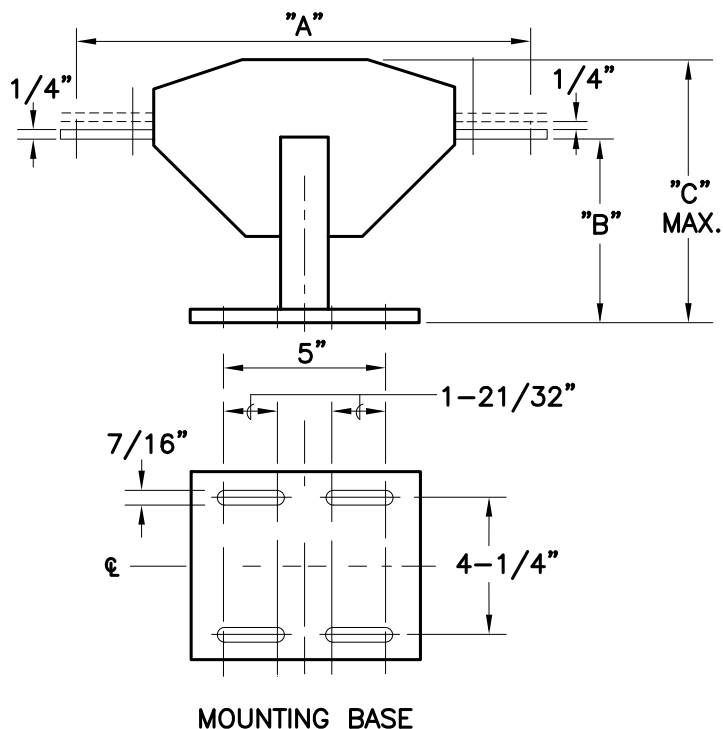
IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>JK</i>	 MOUNTING PATTERN FOR INSTRUMENT TRANSFORMERS 2400 – 27000 VOLT SERVICE CONSULT UTILITY FOR 15001 VOLTS AND HIGER
REVIEWED	<i>PD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 1	
DATE	11-9-2016	407

PRIMARY RATING
800 AMPS OR LESS



PRIMARY RATING OVER
800 AMPS, 4 BOLT
MOUNTING AT EACH
C/T END

1/4" APPLIES TO MULTIPLE
BAR THICKNESS. SINGLE
BAR THICKNESS MAY BE
FROM 3/16" TO 3/8".



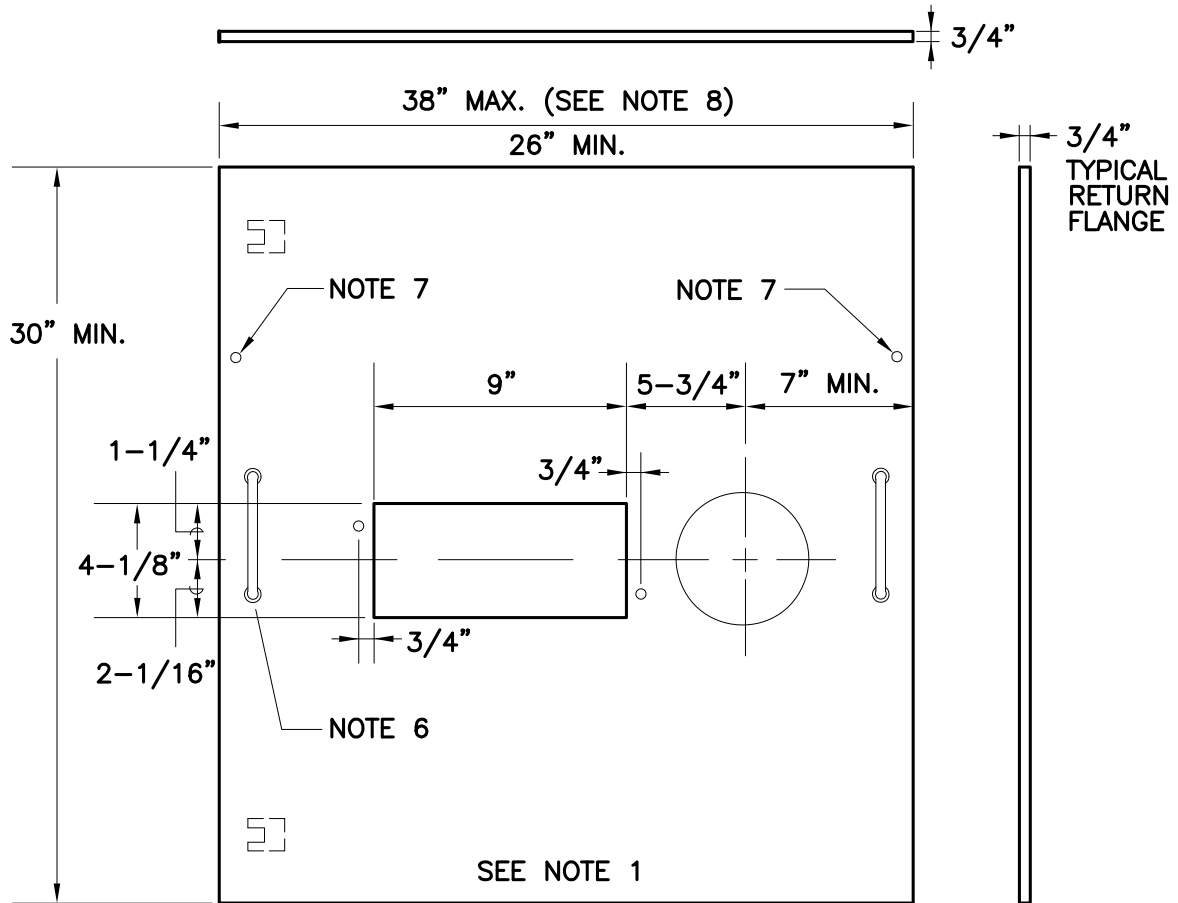
NOTES:
INSULATION CLASSES ARE 5,
8.7 AND 15KV.

BASIC IMPULSE INSTALLATION
LEVELS (BIL) FOR THESE
CLASSES ARE 60, 75 AND
110 KV. RESPECTIVELY.

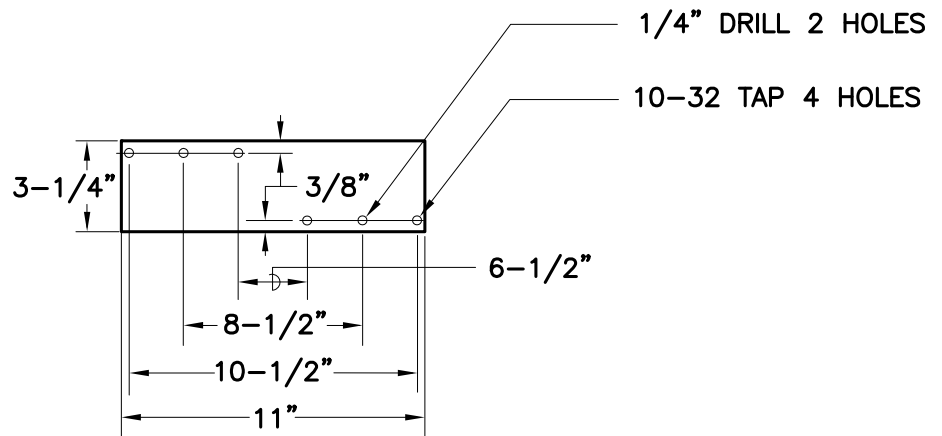
DIMENSIONS IN INCHES*						
INSULATION CLASS KV.	"A"		"B"		"C" (MAXIMUM)	
	AMPERES		AMPERES		AMPERES	
	10-800	1200-2000	10-800	1200-2000	10-800	1200-1200
5.0	14"		5-3/4"		8"	
8.7	15"		8"		10-1/2"	
15.0	22"	26"	9"	5-3/4"	11-1/4"	13"

*UNLESS OTHERWISE INDICATED TOLERANCE, PLUS OR MINUS 1/16".

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 INDOOR CURRENT TRANSFORMER DIMENSIONS FOR METERING PURPOSES 5000 TO 15000 VOLTS
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	11-9-2016	407.1



NOTE: TAP ALL HOLES 10-32
EXCEPT AS NOTED



TEST SWITCH MOUNTING

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>JK</i>	 HINGED METER PANEL WITH SINGLE SOCKET FOR 2400 TO 27000 VOLT SERVICE
REVIEWED	<i>PD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 1	
DATE	11-9-2016	408

NOTES:

1. THE PANEL SHALL BE CONSTRUCTED OF 12 GAUGE (MIN) STEEL AND FURNISHED WITH METER SOCKETS, SEALING RINGS, SLOTTED OPENINGS, A REMOVABLE PLATE FOR INSTALLATION OF A SECONDARY TEST SWITCH. SLOTTED OPENINGS AND REMOVABLE PLATE EDGES SHALL BE SMOOTH TO PREVENT DAMAGE METER WIRING.

NOTE: WHEN A CAST METER MOUNTING RING IS PROVIDED, THE SCREWS USED TO ATTACH TO THE METER PANEL SHALL PROVIDE A MINIMUM 1/8" CLEARANCE BETWEEN THE SCREW HEADS AND THE BACK OF THE RING.

2. THE REMOVABLE PLATES SHALL BE ATTACHED TO THE REAR OF THE PANEL WITH SCREWS THAT DO NOT PROTRUDE THROUGH THE FACE OF THE PANEL.
3. METER SOCKETS SHALL BE DESIGNED FOR BACK CONNECTION.
4. THE PANEL SHALL BE EQUIPPED WITH HINGES. THE HINGES SHALL PERMIT THE PANEL TO OPEN TO 90 DEGREES, AND SHALL BE EASILY INTERCHANGEABLE, RIGHT OR LEFT, ON THE METER SOCKET PANEL. REMOVABLE PIN TYPE HINGES SHALL BE REMOVED THE TOP.
5. THE PANEL SHALL SUPPORT A 25-POUND LOAD APPLIED AT THE UNSUPPORTED END WHEN FULLY OPENED WITH A MAXIMUM SAG OF 1/8".
6. THE PANEL SHALL HAVE A HANDLE ATTACHED TO BOTH SIDES.
7. STUD AND WING NUTS SHALL BE SEALABLE WHEN USED.
8. CONSULT SERVING UTILITY FOR PANEL WIDTH MORE THAN 38".
9. CONSULT SERVING UTILITY METER SOCKET REQUIREMENTS.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 HINGED METER PANEL WITH SINGLE SOCKET FOR 2400 TO 27000 VOLT SERVICE
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	11-9-2016	
		408.1

FIGURE 1

UNBONDED NEUTRAL
(FRONT VIEW)

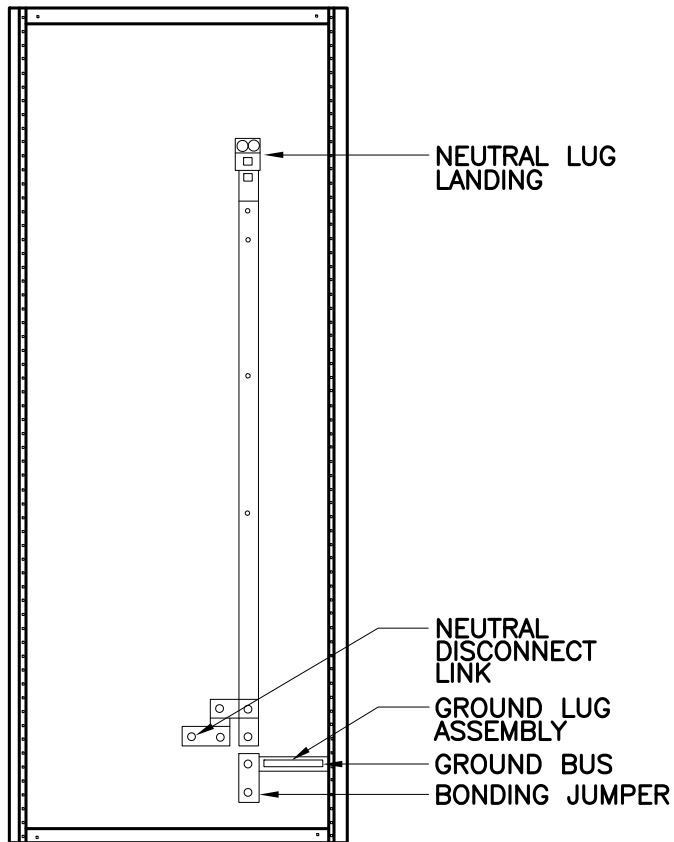
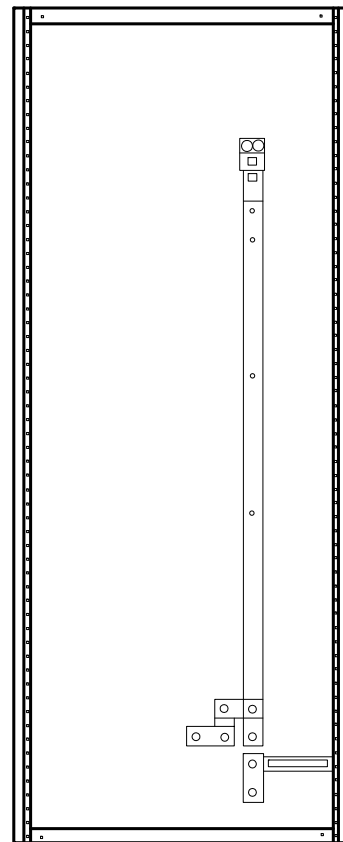


FIGURE 2

BONDED NEUTRAL
(FRONT VIEW)



NOTE: A SYSTEM IS "GROUNDED" IF IT IS GROUNDED AT ANY POINT AHEAD OF THE SWITCHBOARD, WHETHER THE GROUNDED CONDUCTOR (NEUTRAL) IS CARRIED THROUGH TO THE LOADS, OR NOT.

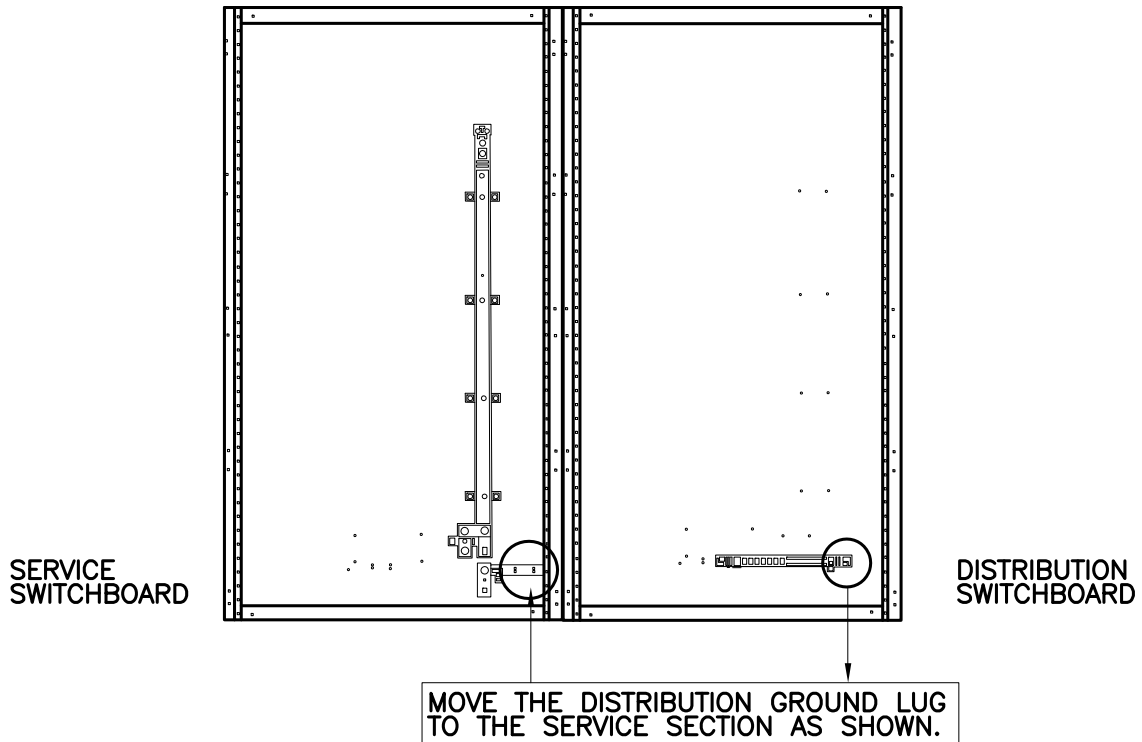
FOR SOLIDLY GROUNDED SYSTEMS USED AS SERVICE EQUIPMENT:

1. RUN A GROUNDING ELECTRODE CONDUCTOR (GEC) FROM THE GROUNDING ELECTRODE AT THE INSTALLATION SITE TO THE GEC CONNECTOR (GROUND LUG) LOCATED ON THE SWITCHBOARD GROUND BUS (OR ON THE NEUTRAL BUS, IF SO INDICATED ON THE DRAWING). (SEE FIGURE 1.) SELECT THE PROPER MATERIAL AND SIZE OF THE GEC TO COMPLY WITH THE NEC. INSTALL THE GEC AS SPECIFIED IN THE NEC.
2. WHEN THE UNIT IS USED AS SERVICE EQUIPMENT, THE NEUTRAL MUST BE BONDED TO THE ENCLOSURE. TO DO SO, CONNECT THE MAIN BONDING JUMPER FROM THE GROUND BUS ASSEMBLY TO THE NEUTRAL BUS ASSEMBLY (SHIPPED FROM THE FACTORY DISCONNECTED). FIGURE 2 SHOWS THE UNBONDED POSITION, AND FIGURE 1 SHOWS THE BONDED POSITION.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 GROUNDING OF ADD-ON DISTRIBUTION SECTION
REVIEWED	<i>rs</i>	
APPROVED	<i>ms</i>	
REVISION	REV 1	
DATE	11-14-2016	
		621

FIGURE 3

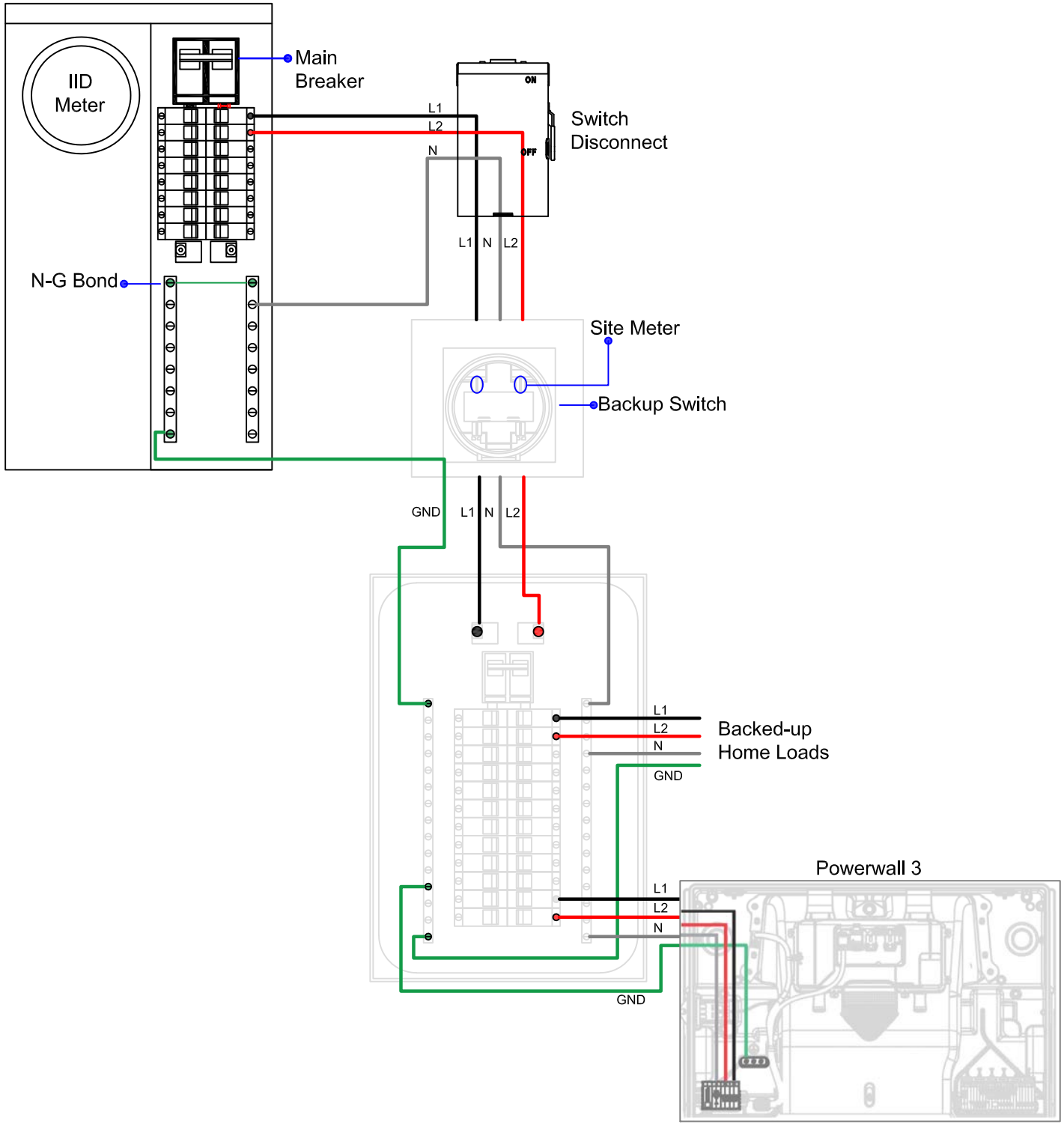
GROUNDING OF ADD-ON DISTRIBUTION SECTION



NOTE: WHEN A DISTRIBUTION SECTION IS USED AS A STAND-ALONE SECTION, USE EQUIPMENT GROUNDING CONDUCTORS SIZED ACCORDING TO THE NEC TO CONNECT THE SWITCHBOARD FRAME AND GROUND BUS TO THE SERVICE GROUND.

WHEN A DISTRIBUTION SECTION IS USED AS AN ADD-ON SECTION TO A SERVICE SECTION, THE SINGLE LUG LOCATED ON THE DISTRIBUTION SECTION GROUND BUS MUST BE REMOVED AND REINSTALLED ON THE SERVICE SECTION GROUND BUS. (SEE FIGURE 3.) CONNECT THE SWITCHBOARD FRAME AND THE GROUND BUS IN THE DISTRIBUTION SECTION TO THE SERVICE SECTION USING EQUIPMENT GROUNDING CONDUCTORS SIZED ACCORDING TO THE NEC.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 GROUNDING OF ADD-ON DISTRIBUTION SECTION
REVIEWED	<i>rs</i>	
APPROVED	<i>ms</i>	
REVISION	REV 1	
DATE	11-14-2016	
		622



IMPERIAL IRRIGATION DISTRICT



DRAWN BY	O. HAM
REVISED BY	O. HAM
APPROVED BY	F. FIMBRES
REVISION	REV 0
DATE	3/20/2025

Powerwall 3 with Backup Switch In Standalone Meter Panel (Whole Home Backup)
WHAT'S CHANGED? NEW TITLE BLOCK AND NEW STANDARD NUMBER

MET

SHEET 1 OF 1

620

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TRENCHING, BORING, CONDUITS, ENCASEMENT, CONCRETE

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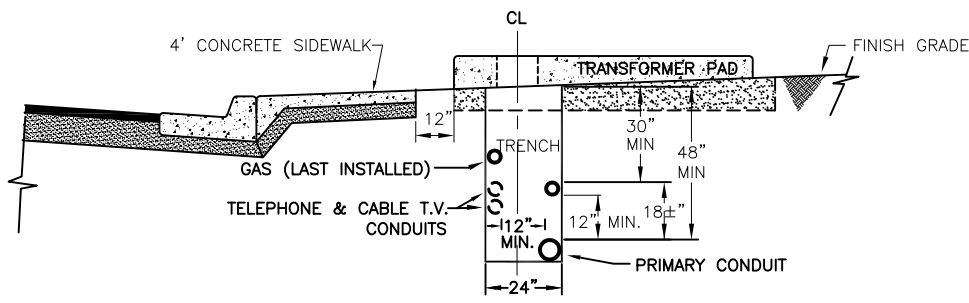
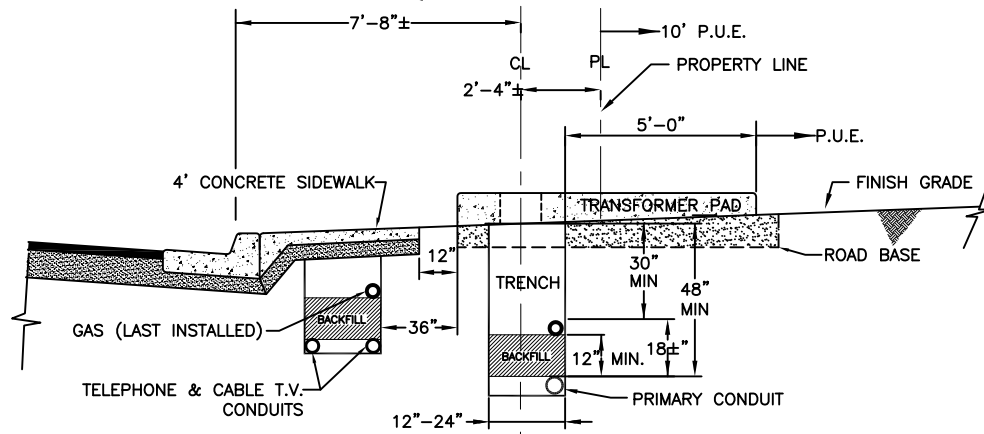
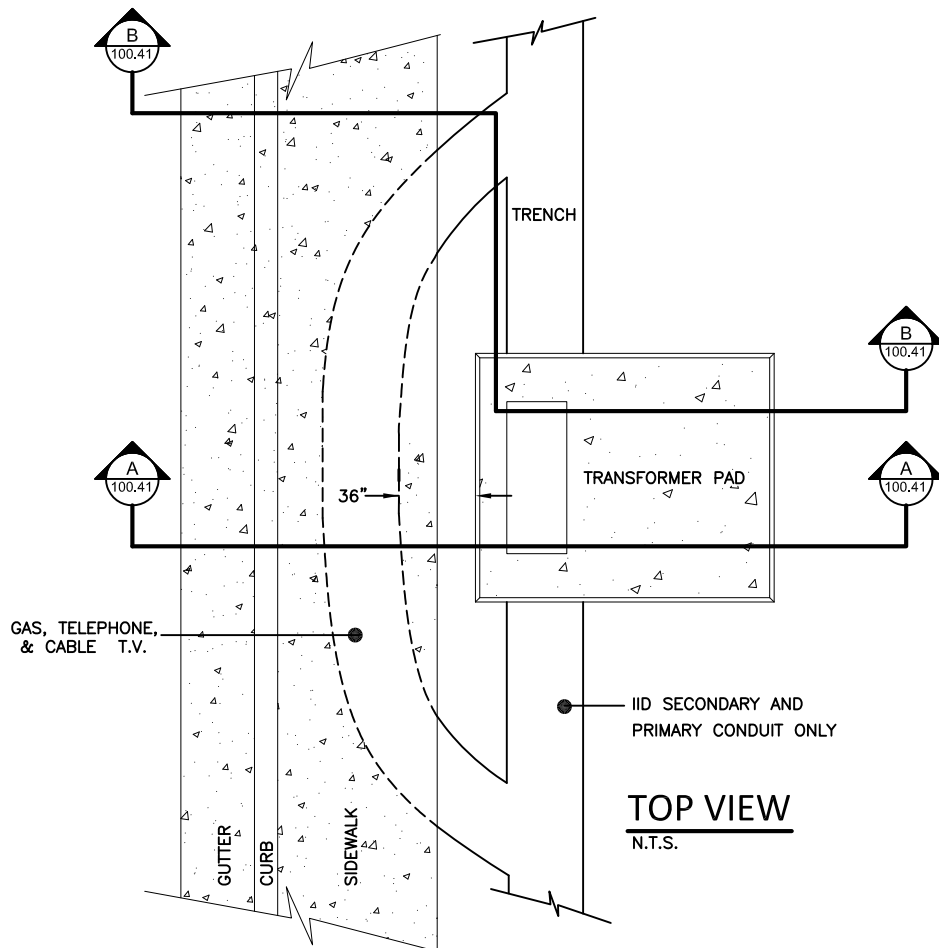
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- 3.1 Establish all grades (rough and final), bench marks, property corners, ties, fence lines, walls, property lines or other field references as required to install and verify the installation and location of power facilities.
- 3.2 Establish the location and depth of all existing power system facilities and foreign substructures within the work area. The installation contractor shall call the Underground Service Alert of Southern California (DigAlert) at least two (2) working days prior to beginning any digging or excavation work. DigAlert is the One Call Notification Center that supports all of Southern California, and can be reached by utilizing their online services, DigAlert Express (www.digalert.org/digexpress.html) or by phone (dial 8-1-1).
- 3.3 Review plans as soon as received from IID for possible conflicts or problems on locations of IID structures. Any revisions to original IID design will require additional engineering time and might cause additional delays to the project. It is the responsibility of the Developer/Contractor to contact the appropriate IID Customer Project Development Services.
- 3.4 Return all excavated areas to at least 90% compaction using native soil or Caltrans Class 2 aggregate base or crusher fines with 3/8 inch rock. All testing to ensure 90% compaction and restoration of the work area to its former condition is the sole responsibility of the installation contractor. (Refer 3.17), (Refer to 5.11).
- 3.5 Street light circuits, CATV, and telephone may be installed in the same trench; however, their relative position must be verified with each serving agency and installed to their specifications. (Refer to Joint Utility 3.12 Standard 100.41).
- 3.6 The contractor shall take caution to keep from damaging other utility systems that have been installed and shall collaborate with other utilities that may be doing work in the same area. (Refer to 3.2).
- 3.7 All other utilities shall maintain no less than a 12 inch (1 ft.) clearance from IID sub structures and underground equipment. (Refer to Joint Utility 3.12 Standard 100.41, Section B-B) (Refer to 3.23).
- 3.8 Raceway joint utility trenches will have a minimum width of 24 inch (2 ft.) to ensure adequate separation between Power and Gas facilities. Trenches entering all transformers, sectors, and vaults will maintain a 36 inch (3 ft.) separation. (Refer to Joint Utility 3.12 Standard 100.41, Section A-A).
- 3.9 When feasible, Gas facilities shall occupy the opposite side of the trench and be 12 inches (1 ft.) above the Power facilities. (Refer to Joint Utility 3.12 Standard 100.41, Section B-B) (Refer to 3.7).
- 3.10 Developer/contractor will be responsible for coordination of inspections while trench has IID utilities exposed. (Refer to Joint Trench Indemnity Agreement IID-700E (6-07)). Inspection schedules are subject to a minimum of 48 hour advance notice and by appointment only. Imperial (0) 4 2 00 a uinta (0) 5 2

- 3.11 The Developer shall be responsible for filling out and signing IID form 700E 6-07 Joint Trench Indemnity Agreement, contact the appropriate IID Customer Project Development Services. (Refer to Joint Trench Indemnity Agreement IID-700E 6-07).



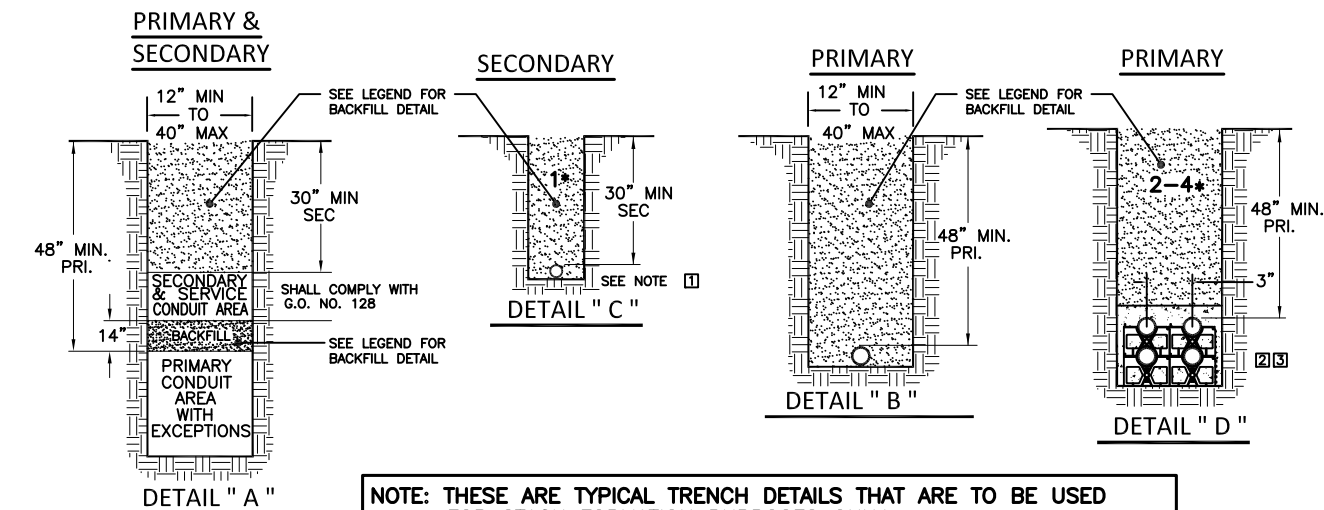
IMPERIAL IRRIGATION DISTRICT			
DRAWN BY	gr		JOINT UTILITY (GAS INCLUDED)-TRENCH DETAIL, CURB, GUTTER, SIDEWALK, 10FT. PARKWAY WITH 10 FT. P.U.E.
REVIEWED	pd		
APPROVED	ms		
REVISION	REV 6		
DATE	12-31-2013	100.41	

- 3.13 All Encasement of power ducts will require an on-site inspector at the time of encasement. **Inspection schedules are subject to a minimum of 4 hours advance notice and by appointment only Imperial (0) 4 2 00**
San Juanita (0) 5 2
- 3.14 The term encasement as used herein shall mean a 3 inch envelope around all sides of one or more ducts.
- 3.15 Utilize plastic spacers that provide 3 inch separation. Spacers shall be used on conduit runs to be concrete encased both as single or banked installations (Refer to 3.42 for spacer specifications).
- 3.16 Concrete encasement of conduits at street crossings shall be a 3 sack sand slurry or 1800 2000 psi mix.
- 3.17 Backfills at street crossings may be a 3 sack sand slurry from top of encasement to street sub-grade. If the contractor utilizes any quick cure chemical product additives to the concrete the contractor shall take full responsibility for concrete quality. (Refer to 3.16), (Refer to 3.22), (Refer to 3.24 Table 1).
- 3.18 Backfills at street crossings that are other than a 3 sack sand slurry backfill shall observe the following:
 - 3.18.1 Contractor shall wait a minimum of 24 hours before backfilling road base and compacting over concrete encased conduit.
 - 3.18.2 The contractor is responsible to ensure a compaction of 90 . (Refer to 3.4), (Refer to 3.6), (Refer to 5.11).
 - 3.18.3 The contractor accepts the responsibility of providing the IID with the compaction test verification. (Refer to 3.4), (Refer to 3.7).
- 3.19 Backfill Material when used above concrete encasement shall be native soil or Caltrans Class 2 aggregate base or crusher fines with 3/8 inch rock properly compacted, unless otherwise specified on the drawings or by the IID Customer Project Development Services. (Refer to 3.4), (Refer to 5.16).
- 3.20 IID concrete encasement, backfill, etc. requirements will be followed unless the City, County, State Agency, Property Owners, or Authority having jurisdiction has requirements that are more strict, the highest requirements will be followed.
- 3.21 Encasement shall be sand slurry below streets, parking lots, and commercial driveways. (Refer to Trench Detail 3.25 Standard 100.3), (Refer to 3.24 Table 1).
- 3.22 Concrete encasement for all other locations shall be no less than a 2 sack or 1500 psi sand slurry mix.

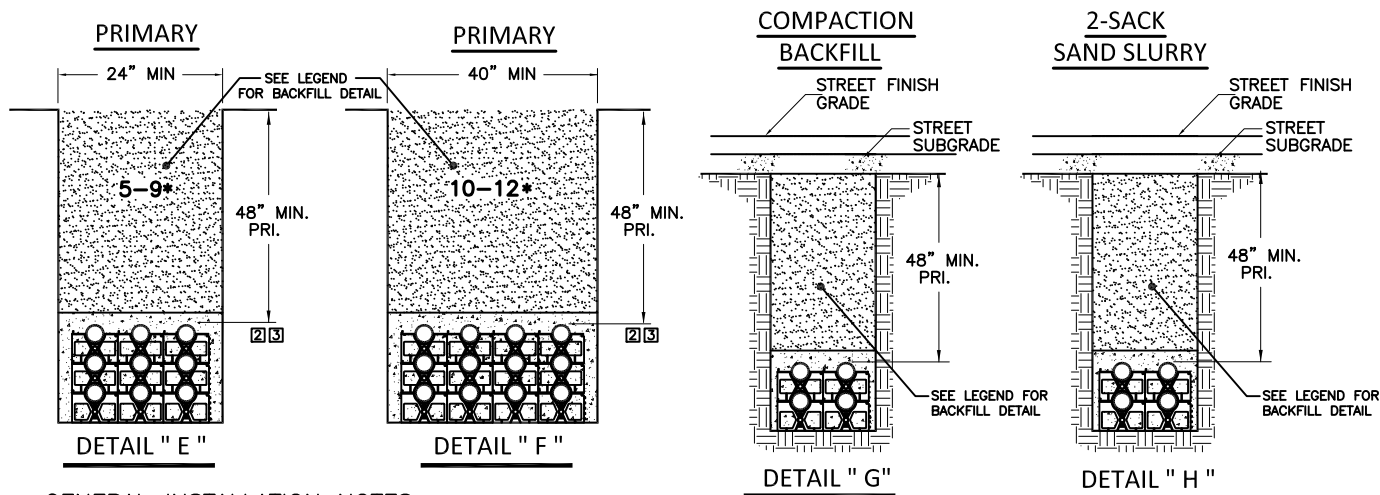
3.23 The spacing between the adjoining utilities will be in compliance with G.O. 128 and have a minimum of 12 inch (1 ft.) separation. When existing utilities are present and are perpendicular to each other, the 12 inch separation may be reduced to no less than 6 inches and a 3 inch concrete encased envelope is required. (Refer to 3.7), (Refer to Trench Detail 3.25 Standard 100.3).

3.24 Conduit encasement criteria is as follows in Table 1

ENCASEMENT CRITERIA for Primary Conduits - Table 1			
Feeder Type	Number of Runs	Size	Amperage
Back bone	2 or more	6	600 Amp
Lateral	All Runs	3 , 4 , 5	200 Amp



NOTE: THESE ARE TYPICAL TRENCH DETAILS THAT ARE TO BE USED FOR STACK FORMATION PURPOSES ONLY. MIN. DEPTH WILL BE (PRI. 48", SEC. 30") AT ANY DEPTH.



GENERAL INSTALLATION NOTES

1. USE PLASTIC SPACERS THAT PROVIDE 3" SEPARATION.
2. PLASTIC SPACERS SHALL BE USED ON CONDUIT RUNS TO BE CONCRETE ENCASED BOTH AS SINGLE OR BANKED INSTALLATIONS AND ON DUCT BANKS NOT ENCASED. (REFER TO NOTE 3.48).
3. CONDUIT RUNS SHALL NOT CROSS EACH OTHER WHEN ON THE SAME LEVEL AND/OR PLANE. (REFER NOTE 3.23)
4. THE MAXIMUM OBTAINABLE SEPARATION BETWEEN POWER FACILITIES AND ALL OTHER SUBSTRUCTURES SHALL BE MAINTAINED AT ALL TIMES, 12" MIN. WHEN PARALLELING AND 12" MIN. WHEN CROSSING ENCASED IN CONCRETE.
5. WHEN CONCRETE ENCASEMENT IS SPECIFIED ON THE JOB, ENCASEMENT SHALL BE A 3 SACK MIX (2000 PI) WITH SAND SLURRY WILL BE USED BELOW STREETS, PARKING LOTS, DRIVEWAYS, AND SIDEWALKS. WHEN STREETS, PARKING LOTS, DRIVEWAYS, AND SIDEWALKS DO NOT EXIST OVER THE DUCT SYSTEM, A 2 SACK SAND SLURRY MAY BE USED. (REFER TO NOTES 3.18, 3.19).
6. ENCASE IN CONCRETE 3" ENVELOPE WHERE REQUIRED. SEE CONDUIT LAYOUT SHEETS (JOB COPY) FOR LOCATION OF CONCRETE TRENCHES.
7. LINE GUARD TAPE REQUIRED IN ALL TRENCHES. (REFER TO NOTE 3.46 STANDARD 100.5).

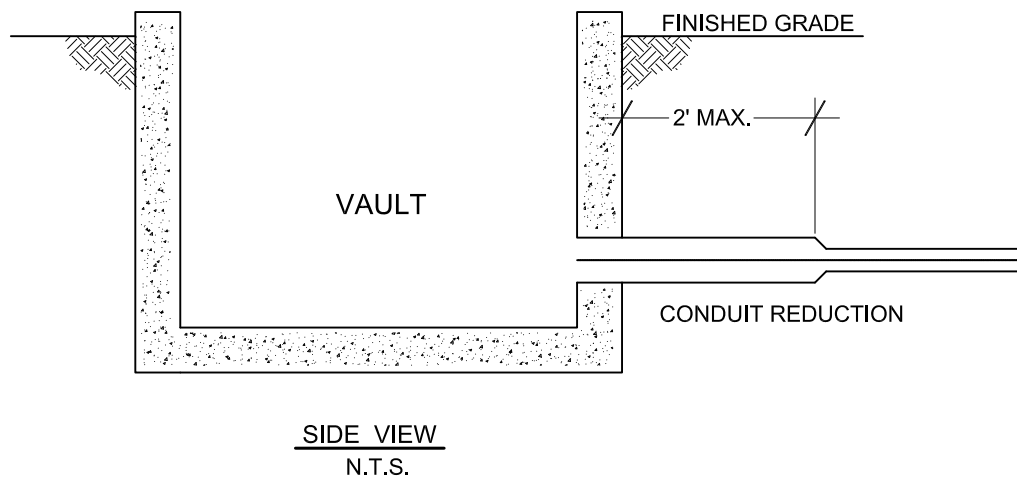
*IDENTIFY # OF CONDUITS

LEGEND

- CONDUIT
- 3 SACK MIX SAND SLURRY
- 2 SACK SAND SLURRY
- 90% COMPACTION BACKFILL (BACKFILL TO BE NATIVE SOIL OR CALTRANS CLASS 2 AGGREGATE BASE OR CRUSHER FINE WITH 3/8 INCH ROCK).

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		TRENCH DETAILS
REVIEWED		
APPROVED		
REVISION	REV 6	
DATE	9-27-2016	
		100.3

- 3.26 Conduit runs shall not cross each other when on the same level and/or plane.
- 3.27 Primary conduits shall be buried a minimum depth of 4 feet. Secondary and service conduits shall be buried a minimum depth of 2 feet (2.5').
- 3.28 Sizes and arrangements of conduits shall be as shown on the drawings. If any discrepancy in the conduits or spacers, for example, quantities, locations, size, schedule, etcetera, from what is stated in the drawing, it is required for the Distribution Planning and Distribution engineering units to be notified as soon as possible. The contractor must wait for approval from the IID before any further installation can proceed.
- 3.29 Where the external diameter of the conduit is smaller than the diameter of the opening in the vault wall, the reduction in the conduit diameter shall take place 2 feet (24") from the external wall of the vault. (Refer to 3.30, Vault Side View, and Standard 100.142).
- 3.30 The maximum obtainable separation between power facilities and all other substructures shall be maintained at all times, 12 inch (1') minimum when paralleling and 6 inch minimum when perpendicular and encased in concrete. (Refer to 3.27). (12 inch minimum refers to compacted backfill).



VAULT SIDE VIEW, CONDUIT REDUCTION - REFER TO 3.29

IMPERIAL IRRIGATION DISTRICT				
DRAWN BY	<i>gr</i>	30000000		CONDUIT REDUCTION
REVIEWED	<i>PD</i>			
APPROVED	<i>MS</i>			
REVISION	REV 3			
DATE	9-26-2016	100.142		

3.32 All conduits shall meet and/or exceed UL-651 and/or NEMA TC-2. All conduits shall be:

3.32.1 Schedule 40 for below ground installation:

3.32.1.1 PVC Heavy Wall

3.32.1.2 PVC Cellular Core

3.32.2 Schedule 80 above ground installation:

3.32.2.1 PVC Heavy Wall

3.33 All conduit sweeps shall meet and/or exceed UL-651 and/or NEMA TC-3.

3.34 Conduit sweeps in duct runs shall not have less than a 12 feet 6 inches (12.5') horizontal radius unless shown otherwise on the Contractor Notes. (See Radius Index 3.33.1 (Horizontal) Table 4).

3.34.1 Table 4 Conduit Radius Index Horizontal

D I R D I S I D E (R I) a l e 4			
P R I M R			
D I D I	R D I S	D R S I E	P S E D E
4	12 5 Radius	1 1 0 onductor	40
5	12 5 Radius	1 0 onductors	40
	25 Radius ypical	50 M M onductors	40
	50 Radius as Speci ied	50 M M onductors	40

ontact your IID Customer Service Pro ect Manager or instructions

3.35 Conduit sweeps in vertical runs (pole risers and equipment risers) shall be installed in accordance with Table 5, (3.37.1 Riser Sweep Radius Vertical).

3.36 All 2 inch and 3 inch service and/or secondary conduit (vertical) risers which enter buildings, service panels, secondary boxes, transformer pads, meter panels, etc., shall have a minimum 2 foot radius (24"), see Table 5, (3.37.1 Riser Sweep Radius Vertical).

3.37 All 4 inch primary conduit (vertical) risers which enter transformer pads, primary metering panels, underground switch gear panels and pole risers, shall have a 4 foot (48") Radius for 4 inch duct, see Table 5, (3.37.1 Riser Sweep Radius Vertical).

3.38 All 5 inch and 6 inch primary conduit risers which enter transformer pads, primary metering panels, underground switch gear panels and pole risers, shall have a minimum of 4 foot (48) radius for 5 inch ducts, and 5 foot radius (60") for 6 inch ducts, see Table 5, (3.37.1 Riser Sweep Radius Vertical). Contact your IID Customer Project Development Services for further instructions or questions.

3.38.1 Table 5 Riser Sweep Radius Vertical

RISER S EEP R DI S I DE (ER I) E 5						
SE D R	Radius	Pole Riser	E uip Riser	rans Pad	Secondary	Meter Panels
onduit Dia		P S	P S	P S	P S	P S
2	24 Radius		40	40	40	40
	Radius	0	40	40	40	40
4	4 Radius	0	40	40	40	40
PRIM R	Radius	Pole Riser	E uip Riser	rans Pad	Secondary	Meter Panels
onduit Dia		P S	P S	P S	P S	P S
4	4 Radius	0	40	40		
5	4 0 Radius	0	40	40		
	0 Radius	0				

contact your IID Customer Service Project Manager or instructions
of applica le

3.39 The installation of the conduit system will be conducted by a single contractor or other entity to give the project continuity, reducing the possibility of deviations from the G.O. 128 regulations, Authority having jurisdiction, and IID standards. Developer/Contractor will accept the most strict or highest requirements from the entities mentioned above.

3.40 Marking Tape over Conduits:

3.40.1 Contractor shall install 2 inch line guard III tape, red in color with black lettering
“ **I RIED E E RI I E E** ” (See 3.46, Standard 100.5)

3.40.2 Contractor will install tape 12 inches (1') above the power conduits. When conduit(s) is/are encased in concrete, Developer/Contractor shall back fill with compacted (90) native soil to meet the 12 inch (1') requirement. (See 3.46, Standard 100.5)

3.41 Mandrel

3.41.1 The installation contractor shall mandrel all primary ducts and secondary service ducts. IID shall provide the mandrel and the IID inspector for the mandrel process. Refer to 3.41.1 Pulling Rope, Table 8 Conduit rope/Measured Rope Requirements for Primary Pulls. Inspection field check schedules are subject to a minimum 48 hour advance notice and are by appointment only; Imperial (760) 482-3300; La Quinta (760) 398-5828

3.41.2 IID Inspector will conduct a field check prior to mandrel test to ensure IID structures are:

3.41.2.1 Not damaged

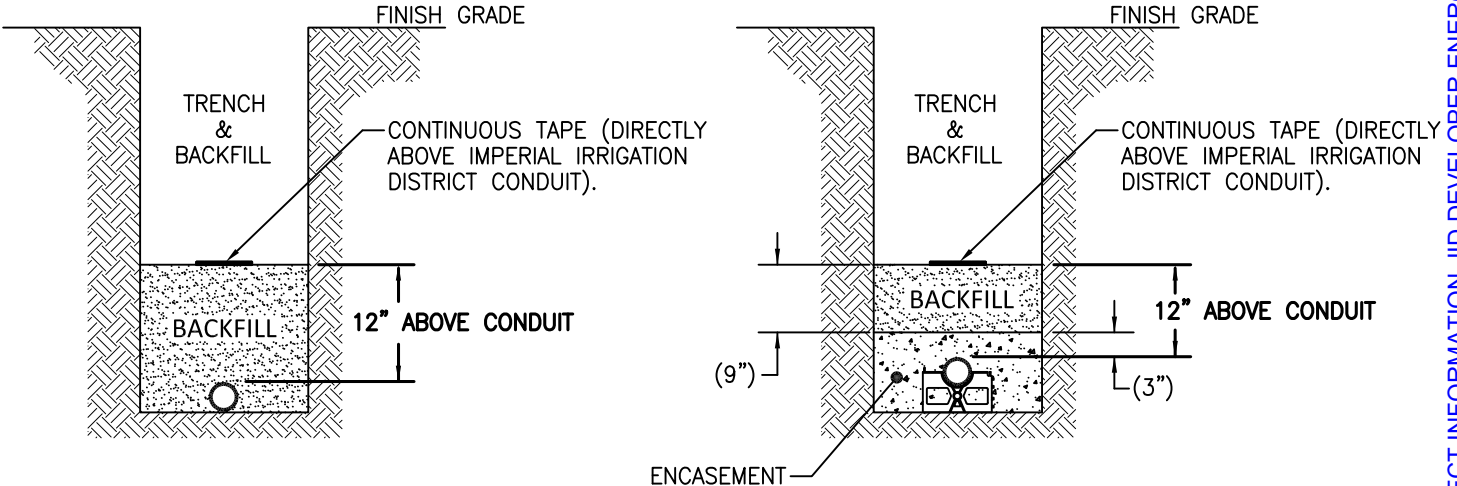
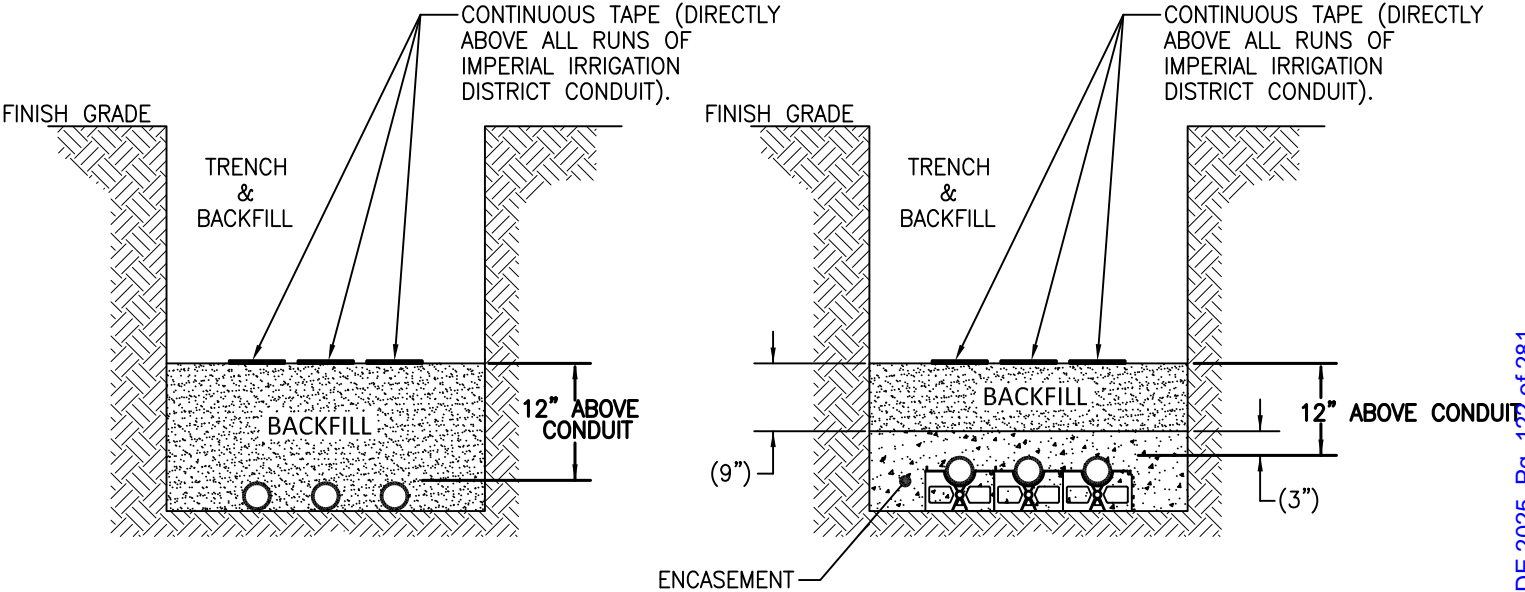
3.41.2.2 Clear of debris

3.41.2.3 No obstructions to IID structures (accessibility)

3.41.3 If mandrel is requested from IID structure to meter panel, IID Inspector will field check the following:

- 3.41.3.1 Scratch coat or brown coat must be installed on residence/building
- 3.41.3.2 Wallboard must be installed on the wall the meter panel is located.
- 3.42 After field checks are approved by IID Inspector:
 - 3.42.1 Cold Mandrel: Can continue per IID Inspectors instructions
 - 3.42.2 Hot Mandrel: Will be scheduled at a later date to an IID Troubleshooter
- 3.43 IID Inspector is required to be in attendance on all mandrel tests
- 3.44 Pulling rope: In all duct runs, the installation contractor is to furnish and install the following:
 - 3.44.1 Polypropylene rope usually yellow in color is acceptable
 - 3.44.2 All conduits may be filled with polypropylene rope, knots & splices are not allowed at any time.
 - 3.44.2.1 Note: If pulling wire at a later date (any time after construction), Developer/Contractor is responsible and required to pull in new rope that have no splices.
 - 3.44.2.2 Note: When multiple conduits are installed, Mule tape, " wide with foot markers, is required in one conduit. Mule tape will meet or exceed 1,250 lbs. tensile strength.
 - 3.44.2.3 Note: Detectable mule tape, rope, or wire is prohibited
- 3.45 Table 8 Conduit Rope/Measured Rope Requirements

CONDUIT ROPE/MEASURED ROPE REQUIREMENTS				
Rope Type	Conduit Length		Conduit which will contain Wire	Rope Tensile Strength (Average Breaking Strength)
1)Polypropylene "	0'	1000'	No Knots	1,250 lbs. Min.
2)Polypropylene "	1000'	Greater	No Knots	2,500 lbs. Min.



TYPICAL TRENCH DETAIL
W/LINEGUARD III TAPE OR EQUIVALENT

NOTES:

1. INSTALL LINE GUARD III TAPE (RED, MINIMUM 2" WIDE). TAPE TO BE FURNISHED & INSTALLED BY CONTRACTOR AND SHALL READ:
"CAUTION: BURIED ELECTRIC LINE BELOW".
2. TAPE WILL BE INSTALLED 12" ABOVE HIGHEST PRIMARY OR SECONDARY IMPERIAL IRRIGATION DISTRICT CONDUIT TRENCH.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 LINE GUARD III TAPE
REVIEWED		
APPROVED		
REVISION	REV 5	
DATE	12-31-2013	
		100.5

- 3.47 All conduit spacers shall be made of polystyrene or high impact polymer material; see representation (A) below, (Refer to 3.49 Table 6 for spacer clearances). Spacers shall provide the conduit separation shown in 3.49 Table 6 below.
- 3.48 Conduit spacers will be installed every 6 feet (72").



Spacer representation (A) (See 3.47)

3.49 Table 6 Spacers Clearances

E D I S P E R E R E S					
CONDUIT SI E	DUCT TO DUCT SEPARATION		CLEARANCE TRENCH TO CONDUIT		
	HORI ONTAL	VERTICAL	SIDE	BOTTOM	TOP
3	3	3	3	3	3
4	3	3	3	3	3
5	3	3	3	3	3
6	3	3	3	3	3

- 3.50 Contractor shall obtain and install stub out markers comparable to the stub out marker indicated in Table 9, (see 3.51).



Stub out Marker
66 x 4.25

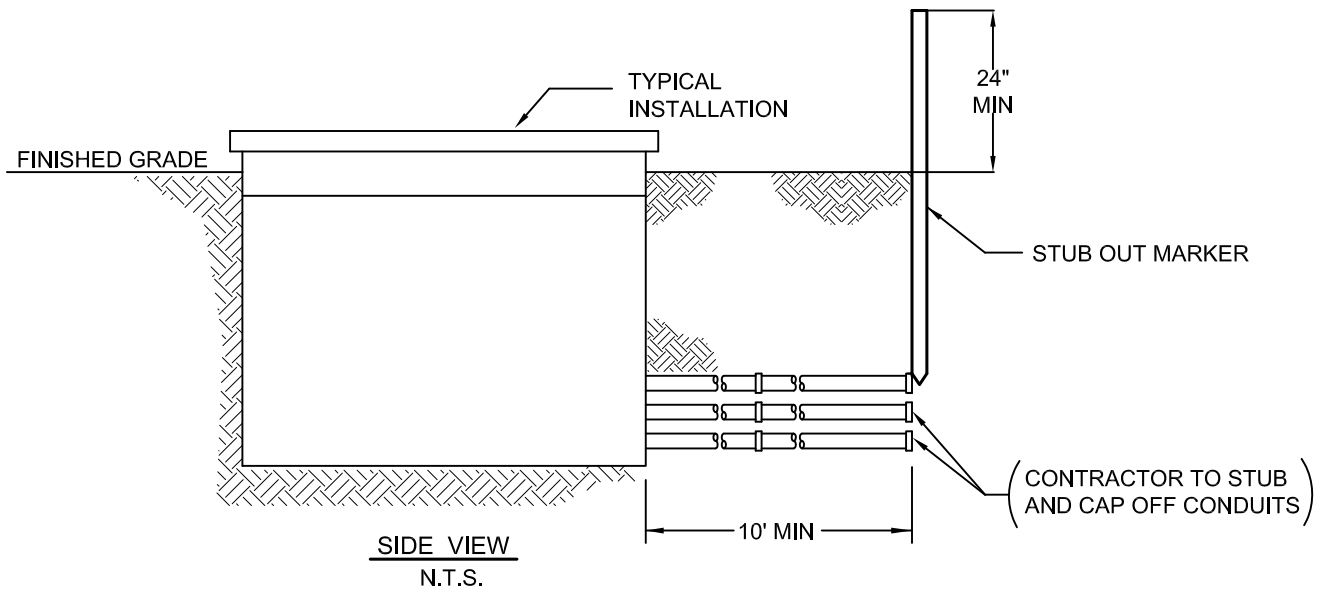


Front View
Top Portion



Back View
Top Portion

- 3.51 Stub out conduit shall be a minimum of 10 . Refer to Contractor Notes drawing for specific Stub out lengths. (Refer 3.53 Standard 100.14, Stub out Detail).



NOTES:

1. ENCASEMENT SHALL BEGIN 10' MINIMUM FROM VAULT.
2. NO CONCRETE TO BE POURED WITHIN 10' OF ANY CONDUIT ENTRANCE OR EXIT WALL OF VAULT.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 STUB OUT MARKER DETAIL
REVIEWED	<i>LD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 8	
DATE	9-26-2016	100.14

3.53 Boring information: The conduit in steel casing construction procedure is a solution to the problem of laying power cables under a surface obstruction (highway, runway, rail bed) without disruption. The basic procedure is to:

3.53.1 Excavate and shore pits on both sides of the surface obstruction.

3.53.2 Bore under the surface obstruction connecting the excavated pits and install a steel casing, steel casing sections shall be welded together.

3.53.3 Place conduits in the steel casing.

3.53.4 Inject grout into the area between the conduits and steel casing.

3.53.5 Pull power cables through the conduits

3.54 Conduit in steel casing construction keeps the conduits organized within the steel casing. The advantage of this method is the precise placement of the casing within the earth. Such precision helps avoid existing underground pipes, cables and obstructions. The organization also keeps to a minimum underground clutter that may hinder future construction projects. The casing is easily located and avoided by those doing future underground work.

3.54.1 For both primary and secondary conduits, conduit in steel casing construction is required for all street crossings implemented through boring.

3.54.2 For secondary conduits, there can be no more than four and no less than two 3-inch conduits.

3.55 Table 2 (Common Steel Casing and Conduit Sizes)

COMMON STEEL CASING AND CONDUIT SIZES Table 2		
Conduit Number & Size	Casting OD (Inches)	Casting Wall Thickness
4-3" **	14" OD**	.375" *
2-4" **	14" OD**	.375" *
2-5" **	16" OD**	.375" *
4-5" **	20" OD**	.250" *
6-5" **	22" OD **	.375" *
9-5" **	30" OD **	.500" *
18-5" **	36" OD **	.500" *
2-6" **	18" OD **	.375" *
4-6" **	24" OD **	.375" *
5-6" **	24" OD **	.375" *
7-6" **	30" OD **	.469" *
14* - 6" **	48" OD **	.688" *

Use as example only, contractor is responsible to contact Bore Spacer Manufacturer to ensure correct Casing OD and Wall Thickness.

**Contact Bore Spacer Manufacturer for correct information concerning multiple conduit runs including spacers and casing sizes.

In all cases contact you're IID Customer Project Development Services.

- 3.56 Conduit used within the steel casing will be EPC40 (schedule 40) PVC. Manufacturer spacers are available that are shaped to fit in a round steel casing (see 3.64). (Refer to Drawing 3.65 through 3.68 Typical Boring Details). Contractor shall ensure that the spacers utilized conform to the following features:
- 3.56.1 Provisions for mounting rollers to aid installation.
 - 3.56.2 Holes for wire ropes, which when held taut prevent the corkscrew of the duct bank when pulled through the casing.
 - 3.56.3 Float-stops to prevent the conduit from being deformed by the upward load created by the duct bank floating when the grout is injected.
 - 3.56.4 Flow holes and a contoured perimeter to allow the grout to pass through easily.
 - 3.56.5 Bore spacers will be nonmetallic material.
 - 3.56.6 Bore spacers shall be placed 5 feet apart.
 - 3.56.7 Secure the bore spacers and conduits with carbon steel, stainless steel bands, or 1/2 inch (.75") wide polypropylene strapping with a 1400 lbs. breaking strength.
 - 3.56.8 Bore spacers will maintain the minimum conduit separation through the steel casing of 1 1/2 inches (1.5") minimum.
- 3.57 The space between the outside diameter (OD) of the conduits and the casing inside diameter (ID) shall be grouted for the following reasons.
- 3.57.1 To eliminate the possibility of a duct bank collapse due to the force put on the duct bank when cable is being pulled into place.
 - 3.57.2 To eliminate the possibility of duct bank collapse due to the weight of the cables.
 - 3.57.3 To eliminate the possibility of duct bank rotation due to cable weight causing an out of balance rotation torque.
 - 3.57.4 To reduce the possibility of a duct bank meltdown when there is a cable fault. The grout will tend to contain the fault to a single duct.
 - 3.57.5 To transfer the heat generated by the power cables to the surrounding ground.

- 3.58 It is important to select a proper grout recipe for the injection process. Not all installations are identical. Therefore, the Developer/Contractor must consult a cement grout vendor or specialist for the proper grout mix and injection method for an installation. An ideal grout fills the casing void completely, while maintaining a pumping pressure low enough not to crush the conduits and a curing temperature low enough not to deform or collapse the conduits. (See picture below).



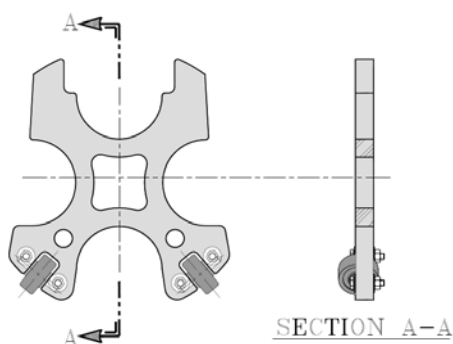
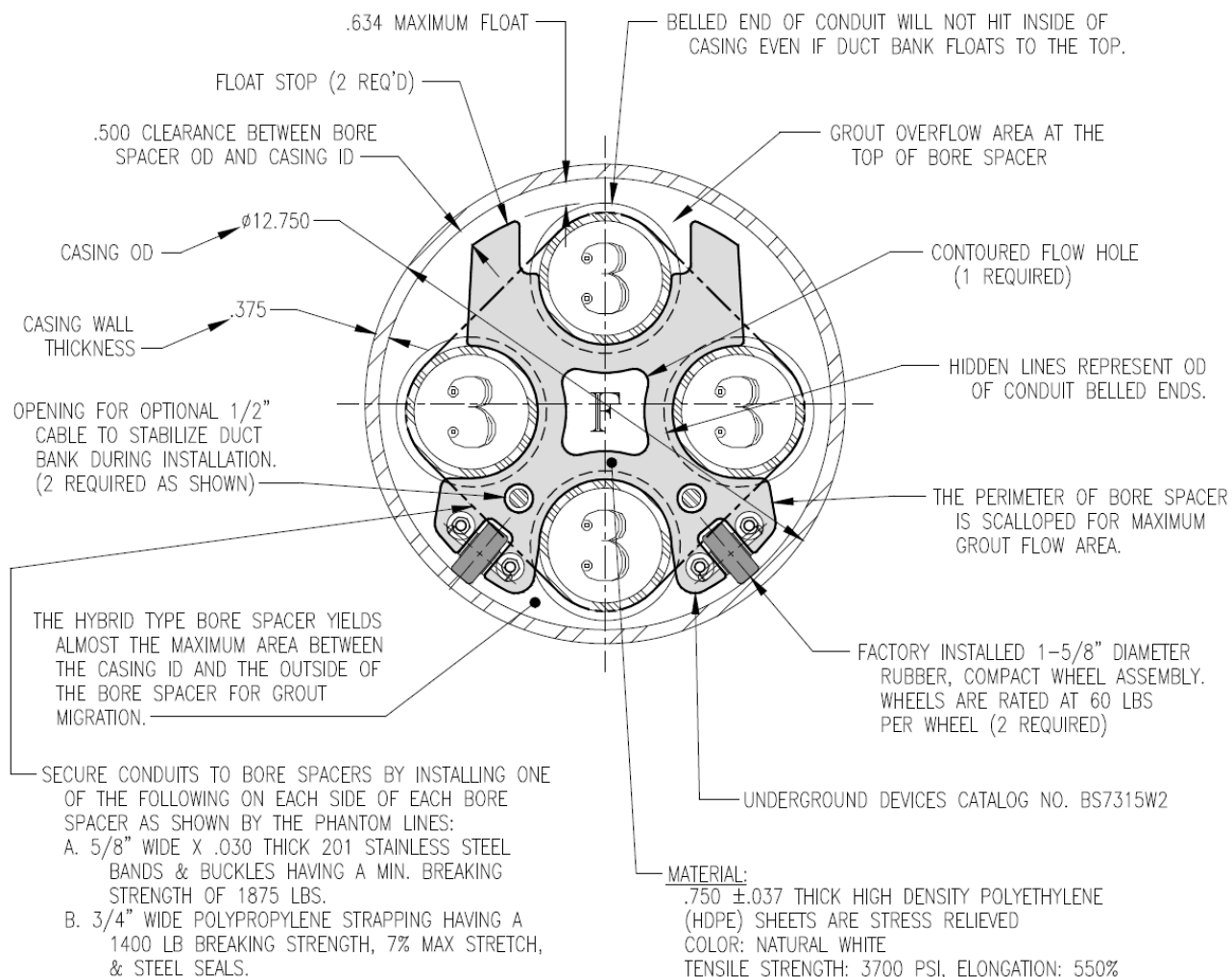
(See note 3.59)

- 3.59 Under normal conditions the contractor shall install grout inside of the steel casing that is highly cementitious (high in cement and fly ash) and have a slump of approximately 8 inches.
- 3.60 Grout with special additives (such as “Elastizell” or “Mearlcrete”) which reduce the grout density to about 75 lbs./cu. ft. and increase fluidity so it is similar to that of an 11 inches slump are **not** to be used for the reason that they have lower thermal conductivity and are normally restricted to communication applications.
- 3.61 IID will **not** accept “blown sand” for power applications; sand will not dissipate the heat generated by power cables as quickly as cement grout, it may be necessary to de-rate the power cables.
- 3.62 Single Phase (one conduit) 4 inch conduit in P.U.E. or right of way (under driveways) may be direct bored. This does not include street crossings.
- 3.63 Single Phase (two conduit w/spare conduit) 4 inch conduit bore under road to feed a single phase transformer may be installed utilizing the IID boring standard. Conduit will be installed inside of steel casing, see Table 2.

3.64 Boring Spacer Manufacturer

Bore Spacer Manufacturer		
Manufacturer	Contact Phone Number	Web Site
*Underground Devices, Inc.	(847) 205-9000	http://www.udevices.com

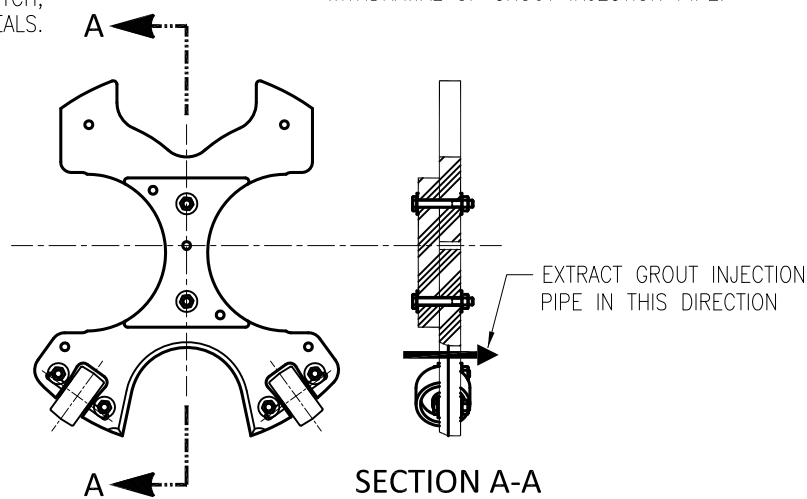
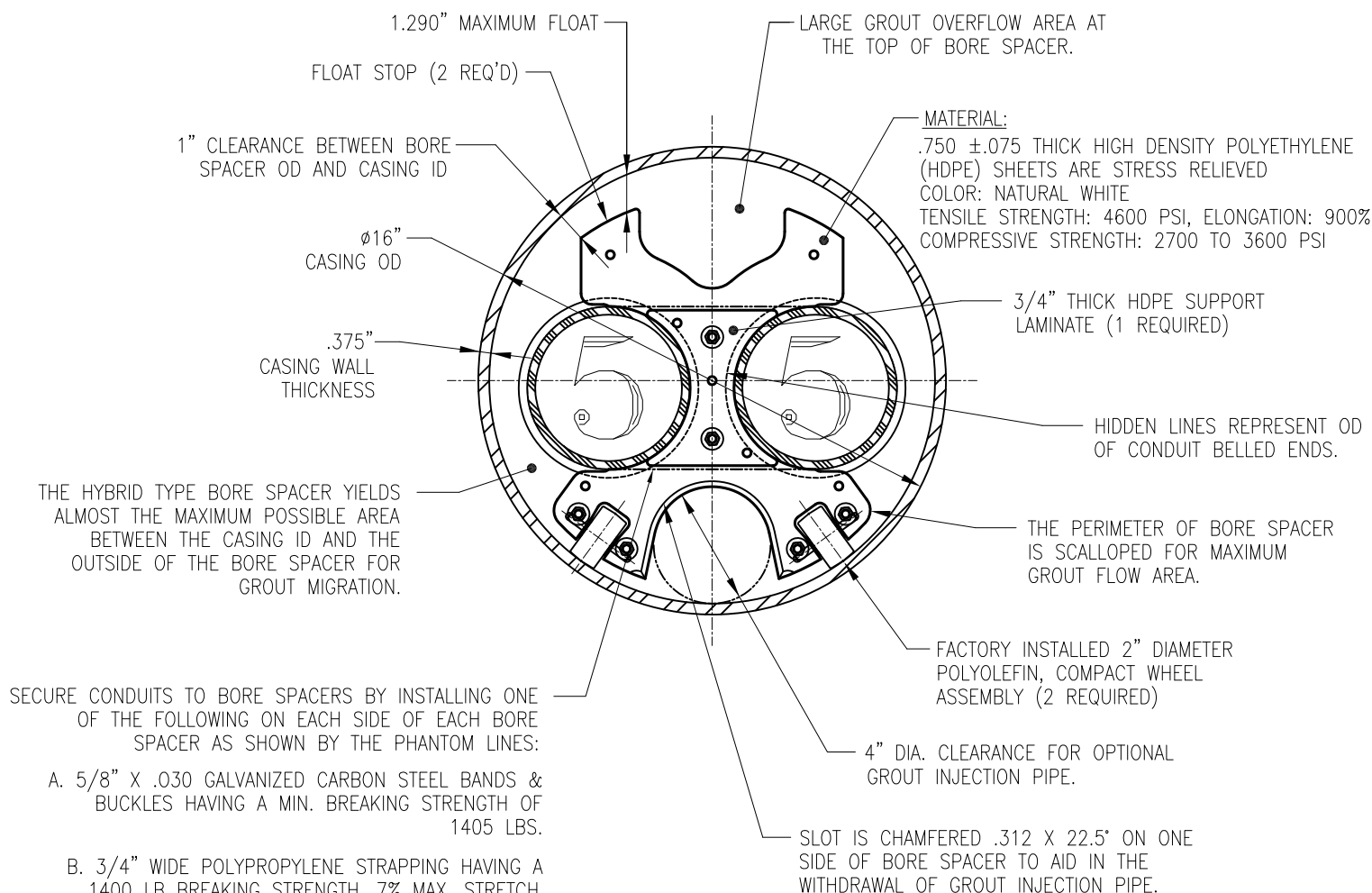
*Manufacturer used as example; manufacturer is approved for use. Contractor shall utilize spacers that conform to 3.47. (Refer to drawings 3.64 – 3.68 Typical Boring Details)



BORE SPACERS MANUFACTURER		
MANUFACTURER	CONTACT PHONE NUMBER	WEB SITE
*UNDERGROUND DEVICES, INC.	(847)205-9000	http://www.udevices.com

*MANUFACTURER USED AS AN EXAMPLE. CONTRACTOR SHALL UTILIZE SPACERS THAT CONFORM TO NOTE 3 C.

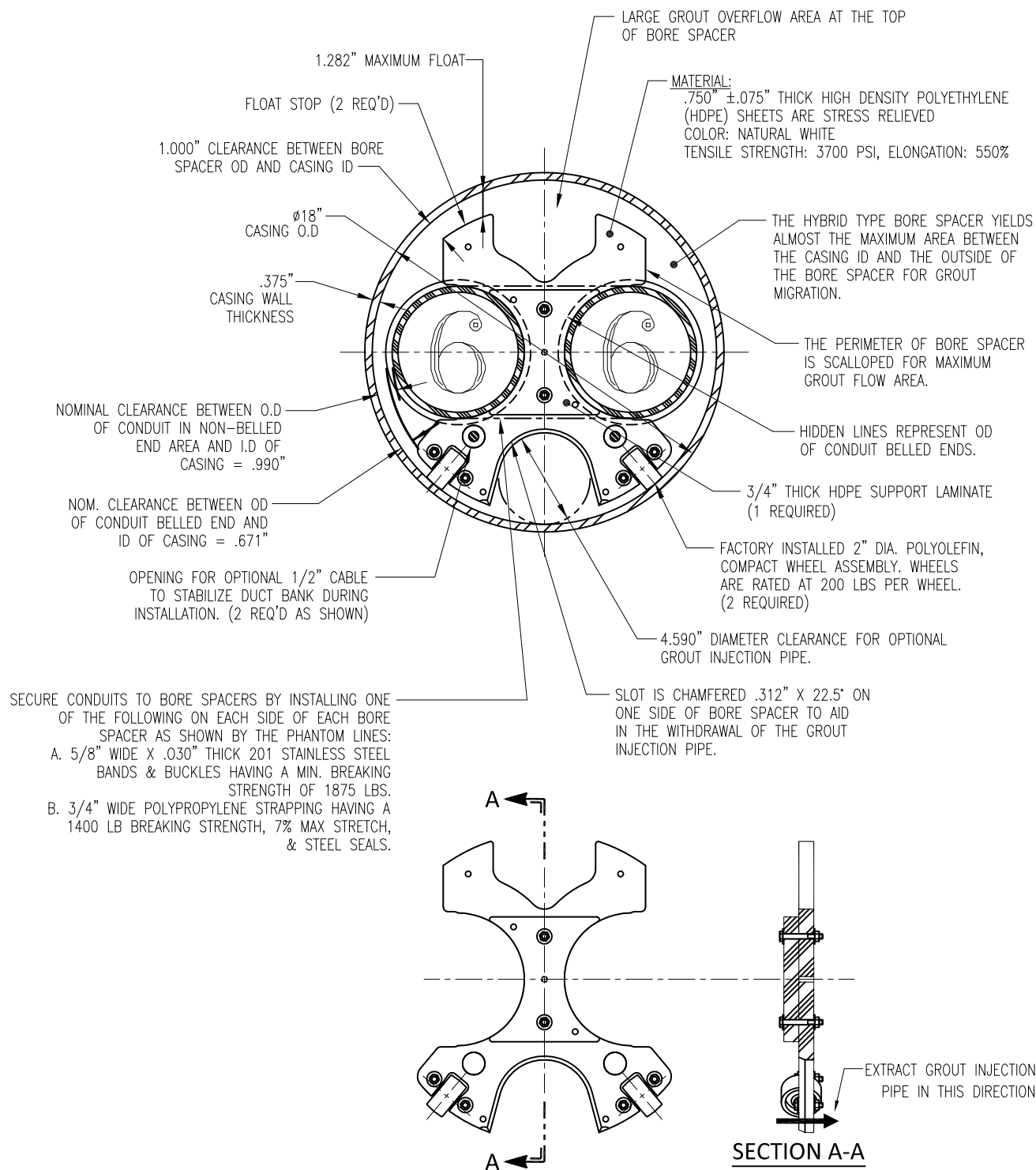
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DRAWN BY	<i>JR</i>		TYPICAL BORING DETAIL 4-3" CONDUITS
REVIEWED	<i>MD</i>		
APPROVED	<i>MD</i>		
REVISION			
DATE	12-18-2018	3.63	



BORE SPACERS MANUFACTURER		
MANUFACTURER	CONTACT PHONE NUMBER	WEB SITE
*UNDERGROUND DEVICES, INC.	(847)205-9000	http://www.udevices.com

*MANUFACTURER USED AS AN EXAMPLE. CONTRACTOR SHALL UTILIZE SPACERS THAT CONFORM TO NOTE 3 C.

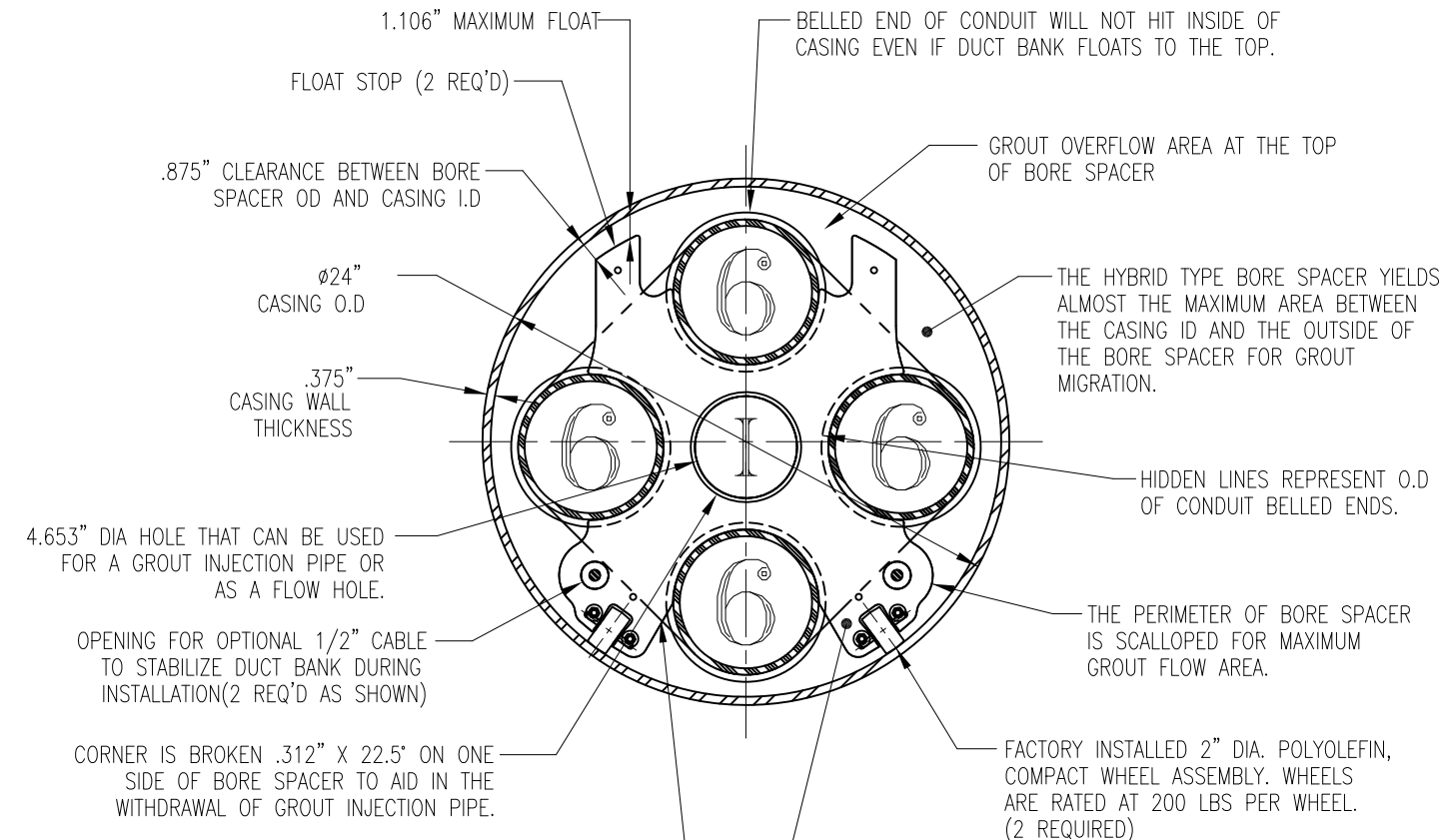
IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 TYPICAL BORING DETAIL 2-5" CONDUITS
REVIEWED	<i>RD</i>	
APPROVED	<i>MB</i>	
REVISION	REV 2	
DATE	4-28-2016	
		3.64



BORE SPACERS MANUFACTURER		
MANUFACTURER	CONTACT PHONE NUMBER	WEB SITE
*UNDERGROUND DEVICES, INC.	(847)205-9000	http://www.udevices.com

*MANUFACTURER USED AS AN EXAMPLE. CONTRACTOR SHALL UTILIZE SPACERS THAT CONFORM TO NOTE 3 C.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 TYPICAL BORING DETAIL 2-6" CONDUITS
REVIEWED	<i>rs</i>	
APPROVED	<i>ms</i>	
REVISION	REV 2	
DATE	4-28-2016	
		3.65

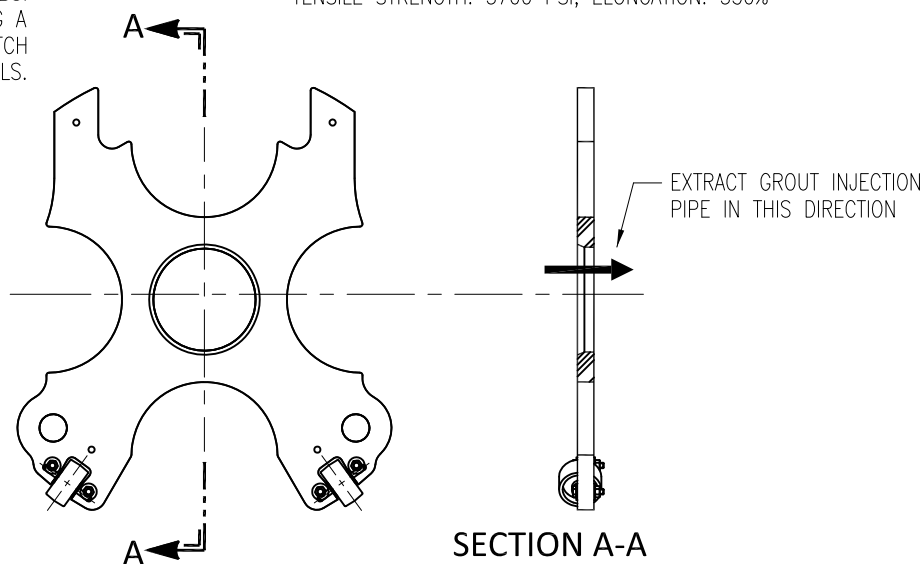


SECURE CONDUITS TO BORE SPACERS BY INSTALLING ONE OF THE FOLLOWING ON EACH SIDE OF EACH BORE SPACER AS SHOWN BY THE PHANTOM LINES:

A. 5/8" WIDE X .030" THICK 201 STAINLESS STEEL BANDS & BUCKLES HAVING A MIN. BREAKING STRENGTH OF 1875 LBS.

B. 3/4" WIDE POLYPROPYLENE STRAPPING HAVING A 1400 LB BREAKING STRENGTH, 7% MAX. STRETCH & STEEL SEALS.

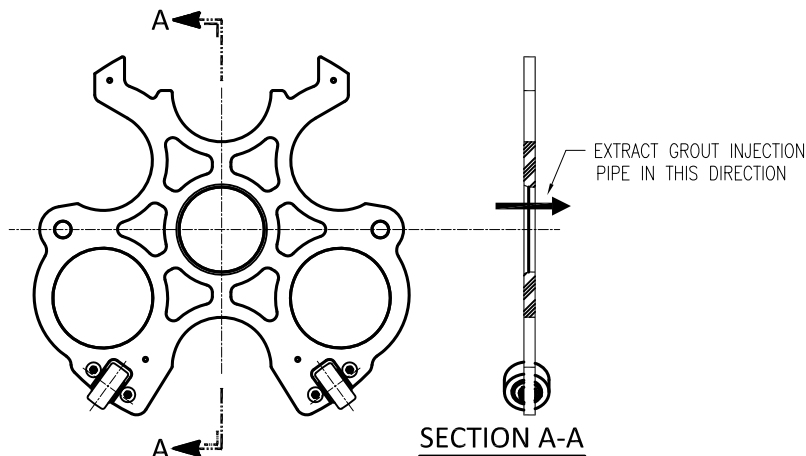
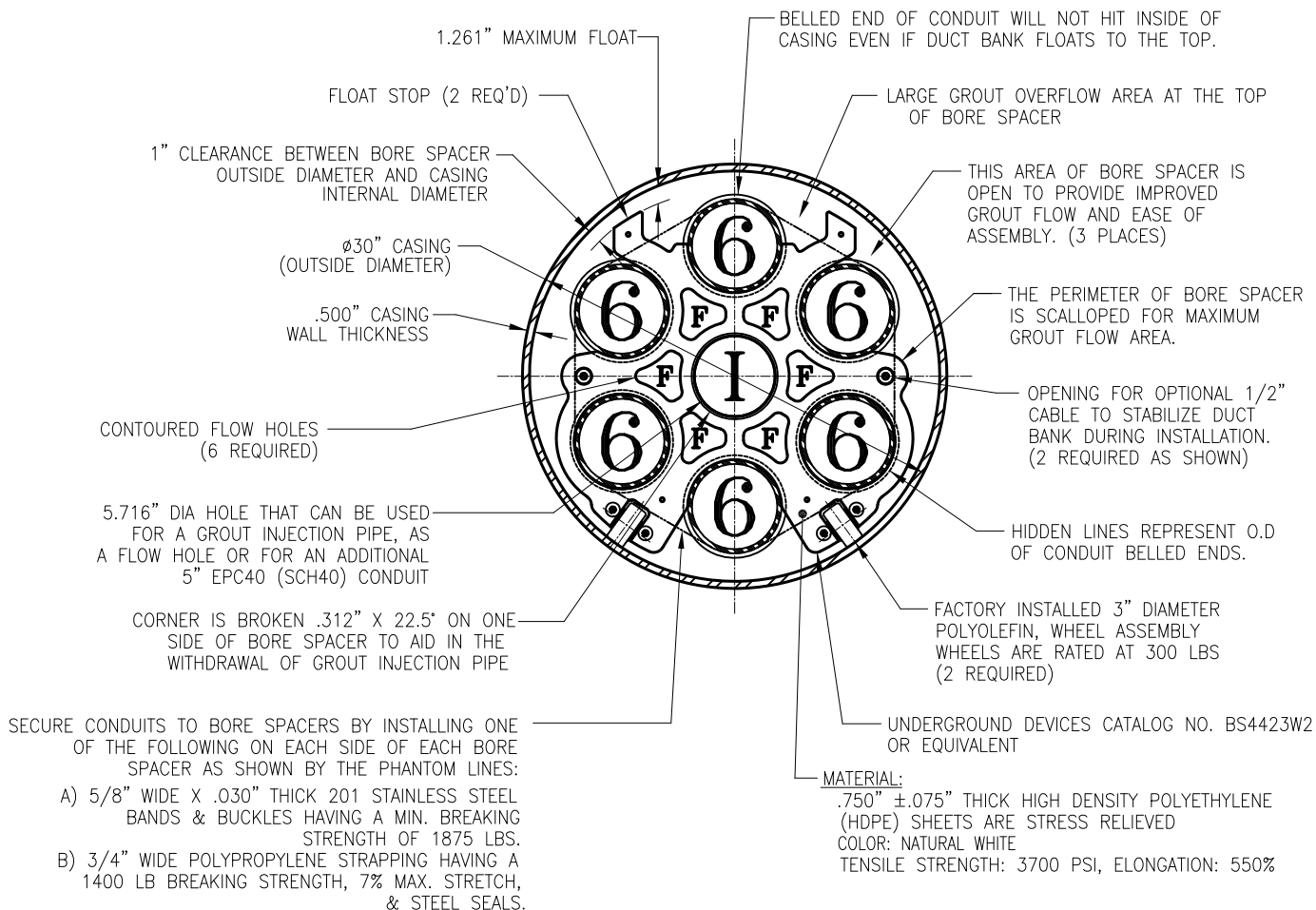
MATERIAL:
 .750" ±.075" THICK HIGH DENSITY POLYETHYLENE (HDPE) SHEETS ARE STRESS RELIEVED
 COLOR: NATURAL WHITE
 TENSILE STRENGTH: 3700 PSI, ELONGATION: 550%



BORE SPACERS MANUFACTURER		
MANUFACTURER	CONTACT PHONE NUMBER	WEB SITE
*UNDERGROUND DEVICES, INC.	(847)205-9000	http://www.udevices.com

*MANUFACTURER USED AS AN EXAMPLE. CONTRACTOR SHALL UTILIZE SPACERS THAT CONFORM TO NOTE 3 C.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 TYPICAL BORING DETAIL 4-6" CONDUITS
REVIEWED	<i>rs</i>	
APPROVED	<i>ms</i>	
REVISION	REV 2	
DATE	4-28-2016	
		3.66



BORE SPACERS MANUFACTURER		
MANUFACTURER	CONTACT PHONE NUMBER	WEB SITE
*UNDERGROUND DEVICES, INC.	(847)205-9000	http://www.udevices.com

*MANUFACTURER USED AS AN EXAMPLE. CONTRACTOR SHALL UTILIZE SPACERS THAT CONFORM TO NOTE 3 C.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 TYPICAL BORING DETAIL 6-6" CONDUITS
REVIEWED	<i>gr</i>	
APPROVED	<i>MB</i>	
REVISION	REV 2	
DATE	4-28-2016	
		3.67

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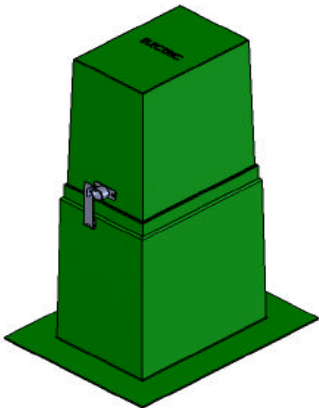
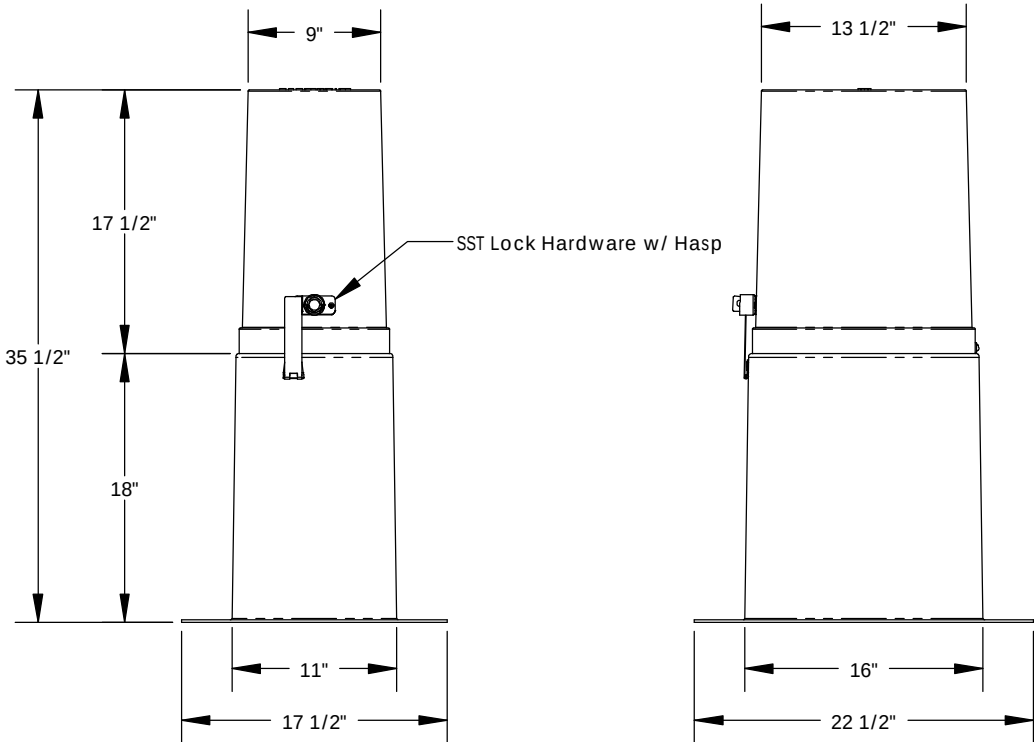
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SECONDARY & TEMPORARY SERVICE

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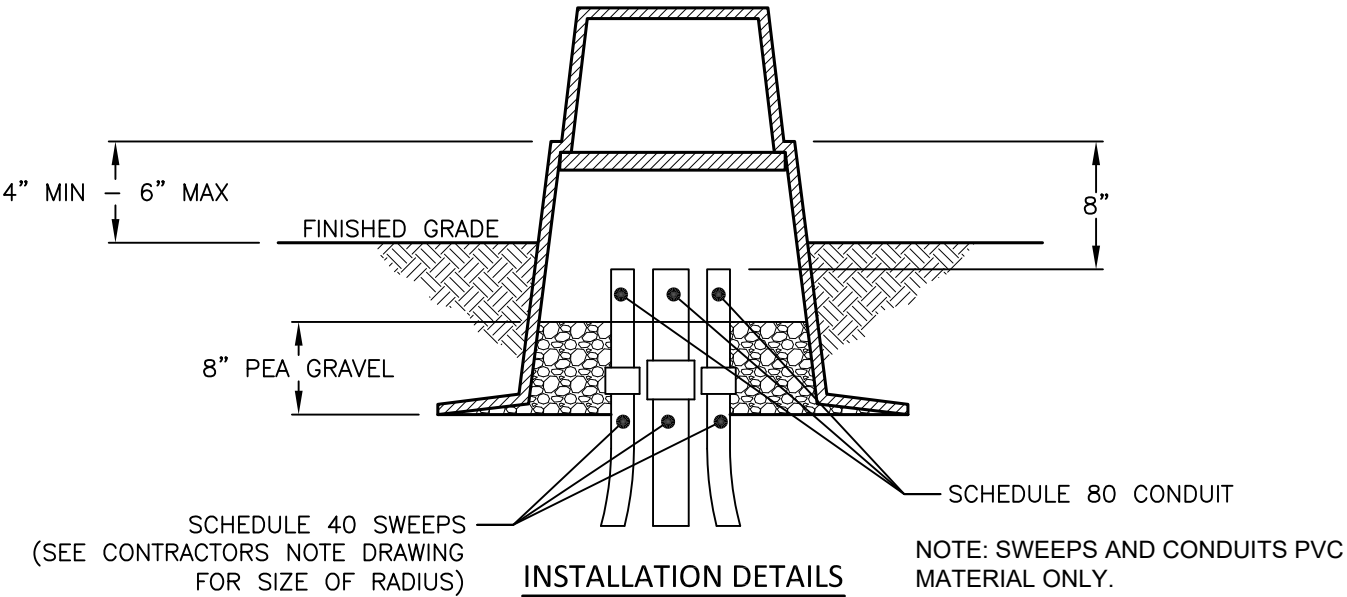
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4.2 ABOVE SURFACE PULLBOX LA QUINTA	138
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- 4.1 Above surface secondary pullbox to be utilized in Imperial County for secondary construction. See 4.4 Standard 181.1.
- 4.2 Above surface secondary pullbox to be utilized in Riverside County for secondary construction. See 4.5 Standard 181.2.
- 4.3 Secondary voltage for all secondary pullboxes to be 120/240V, single phase; under no circumstances will 277/480V be used in secondary pullboxes.

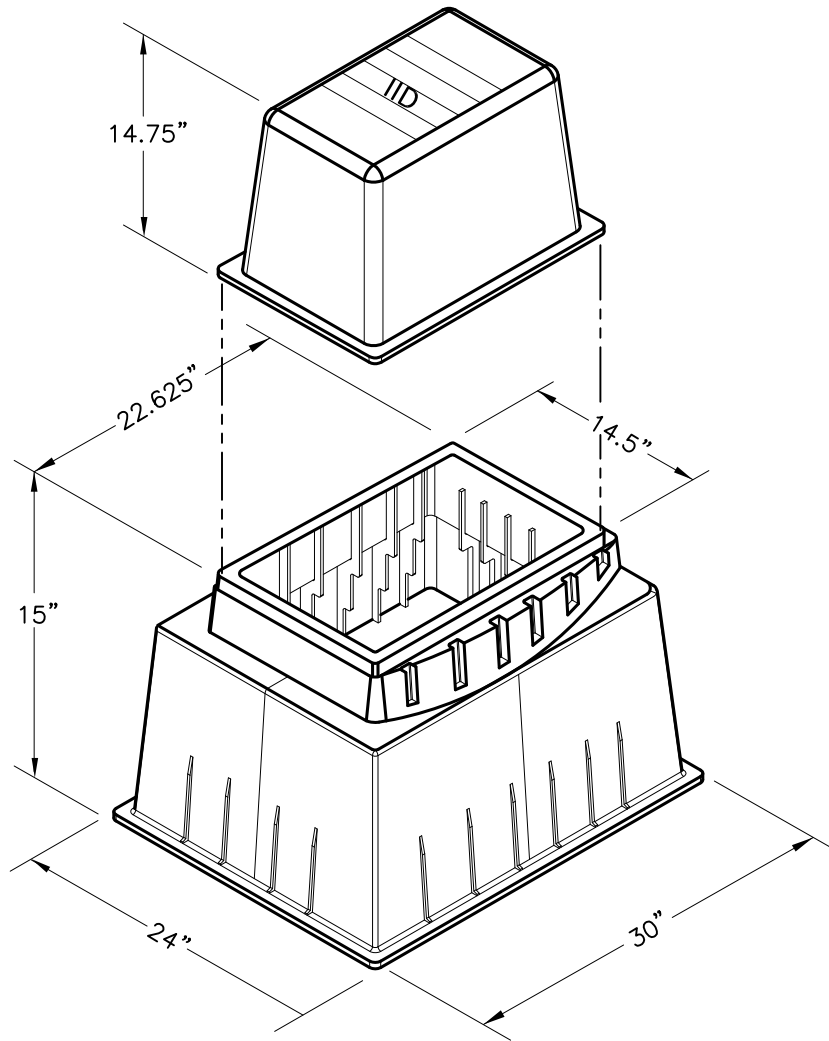


NORDIC FIBERGLASS, INC.
PEDESTAL # PRMC-190-MG
Using M-2 (PO-109) LOCKING ASSEMBLY
AND H-101-P4 HASP WITH BENT SECURITY TAB MUNSELL GREEN (DEAD GRASS) IN COLOR, RUST FREE SMC AND STAINLESS STEEL HARDWARE

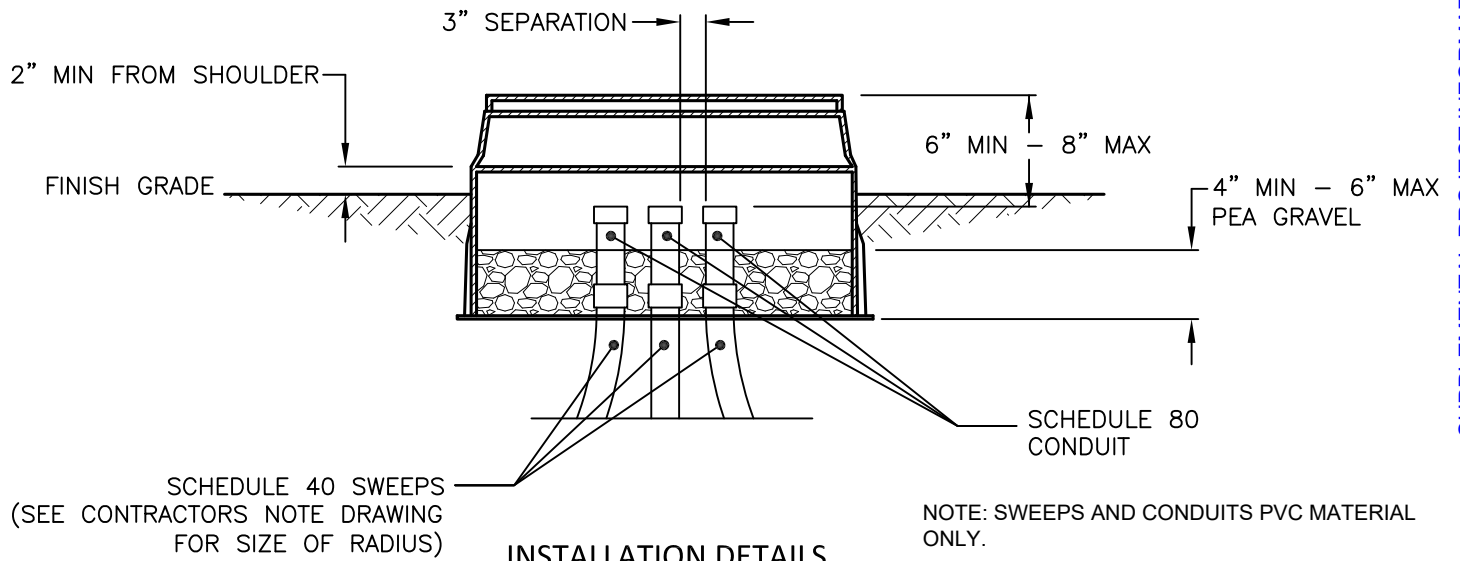
Pedestal	Height	Top Cover Dimensions	Lid Height	Base Height	Above Ground	Below Ground	Locking System
PRMC-190-MC	36"	9" X 14" X 18"	18"	18"	21"	15"	P-109



IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	FF	 IMPERIAL VALLEY SECONDARY PULLBOX DETAIL DRAWING ABOVE GROUND LEVEL
REVIEWED	FF	
APPROVED	EGM	
REVISION	REV 6	
DATE	05-28-2020	
		181.1



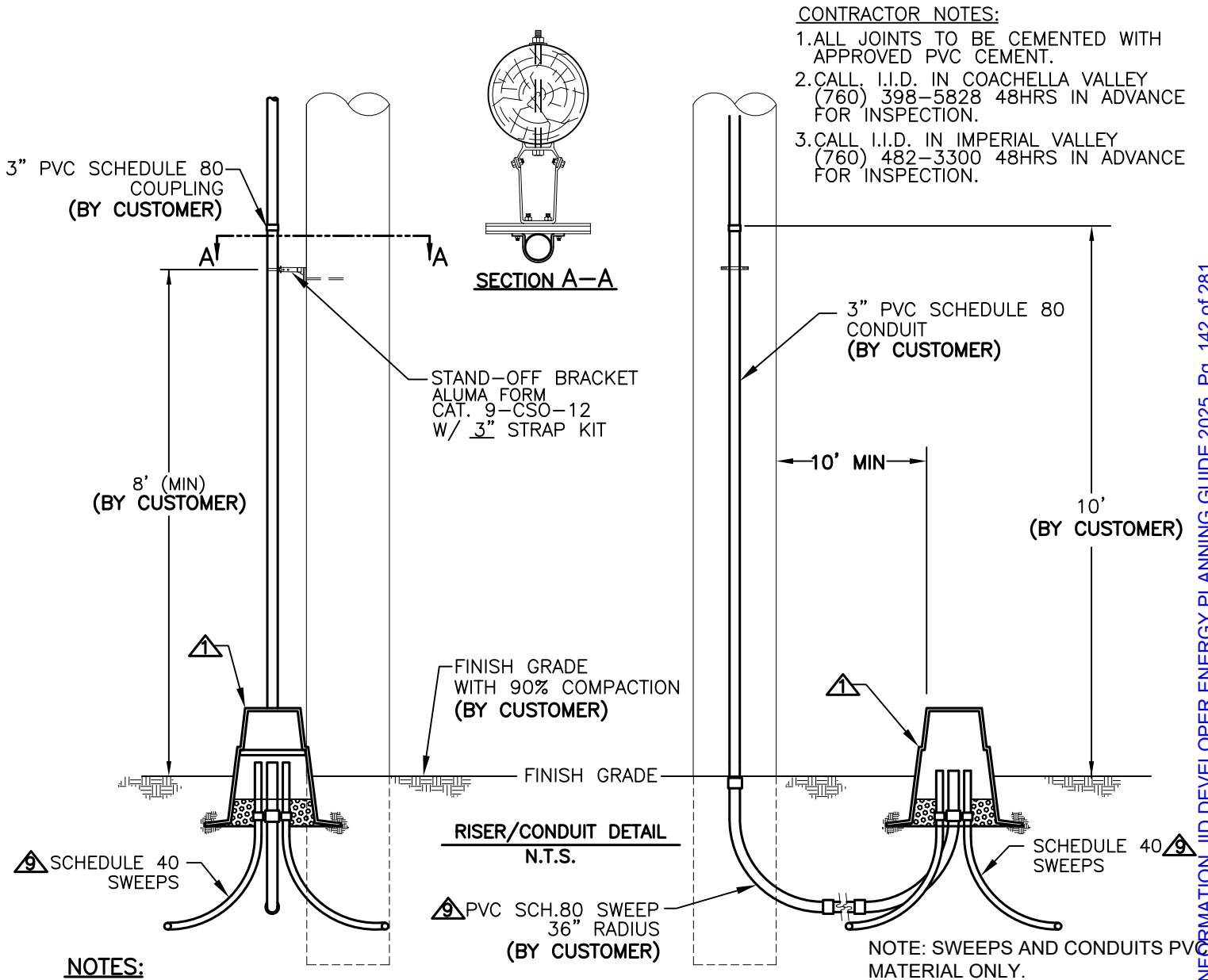
PENCELL PLASTICS
CATALOG NUMBER: AG-20HD



INSTALLATION DETAILS

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 LA QUINTA SECONDARY PULLBOX DETAIL DRAWING ABOVE GROUND LEVEL
REVIEWED	<i>CD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 5	
DATE	12-31-2013	181.2

- 4.6 Single secondary riser with above ground pullbox. See 4.7 Standard 181.11
 - 4.6.1 Contractor shall perform all trenching refer to section 3
 - 4.6.2 Contractor shall install conduit runs, pullbox and riser material (up to first 10' stick of schedule 80 PVC on pole (utilize IID provided stand-off bracket to maintain correct clearance from pole) Contact Customer Project Development Services office for location of pole.
 - 4.6.2 Contractor shall install pull rope in conduit run between pullbox and meter. Refer to 3.44 Table 8 Conduit Rope/Measured Rope Requirements.
 - 4.6.3 Contractor shall call Customer Project Development Services for trench inspection. Inspections are subject to a minimum 48 hour advance notice and are by appointment only.
 - 4.6.3.1 Imperial Valley (760) 482-3300
 - 4.6.3.2 Coachella Valley (760) 398-5828
 - 4.6.4 Contractor shall backfill after IID inspector's approval. Trench shall be free of rocks adjacent to conduit & pullbox.
 - 4.6.5 Contact Customer Project Development Services for specifications on commercial services
 - 4.6.6 All PVC joints shall be cemented with approved PVC cement

**NOTES:**

△ REFER TO INSTALLATION DETAILS FOR LA QUINTA AND IMPERIAL VALLEY FOR PROPER INSTALLATION OF SECONDARY PULLBOX. (IMPERIAL VALLEY PULLBOX PICTORIALLY REPRESENTED IN DRAWING).

2. CONTRACTOR SHALL DO ALL TRENCHING. (REFER TO 3.1, THROUGH 3.6 AND 5.23)
3. CONTRACTOR SHALL INSTALL CONDUIT RUNS, PULLBOX AND RISER MATERIAL ON I.I.D. POLE. CONTACT CUSTOMER OPERATIONS FOR LOCATION OF POLE.
4. CONTRACTOR SHALL INSTALL PULL ROPE IN CONDUIT RUN BETWEEN PULLBOX AND METER. REFER TO CONTRACTORS NOTES, TABLE 8 CONDUIT ROPE/MEASURED ROPE REQUIREMENTS, SEE 3.45.
5. CONTRACTOR SHALL CALL CUSTOMER OPERATIONS FOR TRENCH INSPECTION PRIOR TO BACKFILLING.
6. CONTRACTOR SHALL BACKFILL AFTER I.I.D. INSPECTOR'S APPROVAL. TRENCH SHALL BE FREE OF ROCKS ADJACENT TO CONDUIT & PULLBOX. (REFER TO NOTES IN SECTION 3)
7. INQUIRE WITH CUSTOMER OPERATIONS FOR SPECIFICATIONS ON COMMERCIAL SERVICES.
8. ALL MATERIAL SHOWN ON SKETCH EXCEPT POLE SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR AT THEIR EXPENSE.

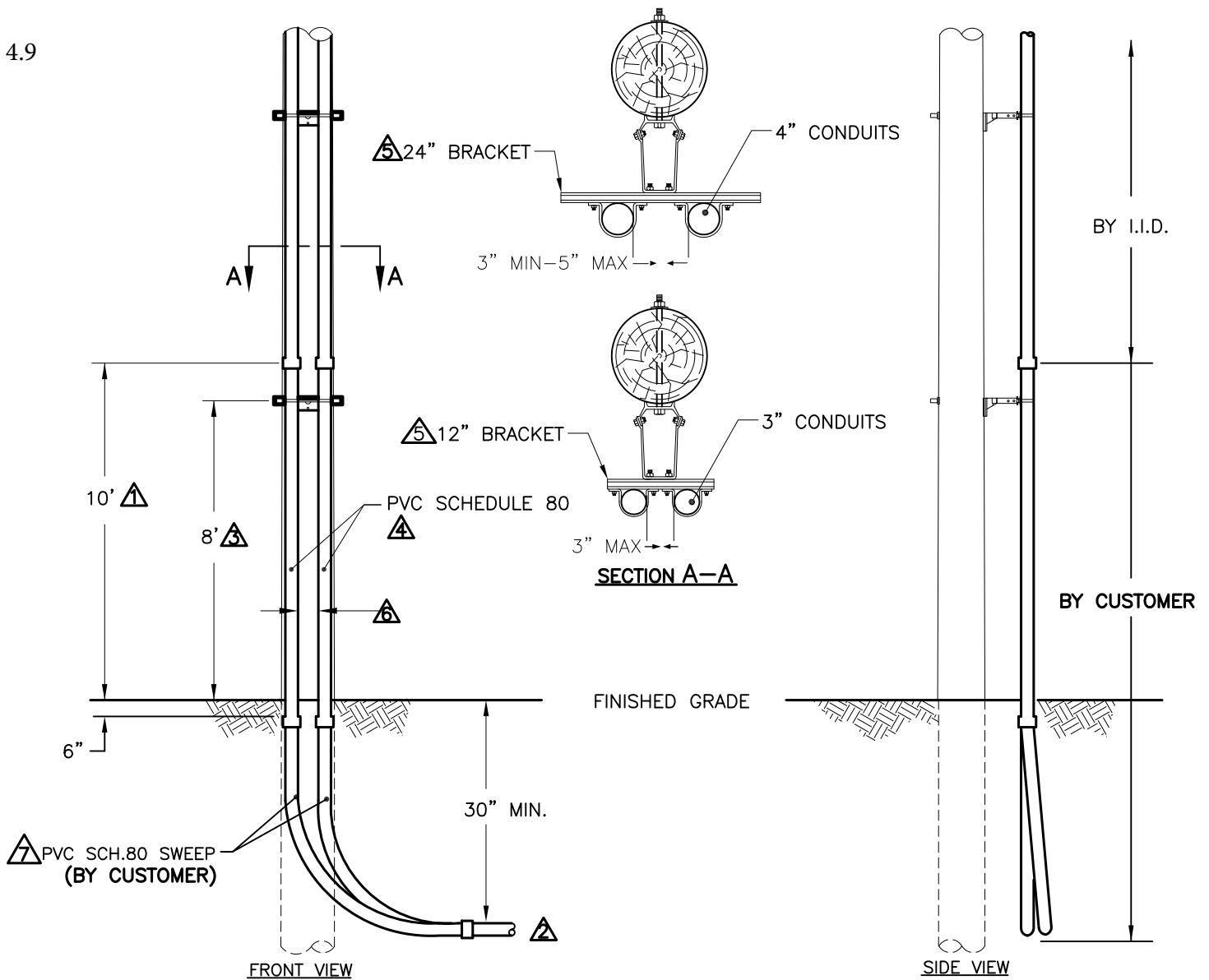
△ REFER TO CONTRACTORS NOTES DRAWING AND TABLE 5, 3.38.1

ALL RISER SWEEPS TO BE INSTALLED BELOW FINISH GRADE.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 SECONDARY RISER WITH ABOVE GROUND PULLBOX
REVIEWED	<i>PD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 8	
DATE	9-26-2016	181.11

4.8 Secondary double riser with 3" or 4" conduit

- 4.8.1 Conduit installation to be completed by the customer or contractor up to 10' above finished grade as shown in standard 181.31. See 4.9 Standard 181.31
- 4.8.2 Conduit stand-off bracket provided by IID shall be used to ensure correct distance from pole to conduit, bracket when installed by contractor is required to be a minimum of 8' above finished grade
- 4.8.3 All conduit installed above ground shall be schedule 80 PVC
- 4.8.4 Conduit sweeps terminating at riser pose shall be schedule 80 PVC with a minimum 3' (36") radius. See 3.38.1 Table 5 Riser Sweep Radius Vertical
- 4.8.5 Sweep connection to be installed 6" below finished grade. See 4.9 Standard 181.31



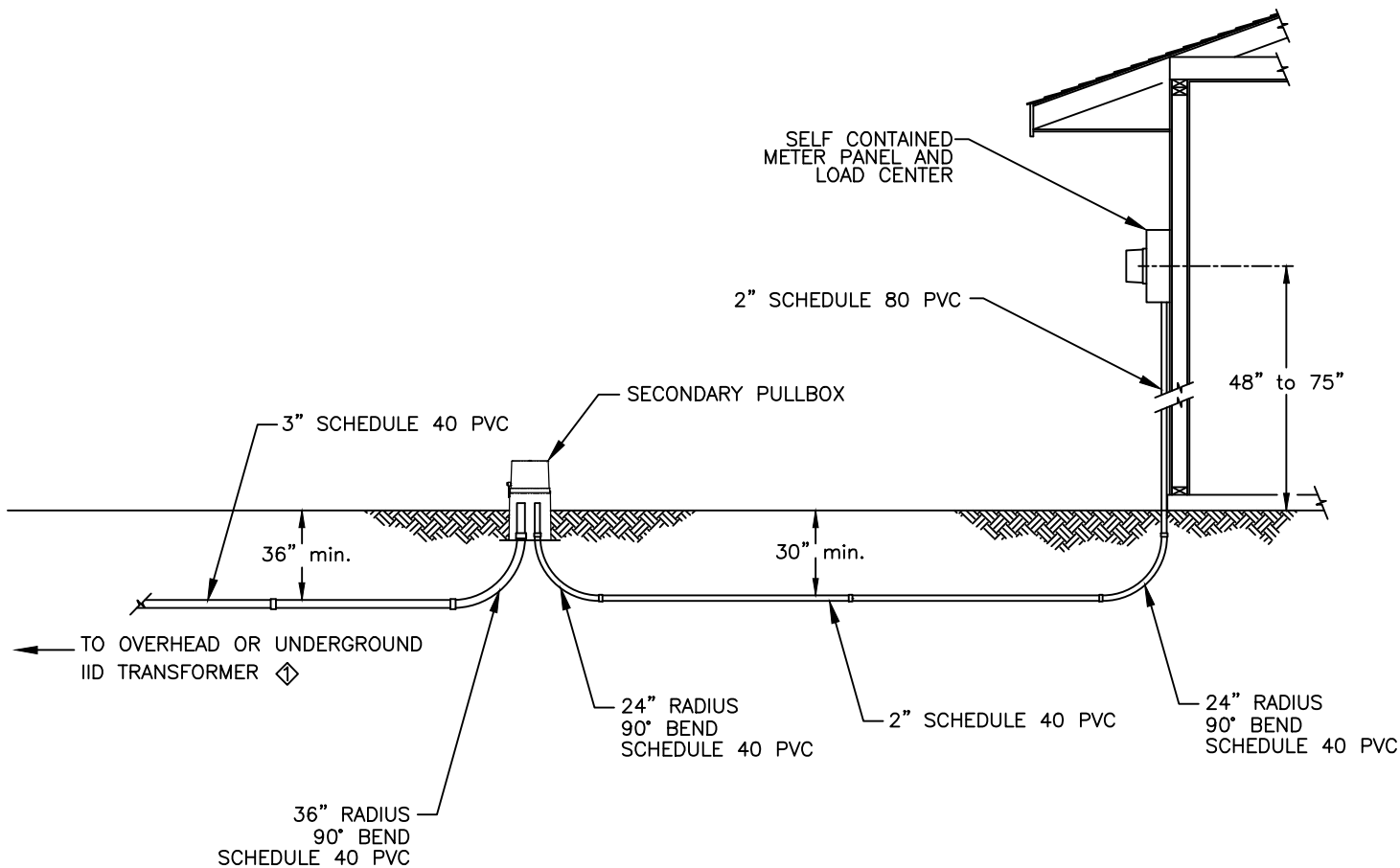
NOTE: SWEEPS AND CONDUITS PVC MATERIAL ONLY.

CONSTRUCTION NOTES:

- 1 CONDUIT INSTALLATION TO BE COMPLETED BY THE CUSTOMER OR CONTRACTOR UP TO 10' ABOVE FINISHED GRADE AS SHOWN.
- 2 REFER TO CONTRACTORS NOTES DISTRIBUTION PLAN FOR DIRECTION OF THE SWEEP AND RISER POSITION.
- 3 FIRST CONDUIT BRACKET TO BE INSTALLED APPROXIMATELY 8 FEET ABOVE FINISHED GRADE.
- 4 REFER TO CONTRACTORS NOTES DISTRIBUTION PLAN FOR SIZE OF SCHEDULE 80 PVC ABOVE GROUND.
- 5 BRACKETS TO BE SUPPLIED BY IID UNLESS OTHERWISE NOTED.
- 6 SEPARATE CONDUITS LEAVING CENTER OF POLE OPEN FOR USE.
- 7 CONDUIT SWEEPS TERMINATING AT RISER POLE SHALL BE SCHEDULE 80 WITH A MINIMUM 3' (36") RADIUS, REFER TO TABLE 5 RISER SWEEP RADIUS 3.38.1
- 8 **ALL RISER SWEEPS TO BE INSTALLED 6" BELOW FINISHED GRADE.**

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	FF	 SE I D R D E R I S E R I R 4 D I S 1 1 1
REVIEWED	FF	
APPROVED	CB	
REVISION	02	
DATE	10-22-2020	

- 4.10 Secondary underground pullbox to self-contained meter panel single phase 120/240 volt service. See 4.11 Standard 181.411
- 4.10.1 Schedule 40 PVC can be used when conduit will be installed in trench or not exposed to sunlight.
 - 4.10.2 Schedule 80 PVC will be used for all conduits exposed to sunlight or above ground
 - 4.10.3 2" conduit radius will be 24"
 - 4.10.4 3" conduit radius will be 36"
 - 4.10.5 4" conduit radius will be 36"
 - 4.10.6 Customer shall perform all trenching per IID standards see section 3.
 - 4.10.7 Customer shall install all conduit runs, secondary pullbox, and riser material on IID pole (if applicable).
 - 4.10.8 Contact Customer Project Development Services for pole location
 - 4.10.9 Customer shall install pull rope in conduit runs between proposed riser to pull box or transformer. See 3.44 table 8 Conduit Rope/Measured Rope Requirements



NOTES:

CUSTOMER RESPONSIBILITY:

- ◇ 3" SECONDARY CONDUIT BEND RADIUS TO UNDERGROUND TRANSFORMER SHALL BE 36", 90° BEND, SCHEDULE 40 PVC.
3" SECONDARY CONDUIT BEND RADIUS TO RISER POLE SHALL BE 36", 90° BEND, SCHEDULE 80 PVC.
- 2. CUSTOMER SHALL DO ALL THE TRENCHING PER IID SPECIFICATIONS. CUSTOMER SHALL INSTALL ALL CONDUIT RUNS, SECONDARY PULLBOX, AND RISER MATERIAL ON I.I.D POLE (IF APPLICABLE). CONTACT CUSTOMER OPERATIONS DEPARTMENT FOR LOCATION OF POLE.
- 3. CUSTOMER SHALL INSTALL 1/4" NYLON PULLCORD IN CONDUIT RUNS BETWEEN PROPOSED RISER/UNDERGROUND TRANSFORMER TO SECONDARY PULLBOX AND FROM SECONDARY PULLBOX TO METER PANEL.
- 4. CUSTOMER SHALL CONTACT CUSTOMER OPERATIONS DEPARTMENT FOR TRENCH INSPECTION PRIOR TO BACKFILLING. CUSTOMER SHALL BACKFILL AFTER I.I.D. INSPECTOR'S APPROVAL. TRENCH SHALL BE FREE OF ROCKS ADJACENT TO CONDUIT & SECONDARY PULLBOX.

I.I.D RESPONSIBILITY:

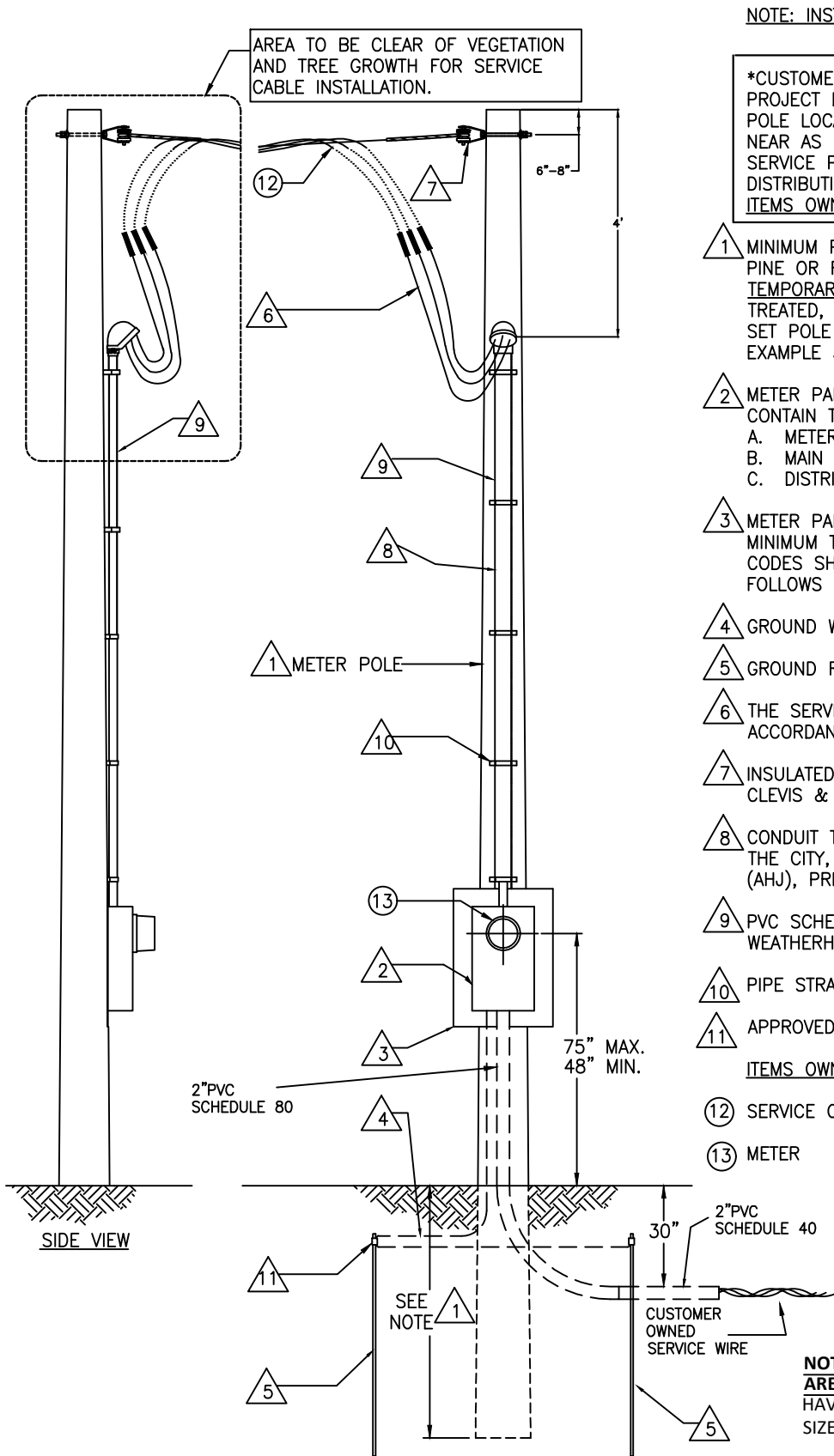
- 1. I.I.D TO PROVIDE ALL SECONDARY CABLE FROM TRANSFORMER TO SECONDARY PULLBOX AND FROM SECONDARY PULLBOX TO METER PANEL.
- 2. I.I.D TO PROVIDE AND INSTALL METER.

IMPERIAL IRRIGATION DISTRICT

	DRAWN BY	P. SAMANO	DERGR D SE D R SI G E P SE	S S
	REVISED BY	G. OREJAS		
	APPROVED BY	F. FIMBRES	METER MINIMUM HEIGHT FROM 60" TO 48"	SHEET 1 OF 1
	REVISION	REV 0		
	DATE	7/7/2025	181.411	1 0

4.12 Temporary Power

- 4.12.1 Customer is required to contact Customer Project Development Services discuss your project with a project manager or service planner.
- 4.12.2 Complete the required application.
- 4.12.3 Prior to any excavation near or around IID facilities including transformers, secondary pullboxes, etc. Customer is required to obtain a dig alert (call 811).
- 4.12.4 IID qualified electrical worker must be present when opening a transformer, pullbox or other device. Contact Customer Project Development Services for scheduling.
- 4.12.5 Customer is required to schedule inspection of installed conduit by IID prior to any backfill of trench.
- 4.12.6 Temporary feed from secondary pullbox. See 4.12 Standard 193.2
- 4.12.7 Temporary feed from single phase transformer. See 4.13 Standard 193.21
- 4.12.8 Temporary feed from three phase transformer. See 4.14 Standard 193.211



NOTE: INSTALLATION TO BE APPROVED AND TAGGED BY APPLICABLE INSPECTING AUTHORITY

*CUSTOMER IS REQUIRED TO CONTACT CUSTOMER PROJECT DEVELOPMENT SERVICES TO DISCUSS METER POLE LOCATION. METER POLE SHALL BE INSTALLED AS NEAR AS POSSIBLE TO OVERHEAD TRANSFORMER / SERVICE POLE IN ACCORDANCE TO THE IID 15KV DISTRIBUTION BUILDING CLEARANCES STANDARDS pg228. ITEMS OWNED AND INSTALLED BY THE CUSTOMER

- 1 MINIMUM POLE REQUIREMENTS: PERMANENT 25' TREATED PINE OR FIR WITH 5" MIN. TOP DIAM. TEMPORARY 6" x 6" x 25' SAWED PINE OR FIR TIMBER, TREATED, OR 30'. SET POLE TYPICAL 10% + 2' DEEP. EXAMPLE 30'-10% = 3'+2' =5'
- 2 METER PANEL SHALL BE IN ACCORDANCE TO NEC AND CONTAIN THE FOLLOWING:
 - A. METER WELL (SOCKET)
 - B. MAIN DISCONNECT BREAKER
 - C. DISTRIBUTION CIRCUIT BREAKERS
- 3 METER PANEL SHALL BE MOUNTED ON A BOARD WITH A MINIMUM THICKNESS OF 3/4". ALL RELEVANT LOCAL CODES SHALL BE FOLLOWED TO ENSURE INSTALLATION FOLLOWS NEC.
- 4 GROUND WIRE IN ACCORDANCE WITH NEC.
- 5 GROUND RODS (TWO REQUIRED PER NEC).
- 6 THE SERVICE ENTRANCE CONDUCTORS TO BE ACCORDANCE TO NEC, 3' OUT OF WEATHERHEAD.
- 7 INSULATED CLEVIS (CUSTOMER RESPONSIBILITY 600 VOLT CLEVIS & INSULATOR WITH A THROUGH BOLT).
- 8 CONDUIT TYPE SCHEDULE 80 PVC TO BE APPROVED BY THE CITY, COUNTY, OR AUTHORITY HAVING JURISDICTION (AHJ), PRIOR TO INSTALLATION.
- 9 PVC SCHEDULE 80 CONDUIT SHALL BE INSTALLED FROM WEATHERHEAD TO THE METER.
- 10 PIPE STRAPS PER CONDUIT SIZE TO BE INSTALLED.
- 11 APPROVED GROUND CLAMP AND FITTINGS.

ITEMS OWNED AND INSTALLED BY I.I.D.

- 12 SERVICE CABLE
- 13 METER

CONDUCTOR SIZE (AWG OR KCMIL)		WEATHERHEAD & CONDUIT
Service Rating	Cooper	
100 A	4	1-1/2"
110 A	3	1-1/2"
125 A	2	1-1/2"
150 A	1	1-1/2"
175 A	1/0	1-1/2"
200 A	2/0	2"

NOTE: RECOMMENDED WIRE SIZES SHOWN IN TABLE ARE FOR INFORMATION ONLY, THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) DETERMINATES THE ACTUAL SIZES REQUIRED.

IMPERIAL IRRIGATION DISTRICT



DRAWN BY	P. SAMANO
REVISED BY	F. FIMBRES
APPROVED BY	F. FIMBRES
REVISION	REV 0
DATE	07/07/2025

REE DSI G E P SE S MER ME ER P ESE D R	METER MINIMUM HEIGHT FROM 60" TO 48"
RISER DP E DE I R PERM E D EMP R R P ER	
180.4	

S S

SHEET 1 OF 1

200

OVERHEAD SERVICE WIRE SIZES TABLE RESIDENTIAL

SINGLE PHASE

CONDUCTOR SIZE (AWG OR KCMIL)		WEATHERHEAD & CONDUIT
Service Rating	Cooper	
100 A	4	1-1/2"
110 A	3	1-1/2"
125 A	2	1-1/2"
150 A	1	1-1/2"
175 A	1/0	1-1/2"
200 A	2/0	2"

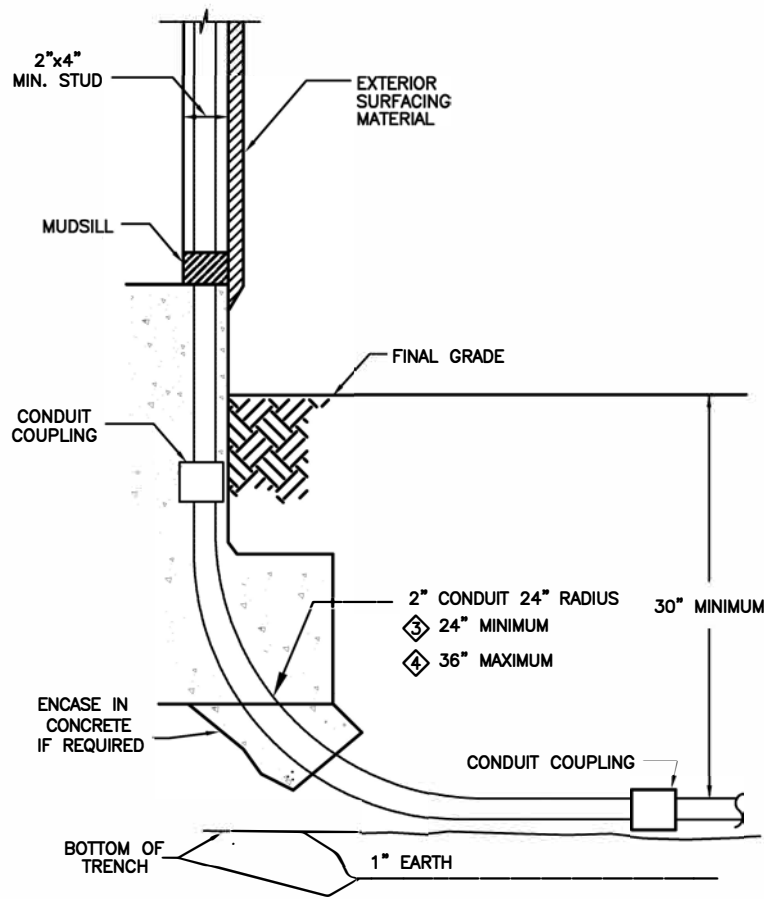
THREE PHASE

CONDUCTOR SIZE (AWG OR KCMIL)		WEATHERHEAD & CONDUIT
Service Rating	Cooper	
200 A	3/0	Minimum 2"

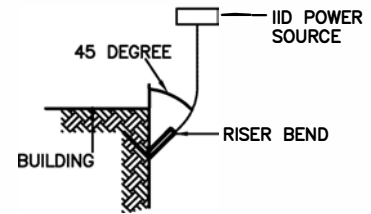
-COPPER CONDUCTOR IS RECOMMENDED BY IID.

IMPERIAL IRRIGATION DISTRICT		
Drawn By	Bryan Alvarez	 THREE AND SINGLE PHASE RESIDENTIAL OVERHEAD SERVICE ENTRANCE CONDUCTOR WIRE SIZES TABLE
Reviewed	Alfred Ornelas	
Approved	Francisco Fimbres	
Revision	REV-10	
Date	6/20/2023	
		180.45

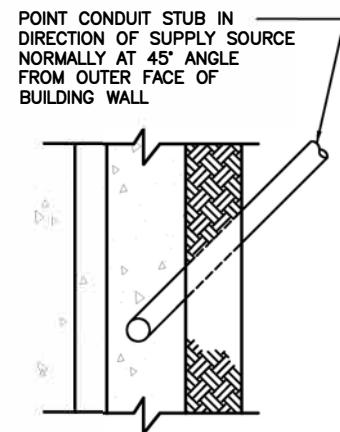
SCOPE: THIS STANDARD SHOWS 2 INCH CONDUIT TERMINATION AT THE CUSTOMERS CONDUIT RISER.



TYPICAL ELEVATION



TYPICAL PLAN



PLAN

NOTE: SWEEPS AND CONDUITS PVC MATERIAL ONLY.

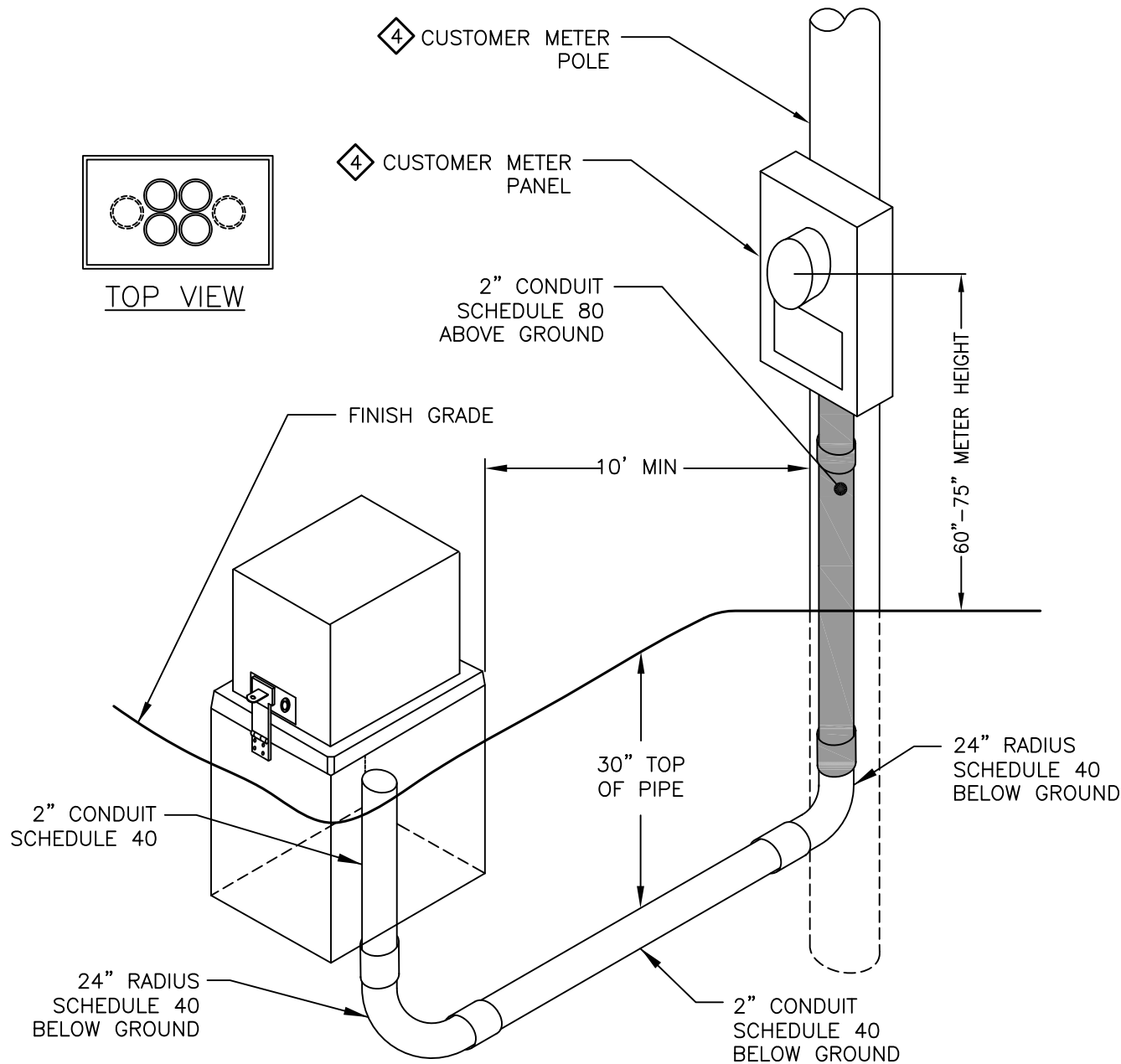
NOTES:

1. A STRAIGHT PIECE OF 2 INCH CONDUIT AND A 90°, 24" MINIMUM RADIUS IS REQUIRED.

INSTALLATION:

2. VERIFY METER AND SERVICE LOCATION WITH IID BEFORE INSTALLATION.
- ③ 90° RADIUS 24" CONNECTION MUST BE 6" BELOW FINAL GRADE.
 - ④ 90° RADIUS 36" CONNECTION SHALL BE AT FINAL GRADE.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	36	 RESIDENTIAL RISER AND CONDUIT
REVIEWED	72	
APPROVED	72	
REVISION	REV 2	
DATE	12-18-17	
		180.5

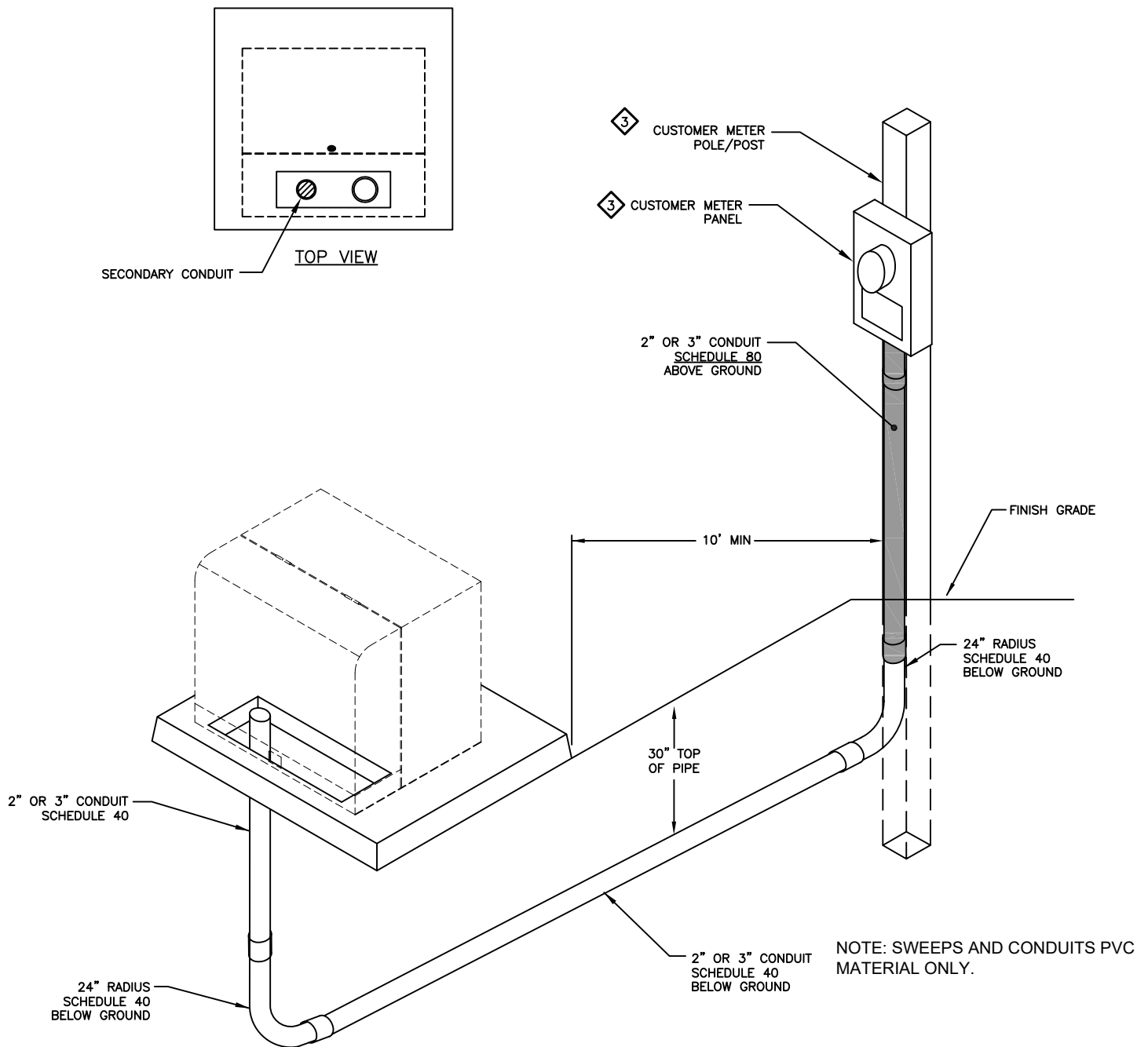


NOTE: SWEEPS AND CONDUITS PVC MATERIAL ONLY.

- NOTE:**
- 1. INSPECTOR AND TROUBLESHOOTER MUST BE PRESENT **BEFORE** EXCAVATING UNDER EXISTING IID PULLBOX.
 - 2. A VERTICAL PORTION OF CONDUIT IS REQUIRED TO ENTER INTO IID PULLBOX. 24" RADIUS MUST BE BELOW FINISH GRADE.
 - 3. CONDUIT ENTERING IID PULLBOX MUST BE VERTICAL AND **NOT** AGAINST THE SIDE WALLS OF PULLBOX, SEE TOP VIEW.

4 FOR CUSTOM BUILT METER POST INSTALLATIONS SEE STANDARD 181.4, SECTION 2, 2.18

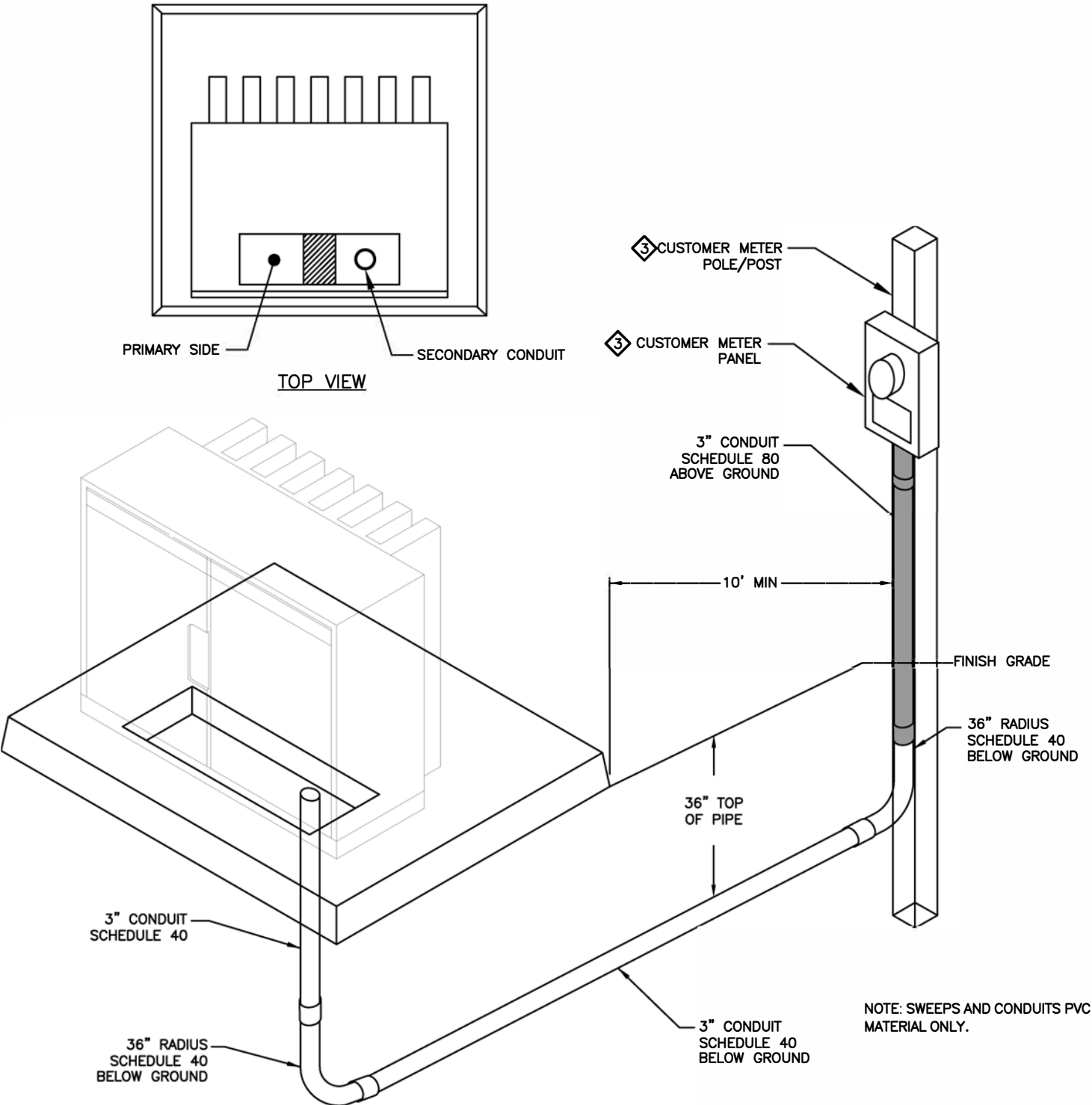
IMPERIAL IRRIGATION DISTRICT			
DRAWN BY			TEMPORARY POWER FEED FROM SECONDARY PULLBOX
REVIEWED			
APPROVED			
REVISION	REV 2		
DATE	9-26-2016	193.2	

**NOTES:**

- INSPECTOR AND TROUBLESHOOTER MUST BE PRESENT **BEFORE** EXCAVATING UNDER EXISTING IID TRANSFORMER. WHEN SECONDARY STUB OUT IS AVAILABLE AN IID INSPECTOR MUST BE PRESENT.
- A VERTICAL PORTION OF CONDUIT IS REQUIRED TO ENTER INTO IID TRANSFORMER. SCHEDULE 40, 24" RADIUS MUST BE BELOW FINISH GRADE.

3 FOR CUSTOM BUILT METER POST INSTALLATIONS SEE STANDARD 181.4, SECTION 2, 2.18.
 AUTHORITY HAVING JURISDICTION WILL INSPECT POLE/POST, PLYWOOD, AND METER.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	JR	 TEMPORARY POWER FROM PAD MOUNT TRANSFORMER
REVIEWED	JD	
APPROVED	JR	
REVISION	REV 3	
DATE	9-26-2016	
		193.21

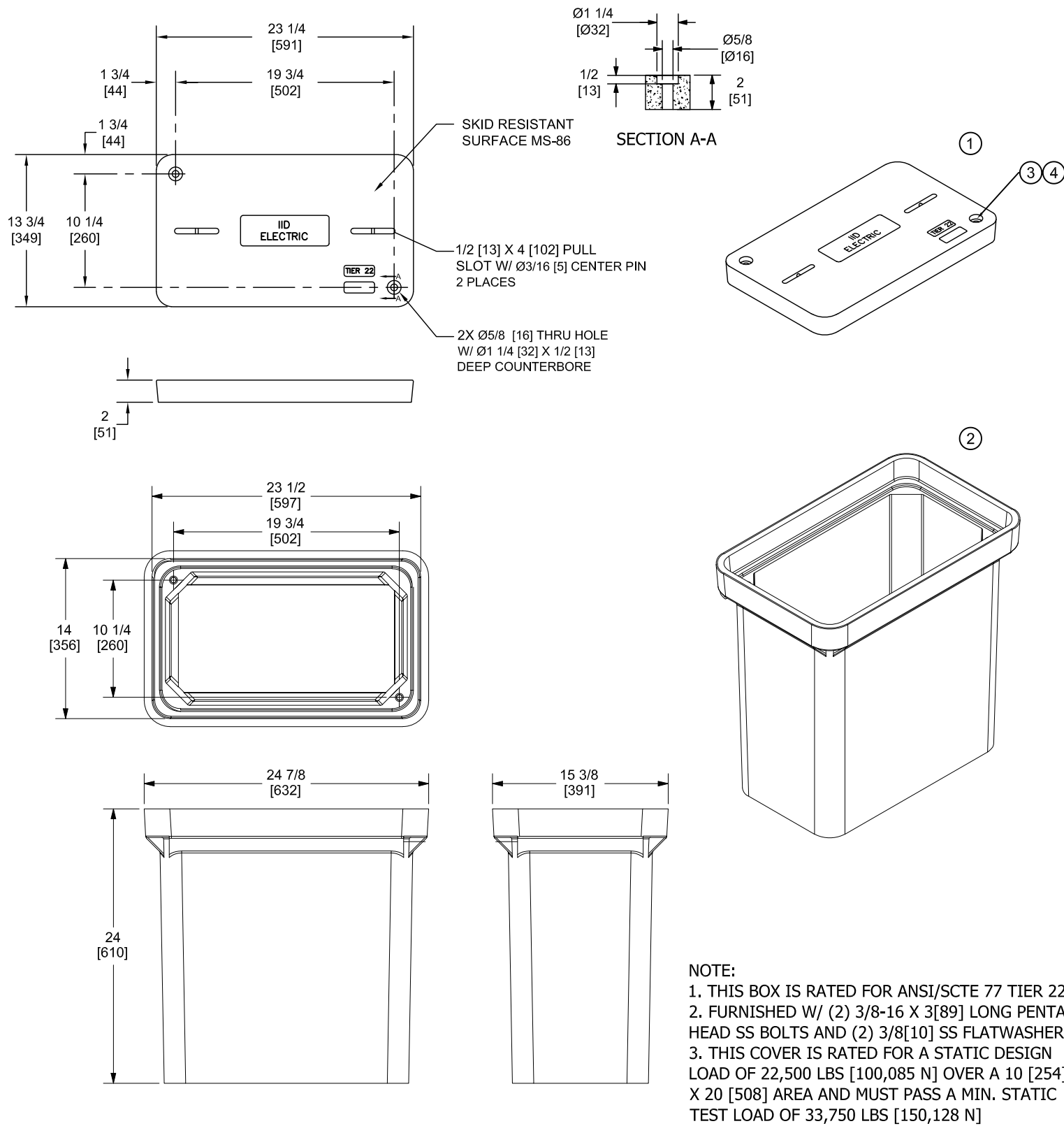


NOTES:

- 1. INSPECTOR AND TROUBLESHOOTER MUST BE PRESENT **BEFORE** EXCAVATING UNDER EXISTING IID TRANSFORMER. WHEN SECONDARY STUB OUT IS AVAILABLE AN IID INSPECTOR MUST BE PRESENT.
- 2. A VERTICAL PORTION OF CONDUIT IS REQUIRED TO ENTER INTO IID 3Ø TRANSFORMER. SCHEDULE 40 36" RADIUS MUST BE BELOW FINISH GRADE.

3. FOR CUSTOM BUILT METER POST INSTALLATIONS SEE STANDARD 181.4, SECTION 2, 2.18. AUTHORITY HAVING JURISDICTION WILL INSPECT POST, PLYWOOD, AND METER.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 TEMPORARY POWER FROM PAD MOUNTED TRANSFORMER THREE PHASE 193.211
REVIEWED		
APPROVED		
REVISION	REV 2	
DATE	9-26-2016	



IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	OSCAR HAM	 TRAFFIC RATED SECONDARY PULLBOX BELOW GROUND LEVEL
REVIEWED	F. FIMBRES	
APPROVED	F. FIMBRES	
REVISION	REV 1	
DATE	1-30-2024	
182		PAGE 1 OF 2

TRAFFIC RATED SECONDARY PULL BOX KIT
PART NO. PG1324Z146E96

PARTS OF TRAFFIC RATED SECONDARY PULL BOX KIT						
	MANUFACTURER	DISTRIBUTOR	PHONE NO.	PART NO.	DESCRIPTION	DIMENSIONS L X W X H
①	QUAZITE	HUBBELL	800-346-3062	PG1324HH00E96T	COVER	23 1/4 X 13 3/4 X 2
②	QUAZITE	HUBBELL	800-346-3062	PG1324BA24B	BOX	23 1/2 X 14 X 24
③	QUAZITE	HUBBELL	800-346-3062	C080028	PENTA BOLT SS (2)	3/8-16 X 3.00
④	QUAZITE	HUBBELL	800-346-3062	C080210	FLAT WASHER SS (2)	.38 ID X 1.0 OD X .08T

SUPPLEMENTAL PROJECT INFORMATION, IID DEVELOPER ENERGY PLANNING GUIDE 2025, Pg. 155 of 281

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	OSCAR HAM	 TRAFFIC RATED SECONDARY PULLBOX BELOW GROUND LEVEL
REVIEWED	F. FIMBRES	
APPROVED	F. FIMBRES	
REVISION	REV 1	
DATE	1-30-2024	182 PAGE 2 OF 2

PADS, VAULTS, SECTORS

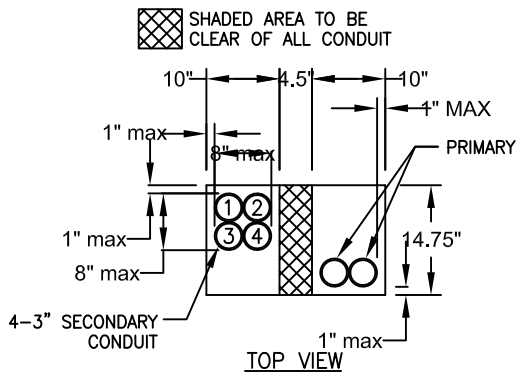
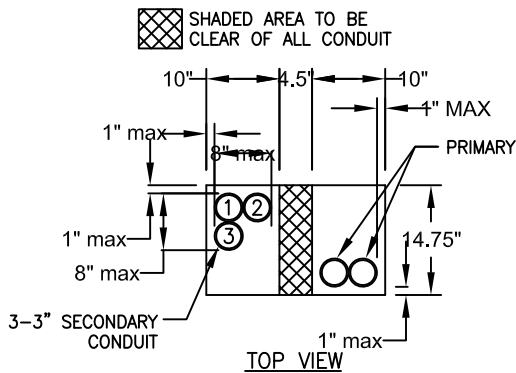
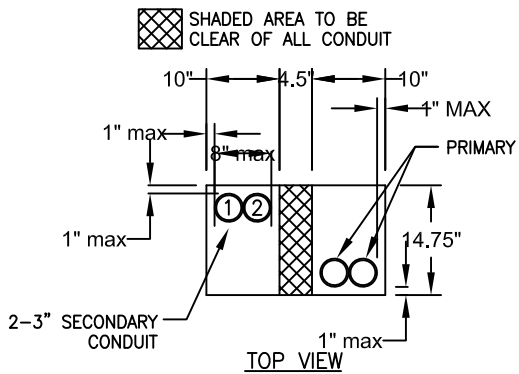
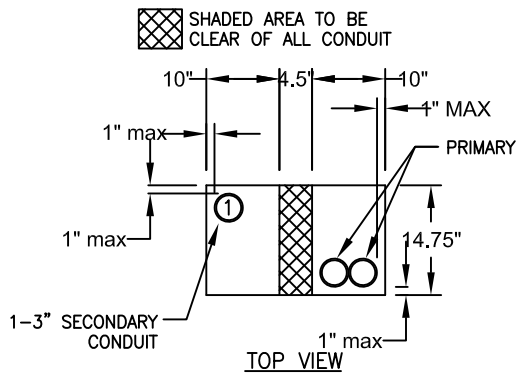
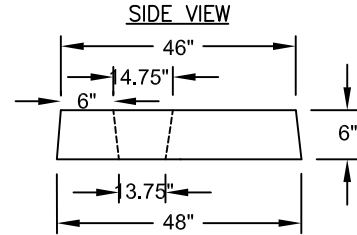
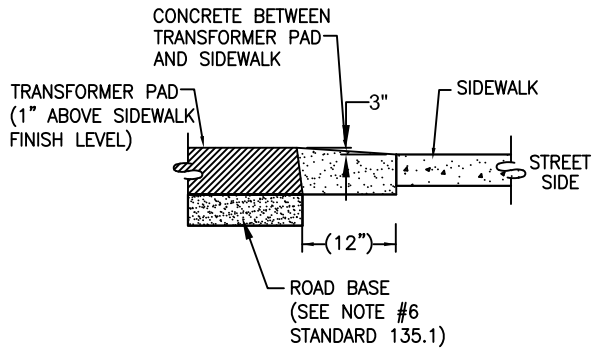
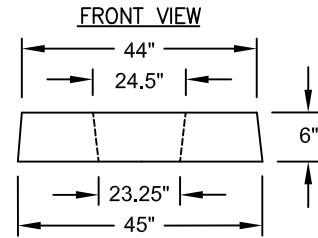
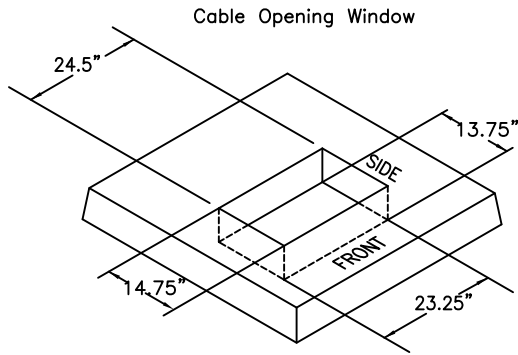
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- 5.1 All conduits entering transformer pads shall be cut off 0 inch to 1 inch from above the top of the pad. All conduits will be required to be capped using low density polyethylene (LDPE) plugs with pull tabs. See 5.28, Table 7, Poly Plug (dimensions shown shall be approximate).
- 5.2 Single phase transformer pads installed adjacent to roads shall have the primary conduits installed closest to the road, and secondary conduits installed away from the road. (Contact the appropriate IID Customer Service Project Manager).
- 5.3 Precast Pad inspection; when the contractor receives or installs a precast pad that has a continuous crack across three sides (side, top, and inside window) this pad will be rejected by the IID inspector. When a crack is non-continuous and the crack exceeds 1/32 inch (.032") wide, the contractor may make appropriate repairs to the crack with a manufacture approved epoxy equal to CIA-GEL 7000. The contractor must inform the IID inspector of any crack repair(s) to be made before repair is made.
- 5.4 No other utility will be allowed to occupy the area under a transformer pad. See 3.12 standard 100.41 Section A - A.
- 5.5 All Transformer, single phase Sector precast pads, and Sector Sleeves will not be installed until the following compaction process has been completed:
 - 5.5.1 Location of all transformer precast pad, single phase sector precast pads, and sector sleeves to be a compaction of 90 minimum by Developer/Contractor.
 - 5.5.2 Compaction material will conform to Caltrans Class 2 aggregate base or crusher fines with 3/8 inch rock.
 - 5.5.3 Compaction will be performed at a minimum of 2 feet (24") beyond proposed transformer and single phase sector precast pads on all four sides.
 - 5.5.4 Compaction depth will be a minimum of 1 foot (12") depth.
 - 5.5.5 Developer/Contractor will contact IID Inspector after compaction has been completed. IID Inspector must pass visual compaction prior to compaction test.
 - 5.5.6 After IID Inspector visually passes compaction, at the expense of the Developer/Contractor, will obtain a compaction test.
 - 5.5.6.1 *NOTE:* A maximum of 1/2 inch (.50") of sand fill will be approved for leveling of compaction area. If the sand fill exceeds the maximum requirement, the IID Inspector will fail the compaction.

- 5.5.7 Compaction testing should conform to ASTM D6938 (Nuclear Gauge).
- 5.5.8 IID Inspector will identify a minimum of 3 testing points to a maximum of 4 testing points at the discretion of the IID Inspector.
- 5.5.9 Testing probe (source rod) will extend to a minimum depth of 8 inches on all identified testing points.
- 5.5.10 After compaction test report is reviewed by the IID Inspector, the Inspector must be present when Developer/Contractor installs all precast pads.
 - 5.5.10.1 *NOTE:* After compaction test has been reviewed by IID Inspector, all precast pad(s) must be installed within 24 hours. If precast pad(s) is not installed within allotted time, IID will require a re-test at the Developer's expense.
- 5.6 Single Phase Transformer Pad 25 KVA to 167 KVA. Used in Imperial Valley. See 5.7 and 5.8 standard 135 and 135.1
 - 5.6.1 Approved single phase transformer pad manufacturers see 5.8 standard 135.1



IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	OSCAR HAM	 PRECAST CONCRETE PAD DETAIL FOR SINGLE-PHASE TRANSFORMER 15KVA TO 167KVA
REVIEWED	F. FIMBRES	
APPROVED	F. FIMBRES	
REVISION	REV 7	
DATE	2-29-2024	PAGE 2 OF 2

CONSTRUCTION NOTES:

1. A PRECAST CONCRETE PAD SHALL BE USED.
2. APPROVED MANUFACTURERS AND STRUCTURES.

SINGLE PHASE 15 kVA - 167 kVA TRANSFORMER PAD IMPERIAL			
MANUFACTURER	PHONE No.	STRUCTURE No.	DIMENSIONS FRONT/SIDE/THICKNESS
SUPERIOR READY MIX	(760)352-4341	3421 HLR	44"(F) X 46"(S) X 6"(T)
JENSON PRECAST	1-800-257-6100	PD4446-T6-25	44"(F) X 46"(S) X 6"(T)
OLD CASTLE	1-800-626-3860	IID 4846-06 PAD	44"(F) X 46"(S) X 6"(T) Bottom

(F) = FRONT

(S) = SIDE

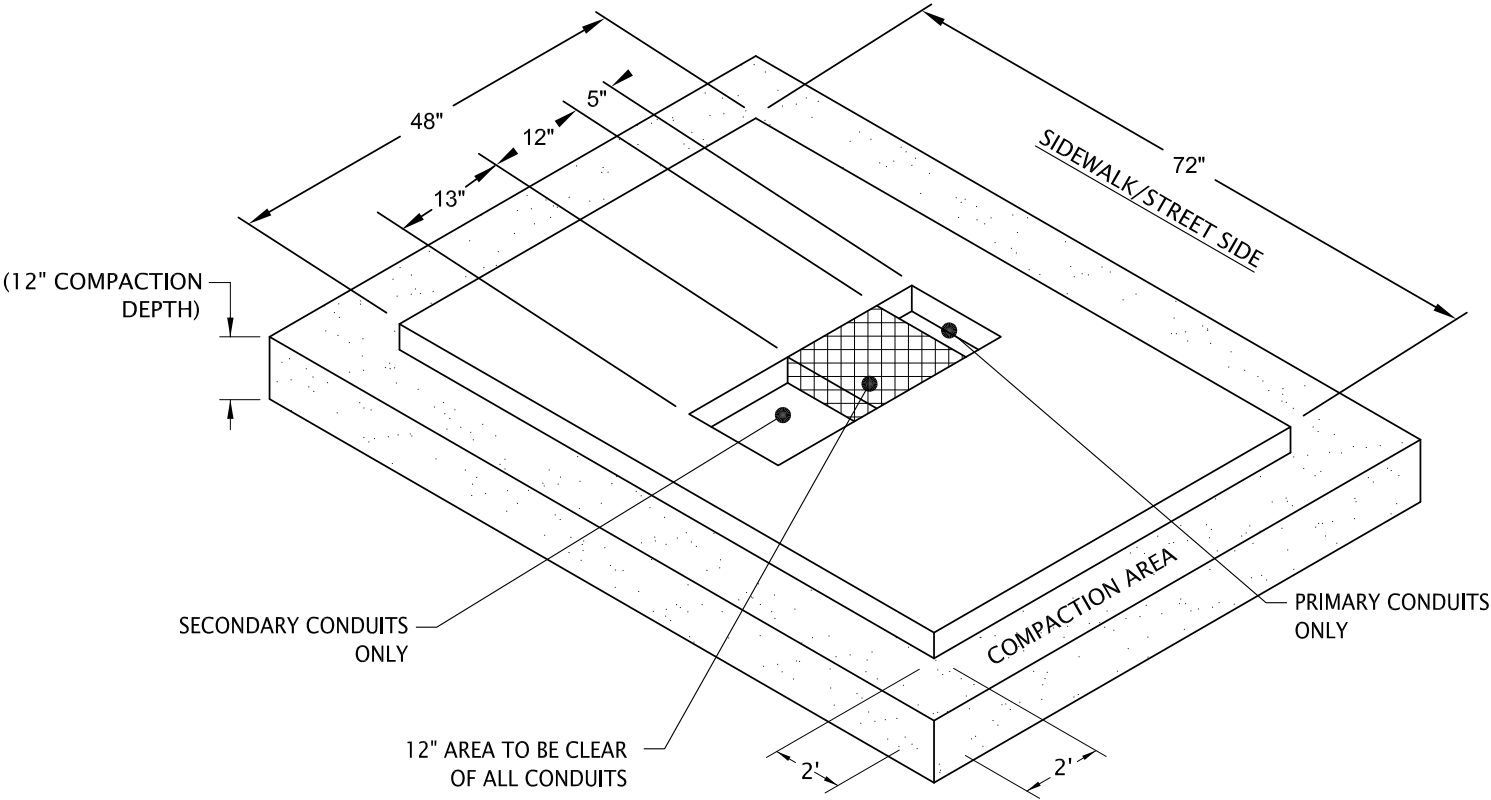
(T) = THICKNESS

3. CONTRACTOR TO PROVIDE TWO 5/8"x10' COPPERWELD GROUND RODS PER PAD (INSTALLATION BY CONTRACTOR).
4. SIZE AND NUMBER OF CONDUITS IN EACH PAD TO BE AS SHOWN ON CONDUIT LAYOUT.
5. ANCHORAGE TO BE SET BY I.I.D. WHEN TRANSFORMER IS INSTALLED.
6. CONTRACTOR SHALL PROVIDE & INSTALL 12" OF CLASS 2 AGGREGATE ROAD BASE MATERIAL OR CRUSHER FINES WITH 3/8" ROCKS UNDERNEATH TRANSFORMER PAD, AND COMPACT ALL ROAD BASE UNDERNEATH TRANSFORMER PAD TO A MINIMUM COMPACTION OF 90%. SEE STANDARD 135 SECTION 3, 3.4.
7. CONDUITS TO TERMINATE 1" ABOVE TOP OF TRANSFORMER PAD.

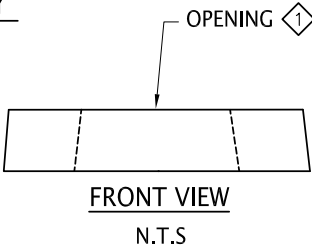
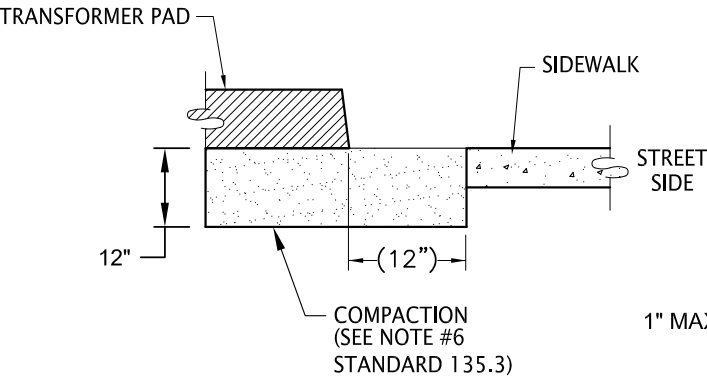
IMPERIAL IRRIGATION DISTRICT			
DRAWN BY			PRECAST CONCRETE PAD DETAIL FOR SINGLE-PHASE TRANSFORMER 25KVA TO 167KVA
REVIEWED			
APPROVED			
REVISION	REV 7		
DATE	9-27-2016		
		135.1	

5.9 Single Phase Transformer Pad 25 kVA to 167 kVA. Used in Coachella Valley. See 5.10 and 5.11 standard 135.2 and 135.3

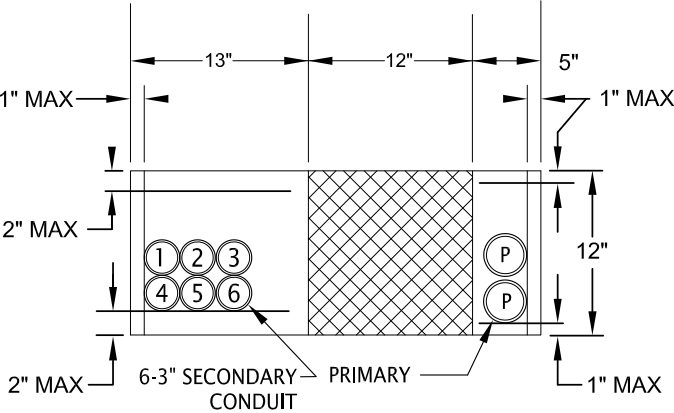
5.9.1 Approved single phase transformer pad manufacturers see 5.11 standard 135.3



PAD UTILIZED IN COACHELLA VALLEY



SHADED AREA TO BE CLEAR OF ALL CONDUIT



NOTE:
◇ WINDOW OPENING ON TOP OF PAD IS SLIGHTLY SMALLER THAN BOTTOM OPENING A RESULT OF FORM CONSTRUCTION

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		COACHELLA VALLEY
REVIEWED		
APPROVED		
REVISION	REV 3	
DATE	1-23-2017	135.2

CONSTRUCTION NOTES:

- 1. A PRECAST CONCRETE PAD SHALL BE USED.
- 2. APPROVED MANUFACTURERS AND STRUCTURES.

SINGLE PHASE 15 kVA- 167 kVA TRANSFORMER PAD - LA QUINTA			
MANUFACTURER	PHONE No.	STRUCTURE No.	DIMENSIONS FRONT/SIDE/THICKNESS
JENSON PRECAST	1-800-257-6100	PD4872-T6-25	46"(F) X 70"(S) X 6"(T)
OLD CASTLE	1-800-626-3860	IID-4872-06TP	48"(F) X 72"(S) X 6"(T)

(F) = FRONT (S) = SIDE (T) = THICKNESS

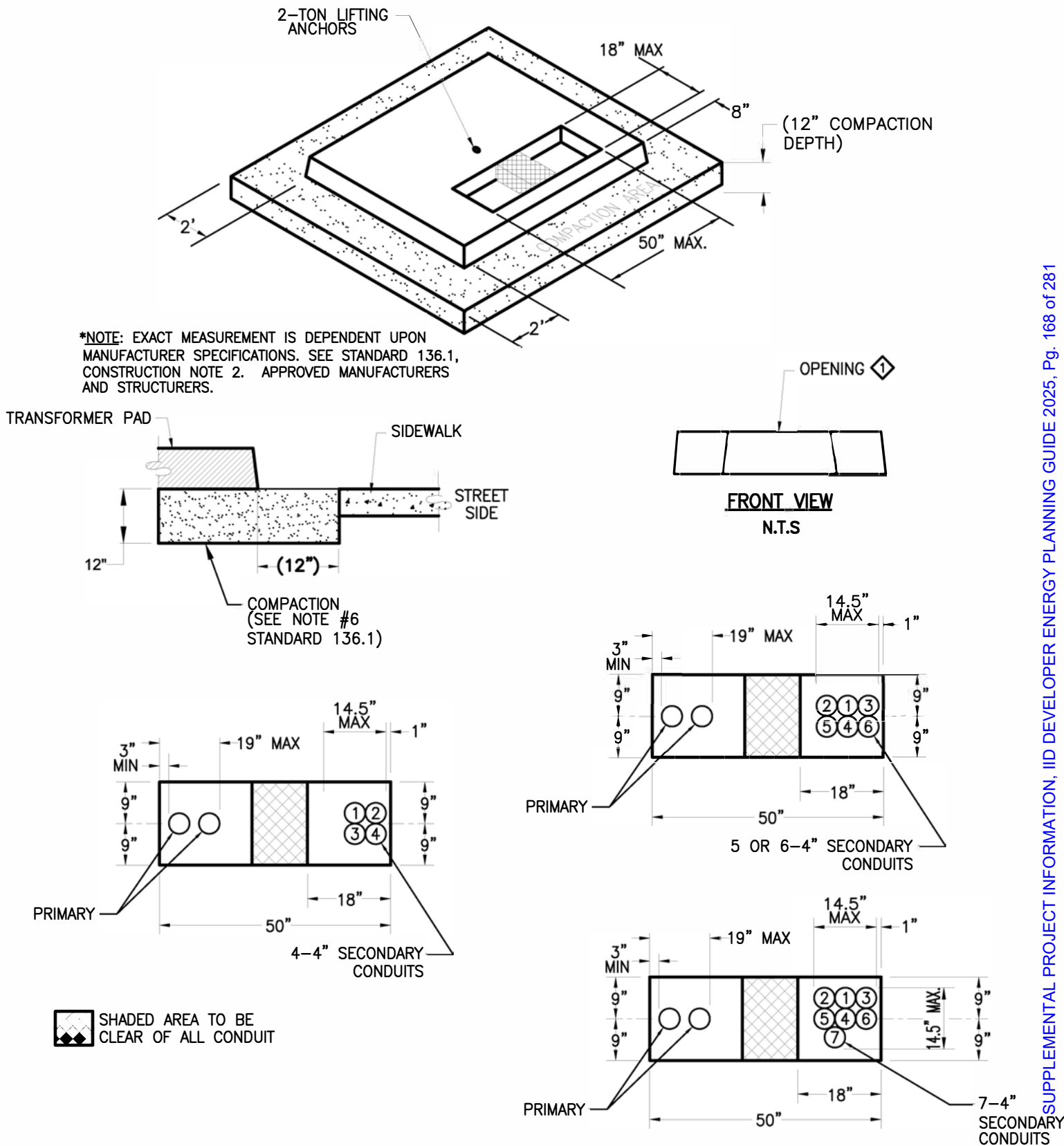
- 3. CONTRACTOR TO PROVIDE TWO 5/8"x10' COPPERWELD GROUND RODS PER PAD (INSTALLATION BY CONTRACTOR).
- 4. SIZE AND NUMBER OF CONDUITS IN EACH PAD TO BE AS SHOWN ON CONDUIT LAYOUT.
- 5. ANCHORAGE TO BE SET BY I.I.D. WHEN TRANSFORMER IS INSTALLED.
- 6. CONTRACTOR SHALL PROVIDE & INSTALL 12" OF CLASS 2 AGGREGATE ROAD BASE MATERIAL OR CRUSHER FINES WITH 3/8" ROCKS UNDERNEATH TRANSFORMER PAD, AND COMPACT ALL ROAD BASE UNDERNEATH TRANSFORMER PAD TO A MINIMUM COMPACTION OF 90%. SEE STANDARD 135, SECTION 3, 3.4.
- 7. CONDUITS TO TERMINATE 1" ABOVE TOP OF TRANSFORMER PAD.
- 8. PRECAST PAD UTILIZED IN LA QUINTA

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY		 COACHELLA VALLEY	PRECAST CONCRETE PAD DETAIL FOR SINGLE-PHASE TRANSFORMER 25KVA TO 167KVA
REVIEWED			
APPROVED			
REVISION	REV 3		
DATE	9-27-2016		
			135.3

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5.12 Three Phase Transformer Pad 45 kVA to 500 kVA. See 5.13 and
5.14 standard 136 and 136.1

5.12.1 Approved three phase transformer pad manufacturers see
5.14 standard 136.1



NOTE:

① WINDOW OPENING ON TOP OF PAD IS SLIGHTLY SMALLER THAN BOTTOM OPENING A RESULT OF FORM CONSTRUCTION

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 PRECAST CONCRETE PAD DETAIL FOR THREE-PHASE TRANSFORMERS 45KVA TO 500KVA
REVIEWED		
APPROVED		
REVISION	REV 7	
DATE	9-27-2016	
		136

CONSTRUCTION NOTES:

- 1. A PRECAST CONCRETE PAD SHALL BE USED.
- 2. APPROVED MANUFACTURERS AND STRUCTURES.

50 kVA - 500 kVA TRANSFORMER PAD			
MANUFACTURER	PHONE No.	STRUCTURE No.	FRONT/SIDE/THICKNESS DIMENSIONS
SUPERIOR READY MIX	(760) 352-4341	3426 HLR	94"(F) X 73"(S) X 8"(T)
JENSEN PRECAST	1-775-352-2700	PD7296-T8-25	96"(F) X 72"(S) X 8"(T)
OLD CASTLE	1-800-626-3860	IID-7296-8-TP	96"(F) X 72"(S) X 8"(T)

(F) = FRONT (S) = SIDE (T) = THICKNESS

- 3. CONTRACTOR TO PROVIDE TWO 5/8"x10' COPPERWELD GROUND RODS PER PAD (INSTALLATION BY CONTRACTOR).
- 4. SIZE AND NUMBER OF CONDUITS IN EACH PAD TO BE AS SHOWN ON CONDUIT LAYOUT.
- 5. ANCHORAGE TO BE SET BY I.I.D. WHEN TRANSFORMER IS INSTALLED.
- 6. CONTRACTOR SHALL PROVIDE & INSTALL 12" OF CLASS 2 AGGREGATE ROAD BASE MATERIAL OR CRUSHER FINES WITH 3/8" ROCKS UNDERNEATH TRANSFORMER PAD, AND COMPACT ALL ROAD BASE UNDERNEATH TRANSFORMER PAD TO A MINIMUM COMPACTION OF 90%. SEE STANDARD 136. SECTION 3, 3.4.
- 7. CONDUITS TO TERMINATE 1" ABOVE TOP OF TRANSFORMER PAD.

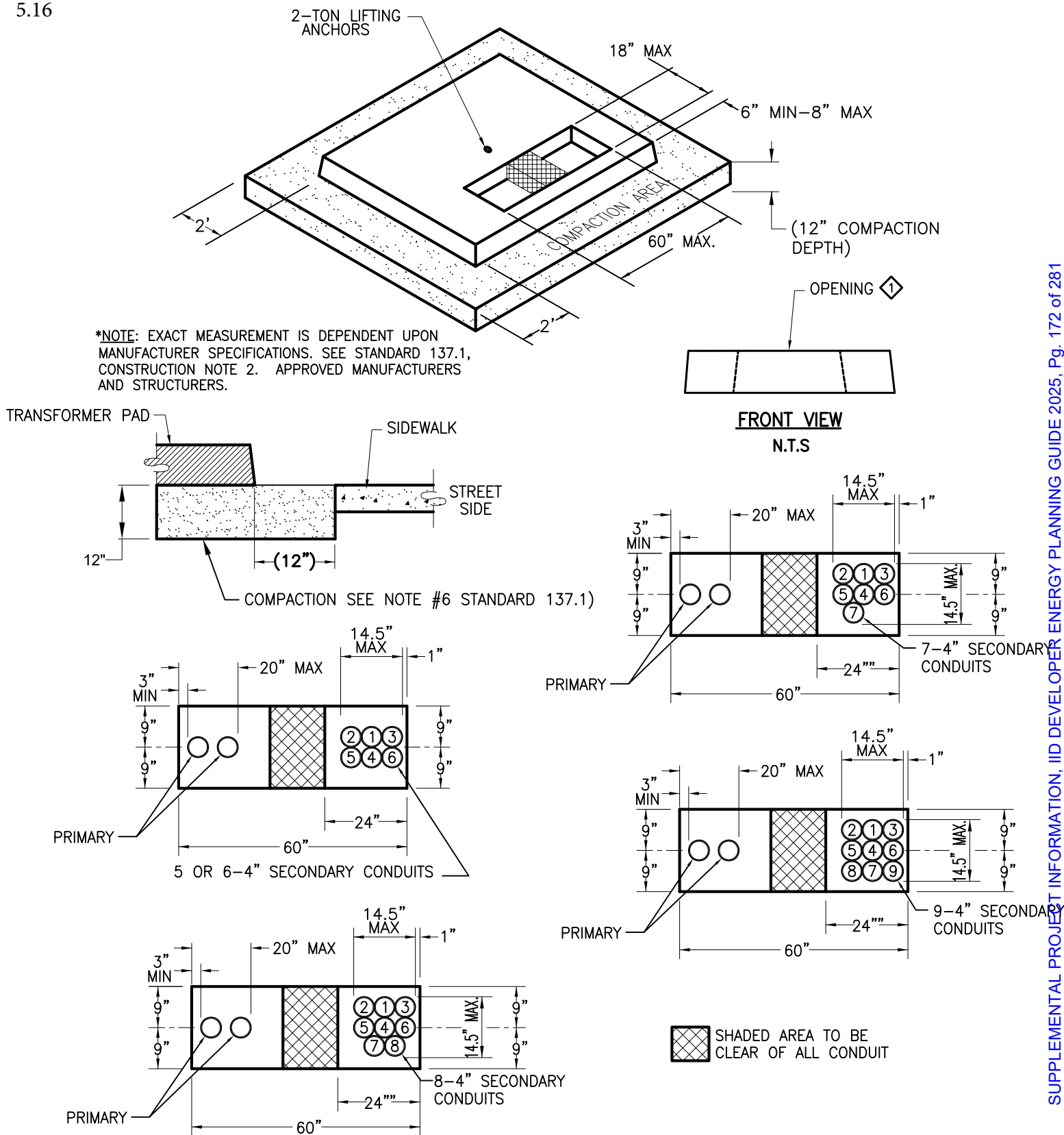
SUPPLEMENTAL PROJECT INFORMATION, IID DEVELOPER ENERGY PLANNING GUIDE 2025, Pg. 169 of 281

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY			PRECAST CONCRETE PAD DETAIL FOR THREE-PHASE TRANSFORMER 45KVA TO 500KVA
REVIEWED			
APPROVED			
REVISION	REV 7		
DATE	9-27-2016		
		136.1	

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5.15 Three Phase Transformer Pad 750 kVA to 2500 kVA. See 5.16 and 5.17 standard 137 and 137.1

5.15.1 Approved three phase transformer pad manufacturers see 5.17 standard 137.1



NOTE:

① WINDOW OPENING ON TOP OF PAD IS SLIGHTLY SMALLER THAN BOTTOM OPENING A RESULT OF FORM CONSTRUCTION

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 PRECAST CONCRETE PAD DETAIL FOR THREE-PHASE TRANSFORMERS 750KVA TO 2500KVA
REVIEWED	<i>LD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 7	
DATE	9-27-2016	

CONSTRUCTION NOTES:

- 1. A PRECAST CONCRETE PAD SHALL BE USED.
- 2. APPROVED MANUFACTURERS AND STRUCTURES:

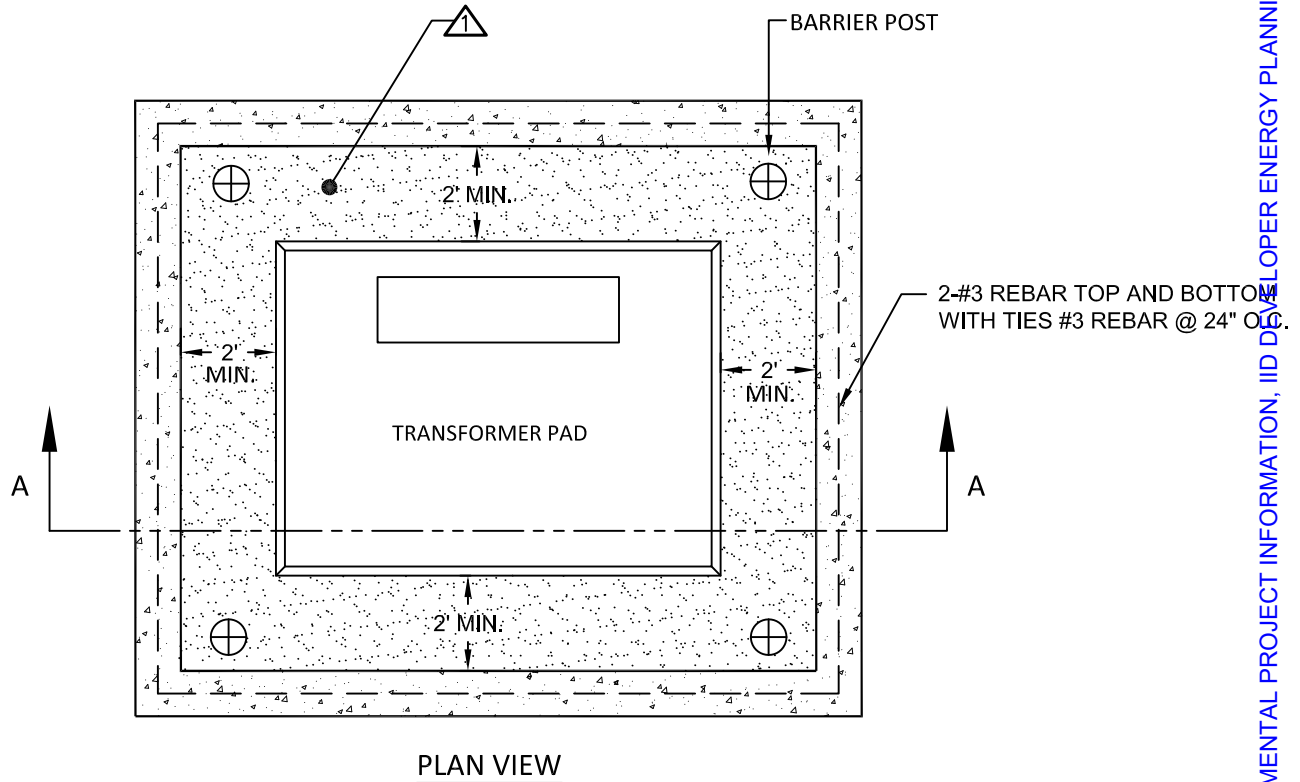
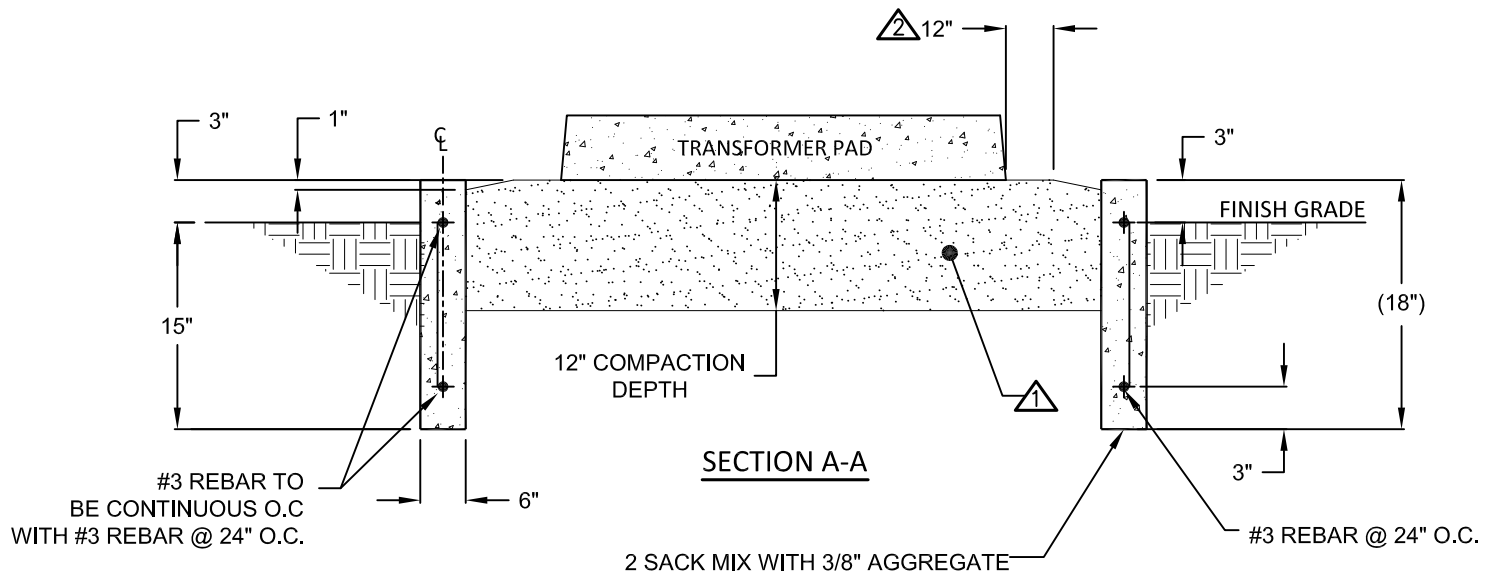
50 2500 R S RMER P D			
MANUFACTURER	PHONE No.	STRUCTURE No.	DIMENSIONS FRONT/SIDE/THICKNESS
SUPERIOR READY MIX	(760)352-4341	3427HLR	96"(F) X 96"(S) X 8"(T)
JENSON PRECAST	1-800-257-6100	9696-T8-25	96"(F) X 96"(S) X 8"(T)
OLD CASTLE	1-800-626-3860	IID-9696-08P	96"(F) X 96"(S) X 8"(T)

(F) = FRONT (S) = SIDE (T) = THICKNESS

- 3. CONTRACTOR TO PROVIDE TWO 5/8"x 10' COPPERWELD GROUND RODS PER PAD (INSTALLATION BY CONTRACTOR.)
- 4. SIZE AND NUMBER OF CONDUITS IN EACH PAD TO BE AS SHOWN ON CONDUIT LAYOUT.
- 5. ANCHORAGE TO BE SET BY I.I.D. WHEN TRANSFORMER IS INSTALLED.
- 6. CONTRACTOR SHALL PROVIDE & INSTALL 12" OF CLASS 2 AGGREGATE ROAD BASE MATERIAL OR CRUSHER FINES WITH 3/8" ROCKS UNDERNEATH TRANSFORMER PAD, AND COMPACT ALL ROAD BASE UNDERNEATH TRANSFORMER PAD TO A MINIMUM COMPACTION OF 90%. SEE STANDARD 135. SECTION 3, 3.4.
- 7. CONDUITS TO TERMINATE 1" ABOVE TOP OF TRANSFORMER PAD.

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY			PRECAST CONCRETE PAD DETAIL FOR THREE-PHASE TRANSFORMERS 750KVA TO 2500KVA
REVIEWED			
APPROVED			
REVISION	REV 8		
DATE	9-27-2016		
		137.1	

- 5.18 No landscaping will be allowed including sprinkler systems within the compacted area.
- 5.19 A concrete curb will be required when compaction grade level does not meet finished grade level. See 5.20 Standard 100.9

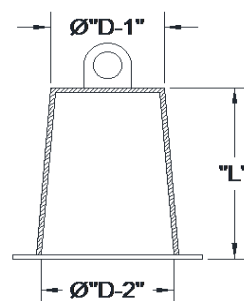


NOTES:

- 1 COMPACTED AREA SHALL BE CALTRANS CLASS 2 AGGREGATE BASE OR CRUSHER FINES WITH 3/8" ROCKS.
SECTION 5.5 COMPACTION PROCESS.
- 2 A MAXIMUM OF 1/2" OF SAND FILL WILL BE APPROVED FOR LEVELING OF COMPACTION AREA.
SECTION 5.5 COMPACTION PROCESS.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 TRANSFORMER PAD CONCRETE RE-ENFORCEMENT CURB DETAIL
REVIEWED	<i>LD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 3	
DATE	9-27-2016	
		100.9

- 5.21 All transformer precast pads, sector sleeves, pull boxes, manholes, vaults, and switch pad installations shall be installed 3 inches above final grade (where not installed along sidewalks) and flush with final sidewalk for those types of installations. In areas with sloping contours greater than $\frac{1}{4}$ (.25") to the foot, the top edge shall be set as shown below highest point of slope. (In no case shall there be more than 3 inches of slope in 1 foot (12") of horizontal measurement).
- 5.22 Contractor/Developer shall keep all debris away from IID's transformer pads, primary vaults, secondary pull boxes, and other IID equipment to give IID personnel access during the duration of the project.
- 5.23 Excavation for vaults, junction pads, secondary pullboxes and conduits shall be made to the proper depth (Refer to 3.26). After proper installation and inspection have been completed, compacted backfill (native soil or Caltrans Class 2 aggregate base or crusher fines with 3/8 inch rock) shall be made to the finished level. All surplus excavation shall be disposed of in a satisfactory manner.
- 5.24 Contractor is responsible for permanent and waterproof markings on all interior vault knockouts, any and all conduits, conduit runs, and stub outs, with the conduit number corresponding to the number shown on the plans.
- 5.25 Contractor shall seal or grout around seams, lid sections, and ducts entering vaults and pullboxes to prevent soil and water entering at joints or openings.
- 5.26 Where the external diameter of the conduit is smaller than the diameter of the opening in the vault wall, the reduction in conduit diameter shall take place 2 feet (24") from the external wall of the vault. (Refer to 3.28 and 3.30 Standard 100.142).
- 5.27 All conduits entering secondary pull boxes or splice boxes shall be cut off 7 inches to 9 inches above the pea gravel. All conduits will be required to be capped using polyethylene plugs with pull tabs. See 5.28 Table 7, Poly Plugs.



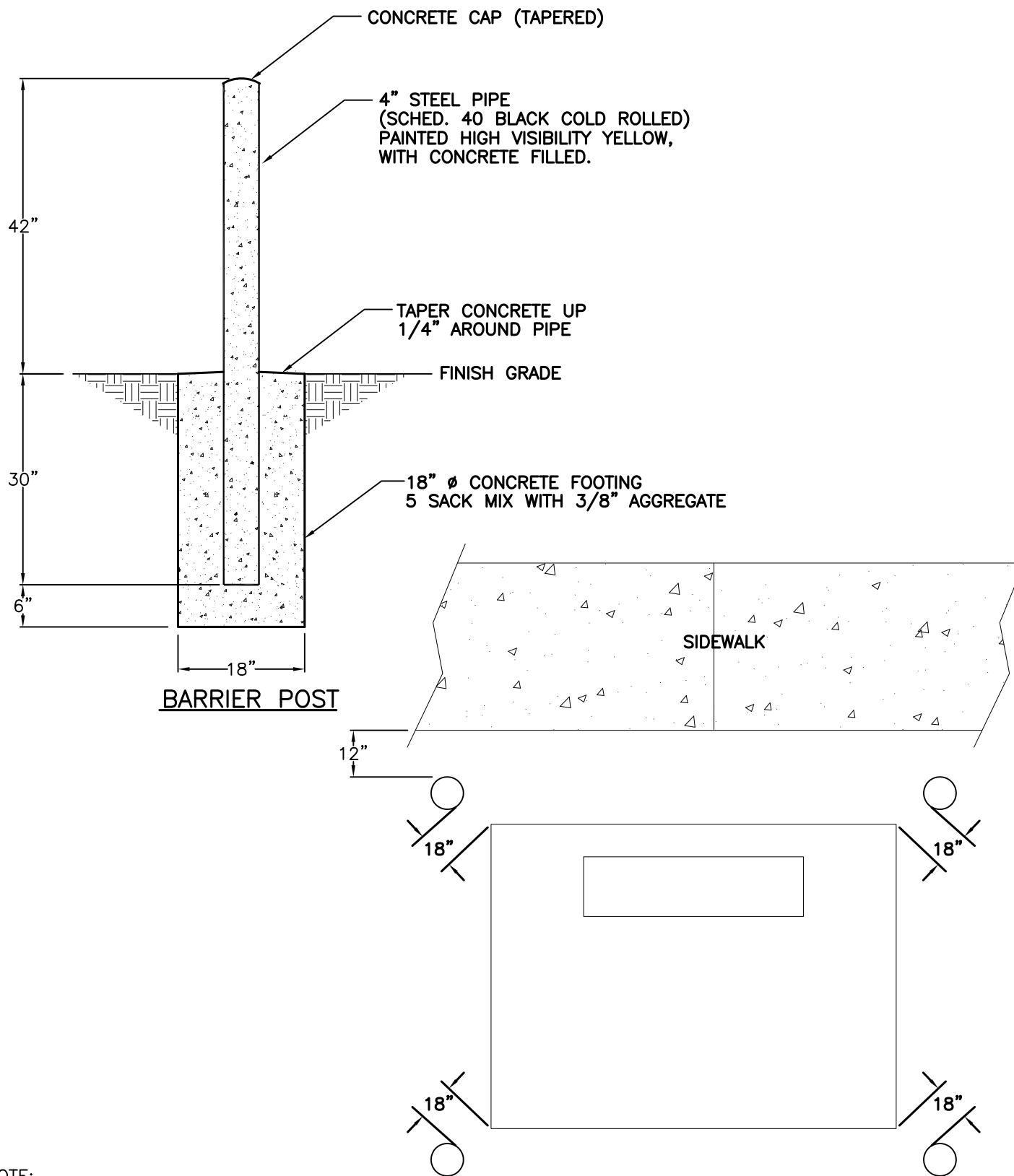
5.28 Table 7 Poly Plugs

Trade Size	"L"	"D 1"	"D 2"
3"	3.750"	2.875"	3.500"
4"	3.875"	3.750"	4.500"
5"	3.750"	4.875"	5.625"
6"	3.875"	5.625"	6.875"

5.29 Barrier posts shall be 4" diameter pipe schedule 40 black cold rolled steel, painted high visibility yellow.

5.30 Barrier posts require a concrete fill/foundation. See 5.32 Standard 181.6.

5.31 IID will not accept removable barrier posts.

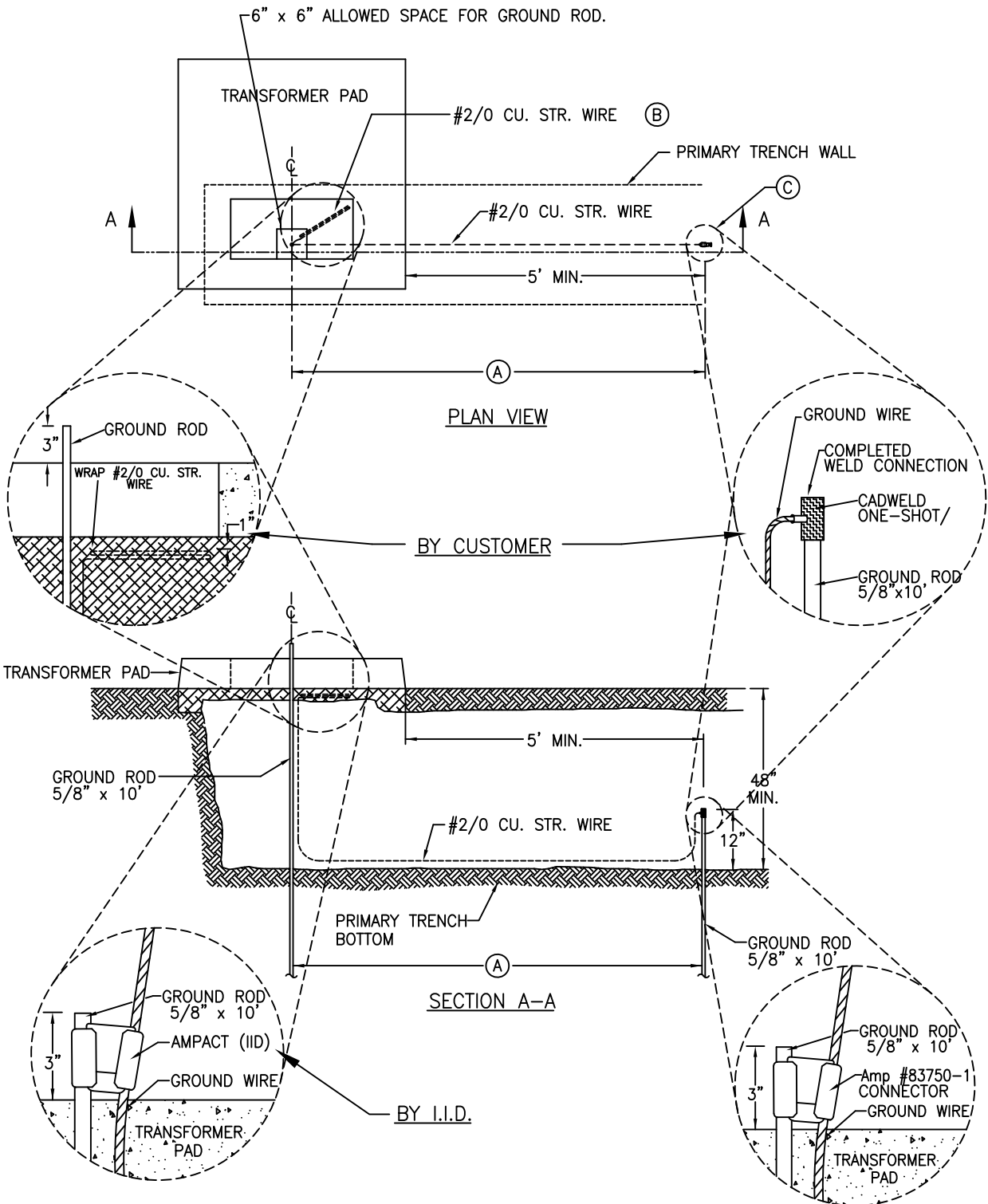


NOTE:

- 1. REMOVABLE BARRIER POSTS ARE NOT ALLOWED.
- 2. IMPERIAL VALLEY TRANSFORMER PAD SHOWN.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		TYPICAL BARRIER POST DETAIL 181.6
REVIEWED		
APPROVED		
REVISION	REV 5	
DATE	9-27-2016	

- 5.33 To comply with California General Order 128, rule 21.5A, the contractor is required to provide and install, a minimum of 2 - 5/8" x 10' ground rods. Copperweld ground rods shall be installed at each transformer pad and junction pad, and primary vault. (See 5.22.1 5.22.4).
- 5.34 The Developer/Contractor is responsible for driving any and all ground rods in the system that is a joint trench. This will be predetermined and completed before IID construction crews arrive on the job.
- 5.35 Trench and pad grounding:
- 5.35.1 Single phase transformer see 5.36 and 5.36.1 Standard 190.2-190.21
 - 5.35.2 Three phase transformer see 5.37 and 5.37.1 Standard 190.3-190.31
 - 5.35.3 Single phase sector see 5.38 and 5.38.1 Standard 190.4-190.41
 - 5.35.4 Three phase sector see 5.39 and 5.39.1 Standard 190.5-190.51



IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	F. FIMBRES	 TRENCH GROUND WIRE FOR SINGLE PHASE TRANSFORMER PADS (BY CUSTOMER) COACHELLA VALLEY
REVIEWED	F. FIMBRES	
APPROVED	C. BERGMARK	
REVISION	REV 9	
DATE	10-6-2021	

CONSTRUCTION NOTES:

- Ⓐ GROUND RODS TO HAVE A 6'-0" MINIMUM SEPARATION.
- Ⓑ WRAP 6' OF WIRE (NOT EXPOSED) 1" UNDERGROUND NEXT TO GROUND ROD.
- Ⓒ **LOCATE GROUND RODS SO THEY DO NOT TOUCH CONDUITS.** GENERAL ORDER 128 REQUIRES GROUND RODS TO BE DRIVEN.

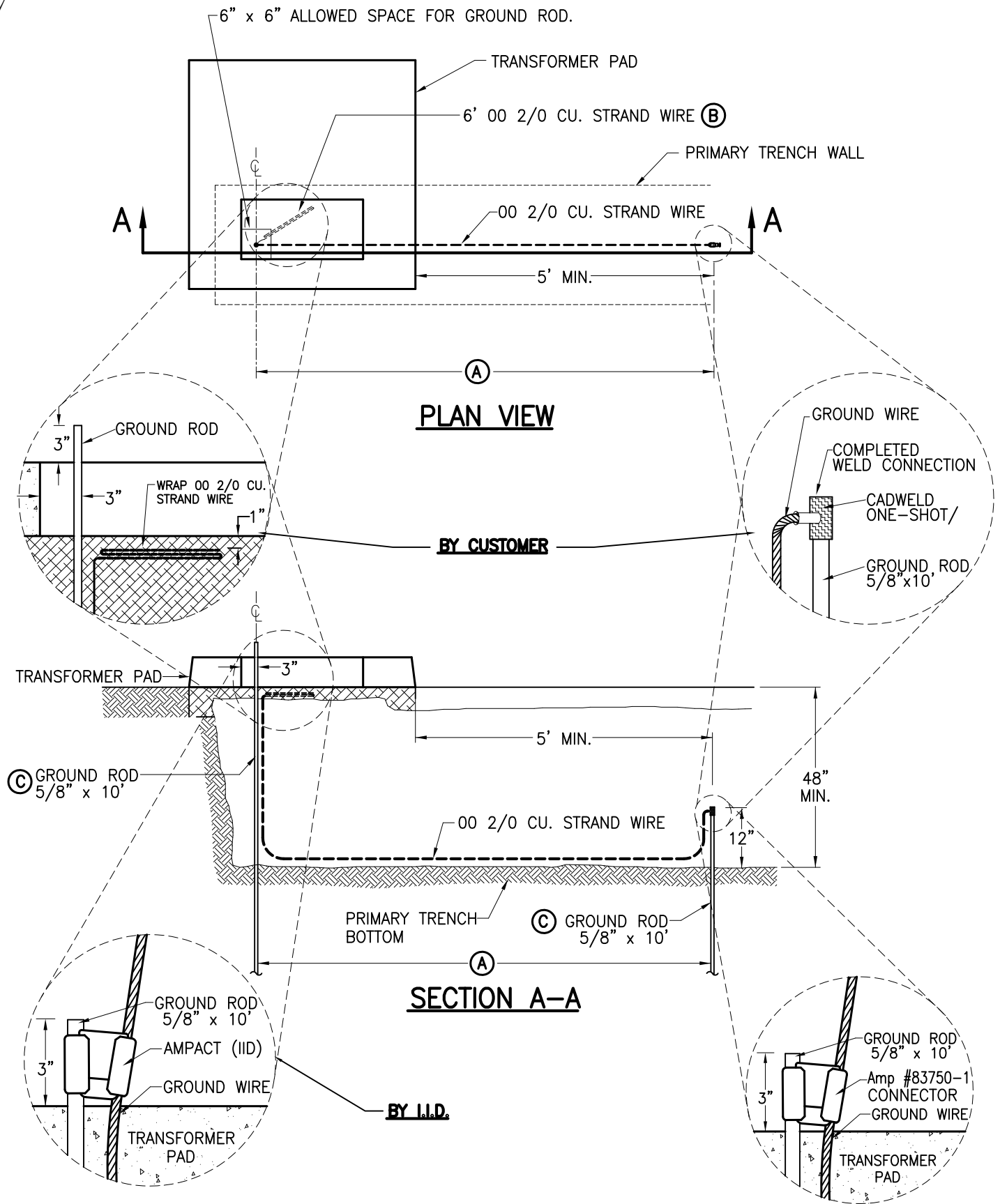
BILL OF MATERIAL

ITEM	QTY	DESCRIPTION	STOCK No.	PAGE No.
1	1	CONCRETE PAD, SEE STANDARD 135	_____	
2	1	CADWELD, ONE-SHOT OR Amp 83750-1 CONNECTORS	40003365	
3	17	WIRE - COPPER #2/0 STRAND, SOFT DRAWN, BARE.	40004222	
4	2	GROUND ROD, 5/8" x 10', COPPERWELD	40003815	

NOTES:

THE SERVICE TRENCH IS ON PRIVATE PROPERTY AND BELONGS TO THE CUSTOMER, THEREFORE, THE TRENCH GROUND WIRE SHOULD ALWAYS BE INSTALLED IN THE PRIMARY TRENCH.

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY			TRENCH GROUND WIRE FOR <u>SINGLE PHASE</u> TRANSFORMERS PAD TO BE INSTALLED BY CUSTOMER
REVIEWED			
APPROVED			
REVISION	REV 6		
DATE	11-21-2016	190.21	



IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>GR</i>	 TRENCH GROUND WIRE FOR <u>THREE PHASE</u> TRANSFORMER PADS TO BE INSTALLED BY CONTRACTOR
REVIEWED	<i>GR</i>	
APPROVED	<i>MS</i>	
REVISION	REV 8	
DATE	11-21-2016	
		190.3

CONSTRUCTION NOTES:

- Ⓐ GROUND RODS TO HAVE A 6'-0" MINIMUM SEPARATION.
- Ⓑ WRAP 6' OF WIRE (NOT EXPOSED) 1" UNDERGROUND NEXT TO GROUND ROD.
- Ⓒ **LOCATE GROUND RODS SO THEY DO NOT TOUCH CONDUITS.** GENERAL ORDER 128 REQUIRES GROUND RODS TO BE DRIVEN.

BILL OF MATERIAL

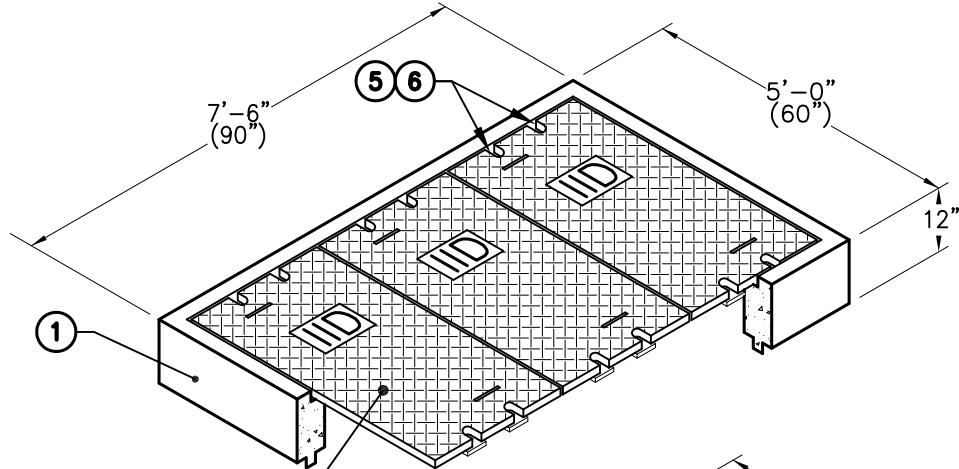
ITEM	QTY	DESCRIPTION	STOCK No.	PAGE No.
1	1	CONCRETE PAD, SEE STANDARD 136 THRU 137		
2	1	CADWELD, ONE-SHOT/Amp CONNECTOR #83750-1	40003365	
3	20'	WIRE - COPPER 00 2/0 STRAND, SOFT DRAWN BARE	40004222	
4	2	GROUND ROD, 5/8" x 10', COPPERWELD	40003814	

NOTES:

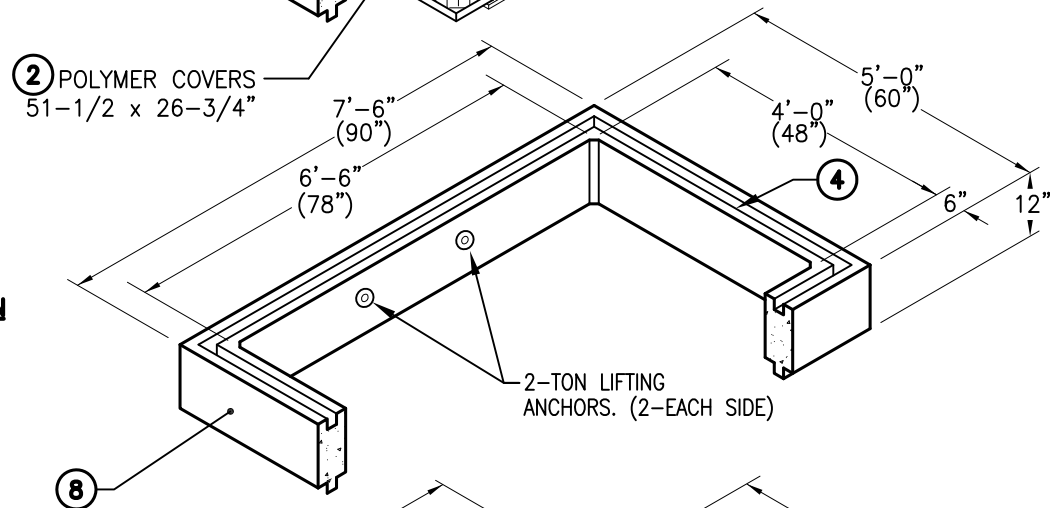
THE SERVICE TRENCH IS ON PRIVATE PROPERTY AND BELONGS TO THE CUSTOMER, THEREFORE, THE TRENCH GROUND WIRE SHOULD ALWAYS BE INSTALLED IN THE PRIMARY TRENCH.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 TRENCH GROUND WIRE FOR <u>THREE PHASE</u> TRANSFORMERS PAD TO BE INSTALLED BY CUSTOMER
REVIEWED		
APPROVED		
REVISION	REV 7	
DATE	11-21-2016	
		190.31

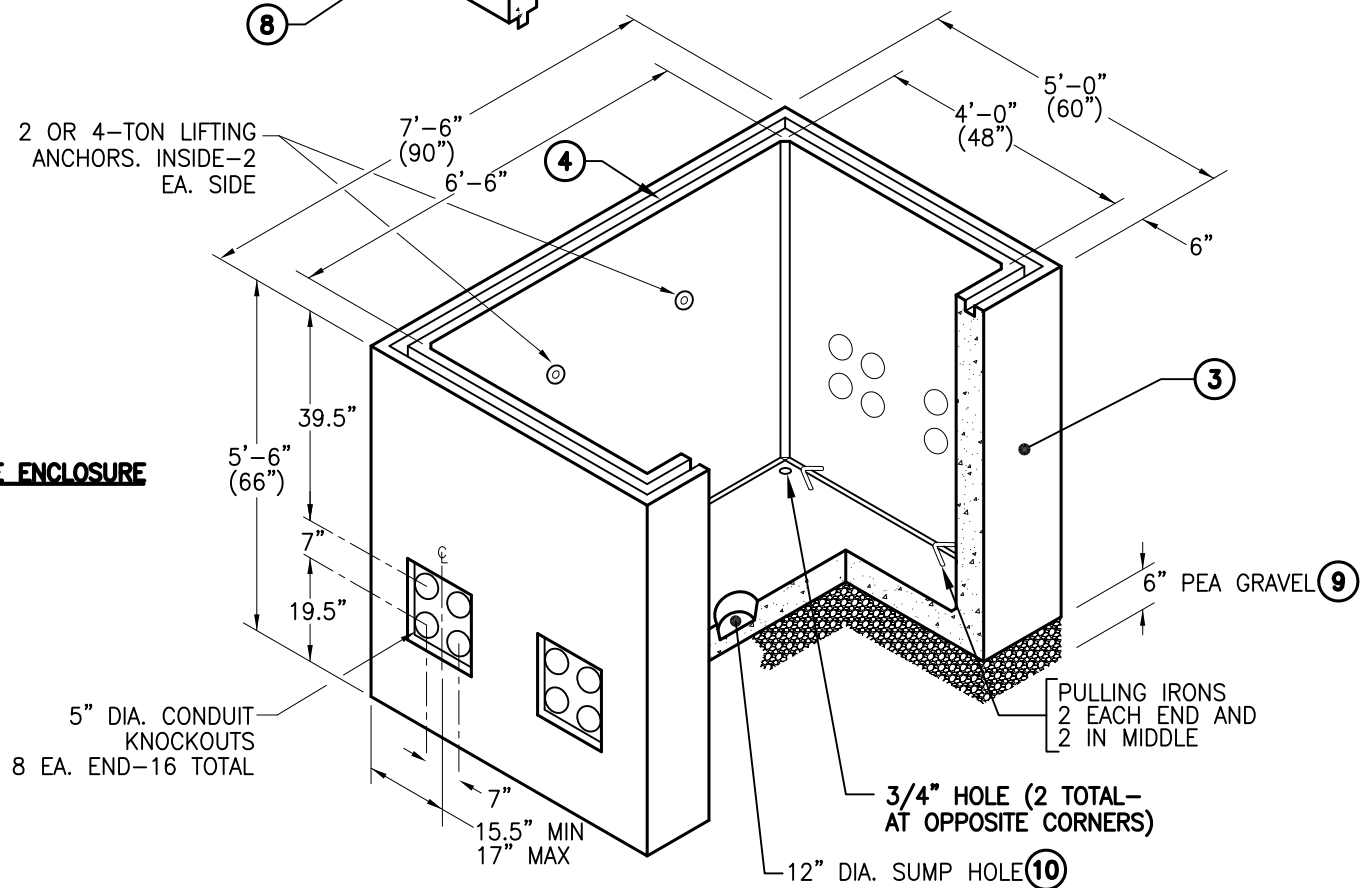
12" SPECIAL TOP SECTION



12" INTERMEDIATE SECTION



90" BASE ENCLOSURE



IMPERIAL IRRIGATION DISTRICT

DRAWN BY	<i>JK</i>
REVIEWED	<i>CD</i>
APPROVED	<i>MS</i>
REVISION	REV 6
DATE	12-09-2013



110.2

SUBSTRUCTURES
MEDIUM VAULT EQUIPMENT ENCLOSURE
 (INSIDE DIMENSIONS 4' X 6'-6" X 5')

CONSTRUCTION NOTES:

1. APPROVED MANUFACTURERS AND STRUCTURES:

MANUFACTURER	PHONE No.	STRUCTURE No.
JENSEN PRECAST	1-800-257-6100	K466-FH84-25P
OLD CASTLE	1-800-626-3860	IID 466-84

ENGINEERING NOTES:

A. THE EXACT VAULT DESIGN AND DIMENSION VARY BY MANUFACTURER. THE DIMENSIONS SHOWN ON THIS DRAWING ARE APPROXIMATE ONLY.

B. THE EXACT LOCATION AND ORIENTATION OF THE VAULT SHALL BE SPECIFIED ON THE CONTRACTOR NOTES CONDUIT DRAWINGS.

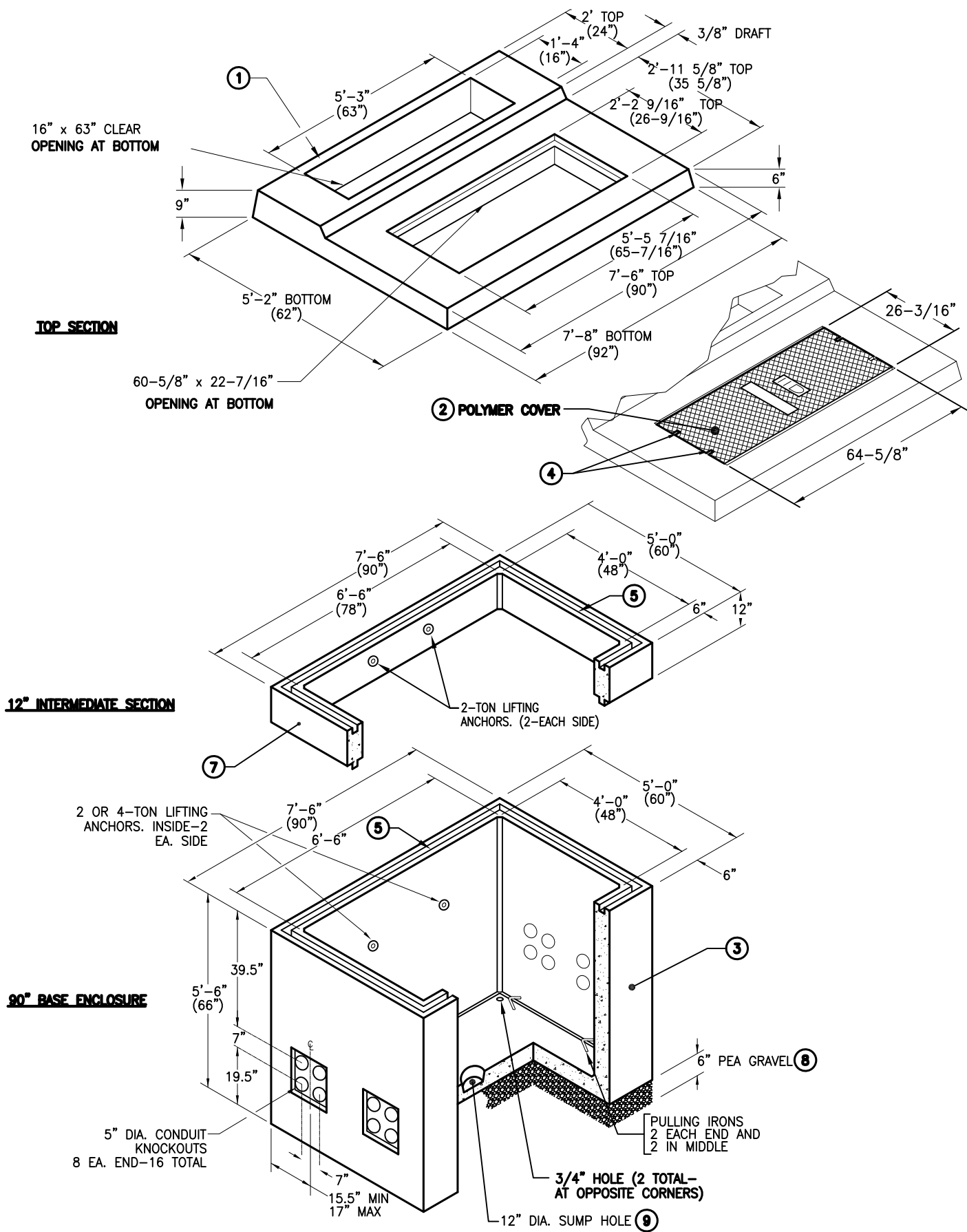
BILL OF MATERIAL

ITEM	QTY	DESCRIPTION
①	1	FRAME, PARKWAY, 12"
②	3	POLYMER COVER, PARKWAY, 51-1/2" x 26-3/4"
③	1	ENCLOSURE, 90" BASE
④	AS REQ.	SEALANT, PLASTIC-MASTIC
⑤	12	BOLT, S.S. PENTAHEAD, 1/2" x 2-1/2"
⑥	12	WASHER, 1/2" FLAT ROUND, STAINLESS STEEL
⑦	AS REQ.	LUBRICANT EZ-1
⑧	1	EXTENSION SECTION 12"
⑨	AS REQ.	PEA GRAVEL, 3/8"
⑩	1	SUMP PUMP HOLE COVER, POLYMER

- FINISHED GRADES MUST BE ESTABLISHED PRIOR TO VAULT INSTALLATION. BOTTOM SECTION OF VAULT MUST BE LEVEL PRIOR TO ADDITION OF GRADE RINGS. SET THE BOTTOM SECTION AS LEVEL AS POSSIBLE TO ENSURE ANY WATER IN THE VAULT WILL DRAIN TOWARD THE SUMP.
- CONDUIT SHALL BE TERMINATED IN END WALL KNOCKOUTS BY USE OF CAST IN PLACE TERMINATORS.
- CLEAN JOINT SURFACES WITH A BRUSH AND ENSURE JOINTS ARE DRY. FIRMLY PRESS JOINT SEALING COMPOUND ONTO SURFACE END-TO-END AROUND THE ENTIRE JOINT. ALLOW 1" OVERLAP WHEN ABUTTING. SEALING COMPOUND OR GROUT SHALL BE REQUIRED BETWEEN LAST GRADE RING AND TOP COVER SECTION PER I.I.D. INSPECTOR.
- PROVIDE THREE PIECE POLYMER COVER AS REQUIRED PER I.I.D. DRAWINGS.
- COMPACT ALL BACKFILLS TO 90%.
- PROVIDE TWO 5/8"x10' COPPERWELD GROUND RODS PER VAULT. (LOCATED AT OPPOSING VAULT CORNERS, TWO 3/4" HOLES.)
- ALL TOP COVERS SHALL BE MARKED WITH IMPERIAL IRRIGATION DISTRICT'S LOGO: "I.I.D."
- SEE CONTRACTOR NOTES' CONDUIT LAYOUT FOR SIZE AND NUMBER OF CONDUITS REQUIRED IN EACH VAULT. CONDUITS TERMINATION INSIDE WALL KNOCKOUTS SHALL REQUIRE THE USE OF END-BELLS.
- LIFTING ANCHORS ARE NOT TO BE USED FOR CABLE PULLING.
- 6" MINIMUM PEA GRAVEL BASE REQUIRED UNDER BASE ENCLOSURE.

IMPERIAL IRRIGATION DISTRICT

DRAWN BY		 SUBSTRUCTURES MEDIUM VAULT EQUIPMENT ENCLOSURE (INSIDE DIMENSIONS 4' X 6'-6" X 5')
REVIEWED		
APPROVED		
REVISION	REV 6	
DATE	9-27-2016	
		110.21



SUPPLEMENTAL PROJECT INFORMATION, IID DEVELOPER ENERGY PLANNING GUIDE 2025, Pg. 186 of 281

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 SUBSTRUCTURES – SECTOR PAD VAULT EQUIPMENT ENCLOSURE (INSIDE DIMENSIONS 4' X 6'-6" X 5')
REVIEWED	<i>FD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 5	
DATE	12-09-2013	
		171.3

CONSTRUCTION NOTES:

1. APPROVED MANUFACTURERS AND STRUCTURES:

MANUFACTURER	PHONE No.	STRUCTURE No.
U.S. CONCRETE	(619) 449-6810	3440TP-IID

2. FINISHED GRADES MUST BE ESTABLISHED PRIOR TO VAULT INSTALLATION. BOTTOM SECTION OF VAULT MUST BE LEVEL PRIOR TO ADDITION OF GRADE RINGS. SET THE BOTTOM SECTION AS LEVEL AS POSSIBLE TO ENSURE ANY WATER IN THE VAULT WILL DRAIN TOWARD THE SUMP.
3. CONDUIT SHALL BE TERMINATED IN END WALL KNOCKOUTS BY USE OF CAST IN PLACE TERMINATORS.
4. CLEAN JOINT SURFACES WITH A BRUSH AND ENSURE JOINTS ARE DRY. FIRMLY PRESS JOINT SEALING COMPOUND ONTO SURFACE END-TO-END AROUND THE ENTIRE JOINT. ALLOW 1" OVERLAP WHEN ABUTTING. SEALING COMPOUND OR GROUT SHALL BE REQUIRED BETWEEN LAST GRADE RING AND TOP COVER SECTION PER I.I.D. INSPECTOR.
5. PROVIDE THREE PIECE POLYMER COVER AS REQUIRED PER I.I.D. DRAWINGS.
6. COMPACT ALL BACKFILLS TO 90%.
7. PROVIDE TWO 5/8"x10' COPPERWELD GROUND RODS PER VAULT. (LOCATED AT OPPOSING VAULT CORNERS, TWO 3/4" HOLES.)
8. ALL TOP COVERS SHALL BE MARKED WITH IMPERIAL IRRIGATION DISTRICT'S LOGO: "I.I.D."
9. SEE CONTRACTOR NOTES' CONDUIT LAYOUT FOR SIZE AND NUMBER OF CONDUITS REQUIRED IN EACH VAULT. CONDUITS TERMINATION INSIDE WALL KNOCKOUTS SHALL REQUIRE THE USE OF END-BELLS.
10. LIFTING ANCHORS ARE NOT TO BE USED FOR CABLE PULLING.
11. 6" MINIMUM PEA GRAVEL BASE REQUIRED UNDER BASE ENCLOSURE.

ENGINEERING NOTES:

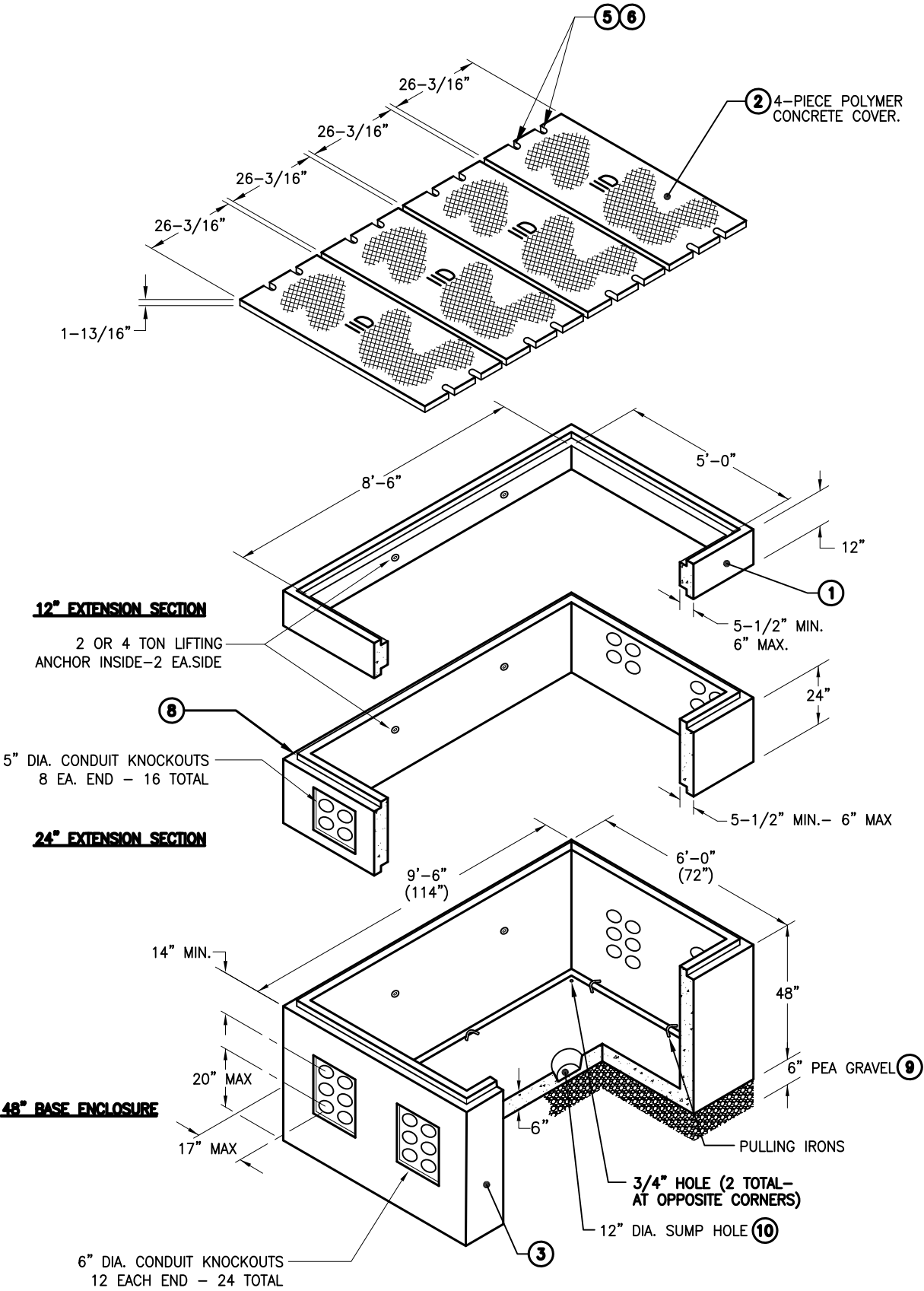
A. THE EXACT VAULT DESIGN AND DIMENSION VARY BY MANUFACTURER. THE DIMENSIONS SHOWN ON THIS DRAWING ARE APPROXIMATE ONLY.

B. THE EXACT LOCATION AND ORIENTATION OF THE VAULT SHALL BE SPECIFIED ON THE CONTRACTOR NOTES CONDUIT DRAWINGS.

BILL OF MATERIAL

ITEM	QTY	DESCRIPTION	STOCK No.
①	1	COVER SECTION, PARKWAY	
②	1	POLYMER COVER, PARKWAY, 64-5/8" x 26-3/16", 1PC.	
③	1	ENCLOSURE, 60" BASE	
④	4	BOLT, PENTAHEAD, 1/2" x 2-1/2"	
⑤	AS REQD.	SEALANT, PLASTIC-MASTIC	
⑥	AS REQD.	LUBRICANT EZ-1	
⑦	1	EXTENSION SECTION 12"	
⑧	AS REQD.	GRAVEL, 3/8"	
⑨	1	SUMP PUMP HOLE COVER, POLYMER	

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY			SUBSTRUCTURES – SECTOR PAD VAULT EQUIPMENT ENCLOSURE (INSIDE DIMENSIONS 4' X 6'-6" X 5')
REVIEWED			
APPROVED			
REVISION	REV 6		
DATE	12-09-2013	171.31	



IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 SUBSTRUCTURES LARGE VAULT EQUIPMENT ENCLOSURE (INSIDE DIMENSIONS 5' X 8' - 6" X 6')
REVIEWED		
APPROVED		
REVISION	REV 6	
DATE	12-09-2013	
		110.3

CONSTRUCTION NOTES:

1. APPROVED MANUFACTURERS AND STRUCTURES:

MANUFACTURER	PHONE No.	STRUCTURE No.
JENSEN PRECAST	1-800-257-6100	K586-FH78-25
U.S. CONCRETE	(619)449-6810	3316 PARKWAY MANHOLE
OLD CASTLE	1-800-626-3860	IID 586-84 VAULT

2. FINISHED GRADES MUST BE ESTABLISHED PRIOR TO VAULT INSTALLATION. BOTTOM SECTION OF VAULT MUST BE LEVEL PRIOR TO ADDITION OF GRADE RINGS. SET THE BOTTOM SECTION AS LEVEL AS POSSIBLE TO ENSURE ANY WATER IN THE VAULT WILL DRAIN TOWARD THE SUMP.
3. CONDUIT SHALL BE TERMINATED IN END WALL KNOCKOUTS BY USE OF CAST IN PLACE TERMINATORS.
4. CLEAN JOINT SURFACES WITH A BRUSH AND ENSURE JOINTS ARE DRY. FIRMLY PRESS JOINT SEALING COMPOUND ONTO SURFACE END-TO-END AROUND THE ENTIRE JOINT. ALLOW 1" OVERLAP WHEN ABUTTING. SEALING COMPOUND OR GROUT SHALL BE REQUIRED BETWEEN LAST GRADE RING AND TOP COVER SECTION PER I.I.D. INSPECTOR.
5. PROVIDE THREE PIECE POLYMER COVER AS REQUIRED PER I.I.D. DRAWINGS.
6. COMPACT ALL BACKFILLS TO 90%.
7. PROVIDE TWO 5/8"x10' COPPERWELD GROUND RODS PER VAULT. (LOCATED AT OPPOSING VAULT CORNERS, TWO 3/4" HOLES.)
8. ALL TOP COVERS SHALL BE MARKED WITH IMPERIAL IRRIGATION DISTRICT'S LOGO: "I.I.D."
9. SEE CONTRACTOR NOTES' CONDUIT LAYOUT FOR SIZE AND NUMBER OF CONDUITS REQUIRED IN EACH VAULT. CONDUITS TERMINATION INSIDE WALL KNOCKOUTS SHALL REQUIRE THE USE OF END-BELLS.
10. LIFTING ANCHORS ARE NOT TO BE USED FOR CABLE PULLING.
11. 6" MINIMUM PEA GRAVEL BASE REQUIRED UNDER BASE ENCLOSURE.

ENGINEERING NOTES:

A. THE EXACT VAULT DESIGN AND DIMENSION VARY BY MANUFACTURER. THE DIMENSIONS SHOWN ON THIS DRAWING ARE APPROXIMATE ONLY.

B. THE EXACT LOCATION AND ORIENTATION OF THE VAULT SHALL BE SPECIFIED ON THE CONTRACTOR NOTES CONDUIT DRAWINGS.

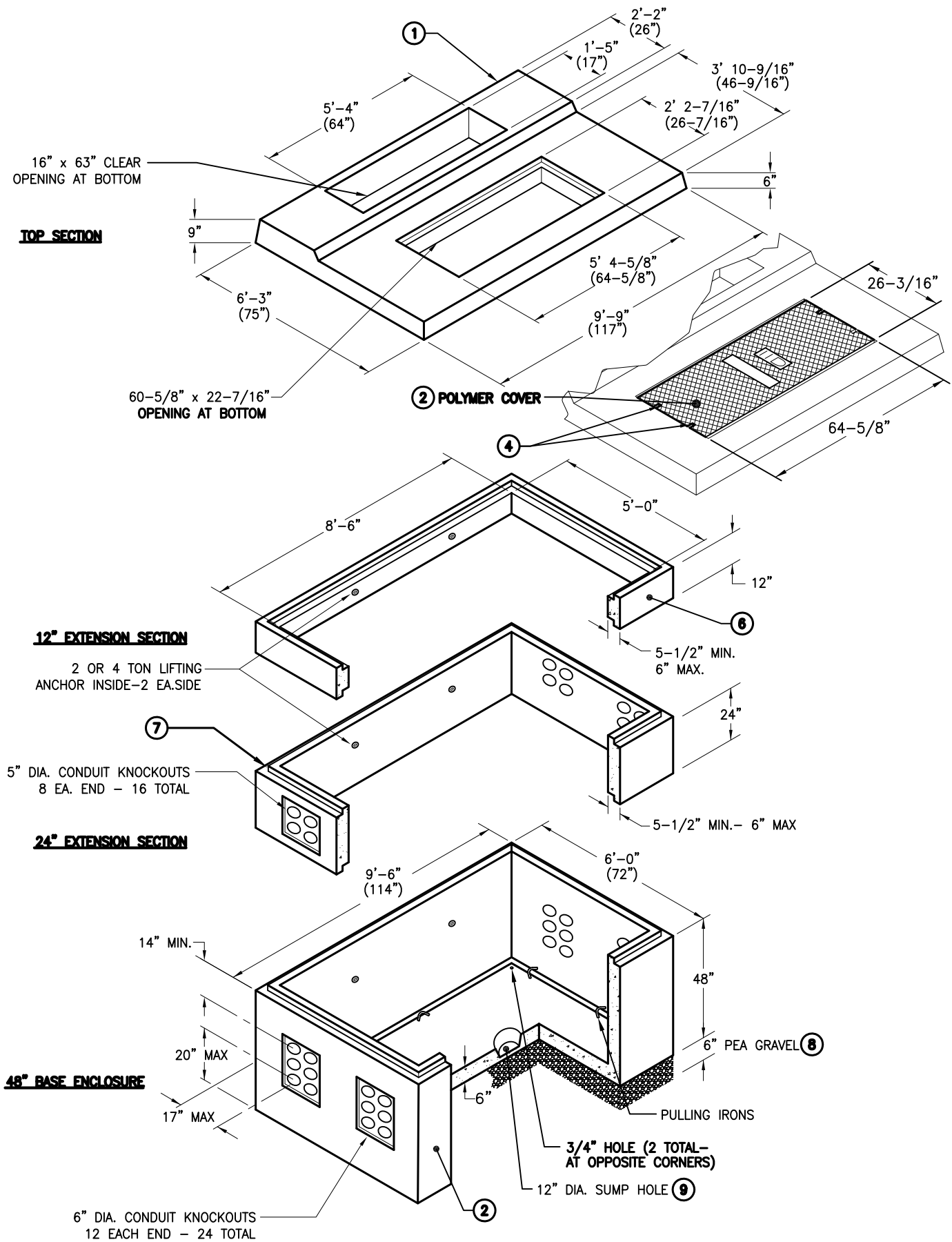
BILL OF MATERIAL

ITEM	QTY	DESCRIPTION
①	1	EXTENSION SECTION 12"
②	4	POLYMER COVER, PARKWAY, 64-5/8" x 26-3/16", 1PC.
③	1	ENCLOSURE, 114" BASE
④	AS REQD.	SEALANT, PLASTIC-MASTIC
⑤	16	BOLT, S.S. PENTAHEAD, 1/2" x 2-1/2"
⑥	16	WASHER, 1/2" FLAT ROUND STAINLESS STEEL
⑦	AS REQD.	LUBRICANT EZ-1
⑧	1	EXTENSION SECTION 24"
⑨	AS REQD.	PEA GRAVEL, 3/8"
⑩	1	SUMP PUMP HOLE COVER, POLYMER

IMPERIAL IRRIGATION DISTRICT

DRAWN BY			SUBSTRUCTURES LARGE VAULT EQUIPMENT ENCLOSURE (INSIDE DIMENSIONS 5' X 8' - 6" X 6")
REVIEWED			
APPROVED			
REVISION	REV 6		
DATE	12-09-2013		

110.31



IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 SUBSTRUCTURES – SECTOR PAD VAULT EQUIPMENT ENCLOSURE (INSIDE DIMENSIONS 5' X 8' X 6')
REVIEWED		
APPROVED		
REVISION	REV 6	
DATE	12-09-2013	
		171.4

CONSTRUCTION NOTES:

1. APPROVED MANUFACTURERS AND STRUCTURES:

MANUFACTURER	PHONE No.	STRUCTURE No.
U.S. CONCRETE	(619) 449-6810	3441TP-IID

2. FINISHED GRADES MUST BE ESTABLISHED PRIOR TO VAULT INSTALLATION. BOTTOM SECTION OF VAULT MUST BE LEVEL PRIOR TO ADDITION OF GRADE RINGS. SET THE BOTTOM SECTION AS LEVEL AS POSSIBLE TO ENSURE ANY WATER IN THE VAULT WILL DRAIN TOWARD THE SUMP.
3. CONDUIT SHALL BE TERMINATED IN END WALL KNOCKOUTS BY USE OF CAST IN PLACE TERMINATORS.
4. CLEAN JOINT SURFACES WITH A BRUSH AND ENSURE JOINTS ARE DRY. FIRMLY PRESS JOINT SEALING COMPOUND ONTO SURFACE END-TO-END AROUND THE ENTIRE JOINT. ALLOW 1" OVERLAP WHEN ABUTTING. SEALING COMPOUND OR GROUT SHALL BE REQUIRED BETWEEN LAST GRADE RING AND TOP COVER SECTION PER I.I.D. INSPECTOR.
5. PROVIDE THREE PIECE POLYMER COVER AS REQUIRED PER I.I.D. DRAWINGS.
6. COMPACT ALL BACKFILLS TO 90%.
7. PROVIDE TWO 5/8"x10' COPPERWELD GROUND RODS PER VAULT. (LOCATED AT OPPOSING VAULT CORNERS, TWO 3/4" HOLES.)
8. ALL TOP COVERS SHALL BE MARKED WITH IMPERIAL IRRIGATION DISTRICT'S LOGO: "I.I.D."
9. SEE CONTRACTOR NOTES' CONDUIT LAYOUT FOR SIZE AND NUMBER OF CONDUITS REQUIRED IN EACH VAULT. CONDUITS TERMINATION INSIDE WALL KNOCKOUTS SHALL REQUIRE THE USE OF END-BELLS.
10. LIFTING ANCHORS ARE NOT TO BE USED FOR CABLE PULLING.
11. 6" MINIMUM PEA GRAVEL BASE REQUIRED UNDER BASE ENCLOSURE.

ENGINEERING NOTES:

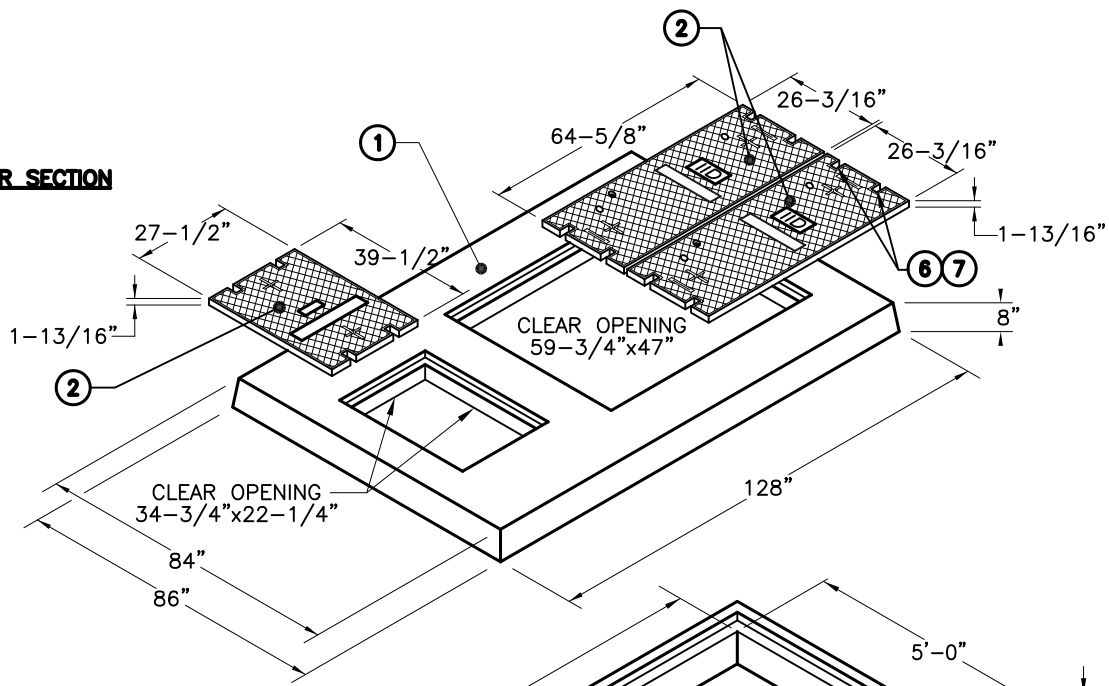
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B. THE EXACT LOCATION AND ORIENTATION OF THE VAULT SHALL BE SPECIFIED ON THE CONTRACTOR NOTES CONDUIT DRAWINGS.

BILL OF MATERIAL

ITEM	QTY	DESCRIPTION	STOCK No.
①	1	COVER SECTION, PARKWAY	
②	1	POLYMER COVER, PARKWAY, 64-5/8" x 26-3/16", 1PC.	
③	1	ENCLOSURE, 60" BASE	
④	4	BOLT, PENTAHEAD, 1/2" x 2-1/2"	
⑤	AS REQ.	SEALANT, PLASTIC-MASTIC	
⑥	AS REQ.	LUBRICANT EZ-1	
⑦	1	EXTENSION SECTION 12"	
⑧	AS REQ.	GRAVEL, 3/8"	
⑨	1	SUMP PUMP HOLE COVER, POLYMER	

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY			SUBSTRUCTURES – SECTOR PAD VAULT EQUIPMENT ENCLOSURE (INSIDE DIMENSIONS 5' X 8' X 6")
REVIEWED			
APPROVED			
REVISION	REV 6		
DATE	12-09-2013	171.41	

COVER SECTION**12" EXTENSION SECTION**

2 OR 4 TON LIFTING
ANCHOR INSIDE-2 EA.SIDE

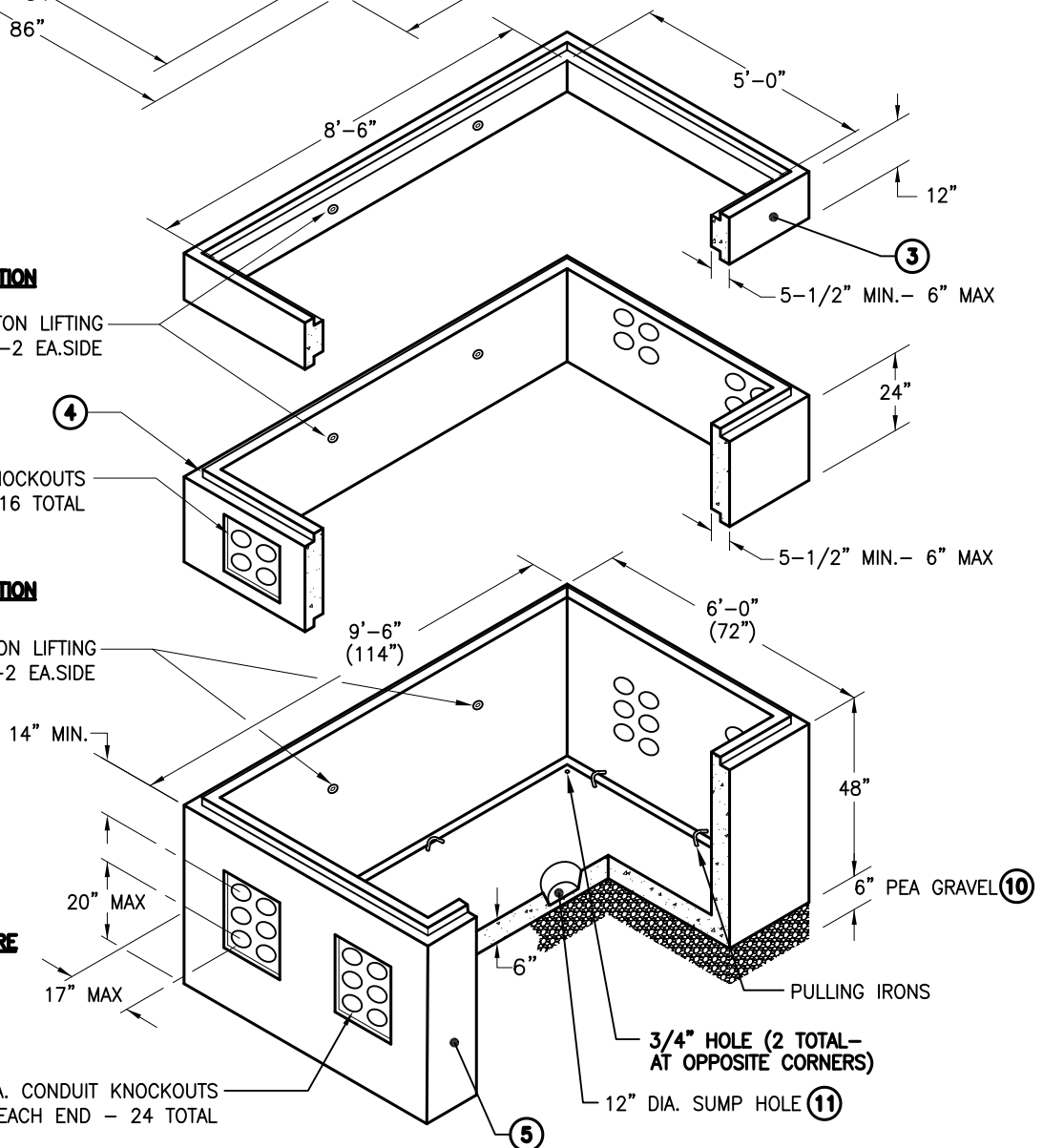
5" DIA. CONDUIT KNOCKOUTS
8 EA. END - 16 TOTAL

24" EXTENSION SECTION

2 OR 4 TON LIFTING
ANCHOR INSIDE-2 EA.SIDE

48" BASE ENCLOSURE

6" DIA. CONDUIT KNOCKOUTS
12 EACH END - 24 TOTAL

**IMPERIAL IRRIGATION DISTRICT**

DRAWN BY	<i>GR</i>
REVIEWED	<i>PD</i>
APPROVED	<i>MS</i>
REVISION	REV 6
DATE	12-09-2013



LARGE SWITCH PAD
(INSIDE DIMENSIONS 5' X 8'-6" X 6")

171.44

CONSTRUCTION NOTES:

1. APPROVED MANUFACTURERS AND STRUCTURES:

MANUFACTURER	PHONE No.	STRUCTURE No.
JENSEN PRECAST	1-800-257-6100	OLD: K586-SB78-25 NEW: 100010513
U.S. CONCRETE	(619) 449-6810	3316SP-IID/K
OLD CASTLE	1-800-626-3860	IID 586-84 PMH

2. FINISHED GRADES MUST BE ESTABLISHED PRIOR TO VAULT INSTALLATION. BOTTOM SECTION OF VAULT MUST BE LEVEL PRIOR TO ADDITION OF GRADE RINGS. SET THE BOTTOM SECTION AS LEVEL AS POSSIBLE TO ENSURE ANY WATER IN THE VAULT WILL DRAIN TOWARD THE SUMP.

3. CONDUIT SHALL BE TERMINATED IN END WALL KNOCKOUTS BY USE OF CAST IN PLACE TERMINATORS.

4. CLEAN JOINT SURFACES WITH A BRUSH AND ENSURE JOINTS ARE DRY. FIRMLY PRESS JOINT SEALING COMPOUND ONTO SURFACE END-TO-END AROUND THE ENTIRE JOINT. ALLOW 1" OVERLAP WHEN ABUTTING. SEALING COMPOUND OR GROUT SHALL BE REQUIRED BETWEEN LAST GRADE RING AND TOP COVER SECTION PER I.I.D. INSPECTOR.

5. PROVIDE THREE PIECE POLYMER COVER AS REQUIRED PER I.I.D. DRAWINGS.

6. COMPACT ALL BACKFILLS TO 90%.

7. PROVIDE TWO 5/8"x10' COPPERWELD GROUND RODS PER VAULT. (LOCATED AT OPPOSING VAULT CORNERS, TWO 3/4" HOLES.)

8. ALL TOP COVERS SHALL BE MARKED WITH IMPERIAL IRRIGATION DISTRICT'S LOGO: "I.I.D."

9. SEE CONTRACTOR NOTES' CONDUIT LAYOUT FOR SIZE AND NUMBER OF CONDUITS REQUIRED IN EACH VAULT. CONDUITS TERMINATION INSIDE WALL KNOCKOUTS SHALL REQUIRE THE USE OF END-BELLS.

10. LIFTING ANCHORS ARE NOT TO BE USED FOR CABLE PULLING.

11. 6" MINIMUM PEA GRAVEL BASE REQUIRED UNDER BASE ENCLOSURE.

ENGINEERING NOTES:

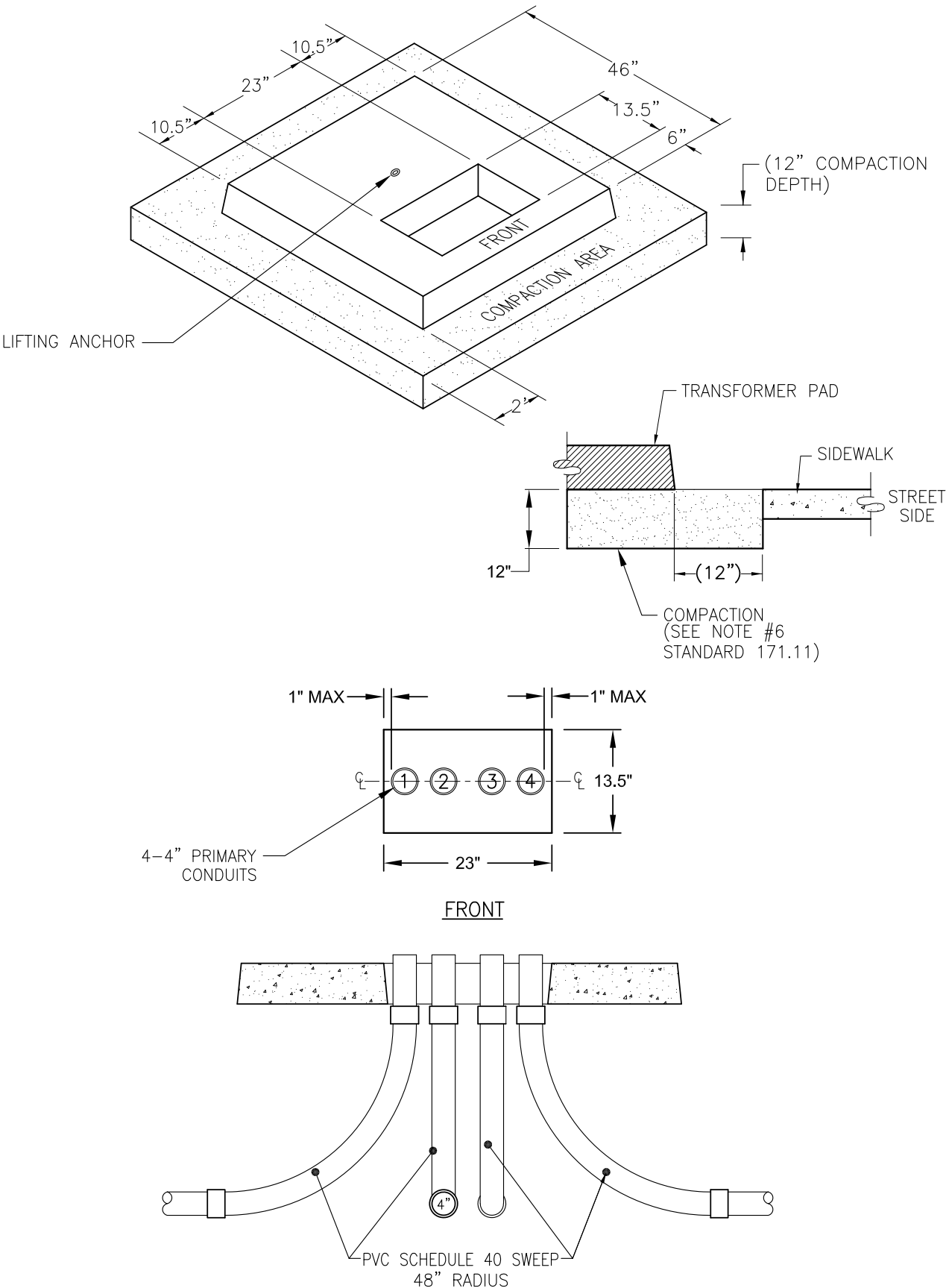
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B. THE EXACT LOCATION AND ORIENTATION OF THE VAULT SHALL BE SPECIFIED ON THE CONTRACTOR NOTES CONDUIT DRAWINGS.

BILL OF MATERIAL

ITEM	QTY	DESCRIPTION
①	1	FRAME, PARKWAY, 8"
②	3	COVER, PARKWAY, 3PC.
③	1	EXTENSION SECTION, 12"
④	1	EXTENSION SECTION, 24"
⑤	1	ENCLOSURE, 114" BASE
⑥	12	BOLT, S.S. PENTAHEAD, 1/2" x 2-1/2"
⑦	12	WASHER, 1/2", FLAT ROUND STAINLESS STEEL
⑧	AS REQD.	SEALANT, PLASTIC-MASTIC
⑨	AS REQD.	LUBRICANT EZ-1
⑩	AS REQD.	PEA GRAVEL, 3/8"
⑪	1	SUMP PUMP HOLE COVER, POLYMER

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 LARGE SWITCH PAD (INSIDE DIMENSIONS 5' X 8'-6" X 6")
REVIEWED		
APPROVED		
REVISION	REV 4	
DATE	12-09-2013	171.45



IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 PRECAST CONCRETE PAD DETAIL FOR SINGLE-PHASE SECTOR
REVIEWED	<i>PD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 7	
DATE	12-19-2016	171.1

CONSTRUCTION NOTES:

1. A PRECAST CONCRETE PAD SHALL BE USED.
2. APPROVED MANUFACTURERS AND STRUCTURES.

SINGLE PHASE SECTOR			
MANUFACTURER	PHONE No.	STRUCTURE No.	DIMENSIONS FRONT/SIDE/THICKNESS
SUPERIOR CONCRETE	(760)352-4341	3421 HLR	44"(F) X 46"(S) X 6"(T)
JENSON PRECAST	1-800-257-6100	PD4446-T6-25	44"(F) X 46"(S) X 6"(T)
OLD CASTLE	1-800-626-3860	IID-4446-06TP	44"(F) X 46"(S) X 6"(T)

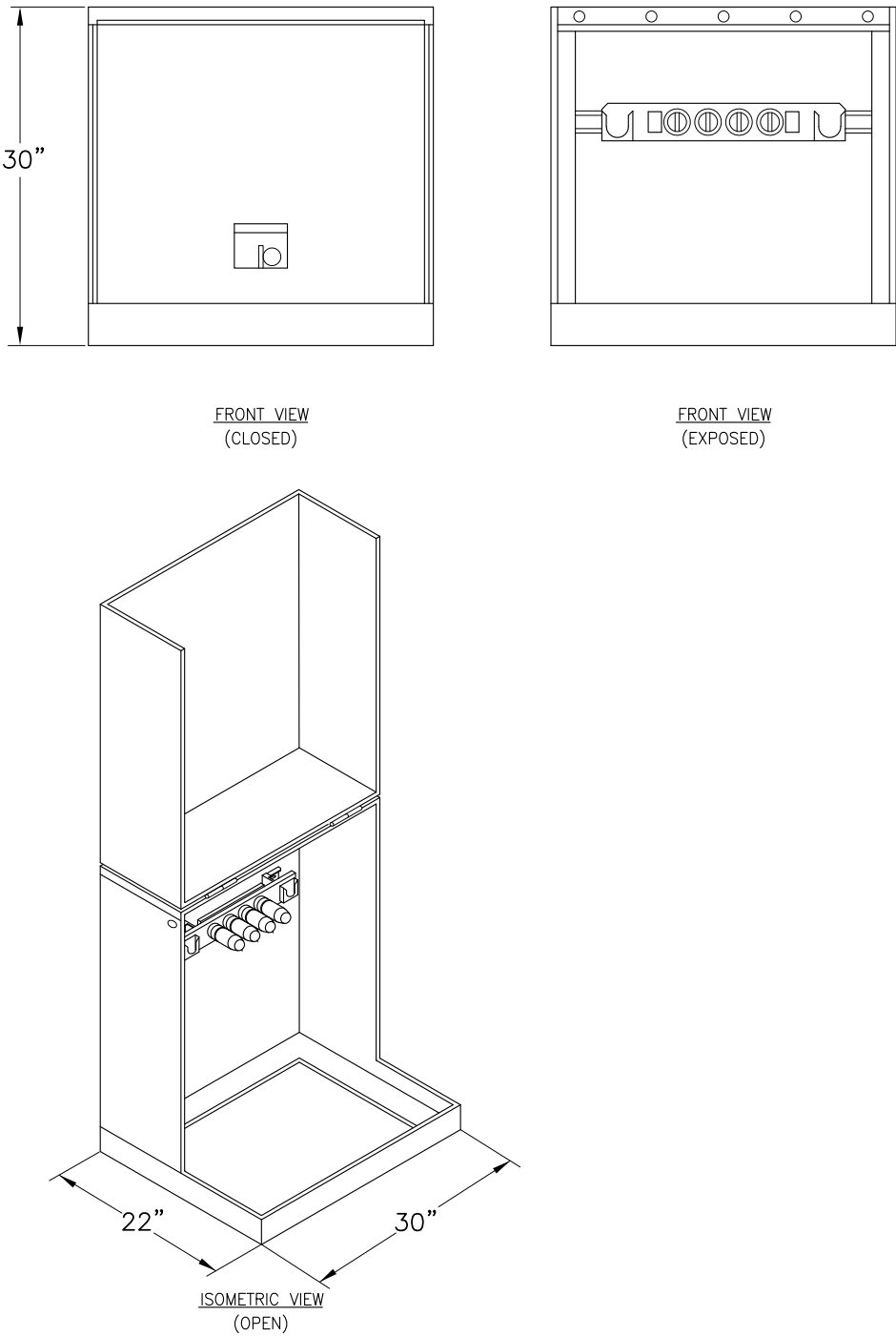
(F) = FRONT

(S) = SIDE

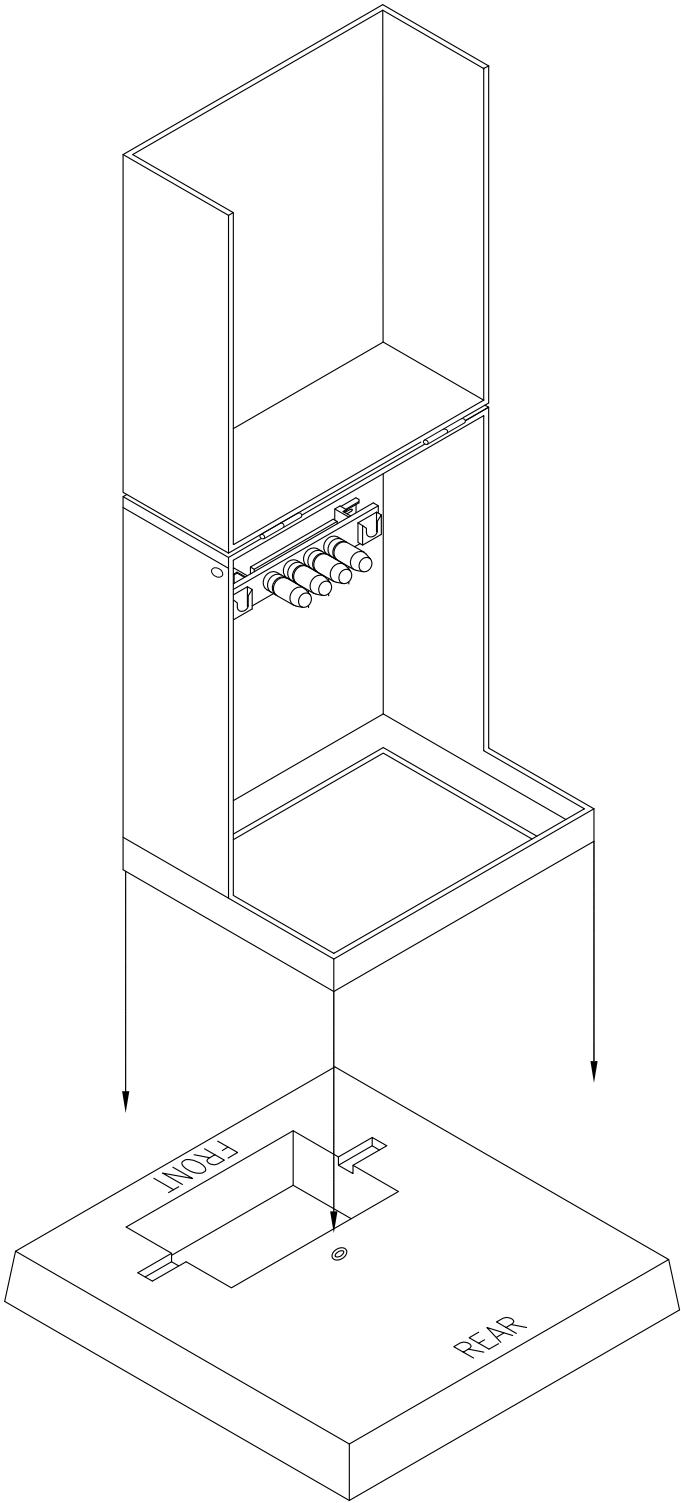
(T) = THICKNESS

3. CONTRACTOR TO PROVIDE TWO 5/8"x10' COPPERWELD GROUND RODS PER PAD (INSTALLATION BY CONTRACTOR).
4. SIZE AND NUMBER OF CONDUITS IN EACH PAD TO BE AS SHOWN ON CONDUIT LAYOUT.
5. ANCHORAGE TO BE SET BY I.I.D. WHEN TRANSFORMER IS INSTALLED.
6. CONTRACTOR SHALL PROVIDE & INSTALL 12" OF CLASS 2 AGGREGATE ROAD BASE MATERIAL OR CRUSHER FINES WITH 3/8" ROCKS UNDERNEATH TRANSFORMER PAD, AND COMPACT ALL ROAD BASE UNDERNEATH TRANSFORMER PAD TO A MINIMUM COMPACTION OF 90%. SEE STANDARD 135.
(REFER TO SECTION 6, TRANSFORMER PRECAST PADS, PRECAST VAULTS, SECTOR SLEEVES, LETTER L).
7. CONDUITS TO TERMINATE 1" ABOVE TOP OF TRANSFORMER PAD.

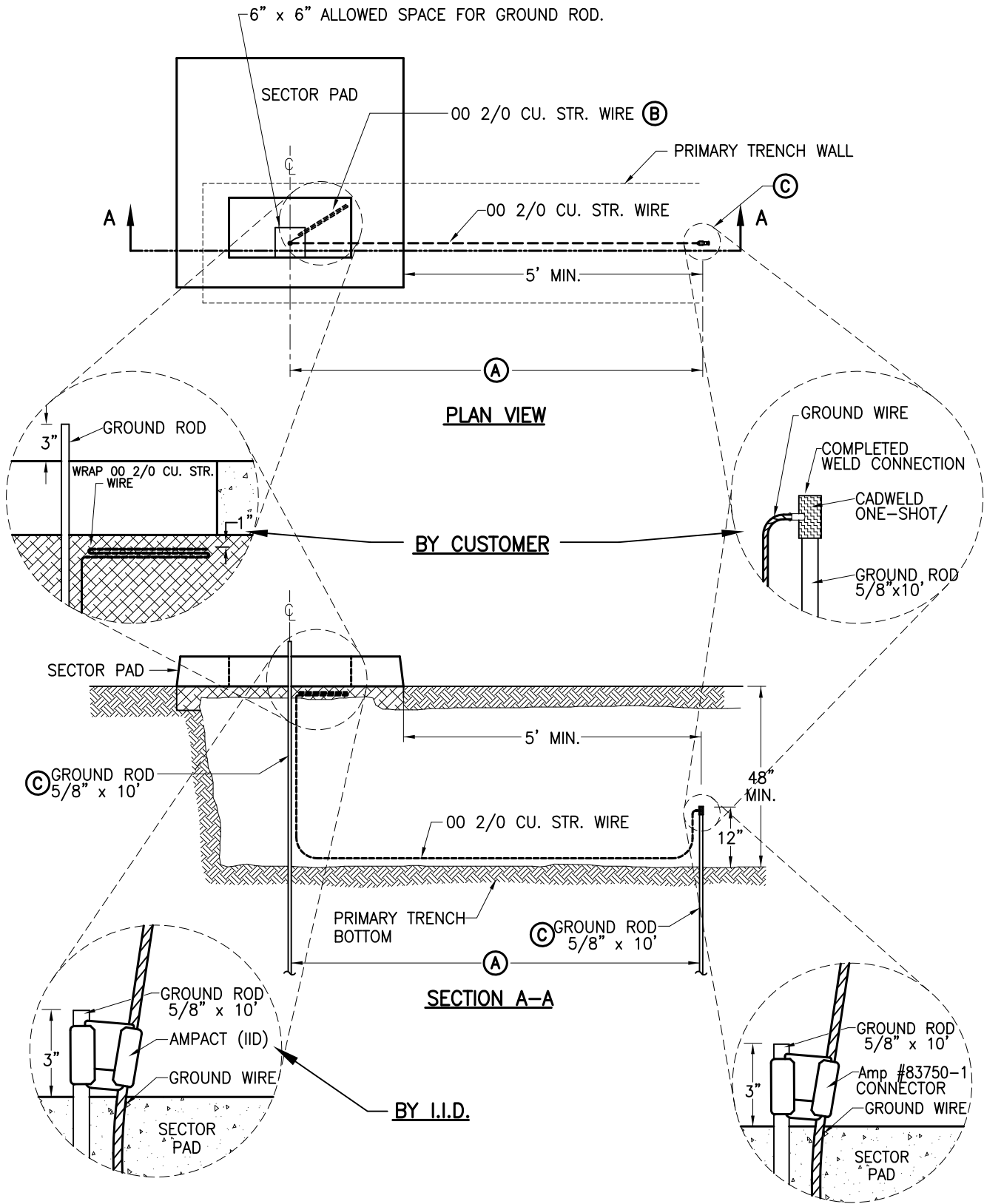
IMPERIAL IRRIGATION DISTRICT			
DRAWN BY			PRECAST CONCRETE PAD DETAIL FOR SINGLE-PHASE SECTOR
REVIEWED			
APPROVED			
REVISION	REV 6		
DATE	12-09-2013	171.11	



IMPERIAL IRRIGATION DISTRICT			
DRAWN BY		40005155  SINGLE PHASE SECTOR	
REVIEWED			
APPROVED			
REVISION	REV 3		
DATE	1.3.2017	170.2	



IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 SINGLE PHASE SECTOR ON PAD
REVIEWED		
APPROVED		
REVISION	REV 4	
DATE	1.3.2017	174.1



IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	TRENCH GROUND WIRE FOR SINGLE PHASE SECTOR PADS TO BE INSTALLED BY CONTRACTOR
REVIEWED	<i>gr</i>	
APPROVED	<i>ms</i>	
REVISION	REV 8	
DATE	11-21-2016	
		190.4

CONSTRUCTION NOTES:

- Ⓐ GROUND RODS TO HAVE A 6'-0" MINIMUM SEPARATION.
- Ⓑ WRAP 6' OF WIRE (NOT EXPOSED) 1" UNDERGROUND NEXT TO GROUND ROD.
- Ⓒ **LOCATE GROUND RODS SO THEY DO NOT TOUCH CONDUITS.** GENERAL ORDER 128 REQUIRES GROUND RODS TO BE DRIVEN.

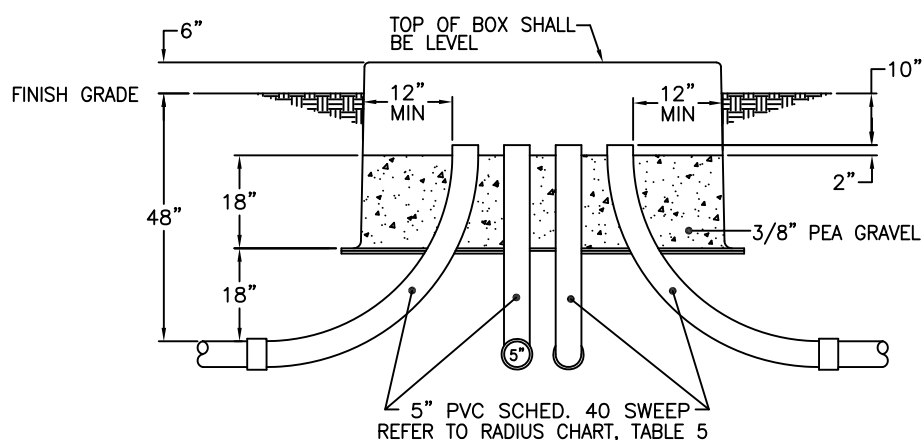
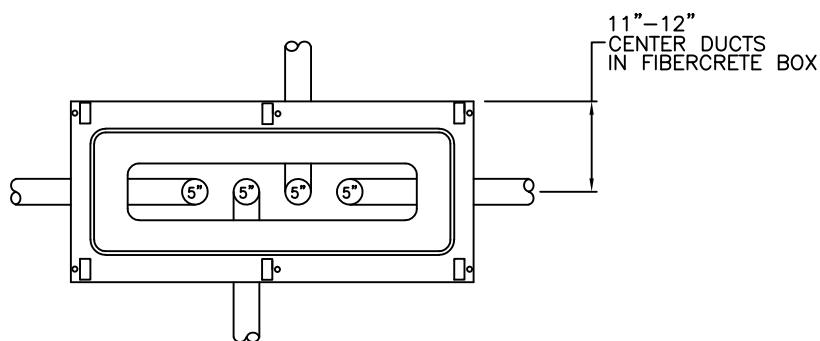
BILL OF MATERIAL

ITEM	QTY	DESCRIPTION	STOCK No.	PAGE No.
1	1	CONCRETE PAD, SEE STANDARD 171.1	_____	
2	1	CADWELD, ONE-SHOT OR Amp 83750-1 CONNECTORS	40003365	
3	17	WIRE - COPPER 00 2/0 STRAND, SOFT DRAWN, BARE.	40004222	
4	2	GROUND ROD, 5/8" x 10', COPPERWELD	40003815	

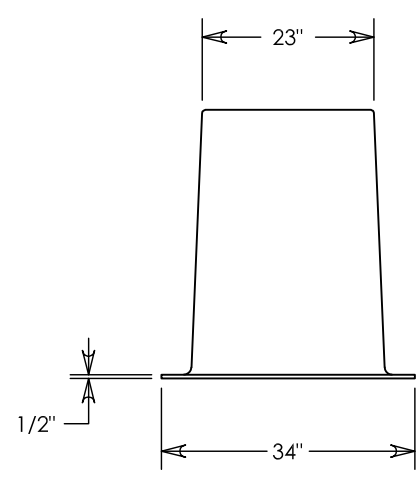
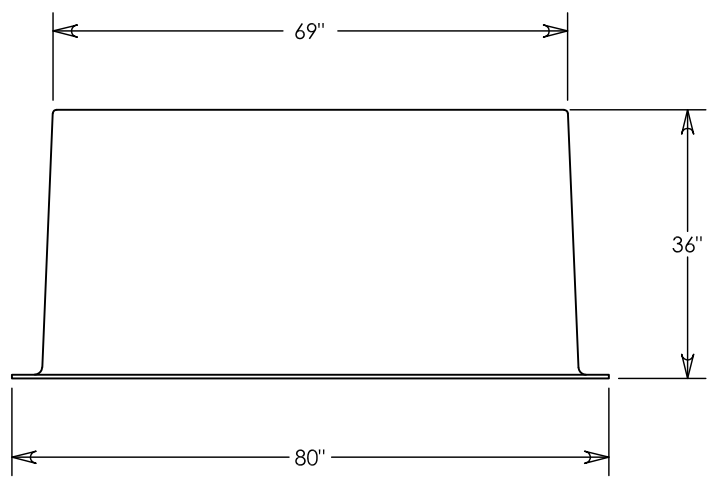
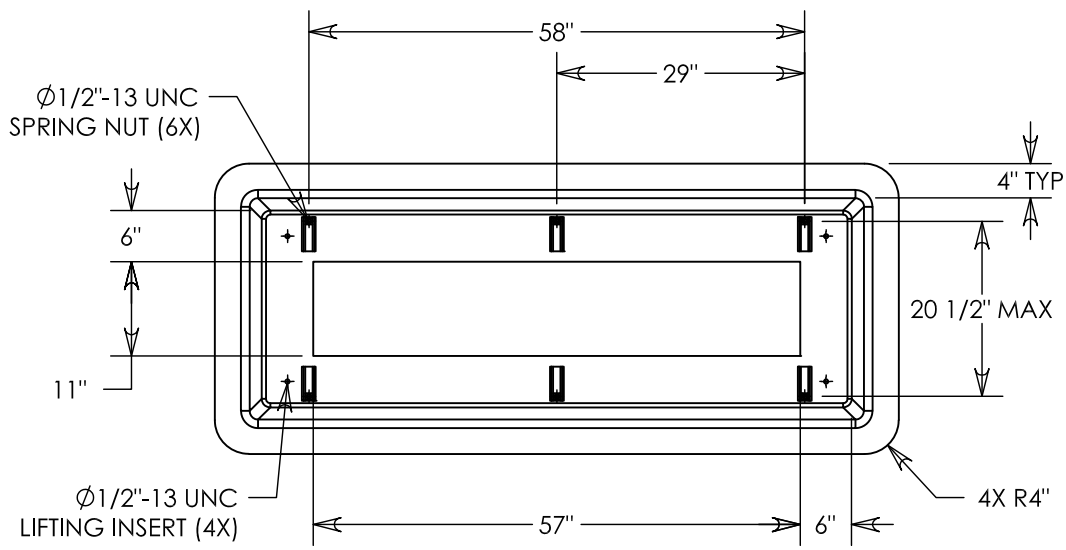
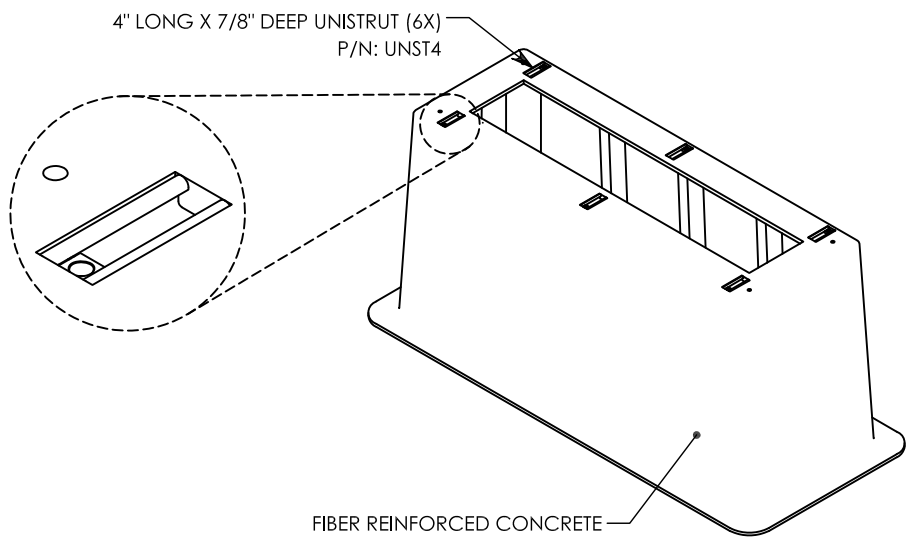
NOTES:

THE SERVICE TRENCH IS ON PRIVATE PROPERTY AND BELONGS TO THE CUSTOMER, THEREFORE, THE TRENCH GROUND WIRE SHOULD ALWAYS BE INSTALLED IN THE PRIMARY TRENCH.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 TRENCH GROUND WIRE FOR <u>SINGLE PHASE</u> SECTOR PAD TO BE INSTALLED BY CUSTOMER
REVIEWED		
APPROVED		
REVISION	REV 8	
DATE	11-21-2016	190.41



	DRAWN BY	P. SAMANO	THREE PHASE SECTOR SLEEVE INSTALLATION DETAILS	SECT
	REVISED BY	G. OREJAS		
	APPROVED BY	F. FIMBRES	WHAT'S CHANGED? NEW TITLE BLOCK AND NEW STANDARD NUMBER ADDED TWO CENTER SPRING NUTS	SHEET 1 OF 3
	REVISION	REV 1		120
	DATE	5/28/2025		



IMPERIAL IRRIGATION DISTRICT



DRAWN BY	P. SAMANO
REVISED BY	G. OREJAS
APPROVED BY	F. FIMBRES
REVISION	REV 1
DATE	5/28/2025

THREE PHASE SECTOR
SLEEVE INSTALLATION DETAILS

WHAT'S CHANGED? NEW STANDARD
ADDED TWO CENTER SPRING NUTS

SECT

SHEET 2 OF 3

120

NOTES:

1. COMPACT ALL BACKFILL FOR EXCAVATION UNDER SECTOR SLEEVE TO 90% BEFORE FIBERCRETE BOX PAD INSTALLATION.
2. CONTRACTOR SHALL PROVIDE & INSTALL 3/8" PEA GRAVEL MATERIAL UNDERNEATH SECTOR SLEEVE, AND 18" INSIDE OF BOX FOR SUPPORT AND DRAINAGE.
3. CONTRACTOR TO PROVIDE TWO 5/8" x 10' COPPERWELD GROUND RODS PER SECTOR SLEEVE (INSTALLATION BY CONTRACTOR).
4. SIZE AND NUMBER OF CONDUITS IN EACH SECTOR SLEEVE TO BE AS SHOWN ON CONDUIT LAYOUT.
5. CONDUITS NEED TO BE CENTERED IN FIBERCRETE BOX.
6. ALL PRIMARY SWEEPS TO BE PVC SCHEDULE 40, REFER TO TABLE 5 RISER SWEEP RADIUS.
7. GUARD POSTS MAY BE REQUIRED AT DISCRETION OF I.I.D. INSPECTOR.
8. ANCHORAGE TO BE SET BY I.I.D. WHEN TRANSCLOSURE IS INSTALLED.
9. APPROVED MANUFACTURERS AND STRUCTURES:

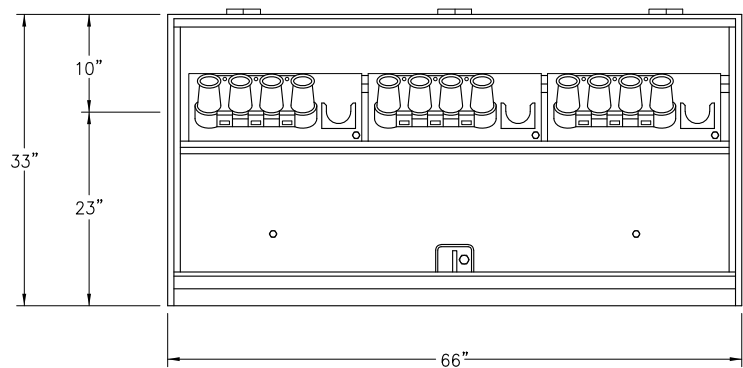
MANUFACTURER	PHONE No.	STRUCTURE No.
CONCAST, INC	REXEL (760) 352-4941	FC-23-69-36-1157-UNST1

IMPERIAL IRRIGATION DISTRICT

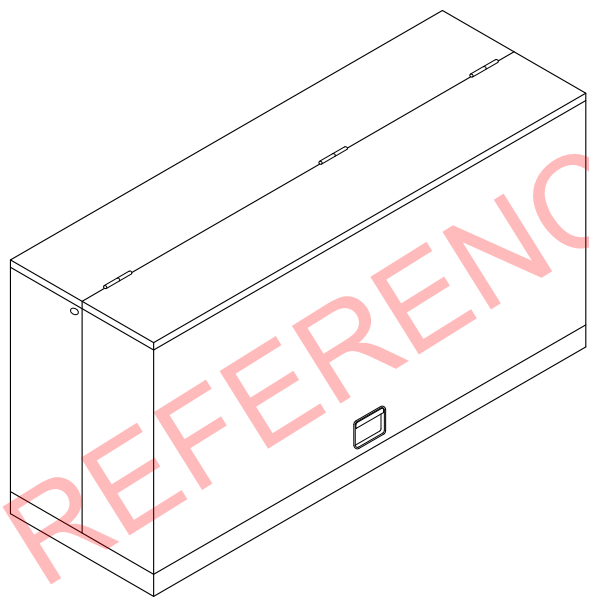


DRAWN BY	G. RAMIREZ	THREE PHASE SECTOR SLEEVE INSTALLATION DETAILS	SECT
REVISED BY	G. OREJAS		
APPROVED BY	F. FIMBRES	WHAT'S CHANGED? NEW TITLE BLOCK AND NEW STANDARD NUMBER	SHEET 3 OF 3
REVISION	REV 0		120
DATE	11/04/2024	171.21	

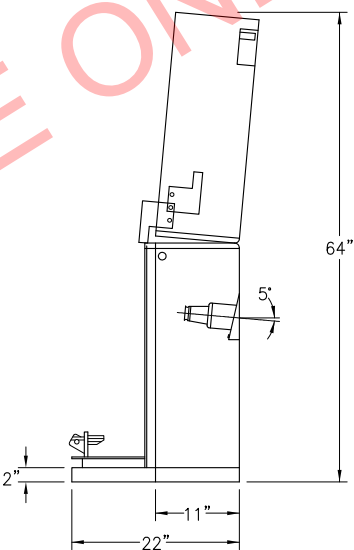
SCOPE: THIS STANDARD SHOWS THE PAD-MOUNTED, THREE-PHASE, LOW PROFILE CABLE TERMINATING CABINET, PREFERRED INSTALLATION WHEN TERMINATING 4/0 AND SMALLER CABLE.



FRONT VIEW

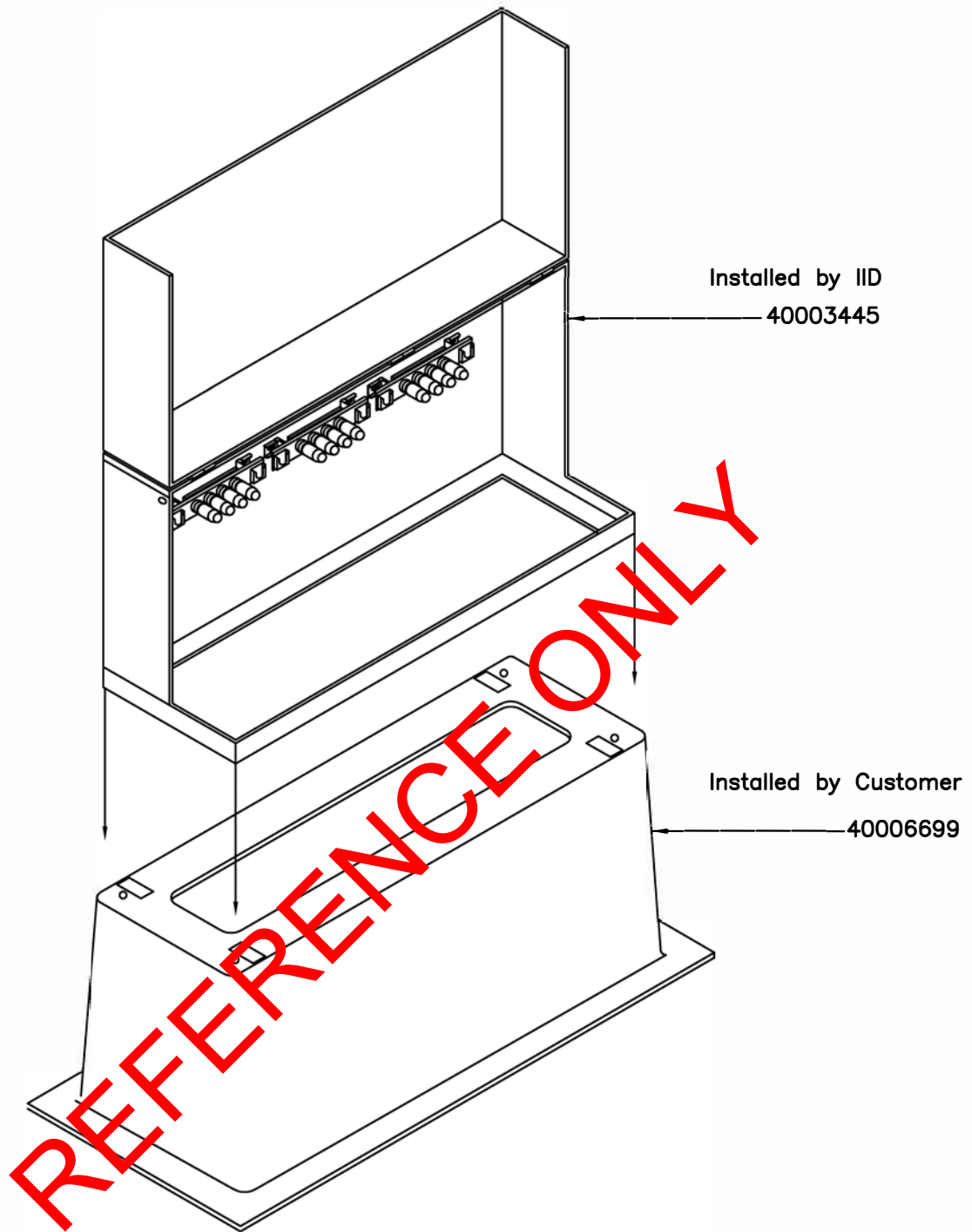


ISOMETRIC VIEW



SIDE VIEW

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY		40003445  170.3	THREE PHASE SECTOR
REVIEWED			
APPROVED			
REVISION	REV 3		
DATE	1.3.2017		



MANUFACTURER	PHONE No.	STRUCTURE No.
CONCAST, INC	REXEL (760) 352-4941	FC-23-69-36-1157-UNST1

IMPERIAL IRRIGATION DISTRICT



DRAWN BY	G. RAMIREZ	THREE PHASE SECTOR ON BOX PAD
REVISED BY	G. OREJAS	
APPROVED BY	F. FIMBRES	WHAT'S CHANGED? NEW TITLE BLOCK AND NEW STANDARD NUMBER
REVISION	REV 0	
DATE	10/23/2024	174.2

200

BILL OF MATERIAL

Item No.	Quantity	Description	Mateiral No.
3445	1	ENCLOSURE-SECTIONALIZING 15KV 3-PHASE	40003445
6699	1	PAD-BOX FIBERCRETE 36" HEIGHT (*)	40006699
3815	1	ROD-GROUND SECT. 5/8" X 10' COPPERWELD (*)	40003815
3117	1	CLAMP-GROUND ROD 5/8"	40003117
4222	20' (**)	WIRE-COPPER #2/0 STRAND, SOFT DRAW BARE	40004222
3778	1	PADLOCK -REG. SHACKLE KEYED ALIKE CODE M1	40003778
3866	1	SIGN-LABEL, DANGER/PELIGRO 7" X 11"	40003866
3865	1	SIGN-LABEL, WARNING/ADVERTENCIA 7" X 11"	40003865
3211	2	CONNECTOR-GROUNDING, FARGO GC-209	40003211

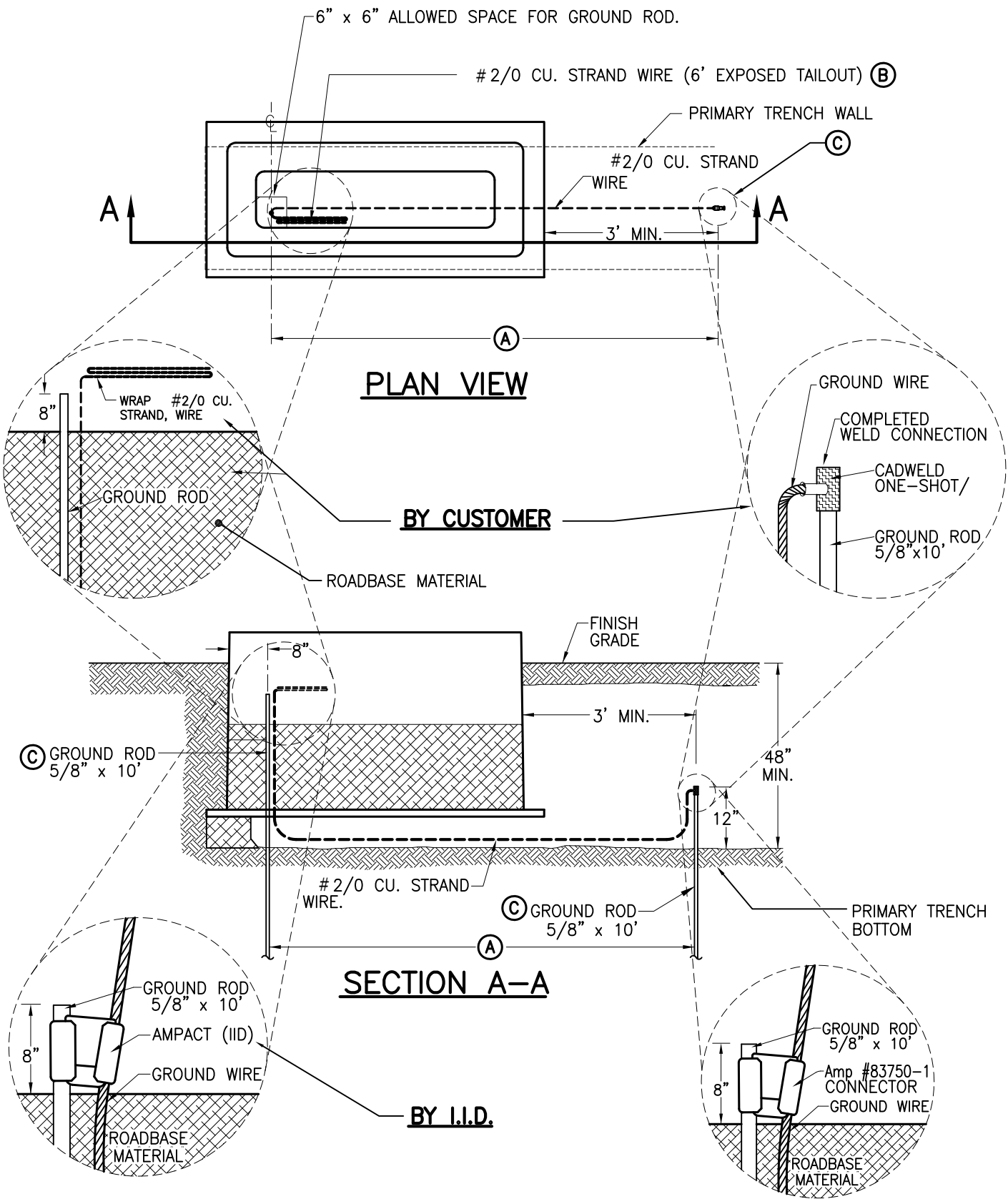
NOTES:

1. COMPACT ALL BACKFILL FOR EXCAVATION UNDER SECTOR SLEEVE TO 90% BEFORE FIBERCRETE BOX PAD INSTALLATION.
2. CONTRACTOR SHALL PROVIDE & INSTALL $\frac{3}{8}$ " PEA GRAVEL MATERIAL UNDERNEATH SECTOR SLEEVE, AND 18" INSIDE OF BOX FOR SUPPORT AND DRAINAGE.
3. CONTRACTOR TO PROVIDE TWO $\frac{5}{8}$ " X 10' COPPERWELD GROUND RODS PER SECTOR SLEEVE (INSTALLATION BY CONTRACTOR)
4. SIZE AND NUMBER OF CONDUIT IN EACH SECTOR SLEEVE TO BE AS SHOWN ON CONDUIT LAYOUT.
5. CONDUITS NEED TO BE CENTERED IN FIBERCRETE BOX.
6. ALL PRIMARY SWEEPS TO BE PVC SCHEDULE 40, REFER TO TABLE 5 RISER SWEEP RADIUS.
7. GUARD POSTS MAY BE REQUIRED AT DISCRETION OF IMPERIAL IRRIGATION DISTRICT INSPECTOR.
8. SECTOR SHALL BE SOLIDLY SECURED TO PAD TO PREVENT UNAUTHORIZED MOVEMENT OR ENTRY. THE BASE SHALL BE CAULKED WHEN NECESSARY TO PREVENT WIRE ENTRY.
9. EXPOSE ENOUGH PRIMARY CABLE AND CONCENTRIC NEUTRAL TO OPERATE THE LOADBREAK ELBOWS.

- * PROVIDED BY CUSTOMER / CONTRACTOR
 ** APPROXIMATE WIRE LENGTH

IMPERIAL IRRIGATION DISTRICT

	DRAWN BY	G. RAMIREZ	THREE PHASE SECTOR ON BOX PAD	SECT
	REVISED BY	G. OREJAS		
	APPROVED BY	F. FIMBRES	WHAT'S CHANGED? NEW TITLE BLOCK AND NEW STANDARD NUMBER	SHEET 2 OF 2
	REVISION	REV 0		200
	DATE	10/23/2024		
			174.21	



IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 THREE PHASE SECTOR SLEEVE GROUNDING DETAIL TO BE INSTALLED BY CONTRACTOR
REVIEWED	<i>gr</i>	
APPROVED	<i>ms</i>	
REVISION	REV 7	
DATE	11-21-2016	
		190.5

CONSTRUCTION NOTES:

- (A) GROUND RODS TO HAVE A 6'-0" MINIMUM SEPARATION.
- (B) WRAP 6' OF WIRE (EXPOSED TAILOUT)
- (C) **LOCATE GROUND RODS SO THEY DO NOT TOUCH CONDUITS.** GENERAL ORDER 128 REQUIRES GROUND RODS TO BE DRIVEN.

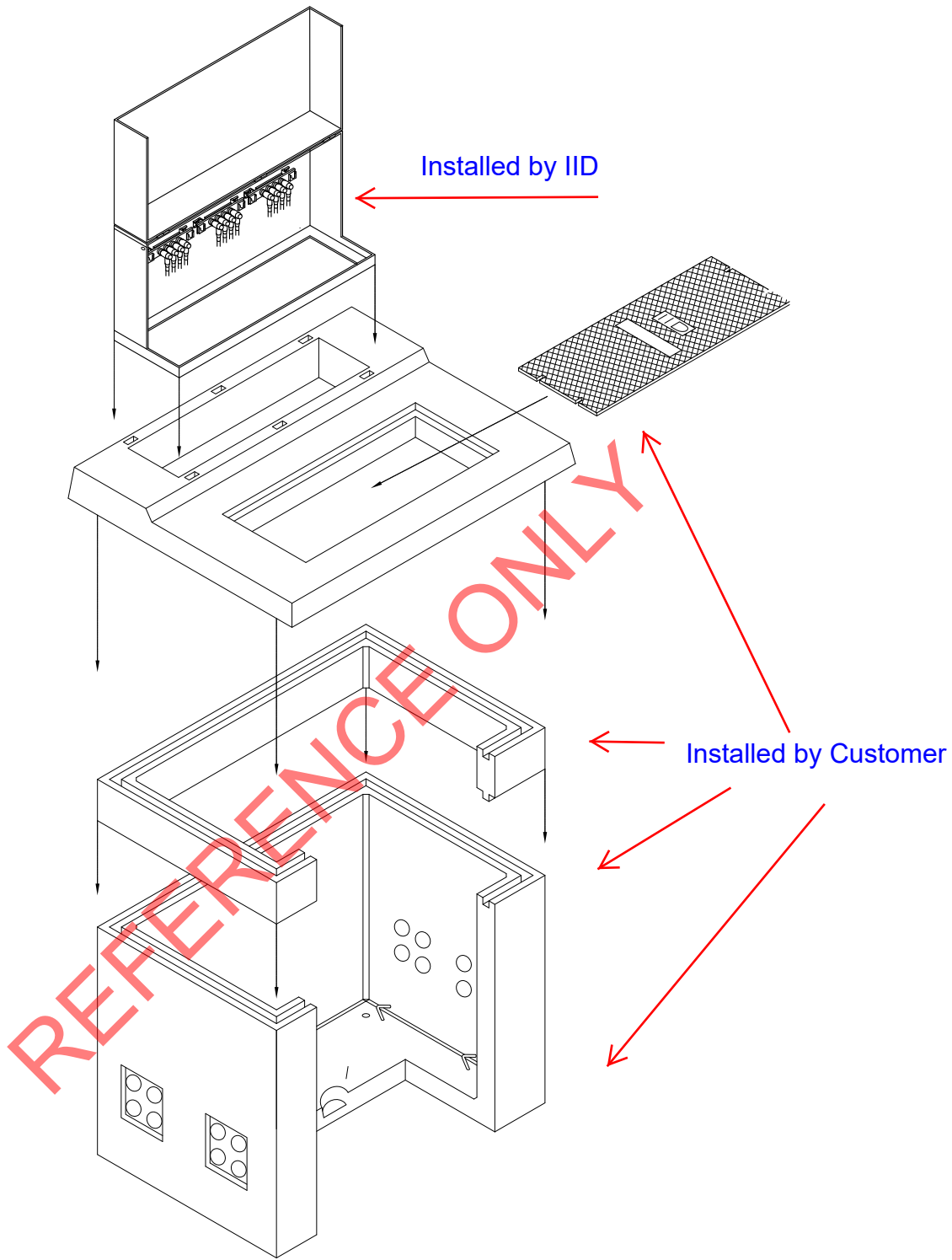
BILL OF MATERIAL

ITEM	QTY	DESCRIPTION	STOCK No.	PAGE No.
1	1	SECTOR SLEEVE SEE STANDARD <u>171.2</u>	_____	
2	1	CADWELD, ONE-SHOT/ Amp #83750-1 CONNECTOR	40003365	
3	20'	WIRE - COPPER 00 2/0 STRAND, SOFT DRAWN BARE	40004222	
4	2	GROUND ROD, 5/8" x 10', COPPERWELD	40003814	

NOTES:

THE SERVICE TRENCH IS ON PRIVATE PROPERTY AND BELONGS TO THE CUSTOMER, THEREFORE, THE TRENCH GROUND WIRE SHOULD NOT BE INSTALLED IN THE CUSTOMER TRENCH.

IMPERIAL IRRIGATION DISTRICT				
DRAWN BY			THREE PHASE SECTOR SLEEVE GROUNDING DETAIL TO BE INSTALLED BY CONTRACTOR	
REVIEWED				
APPROVED				
REVISION	REV 7			
DATE	11-21-2016			
		190.51		



SUPPLEMENTAL PROJECT INFORMATION, IID DEVELOPER ENERGY PLANNING GUIDE 2025, Pg. 208 of 281

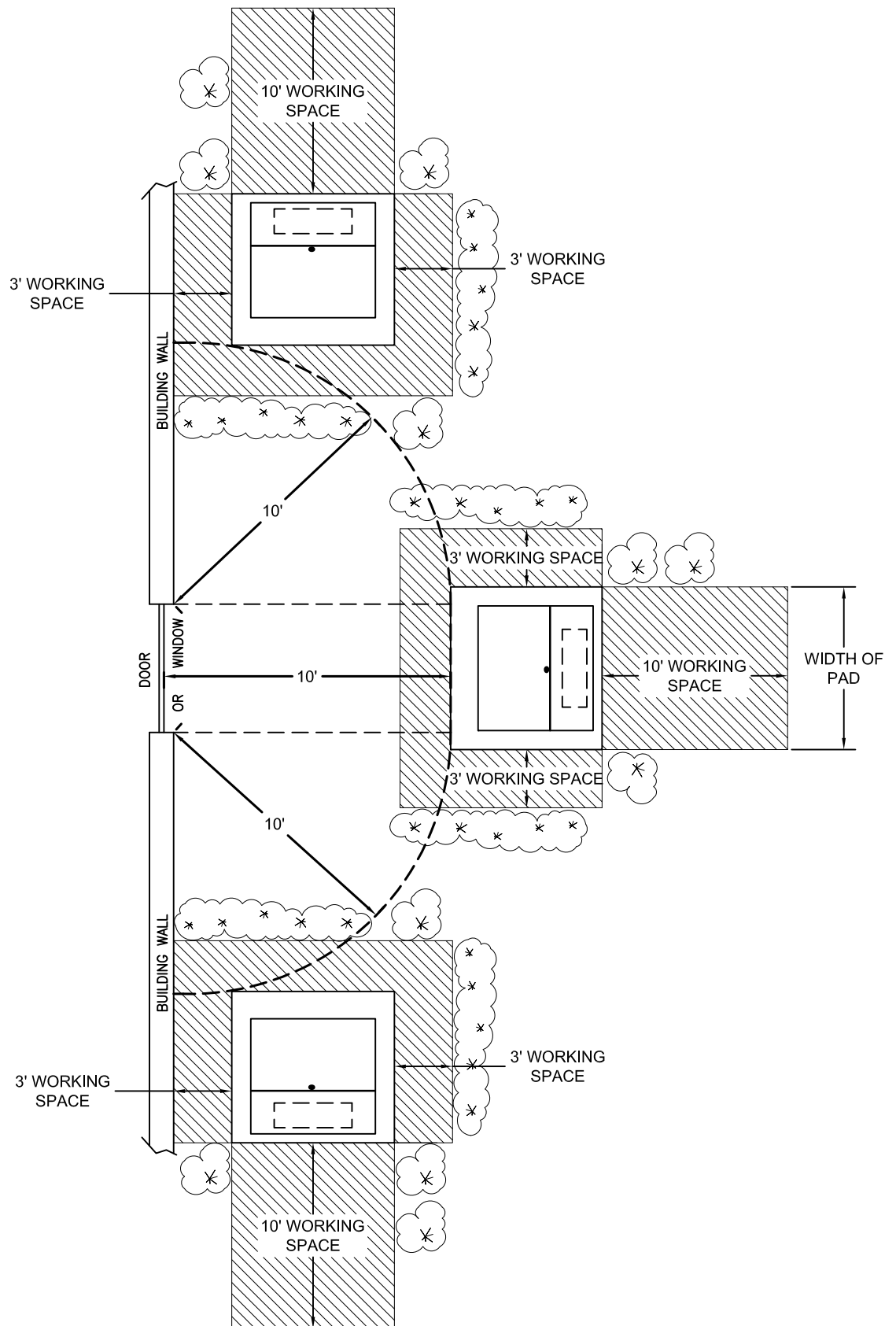
IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		THREE PHASE SECTOR ON VAULT
REVIEWED		
APPROVED		
REVISION	REV 5	
DATE	1.3.2017	171.5

EQUIPMENT CLEARANCES

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- 6.1 Equipment clearances shall be measured from all above ground objects. See 6.3.1 Standard 100.16.
- 6.2 Clearances are required at the side(s) or end(s) of substructures, pad-mounted equipment, etc. IID secondary pullboxes, vaults, and transformers pre-cast pads may occupy or be installed within clearances. Developer/Contractor is responsible to provide 3 feet (36") of clearance for planting greenery around pads and larger substructures. Developer/Contractor is responsible to provide 10 feet (120") of clearance on the "Working Side" of IID equipment. Working Side Door access side(s) of equipment. See 6.3.1 Standard 100.16.
- 6.3 IID equipment containing oil and capacitors adjacent to combustible buildings, distance shall not be less than 10 feet (120") from building windows and/or doors. See 6.3.1 Standard 100.16.

**NOTES:**

1. NO WINDOW OR DOOR SHALL BE WITHIN A 10' (120") RADIUS OF OIL FILLED EQUIPMENT.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 IID EQUIPMENT CLEARANCE
REVIEWED	<i>gr</i>	
APPROVED	<i>ms</i>	
REVISION	REV 6	
DATE	12-09-2013	
		100.16

6.3.2 Noncombustible Building surfaces or materials approved by the uniform building code as having a minimum fire rating of one hour include but not limited to:

6.3.2.1.1 Steel studded drywall

6.3.2.1.2 Steel studded stucco or other materials on steel studs having minimum fire rating of one hour.

6.3.2.1.3 Brick or stone

6.3.2.1.4 Tile

6.3.2.1.5 Concrete

6.3.2.1.6 Iron or steel

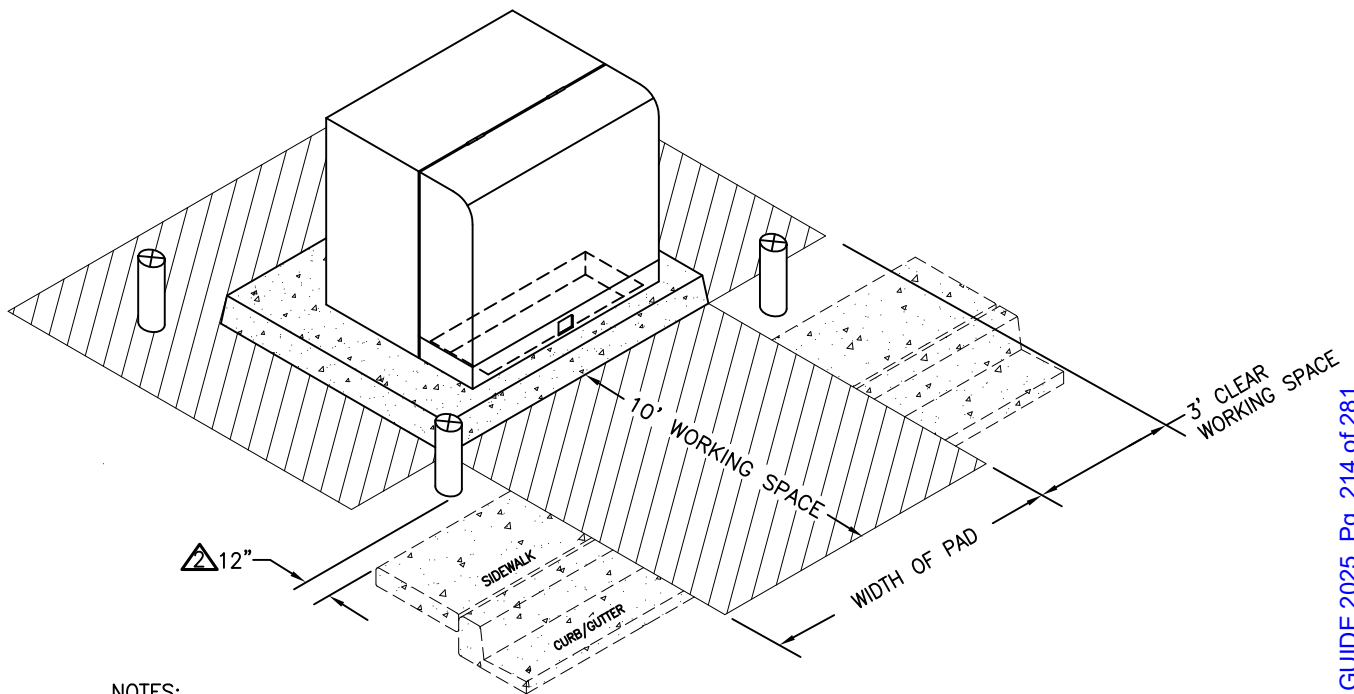
6.3.3 Combustible Building surfaces or materials include but not limited to:

6.3.3.1.1 Wood studded stucco

6.3.3.1.2 Wood studded drywall

6.4 Pre-cast concrete pads, vaults, and sector sleeves are to be installed 1 foot (12") from back of existing or proposed sidewalk. When barrier post(s) are required to protect IID structures, barrier post(s) will be installed 1 foot (12") from back of sidewalk. All Pre-cast concrete pads, vaults, and sector sleeves to be installed 25 feet from handicap ramps.

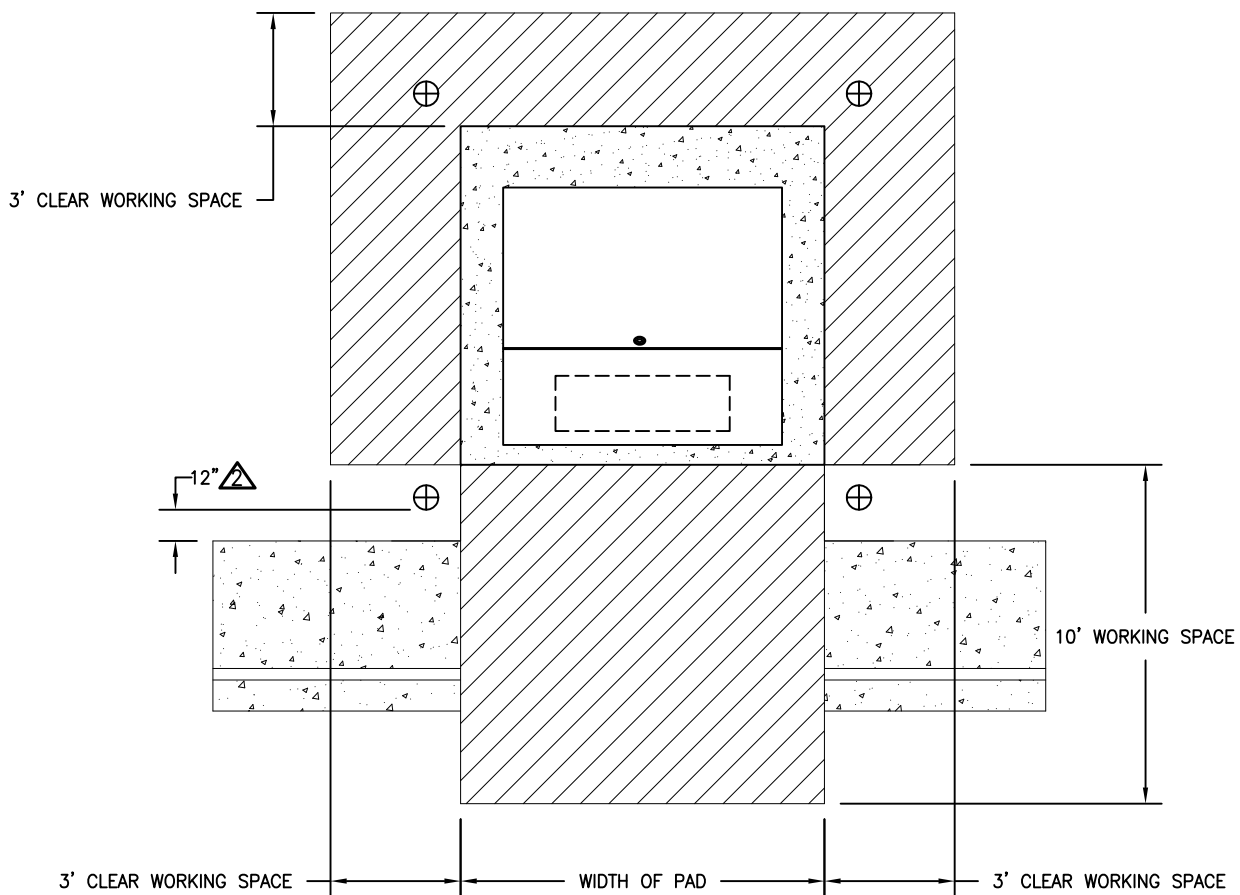
- 6.5 Required clearances from any IID transformer to other utilities is 18" on sides or back of transformer the 18" is measured from the transformer pad. See 6.6 Standard 202.4
 - 6.5.1 Barrier posts required refer to 5.31 Standard 181.6.
 - 6.5.2 Barrier posts not required transformer precast pad shall have a 12" offset behind sidewalk. See 6.4. Refer to 6.6 Standard 202.4
 - 6.5.3 Transformer pad working clearance refer to 6.7 Standard 202.5
 - 6.5.3.1 Working clearance in front or opening of transformer ten feet (10') measurement is from edge of pad. See 6.7 Standard 202.5
 - 6.5.3.2 Working clearance on each side of transformer three feet (3') measurement is from edge of pad. See 6.7 Standard 202.5
 - 6.5.3.3 Working clearance behind transformer is three feet (3') measurement is from edge of pad. See 6.7 Standard 202.5



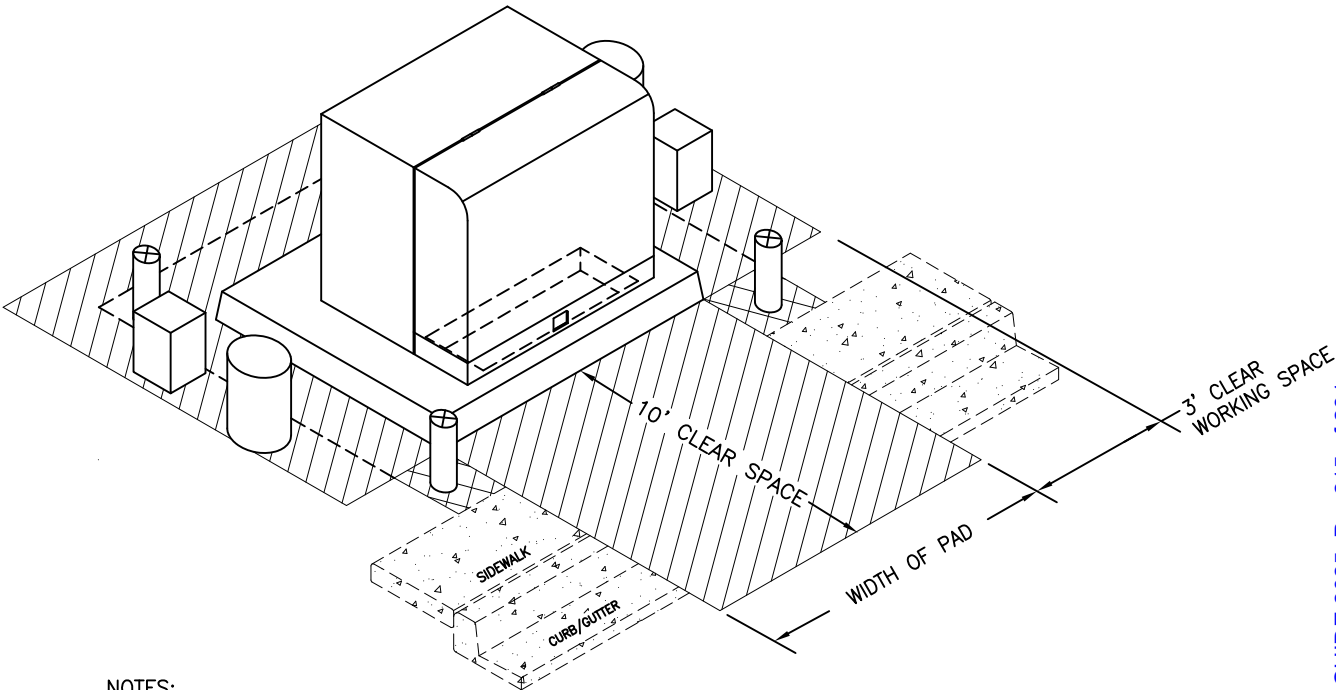
NOTES:

1. THE PURPOSE OF THIS DRAWING IS TO ILLUSTRATE THE REQUIRED CLEARANCES FROM AN I.I.D TRANSFORMER TO OTHER UTILITIES (18") AND MINIMUM HOT STICK CLEARANCE.

⚠ WHEN BARRIER POSTS ARE REQUIRED, REFER TO BARRIER POST DETAIL 181.6, SECTION 5.32. IF BARRIER POSTS ARE NOT REQUIRED, TRANSFORMER PRECAST PAD SHALL HAVE A 12" (1') OFFSET BEHIND SIDEWALK.

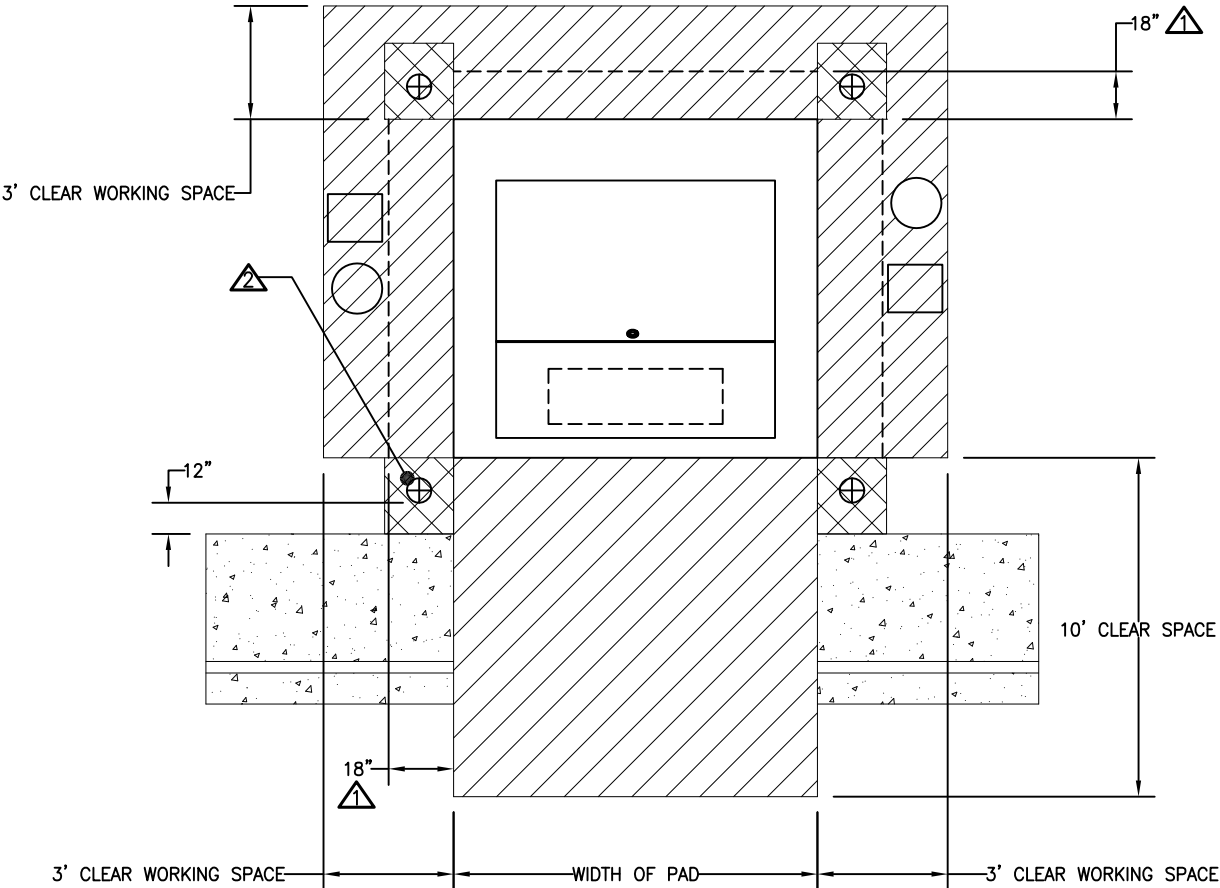


IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 PRECAST TRANSFORMER PAD SPATIAL CLEARANCES
REVIEWED	<i>LD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 2	
DATE	9-29-2016	
		202.4



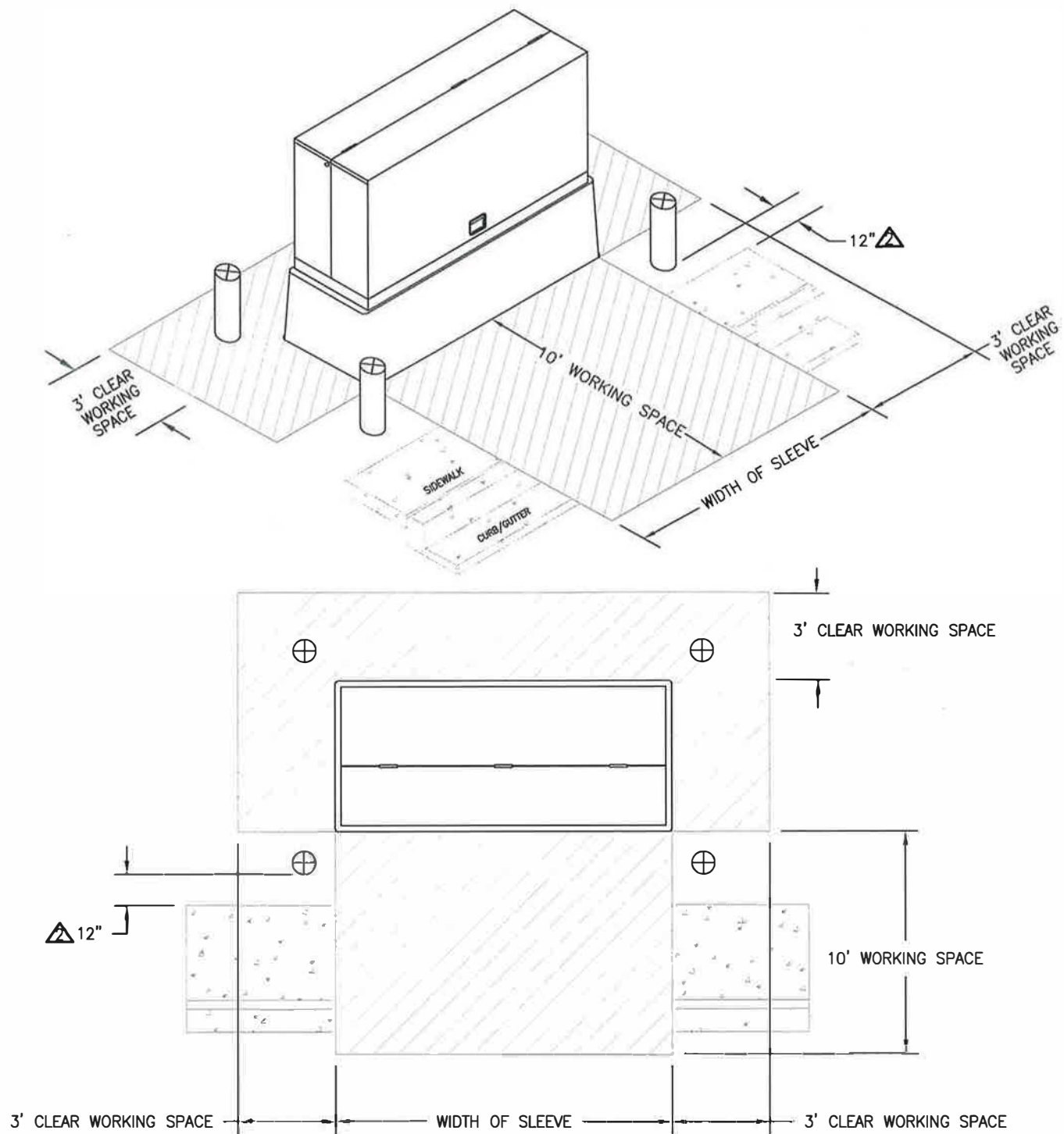
NOTES:

- ⚠ THE PURPOSE OF THIS DRAWING IS TO ILLUSTRATE THE REQUIRED CLEARANCES FROM AN I.I.D TRANSFORMER TO OTHER UTILITIES (18") AND MINIMUM HOT STICK CLEARANCE.
- ⚠ WHEN BARRIER POSTS ARE REQUIRED, ALL OTHER UTILITIES TO STAY CLEAR OF AREA. (REFER TO BARRIER POST DETAIL, 181.6, SECTION 5.32.)



IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 PRECAST TRANSFORMER PAD SPATIAL CLEARANCES WITH COMMUNICATION
REVIEWED	<i>LD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 2	
DATE	9-29-2016	
		202.5

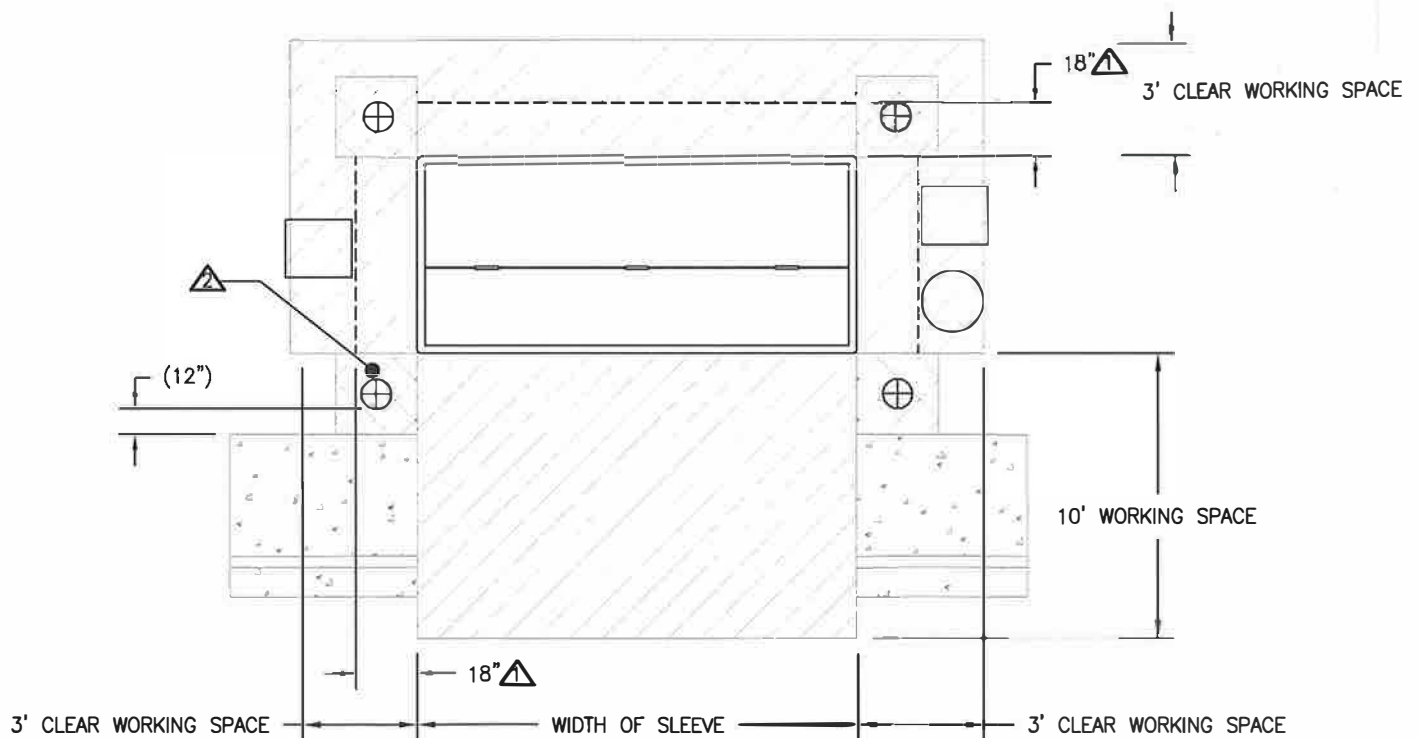
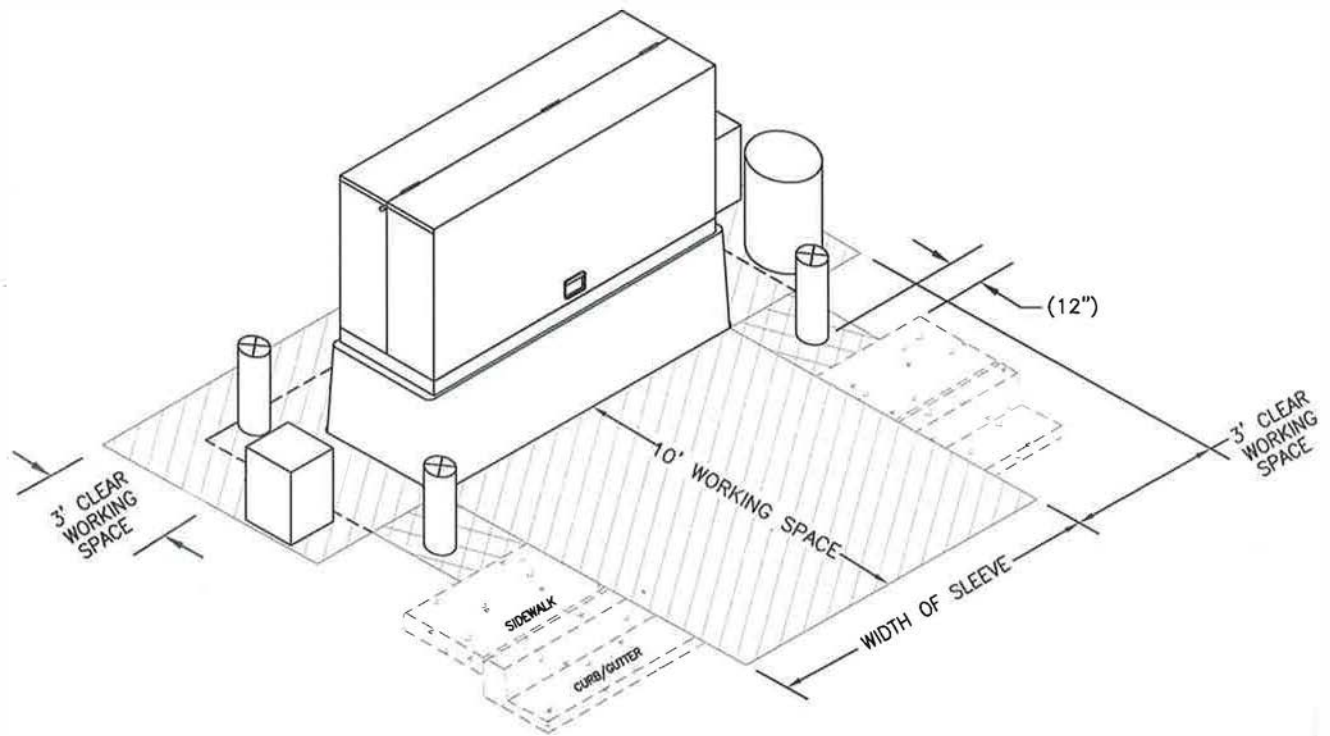
- 6.8 Required working clearances in front of a sector is ten feet (10').
 - 6.8.1 Barrier posts required refer to 5.31 Standard 181.6.
 - 6.8.2 Barrier posts not required sector sleeve shall have a 12" offset behind sidewalk. See 6.4. Refer to 6.6 Standard 202.4
 - 6.8.3 Sector sleeve or pad working clearance refer to 6.10 Standard 202.7
 - 6.8.3.1 Working clearance in front of sector is ten feet (10') measurement is from edge of sleeve or pad. See 6.10 Standard 202.7
 - 6.8.3.2 Working clearance on each side of sector is three feet (3') measurement from edge of sleeve or pad. See 6.10 Standard 202.7
 - 6.8.3.3 Working clearance behind sector is three feet (3') measurement is from edge of sleeve or pad. See 6.10 Standard 202.5
- 6.9 Required clearances from any IID sector to other utilities is 18" on sides or back of sector the 18" is measured from the sector sleeve or pad. See 6.11 Standard 202.8

**NOTES:**

1. THE PURPOSE OF THIS DRAWING IS TO ILLUSTRATE THE REQUIRED CLEARANCES FROM AN I.I.D SECTOR AND MINIMUM HOT STICK CLEARANCE.

WHEN BARRIER POSTS ARE REQUIRED, REFER TO BARRIER POST DETAIL 181.6, SECTION 5.32. IF BARRIER POSTS ARE NOT REQUIRED, SECTOR SLEEVE SHALL HAVE A 12" (1') OFFSET BEHIND SIDEWALK.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>JR</i>	 THREE — PHASE LOW PROFILE SECTOR CABINET SPATIAL REQUIREMENTS
REVIEWED	<i>-P</i>	
APPROVED	<i>MS</i>	
REVISION	REV 3	
DATE	9-21-2020	
		202.7



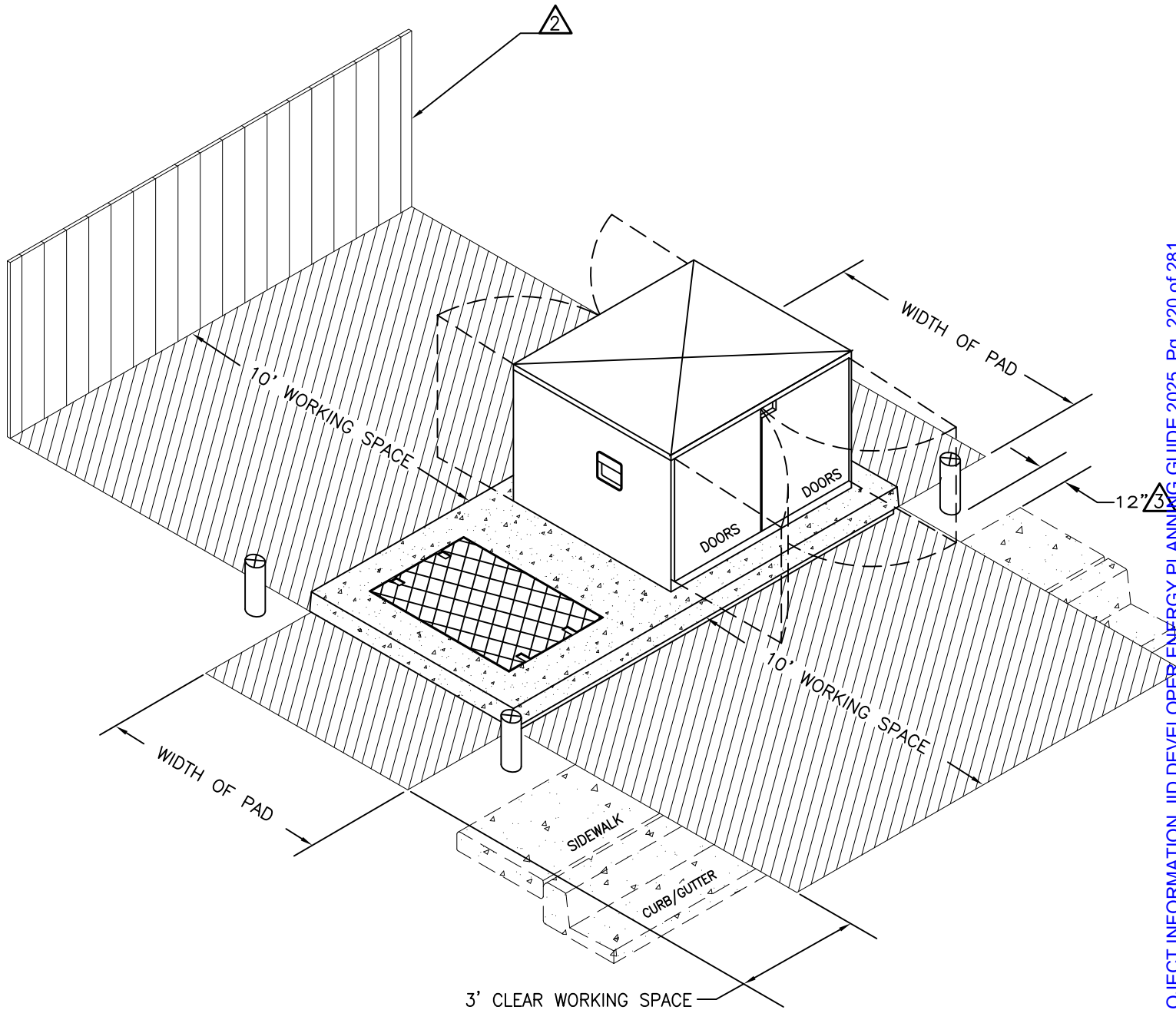
NOTES:

⚠ THE PURPOSE OF THIS DRAWING IS TO ILLUSTRATE THE REQUIRED CLEARANCES FROM AN I.I.D SECTOR TO OTHER UTILITIES (18") AND MINIMUM HOT STICK CLEARANCE.

⚠ WHEN BARRIER POSTS ARE REQUIRED, ALL OTHER UTILITIES TO STAY CLEAR OF AREA. (REFER TO BARRIER POST DETAIL, 181.6, SECTION 5.32.)

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	JR	 THREE - PHASE LOW PROFILE SECTOR CABINET SPATIAL REQUIREMENT WITH COMMUNICATION
REVIEWED	PS	
APPROVED	MS	
REVISION	REV 3	
DATE	9-21-2020	
		202.8

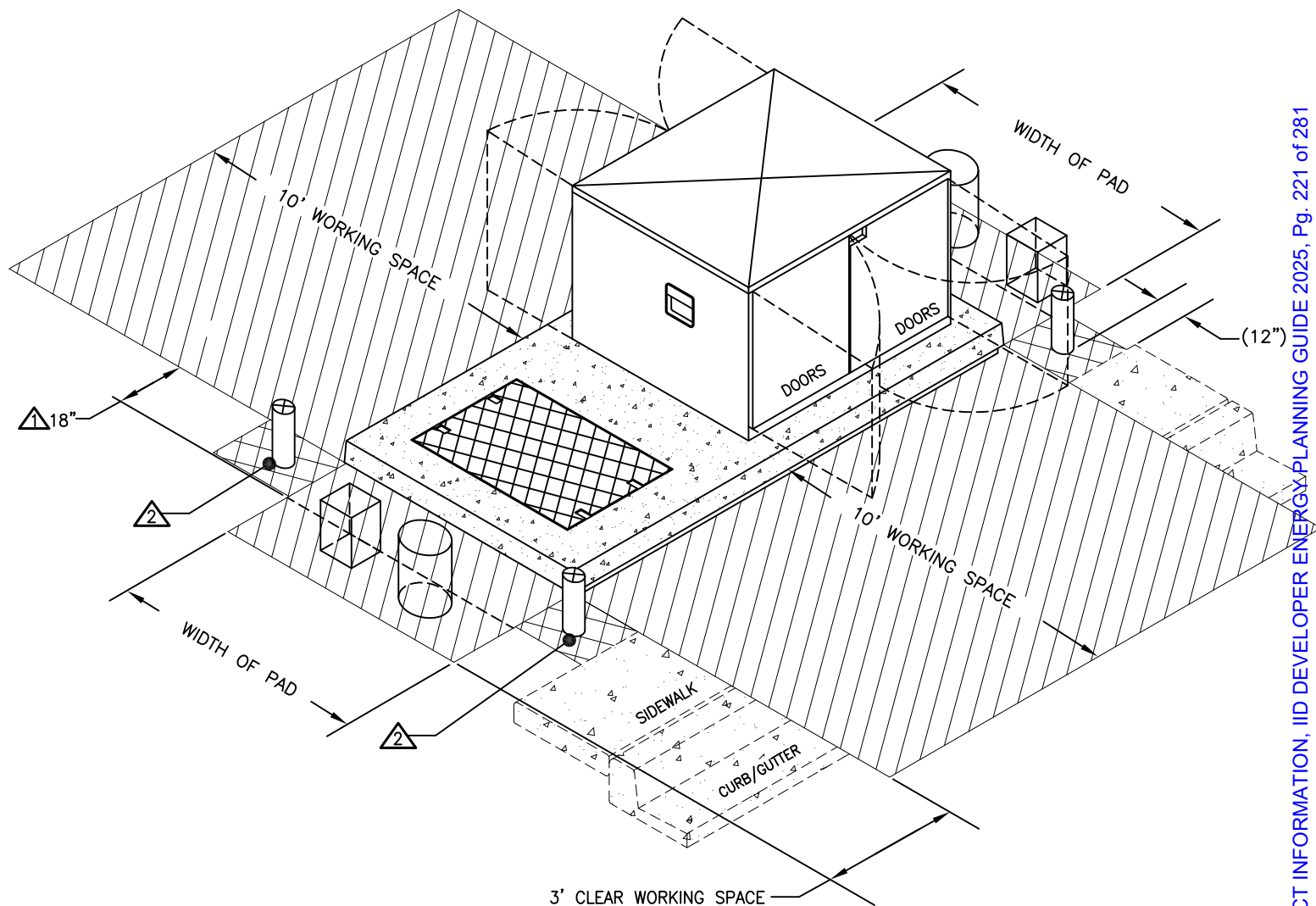
- 6.12 Required working clearances in front and back of a switch is ten feet (10').
 - 6.12.1 Barrier posts required. refer to 5.31 Standard 181.6
 - 6.12.2 Barrier posts not required. Switch shall have a 12" offset behind sidewalk. See 6.4, and 6.14 Standard 202.9
 - 6.12.3 Switch sleeve or vault pad working clearance refer to 6.14 Standard 202.9
 - 6.12.3.1 Working clearance in front and back of a switch is ten feet (10') measurement is from edge of sleeve or vault lid. See 6.14 Standard 202.9
 - 6.12.3.2 Working clearance on each side of a switch is three feet (3') measurement from edge of sleeve or vault lid. See 6.14 Standard 202.9
- 6.13 Required clearances from any IID switch to other utilities is 18" on sides, back and front require the ten foot (10') clearance, measurement is from edge of the switch sleeve or vault lid. See 6.15 Standard 202.10



NOTES:
1. THE PURPOSE OF THIS DRAWING IS TO ILLUSTRATE THE REQUIRED CLEARANCES FROM AN I.I.D SWITCH VAULT AND MINIMUM HOT STICK CLEARANCE.

- 2** FENCE, RETAINING WALL, OR ANY OBSTRUCTION MUST REMAIN A MINIMUM OF 10' FROM THE EDGE OF THE VAULT (WHERE ACCESS DOORS ARE PRESENT) TO MAINTAIN HOT STICK CLEARANCE.
- 3** WHEN BARRIER POST ARE REQUIRED, REFER TO BARRIER POST DETAIL 181.6, SECTION 5.32. IF BARRIER POSTS ARE NOT REQUIRED VAULT LID WILL HAVE AN OFFSET OF 12" (1') BEHIND SIDEWALK.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		SWITCH VAULT CLEARANCES 202.9
REVIEWED		
APPROVED		
REVISION	REV 2	
DATE	9-29-2016	



NOTES:

⚠ THE PURPOSE OF THIS DRAWING IS TO ILLUSTRATE THE REQUIRED CLEARANCES FROM AN I.I.D SWITCH VAULT TO OTHER UTILITIES AND MINIMUM HOT STICK CLEARANCE. COMMUNICATIONS WILL HAVE A MINIMUM 18" OFFSET FROM EDGE OF VAULT LID.

2 WHEN BARRIER POSTS ARE REQUIRED, ALL OTHER UTILITIES TO STAY CLEAR OF AREA (BARRIER POST DETAIL, 181.6, SECTION 5.32.)

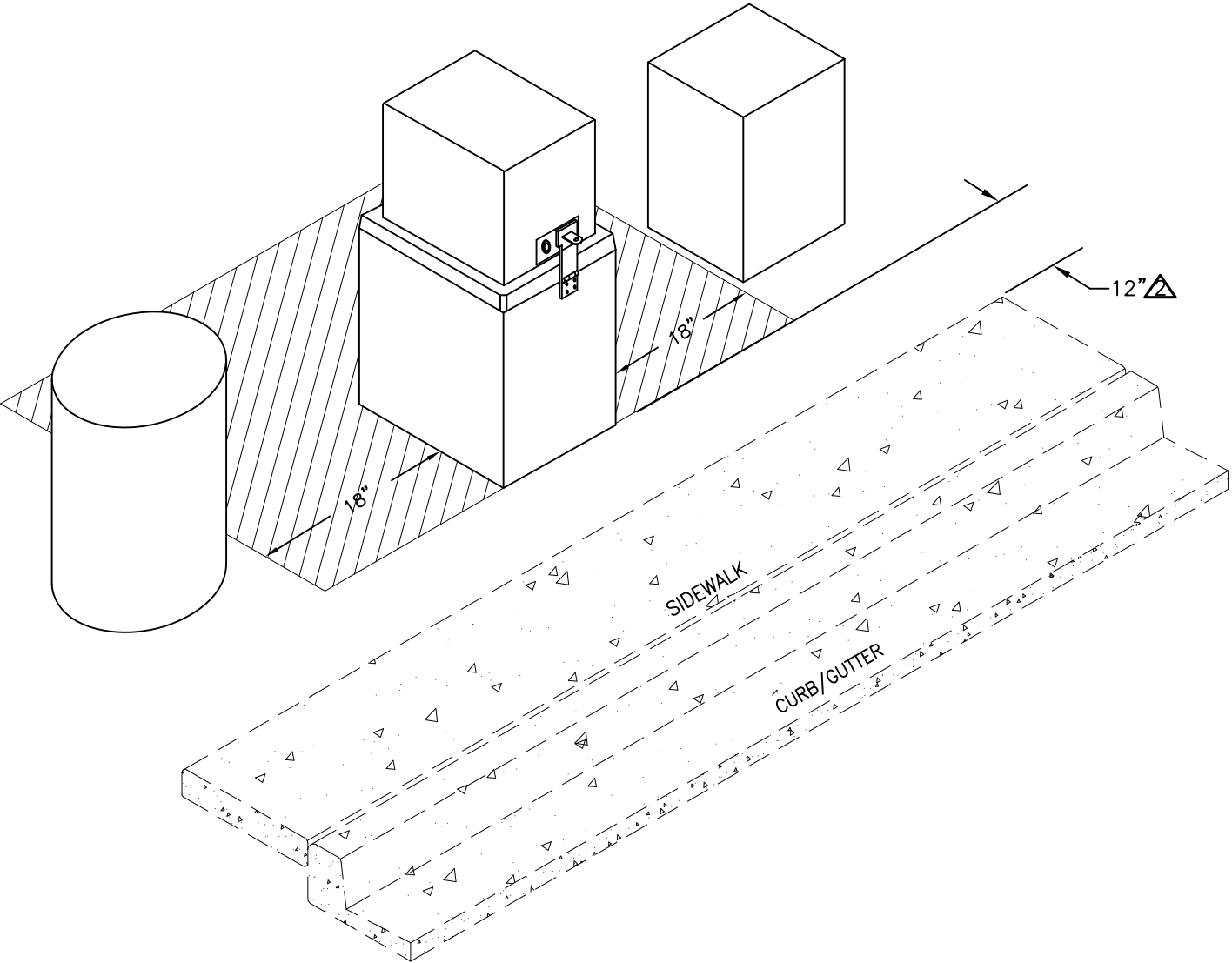
IMPERIAL IRRIGATION DISTRICT	
DRAWN BY	<i>GR</i>
REVIEWED	<i>PS</i>
APPROVED	<i>MS</i>
REVISION	REV 2
DATE	9-29-2016



IID SWITCH VAULT CLEARANCES
WITH COMMUNICATIONS

202.10

- 6.16 Required clearances from any IID secondary pullbox to other utilities is 18" on sides.
 - 6.16.1 Imperial Valley secondary pullbox example. See 6.17 Standard 202.11
 - 6.16.2 Coachella Valley secondary pullbox example. See 6.18 Standard 202.12

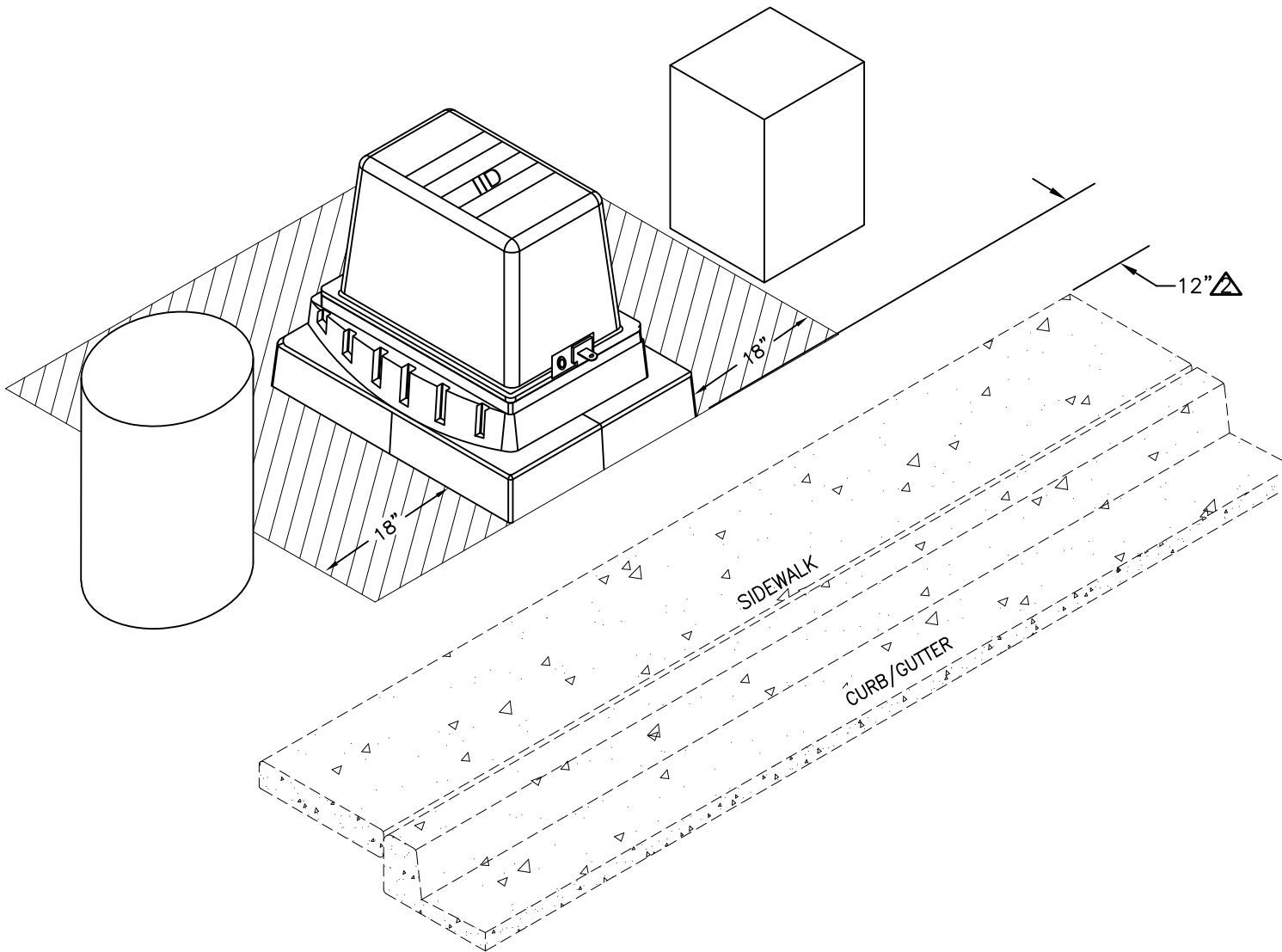


NOTES:

1. IID REQUIRES SECONDARY PULLBOXES TO HAVE A MINIMUM CLEARANCE OF 18" FROM ALL OTHER UTILITIES.

 SECONDARY PULLBOX TO BE INSTALLED A MINIMUM OF 12" (1') BEHIND SIDEWALK.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		SECONDARY PULLBOX SPATIAL REQUIREMENTS FOR IMPERIAL VALLEY
REVIEWED		
APPROVED		
REVISION	REV 2	
DATE	9.29.2016	
		202.11



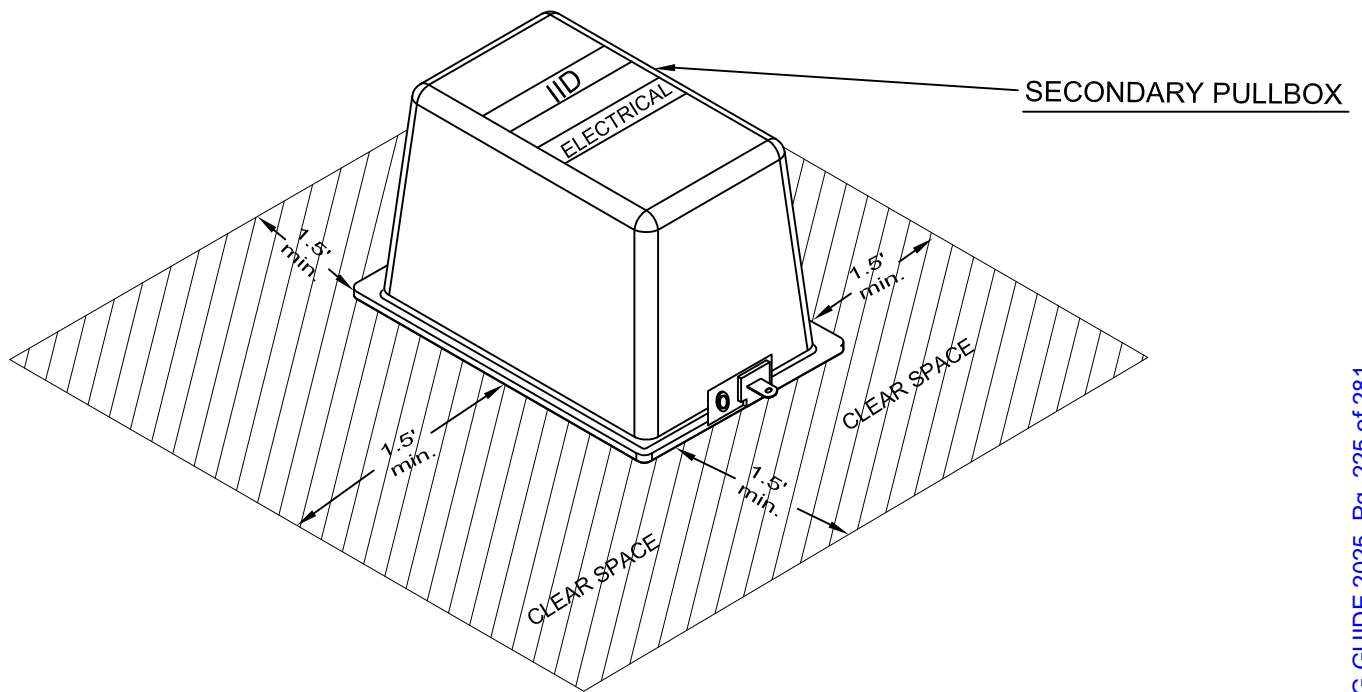
SUPPLEMENTAL PROJECT INFORMATION, IID DEVELOPER ENERGY PLANNING GUIDE 2025, Pg. 224 of 281

NOTES:

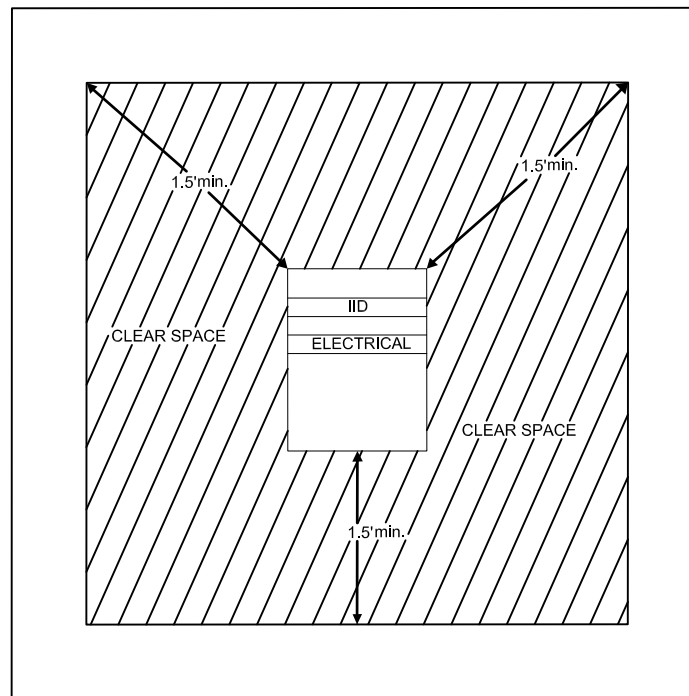
1. IID REQUIRES SECONDARY PULLBOXES TO HAVE A MINIMUM CLEARANCE OF 18" FROM ALL OTHER UTILITIES.

 SECONDARY PULLBOX TO BE INSTALLED A MINIMUM OF 12" (1') BEHIND SIDEWALK.

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY			SECONDARY PULLBOX SPATIAL REQUIREMENTS WITH COMMUNICATIONS
REVIEWED			
APPROVED			
REVISION	REV 3		
DATE	9-29-2016	202.12	



Top View



NOTES:

1. THE EQUIPMENT MUST REMAIN UNCOVERED, AND WITH A CLEAR SPACE OF 1.5 FEET (18") MINIMUM. DO NOT BUILD ANY TYPE OF STRUCTURE AROUND IID'S EQUIPMENT OR ATTEMPT TO FENCE IT IN.
2. THE EQUIPMENT MUST REMAIN WELL VENTILATED—ADEQUATE AIR IS NEEDED TO KEEP THE BOXES COOL AND WORKING PROPERLY OR THEY MAY BECOME A FIRE HAZARD.
3. PLAN YOUR PLANTINGS OR FUTURE PROJECTS ACCORDINGLY AROUND UTILITY BOXES. IF YOUR PLANTINGS ENCROACH ON IID EQUIPMENT, WE MAY BE FORCED TO REMOVE THEM.

IMPERIAL IRRIGATION DISTRICT		
Drawn By	Bryan A.	 SECONDARY PULLBOX SPATIAL REQUIREMENTS FOR IMPERIAL VALLEY
Reviewed	Francisco F.	
Approved	Francisco F.	
Revision	REV-1	
Date	09/07/22	202.15

6.19 Conductor to building clearances table A 6.19.1 see 6.20 Standard 202.17

6.19.1 Table A Basic Minimum Allowable Vertical Clearance of Wires Above and in Proximity to Buildings and Structures

Table A Basic Minimum Allowable Vertical Clearances		
SITUATION	VOLTAGE	DISTANCE OR CLEARANCE
VERTICAL CLEARANCE ABOVE WALKABLE SURFACE ON BUILDINGS	750 22,000 VOLTS	12'
VERTICAL CLEARANCE ABOVE NON WALKABLE SURFACE ON BUILDINGS	750 22,000 VOLTS	8'
CENTERLINE OF POLE TO FENCE	7200 15,000 VOLTS	5'

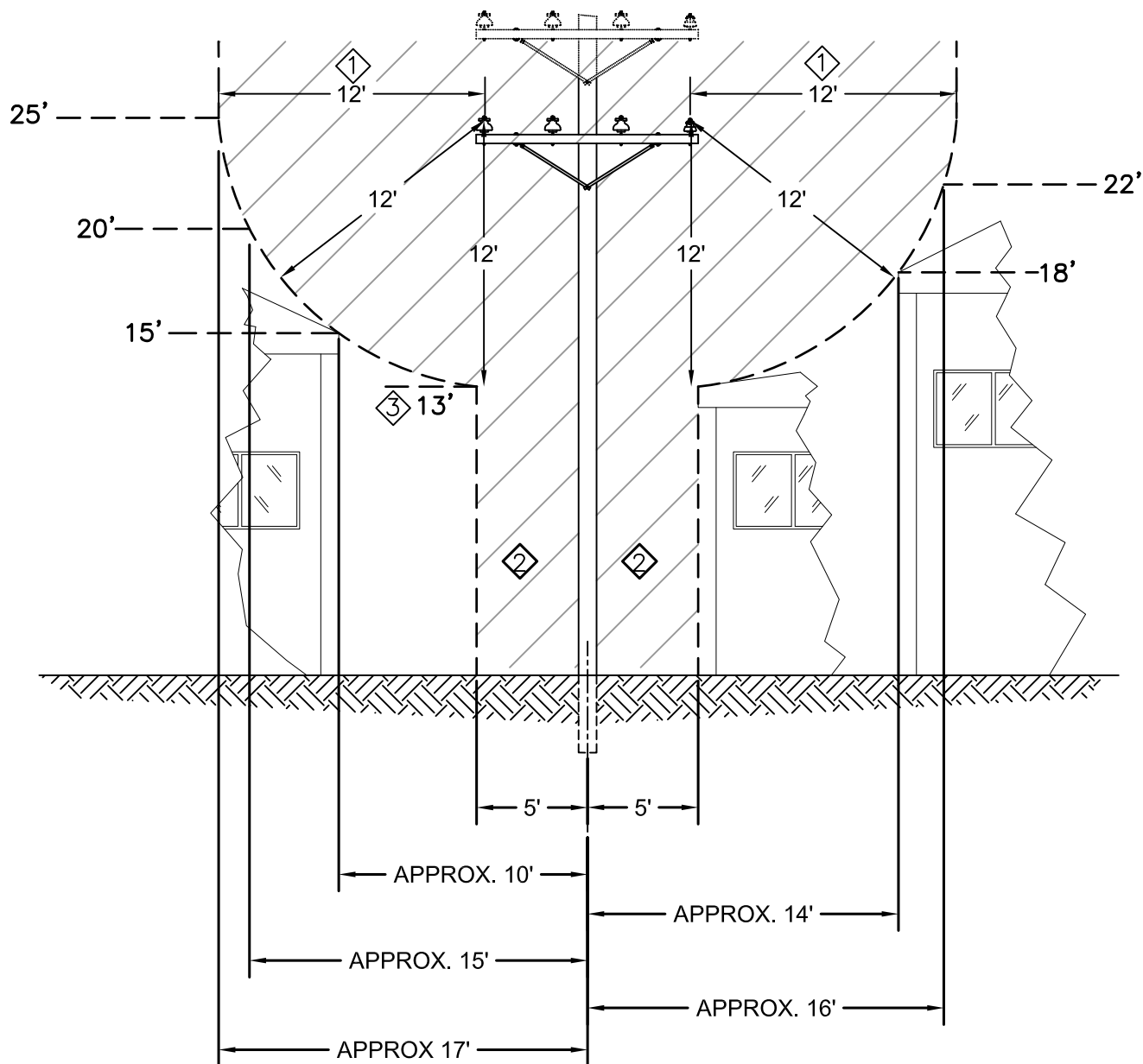
6.19.2 Table B Minimum Approach distance Between Power Lines, Cranes and Derricks

Table B Minimum Approach Distance for Equipment	
POWER LINE VOLTAGE	MINIMUM APPROACH DISTANCE FOR CRANE OR DERRICK, LOAD AND LOAD LINE
UP TO 50,000 VOLTS	10 FEET
OVER 50,000 VOLTS UP TO 250,000 VOLTS	17 FEET
OVER 250,000 VOLTS UP TO 370,000 VOLTS	21 FEET
OVER 370,000 VOLTS UP TO 550,000 VOLTS	27 FEET

6.19.3 Table C Minimum Approach Distance between Energized Line/Equipment and People, Materials, and non-crane equipment

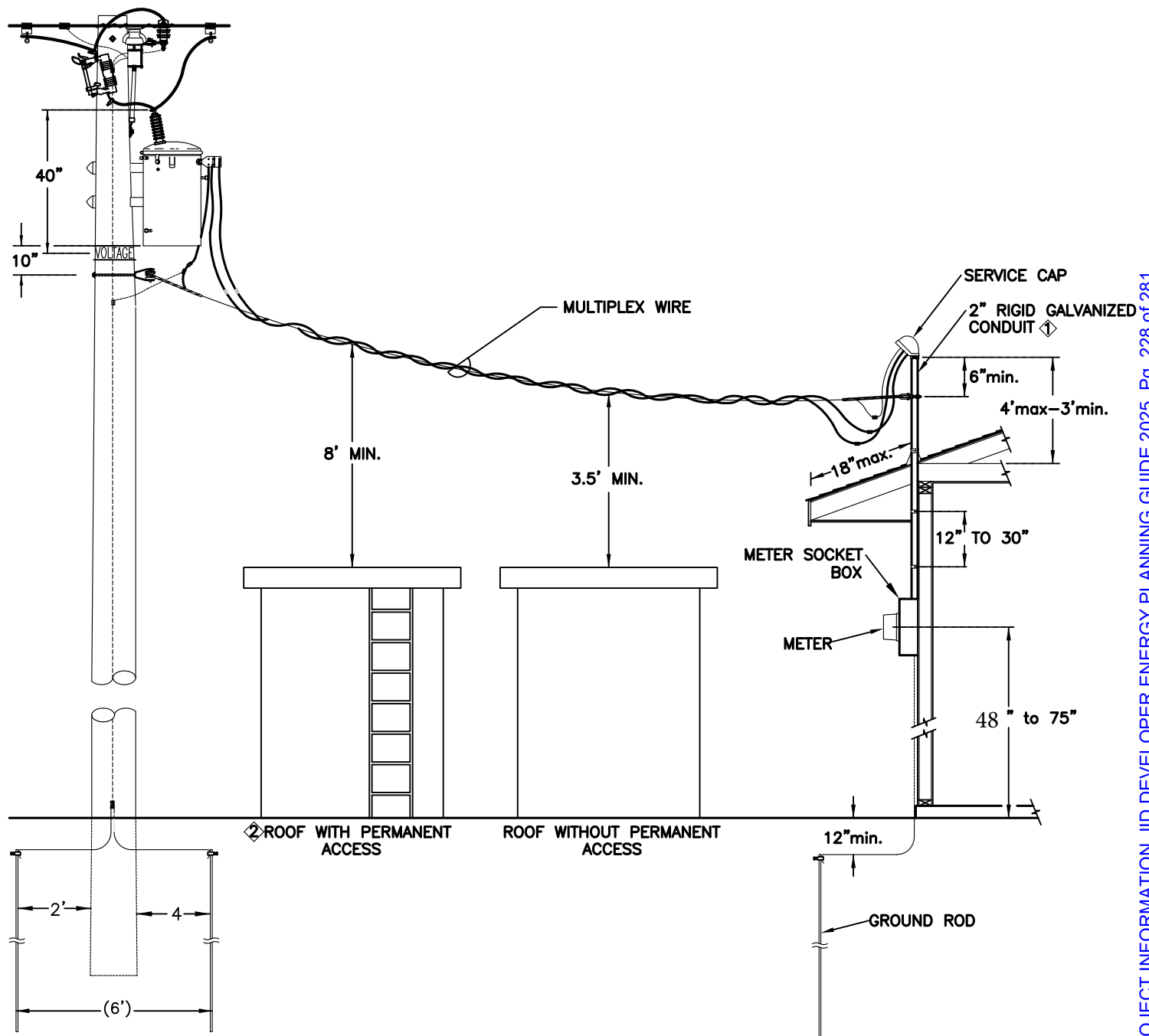
Table C Minimum Approach Distance for People	
ENERGIZED LINE VOLTAGE	MINIMUM APPROACH DISTANCE
UP TO 50,000 VOLTS	10 FEET
OVER 50,000 VOLTS UP TO 75,000 VOLTS	11 FEET
OVER 75,000 VOLTS UP TO 125,000 VOLTS	13 FEET
OVER 125,000 VOLTS UP TO 175,000 VOLTS	15 FEET
OVER 175,000 VOLTS UP TO 250,000 VOLTS	17 FEET
OVER 250,000 VOLTS UP TO 370,000 VOLTS	21 FEET
OVER 370,000 VOLTS UP TO 550,000 VOLTS	27 FEET

AREA TO BE CLEAR OF
BUILDINGS



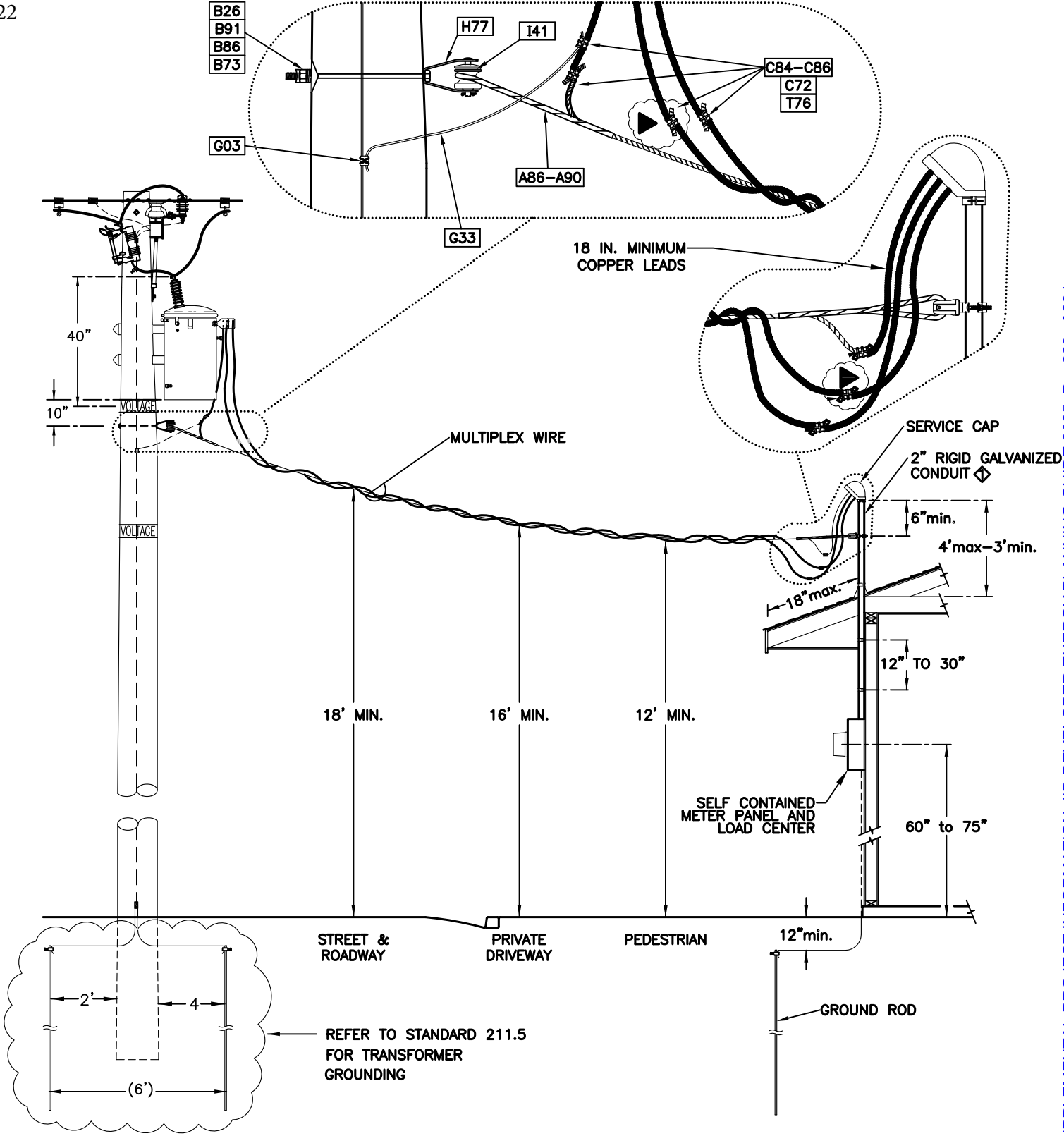
- ① BUILDING STRUCTURES TO CONDUCTOR, CLEARANCE TO BE 12 FT. MIN RADIAL FOR 15KV CIRCUITS.
- ② CLEARANCE TO BE 5 FT. RADIAL FROM CENTERLINE OF POWER POLE, IID RIGHT OF WAY.
NO STRUCTURES ALLOWED IN IID RIGHT OF WAY.
- ③ BUILDING STRUCTURE TO BE A MAXIMUM HEIGHT OF 13 FT. IF DIRECTLY OUTSIDE OF IID RIGHT OF WAY.
4. CLEARANCES SHOWN ARE FOR DOUBLE CIRCUITS ONLY, FOR SINGLE CIRCUIT CLEARANCES NOTE ① APPLIES.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>JR</i>	 EXISTING AND NEW LINE CONDITIONS 15KV DISTRIBUTION BUILDING CLEARANCES
REVIEWED	<i>ED</i>	
APPROVED	<i>MT</i>	
REVISION	REV 01	
DATE	2-11-2013	202.17

**NOTES:**

1. SECONDARY SERVICE WIRES PASSING OVER THE ROOF (FLAT OR PEAK) OF ANOTHER STRUCTURE, BUT NOT ATTACHED TO THAT STRUCTURE, MUST MAINTAIN THE MINIMUM CLEARANCES SHOWN. SECONDARY WIRES INCLUDE TRIPLEX, QUADRUPLIX, AND ALL OPEN WIRES. WHEN OPEN WIRE IS INSTALLED, THE LOWEST CONDUCTOR (TYPICALLY PHASE "C") MUST MAINTAIN THE MINIMUM CLEARANCES SHOWN.
2. ACCORDING TO NESC TABLE 234-1, A ROOF, BALCONY, OR AREA IS CONSIDERED ACCESSIBLE TO PEDESTRIANS IF THE MEANS OF ACCESS IS THROUGH A DOORWAY, RAMP, WINDOW, STAIRWAY, OR A PERMANENTLY MOUNTED LADDER. A PERMANENTLY MOUNTED LADDER IS NOT CONSIDERED A MEANS OF ACCESS IF ITS BOTTOM RUNG IS 8 FEET OR MORE FROM THE GROUND OR OTHER PERMANENTLY INSTALLED ACCESSIBLE SURFACE.
3. THE SERVICE WIRES MUST NOT CROSS A METAL ROOF.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>JR</i>	 OVERHEAD SECONDARY ROOF CLEARANCES (MULTIPLEX SERVICES) SINGLE/THREE PHASE
REVIEWED	<i>ES</i>	
APPROVED	<i>MS</i>	
REVISION	REV 01	
DATE	2-19-2013	206.111

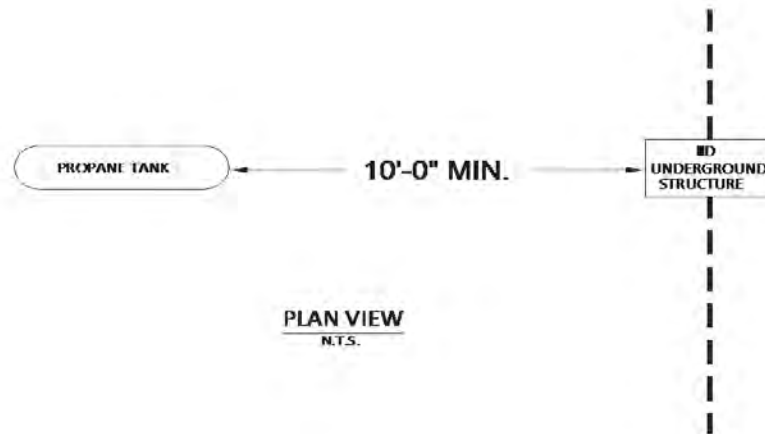


NOTES:

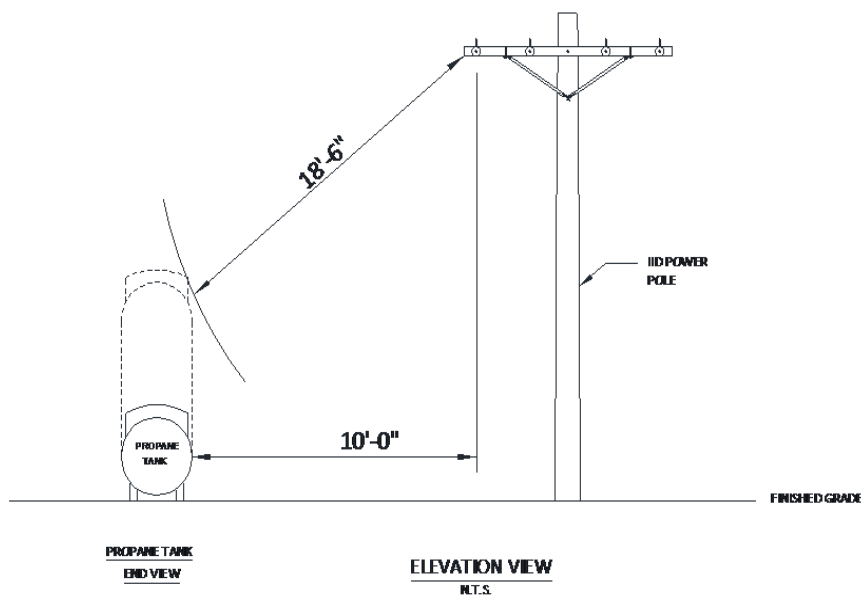
- 1. SERVICE DROP LENGTH SHOULD BE LIMITED TO 100FT. MAX.
- 2. SERVICE CONDUIT, INCLUDING SERVICE CAP, INSULATED WIRES, GUY WIRES, SERVICE MAST HOLDER, SELF CONTAINED METER, GROUND CONNECTION WITH ROD AND BREAKER BOX ARE TO BE PROVIDED BY THE CONTRACTOR.
- 3. THE SERVICE WIRES MUST NOT CROSS A METAL ROOF.

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY		30000024	 OVERHEAD SECONDARY (MULTIPLEX SERVICES) SINGLE/THREE PHASE
REVIEWED			
APPROVED			
REVISION	REV 04		
DATE	2-19-2013	206.12	

- 6.23 Any IID underground high voltage structure i.e., transformer, switch, sector, capacitor bank, and secondary voltage metering equipment shall maintain a 10 foot (120") radial clearance from any commercial propane tank, vent, or fill-tube that contains flammable liquids, gases, vapors, or mixtures. Refer to NFPA 58 Sections 6.3, Containers Separation Distances.



- 6.24 Any Imperial Irrigation District overhead primary pole or conductor transformer, switch, capacitor bank, voltage regulator, and secondary service, meter, etc. shall maintain 18 feet and 6 inches radial clearance from any commercial propane tank, vent, or fill-tube that contains flammable liquids, gases, vapors, or mixtures. Overhead primary or secondary conductors are not to cross over the propane tank regardless if the height is more than 18 feet and 6 inch radius. Refer to NFPA 58 Sections 6.3, Containers Separation Distances.

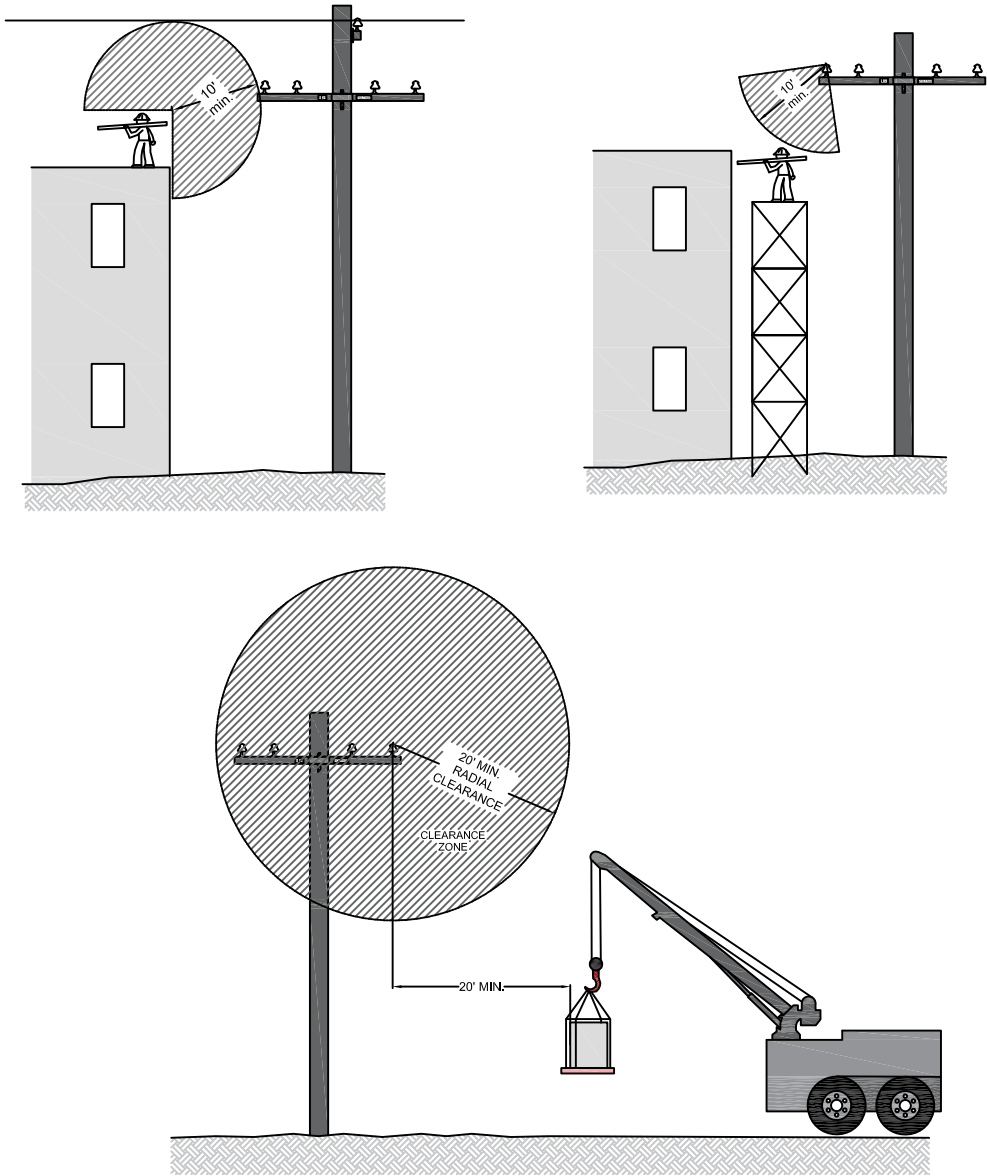


- 6.25 Installations of any Imperial Irrigation District overhead conductors, service drops and guys over swimming pools shall be avoided where practicable.

Refer to State of California General Order 95 Section 54.4-A3 (Conductors Clearances Above Ground (3)Over Swimming Pools).

Any questions regarding this matter, please contact IID's Distribution Engineering and Distribution Planning Units.

6.26 **SCOPE:** THESE CLEARANCES APPLY TO ALL PERSONS WHO ARE **NOT QUALIFIED ELECTRICAL WORKERS** AUTHORIZED BY IID TO WORK ON IID-OWNED DISTRIBUTION VOLTAGE CONDUCTORS.



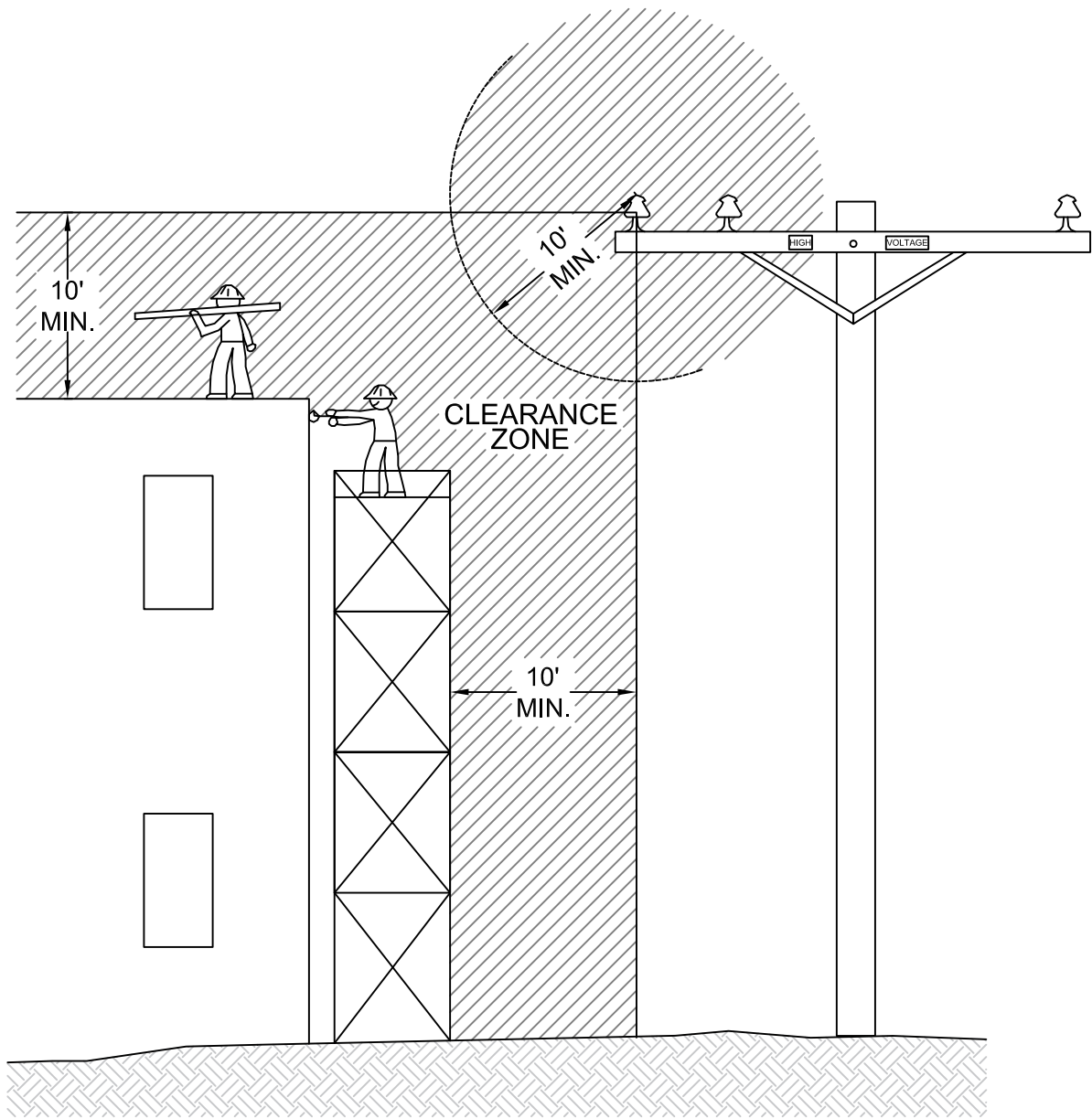
INSTALLATION: NONE
BILL OF MATERIALS: NONE
NOTES:

- I. INDIVIDUALS OR OBJECTS NOT SUPPORTED BY BOOM TYPE EQUIPMENT MUST MAINTAIN A 10' RADIAL CLEARANCE FROM DISTRIBUTION VOLTAGE CONDUCTORS.
- II. SCAFFOLDS AND ANY CONDUCTIVE MATERIAL HANDLED ON THEM MUST HAVE MINIMUM RADIAL CLEARANCE OF 10 FEET FROM POWER LINES.
- III. BOOM TYPE LIFTING OR HOISTING EQUIPMENT, INCLUDING LOAD, MUST MAINTAIN A 20' HORIZONTAL DISTANCE FROM DISTRIBUTION VOLTAGE CONDUCTORS.
- IV. TO REDUCE MINIMUM DISTANCE TO 10', A QEW WILL BE REQUIRED.
- V. CAL-OSHA ELECTRICAL SAFETY ORDER 2948 MAKES THE CUSTOMER RESPONSIBLE FOR NOTIFYING IID IF ADJUSTMENTS NEED TO BE MADE IN THE ELECTRICAL SYSTEM TO COMPLY WITH TITLE 8. CUSTOMER SHOULD CONTACT APPROPRIATE IID CUSTOMER PROJECT PLANNER FOR AVAILABLE OPTIONS.

IMPERIAL IRRIGATION DISTRICT

	DRAWN BY	J. HIDALGO	CONDUCTOR CLEARANCES FOR NON-UTILITY WORKERS AND EQUIPMENT	CLR
	REVISED BY	O. HAM		
	APPROVED BY	F. FIMBRES	WHAT'S CHANGED? NEW TITLE BLOCK AND NEW STANDARD NUMBER	SHEET 1 OF 3
	REVISION	REV 0		650
	DATE	10/23/2024		

SCOPE: THESE CLEARANCES APPLY TO ALL PERSONS WHO ARE **NOT QUALIFIED ELECTRICAL WORKERS** AUTHORIZED BY IID TO WORK ON IID-OWNED DISTRIBUTION VOLTAGE CONDUCTORS.



INDIVIDUALS OR OBJECTS NOT SUPPORTED BY BOOM-TYPE EQUIPMENT MUST MAINTAIN 10' RADIUS, 10' HORIZONTAL AND VERTICAL CLEARANCE FROM DISTRIBUTION VOLTAGE CONDUCTORS.

NOTE: CAL-OSHA ELECTRICAL SAFETY ORDER 2948 MAKES THE CUSTOMER RESPONSIBLE FOR NOTIFYING IID (UTILITY) IF ADJUSTMENTS NEED TO BE MADE IN THE ELECTRICAL SYSTEM TO COMPLY WITH TITLE 8. THE CUSTOMER SHOULD CONTACT THE UTILITY'S CUSTOMER PROJECT PLANNER FOR THE AREA WHERE THE JOB SITE IS LOCATED FOR AVAILABLE OPTIONS.

REFERENCE: CALIFORNIA ADMINISTRATIVE CODE TITLE 8 INDUSTRIAL RELATIONS ELECTRICAL SAFETY ORDERS - 2946 & 2948 & FED-OSHA 1926.1408.

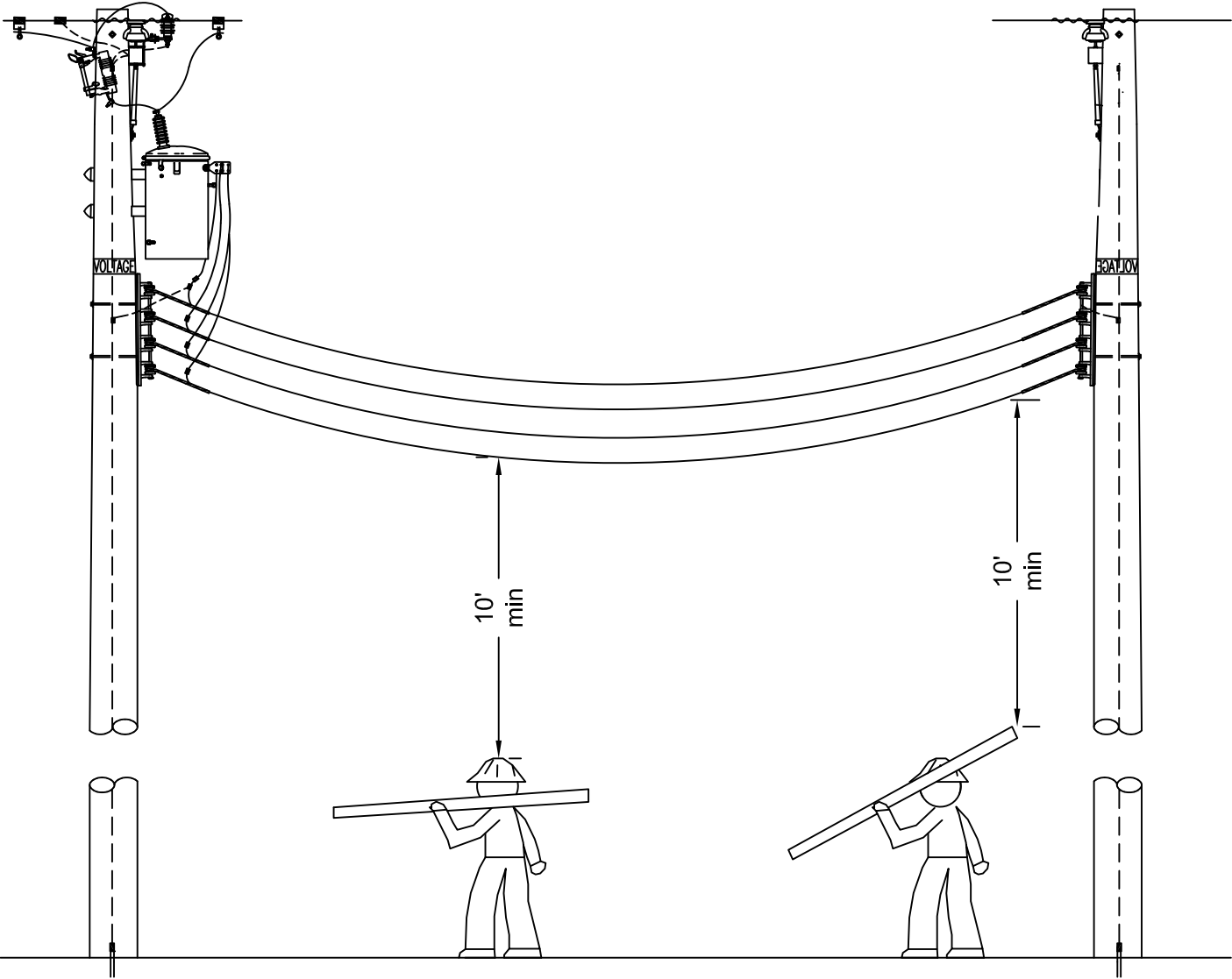
IMPERIAL IRRIGATION DISTRICT



DRAWN BY	J. HIDALGO	CONDUCTOR CLEARANCES FOR NON-UTILITY WORKERS AND EQUIPMENT	CLR
REVISED BY	O. HAM		
APPROVED BY	F. FIMBRES	WHAT'S CHANGED? NEW TITLE BLOCK AND NEW STANDARD NUMBER	SHEET 2 OF 3
REVISION	REV 0		650
DATE	10/23/2024		

SCOPE: THESE CLEARANCES APPLY TO ALL PERSONS WHO ARE **NOT QUALIFIED ELECTRICAL WORKERS** AUTHORIZED BY IID TO WORK ON IID-OWNED DISTRIBUTION LOW-VOLTAGE CONDUCTORS.

DISTRIBUTION LOW-VOLTAGE



INDIVIDUALS OR OBJECTS NOT SUPPORTED BY BOOM-TYPE EQUIPMENT MUST MAINTAIN 10' RADIUS, 10' HORIZONTAL AND VERTICAL CLEARANCE FROM DISTRIBUTION LOW-VOLTAGE CONDUCTORS.

NOTE: CAL-OSHA ELECTRICAL SAFETY ORDER 2948 MAKES THE CUSTOMER RESPONSIBLE FOR NOTIFYING IID (UTILITY) IF ADJUSTMENTS NEED TO BE MADE IN THE ELECTRICAL SYSTEM TO COMPLY WITH TITLE 8. THE CUSTOMER SHOULD CONTACT THE UTILITY'S CUSTOMER PROJECT PLANNER FOR THE AREA WHERE THE JOB SITE IS LOCATED FOR AVAILABLE OPTIONS.

REFERENCE: CALIFORNIA ADMINISTRATIVE CODE TITLE 8 INDUSTRIAL RELATIONS ELECTRICAL SAFETY ORDERS - 2946 & 2948 & FED-OSHA 1926.1408.

IMPERIAL IRRIGATION DISTRICT

	DRAWN BY	O. HAM	CONDUCTOR CLEARANCES FOR NON-UTILITY WORKERS AND EQUIPMENT	CLR
	REVISED BY	O. HAM		
	APPROVED BY	F. FIMBRES	WHAT'S CHANGED? NEW TITLE BLOCK AND NEW STANDARD NUMBER	SHEET 3 OF 3 650
	REVISION	REV 0		
	DATE	10/23/2024		

RETAINING WALLS

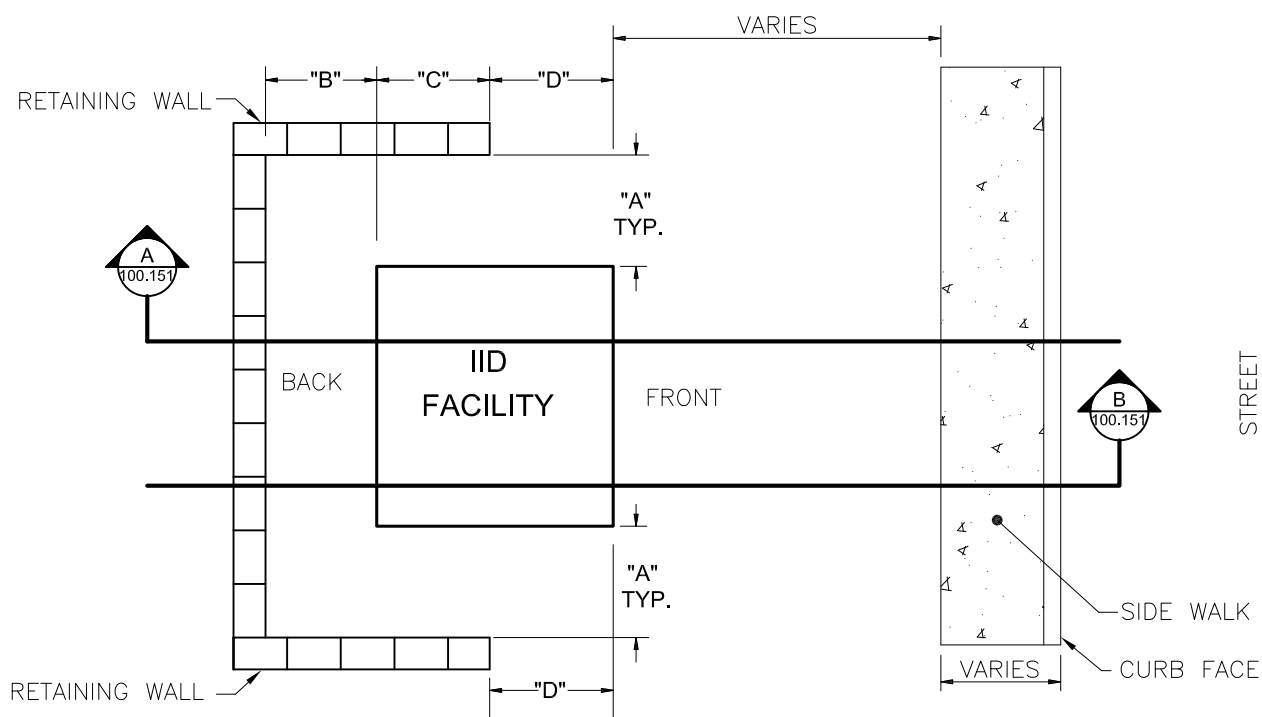
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7.2 SLOPING BACKFILL REQUIREMENT	236
7.3 RETAINING WALL AND FALLING SLOPE	236
7.4 RETAINING LOCATION	236
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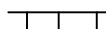
- 7.1 Developer/Contractor shall be responsible to provide a retaining wall around IID facility where applicable. See 7.08 7.11 Standards 100.15 100.153 per IID requirements. If the slope is greater than what is described in 7.2 or 7.3, a retaining wall is required. The drawing set-back is required for IID personnel to maintain and operate equipment safely. The IID has the final decision where retaining wall is to be installed.
- 7.2 Sloping backfill at grade finish shall be 6 to 18 inches below the top of the retaining wall; IID has the final decision on distance of retaining wall above ground level. Retaining wall shall require full back and two side walls to prevent fill from entering IID structure. See 7.1 and Standards 100.15 100.153).
- 7.3 Retaining wall built near a falling away slope shall be allowed to have side walls that are stepped due to the type of falling away slope. See 7.2 and 7.09 Standard 100.151 Section B "Reverse Sub grade Retaining Wall" drawing.
- 7.4 The IID reserves the right to determine when and where retaining walls are needed; the Developer/Contractor shall contact the IID inspector and/or Customer Service Project Manager.
- 7.5 Concrete block (concrete masonry unit) retaining walls are to be grouted.
- 7.6 Poured in place reinforced retaining walls are permitted.
- 7.7 Retaining wall "blocks" are not allowed in construction of retaining walls in IID areas. See 7.10 standard 100.152 for retaining wall material specifications.



COMMON RETAINING WALL
BLOCKS
NOT ALLOWED IN DISTRICT RETAINING
WALLS

**SYMBOLOLOGY:**

CROSS SECTION



RETAINING WALL

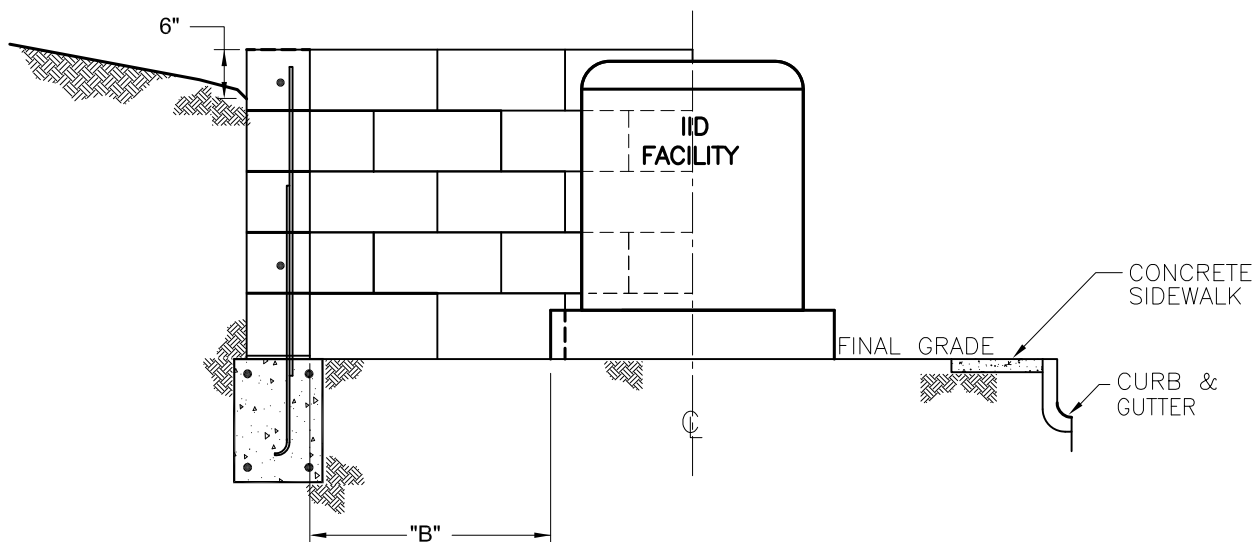
PLAN VIEW
N.T.S.

RETAINING WALL INDICATING IID FACILITY LOCATION				
TYPE OF STRUCTURE	"A"	"B"	"C"	"D"
3' X 6' PRIMARY SMALL PULLBOX	3'	3'	2'	1 1/2'
4' X 6' PRIMARY MEDIUM PULLBOX	3'	3'	2'	2'
6' X 8'-6" PRIMARY VAULT WITHOUT CABINET	3'	8'	3'	3'
6' X 8'-6" PRIMARY VAULT WITH CABINET	3'	10'	3'	3'
ALL TRANSFORMER PAD (SINGLE & THREE PHASE)	3'	3'	VARIES	VARIES

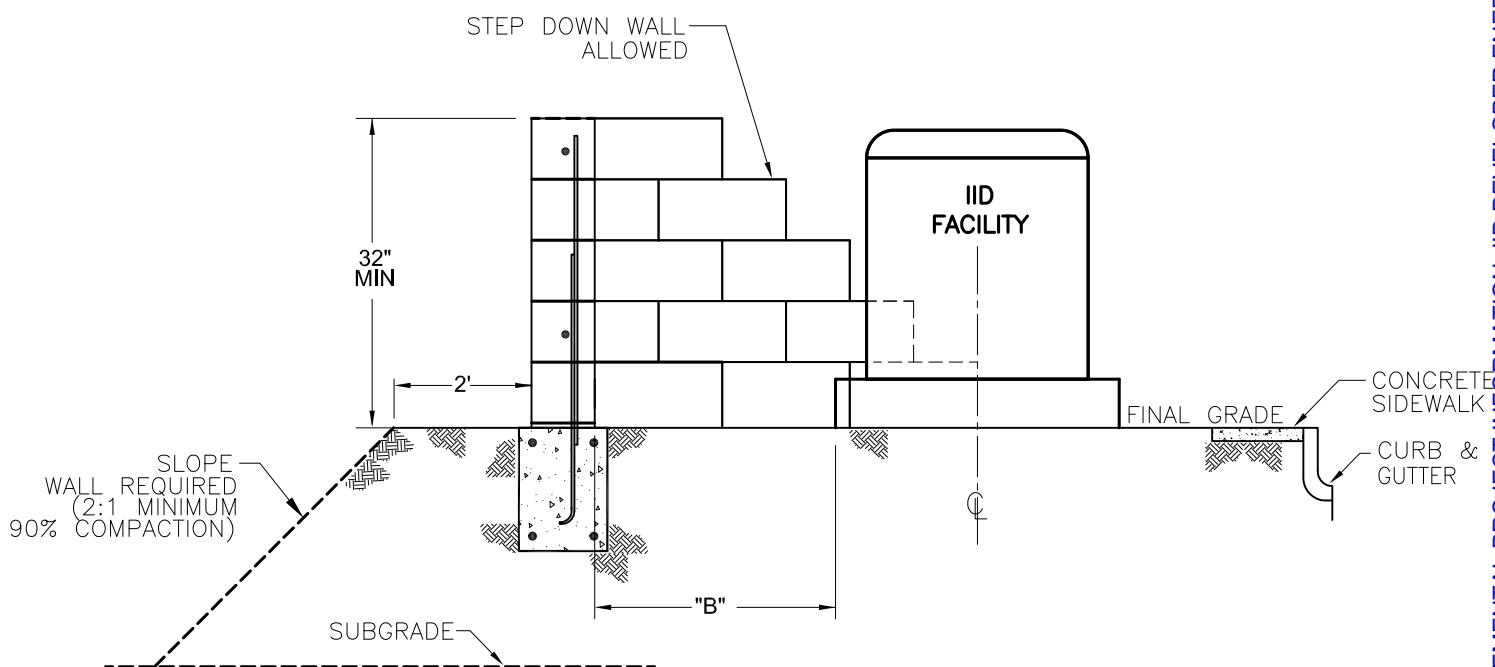
NOTES:

1. THE CHART ABOVE INDICATES THE SPACE AVAILABLE TO OPERATE AND/OR MANEUVER EQUIPMENT SAFELY WITH RETAINING WALL.
2. RETAINING WALL SIDES WILL END AT THE CENTER OF ALL IID FACILITIES (SEE PLAN VIEW).
3. REFER TO STANDARD 100.151 - 100.153 FOR RETAINING WALL CONSTRUCTION.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 RETAINING WALL CHART FOR IID FACILITIES
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	12-09-2013	100.15



A RETAINING WALL
N.T.S.

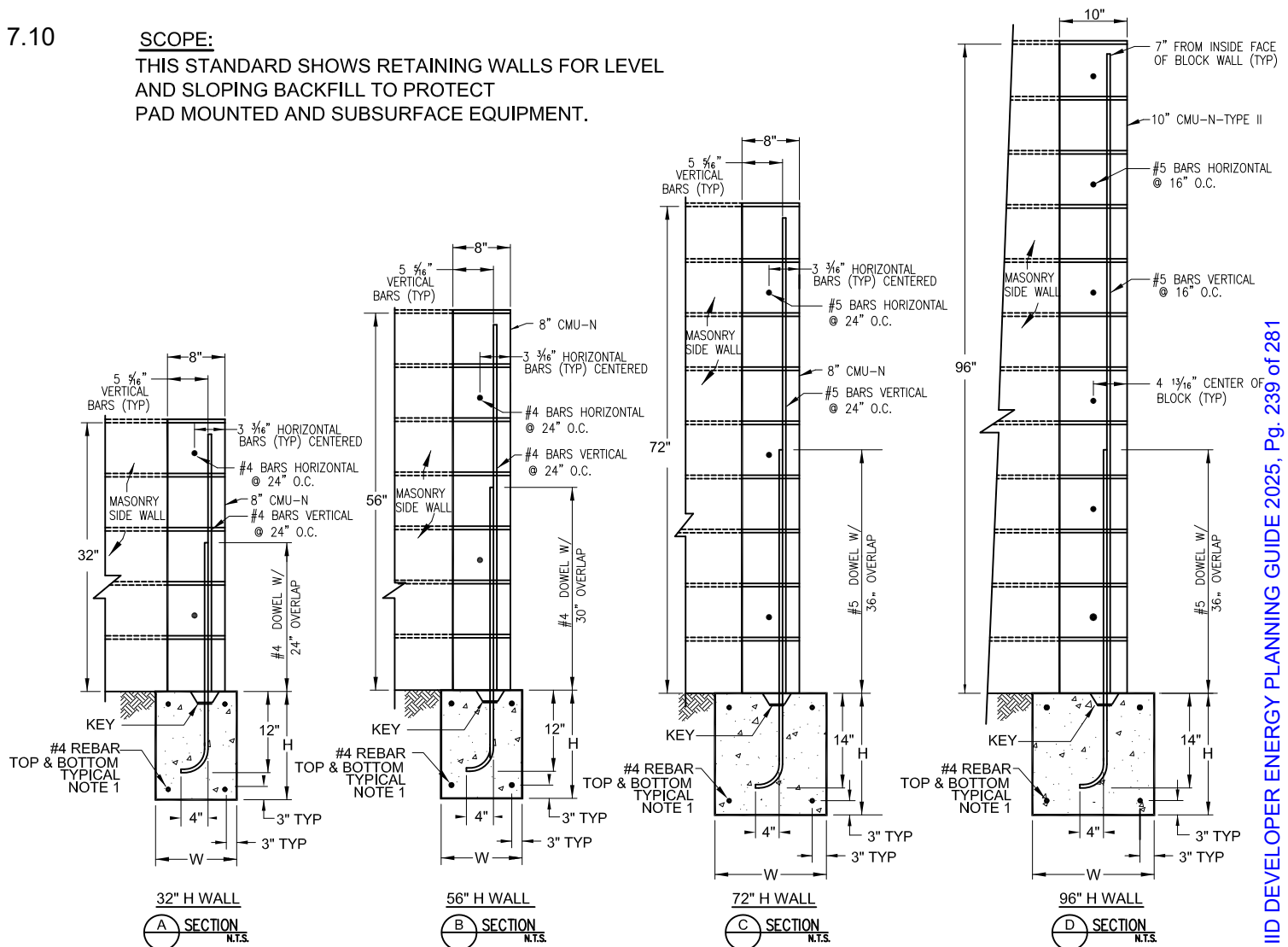


B REVERSE SUBGRADE RETAINING WALL
N.T.S.

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY	<i>JR</i>		RETAINING WALL SECTIONS CROSS SECTION ELEVATIONS
REVIEWED	<i>PD</i>		
APPROVED	<i>MB</i>		
REVISION	REV 1		
DATE	12-09-2013	100.151	

SCOPE:

THIS STANDARD SHOWS RETAINING WALLS FOR LEVEL AND SLOPING BACKFILL TO PROTECT PAD MOUNTED AND SUBSURFACE EQUIPMENT.

**TABLE 10 - RETAINING WALL SLOPE ELEVATION**

WALL HEIGHT	WALL TYPE (T)	WALL STEEL (R)*		WALL KEY W x H (K)	WALL FOUNDATION W x H
		HORIZONTAL	VERTICAL		
(A) 32"	8"X8"X16" BLOCK	#4 REBAR ON 24" CENTER	#4 REBAR ON 24" CENTER	NONE	12" x 15"
(B) 56"	8"X8"X16" BLOCK	#4 REBAR ON 24" CENTER	#4 REBAR ON 24" CENTER	4" x 2"	12" x 15"
(C) 72"	8"X8"X16" BLOCK	#5 REBAR ON 24" CENTER	#5 REBAR ON 24" CENTER	4" x 2"	12" x 18"
(D) 96"	10"X8"X16" BLOCK	#5 REBAR ON 16" CENTER	#5 REBAR ON 16" CENTER	4" x 2"	18" x 18"

MATERIAL LIST:

MORTAR
TYPE II

BLOCK WALL TYPE (T)

8"X8"X16" BLOCK
8"X8"X16" BOND BEAM
10"X8"X16" BLOCK
10"X8"X16" BOND BEAM
CMU = ASTM C 90

REINFORCED STEEL (R)*
HORIZONTAL AND VERTICAL

#4 REBAR (fy = 60ksi)
#5 REBAR (fy = 60ksi)

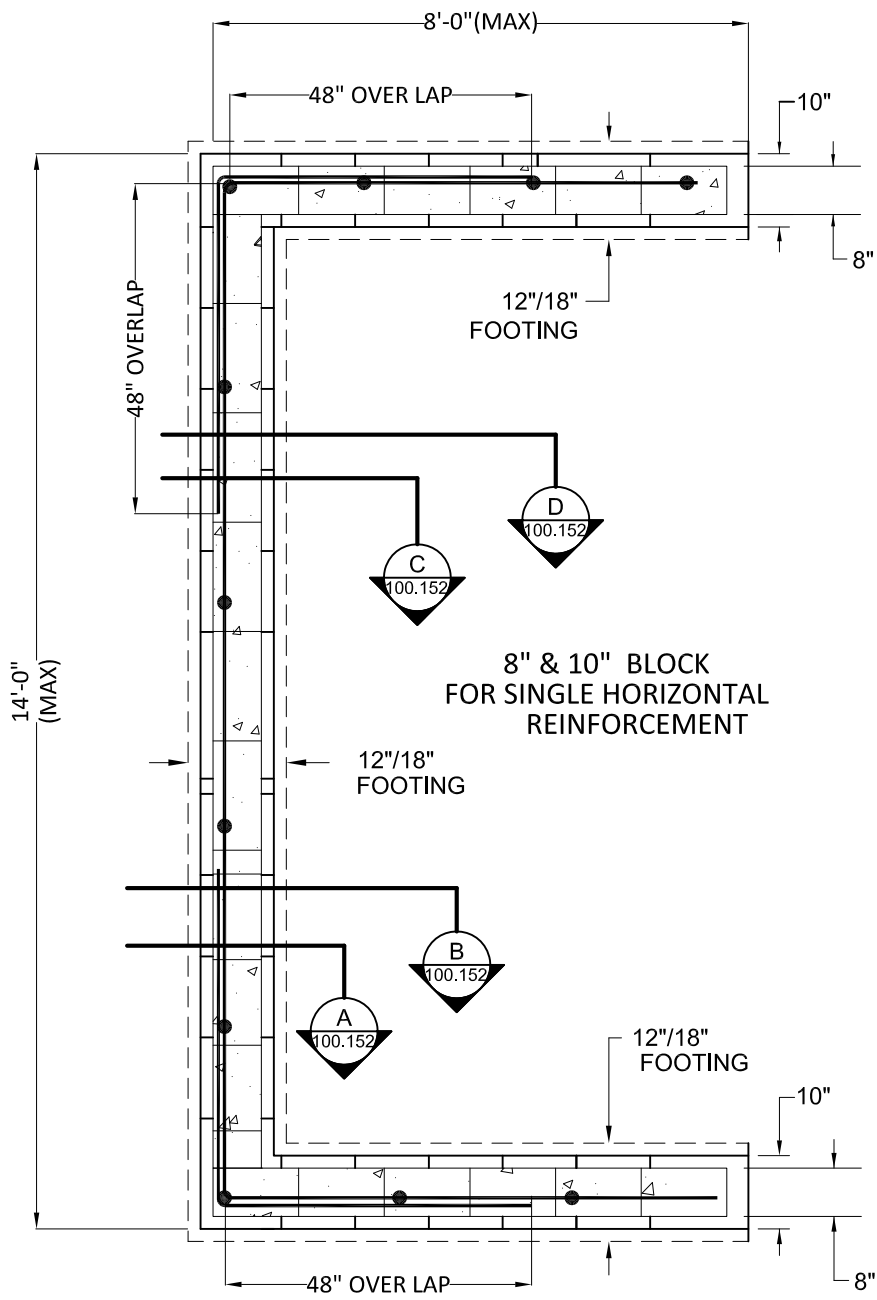
FOUNDATION

4000 psi CONCRETE

NOTES:

1. HORIZONTAL STEEL 4-#4 BARS SHALL BE PLACED VERTICALLY IN THE FOOTING AS SHOWN.
2. SLOPE OF RETAINED EARTH HORIZONTAL RUN TO VERTICAL RISE 2 TO 1.
3. CONSULT LOCAL BUILDING DEPARTMENT FOR PERMITS.

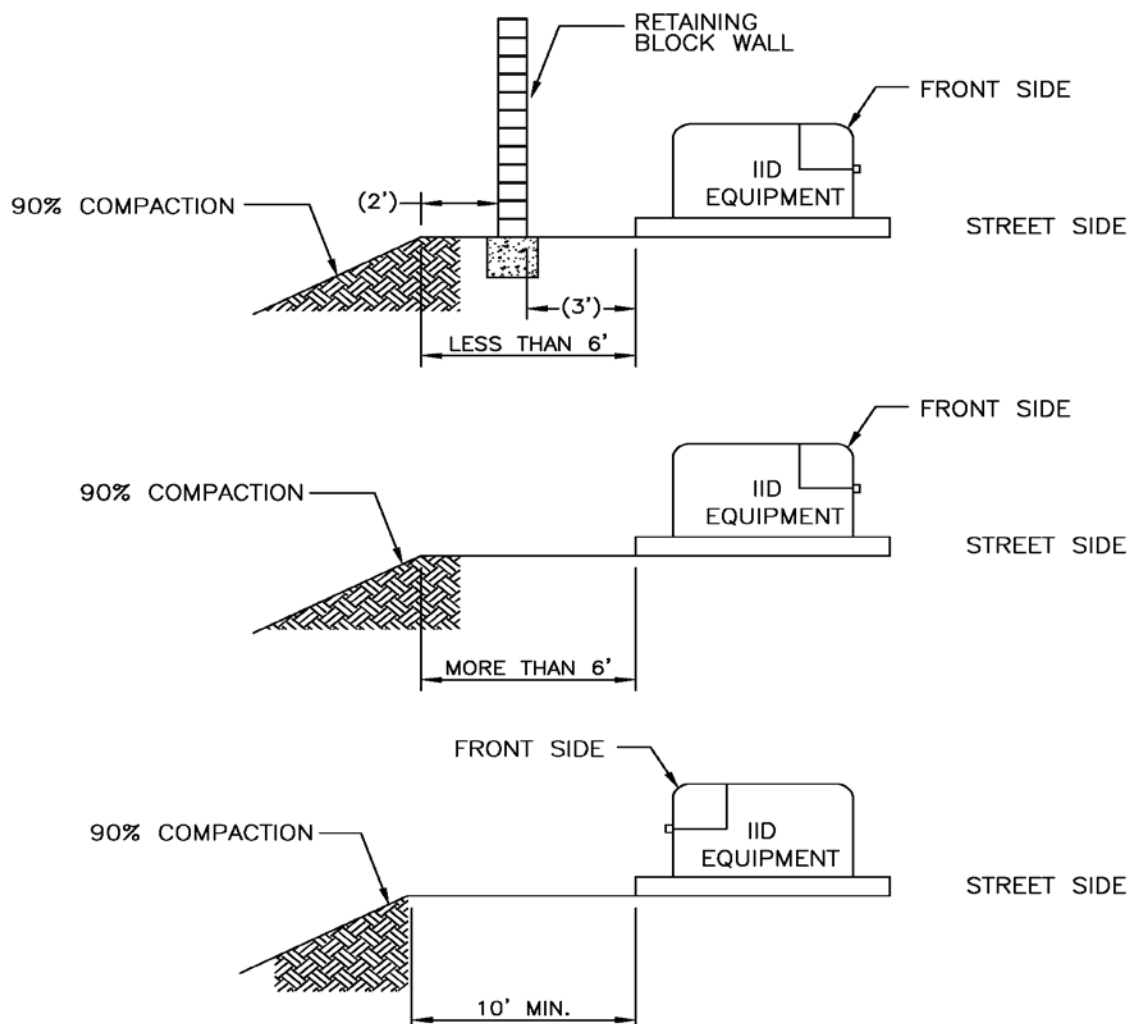
IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 RETAINING WALL SECTIONS FOUNDATION AND CROSS SECTION ELEVATIONS AND CONTRACTORS' NOTES
REVIEWED		
APPROVED		
REVISION	REV 1	
DATE	12-09-2013	100.152



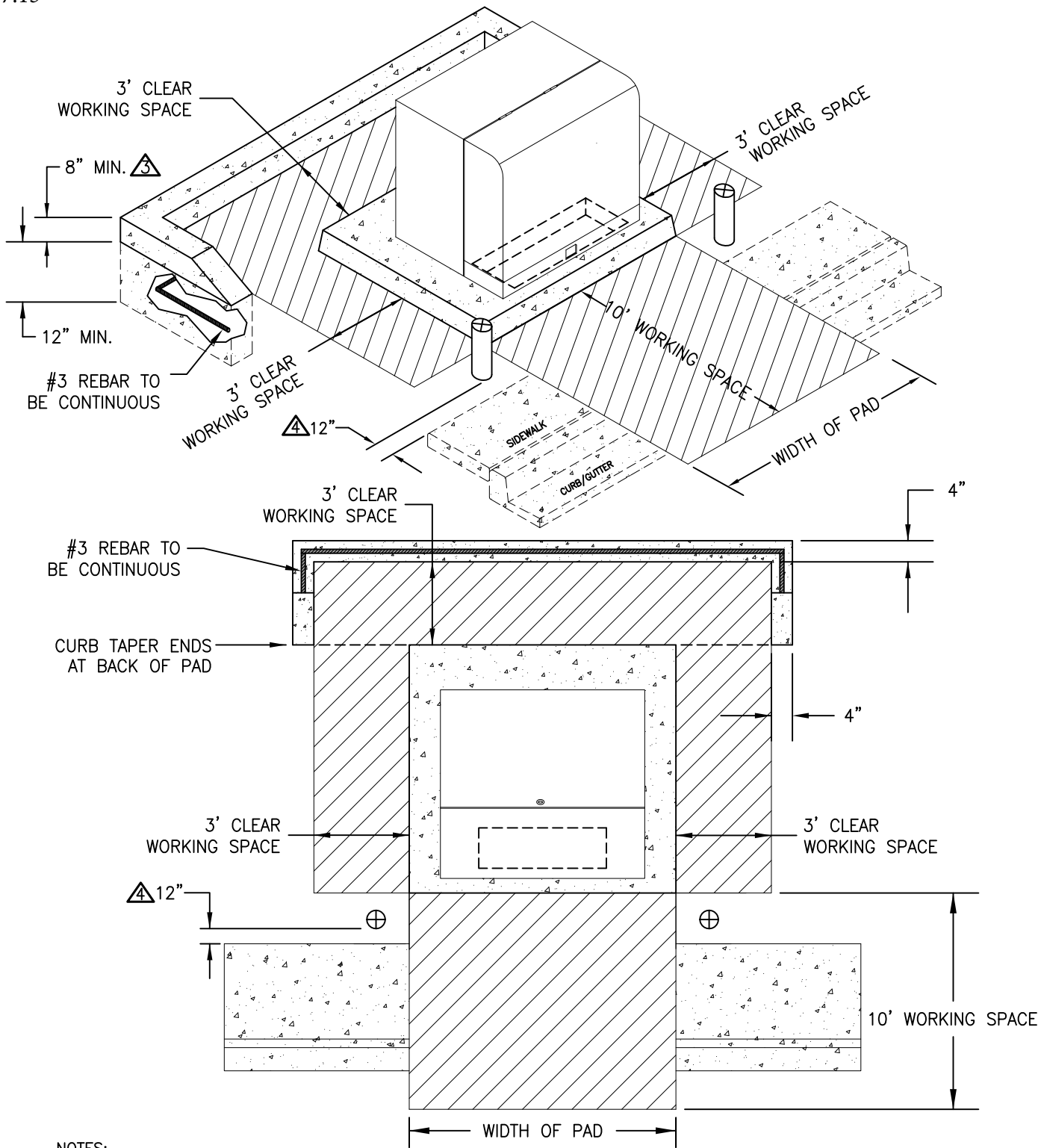
FOUNDATION PLAN
N.T.S.

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY			RETAINING WALL SECTIONS FOUNDATION PLAN
REVIEWED			
APPROVED			
REVISION	REV 1		
DATE	12-09-2013	100.153	

- 7.12 Slope elevations greater than those described in detail may require retaining walls on 3 sides per IID safety and electrical clearance requirements (3 inch per 1 linear foot requires retaining walls). See 7.1, 7.2 and 7.8 7.11 Standard 100.15 100.153.
- 7.13 A falling away slope from a finished grade that has no ratio equal or less than a 2 to 1 within 6 feet (72") of the IID equipment will require a retaining wall. See 7.3 and 7.8 7.11 Standard 100.15 100.153.
- 7.14 "IID EQUIPMENT" is identified as vaults, sectors, all transformers, and secondary pullboxes.



NOTE: WHEN OPENING OF IID EQUIPMENT IS LOCATED FACING THE DROP OFF SIDE, A 10 FOOT HORIZONTAL LEVEL IS REQUIRED.



NOTES:

- 1. WHEN SLOPE IS GREATER THAT 5' (12':1'), AN EROSION CONTROL CONCRETE CURB WILL BE REQUIRED.
- 2. CURB DIMENSIONS: 4" WIDE X 8" HIGH FROM FINISHED GRADE.
- 3 CURB HEIGHT SUBJECT TO CHANGE PER INSPECTOR'S DISCRETION TO A MAXIMUM HEIGHT OF 12".
- 4 WHEN BARRIER POSTS ARE REQUIRED, REFER TO BARRIER POST DETAIL 181.6, SECTION 5.32. IF BARRIER POSTS ARE NOT REQUIRED, TRANSFORMER PRECAST PAD SHALL HAVE A 12" (1') OFFSET BEHIND SIDEWALK.

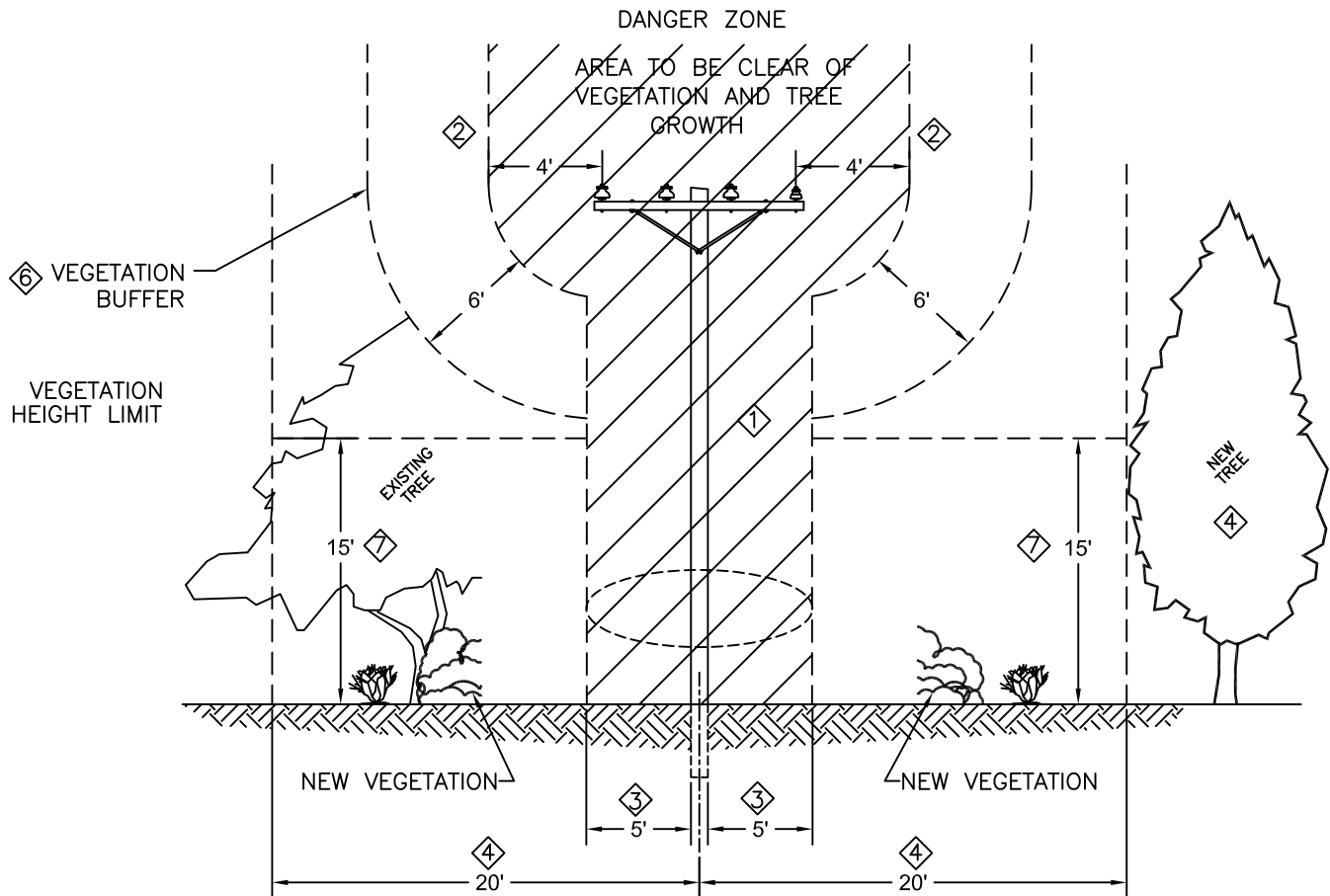
IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 SPATIAL DETAIL FOR EROSION CONTROL CONCRETE CURB
REVIEWED		
APPROVED		
REVISION	REV 2	
DATE	9-29-2016	
		202.6

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TREE CLEARANCES

Table of contents – Section 8

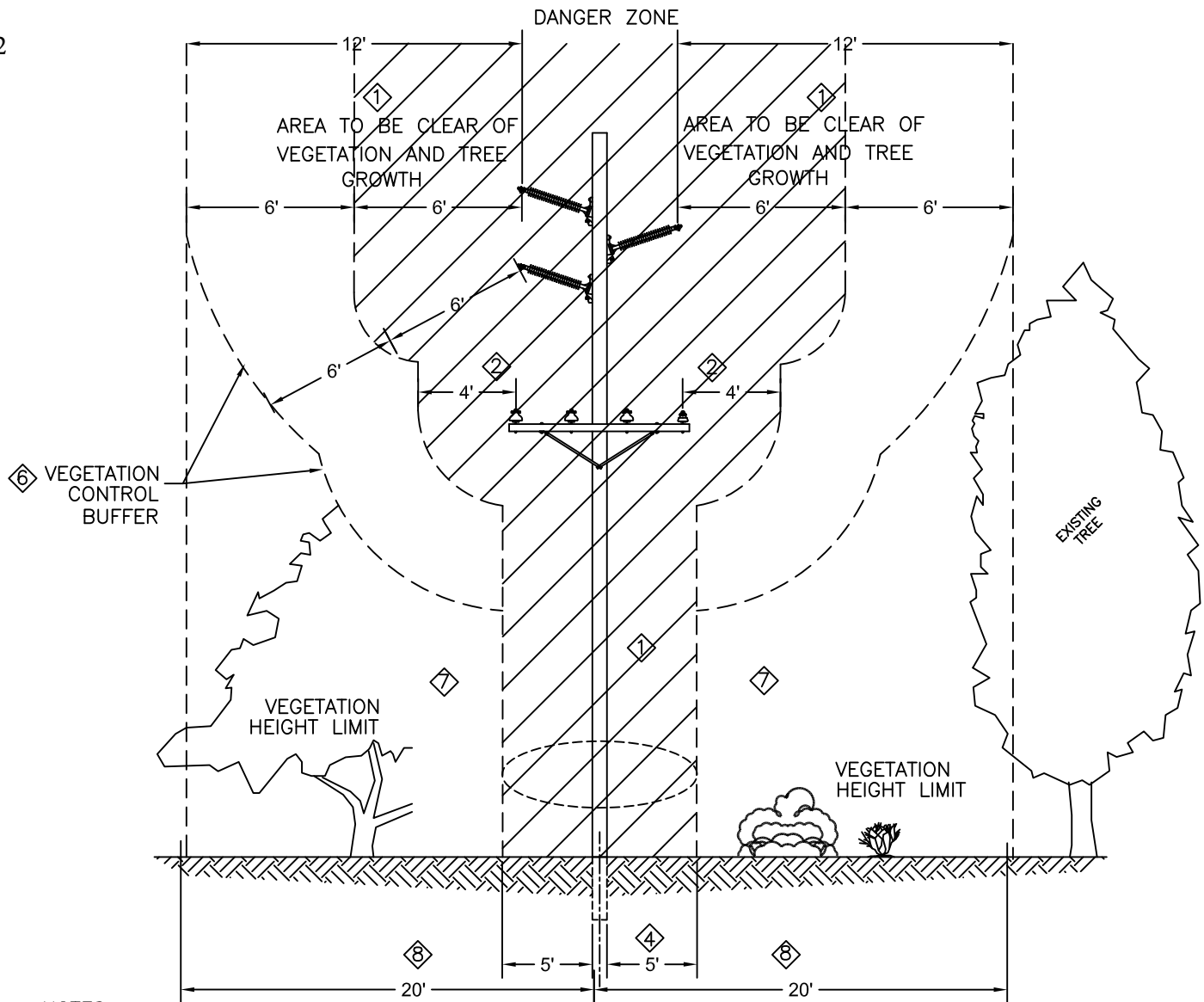
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8.13 SAG CLEARANCE 230 KV STEEL POLE STANDARD 202.30	258
PAGE INTENTIONALLY LEFT BLANK.....	259



NOTES:

- ① KEEP POWER LINE CORRIDOR CLEAR OF VEGETATION, OBSTRUCTIONS, MATERIAL, CROPS, HAYSTACKS, AND MACHINERY. SEE IID REGULATION 23 FOR DETAILS.
- ② MAINTAIN VEGETATION TO CONDUCTOR CLEARANCE AT 4 FT. RADIAL FOR 15KV CIRCUITS WITH AN ADDITIONAL 6 FT VEGETATION CONTROL BUFFER.
- ③ KEEP AT 5 FT. RADIAL FROM SURFACE OF STRUCTURE CLEAR OF COMBUSTABLE VEGETATION, FOR POLES WITH MOUNTED EQUIPMENT, SUCH AS SWITCHES, TRANSFORMERS, FUSES, ETC., DEADEND POLES AND CORNER POLES.
- ④ KEEP TREES AT LEAST 20 FT. FROM POLE CENTERLINE.
- ⑤ REFER TO STANDARD NUMBER 202.24 FOR FAN AND DATE PALM TREE CLEARANCES.
- ⑥ VEGETATION CONTROL BUFFER SIZE VARIES TO ALLOW AT LEAST ONE YEAR OF VEGETATION GROWTH WITHOUT VEGETATION ENCROACHMENT INTO DANGER ZONE. MINIMUM BUFFER SIZE IS 6 FT.
- ⑦ DO NOT PLANT INCOMPATIBLE VEGETATION THAT GROWS HIGHER THAN 15 FT. MAINTAIN EXISTING COMPATIBLE VEGETATION AT NO TALLER THAN 15 FT. REMOVE INCOMPATIBLE VEGETATION IF POSSIBLE.
- ⑧ CONTACT IMPERIAL IRRIGATION DISTRICT REAL ESTATE SECTION FOR SPECIFIC RIGHT OF WAY QUESTIONS.

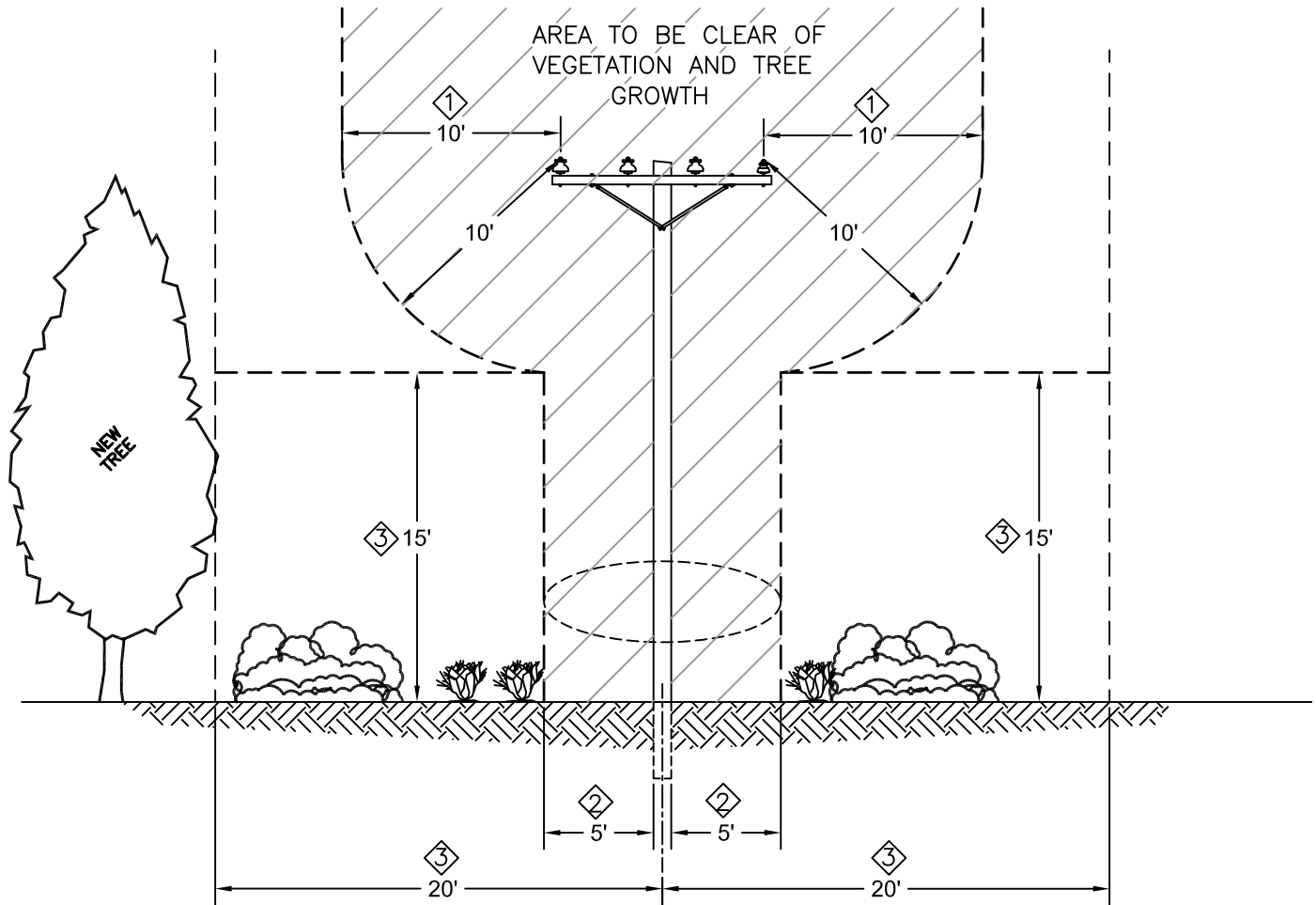
IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 15KV DISTRIBUTION
REVIEWED		
APPROVED		
REVISION	REV 04	
DATE	02-10-2020	
		202.18



NOTES:

- ① KEEP POWER LINE CORRIDOR CLEAR OF VEGETATION, OBSTRUCTIONS, MATERIAL, CROPS, HAYSTACKS AND MACHINERY. SEE IMPERIAL IRRIGATION DISTRICT REGULATION 23 FOR DETAILS.
- ② 15 KV POWER LINE, KEEP CONDUCTOR CLEARANCE AT 4 FT. WITH AN ADDITIONAL VEGETATION CONTROL BUFFER OF AT LEAST 6 FT.
- ③ 92 KV POWER LINE, KEEP CONDUCTOR CLEARANCE AT 6 FT. WITH AN ADDITIONAL VEGETATION CONTROL BUFFER OF AT LEAST 6 FT.
- ④ POWER POLE, KEEP 5 FT. RADIAL FROM SURFACE OF STRUCTURE CLEAR OF VEGETATION. FOR POLES WITH POLE MOUNTED EQUIPMENT, SUCH AS SWITCHES, TRANSFORMERS, FUSES, ETC., DEADEND POLES AND CORNER POLES.
- ⑤ REFER TO STANDARD 202.24 FOR FAN AND DATE PALM CLEARANCE DETAILS.
- ⑥ VEGETATION CONTROL BUFFER VARIES TO ALLOW AT LEAST ONE YEAR OF VEGETATION GROWTH WITHOUT VEGETATION ENCROACHMENT INTO DANGER ZONE. MINIMUM VEGETATION CONTROL BUFFER IS 6 FT.
- ⑦ DO NOT PLANT INCOMPATIBLE VEGETATION THAT GROWS HIGHER THAN 15 FT. MAINTAIN EXISTING COMPATIBLE VEGETATION AT NO TALLER THAN 15 FT. REMOVE INCOMPATIBLE VEGETATION IF POSSIBLE.
- ⑧ KEEP TREES AT LEAST 20 FT. FROM POLE CENTERLINE.
- ⑨ CONTACT IMPERIAL IRRIGATION DISTRICT REAL ESTATE SECTION FOR SPECIFIC RIGHT OF WAY QUESTIONS.

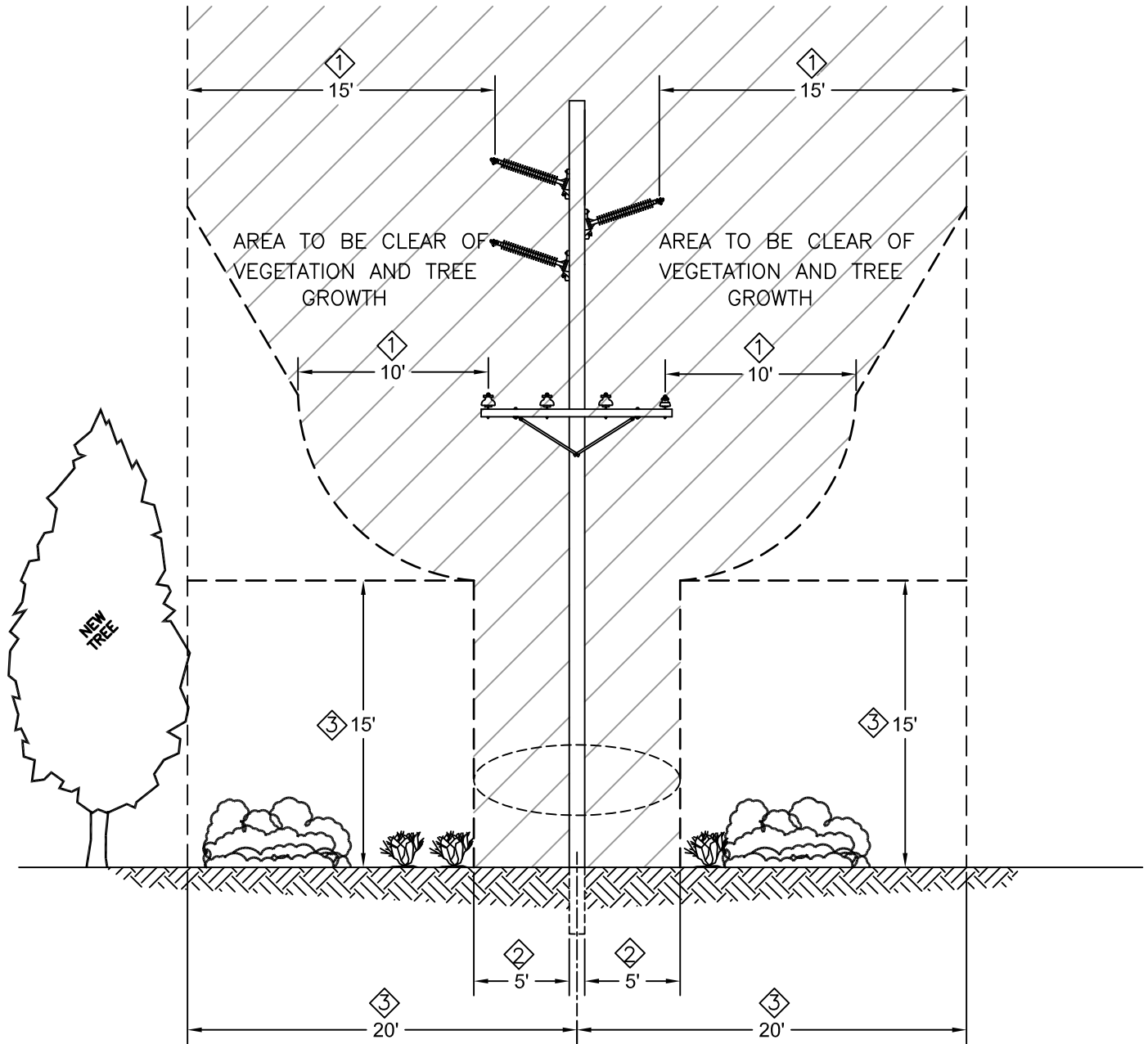
IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 92KV TRANSMISSION AND 15KV DISTRIBUTION UNDERBUILD
REVIEWED		
APPROVED		
REVISION	REV 05	
DATE	02-10-2020	
		202.19



NOTES:

- ① VEGETATION TO CONDUCTOR CLEARANCE TO BE 10 FT. RADIAL FOR 15KV CIRCUITS.
 - ② VEGETATION CLEARANCE TO BE 5 FT. RADIAL FROM SURFACE OF STRUCTURE.
 - ③ NEW VEGETATION GROWTH TO BE 20 FT. FROM CENTERLINE OF THE STRUCTURE AND 15 FT. HIGH FROM GROUND SURFACE. THIS VEGETATION TO BE SLOW GROWTH TYPE AND HAVE A MAXIMUM GROWTH HEIGHT NOT TO EXCEED 15 FT.
4. REFER TO STANDARD NUMBER 202.24 FOR FAN AND DATE PALM TREE CLEARANCES.

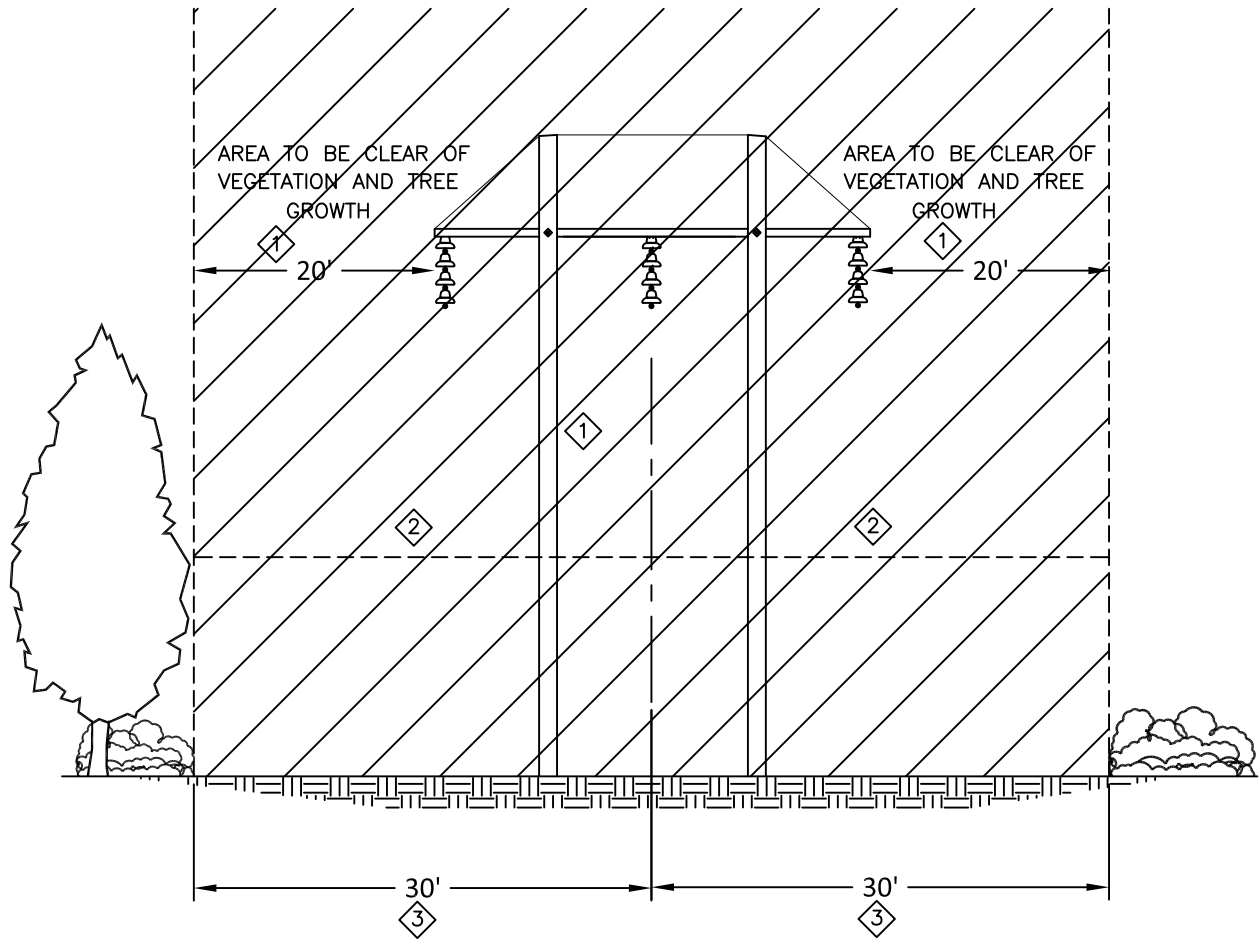
IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 NEW LINE CONDITIONS 15KV DISTRIBUTION
REVIEWED		
APPROVED		
REVISION	REV 01	
DATE	1-31-2013	
		202.20



NOTES:

- ① VEGETATION TO CONDUCTOR CLEARANCE TO BE 10 FT. RADIAL FOR 15KV CIRCUITS AND 15 FT. RADIAL FOR 92KV CIRCUITS.
 - ② VEGETATION CLEARANCE TO BE 5 FT. RADIAL FROM SURFACE OF STRUCTURE.
 - ③ NEW VEGETATION GROWTH TO BE 20 FT. FROM CENTERLINE OF THE STRUCTURE AND 15 FT. HIGH FROM GROUND SURFACE. THIS VEGETATION TO BE SLOW GROWTH TYPE AND HAVE A MAXIMUM GROWTH HEIGHT NOT TO EXCEED 15 FT.
4. REFER TO STANDARD NUMBER 202.24 FOR FAN AND DATE PALM TREE CLEARANCES.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 NEW LINE CONDITIONS 92KV TRANSMISSION AND 15KV DISTRIBUTION UNDERBUILD
REVIEWED		
APPROVED		
REVISION	REV 01	
DATE	1-31-2013	
		202.21

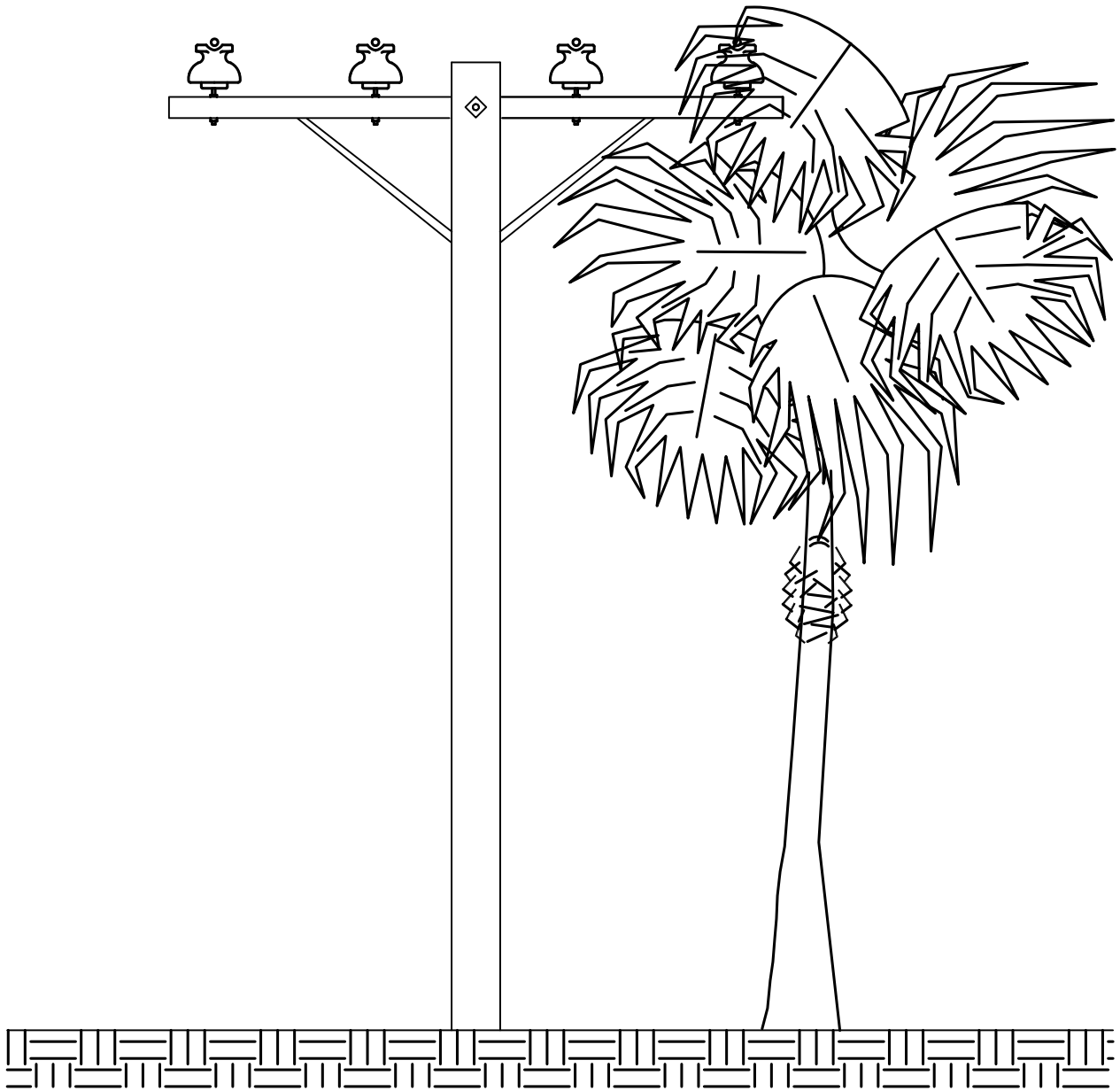


NOTES:

- ① KEEP VEGETATION TO CONDUCTOR CLEARANCE AT LEAST 20 FT. RADIAL FOR 161KV CIRCUITS.
- ② NO INCOMPATIBLE VEGETATION ALLOWED IN THIS AREA, INCLUDING SPAN FROM STRUCTURE TO STRUCTURE.
- ③ REMOVE VEGETATION IN THE 30 FEET RADIUS AROUND THE STRUCTURE.
- ④ COORDINATE WITH APPROPRIATE GOVERNMENT AGENCIES THE REMOVAL OF ENDANGERED AND/OR PROTECTED SPECIES.
- ⑤ REMOVED ALL CARRIZO PLANT AND TULE, FROM POWER LINE CORRIDORS. USE HERBICIDE TO PREVENT REGROWTH AS – REQUIRED.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	_____	 161KV TRANSMISSION STRUCTURES
REVIEWED	_____	
APPROVED	_____	
REVISION	REV 05	
DATE	02-10-2020	202.22

HAZARDOUS TREE(S) PALM TREES (ALL SPECIES)

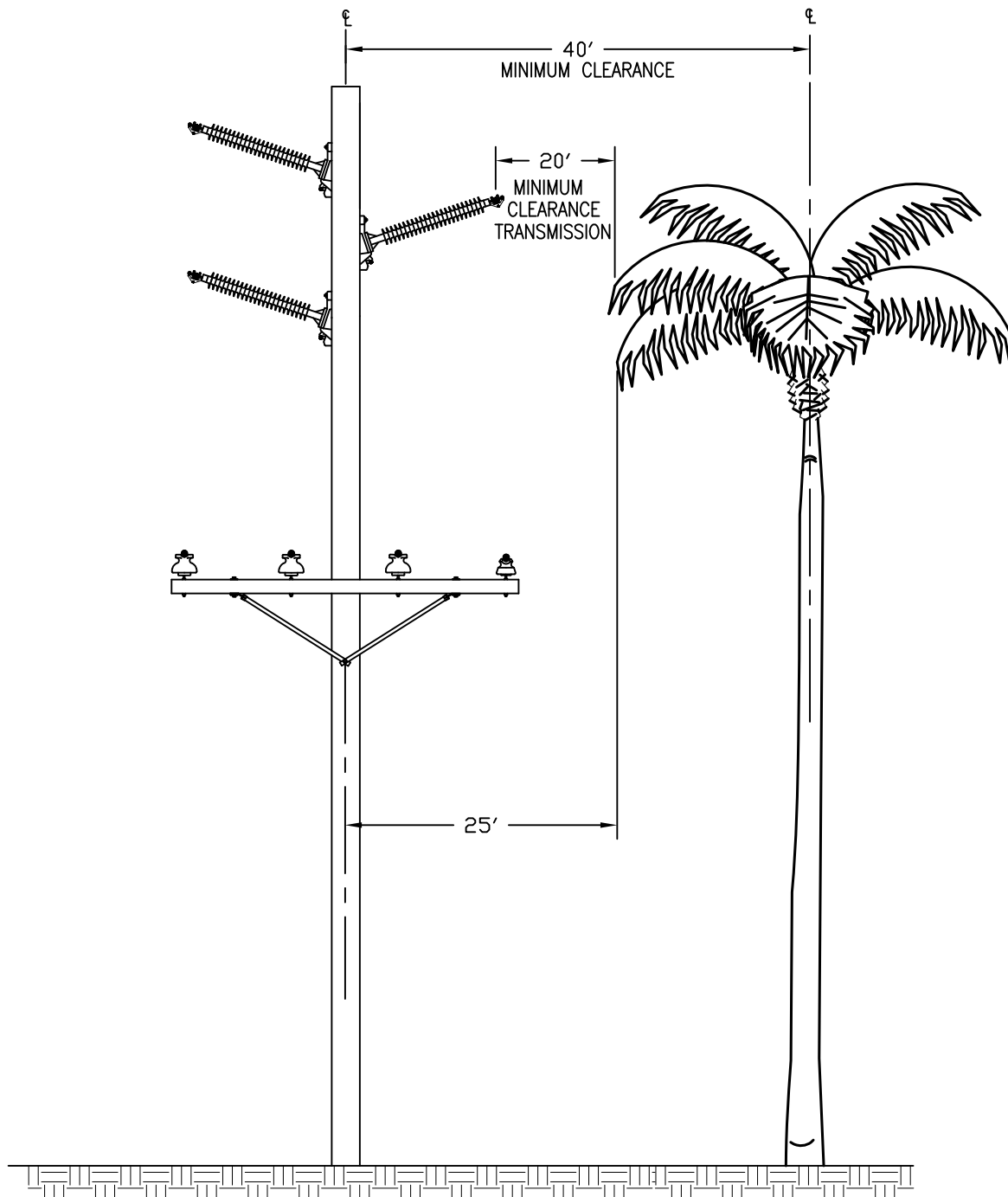


NOTES:

1. A HAZARDOUS TREE, AS DEFINED BY THE CALIFORNIA FOREST PRACTICE RULES, SHALL BE IDENTIFIED AND EVALUATED BY THE FOLLOWING FACTORS:
 - A) ITS PROXIMITY TO A UTILITY RIGHT-OF-WAY OR FACILITY THAT COULD DAMAGE UTILITY FACILITIES.
 - B) THE DEFECTIVENESS OF THE TREE DUE TO ANY CAUSE.
 - C) OTHER POTENTIAL HAZARDS SUCH AS EXTREME CONDITIONS.
2. PALM TREES POSSESS ONLY ONE GROWTH TIP OR STALK AND SOMETIMES GROW RAPIDLY, ESPECIALLY WITH THE CONSTANT WATERING IN SOME OF OUR DESERT COMMUNITIES. CONSEQUENTLY, ANY SPECIES OF PALM TREES THAT GROW 20' OR HIGHER AND DIRECTLY UNDER OR INTO A POWER LINE WILL NEED TO BE REMOVED.

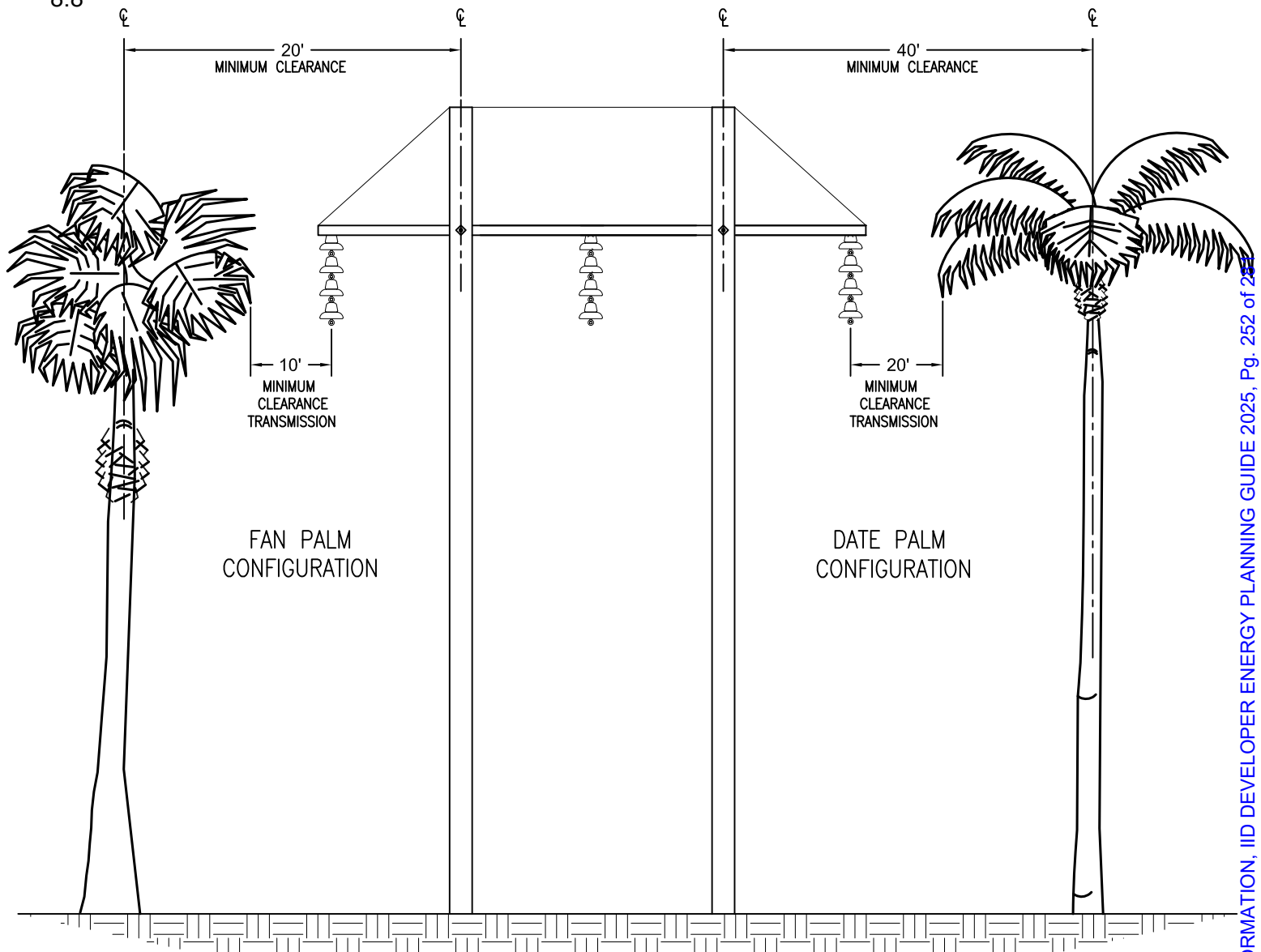
IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 HAZARDOUS TREES
REVIEWED		
APPROVED		
REVISION	REV 01	
DATE	1-31-2013	
		202.23

DATE—PALM TREE(S)

NOTE:

1. PALM TREES CAN AND WILL TOWER TO HEIGHTS UP TO 65' AND 70'. THEY ARE CONSTANTLY TRIMMED AND HARVESTED BY DATE TREE WORKERS AND ARE POPULAR IN COUNTRY CLUBS. IN THE INTEREST FOR WORKER SAFETY AND POWER SUPPLY DEMAND, THE ABOVE MENTIONED CLEARANCES ARE BETWEEN OUTSIDE CONDUCTORS AND THE TIPS OF PALM FRONDS.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>JR</i>	 DATE — PALM EXISTING CONDITION AND NEW CONSTRUCTION AND SUBDIVISIONS
REVIEWED	<i>RD</i>	
APPROVED	<i>MT</i>	
REVISION	REV 01	
DATE	1-29-2013	202.24



NOTES:

1. PALM TREES CAN AND WILL TOWER TO HEIGHTS UP TO 65' AND 70'. THEY ARE CONSTANTLY TRIMMED AND HARVESTED BY DATE TREE WORKERS AND ARE POPULAR IN COUNTRY CLUBS. IN THE INTEREST FOR WORKER SAFETY AND POWER SUPPLY DEMAND, THE ABOVE MENTIONED CLEARANCES ARE BETWEEN OUTSIDE CONDUCTORS AND THE TIPS OF PALM FRONDS, SEE DATE PALM CONFIGURATION.
2. A HAZARDOUS TREE, AS DEFINED BY THE CALIFORNIA FOREST PRACTICE RULES, SHALL BE IDENTIFIED AND EVALUATED BY THE FOLLOWING FACTORS:
 - A) ITS PROXIMITY TO A UTILITY RIGHT-OF-WAY OR FACILITY THAT COULD DAMAGE UTILITY FACILITIES.
 - B) THE DEFECTIVENESS OF THE TREE DUE TO ANY CAUSE.
 - C) OTHER POTENTIAL HAZARDS SUCH AS EXTREME CONDITIONS.
3. PALM TREES POSSESS ONLY ONE GROWTH TIP OR STALK AND SOMETIMES GROW RAPIDLY, ESPECIALLY WITH THE CONSTANT WATERING IN SOME OF OUR DESERT COMMUNITIES. CONSEQUENTLY, ANY SPECIES OF PALM TREES THAT GROW 20' OR HIGHER AND DIRECTLY UNDER OR INTO A POWER LINE WILL NEED TO BE REMOVED.

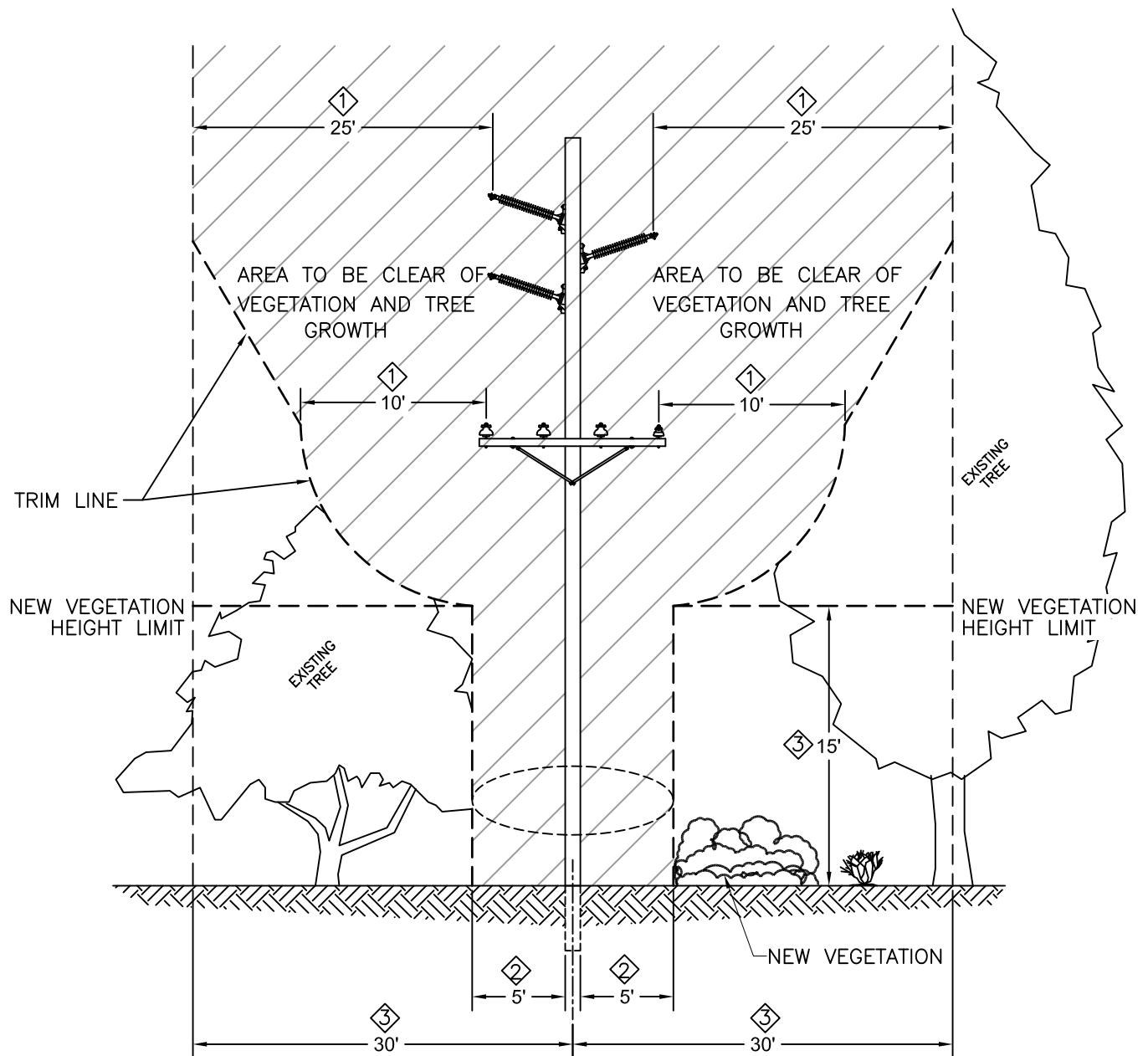
IMPERIAL IRRIGATION DISTRICT

DRAWN BY	<i>JR</i>
REVIEWED	<i>ED</i>
APPROVED	<i>MS</i>
REVISION	REV 01



PALM TREE MINIMUM CLEARANCES
161KV AND 230KV TRANSMISSION
STRUCTURES

202.25

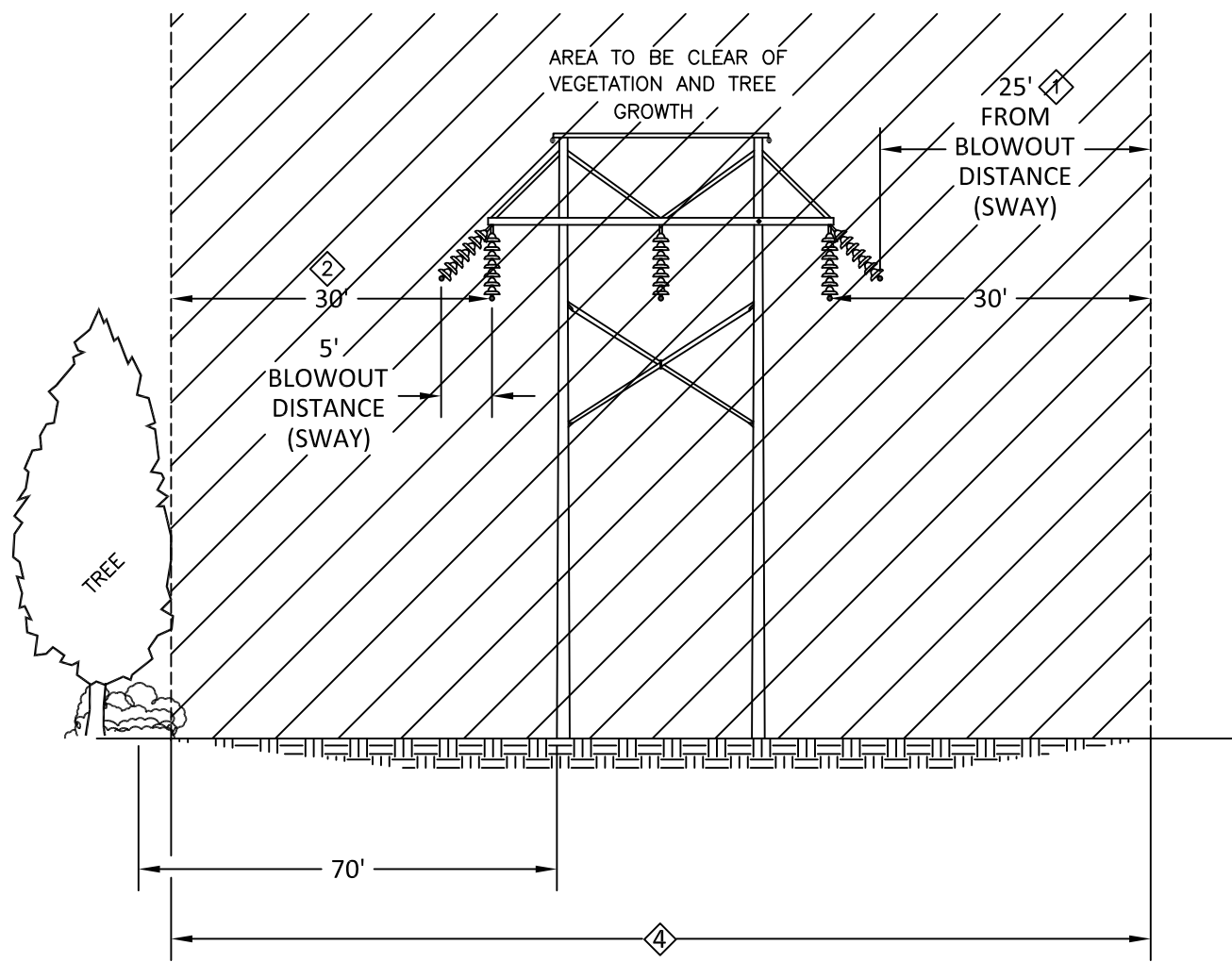


NOTES:

- ① VEGETATION TO CONDUCTOR CLEARANCE TO BE 10 FT. RADIAL FOR 15KV CIRCUITS AND 25 FT. RADIAL FOR 230KV CIRCUITS.
- ② VEGETATION CLEARANCE TO BE 5 FT. RADIAL FROM SURFACE OF STRUCTURE.
- ③ NEW VEGETATION GROWTH TO BE 30 FT. FROM CENTERLINE OF THE STRUCTURE AND 15 FT. HIGH FROM GROUND SURFACE. THIS VEGETATION TO BE SLOW GROWTH TYPE AND HAVE A MAXIMUM GROWTH HEIGHT NOT TO EXCEED 15 FT.

4. REFER TO STANDARD NUMBER 202.24 FOR FAN AND DATE PALM TREE CLEARANCES.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>GR</i>	 EXISTING LINE CONDITIONS 230KV TRANSMISSION AND 15KV DISTRIBUTION UNDERBUILD
REVIEWED	<i>MD</i>	
APPROVED	<i>MS</i>	
REVISION	REV 01	
DATE	1-31-2013	
		202.26

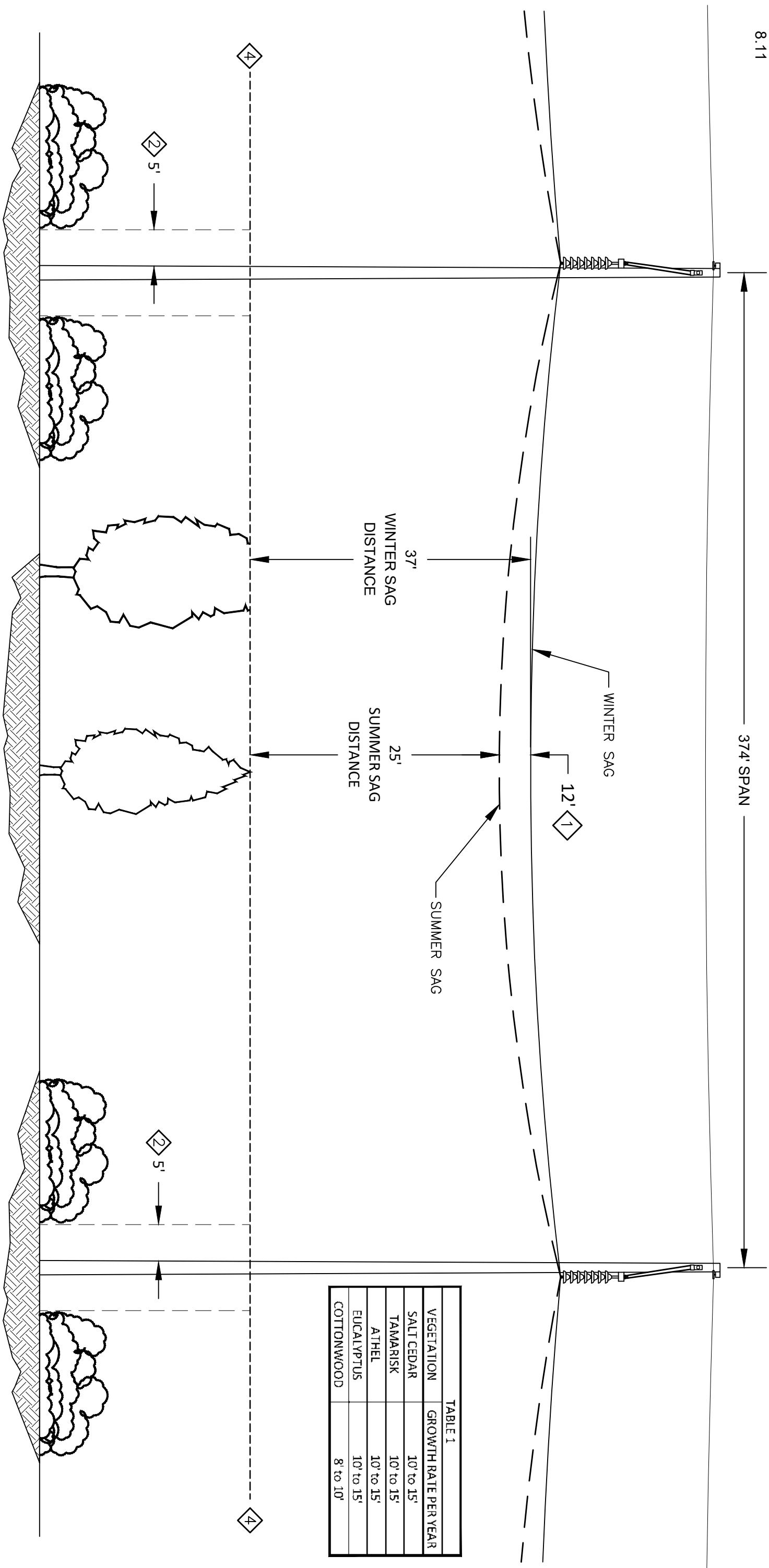


NOTES:

- ① KEEP VEGETATION TO CONDUCTOR BLOWOUT CLEARANCE AT LEAST 25 FT. RADIAL FOR 230KV CIRCUITS.
- ② KEEP VEGETATION TO CONDUCTOR DURING NORMAL CONDITIONS, CLEARANCE AT LEAST 30 FT. RADIAL FOR 230KV CIRCUITS.
- ③ POWER CORRIDOR TO REMAIN CLEAR OF TREES, PALM AND OTHER OBSTRUCTIONS. SEE REGULATION 23 FOR DETAILS.

IMPERIAL IRRIGATION DISTRICT			
DRAWN BY			LINE CLEARANCES FOR 230 KV TRANSMISSION H-FRAME WOOD STRUCTURES
REVIEWED			
APPROVED			
REVISION	REV 04		
DATE	02-10-2020	202.27	

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NOTES:

- ① CONDUCTOR SAG WILL VARY DURING WINTER SEASON AND SUMMER SEASON. DURING SUMMER SEASON, AN ADDITIONAL 12 FT. OF SAG WILL OCCUR BECAUSE OF MAXIMUM LOADING OF THE CONDUCTOR COMPARED TO THE WINTER SEASON SAG.
- ② VEGETATION TO CONDUCTOR CLEARANCE TO BE 25 FT. RADIAL FOR 230KV CIRCUITS.
- ③ VEGETATION CLEARANCE TO BE 5 FT. RADIAL FROM SURFACE OF POLE STRUCTURE.
- ④ UNDER NO CIRCUMSTANCES VEGETATION IDENTIFIED ON TABLE 1 WILL BE ALLOWED IN THIS AREA. IN ADDITION, ANY PALM TREE SPECIES WILL NOT BE ALLOWED. SEE 230KV STANDARD 202.33 FOR DETAILS.

TABLE 1	
VEGETATION	GROWTH RATE PER YEAR
SALT CEDAR	10' to 15'
TAMARISK	10' to 15'
ATHEL	10' to 15'
EUCALYPTUS	10' to 15'
COTTONWOOD	8' to 10'

IMPERIAL IRRIGATION DISTRICT								
								
LINE CLEARANCES FOR 230KV H-FRAME WOOD STRUCTURES								
202.28								
DRAWN BY:		REVIEWED:	F.P.	APPROVED:		REVISION:	1	DATE: 6-30-14

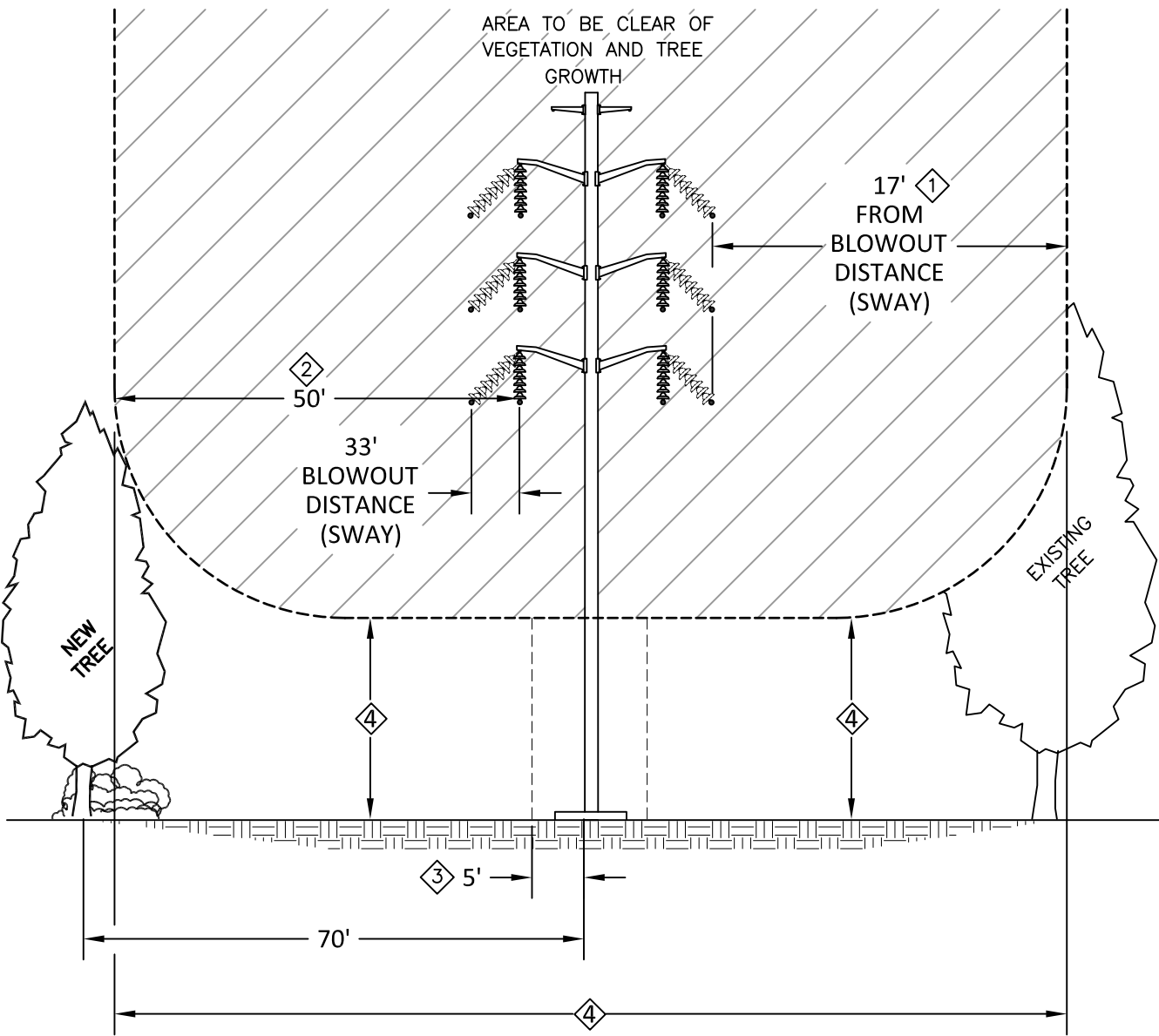


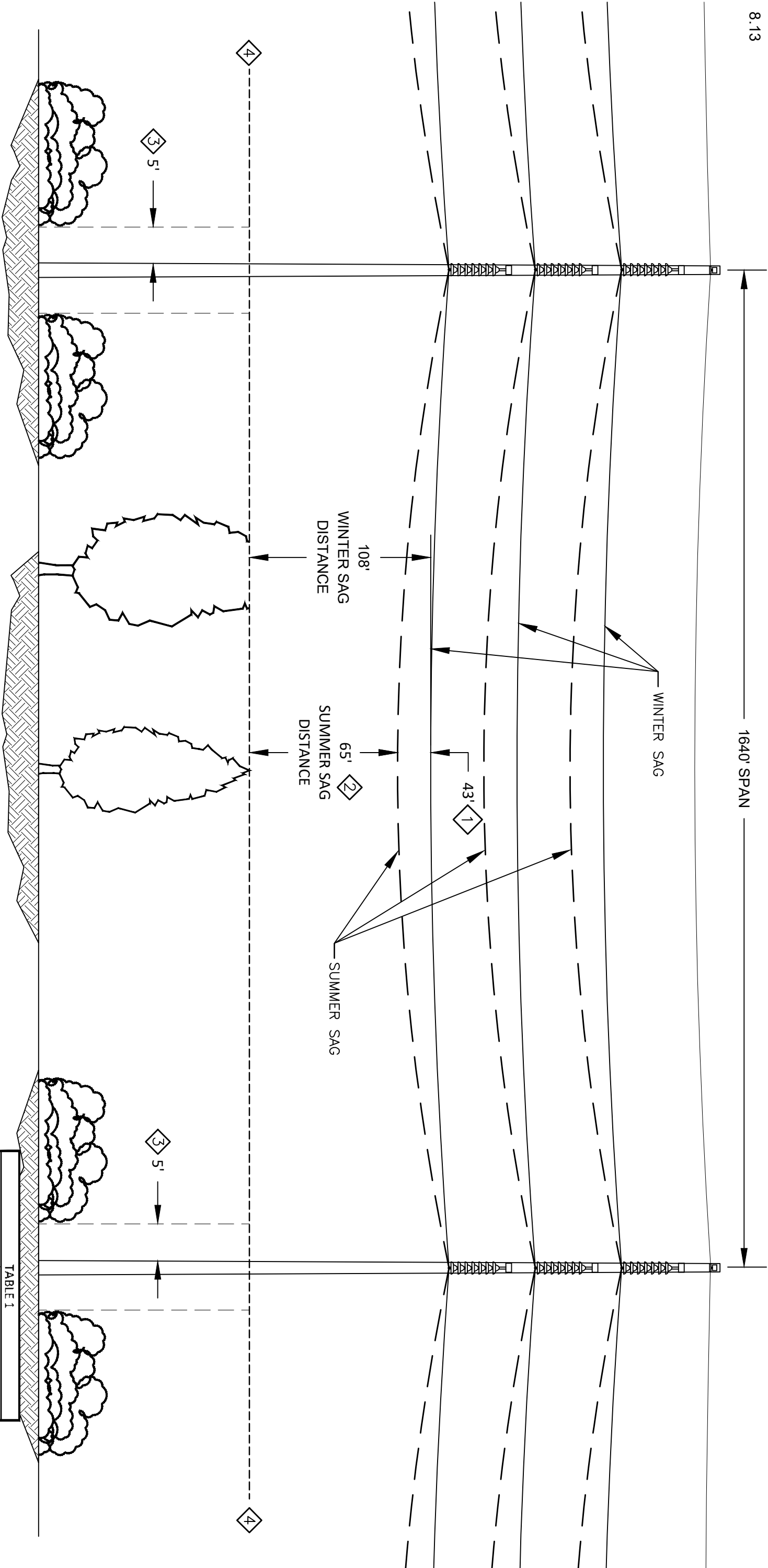
TABLE 1	
VEGETATION	GROWTH RATE PER YEAR
SALT CEDAR	10' to 15'
TAMARISK	10' to 15'
ATHEL	10' to 15'
EUCALYPTUS	10' to 15'
COTTONWOOD	8' to 10'

NOTES:

- ① VEGETATION TO CONDUCTOR BLOWOUT CLEARANCE TO BE 17 FT. RADIAL FOR 230KV CIRCUITS.
- ② VEGETATION TO CONDUCTOR DURING NORMAL CONDITIONS, CLEARANCE TO BE 50 FT. RADIAL FOR 230KV CIRCUITS.
- ③ VEGETATION CLEARANCE TO BE 5 FT. RADIAL FROM OF STRUCTURE.
- ④ UNDER NO CIRCUMSTANCES VEGETATION IDENTIFIED ON TABLE 1 WILL BE ALLOWED IN THIS AREA.
IN ADDITION, ANY PALM TREE SPECIES WILL NOT BE ALLOWED. SEE 230KV STANDARD #202.33 FOR DETAILS.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY		 LINE CLEARANCES FOR 230KV TRANSMISSION STEEL POLE STRUCTURES
REVIEWED		
APPROVED		
REVISION	REV 02	
DATE	6-30-2014	
		202.29

8.13 1640' SPAN

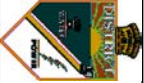


NOTES:

- 1 CONDUCTOR SAG WILL VARY DURING WINTER SEASON AND SUMMER SEASON. DURING SUMMER SEASON, AN ADDITIONAL 43 FT. OF SAG WILL OCCUR BECAUSE OF MAXIMUM LOADING OF THE CONDUCTOR COMPARED TO THE WINTER SEASON SAG.
- 2 VEGETATION TO CONDUCTOR CLEARANCE TO BE 65 FT. RADIAL FOR 230KV CIRCUITS.
- 3 VEGETATION CLEARANCE TO BE 5 FT. RADIAL FROM SURFACE OF POLE STRUCTURE.
- 4 UNDER NO CIRCUMSTANCES VEGETATION IDENTIFIED ON TABLE 1 WILL BE ALLOWED IN THIS AREA. IN ADDITION, ANY PALM TREE SPECIES WILL NOT BE ALLOWED. SEE 230KV STANDARD 202.33 FOR DETAILS.

TABLE 1	
VEGETATION	GROWTH RATE PER YEAR
SALT CEDAR	10' to 15'
TAMARISK	10' to 15'
ATHEL	10' to 15'
EUCALYPTUS	10' to 15'
COTTONWOOD	8' to 10'

IMPERIAL IRRIGATION DISTRICT



LINE CLEARANCES FOR
230KV STEEL POLE
STRUCTURES

202.30

DRAWN BY:	REVIEWED:	APPROVED:	REVISION:	DATE:
JK	JK	JK	1	6-30-14

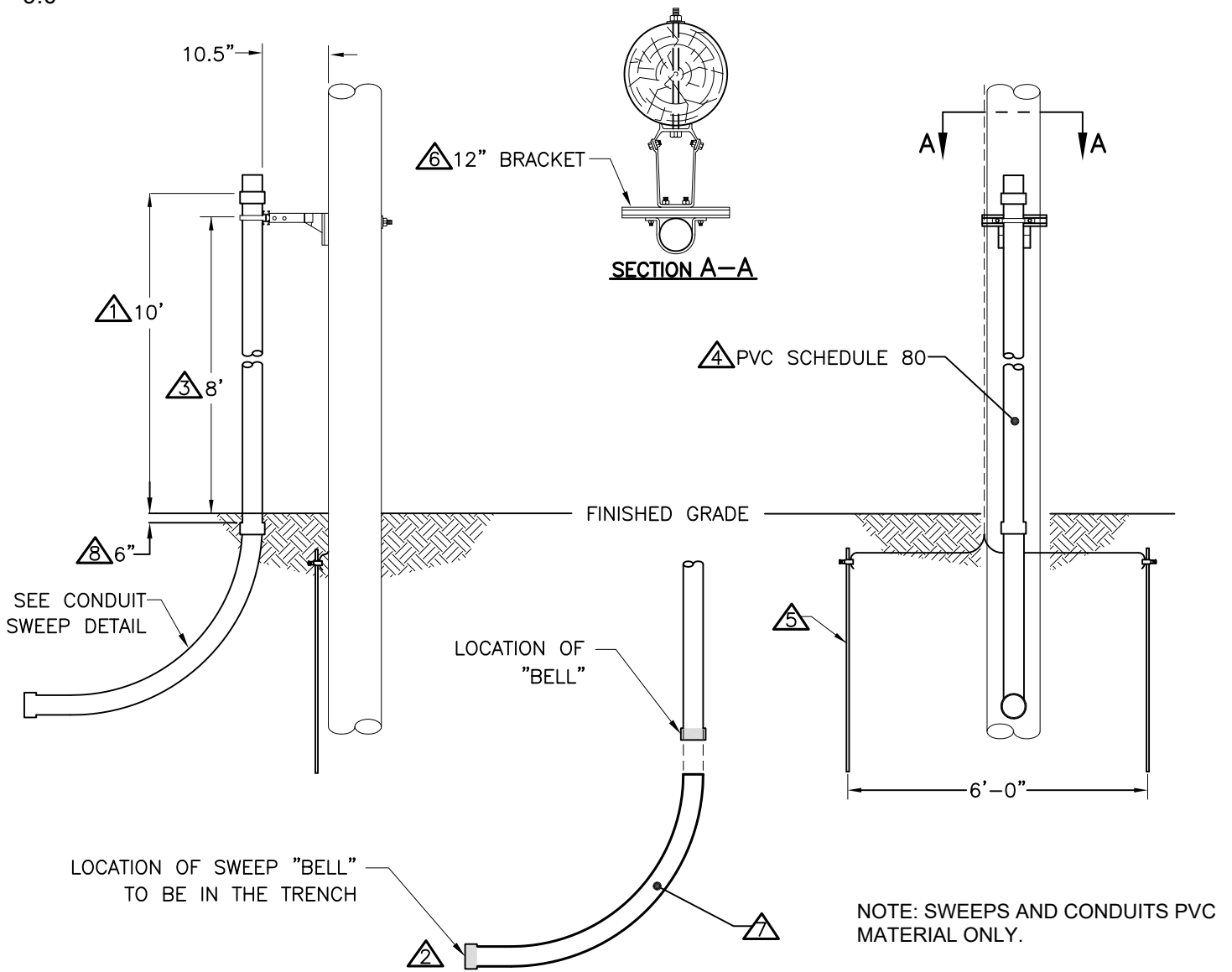
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PRIMARY RISER

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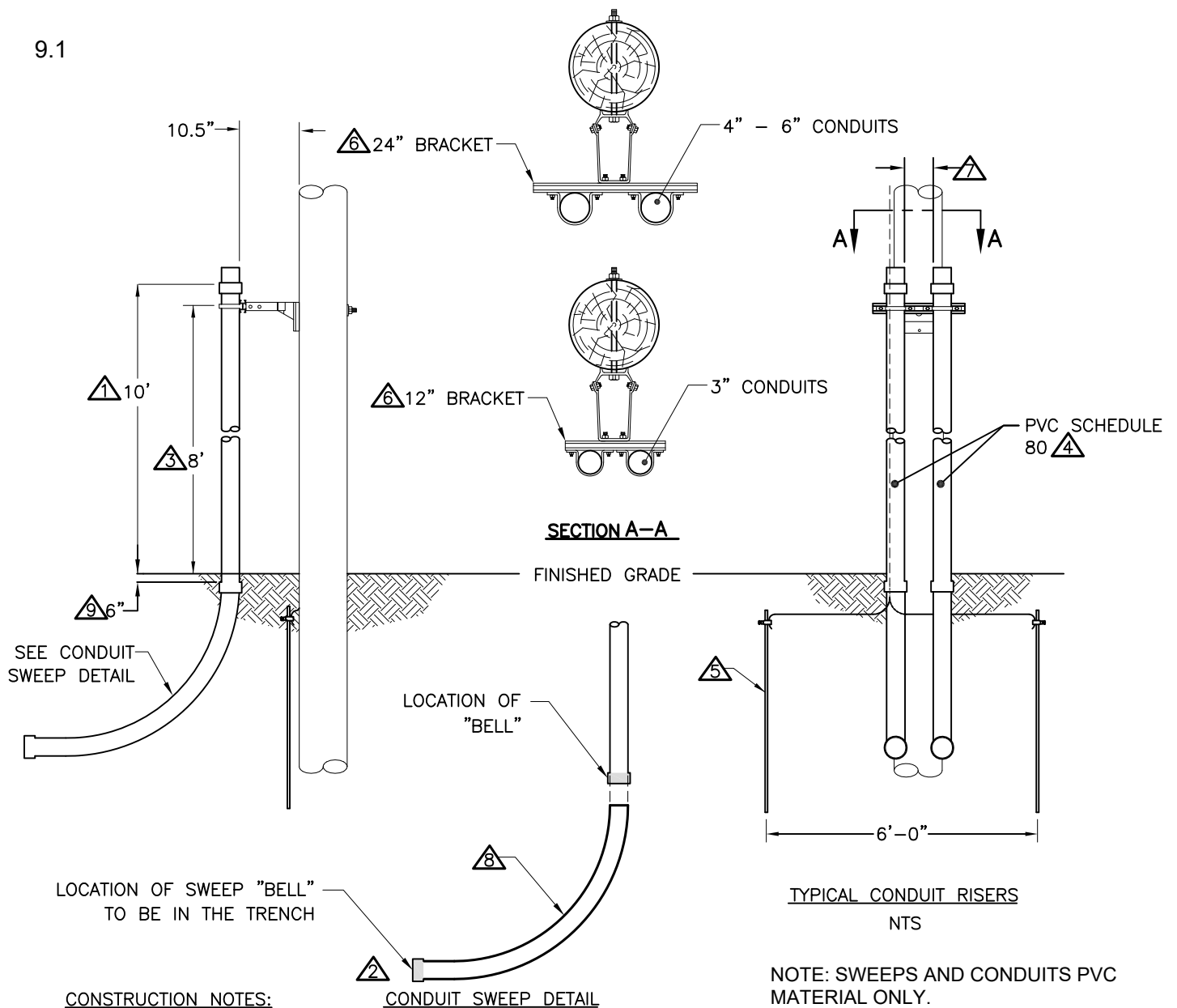


CONSTRUCTION NOTES:

CONDUIT SWEEP DETAIL

- 1 CONDUIT INSTALLATION TO BE COMPLETED BY THE CUSTOMER OR CONTRACTOR UP TO 10' ABOVE FINISHED GRADE AS SHOWN.
- 2 REFER TO CONTRACTORS NOTES DISTRIBUTION PLAN FOR DIRECTION OF THE SWEEP AND RISER POSITION.
- 3 FIRST CONDUIT BRACKET TO BE INSTALLED APPROXIMATELY 8 FEET ABOVE FINISHED GRADE.
- 4 REFER TO CONTRACTORS NOTES DISTRIBUTION PLAN FOR SIZE OF SCHEDULE 80 PVC ABOVE GROUND.
- 5 GROUND RODS TO BE INSTALLED BY IID.
- 6 BRACKETS TO BE SUPPLIED BY IID UNLESS OTHERWISE NOTED.
- 7 CONDUIT SWEEP TERMINATING AT RISER POLE SHALL BE SCHEDULE 80 WITH A MINIMUM 4' (48") RADIUS, SEE STANDARD 100.12. REFER TO CONTRACTORS NOTE 4H AND REFER TO TABLE 5 RISER SWEEP RADIUS.
- 8 ALL RISER SWEEPS TO BE INSTALLED 6" BELOW FINISHED GRADE.

IMPERIAL IRRIGATION DISTRICT		
DRAWN BY	<i>gr</i>	 PRIMARY RISER POLE
REVIEWED	<i>td</i>	
APPROVED	<i>ms</i>	
REVISION	REV 05	
DATE	12-09-2013	



△ 1 CONDUIT INSTALLATION TO BE COMPLETED BY THE CUSTOMER OR CONTRACTOR UP TO 10' ABOVE FINISHED GRADE AS SHOWN.

△ 2 REFER TO CONTRACTORS NOTES DISTRIBUTION PLAN FOR DIRECTION OF THE SWEEP AND RISER POSITION.

△ 3 FIRST CONDUIT BRACKET TO BE INSTALLED APPROXIMATELY 8 FEET ABOVE FINISHED GRADE.

△ 4 REFER TO CONTRACTORS NOTES DISTRIBUTION PLAN FOR SIZE OF SCHEDULE 80 PVC ABOVE GROUND.

△ 5 GROUND RODS TO BE INSTALLED BY IID.

△ 6 BRACKETS TO BE SUPPLIED BY IID UNLESS OTHERWISE NOTED.

△ 7 SEPARATE CONDUITS LEAVING CENTER OF POLE OPEN FOR USE.

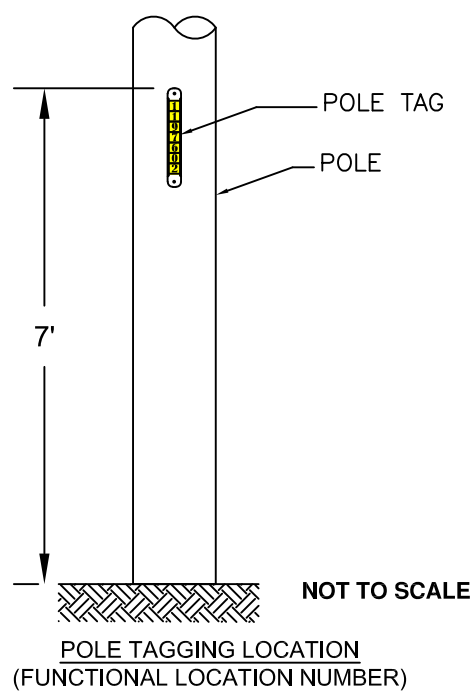
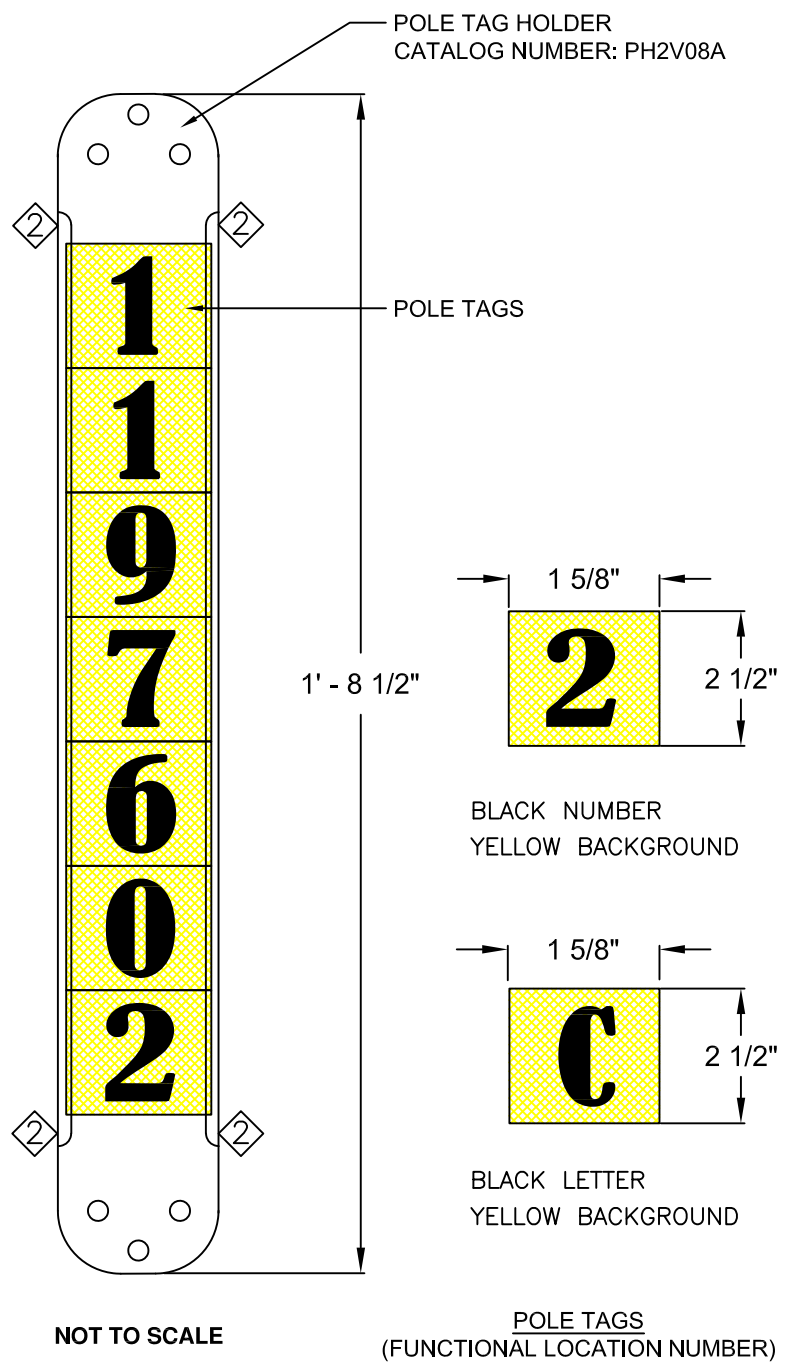
△ 8 CONDUIT SWEEPS TERMINATING AT RISER POLE SHALL BE SCHEDULE 80 WITH A MINIMUM 4' (48") RADIUS, SEE STANDARD 100.12. REFER TO CONTRACTORS NOTE 4H AND REFER TO TABLE 5 RISER SWEEP RADIUS.

△ 9 **ALL RISER SWEEPS TO BE INSTALLED 6" BELOW FINISHED GRADE.**

IMPERIAL IRRIGATION DISTRICT

DRAWN BY	gr		PRIMARY DUAL RISER POLE
REVIEWED	pd		
APPROVED	ms		
REVISION	REV 05		
DATE	12-09-2013		

108.12



NUMBER TAGS		
VENDOR	CATALOG NUMBER	NUMBER
ALMETEK INDUS.	TR230	0
ALMETEK INDUS.	TR231	1
ALMETEK INDUS.	TR232	2
ALMETEK INDUS.	TR233	3
ALMETEK INDUS.	TR234	4
ALMETEK INDUS.	TR235	5
ALMETEK INDUS.	TR236	6 / 9
ALMETEK INDUS.	TR237	7
ALMETEK INDUS.	TR238	8
ALMETEK INDUS.	TR23C	C

VENDOR INFORMATION:
ONE SOURCE SUPPLY SOLUTIONS
CONTACT: MITCH CARR
PHONE: (909) 234 - 9972
EMAIL: mcarr@1sourcessupplysolutions.com

- NOTES:
- 1 CONTRACTOR SHALL PROVIDE AND INSTALL FUNCTION LOCATION NUMBERS PER THE SPECIFICATIONS ABOVE. REFER TO "NUMBER TAGS" TABLE FOR POLER TAG VENDOR AND CATALOG INFORMATION.
 - 2 AFTER INSERTING NUMBERS, TAMP DOWN EDGE TO HOLD NUMBERS IN TRAY.
 - 3 TAG HOLDER MUST BE GLUED WITH ADHESIVE TR23 BY PAN-L-BOND.

IMPERIAL IRRIGATION DISTRICT

	DRAWN BY	L. JACQUEZ	STREET LIGHTS POLE TAG HOLDER	STL
	REVISED BY	F. FIMBRES		
	APPROVED BY	F. FIMBRES	WHAT'S CHANGED? NEW STANDARD	SHEET 1 OF 1
	REVISION	REV 0		210
	DATE	11/05/2024		

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CUSTOMER INFORMATION PACKET

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IID

A century of service.

Customer Project Development Services



Application available online: <https://www.iid.com/energy/new-construction>

Customer Project Application

Imperial Valley

333 S. Waterman Ave., El Centro, CA

Mail: Customer Project Dev., PO Box 937, Imperial, CA 92251

Office Hours: 7:30 a.m. - 5:30 p.m. (closed every other Friday)

760-482-3300

Coachella Valley

Mail/Physical Address: 81-600 Avenue 58, La Quinta, CA 92253

Office Hours: 7:00 a.m. - 5:00 p.m. (closed every other Friday)

760-398-5841



Process Overview

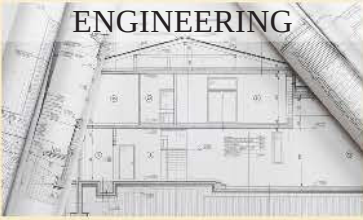
Customer Controlled • IID Controlled

INITIATION



Customer provides service location, size of panel and voltage of the main panel.
Depending upon the project size, IID will provide a ballpark construction cost estimate and timeline.

ENGINEERING



Customer submits a completed application packet.
Customer pays the engineering fee if requested.
An IID staff member is assigned and the electrical design is drawn.

CONDUIT INSTALLATION



Customer initiates a pre-construction meeting with IID to review the work to be accomplished.
Customer will complete construction (e.g. conduit, main panel, etc.) and request IID to inspect the work.
IID inspectors validate the work is up to standards and ensure site access for construction crews. CT meter installation, if applicable (timeline varies).

CONSTRUCTION



Customer pays the estimated construction fees and requests construction.
IID works with the customer to schedule construction.
IID crew completes construction.

INSPECTION/METER INSTALLATION



Agency having jurisdiction (AHJ) inspects and passes the service panel.
IID installs and energizes CT metering, if applicable (timeline varies).
IID energizes non-CT metered service.



CUSTOMER PROJECT DEVELOPMENT SERVICES

Application Checklist

(updated 01/2024)

The following forms and information are required to process your application in a timely manner.

Application Forms

- ☐ Application for New Service.
- ☐ Contractor Information Sheet, *if requested.*
- ☐ Joint Trench Indemnity Agreement, *if requested.*
- ☐ Terms and Conditions.
- ☐ Construction Cost Adjustment
- ☐ Motor Nameplate Data Sheet, *if requested.*

Engineering Documents

Approved electrical engineered drawings in AutoCAD format reflecting the following:

- ☐ City-approved street improvement drawings.
- ☐ Project site plan and legal description of the property.
- ☐ One-line diagram.
- ☐ Approved streetlight plan.
- ☐ Main panel size and voltage.
- ☐ Main panel location.
- ☐ Panel schedules.
- ☐ Motor starter data sheet.
- ☐ List of motor size(s) in HP.

Rights of Way and Easements

- ☐ All rights of way and easements shall be in the form acceptable to and at no cost to IID for the installation, operation and maintenance of all electric facilities.

For PV Projects

- ☐ Application projects check-sheet.
- ☐ Electrical one-line diagram check-sheet.
- ☐ Site plan check-sheet.

All files should be in .pdf, e-file, and/or printed, as requested.

Imperial Valley

333 S. Waterman Ave., El Centro, CA
Mail: Customer Project Dev., PO Box 937, Imperial, CA 92251
Office Hours: 7:30 a.m. - 5:30 p.m. (closed every other Friday)
760-482-3300

Coachella Valley

Mail/Physical Address: 81-600 Avenue 58, La Quinta, CA 92253
Office Hours: 7:00 a.m. - 5:00 p.m. (closed every other Friday)
760-398-5841



CUSTOMER PROJECT DEVELOPMENT SERVICES

Credit Establishment Requirements

Residential Application:

- 1) Complete the Project Information and Single Family Residential Application sections.
- 2) Sign the application.
- 3) Attach a photocopy of your driver's license.
- 4) Provide your social security number (at least the last four digits).

Commercial Application: (Sole Proprietor)

- 1) Complete the Project Information and Commercial sections.
- 2) Sign the application.
- 3) Attach a photocopy of your driver's license.
- 4) Provide your social security number (at least the last four digits) and/or your Federal Tax ID number.

Corporation, LLC or LLP:

- 1) Attach a copy of your articles of incorporation, your annual statements of Domestic Corporation, or a copy of your annual stockholders' report.
- 2) Provide your Federal Tax ID number.
- 3) The officer/member must provide a letter of authorization for the person signing if he or she cannot sign.
- 4) Entity paperwork must be provided with this application, if applicable.

Partnership:

- 1) Both partners must sign the application or one partner may sign and attach partnership papers.

Limited Partnership:

- 1) Attach limited partnership documents.
- 2) General partnerships that are a corporation will need to include the information requested for a corporation (see *Corporation, LLC or LLP* above).
- 3) A partner must sign or provide a letter of authorization for the signing agent.

Additional:

- 1) A service establishment fee of **\$25.00** will be billed on your first energy statement.
- 2) Guarantee deposits are held until credit is established in accordance with IID Regulation 7. A copy of this and other regulations is available on our website www.iid.com.

Guarantee Deposits May Be Made Using One of the Following Methods:

- 1) Cash, check, credit card or electronic funds transfer.
- 2) Indemnity Bond from your insurance company (forms available upon request).
- 3) Irrevocable Letter of Credit from your bank.

Imperial Valley

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760-482-3300

Coachella Valley

Mail/Physical Address: 81-600 Avenue 58, La Quinta, CA 92253

Office Hours: 7:00 a.m. - 5:00 p.m. (closed every other Friday)

760-398-5841



CUSTOMER PROJECT DEVELOPMENT SERVICES

Application for Service

PROJECT INFORMATION				
PROJECT ADDRESS	CITY	STATE	ZIP CODE	IN-SERVICE DATE
ELECTRICAL INSTALLATION ☐ Overhead ☐ Underground ☐ Area/Streetlight ☐ Net Meter ☐ Distributed Generation ☐ Temporary Service ☐ Service Relocate ☐ Service Removal Main Panel Size _____ (Amps) Voltage Required _____ ☐ 1 Phase ☐ 3 Phase Number of Meters _____ Total Connected Load (HP) _____				
TYPE OF PROJECT: ☐ Single Family Residential ☐ Subdivision Residential ☐ Commercial ☐ Industrial ☐ Agricultural Bus. Hrs. _____ # Workdays in Week _____ # Workdays in Month _____				
CONSTRUCTION CONTACT NAME	CELL NUMBER	OTHER PHONE	EMAIL	
CONTRACT ACCOUNT NUMBER	METER NUMBER(S)			
PROJECT DESCRIPTION (attach additional pages as necessary)				

Electrical one-line / panel schedules / panel specifications may be required

SINGLE FAMILY RESIDENTIAL APPLICATION INFORMATION (IF OTHER, SKIP TO NEXT SECTION)				
CUSTOMER NAME (if different than above)	CELL NUMBER	OTHER PHONE	EMAIL	
BILLING ADDRESS (if different than above)	CITY	STATE	ZIP CODE	DRIVER LICENSE NUMBER
SOCIAL SECURITY NUMBER	DATE OF BIRTH	PLACE OF EMPLOYMENT		MARITAL STATUS
OTHER CONTACT (If any)	CELL NUMBER	OTHER PHONE	EMAIL	

COMMERCIAL, INDUSTRIAL, RESIDENTIAL SUBDIVISION, TEMPORARY SERVICE OR AGRICULTURAL				
PROJECT OWNER BUSINESS TYPE: ☐ Corporation ☐ Partnership ☐ Sole Proprietor ☐ L L C ☐ L L P				
BUSINESS NAME	DOING BUSINESS AS (if applicable)			
BILLING ADDRESS (if different than above)	CITY	STATE	ZIP CODE	
IF PARTNERSHIP, LIST PARTNER NAMES 1. _____ 2. _____				
IF CORPORATION, LIST THE FOLLOWING: President/Member _____ Secretary/Member _____ Vice _____ President/Member _____ Treasurer/Member _____ Federal _____ Tax ID # _____				
SIGNATORY #1 (if applicable)	TITLE	DRIVER LICENSE NUMBER	STATE	
CELL NUMBER	EMAIL	SOCIAL SECURITY NUMBER (if applicable)		
OTHER PHONE				
SIGNATORY #2 (if applicable)	TITLE	DRIVER LICENSE NUMBER	STATE	
CELL NUMBER	EMAIL	SOCIAL SECURITY NUMBER (if applicable)		
OTHER PHONE				

Signature required on next page.



CUSTOMER PROJECT DEVELOPMENT SERVICES
Application for Service - Continued
Regulations Governing Sale and Use of Electric
Energy

Excerpts from Regulation No. 6

The customer shall, at his own risk and expense, furnish, install and keep in good and safe condition all electric wires, lines, machinery and apparatus of any sort which may be required for receiving electric energy from the District, and for applying and utilizing such energy, including all necessary protective appliances and suitable housing therefor. The District shall not be responsible for any loss or damage occasioned or caused by the negligence or want of proper care or wrongful act of the customer or any of his agents, employees or licensees on the part of the customer in installing, maintaining, using, operating or interfering with any such wires, lines, machinery or apparatus.

Excerpts from Regulation No. 11

The district shall, at its option, have the right to disconnect its services until the customer has complied with all the terms of the agreement and of the District's regulation.

Excerpts from Regulation No. 15

The District will construct, own, operate and maintain lines only along public streets, roads and highways which the District has the legal right to occupy and on public lands and private property across which rights-of-way satisfactory to the District may be obtained without cost or condemnation by the District.

All Imperial Irrigation District Regulations Governing the Sale and Use of Electric Energy are available for viewing at all IID Division Offices, Imperial Operating Headquarters and online at www.iid.com.

☐ I have read and agree to the Regulations listed above.

Signature: _____ Title: _____

Print Name: _____ Date: _____

INTERNAL USE ONLY							
BP no.	☐ CO ☐ DO ☐ Urban ☐ Rural	Cycle	Book	ARDMS segment no.	New seg.	ARDMS sequence no.	
Contract account no.		CO date	DO date	Rate	SE	HP	SIC
HP/Schedule change From _____ To _____ STAPP ☐ Yes ☐ No		Meter no.	Reading		Multi.	Demand	Serial no.
Credit est. ☐ Yes ☐ No	G.D. no.	Amount	☐ New installation ☐ Re-install ☐ Re-connect ☐ Removed ☐ Left on premise				
Remarks			Notes		Nearest meter no.		
Approved by			Received by CA		Keyed in computer		

Imperial Valley

333 S. Waterman Ave., El Centro, CA

Mail: Customer Project Dev., PO Box 937, Imperial, CA 92251

Office Hours: 7:30 a.m. - 5:30 p.m. (closed every other Friday)

760-482-3300

Coachella Valley

Mail/Physical Address: 81-600 Avenue 58, La Quinta, CA 92253

Office Hours: 7:00 a.m. - 5:00 p.m. (closed every other Friday)

760-398-5841



CUSTOMER PROJECT DEVELOPMENT SERVICES

Contractor Information Sheet

If applicable, please select the level of authorization for communication with your contractor.

Contractor
Address
Contact
Contact Phone
Email Address

- ☐ Attend meetings and/or respond to correspondence regarding this project.
- ☐ Pick-up the contractor notes packet for this project.
- ☐ Receive electronic files for this project, including energy account information.
- ☐ Obtain approvals, to complete this project.

Signature: _____ Title: _____

Print Name: _____ Date: _____

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CUSTOMER PROJECT DEVELOPMENT SERVICES **Terms & Conditions**

Indemnification Agreement

In consideration for the provision of electrical utility service by IID for the development project identified in the Standards Specifications and Contractor Information Sheet, Applicant and IID agree as follows: the provision of electric utility service to Applicant is conditioned on compliance by Applicant with all applicable laws including the Imperial Irrigation District Regulations Governing the Sale and Use of Electric Energy and Rate Schedules.

Applicant shall defend and indemnify IID, from any: liability, claims, suite or actions; losses, expenses, fees, or costs of any kind, so long as such things are in relation to, as a consequence of, arising out of, or in any way attributable actually, allegedly or impliedly, in whole or in part, to the provision of electrical service by IID to Applicant for the development project identified in the Standards Specifications and Contractor Information Sheet; however, Applicant shall not be required to indemnify and hold harmless IID as set forth above for liability attributable to the sole fault of IID.

Customer Initials _____

Environmental Impact Information

The work IID has to undertake to provide the electric service requested may cause impacts to the environment. Since the work is customer-driven and not a system upgrade, it is IID's policy that any environmental impacts created by new, relocated, modified or reconstructed IID facilities (which can include, but are not limited to, substations, transmission and distribution lines, IID-owned canals and drains, etc.) required to provide electric service to the customer need to be assessed in accordance with the California Environmental Quality Act and National Environmental Policy Act, if applicable, and, if required, mitigated. Failure to comply with such requirements will result in the postponement of the service requested until the appropriate environmental documentation is obtained by the customer from the lead agency having jurisdiction to permit the customer's project and the environmental impacts are fully assessed and mitigated. Any and all mitigation necessary as a result of the impacts on the environment caused by the construction, relocation and/or update of the IID facilities is the responsibility of the customer.

At its discretion IID will verify, via its field crews and project inspectors, if impacts are being mitigated per customer's environmental document and if customer is providing on-site mitigation monitoring. If not, customer will be advised of this and IID work will be halted until the appropriate mitigation measures and monitoring are in place.

Customer Initials _____

Engineering Fee

I acknowledge that failure to complete and return all pertinent forms to IID could cause a delay in electric service. I agree and understand that the Engineering Fee will be paid to begin engineering a project and will be applied as a credit toward the construction cost of the project. The Engineering Fee is non-refundable. Any design changes that result in the redesign of the project, and therefore alters prior schedule IID commitments will require an additional non-refundable Engineering Fee and may cause delays in construction schedules(s).

Customer Initials _____

Signature: _____ Title: _____

Print Name: _____ Date: _____

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CUSTOMER PROJECT DEVELOPMENT SERVICES **Construction Cost Adjustment**

Construction Estimate Statement

The estimated construction cost undergoes regular review and adjustment every six months following the initial construction invoice letter date. This process allows for potential refinements and ensures that the current cost to provide services remains up- to -date (Per Regulation 15-B). IID Construction resources must be scheduled to perform work assigned within the six months of the dated construction invoice letter date issued, in order to avoid cost revisions. If there is a delay by the customer in processing all necessary project requirements including, but not limited to compliance with the California Environmental Quality Act, permitting, acquisition of necessary rights of way, easements, electrical equipment procurement, IID shall be under no obligation to perform any work or activity unless Customer has deposited funds to pay for such work pursuant to the updated Construction cost Invoice and all customer's project requirements are completed. (Per Developer Energy Planning Guide 2023 SEC.1.0.4).

Customer Initials _____

Signature: _____ Title: _____

Name: _____ Date: _____

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CUSTOMER PROJECT DEVELOPMENT SERVICES

Motor Nameplate Data, Motor Starter Information & Generator Information

Engineering will analyze the effect of large motors connected to the IID system based on the motor nameplate data and motor starter information.

MOTOR NAMEPLATE DATA:

- All motors - 50 HP and above.
- Simultaneously starting motors - 15 HP and above.
- All motors starting more than one time per hour - 15 HP and above.
- See typical nameplate:

HP	Phase	Insul. Class	HZ
Frame		V230 A	V460 A
Type	Code	Enclosure Type	Service Factor
RPM	Design	NEMA Nom Eff.	
ID No.		Max AB Temp.	

MOTOR STARTER INFORMATION:

- Please provide motor starter data.
- This data can be obtained from the manufacturer or the manufacturer's catalog.

GENERATOR INFORMATION (PV):

Rated Capacity (CEC-AC, kWh)	Generator Type (Solar, Wind, Battery, Etc.)
Generator Equipment Manufacturer	Generator Module Number
Inverter/Controller Manufacturer	Inverter Model Number
Type of Visible Open Disconnect	Estimated Monthly Production, (kWh)
Estimated Date of Parallel Operation	

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CUSTOMER PROJECT DEVELOPMENT SERVICES **Joint Trenching Indemnity Agreement**

The joint trenching of utilities, as opposed to the trenching of utilities in separate trenches, is a development and construction method which provides cost savings to Contractors. However, joint trenching also presents additional risks of danger due to the proximity of utilities in a common trench. In consideration for permission given by IID to Contractor to install all utilities in a joint trench, Customer agrees to indemnify IID as set forth herein.

In consideration for permission given by IID to Contractor to install all utilities in a joint trench, Customer and IID agree that Customer shall defend and indemnify IID, from any: liability, claims, suit or actions; losses, expenses, fees, or costs of any kind, so long as such things are in relation to, as a consequence of, arising out of, or in any way attributable actually, allegedly or impliedly, in whole or in part, to the joint trenching of utilities by Contractor and/or its subcontractors. However, Customer shall not be required to indemnify and hold harmless IID as set forth above for liability attributable to the sole fault of IID.

Signature: _____ Title: _____

Print Name: _____ Date: _____

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BEFORE YOU START ANY TYPE OF CONSTRUCTION OR LANDSCAPING PROJECT, CALL THE UNDERGROUND SERVICE ALERT, TOLL FREE, AT 8-1-1 TWO WORKING DAYS BEFORE YOU BEGIN YOUR PROJECT. EXPERTS WILL LOCATE ELECTRIC, GAS, TELEPHONE, WATER AND SEWER LINES ON YOUR LAND. PLEASE KEEP A MINIMUM OF 1.5 FEET CLEARANCE AREA FROM IID'S EQUIPMENT IN ORDER FOR IID EMPLOYEES TO WORK SAFELY AND HAVE EASY ACCESS. FOR ANY QUESTIONS PLEASE CALL OUR CUSTOMER SERVICE CENTER AT 1-800-303-7756. PLEASE FOLLOW THE INSTRUCTIONS GIVEN BELOW.

Clearances For IID Equipment Green Pull Box

NOT ALLOWED!



The equipment must remain well ventilated- Adequate air is needed to keep the boxes cool and working properly.



You should leave a minimum clearance area of 1.5 Feet (18") or more radially.

In the event of an equipment failure or a power outage, it's important that our workers have safe access to the equipment to make needed repairs with a minimum clearance room of 1.5 feet (18") radially or more.

Have a clearance of minimum 1.5 feet (18") according to Standard 202.15 In The Developer Energy Planning Guide.

Any obstruction(s) can be damaged when removed during maintenance or service restoration.

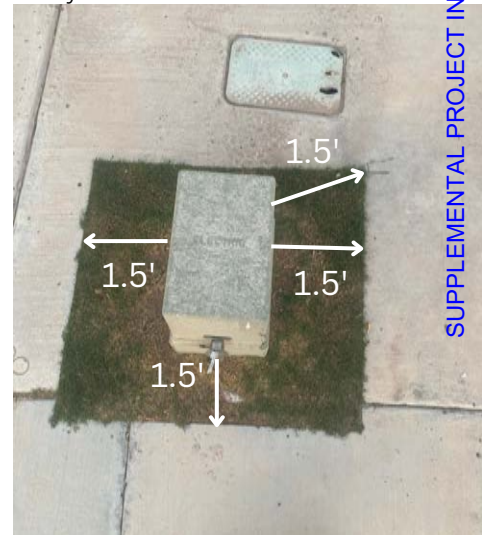
As a precaution no one (adult or child) should play or stay near the equipment for any reason.

Prohibited to cover and build any type of construction around or above IID'S equipment.

ALLOWED!



Pull Boxes are often found in the front yard of your house and must follow IID clearances for safety.



**FOLLOW THESE INSTRUCTIONS TO AVOID PAYING THE DISTRICT FOR ALL DAMAGES OCCASIONED.
THANK YOU FOR YOUR SUPPORT!**

Landscape Safely

Equipment Clearances and general safety around IID's equipment

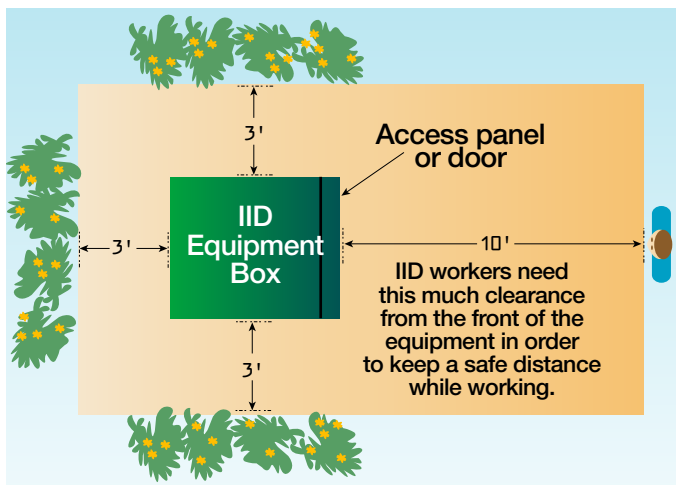
Stay safe around electrical equipment

Ever wonder what that green metal box is in your neighborhood or even your own front yard? These green boxes house high voltage utility equipment that can pose a serious safety hazard if treated or handled inappropriately.

In the event of an equipment failure or a power outage, it's important that our workers have safe access to the equipment to make needed repairs. Therefore, for your safety and that of our workers, there are city codes to limit landscaping around electrical equipment. Trees, shrubs, fences, large landscape rocks or other obstructions are not permitted in access areas around electrical equipment.

Follow these simple safety guidelines around electrical equipment:

- The equipment must remain well ventilated—adequate air is needed to keep the boxes cool and working properly or they may become a fire hazard.
- The equipment must remain uncovered. Do not build a structure around IID's equipment or attempt to fence it in.
- No one (adult or child) should play or stay near the equipment for any reason.
- Never let children wander close to the equipment—it may be hot or have sharp edges.
- Never attempt to open the box, tamper with or handle the equipment in any way.



Clearance around equipment is critical

Please plan your plantings accordingly around utility boxes. If your plantings encroach on IID equipment, we may be forced to remove them.

Before you start any landscaping project, call the **Underground Service Alert**, toll free, at 8-1-1 two working days before you begin your project. Experts will locate electric, gas, telephone, water and sewer lines on your land. If you notice vegetation growing into IID's power lines or equipment, please call our **Customer Service Center at 1-800-303-7756**.



IID
A century of service.