ELECTRICAL ABBREVIATIONS

1PH	SINGLE–PHASE
1P	SINGLE POLE
2/C	TWO–CONDUCTOR
3/C	THREE–CONDUCTOR
3PH	THREE–PHASE
4/C	FOUR–CONDUCTOR
4W	FOUR–WIRE
A/C UNIT	AIR CONDITIONING UNIT
A/E	ARCHITECT/ENGINEER
AAP	ALARM ANNUNCIATOR PANEL
AC	ALTERNATING CURRENT OR ARMORED CABLE
ACC	ACCESSIBLE
ADDL	ADDITIONAL
ADJ	ADJACENT, ADJOINING
ADO	AUTOMATIC DOOR OPENER
AF	AMPERE FRAME OR AMP FUSE
AFC	ABOVE FINISHED COUNTER, AUTOMATIC FREQUENCY CONTROL, OR AVAILABLE FAULT CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AH	AMPERE HOUR
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPTING CAPACITY
ALT	ALTERNATE
AMB OR A	AMBIENT
AMP	AMPERE
ARCH	ARCHITECT
ASC	AMPS SHORT CIRCUIT
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AV	AUDIO VISUAL
BAT	BATTERY
BC	BARE COPPER
BD	BOARD
BFF	BELOW FINISH FLOOR
BIL	BASIC INSULATION LEVEL

Department of Veterans Affairs

DETAIL TITLE / ELECTRICAL ABBREVIATIONS

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260511–01.DWG

ELECTRICAL ABBREVIATIONS

BLDG	BUILDING
BPIP	BOILER PLANT INSTRUMENTATION PANEL
BRKR	BREAKER
BYP	BY PASS
C	CONDUIT
CAB	CABINET
CALC	CALCULATE
CAP	CAPACITY
CAT	CATALOG
CATV	COMMUNITY ANTENNA TELEVISION
CCR	CONTROL CONTACTOR
CCTV	CLOSED CIRCUIT TELEVISION
cd	CANDELA
CD	CONSTRUCTION DOCUMENTS
CF	CONTRACTOR FURNISHED
CF/CI	CONTRACTOR FURNISHED/CONTRACTOR INSTALLED
CF/OI	CONTRACTOR FURNISHED/OWNER INSTALLED
CFE	CONTRACTOR FURNISHED EQUIPMENT
CHW	CHILLED WATER
CHWP	CHILLED WATER PUMP
CKT	CIRCUIT
CKT BRKR	CIRCUIT BREAKER
CLF	CURRENT LIMITING FUSE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
COAX	COAX CABLE
COMM	COMMUNICATION
COMPT	COMPARTMENT
CONC	CONCRETE
CONT	CONTINUE
CONTR	CONTRACTOR
COORD	COORDINATE
CPT	CONTROL POWER TRANSFORMER
CRI	COLOR RENDERING INDEX
CT	CURRENT TRANSFORMER
CTV	CABLE TELEVISION
CU	COPPER
CU FT	CUBIC FEET

Department of Veterans Affairs

DETAIL TITLE / ELECTRICAL ABBREVIATIONS

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260511-02.DWG

ELECTRICAL ABBREVIATIONS

CUR	CURRENT
dB	DECIBEL
DC	DIRECT CURRENT
DCP	DIMMER CONTROL PANEL
DEG C	DEGREES CELSIUS
DEG F	DEGREES FAHRENHEIT
DEMO	DEMOLITION
DIAG	DIAGRAM
DISC	DISCONNECT
DISTR	DISTRIBUTION
DISTR PNL	DISTRIBUTION PANEL
DMR SW	DIMMER SWITCH
DN	DOWN
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
DRSW	DOOR SWITCH
DS	DISCONNECT SWITCH
DWG	DRAWING
EL	ELEVATION
ELEC	ELECTRIC OR ELECTRICAL
ELEV	ELEVATOR
EMCP	EMERGENCY MONITORING CONTROL PANEL
EMER	EMERGENCY
EMI	ELECTROMAGNETIC INTERFERENCE
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EPO	EMERGENCY POWER OFF
EPRF	EXPLOSION PROOF
ESMT	EASEMENT
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EXST	EXISTING
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FABL	FIRE ALARM BELL
FABX	FIRE ALARM BOX

ELECTRICAL ABBREVIATIONS

FACP	FIRE ALARM CONTROL PANEL
FC	FOOTCANDLE
FIXT	FIXTURE
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE METALLIC CONDUIT
FLT	FLOODLIGHT
FLUOR	FLUORESCENT
FLUOR FIX	FLUORESCENT FIXTURE
FOUTT	TELEPHONE FLOOR OUTLET
FP	FIRE PROTECTION
FT	FEET OR FOOT
FU SW	FUSED SWITCH
FVNR	FULL VOLTAGE NON-REVERSING
FVR	FULL VOLTAGE REVERSING
G	ELECTRICAL GROUND
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GTB	GROUND TERMINAL BOX
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HT	HEIGHT
Hz	HERTZ
IESNA	ILLUMINATION ENGINEERING SOCIETY OF NORTH AMERICA
IMC	INTERMEDIATE METAL CONDUIT
INCAND	INCANDESCENT
IR	INFRARED
IWH	INSTANTANEOUS WATER HEATER
J-BOX	JUNCTION BOX
kV	KILOVOLT
kVA	KILOVOLT AMPERE
kVAH	KILOVOLT AMPERE PER HOUR
kVAR	KILOVOLT AMPERE REACTIVE
kW	KILOWATT

Department of Veterans Affairs

DETAIL TITLE / ELECTRICAL ABBREVIATIONS

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260511-04.DWG

ELECTRICAL ABBREVIATIONS

kWH	KILOWATT HOUR
kWhM	KILOWATT HOUR METER
LED	LIGHT EMITTING DIODE
LF	LINEAR FEET (FOOT)
LM	LUMEN
LP	LIGHT POLE
LPS	LOW PRESSURE SODIUM
LRA	LOCKED ROTOR AMPS
LT	LIGHT
LTG	LIGHTING
LTG PNL	LIGHTING PANEL
LTNG	LIGHTNING
LV	LOW VOLTAGE
MATV	MASTER ANTENNA TELEVISION SYSTEM
MAX	MAXIMUM
MC	METAL-CLAD
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MG	MOTOR GENERATOR
MH	MANHOLE
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
MLO	MAIN LUGS ONLY
MT	MOUNT
MTD	MOUNTED
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
MVA	MEGAVOLT-AMPERE
MW	MEGAWATT
NA	NOT APPLICABLE
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

Department of Veterans Affairs

DETAIL TITLE / ELECTRICAL ABBREVIATIONS

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260511-05.DWG

ELECTRICAL ABBREVIATIONS

NEUT OR N	NEUTRAL
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NS	NO SCALE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OL	OVERLOAD
P	POLE
PA	PUBLIC ADDRESS
PB	PULL BOX
PBPU	PREFABRICATED BEDSIDE PATIENT UNIT
PCB	POLYCHLORINATED BIPHENYL
PEC	PHOTOELECTRIC CELL
PED	PEDESTAL
PEND	PENDANT
PF	POWER FACTOR
PH	PHASE
PNL	PANEL
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE (PLASTIC)
PWR	POWER
RCP	REFLECTED CEILING PLAN
REC	RECESSED
RECPT	RECEPTACLE
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RMS	ROOT MEAN SQUARE
REQD	REQUIRED
SCC	SHORT CIRCUIT CAPACITY
SES	SERVICE ENTRANCE SECTION
SD	SMOKE DETECTOR
SF	SQUARE FOOT (FEET)

Department of Veterans Affairs

DETAIL TITLE / ELECTRICAL ABBREVIATIONS

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260511-06.DWG

ELECTRICAL ABBREVIATIONS

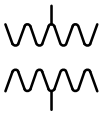
SHT	SHEET
SI	INTERNATIONAL SYSTEM OF UNITS
SPEC	SPECIFICATION
SPST	SINGLE POLE, SINGLE THROW
SURF	SURFACE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TEL	TELEPHONE
TP	TWISTED PAIR
TPS	TWISTED PAIR SHIELDED
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TYP	TYPICAL
UFD	UNDERFLOOR DUCT
UGND	UNDERGROUND
UL	UNDERWRITERS LABORATORY
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTIL	UTILITY
V	VOLT
VA	VOLT AMPERE
VAR	VOLT AMPERE REACTIVE
VFD	VARIABLE FREQUENCY DRIVE
VOLT	VOLTAGE
W	WATT
WH	WATER HEATER
WP	WEATHERPROOF
XFER	TRANSFER
XFMR	TRANSFORMER

ELECTRICAL SYMBOLS - DIAGRAM

DELTA CONNECTION

MOTOR, SINGLE-PHASE

MOTOR, THREE-PHASE

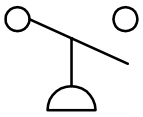

TRANSFORMER

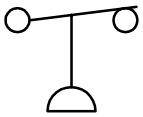
WYE CONNECTION

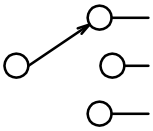
EARTH GROUND

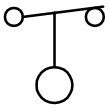
JUNCTION BOX

PULL BOX


PRESSURE SWITCH-CLOSE ON INCREASE

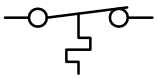

PRESSURE SWITCH-OPEN ON INCREASE

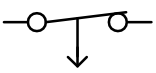

SWITCH, MULTIPOSITION

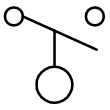

SWITCH, NORMALLY CLOSED FLOAT

SWITCH, NORMALLY CLOSED FOOT OPERATED

SWITCH, NORMALLY CLOSED LIMIT


SWITCH, NORMALLY CLOSED TEMPERATURE ACTIVATED


SWITCH, NORMALLY CLOSED TIME DELAY


SWITCH, NORMALLY OPEN FLOAT

Department of Veterans Affairs

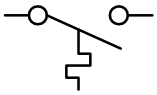
DETAIL TITLE / ELECTRICAL SYMBOLS - DIAGRAM

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260511-08.DWG

ELECTRICAL SYMBOLS - DIAGRAM

SWITCH, NORMALLY OPEN LIMIT

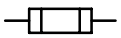

SWITCH, NORMALLY OPEN TEMPERATURE ACTIVATED

SWITCH, NORMALLY OPEN TIME DELAY

SWITCH, SINGLE BREAK

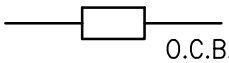
NORMALLY CLOSED RELAY CONTACT

NORMALLY OPEN RELAY CONTACT

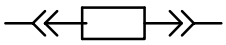

FUSE WITH RATING

MOLDED CASE CIRCUIT BREAKER

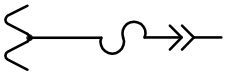
LOW-VOLTAGE DRAWOUT AIR CIRCUIT BREAKER



MEDIUM-VOLTAGE OIL CIRCUIT BREAKER


MEDIUM-VOLTAGE DRAWOUT AIR CIRCUIT BREAKER

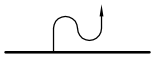
SWITCH AND FUSE UNIT


FUSED DRAWOUT POTENTIAL TRANSFORMER

RELAY; NUMBER INDICATES RELAY TYPE
50 = INSTANTANEOUS OVERCURRENT OR RATE-OF-RISE
51 = AC-TIME OVERCURRENT
67 = AC-DIRECTIONAL OVERCURRENT
86 = LOCK OUT

DISCONNECT SWITCH, FUSED

DISCONNECT SWITCH, UNFUSED


FUSIBLE LINK

STARTER, COMBINATION WITH DISCONNECT SWITCH

STARTER OR MOTOR CONTROLLER

Department of Veterans Affairs

DETAIL TITLE / ELECTRICAL SYMBOLS - DIAGRAM

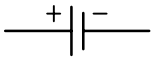
SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260511-09.DWG

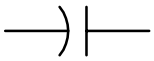
ELECTRICAL SYMBOLS - DIAGRAM

VARIABLE FREQUENCY DRIVE

GENERATOR, POWER



BATTERY

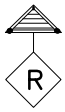


CAPACITOR

POTHEAD

STRESS CONE

LIGHTNING ARRESTOR



RECTIFIER, CATHODIC PROTECTION

AMMETER

VOLTMETER

WATTMETER

WATT-HOUR METER

Department of Veterans Affairs

DETAIL TITLE / ELECTRICAL SYMBOLS - DIAGRAM

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260511-10.DWG

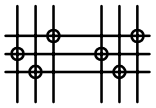
ELECTRICAL SYMBOLS - POWER PLAN

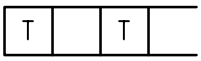
MOTOR, SINGLE-PHASE

MOTOR, THREE-PHASE

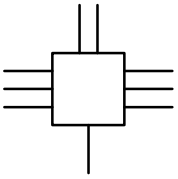
TRANSFORMER, PLAN

WYE CONNECTION


DUCT, CELL FLOOR HEADER

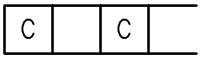


DUCT, TROLLEY


DUCT, UNDERFLOOR JUNCTION BOX

EARTH GROUND

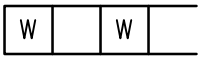
JUNCTION BOX



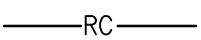
LADDER CABLE TRAY

BRANCH CIRCUIT HOMERUN. LINES INDICATE NUMBER OF CIRCUITS, NEUTRAL, AND SWITCH LEG CONDUCTORS. ONE SEPARATE GREEN GROUNDING CONDUCTOR SHALL BE PROVIDED FOR EACH HOMERUN; NOT SHOWN

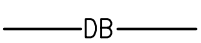
PULL BOX



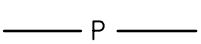
WIREWAY



RIGID CONDUIT LINE = RC



DIRECT BURIAL CABLE = DB



POWER DUCT = P

SUBSTATION

Department of Veterans Affairs

DETAIL TITLE / ELECTRICAL SYMBOLS - POWER PLAN

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260511-11.DWG

ELECTRICAL SYMBOLS - POWER PLAN

HVS	HI VOLTAGE SWITCH ON CONCRETE PAD
LVS	LOW VOLTAGE SWITCH ON CONCRETE PAD
P T	DUAL POWER AND TELECOMMUNICATIONS MANHOLE
B B	BUSWAY
	FLOOR OUTLET, DATA COMMUNICATION
D	OUTLET, DATA COMMUNICATION
	PUSH BUTTON
DP#__	DISTRIBUTION PANEL
LP	LIGHTING PANEL
	PANELBOARD CABINET, FLUSH MOUNTED
	PANELBOARD CABINET, SURFACE MOUNTED
C	RECEPTACLE, CLOCK HANGER
	RECEPTACLE, DUPLEX
	RECEPTACLE, DUPLEX ON EMERGENCY POWER
	RECEPTACLE, DUPLEX WITH GROUND FAULT CIRCUIT INTERRUPTER
	RECEPTACLE, QUADRAPLEX
	RECEPTACLE, SINGLE
S	RECEPTACLE, SINGLE WITH SWITCH
	RECEPTACLE, SPECIAL PURPOSE

Department of Veterans Affairs

DETAIL TITLE / ELECTRICAL SYMBOLS - POWER PLAN

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260511-12.DWG

ELECTRICAL SYMBOLS - POWER PLAN

RECEPTACLE, SPECIAL PURPOSE
A = 120V, 20A, 1 PHASE, 2-POLE, 3W, NEMA 5-20R.
B = 208V, 20A, 1 PHASE, 2-POLE, 3W, NEMA 6-20R.
C = 120V, 30A, 1 PHASE, 2-POLE, 3W, NEMA 5-30R.
D = 208V, 30A, 1 PHASE, 2-POLE, 3W, NEMA 6-30R.
E = 208V, 60A, 1 PHASE, 3-POLE, 4W, NEMA 14-60R.
F = 208V, 30A, 3 PHASE, 3-POLE 4W, NEMA 15-30R.
G = 208V, 50A, 3 PHASE, 3 POLE, 4W, NEMA 15-30R.
H = 208V, 60A, 3 PHASE, 3 POLE, 4W, NEMA 15-60R.

RECEPTACLE, SWITCHED DUPLEX

DROP CORD, SINGLE CONVENIENCE OUTLET, 3-WIRE, GROUNDING TYPE, 20A, W/#12 CONDUCTORS IN FLEXIBLE CORD ((CENTER LINE OF OUTLET: 1981mm (6'-6") AFF. MINIMUM)).

ELECTRICAL STRIP MOLD ((OUTLETS ON 610mm (2'-0") CENTERS OR AS DESIGNATED ON DRAWINGS)), MTD 1067mm (3'-6") AFF OR AS INDICATED.

3-GANG COMPARTMENT BOX IN FLOOR FOR TELEPHONE, DATA & RECEPTACLE.

Department of Veterans Affairs

DETAIL TITLE / ELECTRICAL SYMBOLS - POWER PLAN

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260511-13.DWG

ELECTRICAL SYMBOLS - POWER PLAN

DISCONNECT SWITCH, FUSED

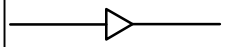
DISCONNECT SWITCH, UNFUSED

STARTER, COMBINATION WITH DISCONNECT SWITCH

STARTER OR MOTOR CONTROLLER

VARIABLE FREQUENCY DRIVE

TIME CLOCK


POTHEAD

STRESS CONE

RECTIFIER, CATHODIC PROTECTION SANITARY

VENTILATOR OR FAN COIL UNIT OUTLET

CONDUIT TERMINATED 152mm (6") AFF IN STANDARD BOX FOR EXTENSION TO EQUIPMENT AS DIRECTED.

CONDUIT TERMINATED W/COUPLING (FLUSH W/FINISHED FLOOR) FOR EXTENSION TO EQUIPMENT AS DIRECTED.

$# SWITCH (# SUBSCRIPT AS INDICATED BELOW):

M = MANUAL MOTOR STARTING	K = KEY OPERATED
MP= MOTOR SNAP WITH PILOT LIGHT (THERMAL TYPE)	LM= LOW VOLTAGE MASTER
	MC= MOMENTARY CONTACT
WP= WEATHER PROOF	P = WITH PILOT LIGHT

Department of Veterans Affairs

DETAIL TITLE / ELECTRICAL SYMBOLS - POWER PLAN

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260511-14.DWG

ELECTRICAL SYMBOLS - LIGHTING PLAN

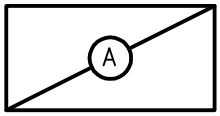
SWITCH, CEILING MOUNTED PULL

$\$_{\#}$

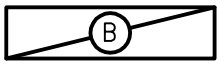
SWITCH (# SUBSCRIPT AS INDICATED BELOW):

BLANK = SINGLE POLE	2 = DOUBLE POLE
3 = THREE-WAY	4 = FOUR-WAY
D = DIMMER	K = KEY OPERATED
LV= LOW VOLTAGE	P = WITH PILOT LIGHT
LM= LOW VOLTAGE MASTER	RC= REMOTE CONTROL
PB= PUSH BUTTON STATION	WP= WEATHER PROOF
T = TIMER OPERATED	Mo= OCCUPANCY SENSOR

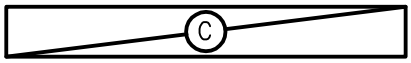
RECESSED DOWNLIGHT FIXTURE, LETTER INDICATES TYPE.



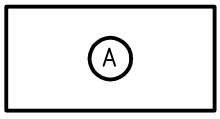
LIGHT FIXTURE, RECESSED FLUORESCENT, 610x1220mm (2'x4'); LETTER INDICATES TYPE.



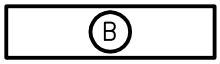
LIGHT FIXTURE, RECESSED FLUORESCENT, 305x1220mm (1'x4'); LETTER INDICATES TYPE.



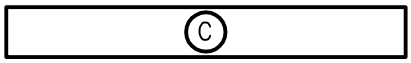
LIGHT FIXTURE, RECESSED FLUORESCENT, 305x2439mm (1'x8'); LETTER INDICATES TYPE.



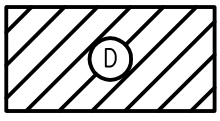
LIGHT FIXTURE, SURFACE MOUNTED FLUORESCENT, 610x1220mm (2'x4'); LETTER INDICATES TYPE.



LIGHT FIXTURE, SURFACE MOUNTED FLUORESCENT, 305x1220mm (1'x4'); LETTER INDICATES TYPE.



LIGHT FIXTURE, SURFACE MOUNTED FLUORESCENT, 305x2439mm (1'x8'); LETTER INDICATES TYPE.



LIGHT FIXTURE, FLUORESCENT EMERGENCY; LETTER INDICATES TYPE.

LIGHT FIXTURE, RECESSED FLUORESCENT, 610x610mm (2'x2'); LETTER INDICATES TYPE.

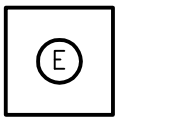
Department of Veterans Affairs

DETAIL TITLE / ELECTRICAL SYMBOLS - LIGHTING PLAN

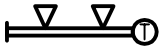
SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260511-15.DWG

ELECTRICAL SYMBOLS - LIGHTING PLAN



LIGHT FIXTURE, SURFACE MOUNTED FLUORESCENT, 610x610mm (2'x2'); LETTER INDICATES TYPE.



LIGHT TRACK WITH HEADS AS SHOWN

LIGHT FIXTURE, STRIP/INDUSTRIAL FLUORESCENT; LETTER INDICATES TYPE.

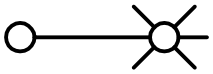
LIGHT FIXTURE, WALL MOUNTED

LIGHTING, ONE HEAD EMERGENCY BATTERY POWER

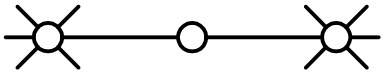
LIGHTING, TWO HEAD EMERGENCY BATTERY POWER

LIGHTING, THREE HEAD EMERGENCY BATTERY POWER

STREET LIGHT WITH BRACKET



LIGHT POLE, ONE MAST ARM, ONE LUMINAIRE



LIGHT POLE, TWO MAST ARMS, TWO LUMINAIRES

LIGHT POLE, POST TOP MOUNT LUMINAIRE

LIGHT POLE, ONE LUMINAIRE

LIGHT POLE, TWO LUMINAIRES

LIGHTING WALL PACK – EXTERIOR BUILDING

FLOOD LIGHT – EXTERIOR BUILDING

EXIT SIGN, WALL MOUNTED WITH DIRECTIONAL ARROWS AND FACES AS SHOWN

EXIT SIGN, CEILING MOUNTED WITH DIRECTIONAL ARROWS AND FACES AS SHOWN

LIGHT FIXTURE, BOLLARD

LIGHT FIXTURE, DIRECTIONAL

Department of Veterans Affairs

DETAIL TITLE / ELECTRICAL SYMBOLS – LIGHTING PLAN

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260511-16.DWG

GENERAL NOTES

A. ALL FINAL LOCATIONS AND ARRANGEMENTS OF LIGHTING FIXTURES SHALL BE OBTAINED FROM THE ARCHITECTURAL REFLECTED CEILING PLAN.

B. LIGHTING FIXTURES WITH MORE THAN TWO LAMPS SHALL HAVE TWO OUTER LAMPS CONTROLLED WITH ONE SWITCH AND INNER LAMP(S) CONTROLLED BY A SECOND SWITCH.

C. EACH BRANCH CIRCUIT HOMERUN SHALL HAVE NO MORE THAN THREE CIRCUITS. EACH BRANCH CIRCUIT HOMERUN SHALL HAVE A SEPARATE GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR.

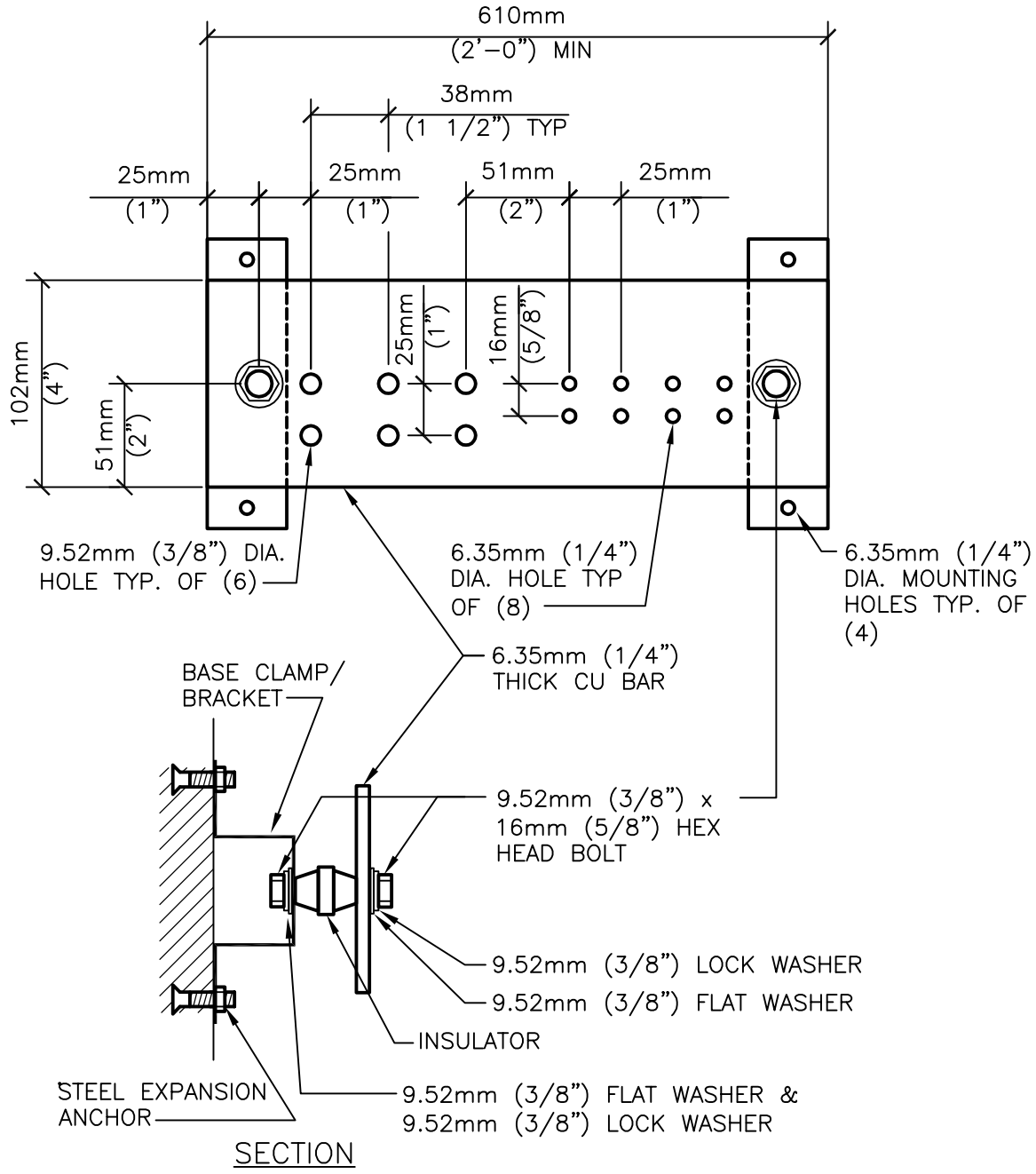
D. MULTI–GANG BACKBOXES FOR DIFFERENT VOLTAGES AND TYPES OF EMERGENCY AND NORMAL BRANCH WIRING DEVICES SHALL HAVE DIVIDERS BETWEEN DEVICES.

GENERAL NOTES - DEMOLITION

A. FOR EXISTING EQUIPMENT, SUCH AS LIGHTING FIXTURES, WIRING DEVICES, CONDUITS, ETC., SHOWN ON PLANS TO BE REMOVED, COMPLETELY CUT/CAP CONDUITS AT THE AREA OF WORK PERIMETER AND REMOVE CONDUIT WITHIN THE WORK AREA, DISCONNECT WIRING AT THE OVERCURRENT PROTECTIVE DEVICE AND REMOVE WIRING COMPLETELY FROM THE ABANDONED CONDUITS.

B. DISCONNECT ALL ABANDONED WIRING OF ALL TYPES AT THE OVERCURRENT PROTECTIVE DEVICE. COMPLETELY REMOVE ALL ABANDONED WIRING.

C. MAINTAIN AND RESTORE, IF INTERRUPTED, ALL CONDUITS AND CONDUCTORS PASSING THROUGH RENOVATED AREAS AND SERVICING UNDISTURBED AREAS.



SECTION

GENERAL NOTES:

1. ALL HARDWARE SHALL BE STAINLESS STEEL.
2. PROVIDE 1 MOUNTING POINT PER 305mm (12") OF BAR LENGTH.
3. HOLES MAY BE ADDED IF REQUIRED.

GROUNDING BAR DETAIL

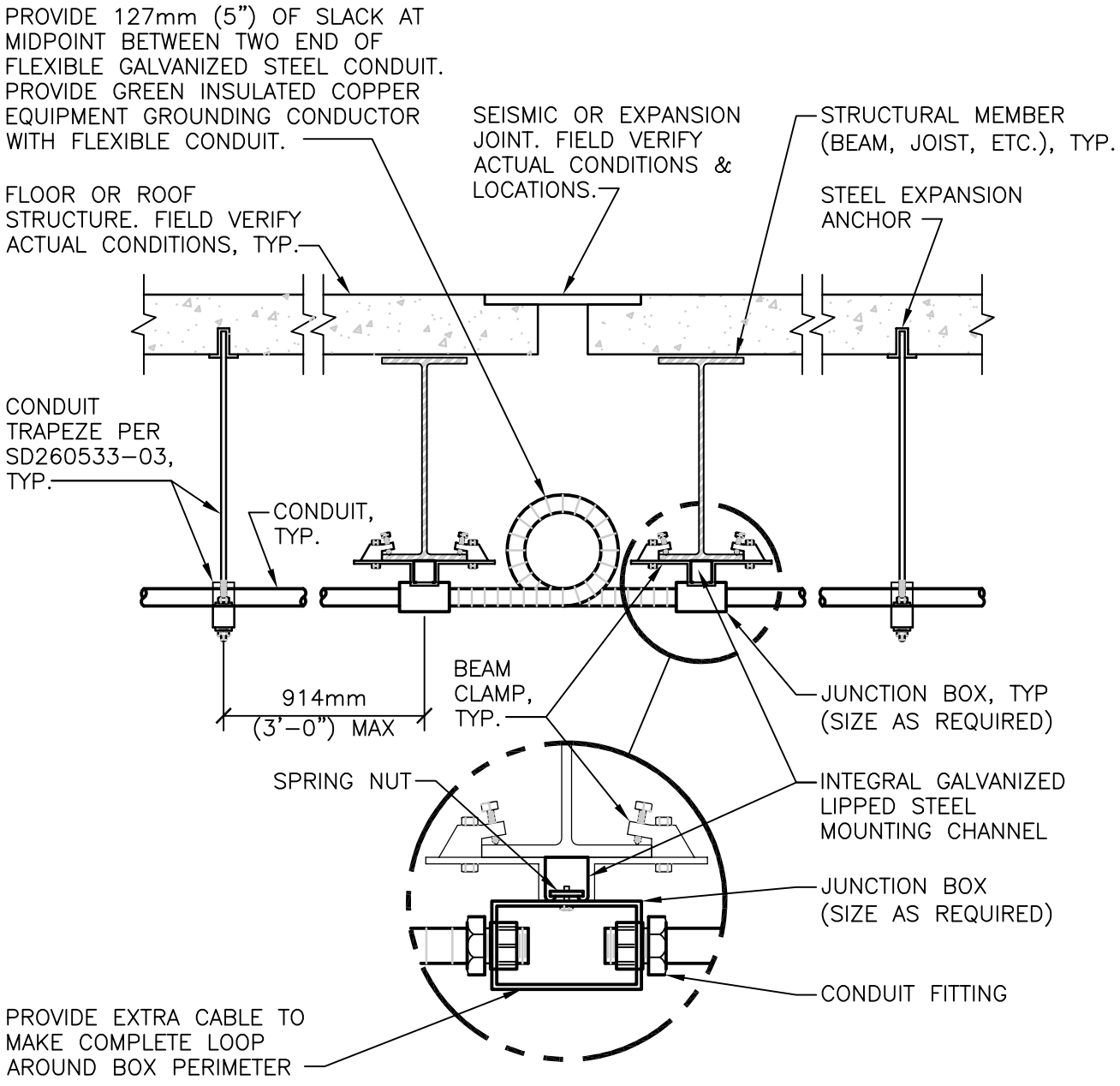
NTS

Department of Veterans Affairs

DETAIL TITLE / GROUNDING BAR DETAIL

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260526-01.DWG



GENERAL NOTE:

1. DETAIL IS APPLICABLE ONLY FOR CONDUIT SMALLER THAN 76mm (3").

CONDUIT EXPANSION JOINT CROSSING DETAIL-FLEXIBLE CONDUIT

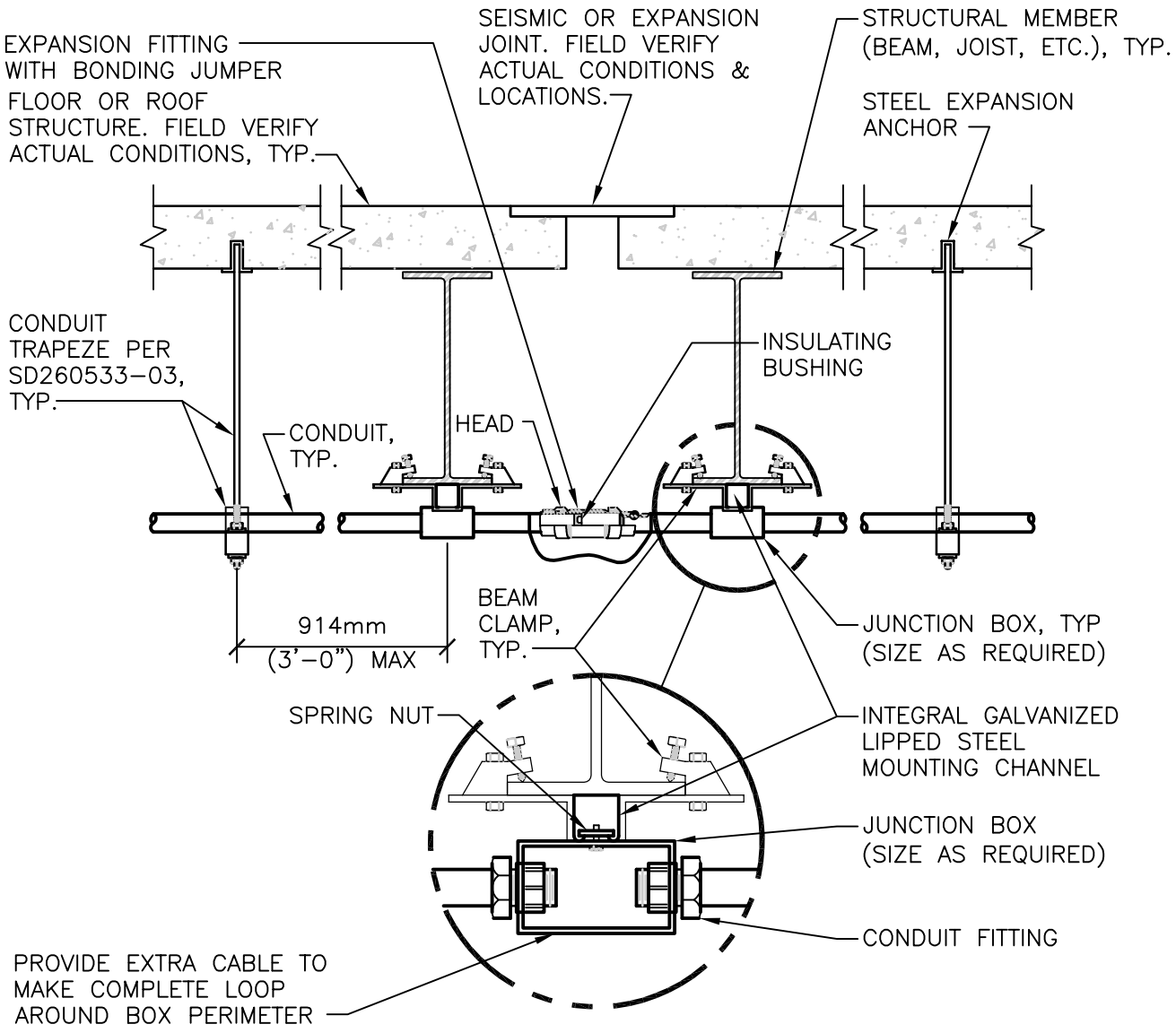
NTS

Department of Veterans Affairs

DETAIL TITLE / CONDUIT EXPANSION JOINT CROSSING DETAIL-FLEXIBLE CONDUIT

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260533-01.DWG



GENERAL NOTES:

1. INSTALLATION IS ACCEPTABLE ALTERNATE TO DETAIL SD260533-01.
2. INSTALLATION IS REQUIRED FOR CONDUIT 76mm (3") AND LARGER.

CONDUIT EXPANSION JOINT CROSSING DETAIL-EXPANSION FITTING

NTS

Department of Veterans Affairs

DETAIL TITLE / CONDUIT EXPANSION JOINT CROSSING DETAIL-EXPANSION FITTING

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260533-02.DWG

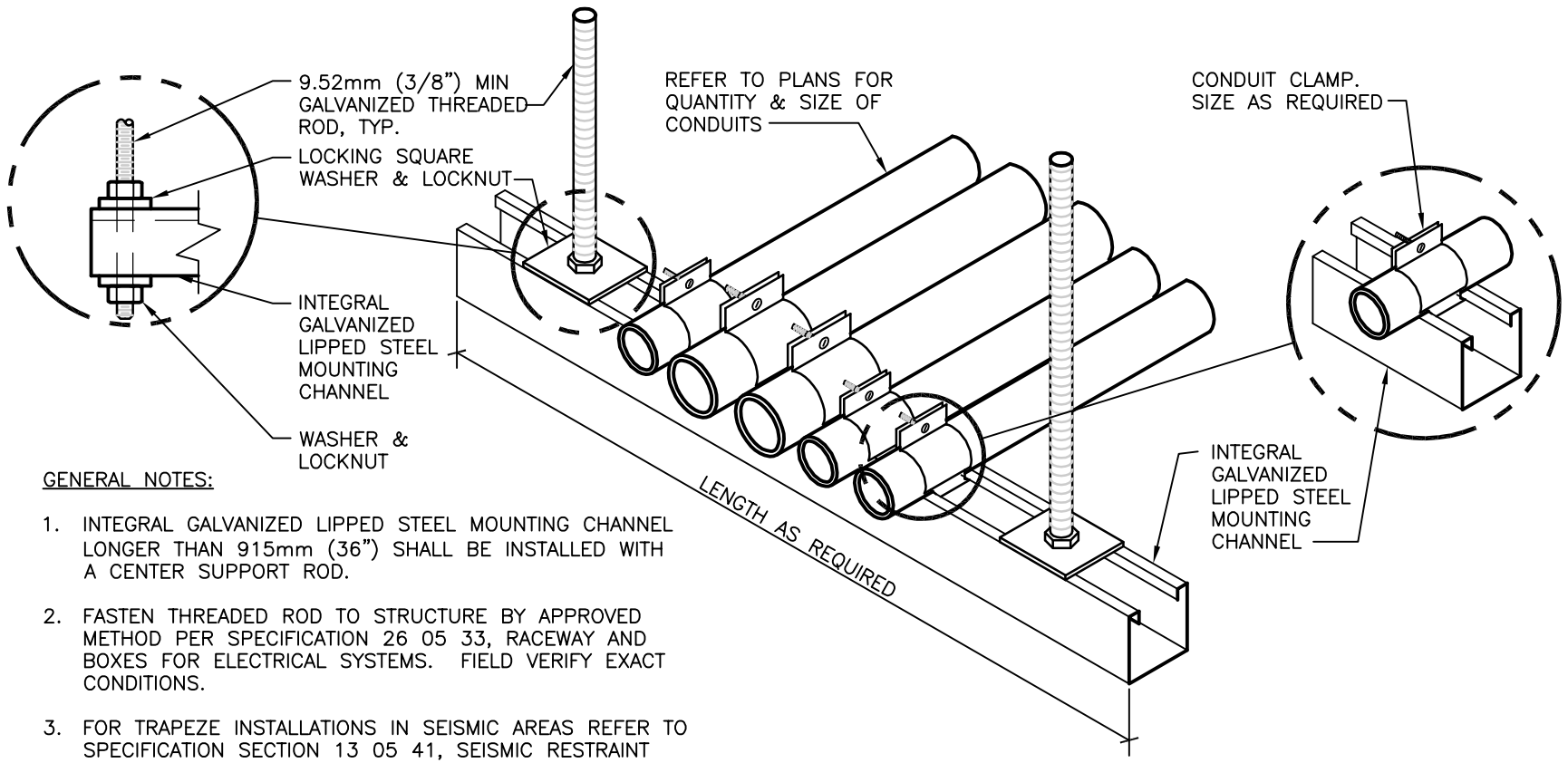
Department of Veterans Affairs

DETAIL TITLE / CONDUIT TRAPEZE MOUNTING DETAIL

SCALE :NONE

DATE ISSUED: APRIL 2014

CAD DETAIL NO.: SD260533-03.DWG

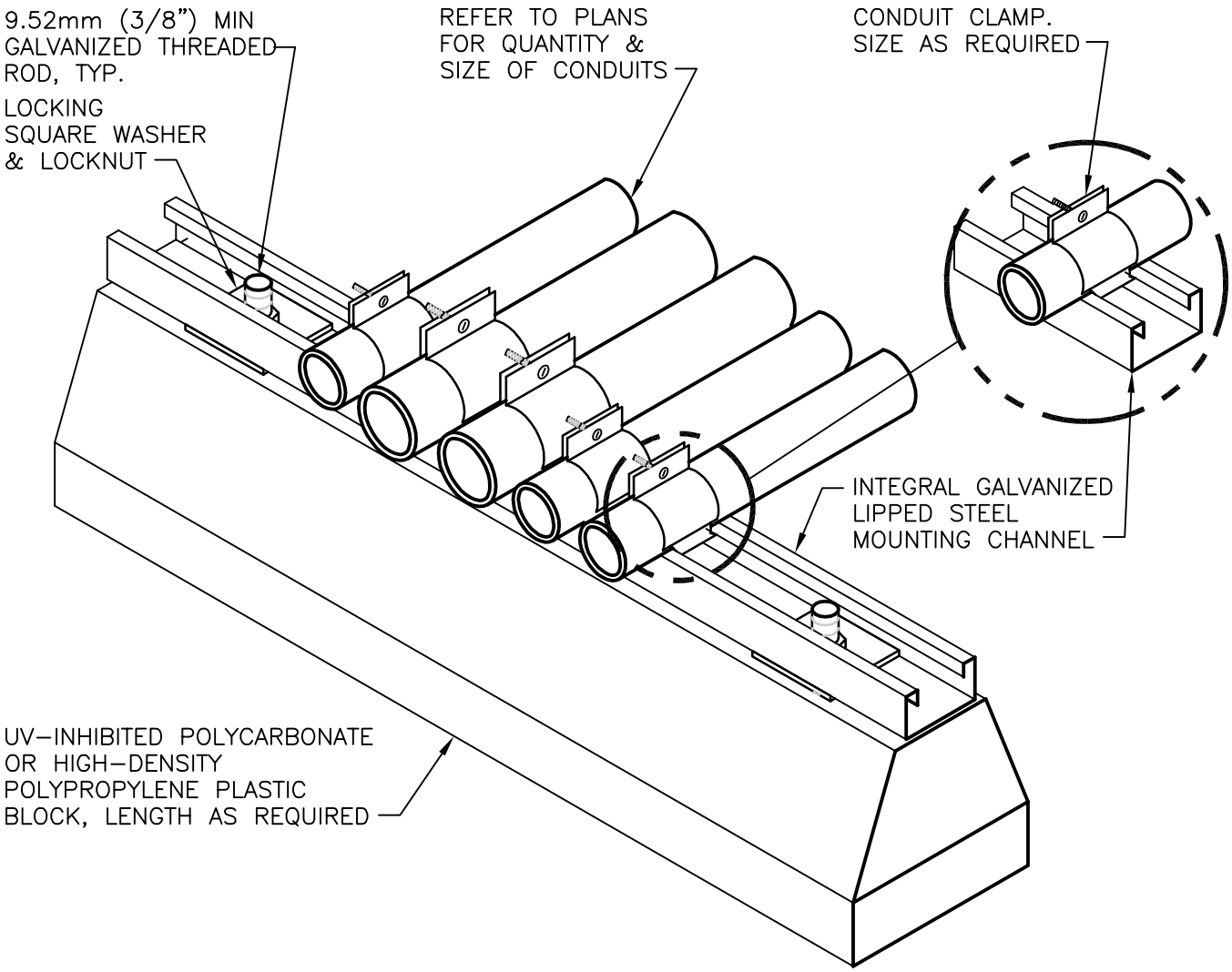


GENERAL NOTES:

1. INTEGRAL GALVANIZED LIPPED STEEL MOUNTING CHANNEL LONGER THAN 915mm (36") SHALL BE INSTALLED WITH A CENTER SUPPORT ROD.
2. FASTEN THREADED ROD TO STRUCTURE BY APPROVED METHOD PER SPECIFICATION 26 05 33, RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS. FIELD VERIFY EXACT CONDITIONS.
3. FOR TRAPEZE INSTALLATIONS IN SEISMIC AREAS REFER TO SPECIFICATION SECTION 13 05 41, SEISMIC RESTRAINT REQUIREMENTS FOR NON-STRUCTURAL COMPONENTS.

CONDUIT TRAPEZE MOUNTING DETAIL

NTS



ROOF CONDUIT SUPPORT DETAIL

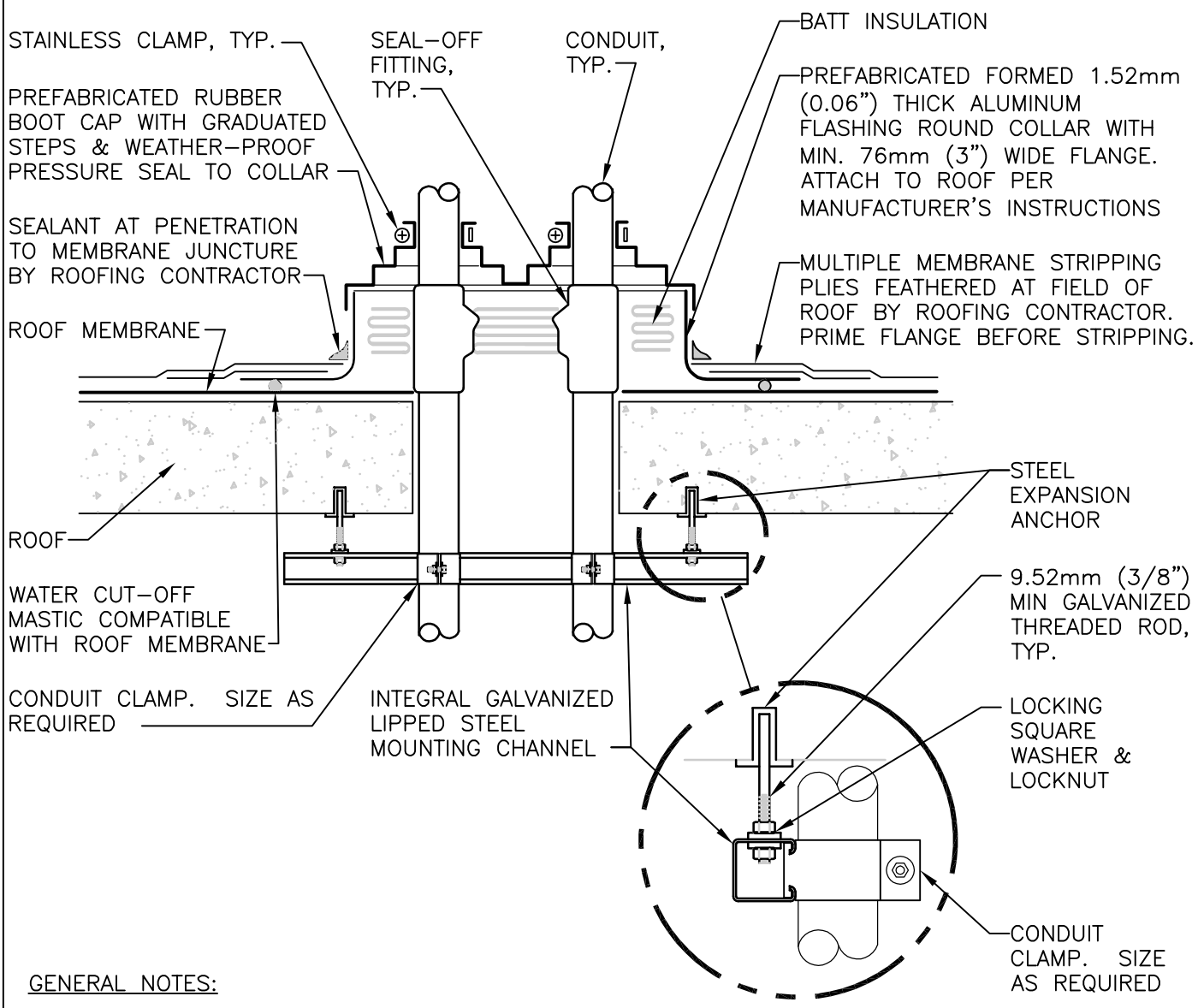
NTS

Department of Veterans Affairs

DETAIL TITLE / ROOF CONDUIT SUPPORT DETAIL

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260533-04.DWG



GENERAL NOTES:

1. MAINTAIN A MINIMUM CLEARANCE OF 305mm (12") ON ALL SIDES OF ROOF PENETRATION FROM WALLS, CURBS, AND OTHER PROJECTIONS TO FACILITATE PROPER FLASHING.
2. FLANGES OF ADJACENT FLASHINGS SHALL NOT BE CUT OR OVERLAPPED.
3. VERIFY ROOF & STRUCTURAL SYSTEM WITH ARCHITECT.
4. COORDINATE FLASHING INSTALLATION WITH ROOFING CONTRACTOR TO ENSURE PROPER METHODS & MATERIALS ARE USED TO MAINTAIN ROOF WARRANTY.

CONDUIT ROOF PENETRATION DETAIL

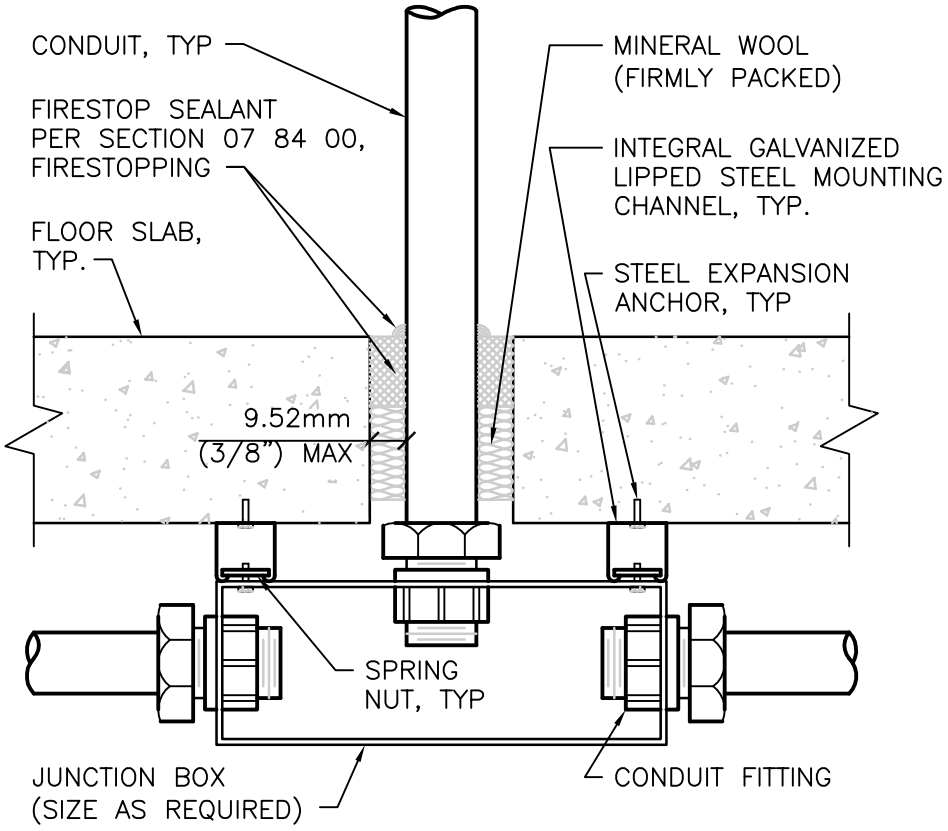
NTS

Department of Veterans Affairs

DETAIL TITLE / CONDUIT ROOF PENETRATION DETAIL

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260533-05.DWG



FLOOR SLAB PENETRATION DETAIL

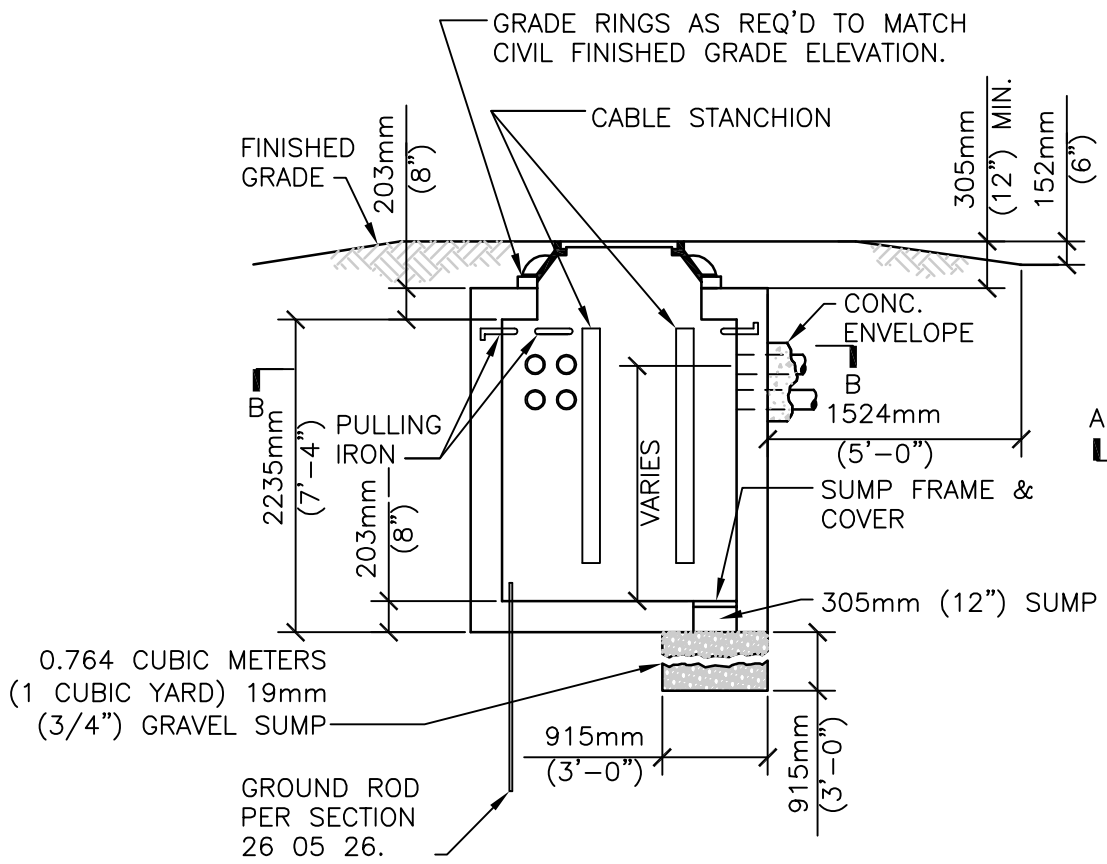
NTS

Department of Veterans Affairs

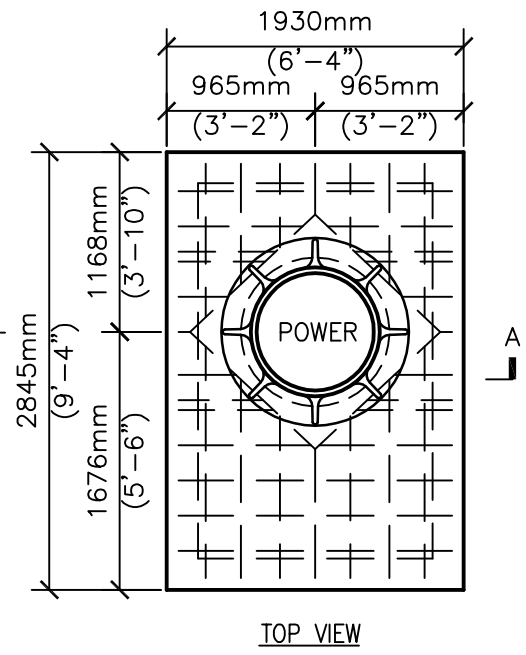
DETAIL TITLE / FLOOR SLAB PENETRATION DETAIL

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260539-01.DWG

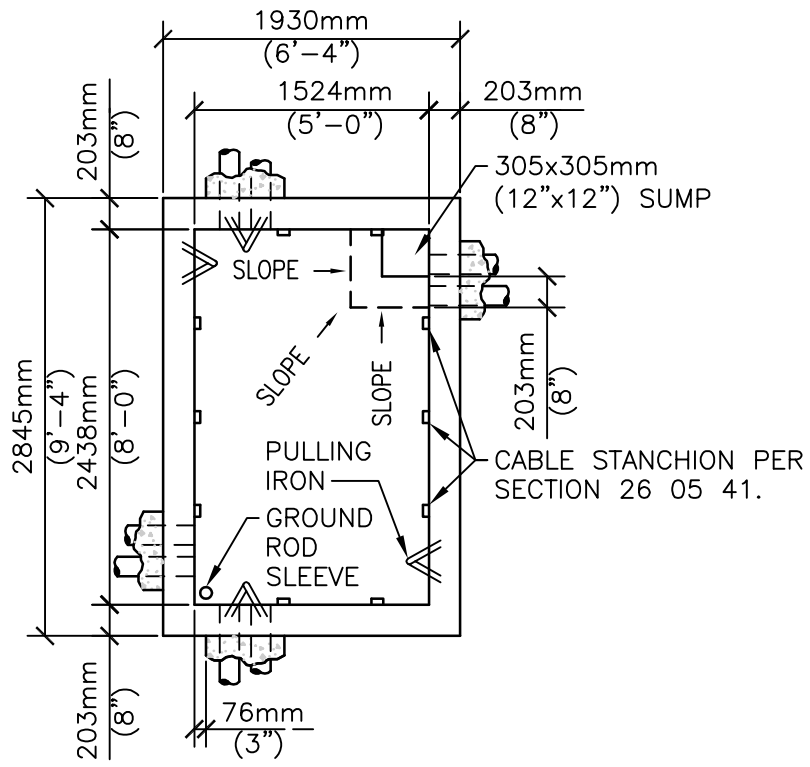


SECTION "A–A"



GENERAL NOTE:

1. INCLUDE ALUMINUM LADDER (NOT SHOWN FOR CLARITY)



SECTION "B–B"

POWER MANHOLE DETAILS

NTS

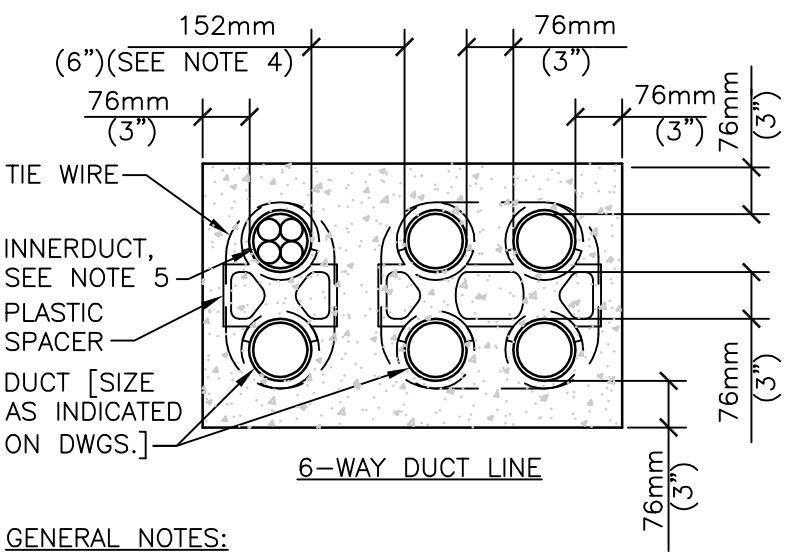
Department of Veterans Affairs

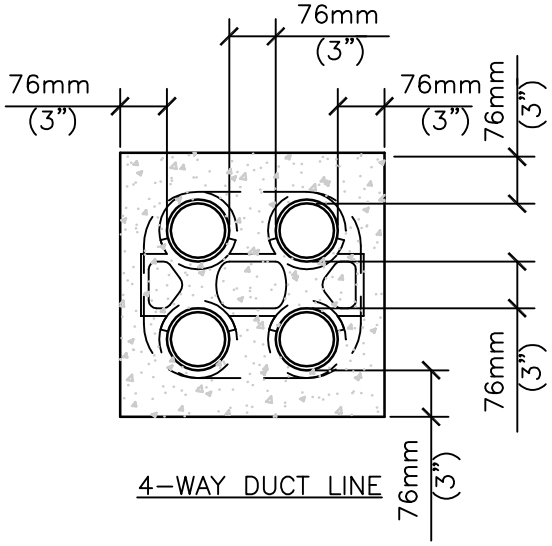
DETAIL TITLE / POWER MANHOLE DETAILS

SCALE :NONE

DATE ISSUED: APRIL 2014

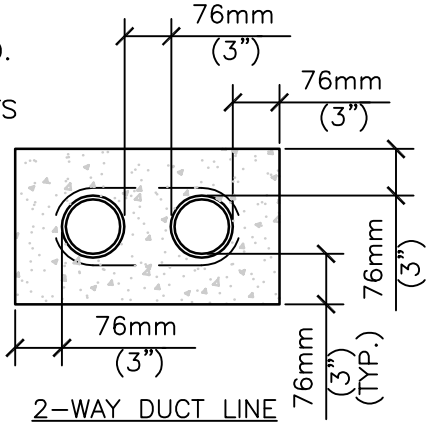
CAD DETAIL NO.: SD260541–01.DWG





GENERAL NOTES:

1. CONCRETE SHALL BE 2000 P.S.I. @ 28 DAYS, OR AS SPECIFIED.
2. PROVIDE #4 REINFORCING RODS ON TOP AND BOTTOM OF DUCTS WHEN CROSSING OR PLACED IN ROADWAYS.
3. MINIMUM COVER TO TOP OF ENVELOPE SHALL BE 610mm (24") OR AS OTHERWISE SPECIFIED IN SECTION 26 05 41.
4. PROVIDE MINIMUM 152mm (6") SPACE BETWEEN POWER AND TELECOMMUNICATION DUCTS. INCREASE SIZE AS REQUIRED.
5. INNERDUCT QUANTITY AND SIZE AS INDICATED ON PLANS.



DUCT BANK DETAILS

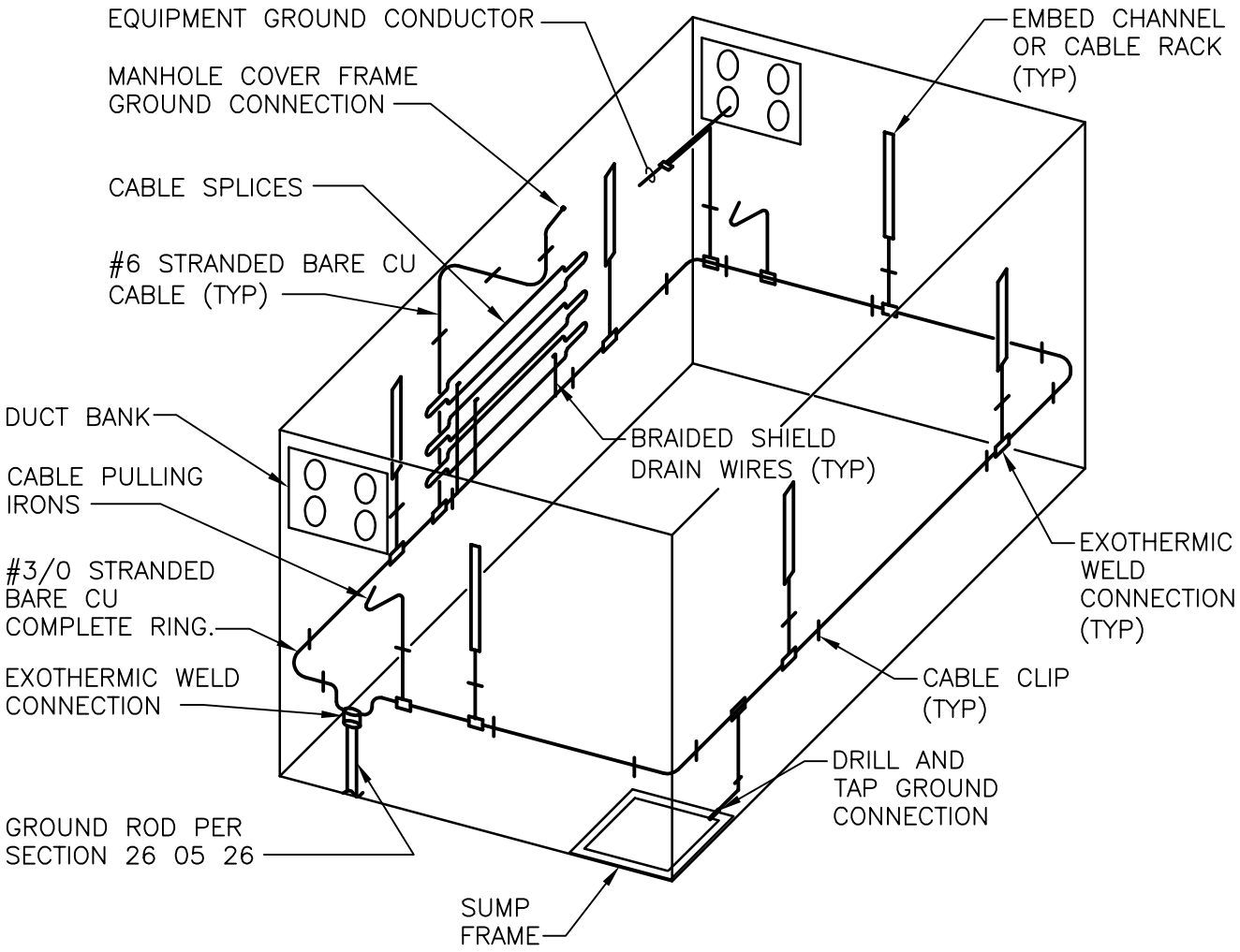
NTS

Department of Veterans Affairs

DETAIL TITLE / DUCT BANK DETAILS

SCALE: NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260541-02.DWG



MANHOLE GROUNDING DETAILS

#

NTS

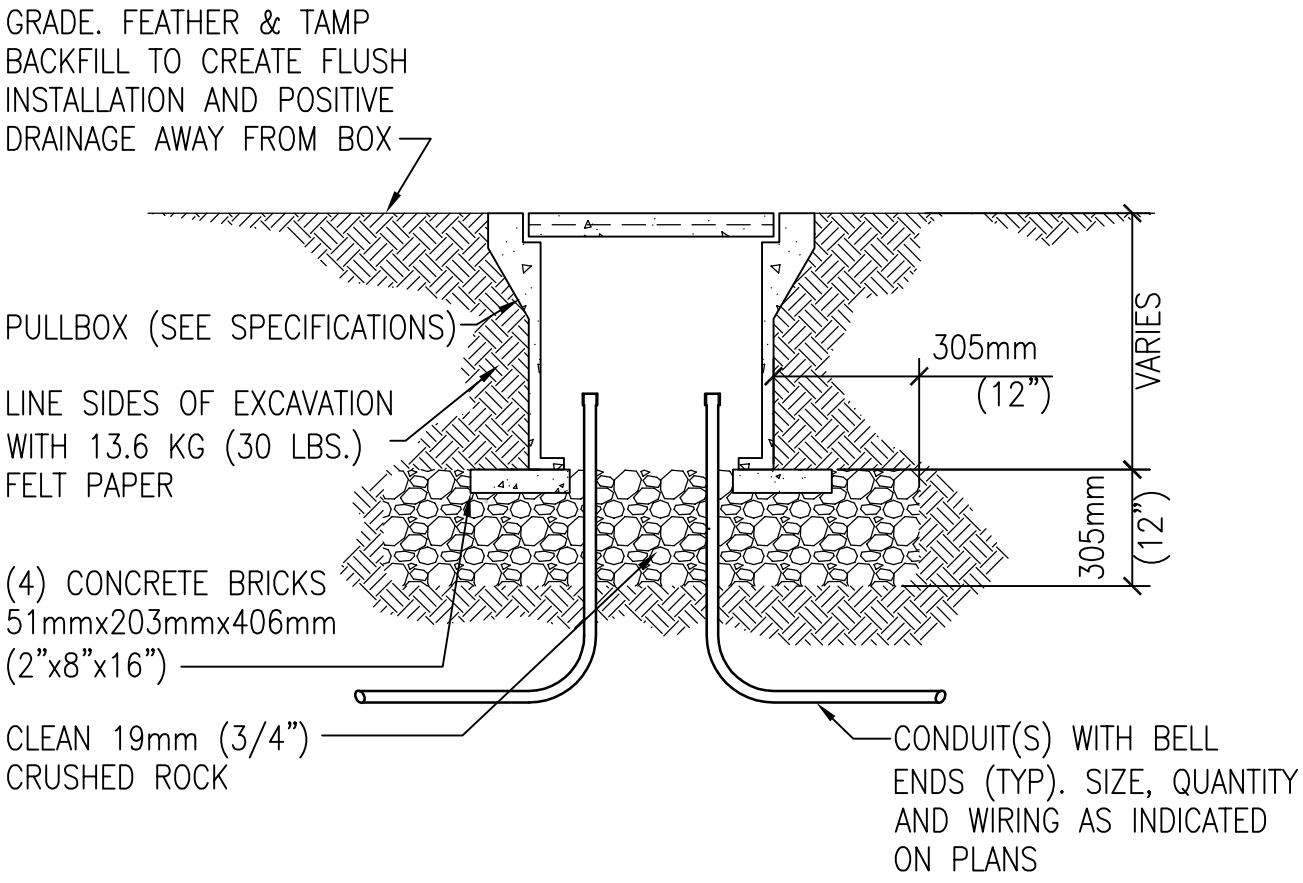
Department of Veterans Affairs

DETAIL TITLE / MANHOLE GROUNDING DETAILS

SCALE: NONE

DATE ISSUED: APRIL 2014

CAD DETAIL NO.: SD260541-03.DWG



UNDERGROUND CONCRETE PULLBOX - TURF AREAS

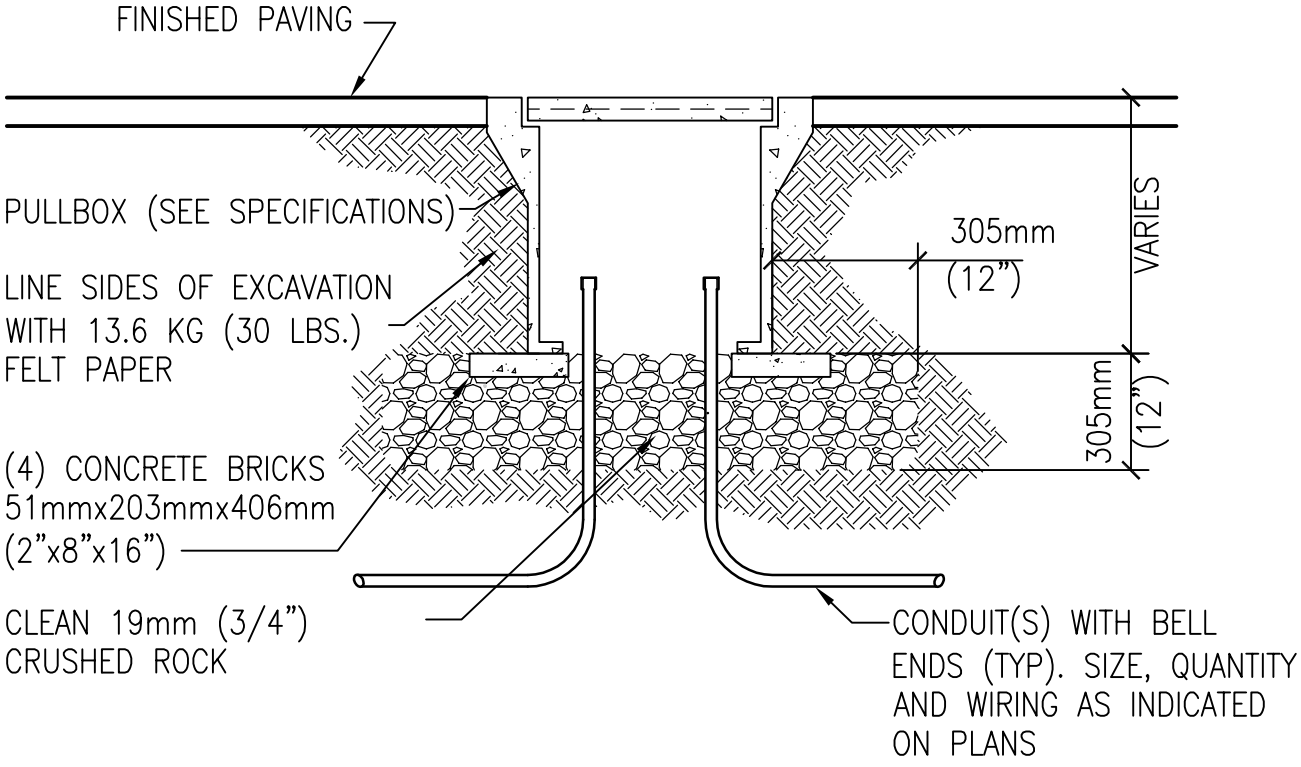
NTS

Department of Veterans Affairs

DETAIL TITLE / UNDERGROUND CONCRETE PULLBOX – TURF AREAS

SCALE: NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260541-04.DWG



UNDERGROUND CONCRETE PULLBOX - PAVED AREAS

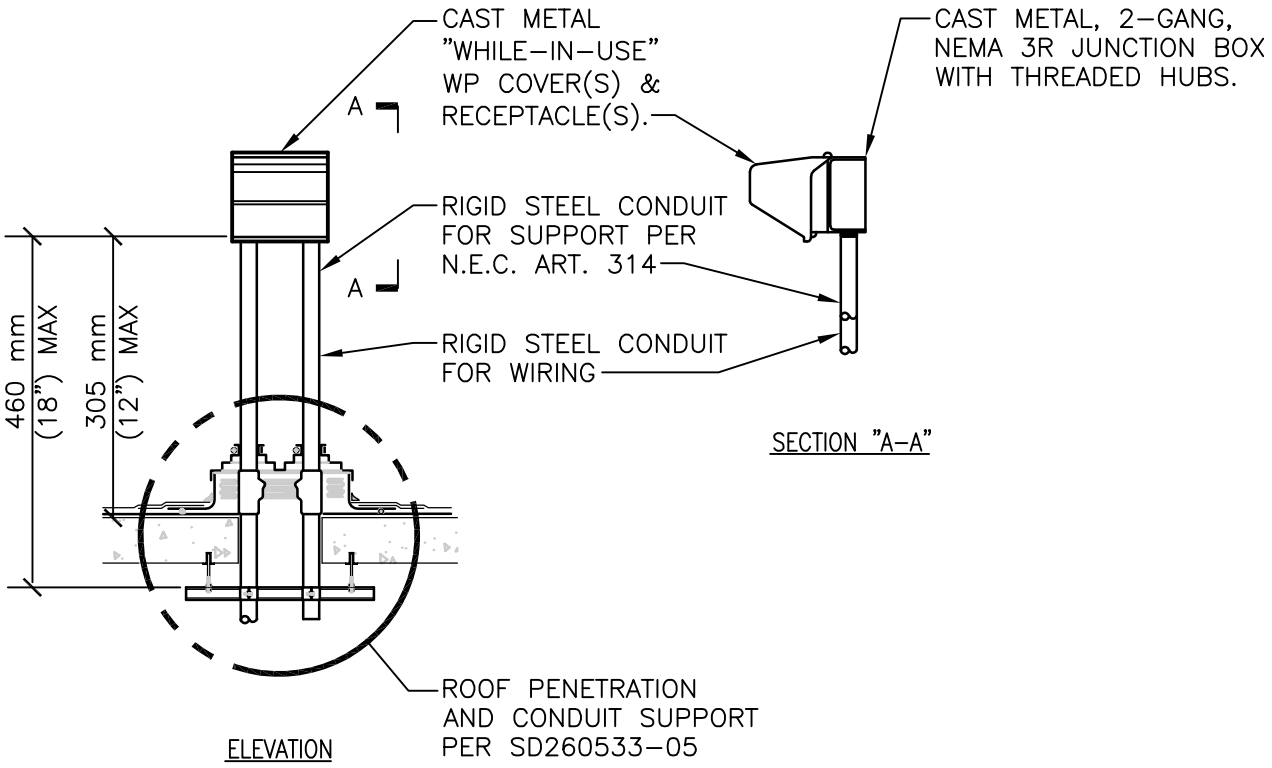
NTS

Department of Veterans Affairs

DETAIL TITLE / UNDERGROUND CONCRETE PULLBOX – PAVED AREAS

SCALE: NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD260541–05.DWG



RECEPTACLE ROOF MOUNTING DETAIL

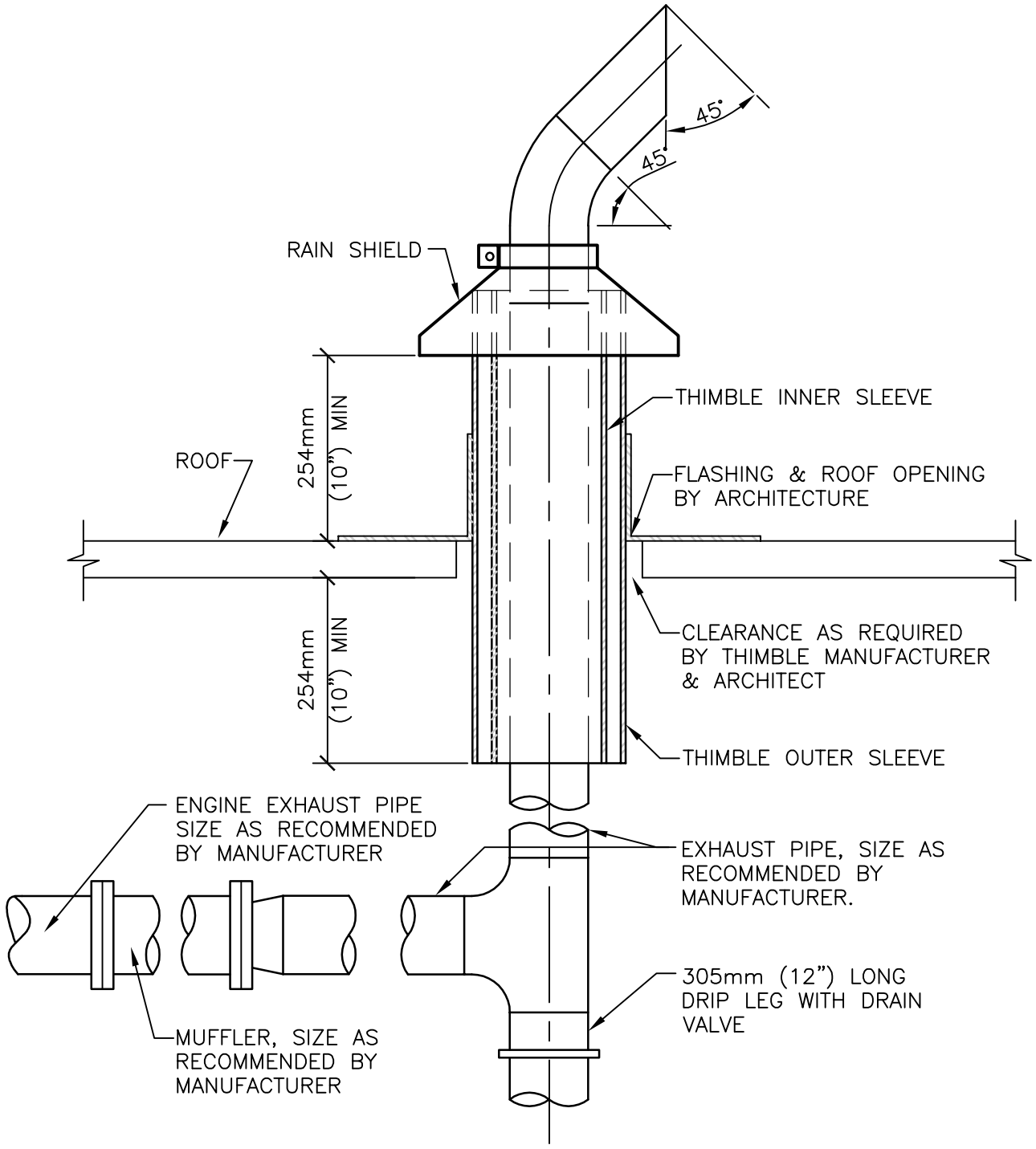
NTS

Department of Veterans Affairs

DETAIL TITLE / RECEPTACLE ROOF MOUNTING DETAIL

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD262726-01.DWG



EMERGENCY GENERATOR EXHAUST

NTS

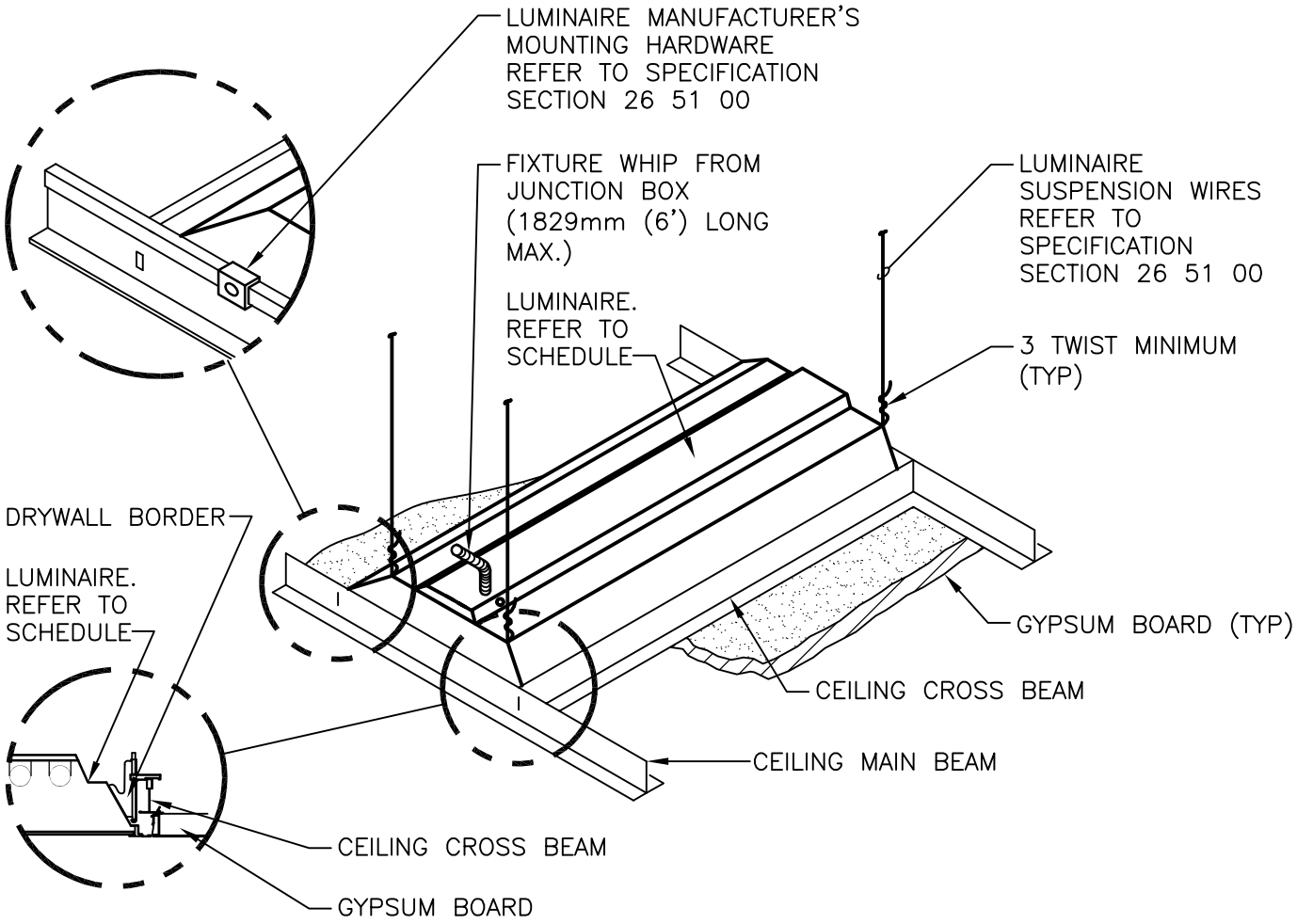
Department of Veterans Affairs

DETAIL TITLE / EMERGENCY GENERATOR EXHAUST

SCALE :NONE

DATE ISSUED :APRIL 2014

CADD DETAIL NO. : SD263213-01.DWG



GENERAL NOTE:

1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S MOUNTING INSTRUCTIONS AND USING THE RECOMMENDED MOUNTING HARDWARE.

LUMINAIRE MOUNTING - GYPBOARD CEILING

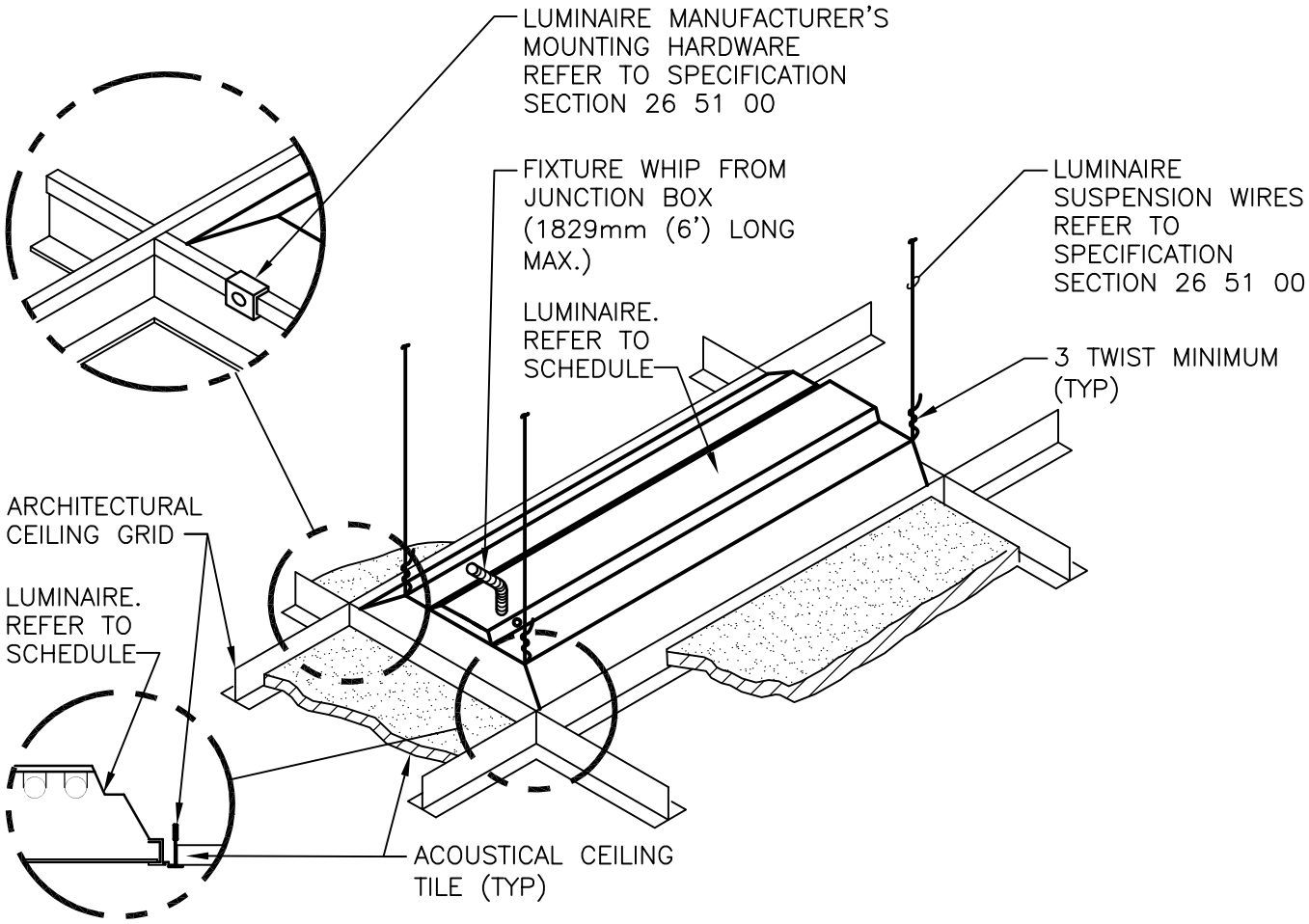
NTS

Department of Veterans Affairs

DETAIL TITLE / LUMINAIRE MOUNTING - GYPBOARD CEILING

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD265100-01.DWG



GENERAL NOTE:

1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S MOUNTING INSTRUCTIONS AND USING THE RECOMMENDED MOUNTING HARDWARE.

LUMINAIRE MOUNTING - LAY-IN CEILING

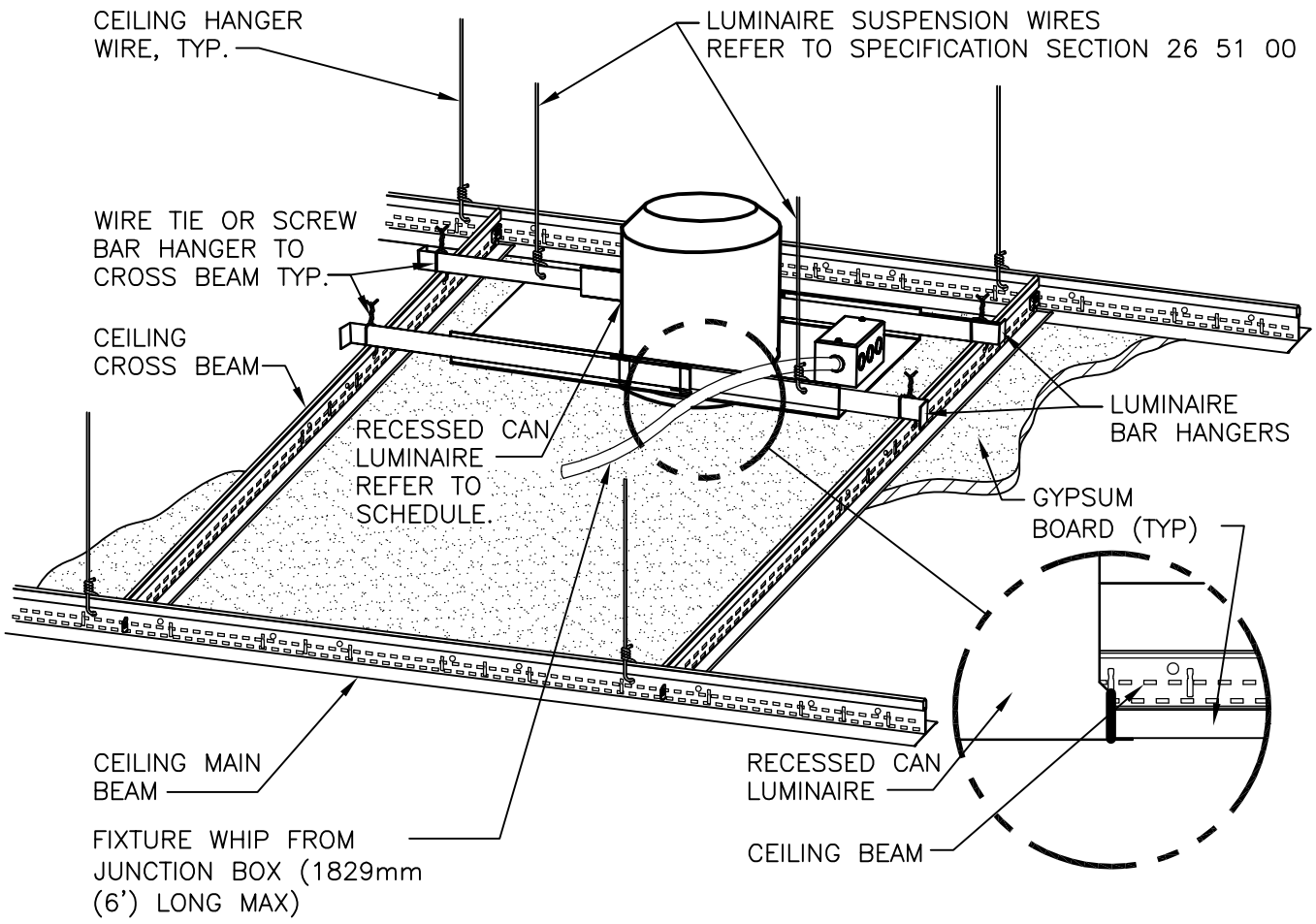
NTS

Department of Veterans Affairs

DETAIL TITLE / LUMINAIRE MOUNTING - LAY-IN CEILING

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD265100-02.DWG



GENERAL NOTE:

1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S MOUNTING INSTRUCTIONS AND USING THE RECOMMENDED MOUNTING HARDWARE.

DOWNLIGHT MOUNTING - GYPBOARD CEILING

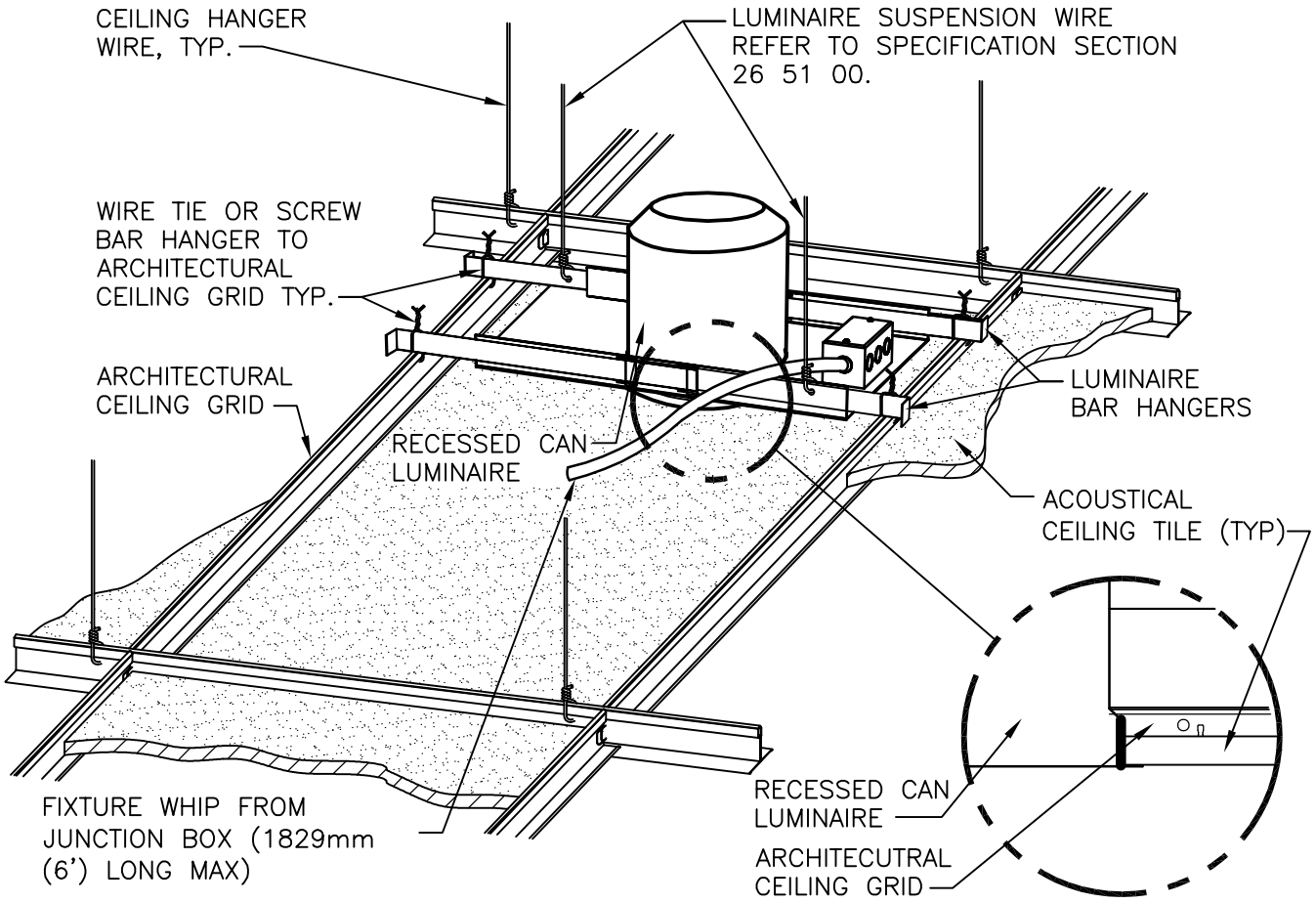
NTS

Department of Veterans Affairs

DETAIL TITLE / DOWNLIGHT MOUNTING - GYPBOARD CEILING

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD265100-03.DWG



GENERAL NOTE:

1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S MOUNTING INSTRUCTIONS AND USING RECOMMENDED MOUNTING HARDWARE

DOWNLIGHT MOUNTING - LAY-IN CEILING

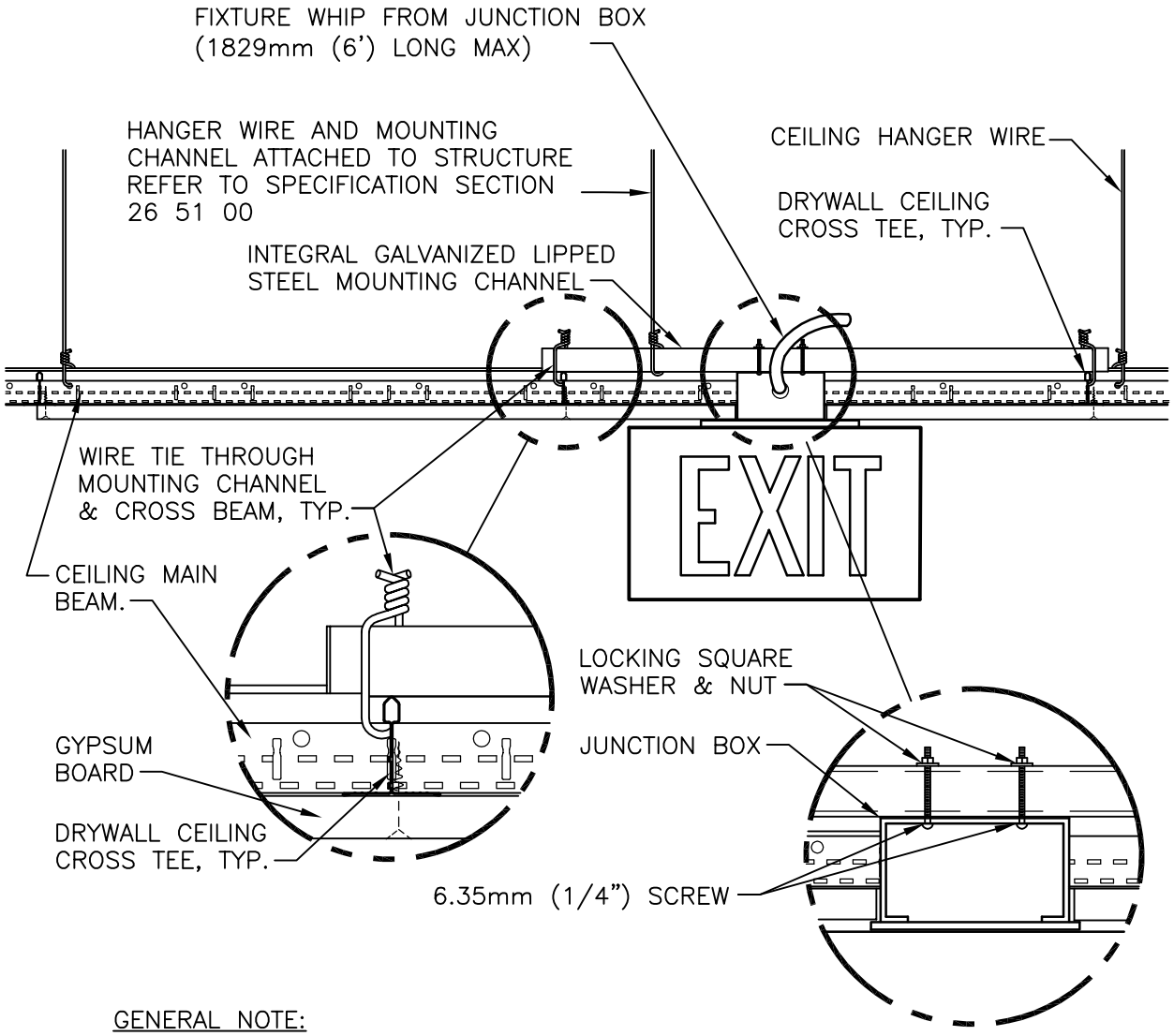
NTS

Department of Veterans Affairs

DETAIL TITLE / DOWNLIGHT MOUNTING - LAY-IN CEILING

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD265100-04.DWG



GENERAL NOTE:

1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S MOUNTING INSTRUCTIONS AND USING THE RECOMMENDED MOUNTING HARDWARE.

EXIT SIGN MOUNTING - GYPBOARD CEILING

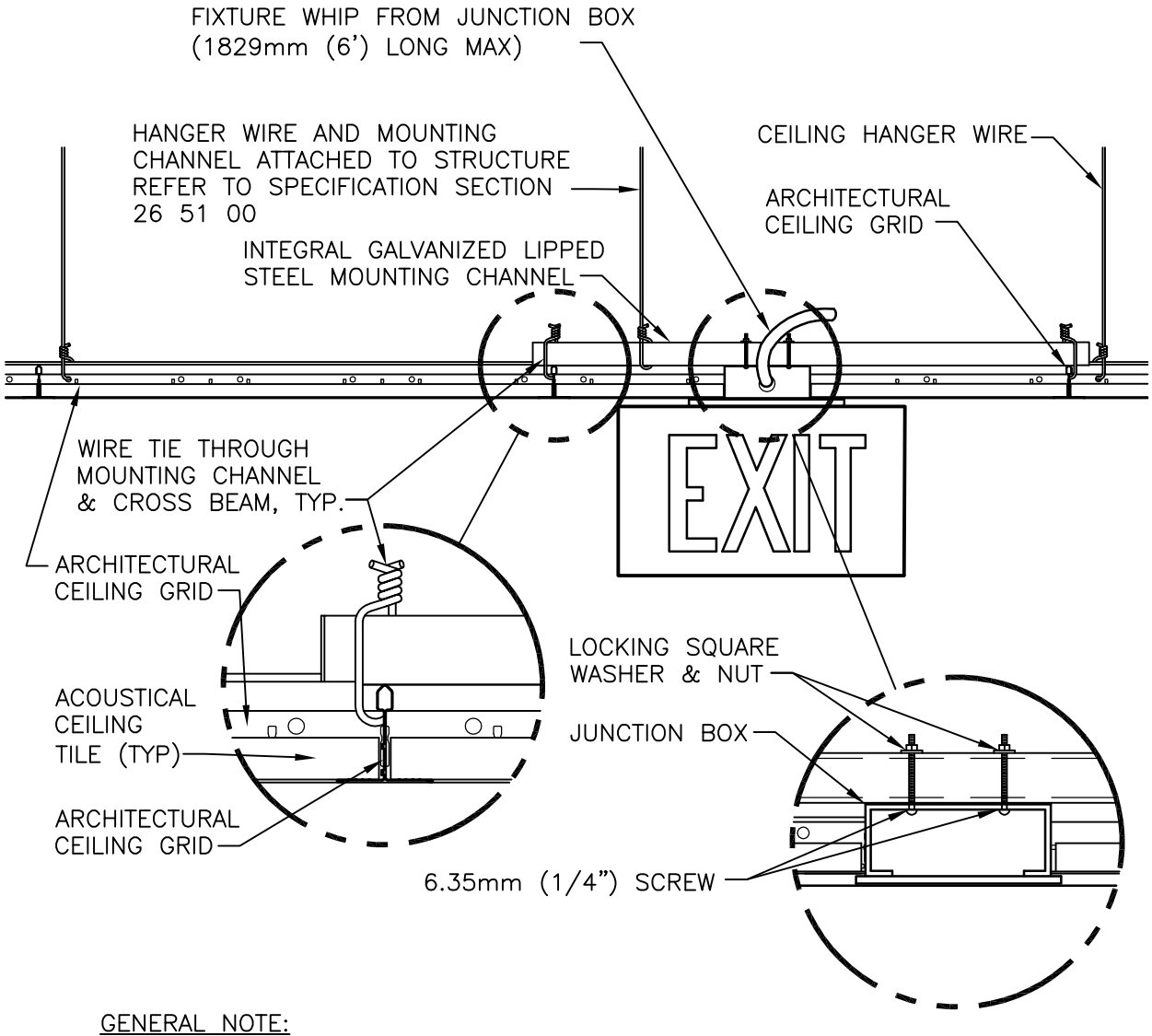
NTS

Department of Veterans Affairs

DETAIL TITLE / EXIT SIGN MOUNTING - GYPBOARD CEILING

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD265100-05.DWG



GENERAL NOTE:

1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S MOUNTING INSTRUCTIONS AND USING THE RECOMMENDED MOUNTING HARDWARE.

EXIT SIGN MOUNTING - LAY-IN CEILING

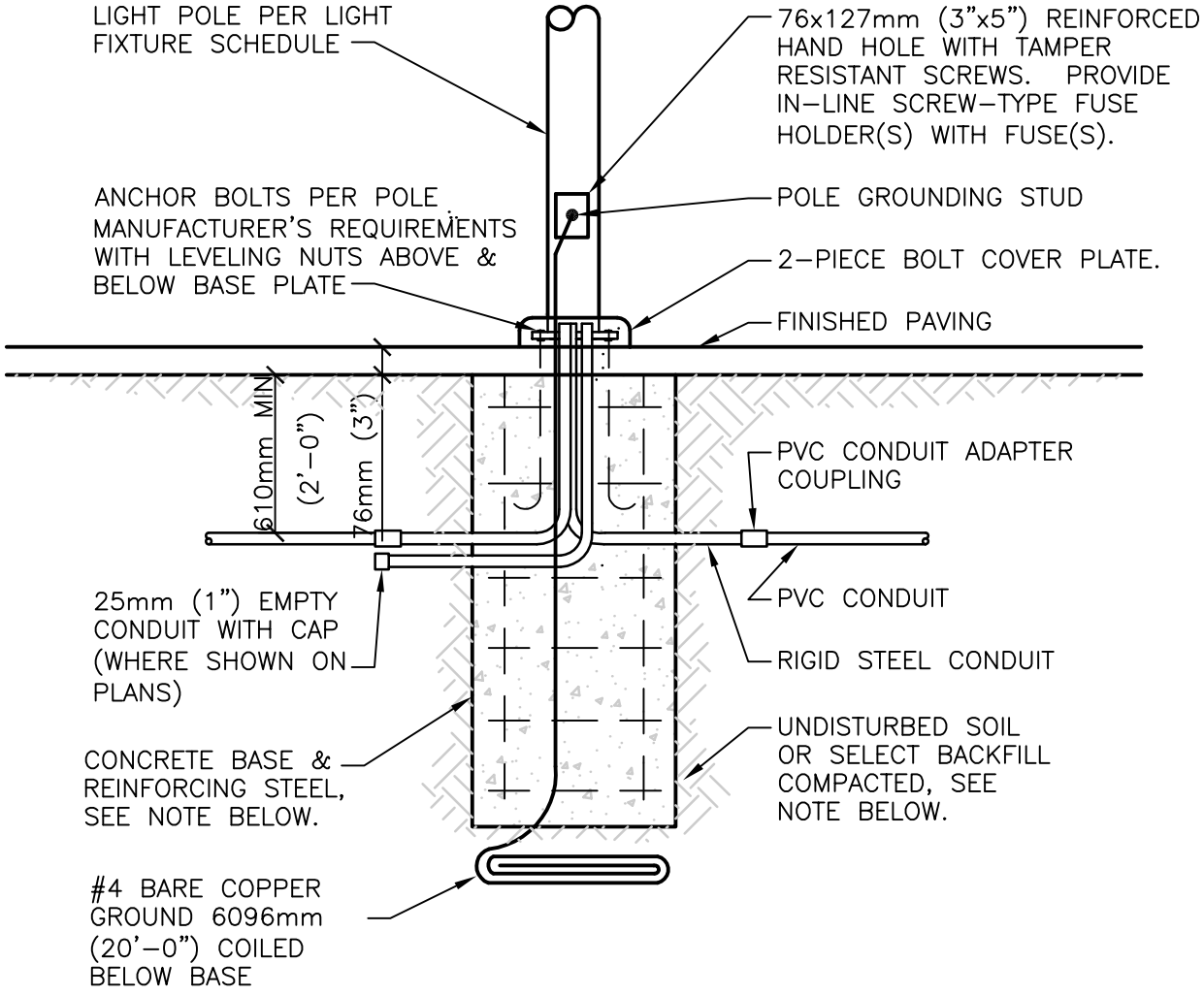
NTS

Department of Veterans Affairs

DETAIL TITLE / EXIT SIGN MOUNTING - LAY-IN CEILING

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD265100-06.DWG



GENERAL NOTES:

1. BACKFILL, CONCRETE, REINFORCING STEEL, AND ANCHOR BOLTS ARE SHOWN FOR REFERENCE ONLY. STRUCTURAL DESIGN IS SHOWN ON STRUCTURAL DRAWINGS.
2. REFER TO SPECIFICATION SECTION 26 56 00 FOR MOUNTING AND LEVELING REQUIREMENTS.
3. REFER TO LANDSCAPE DETAILS FOR INSTALLATION OF PAVERS AND INTERFACE BETWEEN PAVERS AND POLE BASE.

POLE BASE DETAIL - PAVED AREAS

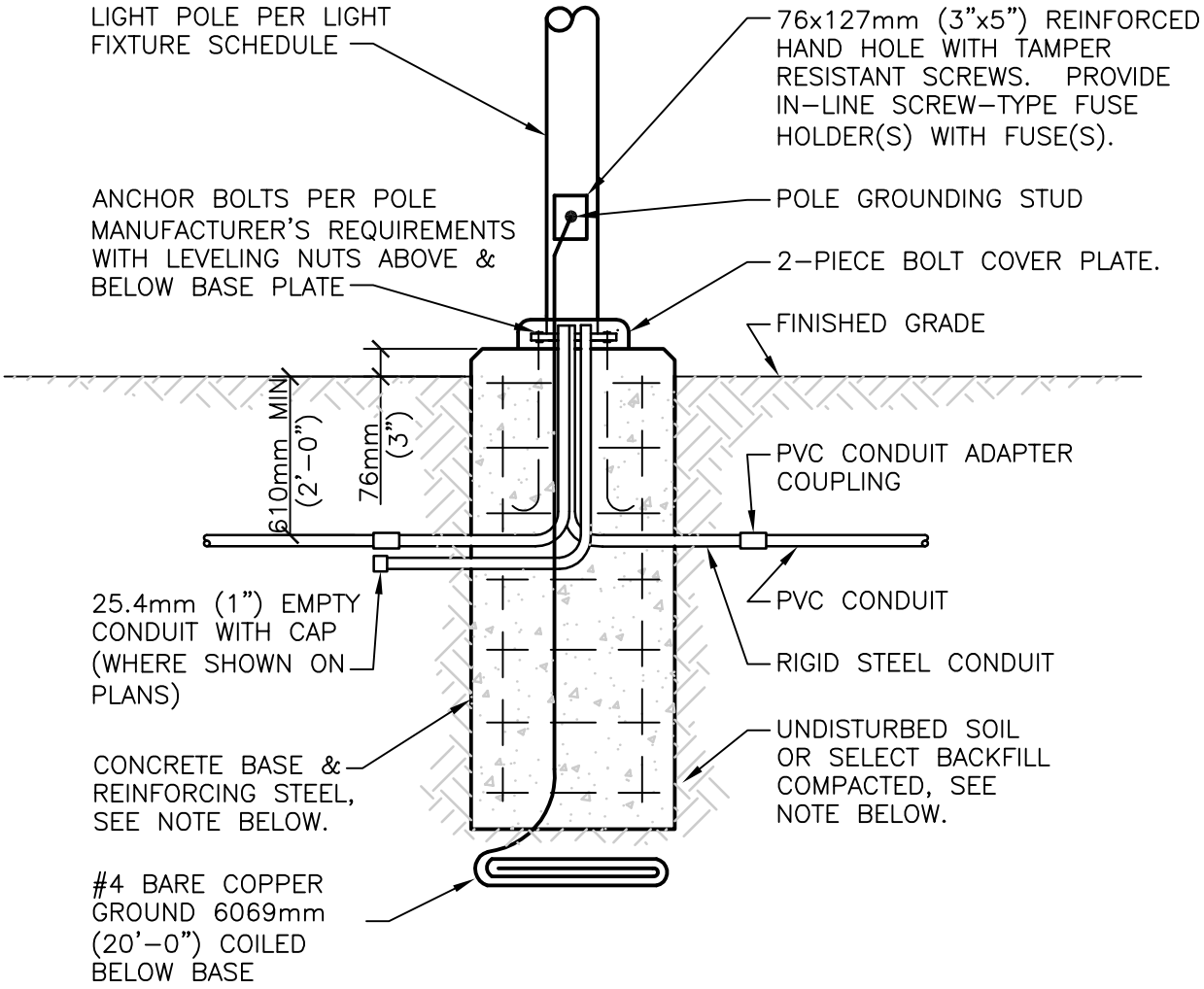
NTS

Department of Veterans Affairs

DETAIL TITLE / POLE BASE DETAIL - PAVED AREAS

SCALE :NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD265600-01.DWG



GENERAL NOTES:

1. BACKFILL, CONCRETE, REINFORCING STEEL, AND ANCHOR BOLTS ARE SHOWN FOR REFERENCE ONLY. STRUCTURAL DESIGN IS SHOWN ON STRUCTURAL DRAWINGS.

2. REFER TO SPECIFICATIONS SECTION 26 56 00 FOR MOUNTING AND LEVELING REQUIREMENTS.

POLE BASE DETAIL - TURF AREAS

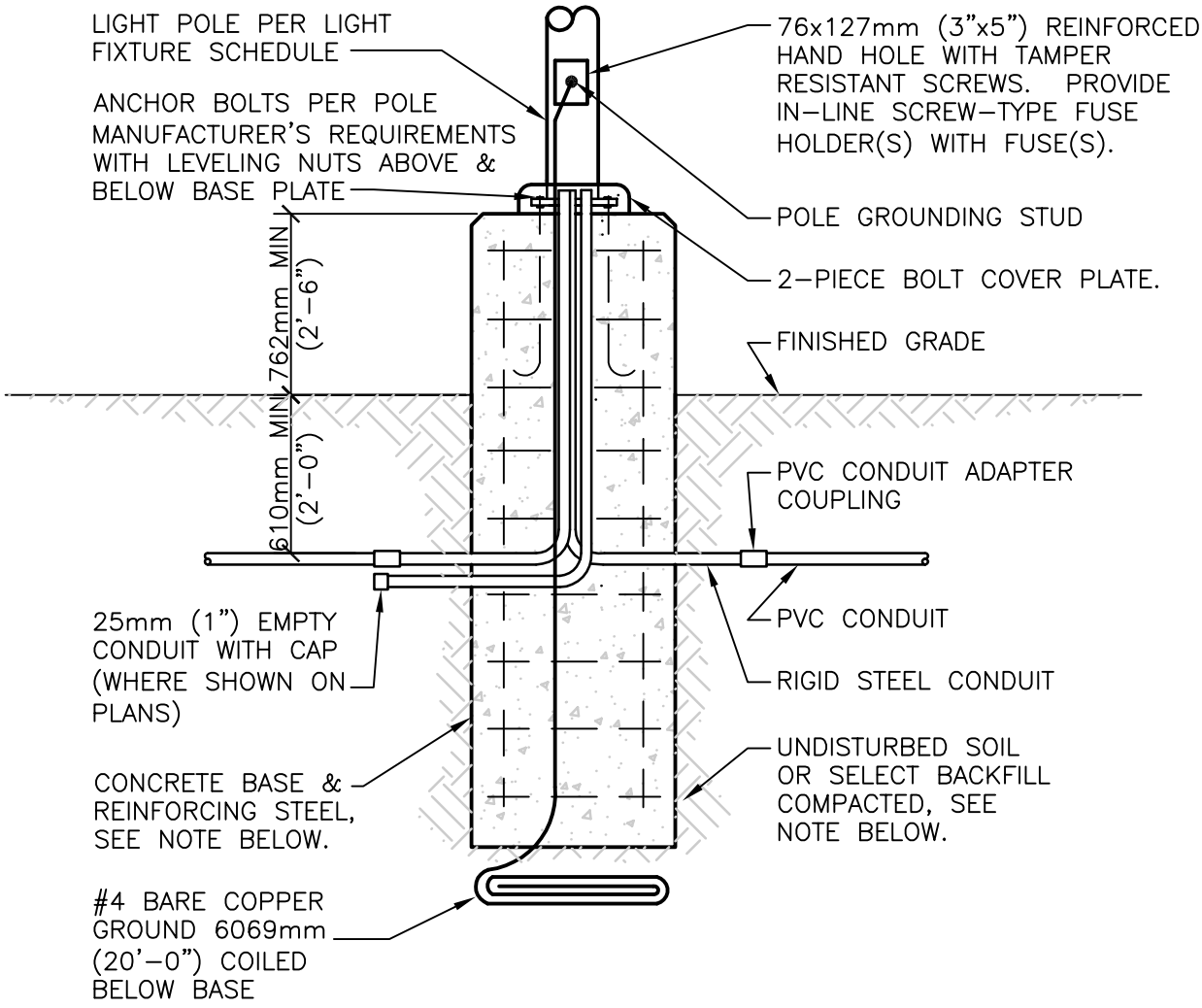
NTS

Department of Veterans Affairs

DETAIL TITLE / POLE BASE DETAIL - TURF AREAS

SCALE: NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD265600-02.DWG



GENERAL NOTES:

1. BACKFILL, CONCRETE, REINFORCING STEEL, AND ANCHOR BOLTS ARE SHOWN FOR REFERENCE ONLY. STRUCTURAL DESIGN IS SHOWN ON STRUCTURAL DRAWINGS.

2. REFER TO SPECIFICATION SECTION 26 56 00 FOR MOUNTING AND LEVELING REQUIREMENTS.

POLE BASE DETAIL - TURF AREAS

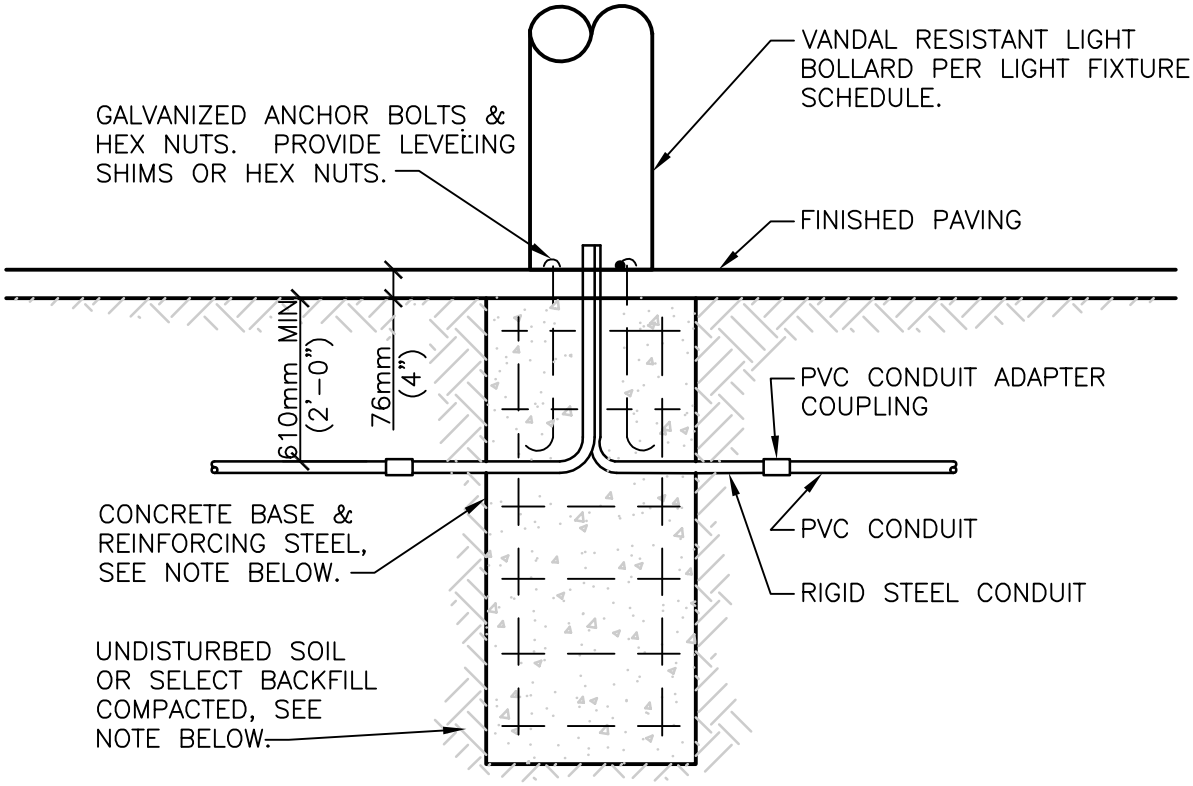
NTS

Department of Veterans Affairs

DETAIL TITLE / POLE BASE DETAIL - TURF AREAS

SCALE: NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD265600-03.DWG



GENERAL NOTES:

1. BACKFILL, CONCRETE, REINFORCING STEEL, AND ANCHOR BOLTS ARE SHOWN FOR REFERENCE ONLY. STRUCTURAL DESIGN IS SHOWN ON STRUCTURAL DRAWINGS.
2. REFER TO SPECIFICATION SECTION 26 56 00 FOR MOUNTING AND LEVELING REQUIREMENTS.
3. REFER TO LANDSCAPE DETAILS FOR INSTALLATION OF PAVERS AND INTERFACE BETWEEN PAVERS AND POLE BASE.

BOLLARD BASE DETAIL - PAVED AREAS

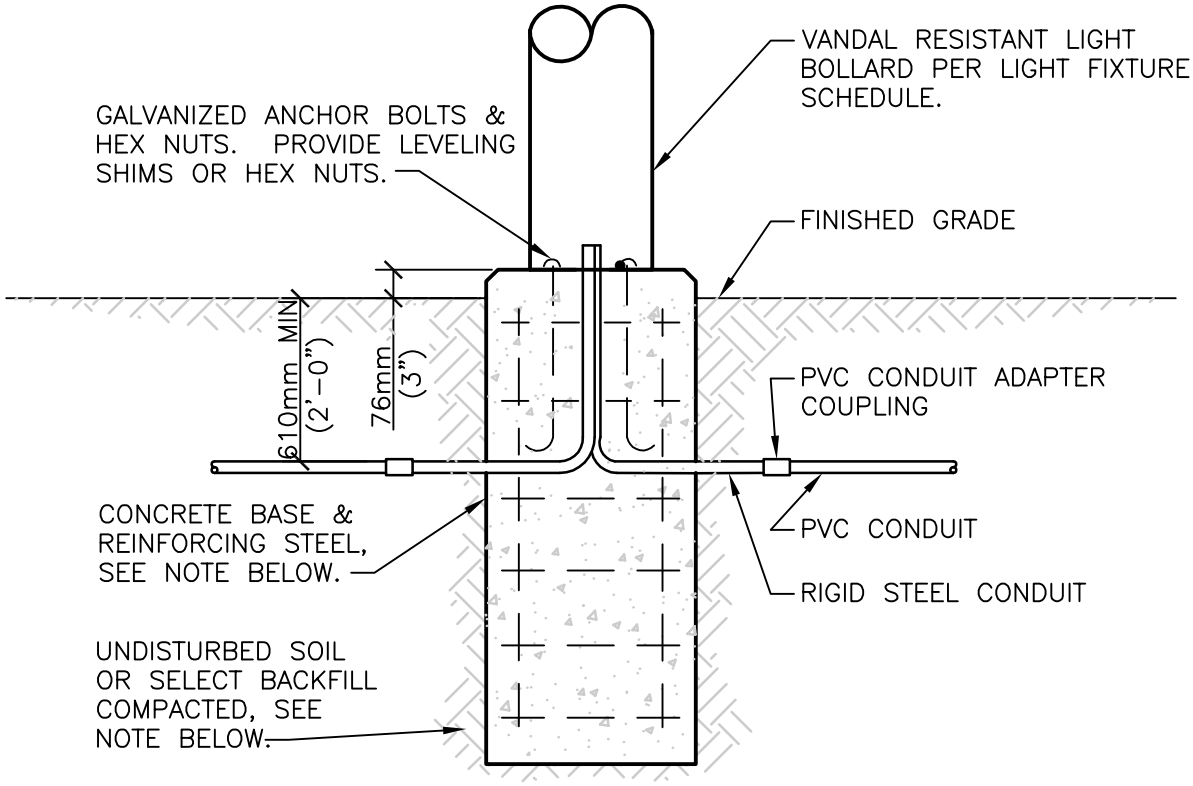
NTS

Department of Veterans Affairs

DETAIL TITLE / BOLLARD BASE DETAIL - PAVED AREAS

SCALE: NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD265600-04.DWG



GENERAL NOTES:

1. BACKFILL, CONCRETE, REINFORCING STEEL, AND ANCHOR BOLTS ARE SHOWN FOR REFERENCE ONLY. STRUCTURAL DESIGN IS SHOWN ON STRUCTURAL DRAWINGS.

2. REFER TO SPECIFICATION SECTION 26 56 00 FOR MOUNTING AND LEVELING REQUIREMENTS.

BOLLARD BASE DETAIL - TURF AREAS

NTS

Department of Veterans Affairs

DETAIL TITLE / BOLLARD BASE DETAIL – TURF AREAS

SCALE: NONE

DATE ISSUED: APRIL 2014 CAD DETAIL NO.: SD265600-05.DWG