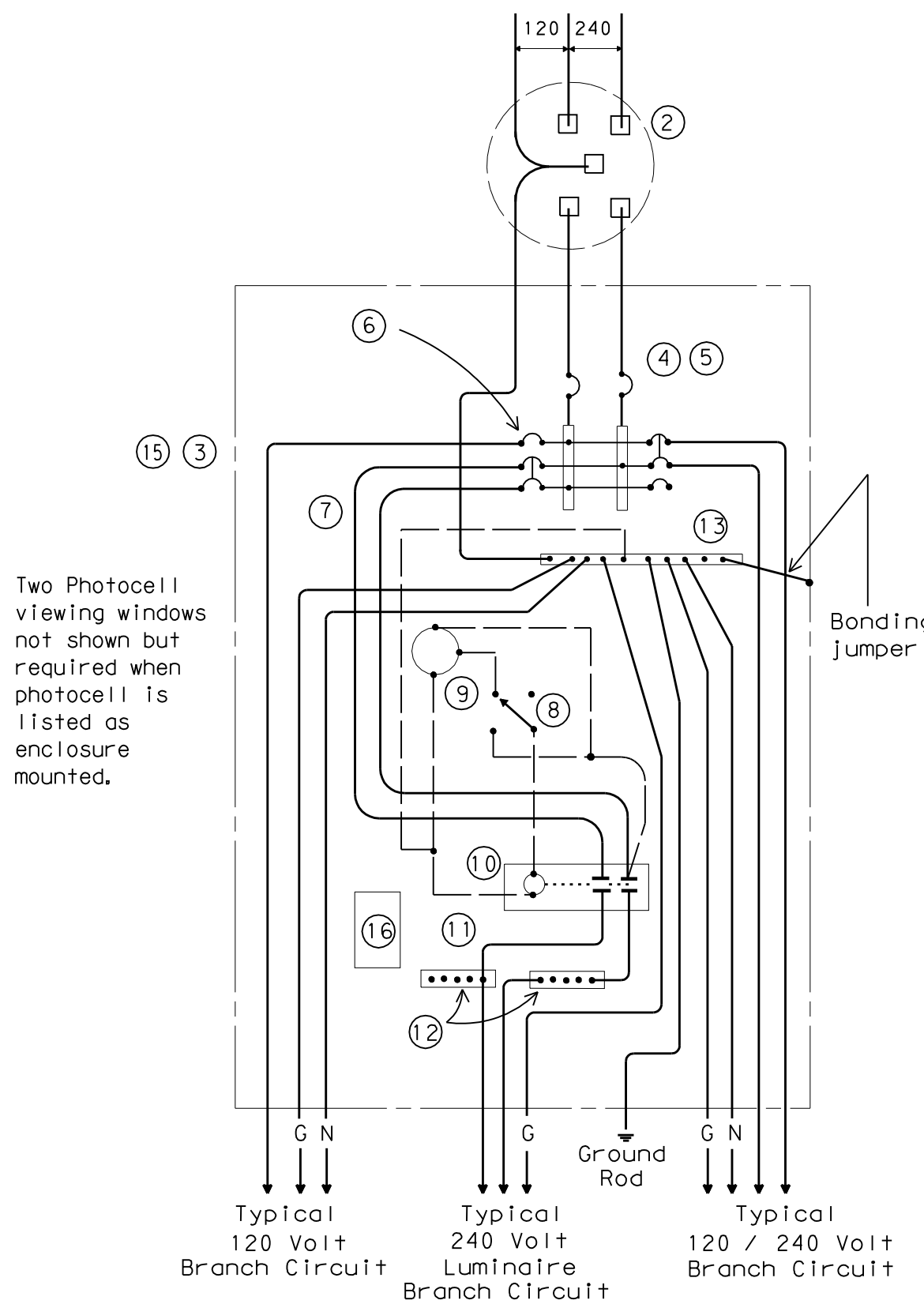


Panel Schedule		Single Phase				Date:		
Project: Vitruvian Park		Main Bkr: 200 Amps				Date: 9/25/2009		
Panel Name: VPEP - East Pedestal		Volts<L-L>: 240		Main Lugs: Amps				
Mfg:		Volts<L-G>: 120		Panel AIC: 22,000 Amps				
Model:		Phase: 1		Neutral Bar: Y / N				
Description:		Wires: 3		Ground Bar: Y / N				
Location:		I		Y / N				
Breaker Mounting: S		S*		S*		S*		
Pos. Bkr Trip No. Bkr		Load VA		Pos. Bkr Trip No. Bkr				
No. No. Amps Poles		L1 L2		No. No. Amps Poles		Serves		
1	65	2	Lighting Contactor	< 4464 2880 >	2	30	2	Belvedere Simplex Outlet
3	65		Lighting Contactor	< < 4464 2880 >	4	30		Belvedere Simplex Outlet
5	20	1	Pedestal Duplex Outlet	< 1920 1920 >	6	20	2	Belvedere Quad Outlet 1
7	20	1	Irrigation Controls	< < 1920 1920 >	8	20		Belvedere Quad Outlet 1
9	20	1	Two Duplex Outlets - S	< 1920 1920 >	10	20	1	Two Duplex Outlets - N
11	20	1	Two Duplex Outlets - S	< < 1920 1920 >	12	20	1	Two Duplex Outlets - N
13			Space	< >	14	20	1	Spare
15			Space	< < >	16			Space
17			Space	< >	18			Space
Connected VA per Leg =		15024		15024				
Total Amps per Leg =		125		125				

VPEP - LIGHTING DISTRIBUTION TERMINAL BLOCKS 2 POLE, MAIN = 1, BRANCH = 6 SQD LBA 263106 OR EO VITRUVIAN PARK WEST NORTH, VITRUVIAN PARK WEST SOUTH, VITRUVIAN PARK EAST NORTH, VITRUVIAN PARK EAST SOUTH, SPACE & SPACE

Panel Schedule		Single Phase				Date:		
Project: Vitruvian Park		Main Bkr: 200 Amps				Date: 8/16/2010		
Panel Name: VPWP - West Pedestal		Volts<L-L>: 240		Main Lugs: Amps				
Mfg:		Volts<L-G>: 120		Panel AIC: 22,000 Amps				
Model:		Phase: 1		Neutral Bar: Y / N				
Description:		Wires: 3		Ground Bar: Y / N				
Location:		I		Y / N				
Breaker Mounting: S		S*		S*		S*		
Pos. Bkr Trip No. Bkr		Load VA		Pos. Bkr Trip No. Bkr				
No. No. Amps Poles		L1 L2		No. No. Amps Poles		Serves		
1	30	2	WO Simplex Outlet 2 - S	< 2880 2880 >	2	30	2	WO Simplex Outlet 1 - N
3	30		WO Simplex Outlet 2 - S	< < 2880 2880 >	4	30		WO Simplex Outlet 1 - N
5	20	2	WO Quad Outlet 3 - S	< 1920 1920 >	6	20	2	WO Quad Outlet 1 - N
7	20		WO Quad Outlet 3 - S	< < 1920 1920 >	8	20		WO Quad Outlet 1 - N
9	20	2	WO Quad Outlet 4 - S	< 1920 1920 >	10	20	2	WO Quad Outlet 2 - N
11	20		WO Quad Outlet 4 - S	< < 1920 1920 >	12	20		WO Quad Outlet 2 - N
13	20	1	Two Duplex Outlets - S	< 1920 1920 >	14	20	1	Spare
15	20	1	Two Duplex Outlets - S	< < 1920 1920 >	16	20	1	Spare
17	20	2	Lighting Contactor (BAL)	< 1920 1920 >	18			Space
19	20		Lighting Contactor (BAL)	< < 1920 1920 >	20			Space
Connected VA per Leg =		19200		17280				
Total Amps per Leg =		160		144				

VPWP - LIGHTING CONTACTOR TO SERVE PONTE AVENUE BRIDGE ACCENT LIGHTING. NO DISTRIBUTION BLOCKS REQUIRED.



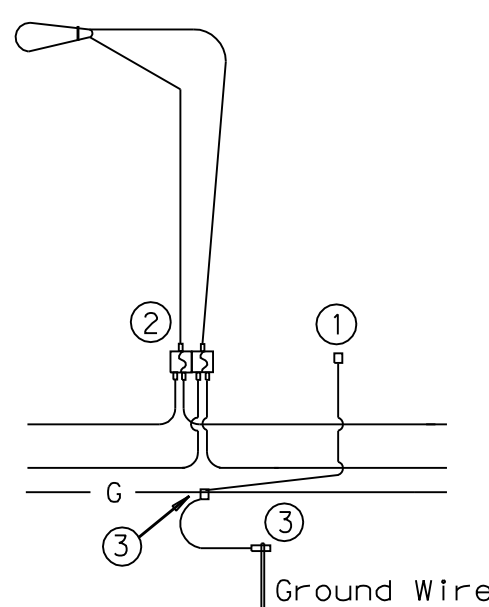
Two Photocell viewing windows not shown but required when photocell is listed as enclosure mounted.

SCHEMATIC TYPE D 120/240 VOLTS - THREE WIRE TYPE D SERVICE NOTES

Photocell and lighting contactor shall be located in the same UL type 3R enclosure with load center. There shall be a window on each side of enclosure to allow operation of photocell. Both photocell, contactor and breaker area shall have dead front trim. Type D load center with lighting controls shall have power distribution blocks for a minimum of 12, #2 conductors.

- SCHEMATIC LEGEND**
- 1 - Omit
 - 2 - Meter
 - 3 - Service Assembly Enclosure
 - 4 - Main Disconnect Breaker
 - 5 - Lightning Arrestor - Delta LA302 or Eq
 - 6 - Circuit Breakers
 - 7 - Lighting Contactor Feed - 2-#2cu
 - 8 - Control Station ("H-O-A" Switch)
 - 9 - Photo Electric Control (enclosure-mounted)
 - 10 - Lighting Contactor - 100 amp
 - 11 - Power Distribution Block Feed - 2-#2cu
 - 12 - Power Distribution Terminal Blocks - SqD LBA or Eq
 - 13 - Neutral/Ground Bus
 - 14 - Omit
 - 15 - Load Center
 - 16 - Mechanical 24 Hr Time Clock
- Power Wiring
 --- Control Wiring
 --- N - Neutral Conductor (for 120 volt loads only)
 --- G - Equipment grounding conductor-always required

ELECTRIC SERVICE PEDESTAL SCHEMATIC



FOR THREE-WIRE CIRCUIT-CENTER GROUNDED LUMINAIRES SERVED AT 240V FOR 120/240 VOLT SERVICE SINGLE FIXTURE

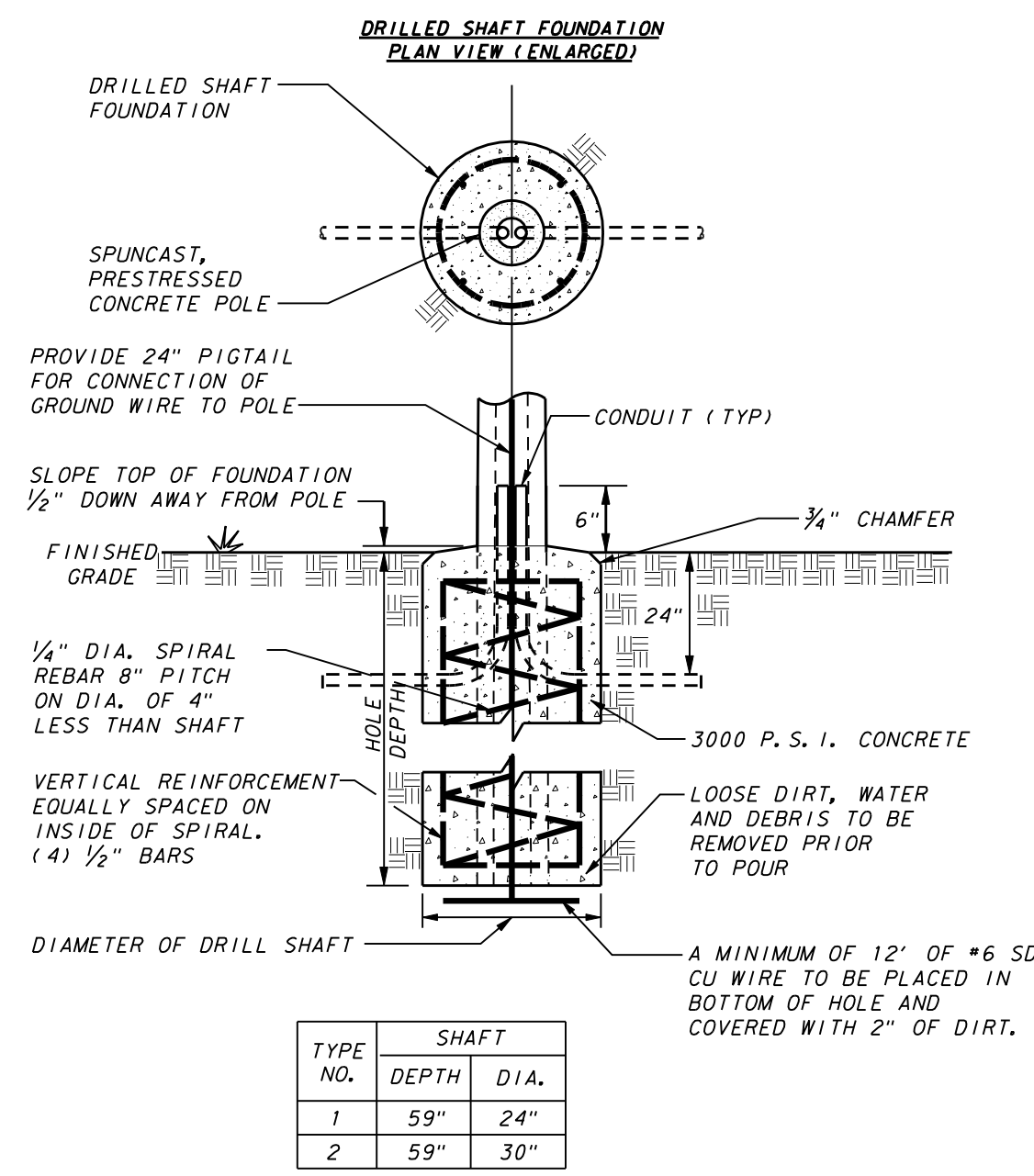
NOTES:

- ① Use threaded, copper or tin-plated copper, pole bonding connector, sized appropriately for conductors.
- ② Double-Pole inline fuse and connector, sized appropriately for conductors. Bussmann TRON HEY with 2A0660 & 2A0661 Insulating Boots and LIMITRON KTK-R fast acting fuses or equal -
- ③ Split Bolt or other connector.

ELECTRICAL CONNECTION DETAIL

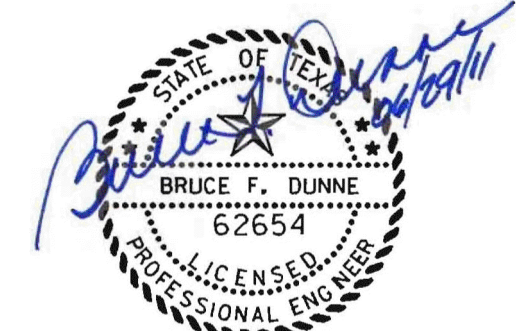
GENERAL ELECTRICAL NOTES:

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2005 NATIONAL ELECTRICAL CODE, N.E.P.A. 70, 2006 IECC, 2006 IBC AND ALL LOCAL AND STATE CODES AND REGULATIONS. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED BY THE BUILDING AND SAFETY CODES AND ORDINANCES, AND THE RULES AND REGULATIONS OF ANY LEGAL BODY HAVING JURISDICTION.
2. ALL MATERIAL FURNISHED AND ALL LABOR PERFORMED UNDER THESE CONTRACTS SHALL BE IN STRICT ACCORDANCE WITH THE RULES, REGULATIONS, AND CODES OF NATIONAL, STATE, MUNICIPAL OR ANY OTHER AUTHORITIES THAT MAY HAVE LAWFUL JURISDICTION PERTAINING TO THE WORK SPECIFIED. EACH CONTRACTOR WILL OBTAIN ALL NECESSARY PERMITS, LICENSES, AND CERTIFICATES OF APPROVAL AND PAY THEIR FEES TO CARRY OUT HIS WORK.
3. CONTRACTOR IS CAUTIONED OF HIS SOLE RESPONSIBILITY TO ASCERTAIN THE LOCATION OF ANY AND ALL BURIED UTILITIES, AND ONLY BY EXERCISE OF DUE CAUTION CAN DAMAGE TO SAID UTILITIES AND ASSOCIATED PROPERTIES, ALONG WITH PERSONNEL INJURY OF LOSS OR LIFE, BE AVOIDED.
4. ALL CHANGES OR VARIATIONS NECESSITATED BY UNFORESEEN CONDITIONS SHALL BE VERIFIED WITH ENGINEER BEFORE SUCH CHANGES OR VARIATIONS ARE UNDERTAKEN.
5. EACH CONTRACTOR SHALL MAKE HIMSELF & HIS TRADESMEN FAMILIAR WITH THE COMPLETE SET OF DRAWINGS AND SHALL BE PARTICULARLY AWARE OF ANY AND ALL CONFLICTS REGARDING HIS TRADE AND OTHER TRADES OCCUPYING THE SAME AREA, I.E. PIPES, DUCTS, CONDUIT, ETC. WHEN INSTALLING ITEMS OF HIS TRADE EACH CONTRACTOR SHALL CONSULT WITH OTHER TRADES OCCUPYING THE SAME AREA AND THE ENGINEER TO DETERMINE THE BEST SOLUTION TO THE CONFLICT. ALL DECISIONS BY THE ENGINEER SHALL BE FINAL AND BINDING TO ALL PARTIES CONCERNED.
6. THE LOCATION OF ALL PIPES, OUTLETS, FIXTURES, ETC. SHOWN ON PLANS IS THE DESIGN INTENT. ANY REVISION OR ADJUSTMENT SHALL BE COORDINATED AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. THE ENGINEER RESERVES THE RIGHT TO MAKE REASONABLE CHANGES TO THE INDICATED LOCATIONS BEFORE WORK IS ROUGHED-IN WITHOUT ADDITIONAL CHARGE TO THE OWNER.
7. FINAL CONNECTIONS TO EQUIPMENT SHALL BE PER MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS AND INSTRUCTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH ACTUAL EQUIPMENT SUPPLIED.
8. VERIFY EXACT LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES. PIPING AND RACEWAY SYSTEMS PRIOR TO TRENCHING. PROVIDE NECESSARY TRENCHING, BACKFILL, EXCAVATION, SUPPORTS, SERVICES (CONDUIT AND/OR WIRE), PULLBOXES, TRANSFORMER PADS, SAWCUTTING AND PATCHING, CONCRETE/PAVING, ETC. AS REQUIRED. CONTRACTOR SHALL OBTAIN AND VERIFY EXACT UTILITY COMPANY DRAWINGS AND REQUIREMENTS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT FIELD WIRING OR FACTORY WIRING IN EQUIPMENT.
10. ALL COST INCURRED BY THE ACCEPTANCE OF SUBSTITUTIONS SHALL BE BORNE BY THE CONTRACTOR. PROOF FOR THE EQUALITY OF SUBSTITUTIONS SHALL BE BY THE CONTRACTOR.
11. ALL ELECTRICAL ITEMS SHALL BE U.L. LABELED AND LISTED FOR THEIR SPECIFIC USE.
12. THE ELECTRICAL CONTRACTOR SHALL PAY ALL COSTS REQUIRED BY THE LOCAL UTILITY COMPANY PROVIDING SERVICES INDICATED. ELECTRICAL CONTRACTOR SHALL COORDINATE METERING, TRANSFORMER PAD, CONNECTION POINTS AND GROUNDING WITH UTILITY COMPANY.
13. ALL SERVICE ENTRANCE EQUIPMENT, INCLUDING BUT NOT LIMITED TO ANY MAIN DISCONNECT SWITCH, PANEL OR SWITCHBOARD, SHALL BE LISTED AND LABELED AS "SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT".
14. THE ELECTRICAL SYSTEMS SHALL BE SOLIDLY GROUNDED. ALL NON-CURRENT CARRYING METAL PARTS OF THE ELECTRICAL SYSTEM, I.E. RACEWAYS, EQUIPMENT ENCLOSURES, FRAMES, JUNCTION AND OUTLET BOXES AND OTHER CONDUCTIVE ITEMS IN CLOSE PROXIMITY WITH ELECTRICAL CIRCUITS, SHALL BE GROUNDED TO PROVIDE A LOW IMPEDANCE PATH FOR POTENTIAL GROUND FAULTS.
15. EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED IN ALL RACEWAYS AND CABLES.
16. THE NEUTRAL AND GROUND BUS SHALL BE BONDED TOGETHER AT ALL SERVICE EQUIPMENT.
17. CONDUIT SHALL BE RUN PARALLEL OR AT RIGHT ANGLES TO WALLS, CEILINGS, AND STRUCTURAL MEMBERS.
18. ALL RACEWAYS SHALL BE INSTALLED CONCEALED EXCEPT IN UNFINISHED SPACES WHERE INDICATED ON DRAWINGS.
19. ALL EMPTY CONDUITS SHALL BE EQUIPPED WITH A PULL WIRE-200 LB TEST NYLON.
20. OPEN TRENCHES SHALL BE PROTECTED AND SUPERVISED AT ALL TIMES.
21. SELECT GRANULAR STRUCTURAL BACKFILL IS REQUIRED AROUND, AND 12" ABOVE, ALL CONDUIT.
22. ELECTRICAL "WARNING TAPE" SHALL BE INSTALLED IN ALL TRENCHES 12" ABOVE HIGHEST CONDUIT.
23. FASTENERS AND SUPPORTS SHALL BE AS MANUFACTURED BY GEDNEY, EFCOR OR EQUAL. SUPPORTING DEVICES SHALL BE THOSE AS MANUFACTURED FOR A SPECIFIC PURPOSE. NAILS, WIRE OR PIPE STRAP SHALL NOT BE USED.
24. ALL CIRCUIT CONDUCTORS SHALL BE COPPER, 90°C, XHHW-2 INSULATION.
25. WIRE NO. 8 AWG AND LARGER SHALL BE STRANDED, NO. 10 AND SMALLER SHALL BE SOLID. MINIMUM CONDUCTOR SIZE SHALL BE NO. 12.
26. ALL BRANCH CIRCUIT AND FEEDER CONDUCTORS, NO. 8 AWG AND SMALLER, SHALL BE COLOR CODED AS FOLLOWS (WHERE APPROVED BY THE AUTHORITY HAVING JURISDICTION):
 120/208 VOLT SYSTEM
 PHASE A - BLACK
 PHASE B - RED
 PHASE C - BLUE
 NEUTRAL - WHITE
 GROUND - GREEN
27. CONTRACTOR SHALL VERIFY AVAILABLE FAULT CURRENT, TRANSFORMER SIZE, AND SERVICE CONDUCTOR FROM ELECTRIC POWER UTILITY BEFORE ORDERING BREAKERS.
28. ELECTRICAL CONTRACTOR SHALL VERIFY THE MOTOR UNIT LOADS BEFORE ORDERING BREAKERS.
29. PANELBOARDS SHALL HAVE BOLT-IN CIRCUIT BREAKERS AND ALUMINUM BUSSING.
30. OVERCURRENT PROTECTIVE DEVICES SHALL BE AUTOMATIC TRIP THERMAL MAGNETIC TYPE WITH QUICK-MAKE, QUICK-BREAK FOR BOTH MANUAL AND AUTOMATIC OPERATIONS. ALL MULTIPOLE BREAKERS SHALL BE COMMON TRIP. HANDLE TIES WILL NOT BE ACCEPTED.
31. SWITCHBOARDS, DISTRIBUTION BOARDS, PANELBOARDS, DISCONNECT SWITCHES AND MOTOR CONTROL CENTERS SHALL BE MANUFACTURED BY SQUARE 'D', GENERAL ELECTRIC, SIEMENS, OR EATON/CUTLER HAMMER.
32. TYPED/WRITTEN PANELBOARD SCHEDULES AND DESIGNATION PLATES SHALL BE PROVIDED BY THE CONTRACTOR FOR ALL PANELBOARDS. PANELBOARD DESIGNATIONS SHALL BE PHENOLIC-ENGRAVED.
33. WIRE TERMINATION PROVISIONS FOR PANELBOARDS, CIRCUIT BREAKERS, SAFETY SWITCHES AND ALL OTHER ELECTRICAL APPARATUS SHALL BE LISTED AS SUITABLE FOR 75°C MINIMUM.
34. SAFETY-TYPE DISCONNECT SWITCHES SHALL BE HEAVY DUTY WITH QUICK-MAKE, QUICK-BREAK MECHANISM WITH INTERLOCKING COVER WHICH NORMALLY CANNOT BE OPENED WHEN THE SWITCH IS IN THE 'ON' POSITION. SWITCH SHALL HAVE PROVISIONS FOR PAD-LOCKING IN THE OPEN OR CLOSED POSITION. FUSIBLE DISCONNECT SWITCHES SHALL HAVE REJECTION-TYPE FUSEHOLDERS. FUSES SHALL BE NON-RENEWABLE, DUAL ELEMENT TIME-DELAY 'RK1' OR 'RKS', OR AS SPECIFIED OTHERWISE. ACCEPTABLE MANUFACTURERS: SQUARE 'D', GENERAL ELECTRIC, SIEMENS, OR EATON/CUTLER HAMMER.
35. UNLESS INDICATED ON DRAWINGS, BALLASTS PROVIDED WITH FIXTURES SHALL BE ETL-CBM APPROVED, HIGH POWER FACTOR, WITH U.L. LABEL. ALL BALLASTS FOR RAPID START LAMPS SHALL BE PREMIUM CLASS P.
36. ALL FIXTURES TO BE FURNISHED COMPLETE WITH LAMPS.
37. UNLESS OTHERWISE NOTED, DUPLEX RECEPTACLES SHALL BE RATED 20 AMP, HUBBELL CR5362 OR APPROVED EQUAL.
38. UNLESS OTHERWISE NOTED, TOGGLE SWITCHES SHALL BE 20 AMP, HUBBELL CS1221 OR APPROVED EQUAL.
39. UNLESS OTHERWISE NOTED, DEVICE PLATES SHALL BE NYLON.
40. PANEL WIRING DEVICES, SWITCHES AND DISCONNECTS, LIGHTING FIXTURES AND FUSE SUBMITTALS SHALL BE REQUIRED, AND ARE TO INCLUDE MANUFACTURER'S DATA, TEST REPORTS, PERFORMANCE DATA AND CERTIFICATIONS.



TYPE NO.	SHAFT DEPTH	SHAFT DIA.
1	59"	24"
2	59"	30"

**DRILLED SHAFT FOUNDATION
EMBEDDED POLE**



NO.		REVISION		BY		DATE	
TOWN OF ADDISON DALLAS COUNTY, TEXAS PARK AND STREETSCAPE IMPROVEMENTS VITRUVIAN PARK PARK LIGHTING & ELECTRICAL DETAILS							
icon Consulting Engineers, Inc. Civil Engineers - Designers - Planners 250 W. Southlake Blvd., Suite 117 Southlake, Tx 76092 (817) 552-6210							
PROJECT	DESIGN	DRAWN	DATE	FILE	SHEET		
5029-01	ICE	ICE	APR 26, 2010	PW# 2009-04	C804		