FRANKLIN PARK
BALL FIELD LIGHTING

17501 FRANKLIN PARK DR
PURCELLVILLE, VA 20132

GENERAL NOTES

1. THE GENERAL CONTRACTOR AND ALL MAJOR SUBCONTRACTORS ARE REQUIRED TO VISIT THE JOB SITE PRIOR TO SUBMISSION OF BID; OTHERWISE BID WILL NOT BE ACCEPTED.

2. THE CONTRACTOR SHALL ENSURE THAT THE WORK SHALL BE DONE IN ACCORDANCE WITH ALL RULES, REGULATIONS AND APPLICABLE CODES. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS REQUIRED FOR THE WORK AND WILL OBTAIN AND PAY FOR ALL REQUIRED INSPECTIONS DURING THE COURSE OF THE WORK.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND REQUIRED TO VISIT THE AREAS ENTAILED WITHIN THE SCOPE OF WORK, VERIFY DIMENSIONAL DATA, AND REVIEW THE EXISTING CONDITIONS BEFORE PROCEEDING WITH THE WORK. ANY CONFLICTS WITH THE EXISTING CONDITIONS SHALL BE BROUGHT IMMEDIATELY TO THE ARCHITECT'S ATTENTION.

4. THE CONTRACTOR SHALL PROVIDE PROTECTION TO ALL EXISTING FINISHES AND SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGES CAUSED BY HIM OR HIS SUBCONTRACTORS. REPAIR AND/OR CLEAN ANY DAMAGED SURFACES, INCLUSIVE OF CARPET, USING PROCESSES RECOMMENDED BY THE MANUFACTURER TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE. REPLACE ANY FINISHES WHERE CLEANING OR REPAINTING HAS FAILED TO SATISFACTORILY RESTORE APPEARANCE.

5. THE CONTRACTOR SHALL SET AND SUPERVISE ALL SAFETY PRECAUTIONS IN CONNECTION WITH THE WORK THROUGHOUT THE PROJECT.

6. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE REMOVAL OF ALL DEBRIS FROM THE SITE ON A DAILY BASIS, AND TO KEEP THE CONSTRUCTION SITE CLEAN AND FREE FROM ANY OBSTRUCTIONS AT ALL TIMES. THE CONTRACTOR SHALL ALSO STORE ALL TOOLS, CONSTRUCTION EQUIPMENT, MACHINERY, SURPLUS MATERIALS, ETC. DAILY AND REMOVE THEM COMPLETELY AT THE COMPLETION OF WORK.

7. NORMAL FUNCTIONS OF THE OCCUPIED AREAS WITHIN THE SCOPE OF WORK AS WELL AS ADJACENT AREAS MUST CONTINUE DURING THE CONSTRUCTION PHASES. EVERY EFFORT SHALL BE MADE TO INSURE SUCH FUNCTIONS ARE NOT DISRUPTED. SCHEDULE ANY WORK WHICH MAY BE REQUIRED IN OCCUPIED AREAS DURING UNOCCUPIED HOURS AND OBTAIN PRIOR APPROVAL BY THE OWNER'S REPRESENTATIVE.

8. THE WORD "PROVIDE" SHALL BE DEFINED AS "FURNISH AND INSTALL COMPLETE AND READY TO USE."

9. UNLESS OTHERWISE SPECIFIED AND/OR INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL APPLY, INSTALL, CONNECT, ERECT, USE, CLEAN AND CONDITION MANUFACTURED ARTICLES, MATERIALS, AND EQUIPMENT PER MANUFACTURER'S CURRENT PRINTED RECOMMENDATIONS. ALL PRODUCTS, MATERIALS, AND EQUIPMENT PROVIDED ON THIS PROJECT SHALL BE SUITABLE FOR THE INTENDED SERVICE AND LOCATION AT WHICH THEY ARE INSTALLED.

10. THE CONTRACTOR SHALL PROTECT ALL WORK AND MATERIAL FROM DAMAGE BY HIS WORK, WORKMAN, SUBCONTRACTOR'S WORK OR SUBCONTRACTOR'S WORKMAN AND SHALL BE LIABLE FOR ALL DAMAGE THUS CAUSED.

11. ALL MATERIALS SUPPLIED FOR THIS CONTRACT SHALL BE FREE FROM DEFECTS IN MATERIAL, WORKMANSHIP, TITLE, AND SHALL BE OF THE TYPE AND QUALITY DESCRIBED HEREIN. IF IT BECOMES APPARENT WITHIN ONE YEAR FROM THE DATE OF ACCEPTANCE OF FINAL COMPLETION BY THE OWNER THAT THE MATERIALS DO NOT MEET THE WARRANTIES SPECIFIED ABOVE, THE CONTRACTOR SHALL CORRECT ANY DEFECT, INCLUDING NON-CONFORMANCE WITH THESE SPECIFICATIONS AT NO COST.

12. THE CONTRACTOR SHALL SECURE CERTIFICATES OF INSPECTION AND OF OCCUPANCY AS MAY BE REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER THE WORK AND DELIVER SAME TO THE OWNER UPON COMPLETION OF THE WORK.

ELECTRICAL GENERAL NOTES

A. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 70-2003 & APPLICABLE LOCAL CODES. THE MANUFACTURER'S RECOMMENDATIONS SHALL BE FOLLOWED. ALL MATERIALS, AS A MINIMUM, SHALL BE NEW AND UNDERWRITERS LABORATORY (U.L.) LISTED.

B. THE CONTRACTOR SHALL PROVIDE ALL SUPERVISION, LABOR, MATERIALS, EQUIPMENT, MACHINERY, AND ANY AND ALL OTHER ITEMS NECESSARY TO COMPLETE THE SYSTEM. IT IS THE INTENT OF THESE PLANS AND DOCUMENTS TO PROVIDE A COMPLETELY FINISHED, TESTED, AND OPERATIONAL ELECTRICAL SYSTEM.

C. THE CONTRACTOR AND SUB-CONTRACTORS WILL BE LICENSED AND ARE PRESUMED TO BE EXPERIENCED AND KNOWLEDGEABLE OF INSTALLATION PRACTICES AND LOCAL CODE REQUIREMENTS. EACH SHALL MAKE KNOWN TO THE PROJECT MANAGER, WITH THE SUBMISSION OF HIS BID, OF ANY MATERIALS OR APPARATUS BELIEVED TO BE INADEQUATE, UNSUITABLE, IN VIOLATION OF APPLICABLE LAWS, ORDINANCES, OR RULES, AND OF ANY NECESSARY ITEMS OF WORK OMITTED.

D. COORDINATE AND PROVIDE THE CUTTING AND PATCHING OF BUILDING COMPONENTS TO ACCOMMODATE THE INSTALLATON OF ELECTRICAL EQUIPMENT AND MATERIALS. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF PAVEMENT, BLACKTOP AND GRASSY AREAS TO AS A RESULT OF HIS WORK, CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES AS REQUIRED FOR NECESSARY REPAIRS. IN THE ABSENCE OF ARCHITECTURAL SPECIFICATIONS, REPAIRS SHALL MATCH THE EXISTING PRE-CONSTRUCTION CONDITION OR ADJACENT SIMILAR AREAS.

E. THE CONTRACTOR SHALL PROVIDE AND INSTALL BRACES AND SUPPORTS FOR HIS WORK.

F. VERIFY EQUIPMENT LOCATIONS FOR ELECTRICAL ROUGH-INS WITH OWNER /USER REPRESENTATIVE, FIELD MEASUREMENTS AND WITH THE REQUIREMENTS OF THE ACTUAL EQUIPMENT TO BE CONNECTED. CONFLICTS WITH OTHER EQUIPMENT AND FEATURES SHALL BE RESOLVED PRIOR TO INSTALLATION.

G. WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, COORDINATE WITH COUNTY PROJECT MANAGER PRIOR TO ROUGH-IN. INSTALL ELECTRICAL SERVICES AND OVERHEAD EQUIPMENT TO PROVIDE MAXIMUM HEADROOM POSSIBLE.

H. INSTALL ELECTRICAL EQUIPMENT TO FACILITATE MAINTENANCE AND REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS.

I. PROVIDE AND ARRANGE FOR REPAIRS REQUIRED TO RESTORE OTHER WORK BECAUSE OF DAMAGE CAUSED AS A RESULT OF ELECTRICAL INSTALLATIONS.

J. NO ADDITIONAL COMPENSATION WILL BE AUTHORIZED FOR CUTTING AND PATCHING WORK THAT IS NECESSITATED BY ILL-TIMED, DEFECTIVE, OR NON-CONFORMING INSTALLATIONS.

K. ALL EQUIPMENT LUGS SHALL BE U. L. LISTED FOR 75°C. FOR COPPER CONDUCTORS. WHERE EQUIPMENT IS NOT LISTED AS SUCH ADJUST CONDUCTOR AMPACITY IAW NFPA 70 ARTICLE 310, TABLE 16.

L. ANY BRANCH CIRCUIT REQUIRING A NEUTRAL SHALL BE PROVIDED WITH ITS OWN NEUTRAL. NO COMMON NEUTRAL SHALL BE PERMITTED.

M. PROVIDE A GREEN, INSULATED EQUIPMENT GROUND CONDUCTOR WITH ALL CIRCUITS IN ACCORDANCE WITH NFPA 70 ARTICLE 250 WHETHER SHOWN ON THE PLANS OR NOT. ADJUST FEEDER AND BRANCH CIRCUIT RACEWAY SIZE IF REQUIRED.

N. THE OWNER RESERVES THE RIGHT TO INSPECT AND TEST ANY PORTION OF THE EQUIPMENT DURING THE PROGRESS OF ITS ERECTION. THE ELECTRICAL CONTRACTOR SHALL TEST THE ENTIRE SYSTEM IN THE PRESENCE OF THE OWNER OR HIS/HER REPRESENTATIVE WHEN THE WORK IS COMPLETED TO INSURE ALL PORTIONS OF THE WORK ARE FREE FROM DEFECT. ALL EQUIPMENT NECESSARY TO CONDUCT THE ABOVE TESTS SHALL BE FURNISHED AT THE EXPENSE OF THE ELECTRICAL CONTRACTOR. THE CONTRACTOR SHALL REPAIR ANY DEFECTS NOTED AT NO EXTRA COST TO THE OWNER.

O. PROVIDE JUNCTION BOXES, TERMINAL BOXES AND CONDUIT FITTINGS AS REQUIRED TO FACILITATE THE PULLING OR SPLICING OR WIRES OR CABLES.

P. THE CONTRACTOR SHALL RESTORE THE CONSTRUCTION AREA TO THEIR ORIGINAL OPERATING CONDITION AND FINISH.

Q. WHERE EXISTING WORK INTERFERES WITH THE INSTALLATION, THE EXISTING WORK WILL BE RELOCATED AND RECONNECTED TO COORDINATE WITH THE WORK INDICATED ON THE DRAWINGS.

ABBREVIATIONS

A	AMPERE
AF	AMPERE, FRAME RATING
AFG	ABOVE FINISHED GRADE
AT	AMPERE, TRIP RATING
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
BLDG	BUILDING
BTC	BARE TINNED COPPER
C	CONDUIT
CKT	CIRCUIT
CND	CONDUIT
COP,CU	COPPER
CT	CURRENT TRANSFORMER
DISC	DISCONNECT
DWG	DRAWING
ELEC	ELECTRIC
FDR	FEEDER
FLA	FULL LOAD AMPS
FSS	FUSED SAFETY SWITCH
GFI	GROUND FAULT INTERRUPTER
G, GND	GROUND (ING) (ED)
HP	HORSE POWER
HZ	HERTZ
IAW	IN ACCORDANCE WITH
JB	JUNCTION BOX
JUNC	JUNCTION
KAIC	KILO-AMPERE INTERRUPTING CAPACITY
KW	KILOWATT
KWHR	KILOWATT HOUR
LTG	LIGHTING
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MFC	MAXIMUM FUSE/CKT BKR AMPACITY
MGB	MASTER GROUND BAR
MLO	MAIN LUGS ONLY
MOP	MINIMUM OVERCURRENT PROTECTION
MTD	MOUNT (ED) (ING)
MTR	METER (S) (ED) (ING)
N	NEUTRAL
N\L	NIGHT LIGHT (UNSWITCHED)
NFSS	NON FUSED SAFETY SWITCH
NTS	NOT TO SCALE
OPD	MAXIMUM OVERCURRENT PROTECTION DEVICE SIZE
OVHD	OVERHEAD
P	POLE
PH, ø	PHASE
PNL	PANEL
PWR	POWER
RCPT	RECEPTACLE
S/N	SOLID NEUTRAL
SERV ENTR	SERVICE ENTRANCE
SW	SWITCH
SWBD	SWITCHBOARD
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UTIL	UTILITY
W	WATT
WSA	WIRE SIZE AMPACITY
WP	WEATHERPROOF
WW	WIREWAY
XFMR	TRANSFORMER

SPECIFICATIONS

1. CONDUIT AND WIRE
A. ALL CONDUCTORS SHALL BE COPPER WITH A MINIMUM CONDUCTOR SIZE OF #12 AWG, UON. CONDUCTORS SHALL BE COPPER - STRANDED FOR NO. 8 AWG AND LARGER, SOLID FOR NO. 10 AWG AND SMALLER.

B. CONDUCTOR INSULATION WILL BE THERMOPLASTIC TYPE "THHN", "THWN" OR "XHHW", 75 DEGREE CELSIUS RATING.

C. ALL WIRING SHALL BE INSTALLED IN RIGID CONDUIT OR EMT. FLEXIBLE CONDUIT MAY BE USED AS ALLOWED BY LOCAL AND NATIONAL ELECTRIC CODES IN OFFICE AREAS ONLY. LIMIT RUNS OF FLEXIBLE CONDUIT TO 6 FT. FOR RECESSED ACCESSIBLE LIGHTING FIXTURES AND 18" FOR CONNECTION TO TRANSFORMER OR MOTORS. PVC CONDUIT RATED FOR THE USE MAY BE USED BELOW GRADE.

D. GROUNDING CONDUCTORS USED OUTSIDE OR BELOW GRADE TO CONNECT THE EXTERIOR GROUNDING SYSTEM TO THE INTERIOR SYSTEM SHALL BE INSULATED RHH/RHW COPPER TELECOM POWER CABLE, GREEN IN COLOR.

2. WIRING DEVICES
A. ALL DEVICES WILL BE OF SPECIFICATION GRADE. SWITCHES AND RECEPTACLES SHALL BE IVORY IN COLOR WITH STAINLESS STEEL COVER PLATES. ACCEPTABLE MANUFACTURERS: HUBBELL, INC., LUTRON, GENERAL ELECTRIC CO., COOPER INDUSTRIES.

B. DUPLEX, GENERAL PURPOSE RECEPTACLES: 20 AMP, 125 VOLT, 2-POLE, 3-WIRE RATING WITH NEMA 5-20R CONFIGURATION, U.O.N.

C. DUPLEX GROUND FAULT INTERRUPTER TYPE RECEPTACLE: IDENTICAL TO GENERAL PURPOSE TYPE, EXCEPT WITH SOLID-STATE GROUND-FAULT SENSING AND CIRCUIT INTERRUPTER, CLASS A, GROUP 1, PER UL 943, AND FIVE MILLIAMPERES GROUND-FAULT TRIP LEVEL.

D. WEATHERPROOF PLATES SHALL HAVE CORROSION-RESISTANT FINISH, CAST METAL WITH SPRING-LOADED GASKETTED DOORS.

3. SAFETY SWITCHES
A. ACCEPTABLE MANUFACTURERS: CUTLER HAMMER PRODUCTS; EATON CORP.; GENERAL ELECTRIC CO.; SIEMENS ENERGY AND AUTOMATION, INC.; OR SQUARE D CO.

B. HEAVY DUTY, ENCLOSED, WITH QUICK MAKE/QUICK BREAK MECHANISM AND REJECTION FUSE CLIPS. PROVIDE NEMA 1 ENCLOSURE; 600 VOLT, 30 AMP, 3-POLE SWITCH, U.O.N.

4. FUSES
A. ACCEPTABLE MANUFACTURERS: BUSSMAN DIV.; COOPER INDUSTRIES INC.; GOULD INC.; CIRCUIT PROTECTION DIV.; BRUSH INC.; LITTELFUSE, INC.

B. FUSES RATED 600 AMPERES AND LESS: U.L. CLASS RKI, UNLESS OTHERWISE INDICATED, CURRENT LIMITING, TIME DELAY, PER U.L. 198E WITH AN INTERRUPTING RATING OF 100,000 AMPERES RMS.

5. PANELBOARDS
A. ACCEPTABLE MANUFACTURERS: CUTLER HAMMER PRODUCTS; GENERAL ELECTRIC CO.; AND SQUARE D CO.

B. PROVIDE DEAD-FRONT, SURFACE MOUNTED, SAFETY TYPE, 60 HERTZ PANELBOARDS SUITABLE FOR VOLTAGES, PHASE AND WIRES AS INDICATED ON DRAWINGS. COMPLY WITH APPLICABLE REQUIREMENTS OF NEMA PB1 AND U.L. 50 AND 67.

C. PROVIDE COPPER BUS, BOLT ON CIRCUIT BREAKERS AND A FULL SIZE NEUTRAL BUS UON. PROVIDE DOUBLE RATED NEUTRAL BUS FOR PANELBOARDS AS NOTED.

D. PROVIDE MINIMUM INTEGRATED SHORT CIRCUIT RATING OF 10,000 A RMS SYMMETRICAL AT 240 VOLTS, AND 22,000 FOR 480/277V PANELBOARDS, UNLESS OTHERWISE NOTED.

6. GROUNDING
A. GROUND RODS WILL BE A MINIMUM OF 10' LONG, 3/4" IN DIAMETER AND DRIVEN 12" BELOW GRADE. CONNECT ALL GROUND RODS TO THE BUILDING GROUND LOOP.

B. GROUND CONDUCTORS #4 AWG AND LARGER MAY BE INSTALLED WITHOUT CONDUIT WHERE NOT SUBJECT TO DAMAGE. PROVIDE SLEEVES AT ALL WALL AND ROOF PENETRATIONS FOR PROTECTION.

7. BALL FIELD LIGHTING SYSTEM
A. THE LIGHTING SYSTEM IS PERFORMANCE BASED OF THE ATTACHED MINIMUM REQUIREMENTS. MUSCO IS THE BASIS OF DESIGN. ALTERNATIVE MANUFACTURERS WILL BE APPROVED BY ADDENDUM BASED ON A PRE-BID SUBMITTAL.

B. LIGHTING SYSTEM MANUFACTURER WILL PROVIDE LIGHT POLE AND FOUNDATION DESIGN SIGNED AND SEALED BY A VIRGINIA REGISTERED PROFESSIONAL ENGINEER.

DRAWING INDEX

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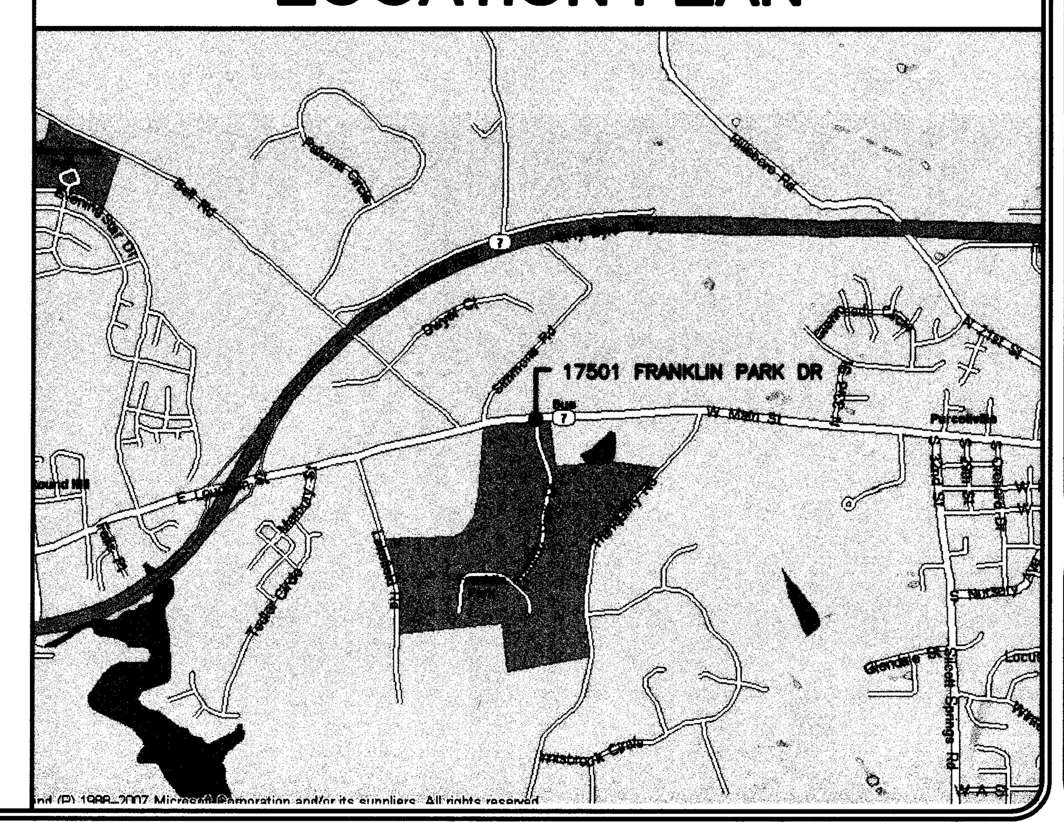
E3	DETAILS					
E4	POLE MOUNTED LIGHT FIXTURE DETAILS					

SYMBOL LIST

S	SINGLE POLE TUMBLER SWITCH RATED 20A, 125/277VAC, MTD 4'-0" AFF OR AS NOTED.
S_3 S_4	THREE OR FOUR WAY FLUSH TUMBLER SWITCH RATED 20A, 125/277VAC, MTD 4'-0" AFF UON.
S_M	GENERAL PURPOSE, MOTOR RATED, 250V, 20A, SINGLE POLE DISCONNECT SWITCH. VOLTAGE
	DUPLEX RECEPTACLE 1P, 3W, 20A, 125V, 18" AFF OR AS NOTED.
	QUADRAPLEX RECEPTACLE 1P, 3W, 20A, 125V, 18" AFF OR AS NOTED.
Ⓙ Ⓧ	JUNCTION BOX - CONCEALED ABOVE CEILING OR FLUSH WALL MOUNTED.
Ⓜ	MOTOR CONNECTION. MOTOR PROVIDED AND INSTALLED BY OTHERS UON.
	DISCONNECT SWITCH (FSS = FUSIBLE, NFSS = NONFUSIBLE) POWER RATING, VOLTAGE AND POLES REQUIRED AS INDICATED ON EQUIPMENT SCHEDULE.
PNL A 4	BRANCH CIRCUIT HOME RUN TO PANEL DESIGNATED. CONNECT CIRCUIT TO SINGLE POLE, 20A BRANCH CIRCUIT BREAKER IN PANELBOARD INDICATED. PROVIDE NUMBER AND SIZE OF CONDUCTORS AS INDICATED ON PANEL SCHEDULE. "N" INDICATES CIRCUIT NUMBER.
—UEC—	UNDERGROUND ELECTRICAL CONDUIT
PNL A	PROVIDE BRANCH CIRCUIT PANELBOARD WITH DESIGNATION
100AF 100AT 3P	MOLDED CASE CIRCUIT BREAKER, RATINGS SHALL BE AS INDICATED. WHERE NOT INDICATED PROVIDE IAW INTENDED REQUIREMENTS.
100AF 100AT 3P	FUSED DISCONNECT SWITCH, RATINGS FRAME AND FUSE SIZE AS INDICATED. WHERE NOT INDICATED PROVIDE IAW INTENDED REQUIREMENTS.
	POWER COMPANY APPROVED CURRENT AND POTENTIAL TRANSFORMER ENCLOSURE. COORDINATE REQUIREMENTS WITH POWER COMPANY PRIOR TO ORDERING.
Ⓜ	POWER COMPANY APPROVED METER SOCKET. COORDINATE REQUIREMENTS WITH POWER COMPANY PRIOR TO ORDERING.
②	SEE NOTE ON SHEET WHERE SYMBOL OCCURS.
(E)	INDICATE EXISTING DEVICES, EQUIPMENT OR COMPONENTS TO REMAIN.

LOCATION PLAN



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NO.	DATE	SUBMISSION
	09/20/10	PERMIT AND CONSTRUCTION

TITLE SHEET, GENERAL NOTES, & DRAWING INDEX

FRANKLIN PARK
BALL FIELD LIGHTING
17501 FRANKLIN PARK DR
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JOB# 10-071

T1

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