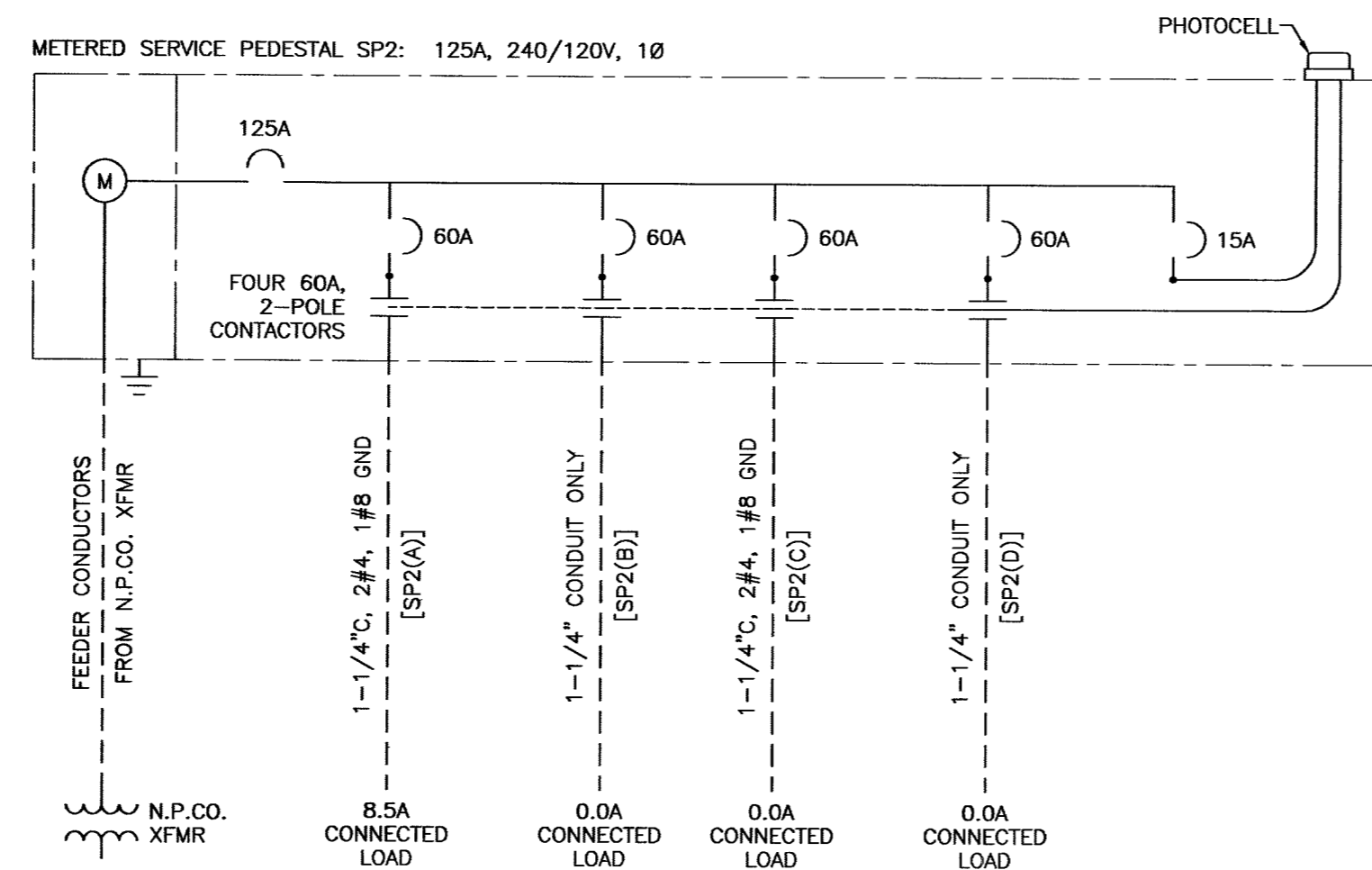


1. THE DESIGN PROFESSIONAL HAS PERFORMED ALL THE REQUIRED VOLTAGE DROP CALCULATIONS FOR ALL BRANCH CIRCUITS AND FEEDERS PER 2002 NATIONAL ELECTRICAL CODE ARTICLE 210.19(A)(1) FPN No. 4.
2. THE DESIGN PROFESSIONAL HAS PERFORMED ALL THE REQUIRED INCOMING FAULT CURRENT CALCULATIONS FOR THE NEW 125A SERVICE PEDESTAL AND 20KAC PANEL BOARD PER 2002 NATIONAL ELECTRICAL CODE ARTICLE 110.9.
3. THE INTERRUPTING RATING OF THE OVERCURRENT DEVICES IN THE MAIN SWITCH MUST BE CAPABLE OF SAFELY INTERRUPTING 19,702 AMPERES SHORT-CIRCUIT RMS SYMMETRICAL. THE BUS BRACING IN THE EQUIPMENT MUST ALSO BE CAPABLE OF WITHSTANDING THIS FAULT CURRENT. 167KVA AND A 20 FOOT CIRCUIT LENGTH MINIMUM WERE USED IN THESE CALCULATIONS. IF A LARGER TRANSFORMER OR DISTANCE SHORTER THAN 20' IS USED, THE FAULT CURRENT WILL HAVE TO BE RECHECKED.



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LEGEND:

- STREETLIGHTING CONDUIT
 - PROPOSED
 - EXISTING
 - FUTURE
- TRAFFIC SIGNAL CONDUIT
 - PROPOSED
 - EXISTING
 - FUTURE
- INTERCONNECT CONDUIT
 - PROPOSED
 - EXISTING
 - FUTURE
- SCHOOL FLASHER CONDUIT
 - PROPOSED
 - EXISTING
 - FUTURE
- STREET LIGHT
 - PROPOSED
 - EXISTING
 - FUTURE
- STREET LIGHT WITH TRAFFIC SIGNAL
 - PROPOSED
 - EXISTING
 - FUTURE
- #3-1/2 PULLBOX, MARKED "STREET LIGHTING", UNLESS OTHERWISE NOTED
 - PROPOSED
 - EXISTING
 - FUTURE
- #5 PULLBOX, MARKED "TRAFFIC SIGNAL", UNLESS OTHERWISE NOTED
 - PROPOSED
 - EXISTING
 - FUTURE
- #7 PULLBOX, MARKED "TRAFFIC SIGNAL", UNLESS OTHERWISE NOTED
 - PROPOSED
 - EXISTING
 - FUTURE
- SERVICE PEDESTAL
 - PROPOSED
 - EXISTING
 - FUTURE
- N.P.C. TRANSFORMER
 - PROPOSED
 - EXISTING
 - FUTURE
- TRAFFIC SIGNAL CONTROLLER
 - PROPOSED
 - EXISTING
 - FUTURE
- SERVICE PEDESTAL DESIGNATION
 - N = SERVICE PEDESTAL
 - X = CIRCUIT

ELECTRICAL CONSTRUCTION NOTES

- PROPOSED SERVICE PEDESTAL SP1. SEE ELECTRICAL SERVICE NOTES.
- PROPOSED SERVICE PEDESTAL SP2. SEE ELECTRICAL SERVICE NOTES.
- PROPOSED N.P.CO. TRANSFORMER.
- NOT USED
- PROPOSED 100W HPS STREETLIGHT ASSEMBLY. POLE, LUMINAIRE AND FIXTURE SHALL CONFORM TO AMERON 68126 (MIX12) WITH AMERON 1A2B6VA SCROLL & ARM ASSEMBLY, 1A2B6VA ALUM ARM ASSEMBLY PER DRAWING #SK083101. AMERON MBO06 (5731) POLE, DRAWING #SK054805
- PROPOSED 100W HPS STREETLIGHT ASSEMBLY WITH 23' LUMINAIRE MOUNTING HEIGHT AND 6' MAST ARM LENGTH PER CLIFF'S EDGE MASTER DEVELOPMENT PLAN AND DESIGN GUIDELINES.
- FUTURE STREETLIGHT.
- PROPOSED NO. 3-1/2 PULLBOX PER USD 326.
- PROPOSED NO. 5 PULLBOX PER USD 326.
- PROPOSED 1-1/4" CONDUIT CONTAINING 2#4, 1#8 GND [STREETLIGHTING].
- PROPOSED 1-1/4" CONDUIT ONLY [STREETLIGHTING].
- STUB OUT AND CAP 5' BEYOND LIMIT OF CONSTRUCTION.

ELECTRICAL SERVICE NOTES:

- SP1: PROPOSED 125 AMP, SINGLE PHASE, 3 WIRE 120/240V PAD MOUNTED SERVICE PEDESTAL. FEEDER FROM N.P.CO. POINT OF CONNECTION TO BE 2" C, 2#4/0 THW, 1#4/0 WHITE THW (COPPER). TRANSFORMER TO SERVICE PEDESTAL DISTANCES GREATER THAN 155 FEET FOR SPECIFIED CONDUCTORS MUST BE APPROVED BY ENGINEER. SERVICE PEDESTAL SHALL BE LOCATED A MINIMUM OF 30 FEET FROM THE TRANSFORMER. THE FOLLOWING SHALL BE INCLUDED IN THE SERVICE PEDESTAL:
- (2) 60 AMP, 240V, 2-POLE CIRCUIT BREAKERS,
 - (2) 60 AMP, 240V, 2-POLE LIGHTING CONTACTORS,
 - (2) TEST SWITCHES (ONE FOR EACH CONTACTOR),
 - (1) 15 AMP, 120V, SINGLE POLE CIRCUIT BREAKER FOR LIGHTING CONTROLS.
- GROUNDING SHALL BE IN ACCORDANCE WITH NEC 250.52 AND 250.53 PHOTOELECTRIC CONTROL SHALL BE MOUNTED AT FIRST LIGHTING STANDARD FACING NORTH AND CONNECTED TO SERVICE PEDESTAL BY #10 THW.
- SP2: PROPOSED 125 AMP, SINGLE PHASE, 3 WIRE 120/240V PAD MOUNTED SERVICE PEDESTAL. FEEDER FROM N.P.CO. POINT OF CONNECTION TO BE 2" C, 2#4/0 THW, 1#4/0 WHITE THW (COPPER). TRANSFORMER TO SERVICE PEDESTAL DISTANCES GREATER THAN 155 FEET FOR SPECIFIED CONDUCTORS MUST BE APPROVED BY ENGINEER. SERVICE PEDESTAL SHALL BE LOCATED A MINIMUM OF 30 FEET FROM THE TRANSFORMER. THE FOLLOWING SHALL BE INCLUDED IN THE SERVICE PEDESTAL:
- (2) 60 AMP, 240V, 2-POLE CIRCUIT BREAKERS,
 - (2) 60 AMP, 240V, 2-POLE LIGHTING CONTACTORS,
 - (2) TEST SWITCHES (ONE FOR EACH CONTACTOR),
 - (1) 15 AMP, 120V, SINGLE POLE CIRCUIT BREAKER FOR LIGHTING CONTROLS.
- GROUNDING SHALL BE IN ACCORDANCE WITH NEC 250.52 AND 250.53 PHOTOELECTRIC CONTROL SHALL BE MOUNTED AT FIRST LIGHTING STANDARD FACING NORTH AND CONNECTED TO SERVICE PEDESTAL BY #10 THW.

GENERAL ELECTRICAL NOTES

1. ALL UNDERGROUND CONDUIT SHALL BE TYPE RNC (RIGID NONMETALLIC CONDUIT), SCHEDULE 40 PVC AND SHALL BE INSTALLED PER USD 404.1419 AND USD 501. ABOVE GRADE CONDUIT SHALL BE TYPE RMC (RIGID METALLIC CONDUIT). CONDUIT RISERS SHALL BE TYPE RMC WITH PVC COATING OR TAPE WRAP. ALL CONDUIT WHICH WOULD OTHERWISE BE EMPTY SHALL INCLUDE A NYLON PULLSTRING AND 1#8 FOR LOCATING PURPOSES.
2. ALL CONDUCTORS SHALL BE STRANDED, 600-VOLT, TYPE THW INSULATED COPPER.
3. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRICAL COMPONENTS AND HARDWARE AS REQUIRED BY THE NATIONAL ELECTRICAL CODE, LATEST EDITION AND SHALL COMPLY WITH THE REQUIREMENTS OF THE INSPECTING AUTHORITY HAVING JURISDICTION.

CITY OF LAS VEGAS STREETLIGHT NOTES

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION, AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION.
2. NO DEMATION OF STREET LIGHT, PULL BOX, CONDUITS (ETC.) LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TRAFFIC/ELECTRICAL FIELD OPERATIONS DIVISION AND THE CITY ENGINEER. ANY DEVIATION FROM THE PLAN LOCATION WILL REQUIRE COMPLIANCE WITH SECTION 623.L0.03 (E) OF THE SPECIFICATIONS.
3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION.
4. ALL EMPTY CONDUIT SHALL HAVE PULL STRINGS INSTALLED PRIOR TO FINAL INSPECTION.
5. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE OF EIGHTEEN INCHES (18") TO THE FACE OF STREET LIGHTING POLE ON ALL SIDES WHEN STREETLIGHT IS INSTALLED BEHIND SIDEWALK, AND SHALL AT NO TIME COMPLETELY ENCLOSE THE STREET LIGHTING POLE.
6. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE ELECTRICAL SERVICES SECTION PRIOR TO ANY PREFINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
7. SERVICE POINT SHALL BE COORDINATED WITH NEVADA POWER COMPANY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICE POINTS SHALL BE SHOWN ON THE PLANS.
8. IT SHALL BE ASSUMED THAT IN THE ABSENCE OF AN EXISTING, WORKABLE CIRCUIT TO ATTACH TO, ALL INSTALLATIONS SHALL REQUIRE A NEW SERVICE FOR OPERATION OF THE CIRCUIT.
9. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREET LIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED BEFORE STREETLIGHT BASES ARE INSTALLED AT NO EXPENSE TO THE CITY OF LAS VEGAS.
10. THE CONTRACTOR SHALL FURNISH COMPLETE SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON PLANS.

BENCHMARK

DESC.	NAVD 88 DATUM	NAVD 88 DATUM
BVLV99 13E4	2860.79 (FEET)	871.971 (METERS)

BASIS OF BEARINGS

N 88°21'18" E BEING THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHEAST QUARTER (NE 1/4) OF SECTION 13, T19S, R59E, M.D.M., AS SHOWN BY RECORD OF SURVEY ON FILE IN THE CLARK COUNTY, NEVADA RECORDER'S OFFICE IN FILE 124 OF SURVEYS AT PAGE 94.

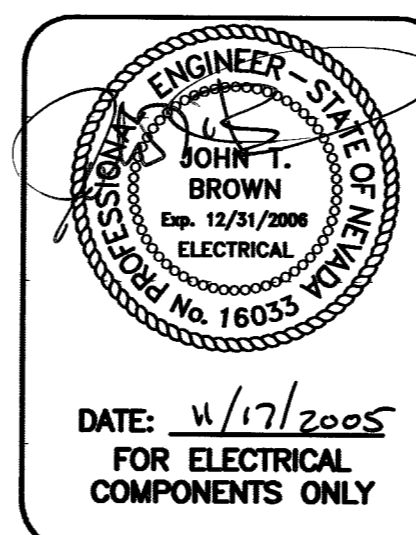
SERVICE PEDESTAL CIRCUIT CAPACITY VERIFICATION

CIRCUIT NAME:	SP1 (A)		SP1 (B)		SP2 (A)	
	STREET LIGHTING (PROPOSED)	STREET LIGHTING (PROPOSED)	STREET LIGHTING (PROPOSED)	STREET LIGHTING (PROPOSED)	INTERSECTION LIGHTING (PROPOSED)	INTERSECTION LIGHTING (PROPOSED)
VOLTAGE:	240	240	240	240	240	240
CIRCUIT CAPACITY:	60	60	60	60	60	60
MAXIMUM CONTINUOUS CURRENT DRAW IS 80% OF CIRCUIT CAPACITY:	48	48	48	48	48	48
EXISTING CIRCUIT LOAD AMPS =	0.00	0.00	0.00	0.00	0.00	0.00
PROPOSED LOAD TO CIRCUIT:	PROPOSED		PROPOSED		PROPOSED	
100 WATT SINGLE LUMINAIRES AT 240V = 0.50 AMPS	QTY.	AMPS	QTY.	AMPS	QTY.	AMPS
150 WATT TWIN LUMINAIRES AT 240V = 0.75 AMPS	11	5.50	13	6.50	17	8.50
250 WATT SINGLE LUMINAIRES AT 240V = 1.25 AMPS	0	0.00	0	0.00	0	0.00
400 WATT SINGLE LUMINAIRES AT 120V = 4.00 AMPS	0	0.00	0	0.00	0	0.00
TOTAL PROPOSED LOAD AMPS =	5.50		6.50		8.50	
EXISTING PLUS PROPOSED LOAD AMPS =	5.50		6.50		8.50	
REMAINING AVAILABLE LOAD AMPS: MAXIMUM - EXISTING - PROPOSED =	42.50		41.50		39.50	

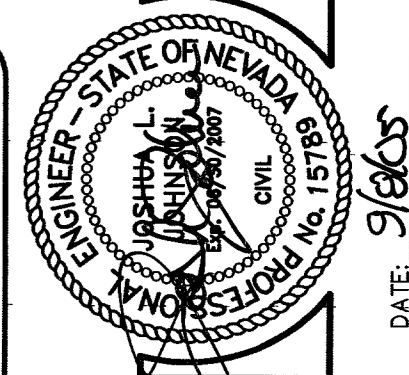
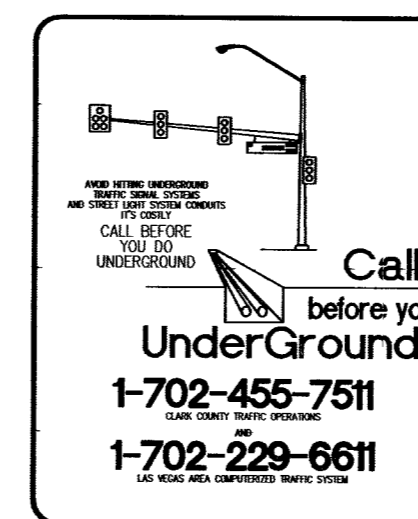
CITY OF LAS VEGAS TRAFFIC NOTES

1. ALL CONSTRUCTION SIGNING, BARRICADING AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC DEVICES", LATEST EDITION.
2. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCED WARNING SIGNS FOR THE CONSTRUCTION ZONES. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
4. WHEN A DESIGNATED "SAFE ROUTE TO SCHOOL" IS ENCLOSED UPON BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTIFIES A NEED FOR STUDENTS TO BE ASSISTED IN THE SAFE CROSSING THROUGH THAT WORK ZONE, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A QUALIFIED "CROSSING GUARD". THE GUARD SHALL BE PRESENT FOR THE FULL DURATION OF TIME THAT CHILDREN ARE LIKELY TO BE PRESENT.
5. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. STREET NAMES SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.
7. WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5') FEET OF ANY PROPOSED SIGN SHOWN ON THE PLANS TO BE MOUNTED ON A SIGNPOST, THE SIGN SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.
8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HEREUNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.
9. STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.
10. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO ENSURE THE SAFETY OF THE PUBLIC IN OR AROUND THE WORK AREA. THE CONTRACTOR SHALL HAVE A CERTIFIED ATSSA TRAFFIC CONTROL TECHNICIAN OR IMAA WORK ZONE SAFETY SPECIALIST SET-UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHTS OF WAY.
11. WORK IN THE PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING CITIZENS AREA TRANSIT (C.A.T.) IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.
13. GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE NO. 229-3442) WHO WILL PROVIDE OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICERS SHALL BE SET UP BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.
14. ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.

35 468



DATE: 4/17/2005
FOR ELECTRICAL COMPONENTS ONLY



G.C. WALLACE, INC.
Engineers/Planners/Surveyors
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LAS VEGAS, NV 89102
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tbs@tcw.com

MERITAGE HOMES
NORTHERN TERRACE - UNIT 1
STREETLIGHT, CONDUIT AND
ELECTRICAL PLAN DATA SHEET

DRAWING
C-36