DU-023

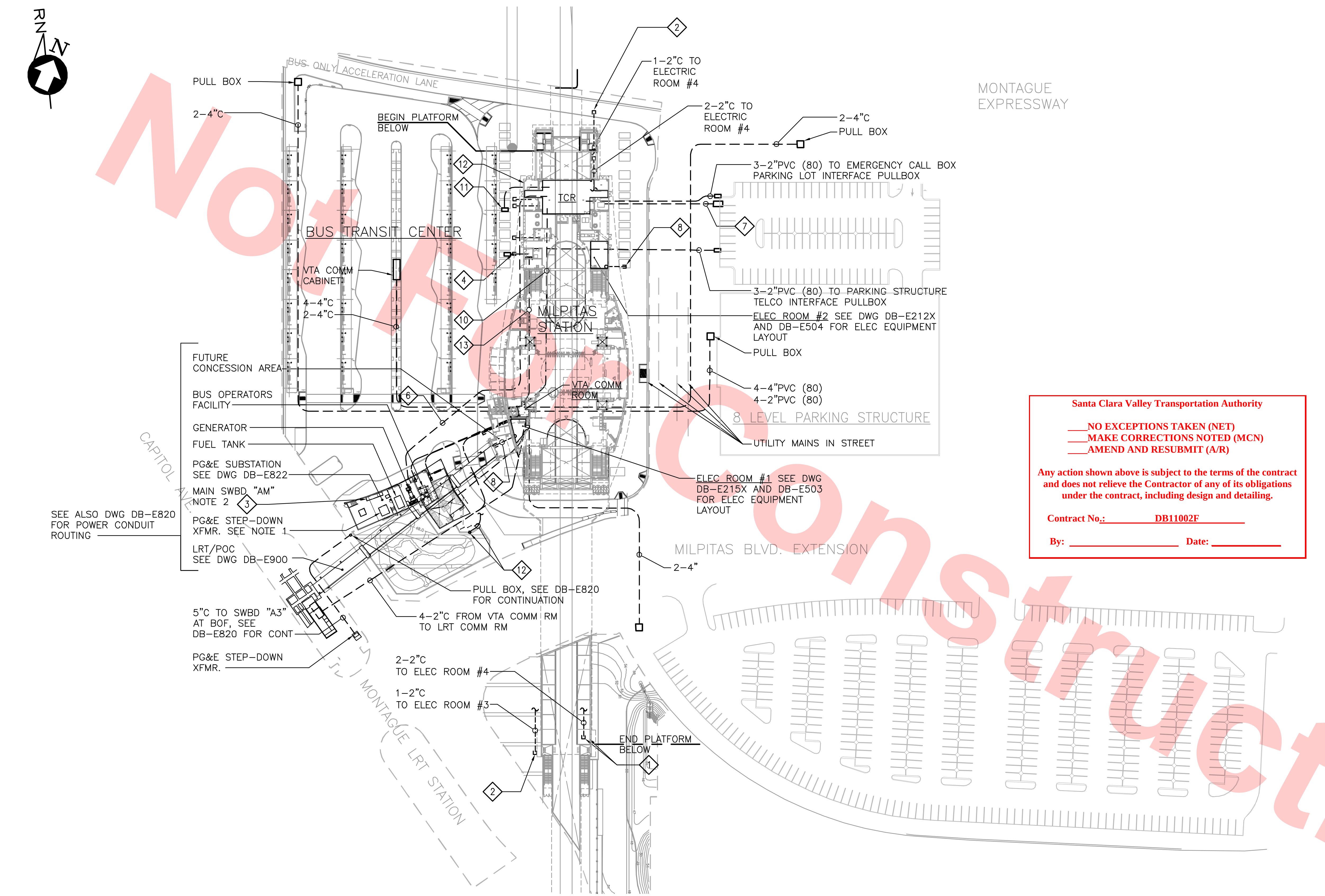
SSH JV

Milpitas Station
Design Unit 023
Readiness for Construction
Electrical

SVBX C700

Wednesday, July 10, 2013

HALF SIZE
COPY



Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: ____________ Date: ____________

ELECTRICAL SITE KEY PLAN

SCALE: 1"=60'

DB-A050

KEY NOTES

1. FOR TRACKSIDE LIGHTING PANELBOARDS AND DOUBLE CROSSOVER TRACK LIGHTING SEE CONTRACT DOCUMENTS. C700 CONTRACTOR TO EXTEND CONDUITS FROM PANELBOARDS TO STATION POWER DISTRIBUTION PANELS.
2. 1-2"C TO RAIL LUBRICATOR. CONTRACTOR TO EXTEND CONDUIT FROM LUBRICATOR TO STATION DISTRIBUTION PANELBOARD.
3. (8)5"C & (2)2"C FROM MAIN SWBD. "AM" TO THE INTERFACE POINT OF THE 480V PG&E INCOMING POWER SUPPLY.
4. 3-2"C FROM TELCO ROOM TO THE TELEPHONE SERVICE PROVIDER PULLBOX AT THE STATION/CAMPUS BOUNDARY.
5. 3-2"C FROM TCR TO PARKING LOT EMERGENCY CALL BOX SYSTEM.
6. 2-2"C FROM TCR TO GENERATOR CONTROLLER.
7. 4-4"C, 4-2"C FROM TCR, UNDER UTILITY MAINS IN STREET, TO THE PARKING STRUCTURE COMMUNICATION INTERFACE MANHOLE. EXTENSION BY C720 CONTRACTOR.
8. 3-2" FROM ELECTRICAL ROOM TO CAMPUS POWER (LIGHTING AND MISCELLANEOUS) INTERFACE PULLBOXES.
9. 2-4"C FROM VTA COMM PULLBOX TO VTA COMM ROOM.
10. 4-4"C FROM TCR TO TO VTA COMM. ROOM.
11. 3-2"C TO BIKE STORAGE FACILITY.
12. IRRIGATION MASTER VALVE JUNCTION BOX, SEE LANDSCAPE PLAN, DWG. DB-L304 AND DB-L351 FOR LOCATION. SEE LANDSCAPE DRAWING DB-L301 AND ELEC. DWG. DB-E211X FOR CONTROLLER AND CONDUIT CONNECTION.
13. 3-2"C BETWEEN TELCO ROOM AND VRA COMMUNICATION ROOM.

NOTES

1. 480/277V, 3-PH, 4-WIRE SERVICE WILL BE ORIGINATING FROM PG&E STEP-DOWN TRANSFORMER.
2. CONTRACTOR TO EXTEND DUCT FROM PG&E PAD MOUNTED STEP-DOWN TRANSFORMER TO THE PULL SECTION OF SWITCHBOARD AM, SEE DWG DB-E821.
3. ALL CONDUIT RUNS FOR MEDIUM VOLTAGE CONTROL/COMMUNICATION, ETC., CONSULT WITH SYSTEM ELECTRICAL ENGINEERS FOR DETAIL.

60' 0' 60' 120'

GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER LINUS L.N. CHEN E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 535-2837 Fax: (510) 535-2339
SUBMITTED [illegible]

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL
APPROVED [illegible]

VTA. BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

ELECTRICAL SITE KEY PLAN

CADD FILENAME C700-S-DB-E000.dwg		
SIZE D	SCALE 1"=60'	
CONTRACT NO. C700		REV. 0
AREA CODE DB	SHEET NO. E000	PAGE NO. 0826

GilesM Jun 24, 2013 - 2:50pm G:\Giles Maravilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E000.dwg

A	AMPERE
A/G	AT GRADE
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AB	AIRBREAK, ANCHOR BOLT
ABD	ABANDON, ABANDONED
ABUT	ABUTMENT
ABV	ABOVE
AC	ALTERNATING CURRENT
ACU	AIR CONDITIONING UNIT
ACCP	AIR CONDITIONING CONTROL PANEL
ACI	AMERICAN CONCRETE INSTITUTE
ACP	AC PANEL
ADJ	ADJACENT
AFC	AUTOMATIC FARE COLLECTION
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHD	AHEAD
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALUM	ALUMINUM
ALT	ALTERNATE
AM	AMMETER
AMD	AUTOMATIC MOTORIZED DAMPER
ANCH	ANCHOR
ANN	ANNUNCIATOR
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATE
ARC	ARMORED CABLE
ARCH	ARCHITECTURAL/ARCHITECT
AREMA	AMERICAN RAILWAY ENGINEERING & MAINTENANCE OF WAY ASSOCIATION
AS	AMMETER SWITCH
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
AT	AMMETER TRANSDUCER
ATM	ALONG TRACK MOVEMENT
ATP	AMPERE TRIP
ATR	ABOVE TOP OF RAIL
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
AVE	AVENUE
AVG	AVERAGE
AWG	AMERICAN WIRE GAUGE
AWS	AMERICAN WELDING SOCIETY
B/B	BACK–TO–BACK
BATT	BATTERY
BC	BRANCH CIRCUIT
BCB	BRANCH CIRCUIT BREAKER
BD	BOARD
BEG	BEGIN
BFG	BELOW FINISH GRADE
BCM	BILL CHANGE MACHINE
BK	BACK
BKR	BREAKER
BL	BASELINE OR BLUE LIGHT
BLDG	BUILDING
BLVD	BOULEVARD
BM	BEAM
BPS	BOLTED PRESSURE SWITCH
BSD	BARE SOFT DRAWN
BR	BRIDGE
BRKT	BRACKET
BTM	BOTTOM/BUS TRANSFER MACHINE
BTWN	BETWEEN
C	CELSIUS
℄ TO ℄	CENTERLINE TO CENTERLINE
CAB	CABINET
CAP	CAPACITOR
CB	CIRCUIT BREAKER
CE	CONCRETE ENCASED
CF	CUBIC FEET
CHAM	CHAMFER
CHGR	CHARGER
CIC	COMMUNICATIONS INTERFACE CABINET
CKT	CIRCUIT
℄	CENTERLINE
CLF	CHAIN LINK FENCE
CLFU	CURRENT–LIMITING FUSE
CLG	CEILING
CLR	CLEARANCE, CLEAR
CLT	CURRENT–LIMITING
CND	CONDUIT
COMM	COMMUNICATIONS
COMP	COMPARTMENT, COMPRESSOR
CONC	CONCRETE
COND	CONDUCTOR
CONST	CONSTRUCTION
CONT	CONTINUATION, CONTINUOUS
CONTR	CONTRACTOR
CPCB	CONTROL POWER CIRCUIT BREAKER
CPT	CONTROL POWER TRANSFORMER
CR	CONDUIT RISER
CS	CURVE TO SPIRAL, CONTROL SWITCH
CSD	COMBINED SYSTEM DUCTBANK
CT	CURRENT TRANSFORMER
CTR	CENTER
CTRL	CONTROL
CTS	COMMUNICATION TRANSMISSION SYSTEM
CU	COPPER, CONDENSING UNIT
CY	CUBIC YARD
D	DEPTH
DB	DIRECT BURIED, DUCT BANK
DC	DIRECT CURRENT
DCP	DC PANEL
DE	DEAD END
DEG	DEGREE
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DISC	DISCONNECT
DISC SW	DISCONNECT SWITCH
DISTR	DISTRIBUTION
DPM	DIGITAL POWER METER
DPP	DISTRIBUTION POWER PANEL
DSG	DISCONNECT SWITCH GROUP
DT	DOUBLE–THROW
DWG	DRAWING
E	EAST
EA	EACH
EB	EASTBOUND
EC	EMPTY CONDUIT
EE	ELECTRICAL ENCLOSURE, EMERGENCY EXIT
EF	EXHAUST FAN
EHS	EXTRA HIGH STRENGTH
EL	ELEVATION
ELEC	ELECTRIC, ELECTRICAL
ELEV	ELEVATOR
EMERG	EMERGENCY
EMP	EMERGENCY MANAGEMENT PANEL
EO	ELECTRICALLY OPERATED
EOS	ELECTRICALLY OPERATED SWITCH
EP	EXPLOSION PROOF
EPB	EMERGENCY PUSH BUTTON
EQ	EQUAL
EQN	EQUATION
EQUIP	EQUIPMENT
ES	EXTRA STRENGTH
ESC	ESCALATOR
EST	ESTIMATED
ETC	ET CETERA
EXIST, (E)	EXISTING
EXT	EXTINGUISHER
F	FAHRENHEIT
F/F	FACE TO FACE
FA	FIRE ALARM
FAC	FACILITY
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FD	FIRE DEPARTMENT
FDN	FOUNDATION
FDR	FEEDER
FG	FINISHED GRADE
FHC	FIRE HOSE CABINET
FIG	FIGURE
FIN	FINISH
FIX	FIXTURE
FL	FLOOR
FLSW	FLOW SWITCH
FLUR	FLUORESCENT
FOS	FACTOR OF SAFETY
FP	FULL PENETRATION
FSD	FIRE SMOKE DAMPER
FSW	FUSED SWITCH
FT	FEET, FOOT
FTG	FOOTING
FU	FUSE
FURN	FURNISH
FVNR	FULL VOLTAGE NON–REVERSING
FWY	FREEWAY
G	GENERATOR SET
G/L	GROUND LINE
GA	GAUGE
GALV	GALVANIZED
GB	GROUND BUS
GBS	GAP BREAKER STATION
GCP	GENERATOR CONTROL PANEL
GF	GROUND FAULT
GFI	GROUND FAULT INTERRUPTER
GFP	GROUND FAULT PROTECTION
GG	GROUND GRID
GHS	GALVANIZED HIGH STRENGTH
GND	GROUND
GR	GROUND ROD
GRS	GALVANIZED RIGID STEEL
GRSC	GALVANIZED RIGID STEEL CONDUIT
GRX	GRADE CROSSING
GTS	GROUND TEST STATION
HD	HARD DRAWN
HDG	HOT DIP GALVANIZED
HEX	HEXAGONAL
HH	HANDHOLE
HID	HIGH–INTENSITY DISCHARGE
HO	HAND–OPERATED
HOASW	HAND–OFF–AUTOMATIC SWITCH
HORZ	HORIZONTAL
HP	HORSEPOWER
HPS	HIGH–PRESSURE SODIUM
HRL	HIGH RAIL LEVEL
HS	HIGH STRENGTH
HT	HEIGHT
HV	HIGH VOLTAGE
HVSS	HIGH VOLTAGE SUBSTATION
HVAC	HEATING, VENTILATION & AIR CONDITIONING
HWY	HIGHWAY
HZ	HERTZ
I OR INTLK	INTERLOCK
I/L	INTERLOCKING
IC	INTERRUPTING CAPACITY
ID	INSIDE DIAMETER
IDS	INTRUSION DETECTION SYSTEM
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IN	INCH, INCHES
INC	INCOMING
INCT	INCANDESCENT
INSR	INSULATOR
INST	INSTANTANEOUS
IPPBX	INTERNET PROTOCOL PRIVATE BRANCH EXCHANGE
ISO–G	ISOLATED GROUND
ITC	INTERFACE TERMINAL CABINET
J	JUMPER
JB/JBOX	JUNCTION BOX
JCT	JUNCTION
kA	KILOAMPERE
KCMIL	THOUSAND CIRCULAR MILS
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
kV	KILOVOLT
kVA	KILOVOLT AMPERE
KVAR	KILOVAR
kW	KILOWATT
kWH	KILOWATT HOUR
LA	LIGHTNING ARRESTER
LB	POUND, POUNDS
LB/FT	POUNDS PER FOOT
LED	LIGHT EMITTING DIODE
LF	LINEAR FOOT
LG	LONG
LGTH	LENGTH
LOC	LOCATION
LPS	LOW–PRESSURE SODIUM
LPT	LOW POINT
LR	LOW RAIL
LS	LINE SECTION
LT	LIGHT OR LEFT
LTG	LIGHTING
LV	LOW VOLTAGE
M	METER
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MCM	THOUSAND CIRCULAR MILS
MDB	MAIN DISTRIBUTION BOARD
MECH	MECHANICAL
MH	MANHOLE
MI	MILD IRON
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
ML	MAINLINE
MOE	MAINTENANCE OF EQUIPMENT
MOS	MANUALLY OPERATED SWITCH
MOW	MAINTENANCE OF WAY
MPH	MILES PER HOUR
MR	MOTOR
MTD	MOUNTED
MTR	METER, METERING
mV	MILLIVOLT
MVA	MEGAVOLT AMPERE
MW	MEGAWATT
(N)	NEW
N	NORTH
N/A	NOT APPLICABLE
NAG	NORTHERN AREA GUIDEWAY
NB	NORTHBOUND
NBR	NONBRIDGING
NC	NORMALLY CLOSED
NE	NORTHEAST
NEC	NATIONAL ELECTRICAL CODE
NEG	NEGATIVE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NESC	NATIONAL ELECTRICAL SAFETY CODE
NEUT	NEUTRAL
NF	NEAR FACE
NFD	NON–FUSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NGD	NEGATIVE GROUNDING DEVICE
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
No. OR #	NUMBER
NOM	NOMINAL
NR	NOT REGISTERED
NS	NOT SUPPORTED
NSR	NOT SUPPORTED OR REGISTERED
NTS	NOT TO SCALE
O	OPEN
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFF	OFFSET
OHB	OVERHEAD BRIDGE
OL	OVERLAP, OVERLOAD
OE	OVERLOAD ELEMENT
P	POLE
P/L	PROPERTY LINE
PB	PULLBOX OR PUSHBUTTON
PC	POINT OF CURVE
PEC	PHOTOELECTRIC
PF	POWER FACTOR, POINT OF FROG
PG & E	PACIFIC GAS & ELECTRIC
PH	PHASE
PI	POINT OF INTERSECTION
PITO	POINT OF INTERSECTION OF TURNOUT
PL	PLATE
PNL	PANEL
POC	PEDESTRIAN OVER CROSSING
POS	POSITIVE, POINT OF SWITCH
PR	PAIR
PRI	PRIMARY
PS	PUMP STATION
PSF	POUNDS PER SQUARE FEET
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENT, POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE (CONDUIT) OR POINT OF VERTICAL CURVE
PVM	PARKING VALIDATION MACHINE
PWR	POWER
QTY	QUANTITY
(R)	RELOCATE OR REMOVE AND SALVAGE
R OR RAD	RADIUS
R/A	ROCK ANCHOR
RC	REINFORCED CONCRETE
RD	ROAD
RE	RUNNING EDGE OR RAIL
RE–BAR	CONCRETE REINFORCING BAR
REC	RECEPTACLE
RECT	RECTIFIER
REF	REFERENCE
REINF	REINFORCED
RETWALL	RETAINING WALL
REV	REVISION
RGS	RIGID GALVANIZED STEEL
RMS	ROOT MEAN SQUARE
ROW	RIGHT OF WAY
RPM	REVOLUTIONS PER MINUTE
REQ'D	REQUIRED
RR	RAILROAD, RUNNING RAIL
RRX	RAILROAD GRADE CROSSING
RT	RIGHT
RTU	REMOTE TERMINAL UNIT
S	SOUTH
SA	SURGE ARRESTER
SAB	STATION AGENT'S BOOTH
SB	SOUTHBOUND
SC	SPIRAL TO CURVE
SCADA	SUPERVISORY CONTROL & DATA ACQUISITION
SCH	SCHEDULE
SD	SMOKE DETECTOR, SYSTEM DEPTH
SE	SUPERELEVATION
SEC	SECONDARY
SECT	SECTION
SES	SERVICE ENTRANCE SECTION
SF	SUPPLY FAN
SHT	SHEET
SI	SECTION INSULATOR
SIG	SIGNAL
SIM	SIMILAR
SLPA	SIGNAGE, LIGHTING, PUBLIC ADDRESS
SOP	SETOUT POINT
SP	SPARE, SUMP PUMP
SPE	SINGLE–POLE
SPEC	SPECIFICATION
SPS	SMALL PART STEELWORK
SPST	SINGLE POLE SINGLE THROW
SQ	SQUARE
Sq Ft	SQUARE FEET
Sq In	SQUARE INCHES
SS	SELECTOR SWITCH
SST	STAINLESS STEEL
ST	SHUNT TRIP
STR	STARTER
STA	STATION, STATIONING
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURE
STW	SINGLE–THROW
SUB	SUBSTATION
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SWR	SYSTEM WIDE RACEWAY
SWS	SWITCHING STATION
SYS	SYSTEM
T/F	TOP OF FOUNDATION
T/G	TOP OF FINISHED GRADE
T/HT	TERMINATION HEIGHT
T/LR	TOP OF LOW RAIL
TAN	TANGENT
TBD	TO BE DETERMINED
TBR	TO BE REMOVED
TC	TRACK CENTER
TCH	TRAIN CONTROL HOUSE
TCR	TRAIN CONTROL ROOM
TEL	TELEPHONE
TEM	TEMPORARY
TEMP	TEMPERATURE
TERM	TERMINAL, TERMINATION
TL	TENSION LENGTH
TLB	TERMINAL BOX
TOR	TOP OF RAIL
TPB	TAP BOX
TPSS	TRACTION POWER SUBSTATION
TRK	TRACK
TS	TANGENT TO SPIRAL, TEST SWITCH
TTB	TELEPHONE TERMINAL BOARD
TVE	TUNNEL VENTILATION EQUIPMENT
TVM	TICKET VENDING MACHINE
TW	TWISTED
TYP	TYPICAL
U/S	UNDERSIDE
UE	UNDERGROUND ELECTRICAL
UF	UNDERFLOOR
UG	UNDERGRADE, UNDERGROUND
UGB	UNDERGRADE BRIDGE
UL	UNDERWRITERS LABORATORIES INCORPORATED
UNINS	UNINSULATED
UNO	UNLESS NOTED OTHERWISE
UP, UPRR	UNION PACIFIC RAILROAD
UPM	UNDERPLATFORM
UPS	UNINTERRUPTIBLE POWER SUPPLY
US	UNIT SUBSTATION
UTIL	UTILITY
V	VOLT
VA	VOLT AMPS
VAR	VOLT–AMPERE REACTIVE, VARIES
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VLT	VAULT
VM	VOLTMETER
VS	VOLTMETER SWITCH
VT	VOLTMETER TRANSDUCER, VOLTAGE TRANSFORMER
W	WATT, WEST, WIRE
WAO	WORK AREA OUTLET
W/	WITH
W/O	WITHOUT
WB	WESTBOUND
WD	WIRING DIAGRAM
WP	WEATHERPROOF, WOOD POLE
WR	WIRE RUN
WRI	WAYSIDE RADIO INSTALLATION
WT	WEIGHT
WW	WALKWAY
WWF	WELDED WIRE FABRIC
XFMR	TRANSFORMER
XING	CROSSING
Y&S	YARD & SHOPS

Santa Clara Valley Transportation Authority

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DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
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REGISTERED PROFESSIONAL ENGINEER — JAMES L. NEWTON — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
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Phone: (510) 535-2537 Fax: (510) 535-2339

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T·Y·LIN INTERNATIONAL

SUBMITTED

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

ELECTRICAL ABBREVIATIONS

CADD FILENAME C700–S–DB–E001.DWG
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E001 | PAGE NO. 0827

Jun 21, 2013 - 4:38pm G:\Giles Marovilla\Milpitas Station\Projectwise Sheets\C700–S–DB–E001.dwg
GilesM

A	AMPERE
A/G	AT GRADE
AB	AIRBREAK, ANCHOR BOLT
ABD	ABANDON, ABANDONED
ABUT	ABUTMENT
ABV	ABOVE
AC	ALTERNATING CURRENT
ACU	AIR CONDITIONING UNIT
ACCP	AIR CONDITIONING CONTROL PANEL
ACI	AMERICAN CONCRETE INSTITUTE
ACP	AC PANEL
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ALT	ALTERNATE
AM	AMMETER
ANCH	ANCHOR
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
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AVG	AVERAGE
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B/B	BACK–TO–BACK
BATT	BATTERY
BC	BRANCH CIRCUIT
BCB	BRANCH CIRCUIT BREAKER
BD	BOARD
BEG	BEGIN
BFG	BELOW FINISH GRADE
BK	BACK
BKR	BREAKER
BL	BASELINE OR BLUE LIGHT
BLDG	BUILDING
BSD	BARE SOFT DRAWN
BR	BRIDGE
BRKT	BRACKET
BTM	BOTTOM
BTWN	BETWEEN
C	CELSIUS
℄ TO ℄	CENTERLINE TO CENTERLINE
CAB	CABINET
CB	CIRCUIT BREAKER
CF	CUBIC FEET
CHGR	CHARGER
CIC	COMMUNICATIONS INTERFACE CABINET
CKT	CIRCUIT
℄	CENTERLINE
CLG	CEILING
CLR	CLEARANCE, CLEAR
CLT	CURRENT–LIMITING
CND	CONDUIT
COMM	COMMUNICATIONS
COMP	COMPARTMENT
CONC	CONCRETE
COND	CONDUCTOR
CONST	CONSTRUCTION
CONT	CONTINUATION, CONTINUOUS
CONTR	CONTRACTOR
CPCB	CONTROL POWER CIRCUIT BREAKER
CPT	CONTROL POWER TRANSFORMER
CR	CONDUIT RISER
CT	CURRENT TRANSFORMER
CTR	CENTER
CTRL	CONTROL
CY	CUBIC YARD
D	DEPTH
DB	DIRECT BURIED, DUCT BANK
DC	DIRECT CURRENT
DCP	DC PANEL
DE	DEAD END
DEG	DEGREE
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DISC	DISCONNECT
DISC SW	DISCONNECT SWITCH
DISTR	DISTRIBUTION
DPM	DIGITAL POWER METER
DPP	DISTRIBUTION POWER PANEL
DSG	DISCONNECT SWITCH GROUP
DT	DOUBLE–THROW
DWG	DRAWING

E	EAST
EA	EACH
EC	EMPTY CONDUIT
EE	ELECTRICAL ENCLOSURE, EMERGENCY EXIT
EF	EXHAUST FAN
EL	ELEVATION
ELEC	ELECTRIC, ELECTRICAL
ELEV	ELEVATOR
EMERG	EMERGENCY
EO	ELECTRICALLY OPERATED
EOS	ELECTRICALLY OPERATED SWITCH
EPB	EMERGENCY PUSH BUTTON
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EXTRA STRENGTH
ESC	ESCALATOR
EST	ESTIMATED
ETC	ET CETERA
EXIST. (E)	EXISTING
F	FAHRENHEIT
F/F	FACE TO FACE
FA	FIRE ALARM
FAC	FACILITY
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FD	FIRE DEPARTMENT
FDN	FOUNDATION
FDR	FEEDER
FG	FINISHED GRADE
FHC	FIRE HOSE CABINET
FIG	FIGURE
FIN	FINISH
FIX	FIXTURE
FL	FLOOR
FLSW	FLOW SWITCH
FLUR	FLUORESCENT
FOS	FACTOR OF SAFETY
FP	FULL PENETRATION
FSW	FUSED SWITCH
FT	FEET, FOOT
FTG	FOOTING
FU	FUSE
FURN	FURNISH
FVNR	FULL VOLTAGE NON–REVERSING
G/L	GROUND LINE
GA	GAUGE
GALV	GALVANIZED
GB	GROUND BUS
GBS	GAP BREAKER STATION
GCP	GENERATOR CONTROL PANEL
GF	GROUND FAULT
GFI	GROUND FAULT INTERRUPTER
GFP	GROUND FAULT PROTECTION
GG	GROUND GRID
GND	GROUND
GR	GROUND ROD
GRS	GALVANIZED RIGID STEEL
GRSC	GALVANIZED RIGID STEEL CONDUIT
GTS	GROUND TEST STATION
HD	HARD DRAWN
HDG	HOT DIP GALVANIZED
HEX	HEXAGONAL
HH	HANDHOLE
HID	HIGH–INTENSITY DISCHARGE
HO	HAND–OPERATED
HOASW	HAND–OFF–AUTOMATIC SWITCH
HORZ	HORIZONTAL
HP	HORSEPOWER
HPS	HIGH–PRESSURE SODIUM
HT	HEIGHT
HV	HIGH VOLTAGE
HVSS	HIGH VOLTAGE SUBSTATION
HVAC	HEATING, VENTILATION & AIR CONDITIONING
HWY	HIGHWAY
HZ	HERTZ
I OR INTLK	INTERLOCK
I/L	INTERLOCKING
IC	INTERRUPTING CAPACITY
ID	INSIDE DIAMETER
IDS	INTRUSION DETECTION SYSTEM
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IN	INCH, INCHES
INC	INCOMING
INSR	INSULATOR
INST	INSTANTANEOUS
IPPBX	INTERNET PROTOCOL PRIVATE BRANCH EXCHANGE
ISO–G	ISOLATED GROUND
ITC	INTERFACE TERMINAL CABINET

J	JUMPER
JB/JBOX	JUNCTION BOX
JCT	JUNCTION
kA	KILOAMPERE
KCMIL	THOUSAND CIRCULAR MILS
kV	KILOVOLT
kVA	KILOVOLT AMPERE
KVAR	KILOVAR
kW	KILOWATT
kWH	KILOWATT HOUR
LA	LIGHTNING ARRESTER
LB	POUND, POUNDS
LB/FT	POUNDS PER FOOT
LED	LIGHT EMITTING DIODE
LF	LINEAR FOOT
LG	LONG
LGTH	LENGTH
LOC	LOCATION
LPS	LOW–PRESSURE SODIUM
LPT	LOW POINT
LT	LIGHT OR LEFT
LTG	LIGHTING
LV	LOW VOLTAGE
M	METER
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MCM	THOUSAND CIRCULAR MILS
MDB	MAIN DISTRIBUTION BOARD
MECH	MECHANICAL
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MOS	MANUALLY OPERATED SWITCH
MR	MOTOR
MTD	MOUNTED
MTR	METER, METERING
mV	MILLIVOLT
MVA	MEGAVOLT AMPERE
MW	MEGAWATT
(N)	NEW
N	NORTH
N/A	NOT APPLICABLE
NAG	NORTHERN AREA GUIDEWAY
NC	NORMALLY CLOSED
NE	NORTHEAST
NEC	NATIONAL ELECTRICAL CODE
NEG	NEGATIVE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NESC	NATIONAL ELECTRICAL SAFETY CODE
NEUT	NEUTRAL
NFD	NON–FUSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM	NOMINAL
NR	NOT REGISTERED
NS	NOT SUPPORTED
NSR	NOT SUPPORTED OR REGISTERED
NTS	NOT TO SCALE
O	OPEN
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFF	OFFSET
OHB	OVERHEAD BRIDGE
OL	OVERLAP, OVERLOAD
OE	OVERLOAD ELEMENT
P	POLE
P/L	PROPERTY LINE
PB	PULLBOX OR PUSHBUTTON
PC	POINT OF CURVE
PEC	PHOTOELECTRIC
PF	POWER FACTOR, POINT OF FROG
PG & E	PACIFIC GAS & ELECTRIC
PH	PHASE
PI	POINT OF INTERSECTION
PITO	POINT OF INTERSECTION OF TURNOUT
PL	PLATE
PNL	PANEL
POC	PEDESTRIAN OVER CROSSING
PR	PAIR
PRI	PRIMARY
PS	PUMP STATION
PSF	POUNDS PER SQUARE FEET
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENT, POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE (CONDUIT) OR POINT OF VERTICAL CURVE
PWR	POWER

QTY	QUANTITY
(R)	RELOCATE OR REMOVE AND SALVAGE
R OR RAD	RADIUS
R/A	ROCK ANCHOR
RC	REINFORCED CONCRETE
RD	ROAD
RE	RUNNING EDGE OR RAIL
RE–BAR	CONCRETE REINFORCING BAR
REC	RECEPTACLE
RECT	RECTIFIER
REF	REFERENCE
REINF	REINFORCED
RETWALL	RETAINING WALL
REV	REVISION
RGS	RIGID GALVANIZED STEEL
RMS	ROOT MEAN SQUARE
ROW	RIGHT OF WAY
REQ'D	REQUIRED
RRX	RAILROAD GRADE CROSSING
RT	RIGHT
S	SOUTH
SA	SURGE ARRESTER
SCH	SCHEDULE
SD	SMOKE DETECTOR, SYSTEM DEPTH
SEC	SECONDARY
SECT	SECTION
SES	SERVICE ENTRANCE SECTION
SF	SUPPLY FAN
SHT	SHEET
SIG	SIGNAL
SIM	SIMILAR
SLPA	SIGNAGE, LIGHTING, PUBLIC ADDRESS
SOP	SETOUT POINT
SP	SPARE, SUMP PUMP
SPE	SINGLE–POLE
SPEC	SPECIFICATION
SPS	SMALL PART STEELWORK
SPST	SINGLE POLE SINGLE THROW
SQ	SQUARE
Sq Ft	SQUARE FEET
Sq In	SQUARE INCHES
SS	SELECTOR SWITCH
SST	STAINLESS STEEL
ST	SHUNT TRIP
STR	STARTER
STA	STATION, STATIONING
STD	STANDARD
STRUCT	STRUCTURE
STW	SINGLE–THROW
SUB	SUBSTATION
SW	SWITCH
SWBD	SWITCHBOARD
SWR	SYSTEM WIDE RACEWAY
SWS	SWITCHING STATION
SYS	SYSTEM
T/F	TOP OF FOUNDATION
T/G	TOP OF FINISHED GRADE
TBD	TO BE DETERMINED
TBR	TO BE REMOVED
TEL	TELEPHONE
TEM	TEMPORARY
TEMP	TEMPERATURE
TERM	TERMINAL, TERMINATION
TLB	TERMINAL BOX
TTB	TELEPHONE TERMINAL BOARD
TYP	TYPICAL
U/S	UNDERSIDE
UE	UNDERGROUND ELECTRICAL
UF	UNDERFLOOR
UG	UNDERGRADE, UNDERGROUND
UGB	UNDERGRADE BRIDGE
UL	UNDERWRITERS LABORATORIES INCORPORATED
UNINS	UNINSULATED
UNO	UNLESS NOTED OTHERWISE
UPM	UNDERPLATFORM
UPS	UNINTERRUPTIBLE POWER SUPPLY
US	UNIT SUBSTATION
UTIL	UTILITY
V	VOLT
VA	VOLT AMPS
VAR	VOLT–AMPERE REACTIVE, VARIES
VERT	VERTICAL
VLT	VAULT
VM	VOLTMETER
VS	VOLTMETER SWITCH
VT	VOLTMETER TRANSDUCER, VOLTAGE TRANSFORMER

W	WATT, WEST, WIRE
WAO	WORK AREA OUTLET
W/	WITH
W/O	WITHOUT
WD	WIRING DIAGRAM
WP	WEATHERPROOF, WOOD POLE
WR	WIRE RUN
WRI	WAYSIDE RADIO INSTALLATION
WT	WEIGHT
WW	WALKWAY
XFMR	TRANSFORMER
Y&S	YARD & SHOPS

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. NG — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

SUBMITTED

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 465-2537 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. A URS + BALT COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MONTAGUE LRT AND MILPITAS POC

ELECTRICAL ABBREVIATIONS

CADD FILENAME C700–S–DB–E001X.DWG
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E001X | PAGE NO. 0828

Jun 21, 2013 - 4:38pm G:\Gles Manuilo\Milpitas Station\Projectwise Sheets\C700–S–DB–E001X.dwg GlesM

LIGHTING

SYMBOL	DESCRIPTION
CEILING / WALL	
○ / ⊢○	SURFACE MOUNTED FIXTURE
(R) / ⊢(R)	RECESSED FIXTURE
⊗ / ⊢⊗	SURFACE EXIT LIGHT
(RX) / ⊢(RX)	RECESSED EXIT LIGHT
(J) / ⊢(J)	JUNCTION BOX
(L) / ⊢(L)	POLE MOUNTED FIXTURE
□	SURFACE MTD LED (LIGHT EMITTING DIODE) LIGHT FIXTURE
	STREET LIGHT STANDARD FED FROM UNDERGROUND CIRCUIT
	FLUORESCENT FIXTURE (4 FT)
	FLUORESCENT FIXTURE (8 FT)
	SURFACE CONTINUOUS–ROW FLUORESCENT FIXTURE
R	RECESSED CONTINUOUS–ROW FLUORESCENT FIXTURE
	FLOODLIGHT, ARROWS INDICATE DIRECTION & NUMBER OF LAMPS
	DENOTES – EMERGENCY BATTERY PACK WITH SEALED BEAM LIGHTS
○ b	SUBSCRIPT b NEAR FIXTURE INDICATES SWITCH CIRCUIT

RECEPTACLE OUTLETS

⊢⊖	SINGLE RECEPTACLE OUTLET
⊢⊖	DUPLEX RECEPTACLE OUTLET
⊢⊖ GFI	DUPLEX RECEPTACLE WITH GROUND FAULT INTERRUPTER
⊢⊘ 30A–2P	SINGLE SPECIAL–PURPOSE RECEPTACLE OUTLET (30 AMP 2 POLE, OR AS NOTED)
⊢▲	DUPLEX SPECIAL–PURPOSE RECEPTACLE OUTLET
⊢▲	SPECIAL–PURPOSE CONNECTION OR PROVISION FOR CONNECTION. USE SUBSCRIPT LETTERS TO INDICATE FUNCTION (FC–FARE COLLECTION, ETC)
CEILING / WALL	
(C) / ⊢(C)	CLOCK HANGER RECEPTACLE
(F) / ⊢(F)	FAN HANGER RECEPTACLE
⊖	FLOOR BOX WITH SINGLE RECEPTACLE
⊖	FLOOR BOX WITH DUPLEX RECEPTACLE

FIRE ALARM SYSTEM

CEILING / WALL	
⊢1	CONTROL PANEL
⊢2	PULL STATION
3 ⊢3	BELL
4 ⊢4	HORN/STROBE OR COMBINATION
⊢5	ANNUNCIATOR
⊢6	WATER FLOW ALARM TRIP
⊢7	FIREHOSE CABINET TRIP
8 H ⊢8 H	DETECTOR, H–HEAT, S–SMOKE, C–COMBUSTIBLE PRODUCTS
⊢9	VALVE ALARM MONITOR

SWITCH OUTLETS

SYMBOL	DESCRIPTION
S	SINGLE–POLE SWITCH
S_2	DOUBLE–POLE SWITCH
S_3	THREE–WAY SWITCH
S_4	FOUR–WAY SWITCH
S_D	DOOR SWITCH
S_K	KEY OPERATED SWITCH
S_P	SWITCH WITH PILOT LIGHT
S_L	SWITCH FOR LOW VOLTAGE SWITCHING SYSTEM
S_{LM}	MASTER SWITCH FOR LOW VOLTAGE SWITCHING SYSTEM
S_{MC}	MOMENTARY CONTACT SWITCH OR PUSHBUTTON FOR OTHER THAN SIGNALING SYSTEM
S_M	MANUAL MOTOR OVERLOAD SWITCH
S_T	TIME SWITCH
S_b	SUBSCRIPT "b" DENOTES SWITCH CIRCUIT
S_{DM}	DIMMER SWITCH
S_S	MOTION SENSOR SWITCH
(S)	LIGHTING SENSOR

GROUNDING SYSTEM

—GB—	GROUND BUS
--GG--	GROUND GRID
⊙	GROUND ROD EXOTHERMICALLY WELDED
◈	GROUND WELL
	GROUND JUMPER
⊙	METALLIC WATER PIPE GROUND
⊙ AT	LIGHTNING AIR TERMINAL
—G—	GROUND CABLE – EXPOSED
	UNDERGROUND GROUND CABLE WITH EXOTHERMIC WELD CONNECTION
	GROUND PIGTAIL
—LG—	LIGHTNING CONDUCTOR
	GROUND TEST STATION

EQUIPMENT DESIGNATION

A	– SWITCHBOARD
P	– POWER PANEL
L	– LIGHTING PANEL (480/277V)
LA	– AUXILIARY POWER PANEL (208/120V)
X	– TRANSFORMER
CP	– CONTROL PANEL
Z	– DISCONNECT SWITCH
M	– MOTOR
MS	– MOTOR STARTER
MCC	– MOTOR CONTROL CENTER
US	– UNIT SUBSTATION
U	– UNINTERRUPTIBLE POWER SUPPLY
VFD	– VARIABLE FREQUENCY DRIVE

PANELBOARDS, SWITCHBOARDS AND CONTROLLERS

SYMBOL	DESCRIPTION
FLUSH / SURFACE	
	480/277V POWER PANEL
	208/120V AC DISTRIBUTION PANELBOARD
	240/120V AC DISTRIBUTION PANELBOARD OR 48V DC DISTRIBUTION PANELBOARD
TC / TC	TERMINATION CABINET
	CONTROLLER
	MOTOR STARTER WITH DISCONNECT
(M) M47	MOTOR, WITH IDENTIFICATION
X X2	TRANSFORMER, WITH IDENTIFICATION
	MOTOR CONTROL CENTER, 3 VERTICAL SECTIONS
30/3/WP	FUSED DISCONNECT SWITCH: SUBSCRIPT INDICATES: SWITCH RATING (AMPERES) NUMBER OR POLES WP = WEATHERPROOF (NEMA–3R) AT +60" TO TOP OF ENCLOSURE
30/3/WP	NON–FUSED DISCONNECT SWITCH: SUBSCRIPT INDICATES: SWITCH RATING (AMPERES) NF = NON–FUSED WP = WEATHERPROOF (NEMA–3R) AT +60" TO TOP OF ENCLOSURE
	MAGNETIC 2– OR 3– POLE MOTOR STARTER AT +60" TO TOP OF ENCLOSURE
	COMBINATION STARTER
3	COMBINATION MAGNETIC MOTOR STARTER, WITH MOTOR CIRCUIT PROTECTOR. SUBSCRIPT INDICATES NEMA SIZE
	PACKAGE CONTROLLER/FURNISHED WITH MECHANICAL EQUIPMENT UNO
CIC	TERMINAL CABINET, TYPES AS FOLLOWS: CIC – COMMUNICATIONS INTERFACE CABINET FTC – FACILITIES TERMINAL CABINET ITC – INTERFACE TERMINAL CABINET RTU – REMOTE TERMINAL UNIT TTC – TELEPHONE TERMINAL CABINET
FACP	CONTROL PANEL, TYPES AS FOLLOWS: ACCP – AIR CONDITIONING CONTROL PANEL ACP – AUXILIARY CONTROL PANEL VCP – VENTILATION CONTROL PANEL RCP – REFRIGERATION CONTROL PANEL FCP – FAN CONTROL PANEL FACP – FIRE ALARM CONTROL PANEL
☐ ETS	EMERGENCY TRIP STATION

LIGHTING, FIXTURE TYPE AND DESIGNATIONS

12'–0" / M5 / 1–150

20'–0" / M13 / 1–400

12'–0" / M2 / 1–70

A. LETTER–NUMBER ABOVE CENTER BAR INDICATES TYPE OF FIXTURE

B. SINGLE NUMBER BELOW THE CENTER BAR INDICATES LAMP WATTAGE

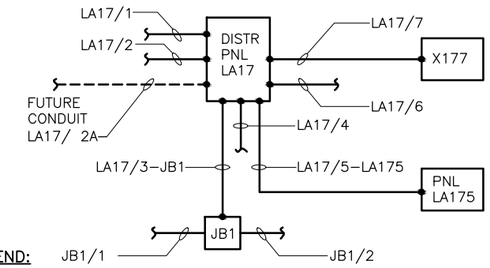
C. IF TWO NUMBERS ARE BELOW THE CENTER BAR, THE NUMBERS TO THE LEFT INDICATES NUMBER OF LAMPS AND THE NUMBER TO THE RIGHT INDICATES LAMP WATTAGE

D. NUMBER ABOVE SYMBOL INDICATES THE HEIGHT ABOVE FINISHED FLOOR TO BOTTOM OF FIXTURE

CONDUCTORS AND CONDUIT

SYMBOL	DESCRIPTION
— —F— —	CONDUIT CONCEALED IN FLOOR
— — —	CONDUIT CONCEALED IN CEILING OR WALL
———	CONDUIT EXPOSED
———|	CONDUIT CAPPED
———○	CONDUIT TURNED TOWARDS OBSERVER
———●	CONDUIT TURNED AWAY FROM OBSERVER
1"C, 3–#10	CONDUIT AND WIRE SIZES, WHERE SIZE IS NOT SHOWN, MINIMUM SIZE AS PER SPECIFICATION
L2–1,2,3 →	BRANCH CIRCUIT HOME RUN TO PANELBOARD NUMERALS IDENTIFY CIRCUIT NUMBER L2 INDICATES TO PANEL L2
— – —	UNDERGROUND CONCRETE ENCASED DUCT BANK (TYPE, SIZE & NUMBER OF CONDUITS INDICATED BY CROSS SECTION IDENTIFICATION OF EACH RUN OR BY NOTATION)
MH MH101	MANHOLE WITH IDENTIFICATION
HH HH101	HANDHOLE WITH IDENTIFICATION
PB PB47	PULL BOX WITH IDENTIFICATION
UF	UNDERFLOOR JUNCTION BOX

CONDUIT NUMBERING



LEGEND:

LA17/5–LA175
WHERE:
LA17 – UPSTREAM PANEL
5 – CONDUIT NUMBER FROM UPSTREAM PANEL
LA175 – DOWNSTREAM PANEL (WHERE APPLICABLE)

NOTE:

ASSIGNMENT OF NUMBERS TO CONDUITS SHALL START FROM TOP TO BOTTOM ON THE LEFT SIDE OF THE PANEL AND INCREASE IN COUNTER–CLOCKWISE ROTATION

SPECIAL IDENTIFICATION (USED ADJACENT TO SYMBOL)

WP – WEATHER PROOF
WT – WATER TIGHT
VT – VAPOR TIGHT
RT – RAIN TIGHT
DT – DUST TIGHT
EP – EXPLOSION PROOF
G – GROUND
R – RECESSED

+7'–6" (FOR EXAMPLE) MOUNTING HEIGHT TO ℄ OF OUTLET ABOVE FINISH FLOOR

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB1002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. NEU — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 505, Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. — A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS DESIGN UNIT 023
MILPITAS STATION

ELECTRICAL
LAYOUT SYMBOLS

CADD FILENAME C700–S–DB–E002.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E002 | PAGE NO. 0829

Jun 20, 2013 – 2:11pm G:\Giles Maravilla\Milpitas Station\Projectwise Sheets\C700–S–DB–E002.dwg
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LIGHTING

CEILING	WALL	
○	⊢○	SURFACE MOUNTED FIXTURE
Ⓡ		RECESSED FIXTURE
⊗	⊢⊗	SURFACE EXIT LIGHT
RX		RECESSED EXIT LIGHT
Ⓑ	⊢Ⓑ	BLANKED FIXTURE OUTLET
Ⓙ	⊢Ⓙ	JUNCTION BOX
Ⓛ	⊢Ⓛ	POLE MOUNTED FIXTURE
		STREET LIGHT STANDARD FED FROM UNDERGROUND CIRCUIT
		FLUORESCENT FIXTURE (4 FT)
		FLUORESCENT FIXTURE (8 FT)
		SURFACE CONTINUOUS–ROW FLUORESCENT FIXTURE
R		RECESSED CONTINUOUS–ROW FLUORESCENT FIXTURE
		FLOODLIGHT, ARROWS INDICATE DIRECTION & NUMBER OF LAMPS
		DENOTES – EMERGENCY BATTERY PACK WITH SEALED BEAM LIGHTS
b		SUBSCRIPT b NEAR FIXTURE INDICATES SWITCH CIRCUIT

RECEPTACLE OUTLETS

	SINGLE RECEPTACLE OUTLET
	DUPLEX RECEPTACLE OUTLET
GFI	DUPLEX RECEPTACLE WITH GROUND FAULT INTERRUPTER
30A–2P	SINGLE SPECIAL–PURPOSE RECEPTACLE OUTLET (30 AMP 2 POLE, OR AS NOTED)
	DUPLEX SPECIAL–PURPOSE RECEPTACLE OUTLET
	SPECIAL–PURPOSE CONNECTION OR PROVISION FOR CONNECTION. USE SUBSCRIPT LETTERS TO INDICATE FUNCTION (FC–FARE COLLECTION, ETC)

CEILING	WALL	
Ⓒ	⊢Ⓒ	CLOCK HANGER RECEPTACLE
Ⓕ	⊢Ⓕ	FAN HANGER RECEPTACLE
		FLOOR BOX WITH SINGLE RECEPTACLE
		FLOOR BOX WITH DUPLEX RECEPTACLE

FIRE ALARM SYSTEM

CEILING	WALL	
	⊢1	CONTROL PANEL
	⊢2	PULL STATION
3	⊢3	BELL
4	⊢4	HORN/STROBE OR COMBINATION
	⊢5	ANNUNCIATOR
	⊢6	WATER FLOW ALARM TRIP
	⊢7	FIREHOSE CABINET TRIP
8 H	⊢8 H	DETECTOR, H–HEAT, S–SMOKE, C–COMBUSTIBLE PRODUCTS
	⊢9	VALVE ALARM MONITOR

SWITCH OUTLETS

S	SINGLE–POLE SWITCH
S_2	DOUBLE–POLE SWITCH
S_3	THREE–WAY SWITCH
S_D	DOOR SWITCH
S_K	KEY OPERATED SWITCH
S_P	SWITCH WITH PILOT LIGHT
S_L	SWITCH FOR LOW VOLTAGE SWITCHING SYSTEM
S_{LM}	MASTER SWITCH FOR LOW VOLTAGE SWITCHING SYSTEM
S_{MC}	MOMENTARY CONTACT SWITCH OR PUSHBUTTON FOR OTHER THAN SIGNALING SYSTEM
S_M	MANUAL MOTOR OVERLOAD SWITCH
S_T	TIME SWITCH
S_b	SUBSCRIPT "b" DENOTES SWITCH CIRCUIT
S_{DM}	DIMMER SWITCH
S_S	SENSOR SWITCH
Ⓢ	LIGHTING SENSOR

GROUNDING SYSTEM

—GB—	GROUND BUS
--GG--	GROUND GRID
	GROUND ROD EXOTHERMICALLY WELDED
	GROUND WELL
	GROUND JUMPER
	METALLIC WATER PIPE GROUND
AT	LIGHTNING AIR TERMINAL
—G—	GROUND CABLE – EXPOSED
	UNDERGROUND GROUND CABLE WITH EXOTHERMIC WELD CONNECTION
	GROUND PIGTAIL
—LG—	LIGHTNING CONDUCTOR
	GROUND TEST STATION

EQUIPMENT DESIGNATION

A	– SWITCHBOARD
P	– POWER PANEL
L	– LIGHTING PANEL (480/277V)
LA	– AUXILIARY POWER PANEL (208/120V)
X	– TRANSFORMER
CP	– CONTROL PANEL
Z	– DISCONNECT SWITCH
M	– MOTOR
MS	– MOTOR STARTER
MCC	– MOTOR CONTROL CENTER
US	– UNIT SUBSTATION
U	– UNINTERRUPTIBLE POWER SUPPLY
VFD	– VARIABLE FREQUENCY DRIVE

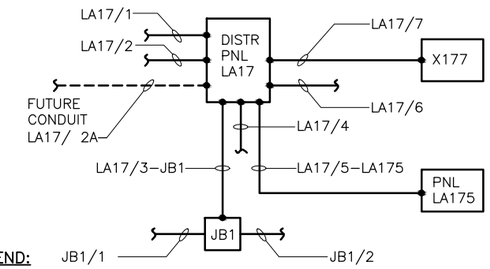
PANELBOARDS, SWITCHBOARDS AND CONTROLLERS

FLUSH	SURFACE	
		480/277V POWER PANEL
		208/120V AC DISTRIBUTION PANELBOARD
		240/120V AC DISTRIBUTION PANELBOARD OR 48V DC DISTRIBUTION PANELBOARD
TC	TC	TERMINATION CABINET
		CONTROLLER
		MOTOR STARTER WITH DISCONNECT
	Ⓜ M47	MOTOR, WITH IDENTIFICATION
	X X2	TRANSFORMER, WITH IDENTIFICATION
		MOTOR CONTROL CENTER, 3 VERTICAL SECTIONS
	30/3/WP	FUSED DISCONNECT SWITCH: SUBSCRIPT INDICATES: SWITCH RATING (AMPERES) NUMBER OR POLES WP = WEATHERPROOF (NEMA–3R) AT +60" TO TOP OF ENCLOSURE
	30/3/WP	NON–FUSED DISCONNECT SWITCH: SUBSCRIPT INDICATES: SWITCH RATING (AMPERES) NF = NON–FUSED WP = WEATHERPROOF (NEMA–3R) AT +60" TO TOP OF ENCLOSURE
		MAGNETIC 2– OR 3– POLE MOTOR STARTER AT +60" TO TOP OF ENCLOSURE
		COMBINATION STARTER
	3	COMBINATION MAGNETIC MOTOR STARTER, WITH MOTOR CIRCUIT PROTECTOR. SUBSCRIPT INDICATES NEMA SIZE
		PACKAGE CONTROLLER/FURNISHED WITH MECHANICAL EQUIPMENT UNO
CIC		TERMINAL CABINET, TYPES AS FOLLOWS: CIC – COMMUNICATIONS INTERFACE CABINET FTC – FACILITIES TERMINAL CABINET ITC – INTERFACE TERMINAL CABINET RTU – REMOTE TERMINAL UNIT TTC – TELEPHONE TERMINAL CABINET
FACP		CONTROL PANEL, TYPES AS FOLLOWS: ACCP – AIR CONDITIONING CONTROL PANEL ACP – AUXILIARY CONTROL PANEL VCP – VENTILATION CONTROL PANEL RCP – REFRIGERATION CONTROL PANEL FCP – FAN CONTROL PANEL FACP – FIRE ALARM CONTROL PANEL
	☐ ETS	EMERGENCY TRIP STATION

CONDUCTORS AND CONDUIT

—F—	CONDUIT CONCEALED IN FLOOR
— — —	CONDUIT CONCEALED IN CEILING OR WALL
———	CONDUIT EXPOSED
	CONDUIT CAPPED
	CONDUIT TURNED TOWARDS OBSERVER
	CONDUIT TURNED AWAY FROM OBSERVER
1"C, 3–#10	CONDUIT AND WIRE SIZES, WHERE SIZE IS NOT SHOWN, MINIMUM SIZE AS PER SPECIFICATION
L2–1,2,3	BRANCH CIRCUIT HOME RUN TO PANELBOARD NUMERALS IDENTIFY CIRCUIT NUMBER L2 INDICATES TO PANEL L2
	UNDERGROUND CONCRETE ENCASED DUCT BANK (TYPE, SIZE & NUMBER OF CONDUITS INDICATED BY CROSS SECTION IDENTIFICATION OF EACH RUN OR BY NOTATION)
MH MH101	MANHOLE WITH IDENTIFICATION
HH HH101	HANDHOLE WITH IDENTIFICATION
PB PB47	PULL BOX WITH IDENTIFICATION
UF	UNDERFLOOR JUNCTION BOX

CONDUIT NUMBERING



LEGEND:

LA17/5–LA175
WHERE:
LA17 – UPSTREAM PANEL
5 – CONDUIT NUMBER FROM UPSTREAM PANEL
LA175 – DOWNSTREAM PANEL (WHERE APPLICABLE)

NOTE:

ASSIGNMENT OF NUMBERS TO CONDUITS SHALL START FROM TOP TO BOTTOM ON THE LEFT SIDE OF THE PANEL AND INCREASE IN COUNTER–CLOCKWISE ROTATION

LIGHTING, FIXTURE TYPE AND DESIGNATIONS

12'–0" M5 1–150
20'–0" M13 1–400
12'–0" M2 1–70

A. LETTER–NUMBER ABOVE CENTER BAR INDICATES TYPE OF FIXTURE

B. SINGLE NUMBER BELOW THE CENTER BAR INDICATES LAMP WATTAGE

C. IF TWO NUMBERS ARE BELOW THE CENTER BAR, THE NUMBERS TO THE LEFT INDICATES NUMBER OF LAMPS AND THE NUMBER TO THE RIGHT INDICATES LAMP WATTAGE

D. NUMBER ABOVE SYMBOL INDICATES THE HEIGHT ABOVE FINISHED FLOOR TO BOTTOM OF FIXTURE

SPECIAL IDENTIFICATION
(USED ADJACENT TO SYMBOL)

WP – WEATHER PROOF
WT – WATER TIGHT
VT – VAPOR TIGHT
RT – RAIN TIGHT
DT – DUST TIGHT
EP – EXPLOSION PROOF
G – GROUND
R – RECESSED

+7'–6" (FOR EXAMPLE) MOUNTING HEIGHT TO ℄ OF OUTLET ABOVE FINISH FLOOR

Santa Clara Valley Transportation Authority
___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. NEU — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 505 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A URS & BALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS DESIGN UNIT 023
MONTAGUE LRT AND MILPITAS POC

ELECTRICAL
LAYOUT SYMBOLS

CADD FILENAME	C700–S–DB–E002X.dwg		
SIZE	SCALE	NONE	
D			
CONTRACT NO.	C700	REV.	0
AREA CODE	DB	SHEET NO.	E002X
PAGE NO.	0830		

Jun 21, 2013 – 4:38pm G:\Giles Maravilla\Milpitas Station\Projectwise Sheets\C700–S–DB–E002X.dwg
GilesM

SYMBOL	DESCRIPTION
X01	TRANSFORMER, WITH IDENTIFICATION RATING, PHASE, AND VOLTAGE INDICATED 750 KVA, 3ø, 4W 277/480V OR 120/208V
	3ø, 3 WIRE DELTA TRANSFORMER CONNECTION
	3ø WYE, GROUNDED NEUTRAL TRANSFORMER CONNECTION
	CABLE POTHEAD
	GROUND CONNECTION
	BUS
	DISCONNECTING DEVICE
252–21	CIRCUIT BREAKER, 34.5KV, 3P, DRAWOUT WITH IDENTIFICATION No.
	SINGLE UNIT DRAW–OUT CIRCUIT BREAKER WITH CURRENT LIMITERS
	DRAW–OUT CIRCUIT BREAKER AND CURRENT LIMITER MOUNTED IN SEPARATE COMPARTMENT WITH MECHANICAL AND ELECTRICAL INTERLOCK
1000/900 101	CIRCUIT BREAKER, DRAW–OUT TYPE, CURRENT TRIP VALUE INDICATED BELOW LINE AND BREAKER FRAME SIZE ABOVE LINE
100/70 101	MOLDED CASE CIRCUIT BREAKER, CURRENT TRIP VALUE INDICATED BELOW LINE AND BREAKER FRAME SIZE ABOVE LINE
100/70 101	CIRCUIT BREAKER, MAGNETIC OVERLOAD TYPE, CURRENT TRIP VALUE INDICATED BELOW LINE AND BREAKER FRAME SIZE ABOVE LINE
	COMBINATION REVERSING MOTOR STARTER WITH DRAWOUT ISOLATING SWITCH, CURRENT LIMITING FUSE AND VACUUM CONTACTOR
100 4	COMBINATION MOTOR STARTER CIRCUIT BREAKER AND STARTER SIZE AS INDICATED
30A	SWITCH, NON FUSED, 30A RATING
30A	SWITCH, FUSED, 30A RATING
	TRANSFORMER, 3 WINDING
	INTERPHASE TRANSFORMER

SYMBOL	DESCRIPTION
	NETWORK PROTECTOR
	REACTOR
2400/120 2	POTENTIAL TRANSFORMER WITH NUMBER AND RATIO AS INDICATED
100:5 3	CURRENT TRANSFORMER WITH NUMBER AND RATIO AS INDICATED
	CURRENT TRANSFORMER WITH POLARITY MARKINGS
	POTENTIAL TRANSFORMER WITH POLARITY MARKINGS
A	AMMETER
V	VOLTMETER
KW	KILOWATT METER
KWH	KILOWATTHOUR METER
PF	POWER FACTOR METER
50/51	A–C INSTANTANEOUS OVERCURRENT AND TIME OVERCURRENT RELAYS
51N	A–C NEUTRAL TIME OVERCURRENT RELAYS
27	UNDERVOLTAGE RELAY
I	INTERLOCK
K	KEY INTERLOCK
VS	VOLTMETER SWITCH
AS	AMMETER SWITCH
CS	CONTROL SWITCH
	NORMALLY OPEN CONTACT, AUXILIARY OR RELAY
	NORMALLY CLOSED CONTACT, AUXILIARY OR RELAY
	NORMALLY OPEN CONTACT, SIGNAL FROM CENTRAL
	NORMALLY CLOSED CONTACT, SIGNAL FROM CENTRAL
	NORMALLY–OPEN CONTACT, TIME DELAY ON PICK–UP (ENERGIZED)
	NORMALLY–CLOSED CONTACT, TIME DELAY ON PICK–UP (ENERGIZED)
	NORMALLY–OPEN CONTACT, TIME DELAY ON DROP–OUT (DE–ENERGIZED)
	NORMALLY–CLOSED CONTACT, TIME DELAY ON DROP–OUT (DE–ENERGIZED)
	DIODE OR RECTIFIER HALF–BRIDGE
	ZENER DIODE
	CAPACITOR

SYMBOL	DESCRIPTION
	RECTIFIER BRIDGE
	OVERLOAD RELAY CONTACTS
	COIL, OPERATING
R	PILOT LIGHT INDICATING LIGHT A AMBER G GREEN R RED W WHITE
A	
50A	FUSE, SIZE AS NOTED
	PRIMARY OIL FUSE CUTOUT
15A	SINGLE POLE CIRCUIT BREAKER, SIZE AS INDICATED
LO	PUSHBUTTON SWITCH, MOMENTARY CONTACT, NC LO INDICATES LOCK–OUT
	PUSHBUTTON SWITCH, MOMENTARY CONTACT, NO
H OFF A	SELECTOR SWITCH, HAND–OFF–AUTOMATIC, OR AS NOTED K=KEY OPERATED (STANDARD OR HEAVY DUTY INDUSTRIAL CONTROL)
	SELECTOR SWITCH (WAFER TYPE)
	SINGLE POLE SINGLE THROW SWITCH
	SINGLE POLE DOUBLE THROW SWITCH
	SOLENOID VALVE
	LIMIT SWITCH, NORMALLY OPEN
	LIMIT SWITCH, NORMALLY CLOSED
	LIMIT SWITCH, NO, HELD CLOSED BY ACTUATOR
	LIMIT SWITCH, NC, HELD OPEN BY ACTUATOR
	PRESSURE SWITCH, NORMALLY OPEN, CLOSES ON RISING PRESSURE
	PRESSURE SWITCH, NORMALLY CLOSED, OPENS ON RISING PRESSURE
	FLOW SWITCH, NORMALLY OPEN, CLOSES WITH FLOW
	FLOW SWITCH, NORMALLY CLOSED, OPENS WITH FLOW
	TEMPERATURE SWITCH, CLOSES ON RISING TEMPERATURE (COOLING THERMOSTAT)
	TEMPERATURE SWITCH, OPENS ON RISING TEMPERATURE (HEATING THERMOSTAT)
	LEVEL CONTROLLER (SWITCH), NORMALLY OPEN AT LOW POSITION, CLOSES ON RISE
	LEVEL CONTROLLER (SWITCH), NORMALLY CLOSED AT LOW POSITION, OPENS ON RISE
	REMOVABLE LINK
	DISCONNECTING SWITCH
	LOAD INTERRUPTER SWITCH
	CABLE STRESS CONE

SYMBOL	DESCRIPTION
	OUTLINE OF EQUIPMENT
	FUNCTIONAL CONNECTION, CLOSE, TRIP OR INTERLOCK
	CONDUCTORS CONNECTED
	CONDUCTORS, NOT CONNECTED
	MULTICONDUCTOR CABLE
	SHIELDED 2 CONDUCTOR CABLE WITH SHIELD GROUNDED
	COAXIAL CABLE
	TERMINAL STRIP, WITH 3 WIRES TERMINATED
	WIRING TERMINAL
	BATTERY
5 MP101	MOTOR, INSIDE NUMBER INDICATES HP IDENTIFICATION NUMBER
	BUS WAY
	GROUND
	GROUND CONNECTION TO EQUIPMENT ENCLOSURE
	FLOOR OPENING WITH GROUNDING CONDUCTOR
	FUTURE OR NIC
	MECHANICAL CONNECTION
CX	HALL EFFECT CURRENT SENSOR
R	FIXED RESISTOR
R	ADJUSTABLE RESISTOR
	SPLICE WITH NO SHEATH ISOLATION
	SPLICE WITH SHEATH ISOLATION
TC	TIMED CONTACT, NO, TIME CLOSING ON ENERGIZING (OPENS INSTANTLY ON DE–ENERGIZING)
TC	TIMED CONTACT, NC, OPENS INSTANTLY ON ENERGIZING (TIME CLOSING ON DE–ENERGIZING)
TO	TIMED CONTACT, NO, CLOSES INSTANTLY ON ENERGIZING (TIME OPENING ON DE–ENERGIZING)
TO	TIMED CONTACT, NC, TIME OPENING ON ENERGIZING (CLOSES INSTANTLY ON DE–ENERGIZING)
	LIGHTNING OR SURGE PROTECTION
G	GENERATOR
86	LOCKOUT RELAY, HAND RESET

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
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APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

ELECTRICAL
DIAGRAM SYMBOLS

CADD FILENAME C700–S–DB–E003.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E003 | PAGE NO. 0831

Jun 20, 2013 - 2:11pm G:\Gles Maravilla\Milpitas Station\Projectwise Sheets\C700–S–DB–E003.dwg
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X01	TRANSFORMER, WITH IDENTIFICATION RATING, PHASE, AND VOLTAGE INDICATED 750 KVA, 3ø, 4W 277/480V OR 120/208V
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27	UNDERVOLTAGE RELAY
I	INTERLOCK
K	KEY INTERLOCK
VS	VOLTMETER SWITCH
AS	AMMETER SWITCH
CS	CONTROL SWITCH
	NORMALLY OPEN CONTACT, AUXILIARY OR RELAY
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	NORMALLY OPEN CONTACT, SIGNAL FROM CENTRAL
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	LIGHTNING OR SURGE PROTECTION
G	GENERATOR
86	LOCKOUT RELAY, HAND RESET

Santa Clara Valley Transportation Authority
____NO EXCEPTIONS TAKEN (NET)
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0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. NI — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
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APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MONTAGUE LRT AND MILPITAS POC

ELECTRICAL
DIAGRAM SYMBOLS

CADD FILENAME C700–S–DB–E003X.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E003X | PAGE NO. 0832

Jun 21, 2013 – 4:38pm G:\Gilles Maravilla\Milpitas Station\Projectwise Sheets\C700–S–DB–E003X.dwg
GillesM

1. THE SEISMIC BRACING AND ANCHORAGE OF ELECTRICAL CONDUITS, WIREWAYS, SHALL BE IN ACCORDANCE WITH THE "GUIDELINE FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS AND PLUMBING PIPING SYSTEMS," PUBLISHED BY SMACNA AND PPIC, AND APPROVED BY DSA, OCTOBER 13, 1982, DSA PRE-APPROVAL NUMBER R0010-1A, OR PER DSA PRE-APPROVAL NUMBER 5003 FOR SUPER STRUT-SEISMIC RESTRAINT SYSTEM, OR PER DSA PRE-APPROVAL NUMBER R0071, THE KIN-LINE SEISMIC RESTRAINT SYSTEM.

2. ALL ELECTRICAL PREFABRICATED EQUIPMENT SHALL BE DESIGNED AND CONSTRUCTED IN SUCH A MANNER THAT ALL PORTIONS, ELEMENTS, SUB-ASSEMBLIES AND/OR PARTS OF SAID EQUIPMENT, AND THE EQUIPMENT AS A WHOLE INCLUDING ITS ATTACHMENTS, WILL RESIST A LOAD WHICH EXCEEDS THE FORCE LEVEL USED TO RESTRAIN AND ANCHOR THE EQUIPMENT TO THE SUPPORTING STRUCTURE.

3. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE LISTED BY UNDERWRITER'S LABORATORIES (UL) AND BEAR THEIR LABEL, OR LISTED AND CERTIFIED BY A NATIONALLY RECOGNIZED TESTING AUTHORITY WHERE UL DOES NOT HAVE A LISTING. CUSTOM MADE EQUIPMENT SHALL HAVE COMPLETE TEST DATA SUBMITTED BY THE MANUFACTURER ATTESTING TO ITS SAFETY. IN ADDITION, THE MATERIALS, EQUIPMENT, AND INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING:
   AMERICAN SOCIETY OF TESTING MATERIALS (ASTM)
   INSULATED POWER CABLE ENGINEERS ASSOCIATION (IPCEA)
   NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
   AMERICAN STANDARD ASSOCIATION (ASA)
   NATIONAL FIRE PROTECTION AGENCY (NFPA)
   AMERICAN NATIONAL STANDARD INSTITUTE (ANSI)
   CALIFORNIA ELECTRICAL CODE (CEC) - LATEST EDITION CALIFORNIA CODE OF REGULATIONS TITLE 24 (CCR)
   INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)
   ALL LOCAL CODES HAVING JURISDICTION. WHERE THE CODES HAVE DIFFERENT LEVELS OF REQUIREMENTS, THE MOST STRINGENT RULE SHALL APPLY AS DETERMINED BY ENGINEER OF RECORD.

4. ALL POWER UTILITY WORK SHALL BE IN COMPLIANCE WITH THESE DRAWINGS AND THE REQUIREMENTS OF THE SERVING UTILITY COMPANY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE SERVING UTILITY TO RECEIVE COMPLETE INFORMATION ON THEIR REQUIREMENTS PRIOR THE SUBMISSION OF THE BID. THE ACT OF SUBMITTING THE BID SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO INSTALL SERVICE IN COMPLIANCE WITH THE SERVING UTILITY AND THE CONTRACT DOCUMENTS.

5. ALL ITEMS SUCH AS SERVICE CONDUIT, CONDUCTORS, DUCTS, CONCRETE PADS, TRANSFORMERS, RISERS, MANHOLES, PULL BOXES, AND PROTECTIVE COVERING FROM SERVICE LOCATION SHALL BE PROVIDED AND INSTALLED, AND SHALL BE VERIFIED WITH THE SERVING UTILITY COMPANY. THE CONTRACTOR SHALL PROVIDE THE SERVICE IN COMPLIANCE WITH THE SERVING UTILITY COMPANY, AND SHALL PAY ALL CHARGES LEVIED BY THE SERVING UTILITY COMPANY FOR HIS SERVICE EXCEPT THE FIRST BILLING DEPOSIT. WHERE THE CONTRACT DOCUMENTS ARE MORE RESTRICTIVE, THE DOCUMENTS SHALL GOVERN.

6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE TEMPORARY POWER FACILITIES AND CONNECTIONS FOR ALL SYSTEMS REQUIRED THROUGH THE COURSE OF CONSTRUCTION AND TO COORDINATE SERVICES WITH THE UTILITY AGENCY.

7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW AND TO COORDINATE WITH THE MECHANICAL, AND OTHER TRADE APPLICABLE.

8. FOR CONNECTION OF HVAC EQUIPMENT SHALL BE MOUNTED ON UNISTRUT STANDS UTILIZING APPROVED PITCH POCKETS, FLASHING, ETC.. AS DIRECTED BY ARCHITECT. EQUIPMENT "SHALL NOT" BE MOUNTED ON HVAC EQUIPMENT.

9. ALL FINAL CONNECTIONS TO OWNER FURNISHED EQUIPMENT SHALL BE MADE BY THE CONTRACTOR.

10. COORDINATE WITH OTHER TRADES AS TO THE EXACT LOCATION AND CONFIGURATION OF THEIR RESPECTIVE EQUIPMENT. SUPPLY POWER AND MAKE CONNECT TO MOTORS AND EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS AS INDICATED ON THE SINGLE LINE DIAGRAM, ELECTRICAL DRAWINGS, AND DRAWINGS OF OTHER TRADES. REVIEW THE DRAWINGS OF OTHER TRADES FOR CONTROL DIAGRAMS, SIZE AND LOCATION OF EQUIPMENT. DISCONNECT SWITCHES, STARTERS, WIRING, CONTROLS, AND CONDUIT FOR MECHANICAL AND PLUMBING OPERATIONS SHALL BE PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING MANUFACTURER'S SHOP DRAWINGS PRIOR TO ROUGHING IN ALL CONDUIT TO THIS EQUIPMENT.

11. EXACT METHOD AND LOCATION OF CONDUIT PENETRATION AND OPENINGS IN CONCRETE OR MASONRY WALLS, GRADEBEAMS, FLOORS OR STRUCTURAL STEEL MEMBERS SHALL BE AS DIRECTED BY THE STRUCTURAL ENGINEER. PERFORM CORING, SAWCUTTING, PATCHING, AND REFINISHING OF WALLS AND SURFACES WHEREVER IT IS NECESSARY TO PENETRATE. OPENINGS SHALL BE SEALED IN AN APPROVED METHOD TO MEET THE FIRE RATING OF THE PARTICULAR WALL, FLOOR OR CEILING. EXACT METHOD AND LOCATIONS OF CONDUIT PENETRATIONS AND OPENINGS IN CONCRETE WALLS OR FLOORS SHALL BE FOR UL APPROVED SYSTEMS

12. ROUTE EXPOSED CONDUIT AND CONDUIT ABOVE ACCESSIBLE CEILING SPACES PARALLEL AND PERPENDICULAR TO WALLS AND ADJACENT PIPING. ARRANGE CONDUIT TO MAINTAIN HEADROOM AND TO PRESENT A NEAT APPEARANCE.

13. REFER TO SINGLE LINE DIAGRAM AND FEEDER SCHEDULES FOR CONDUIT AND CONDUCTOR SIZE TO PANELS, TRANSFORMERS, MECHANICAL AND PLUMBING EQUIPMENT, ETC., CONDUIT RUNS MAY NOT BE SHOWN ON DRAWINGS, BUT ARE PART OF THIS CONTRACT.

14. WHENEVER A DISCREPANCY IN QUANTITY OR SIZE OF CONDUIT, WIRE, EQUIPMENT DEVICES, CIRCUIT BREAKERS, ETC. (ALL MATERIALS), ARISES ON THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIAL AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS TO ENSURE COMPLETE AND OPERABLE SYSTEMS AS REQUIRED BY THE OWNER AND ARCHITECT/ENGINEER.

15. PENDANT MOUNTED FIXTURES: SUPPORT PENDANT MOUNTED LIGHT FIXTURES DIRECTLY FROM THE STRUCTURE ABOVE WITH HANGER WIRES OR CABLES PASSING THROUGH EACH PENDANT HANGER, AND CAPABLE OF SUPPORTING FOUR TIMES THE WEIGHT OF THE FIXTURE.

16. SURFACE MOUNTED FIXTURES SHALL BE ATTACHED TO A MAIN RUNNER WITH A POSITIVE CLAMPING DEVICE MADE OF MATERIAL WITH A MINIMUM OF 14 GAUGE. ROTATIONAL SPRING CATCHES SHALL NOT BE ALLOWED.

17. STRAIGHT FEEDER, BRANCH CIRCUIT, AND CONDUIT RUNS SHALL BE PROVIDED WITH SUFFICIENT PULL BOXES OR JUNCTION BOXES TO LIMIT THE MAXIMUM LENGTH OF ANY SINGLE CABLE PULL TO 200 FEET. PULL BOXES SHALL BE SIZED PER CODE OR AS INDICATED ON DRAWINGS. LOCATIONS SHALL BE DETERMINED IN THE FIELD OR AS INDICATED ON THE DRAWINGS.

18. MAXIMUM NUMBER OF CONDUCTORS IN OUTLET OR JUNCTION BOXES SHALL CONFORM TO THE CALIFORNIA ELECTRICAL CODE, ARTICLE 314.16.

19. THE NUMERALS SHOWN AT TOP OF LIGHT FIXTURE IDENTIFICATION SYMBOLS INDICATING THE NUMBER OF LIGHT FIXTURES REQUIRED SHALL NOT BE USED BY THE CONTRACTOR FOR HIS QUANTITY TAKE-OFF AT BIDDING, NOR FOR DETERMINATION OF HOW MANY FIXTURES WILL BE INSTALLED. THE CONTRACTOR SHALL INSTALL A LIGHT FIXTURE WHEREVER A FIXTURE OUTLET IS SHOWN ON THE DRAWINGS.

20. IDENTIFICATION NAMEPLATES SHALL BE MICARTA 1/8 INCH THICK AND OF APPROVED SIZE WITH BEVELED EDGES AND ENGRAVED WHITE LETTERS A MINIMUM OF 1/4 INCH HIGH ON BLACK BACKGROUND. NAMEPLATES SHALL BE PROVIDED FOR ALL CIRCUITS IN THE SERVICE DISTRIBUTION, POWER DISTRIBUTION SWITCHBOARDS AND LIGHTING DISTRIBUTION PANELBOARDS. SEPARATELY MOUNTED STARTING SWITCHES, DISCONNECTING SWITCHES, MOTOR CONTROL PUSHBUTTON STATIONS, SELECTOR SWITCHES, TRANSFORMERS, TERMINAL CABINETS, TELEPHONE CABINETS, ETC. ALL NAMEPLATES SHALL BE ATTACHED WITH SCREWS. (SEE SPECIFICATIONS) PULLBOXES, JUNCTION BOXES, AND DEVICE BOXES SHALL BE MARKED WITH A PERMANENT MARKER.

21. THE EXACT LOCATION OF ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE COORDINATED WITH THE ARCHITECTURAL ELEVATIONS, DETAILS, OR SECTIONS PRIOR TO INSTALLATION.

    WALL SWITCH AT WALL +48" SET VERTICALLY

    CONVENIENCE RECEPTACLE AT WALL +1'-6"

    MOUNTING HEIGHTS OF ALL DEVICES AND EQUIPMENT ARE FROM FINISHED FLOOR TO CENTER OF DEVICES AND EQUIPMENT UNLESS OTHERWISE NOTED. BOXES INSTALLED IN LOCATIONS NOT APPROVED BY THE ARCHITECT SHALL BE RELOCATED AS DIRECTED BY THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.

22. DRAWINGS ARE DIAGRAMMATIC ONLY AND DO NOT SHOW SPECIAL CONDUIT ROUTING OR LENGTHS REQUIRED FOR A COMPLETE INSTALLATION. ROUTING OF RACEWAYS SHALL BE AT THE OPTION OF THE CONTRACTOR BUT SHALL BE IN STRICT COMPLIANCE WITH STRUCTURAL REQUIREMENTS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.

23. WHERE FIXTURES ARE SHOWN TO BE DUAL SWITCHED, SWITCH "Sa" SHALL CONTROL THE TWO OUTSIDE LAMPS IN EACH FIXTURE, "Sb" SHALL CONTROL THE REMAINING LAMPS IN EACH FIXTURE.

24. THE EQUIPMENT GROUNDING CONDUCTOR ALTHOUGH NOT SHOWN ON CONDUIT RUNS, SHALL BE INSTALLED AND RUN CONTINUOUS FROM PANEL TO LAST OUTLET.

25. FURNISH AND INSTALL POWER DISTRIBUTION PANELBOARDS AS INDICATED ON THE DRAWINGS. PANELBOARDS SHALL COMPLY WITH NEMA STANDARD PANELBOARDS SHALL BE COMPLETE WITH COPPER BUS BARS AND 75 DEGREE CELSIUS THERMAL MAGNETIC BOLT-ON TYPE CIRCUIT BREAKERS AS INDICATED ON DRAWINGS.

26. COORDINATE WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR HOUSEKEEPING PADS, PROVIDE SIZES REQUIRED FOR EQUIPMENT TO BE INSTALLED.

27. JUNCTION AND PULL BOXES: FOR INTERIOR DRY LOCATIONS, BOXES SHALL BE GALVANIZED ONE-PIECE, DRAWN STEEL, KNOCKOUT TYPE WITH REMOVABLE MACHINE SCREW SECURED COVERS. FOR OUTSIDE, DAMP, OR SURFACE LOCATIONS, BOXES SHALL BE HEAVY CAST ALUMINUM OR CAST IRON WITH REMOVABLE, GASKETED, NON-FERROUS MACHINE SCREW SECURED COVERS. BOXES SHALL BE SIZED FOR THE NUMBER AND SIZES OF CONDUCTORS AND CONDUIT ENTERING THE BOX AND EQUIPPED WITH PLASTER EXTENSION RINGS WHERE REQUIRED. BOXES SHALL BE LABELED TO COMMUNICATIONS SYSTEM. INDICATE PANEL AND CIRCUIT NUMBER, OR TYPE OF SIGNAL

28. LAMPS: ALL FIXTURES SHALL BE SUPPLIED WITH LAMPS OF PROPER SIZE AND TYPE.

    INCANDESCENT LAMPS SHALL BE NEW, RATED FOR 120 VOLTS, 60 CYCLES, AC OPERATION AND SHALL BE GENERAL SERVICE INSIDE FROSTED UNLESS SPECIFICALLY NOTED OTHERWISE.

    FLUORESCENT LAMPS SHALL BE INSTANT START ENERGY SAVING TYPE, GENERAL ELECTRIC OR EQUAL BY SYLVANIA OR PHILIPS UNLESS NOTED OTHERWISE.

    METAL HALIDE AND HIGH PRESSURE SODIUM LAMPS SHALL BE AS RECOMMENDED BY THE FIXTURE MANUFACTURER AND AS INDICATED IN THE FIXTURE SCHEDULE.

    LIGHT-EMMITING DIODE (LED) A SEMI-CONDUCTOR LIGHT. FIXTURE RECOMMENDED BY FIXTURE SUPPLIER AS INDICATED IN FIXTURE SCHEDULE.

29. DURING CONSTRUCTION AND AT CLOSE OF PROJECT CONTRACTOR SHALL MODIFY/UPDATE PANEL SCHEDULES TO REFLECT ACTUAL ROOMS/SPACES WHERE OUTLETS WERE INSTALLED, USING OWNERS DESIGNATION. TYPEWRITTEN IS REQUIRED.

30. WHEN CONFLICTS OCCUR ON DRAWINGS AND IN SPECIFICATIONS, THE MOST STRINGENT APPLICATION SHALL APPLY AND SHALL BE PART OF THE BASE BID.

31. PROCURE ALL PERMITS FROM LEGALLY CONSTITUTED AUTHORITIES, ARRANGE FOR ALL INSPECTIONS AND PAY ALL COST FOR FEES AND TESTS IN CONNECTION THEREWITH. COMPLY WITH CODES: NOTHING IN THESE PLANS AUTHORIZES DEVIATION FROM APPLICABLE CODES.

32. DETERMINE EXACT ROUTING OF CONCEALED FEEDERS AND BRANCH HOMERUNS IN COOPERATION WITH OTHER TRADES TO SIMPLIFY INSTALLATION WHEREVER POSSIBLE BUT SUBJECT TO APPROVAL OF ARCHITECT FOR VISUAL AND STRUCTURAL REASONS.

33. DO NOT RUN ANY CONDUIT IN SLAB IF ITS OUTSIDE DIAMETER EXCEEDS 1/3 THE THICKNESS OF SLAB. LOCATE CONDUITS WITHIN THE MIDDLE OF THE SLAB. WHERE CONDUITS ARE GROUPED IN PARALLEL RUNS, SPACE THEM 3" OR MORE APART. WHERE CONDUITS CROSS EACH OTHER, THICKEN SLAB PROPORTIONATELY OVER A HORIZONTAL AREA EQUAL TO TEN TIMES THE DIAMETER OF THE LARGEST DIAMETER.

34. ALL LINE VOLTAGE WIRING SHALL BE #12 AWG COPPER WITH THWN/THHN INSULATION AND IN 3/4" DIAMETER CONDUIT MINIMUM. IN EACH CONDUIT WITHOUT CONDUCTORS, PROVIDE ONE #12 TW COPPER PULL WIRE WITH TAG IDENTIFYING LOCATION OF OPPOSITE END.

35. THE CENTER OF ELECTRICAL AND COMMUNICATION SYSTEM RECEPTACLE OUTLETS SHALL BE INSTALLED NOT LESS THAN 15" OR MORE THAN 48" ABOVE THE FLOOR OR WORKING PLATFORMS, (ADA).

36. ALL OTHER ELECTRICAL WORK NOT COVERED IN THESE NOTES SHALL BE REFERRED TO ELECTRICAL SPECIFICATIONS SECTION 26.

37. CONTRACTOR SHALL VERIFY AND CONFIRM THAT ESCALATOR, NEWEL AND COMB LIGHTING SHALL BE FED FROM EMERGENCY LIGHTING.

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. ALLEN — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2532 Fax: (510) 535-2539

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LAG A BALY COMPANY — T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MONTAGUE LRT AND MILPITAS POC

ELECTRICAL
GENERAL NOTES

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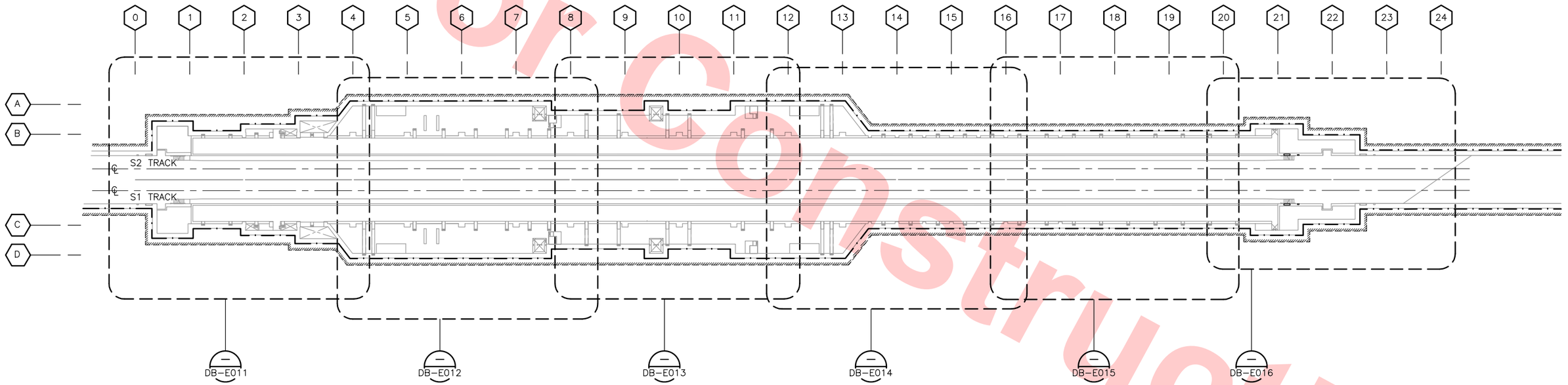
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E004X | PAGE NO. 0833



KEY PLAN – TRACK LEVEL – LIGHTING
SCALE: 1/32"=1'–0"

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

32' 0' 32' 64'
GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

LICENSED PROFESSIONAL ENGINEER — LOUIS L. PAYNE — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 500, Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2539

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
KEY PLAN
TRACK LEVEL
LIGHTING

CADD FILENAME C700-S-DB-E010X.dwg
SIZE D | SCALE 1/32"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E010X | PAGE NO. 0834

Jun 20, 2013 - 2:12pm G:\Cities Morovilis\Milpitas Station\Projectwise Sheets\C700-S-DB-E010X.dwg
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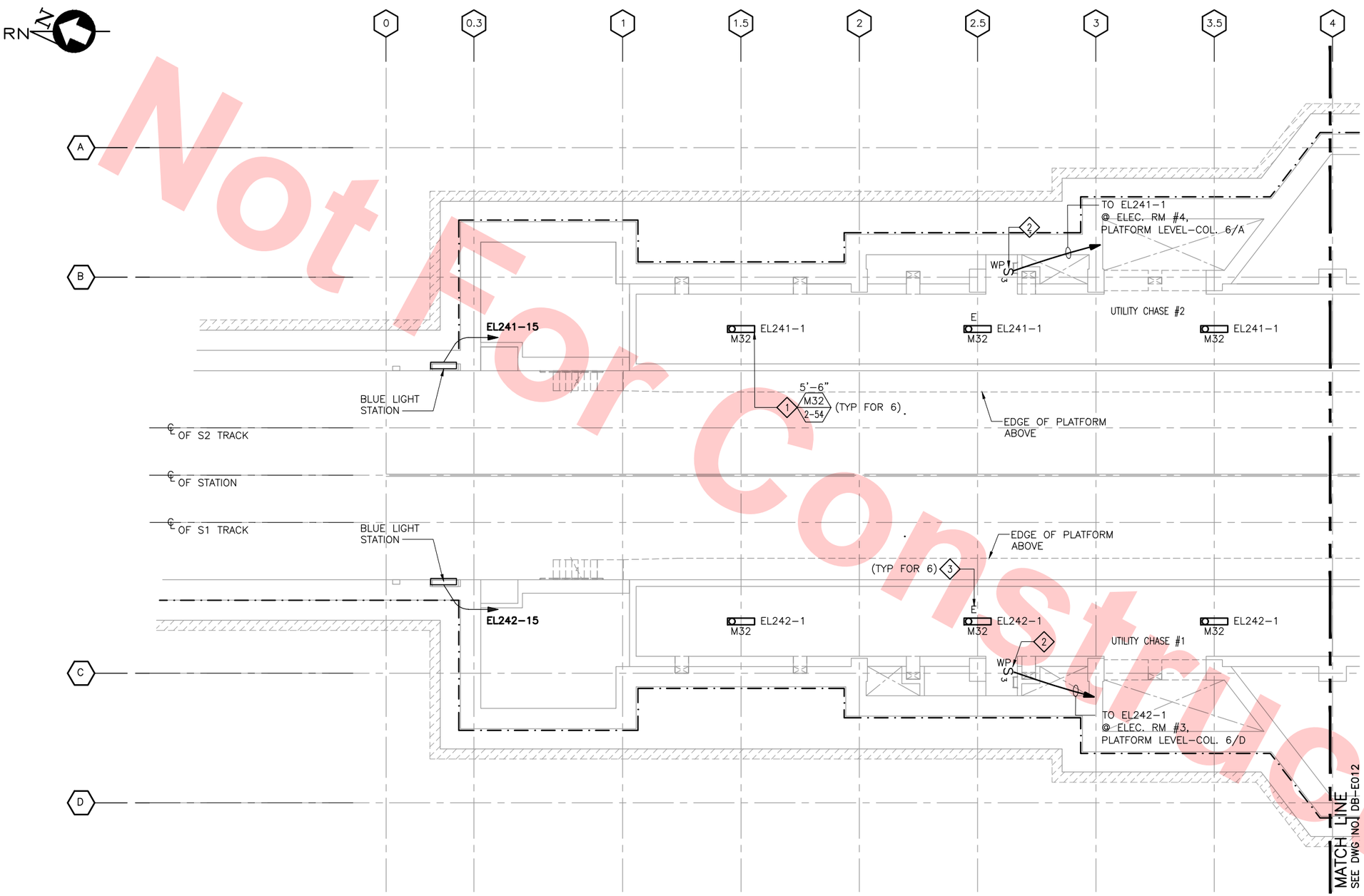


TRACK LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'-0"

DB-E010X

KEY NOTES

1. SEE DRAWING DB-E515 AND DB-E516 FOR LIGHTING FIXTURE SCHEDULE.
2. SINGLE POLE 3-WAY SWITCH MOUNTED 48" AFF, AND 6" MIN FROM ACCESS LADDER FOR CONTROL OF LIGHTS ALONG CHASE THAT ARE CONNECTED TO NORMAL CIRCUITS.
3. SUBSCRIPT "E" WITH THE LIGHT FIXTURE SYMBOL, DENOTES LIGHTS CONNECTED TO EMERGENCY CIRCUIT.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

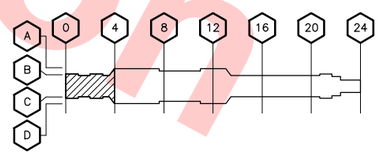
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACES C700-DB-E191

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. NI — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
TRACK LEVEL PLAN
LIGHTING
SHEET 1 OF 6

CADD FILENAME C700-S-DB-E011.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E011 | PAGE NO. 0835

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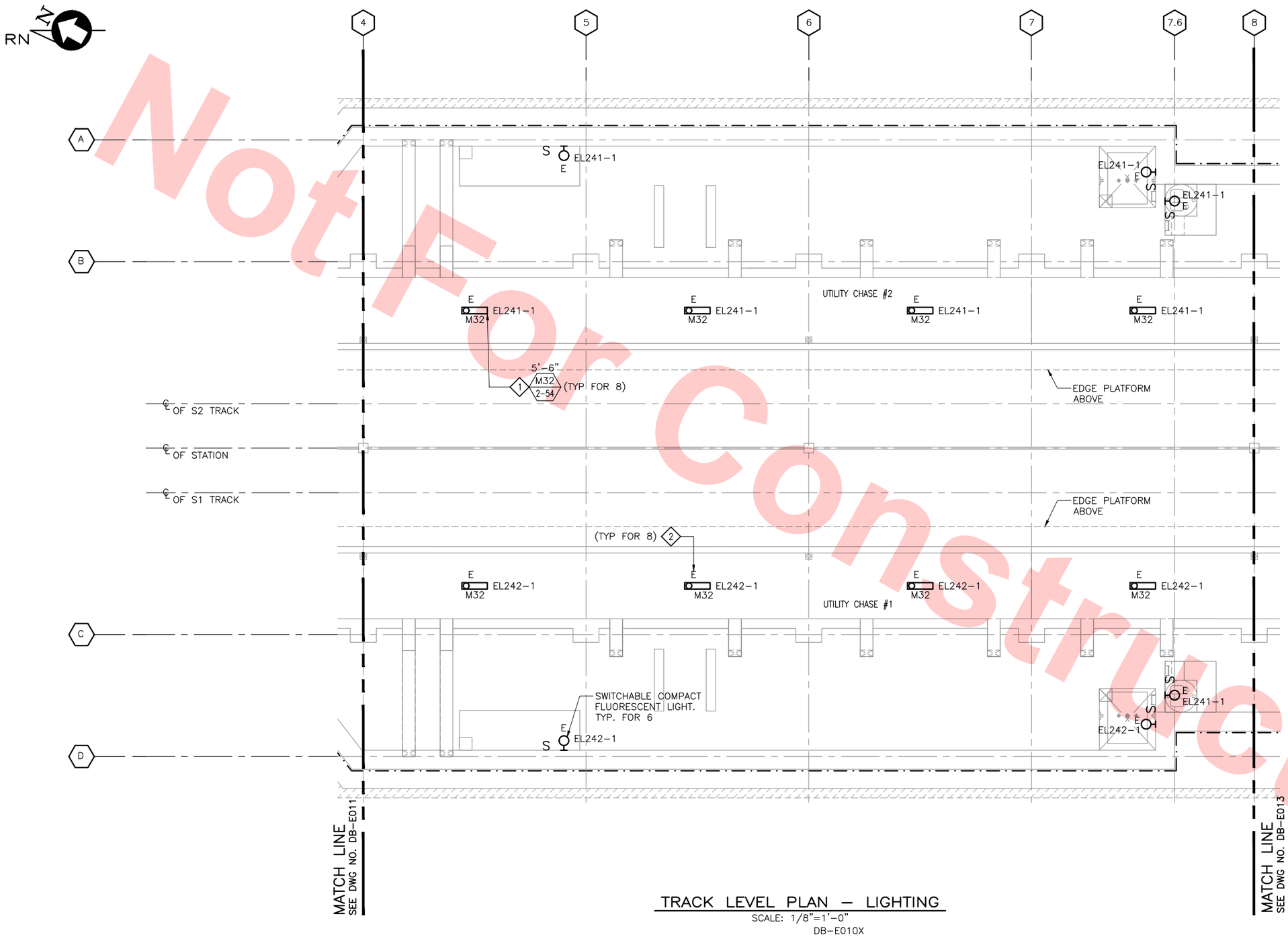


TRACK LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'-0"

DB-E010X

KEY NOTES

1. SEE DRAWING DB-E515 AND DB-E516 FOR LIGHTING FIXTURE SCHEDULE.
2. SUBSCRIPT "E" WITH THE LIGHT FIXTURE SYMBOL, DENOTES LIGHTS CONNECTED TO EMERGENCY CIRCUIT.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

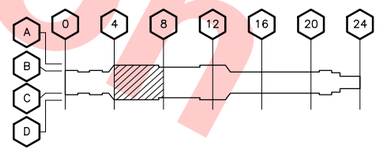
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E192

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. N. CHEN — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

SUBMITTED

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
TRACK LEVEL PLAN
LIGHTING
SHEET 2 OF 6

CADD FILENAME C700-S-DB-E012.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E012 | PAGE NO. 0836

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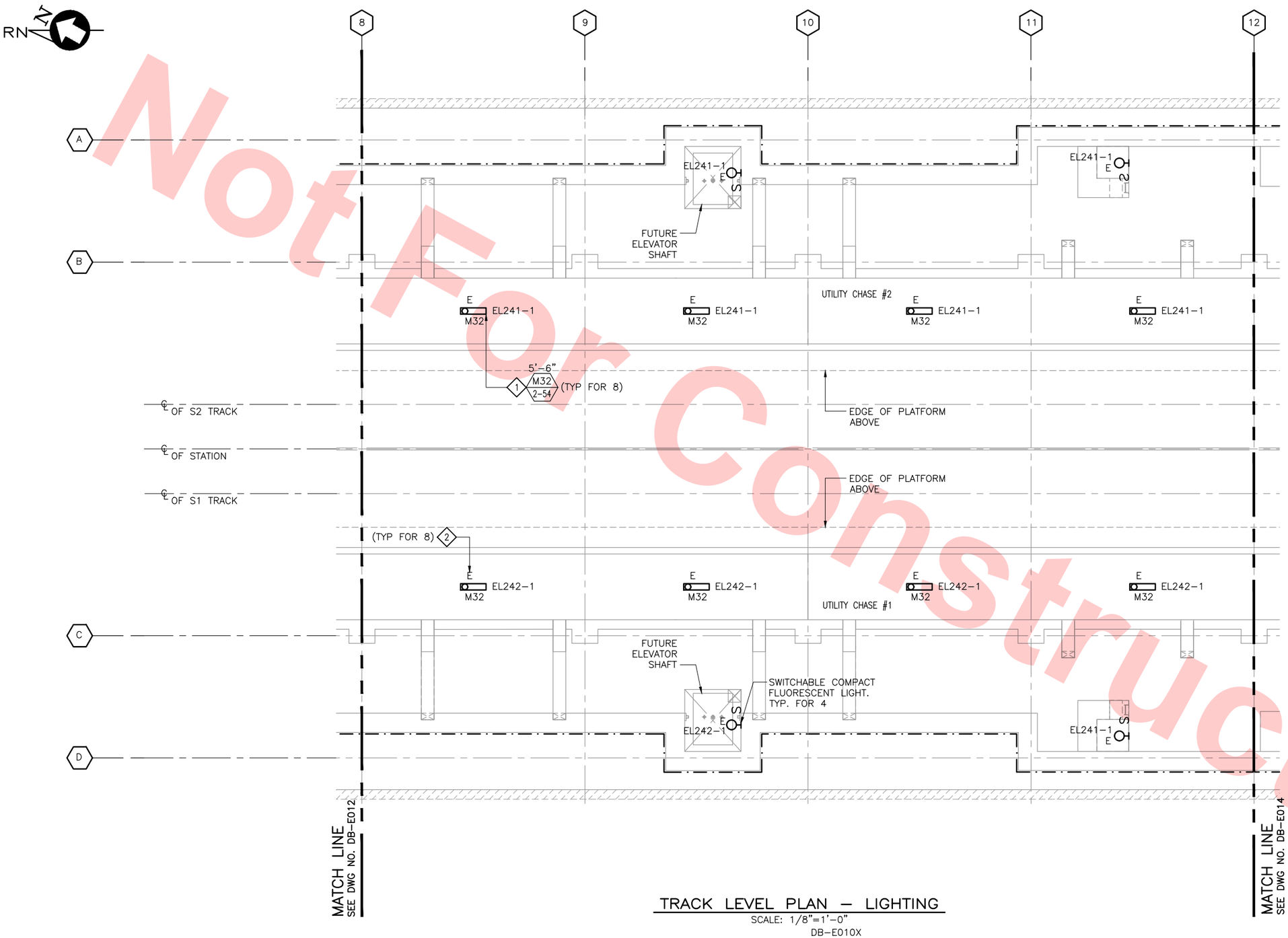


TRACK LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'-0"

DB-E010X

KEY NOTES

1. SEE DRAWING DB-E515 AND DB-E516 FOR LIGHTING FIXTURE SCHEDULE.
2. SUBSCRIPT "E" WITH THE LIGHT FIXTURE SYMBOL, DENOTES LIGHTS CONNECTED TO EMERGENCY CIRCUIT.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

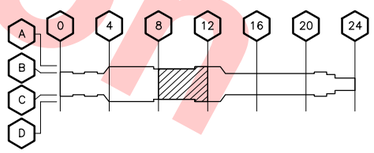
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-193

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER LOUIS L. CHEN E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY

T·Y·LIN INTERNATIONAL

SUBMITTED

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
TRACK LEVEL PLAN
LIGHTING
SHEET 3 OF 6

CADD FILENAME	
C700-S-DB-E013.dwg	
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CONTRACT NO. C700	REV. 0
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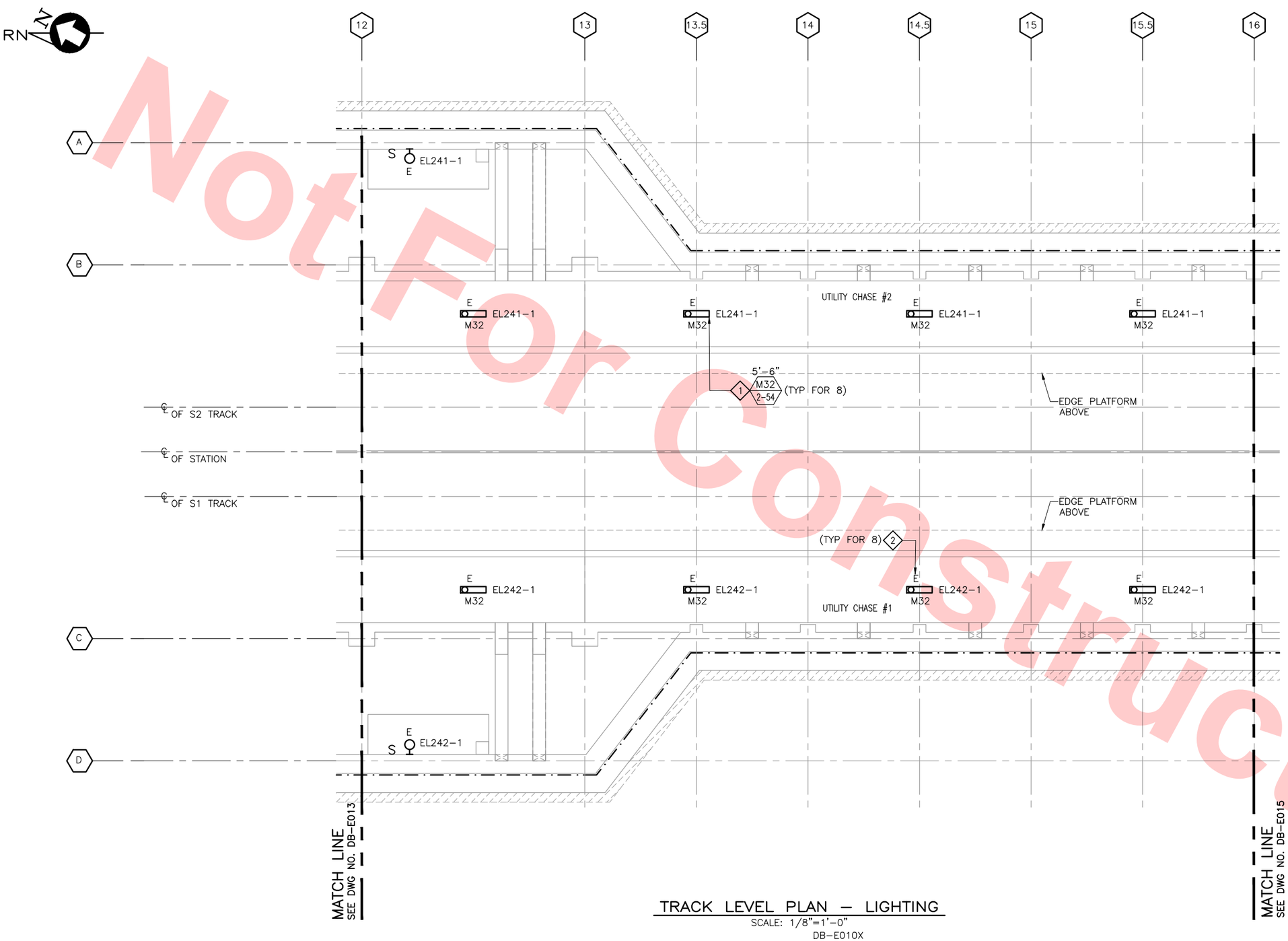


TRACK LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'–0"

DB–E010X

KEY NOTES

1. SEE DRAWING DB–E515 AND DB–E516 FOR LIGHTING FIXTURE SCHEDULE.
2. SUBSCRIPT "E" WITH THE LIGHT FIXTURE SYMBOL, DENOTES LIGHTS CONNECTED TO EMERGENCY CIRCUIT.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

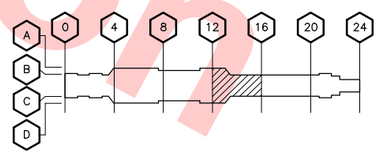
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700–DB–E194

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. NG — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LINO A SALT COMPANY
T·Y LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
TRACK LEVEL PLAN
LIGHTING
SHEET 4 OF 6

CADD FILENAME C700–S–DB–E014.dwg
SIZE D | SCALE 1/8"=1'–0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E014 | PAGE NO. 0838

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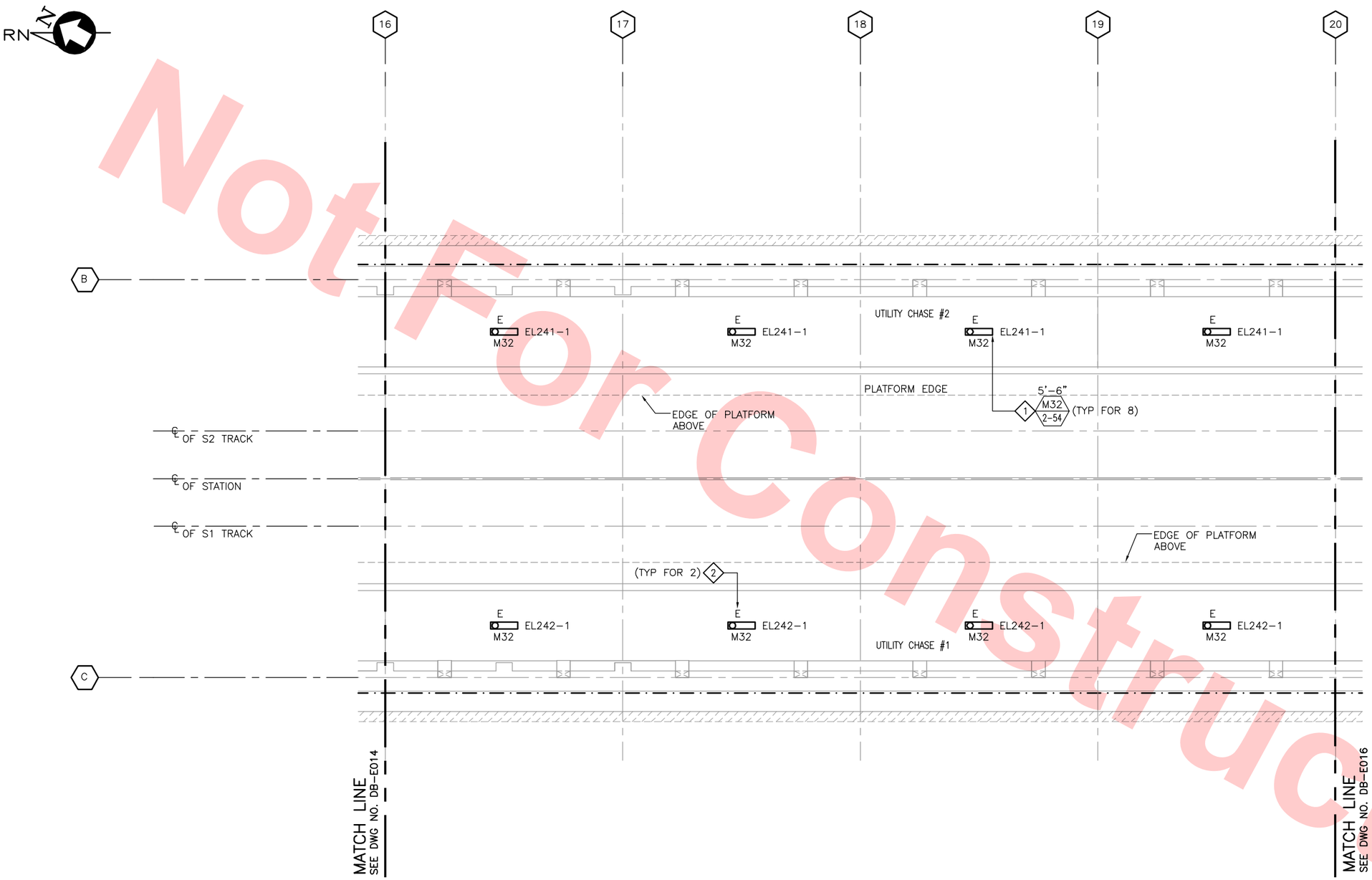


TRACK LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'-0"

DB-E010X

KEY NOTES

1. SEE DRAWING DB-E515 AND DB-E516 FOR LIGHTING FIXTURE SCHEDULE.
2. SUBSCRIPT "E" WITH THE LIGHT FIXTURE SYMBOL, DENOTES LIGHTS CONNECTED TO EMERGENCY CIRCUIT.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

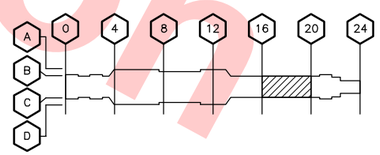
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-195

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — CARLOS L.N. CRUZ — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 535 Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A URS X RALT COMPANY
T·Y·LIN INTERNATIONAL

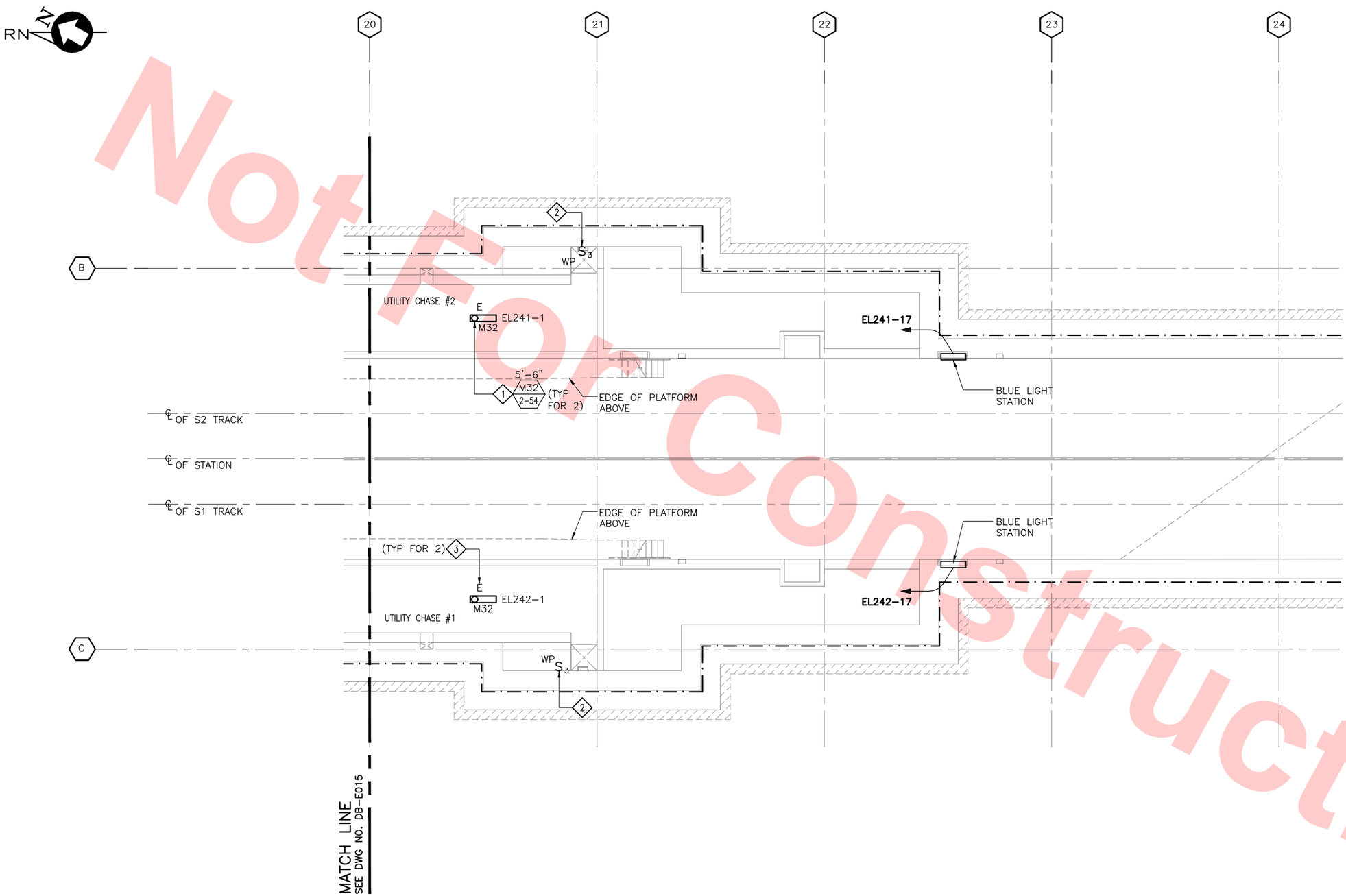
APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
TRACK LEVEL PLAN
LIGHTING
SHEET 5 OF 6

CADD FILENAME		
C700-S-DB-E015.dwg		
SIZE D	SCALE 1/8"=1'-0"	
CONTRACT NO. C700		REV. 0
AREA CODE DB	SHEET NO. E015	PAGE NO. 0839



TRACK LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'–0"

DB–E010X

KEY NOTES

1. SEE DRAWING DB–E515 AND DB–E516 FOR LIGHTING FIXTURE SCHEDULE.
2. SINGLE POLE 3–WAY SWITCH MOUNTED 48" AFF, AND 6" MIN FROM ACCESS LADDER FOR CONTROL OF LIGHTS ALONG CHASE THAT ARE CONNECTED TO NORMAL CIRCUITS.
3. SUBSCRIPT "E" WITH THE LIGHT FIXTURE SYMBOL, DENOTES LIGHTS CONNECTED TO EMERGENCY CIRCUIT.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

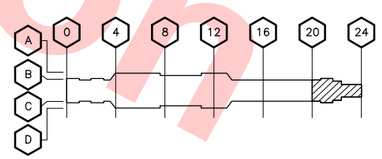
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130430				READINESS FOR CONSTRUCTION
					REPLACED C700–DB–E196

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130430

LICENSED PROFESSIONAL ENGINEER — LOUIS L. NG — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A URS × AECOM COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
TRACK LEVEL PLAN
LIGHTING
SHEET 6 OF 6

CADD FILENAME		
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CONTRACT NO. C700		REV. 0
AREA CODE DB	SHEET NO. E016	PAGE NO. 0840

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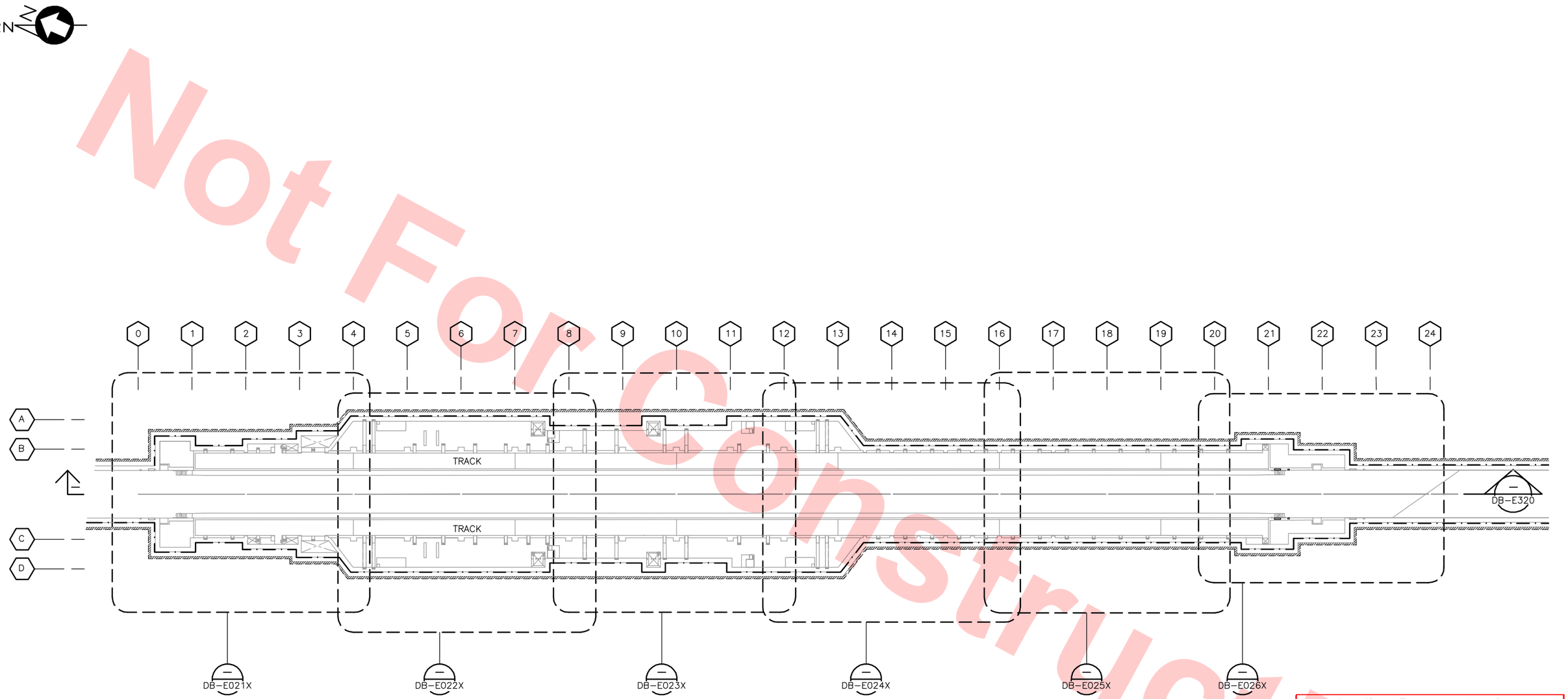


KEY PLAN – TRACK LEVEL – POWER AND MISCELLANEOUS

SCALE: 1/32"=1'–0"

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

32' 0' 32' 64'

GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

LEWIS L. N. OSBY E11904 EXP. 12/31/14 REGISTERED PROFESSIONAL ENGINEER ELECTRICAL STATE OF CALIFORNIA

SUBMITTED

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y LIN INTERNATIONAL

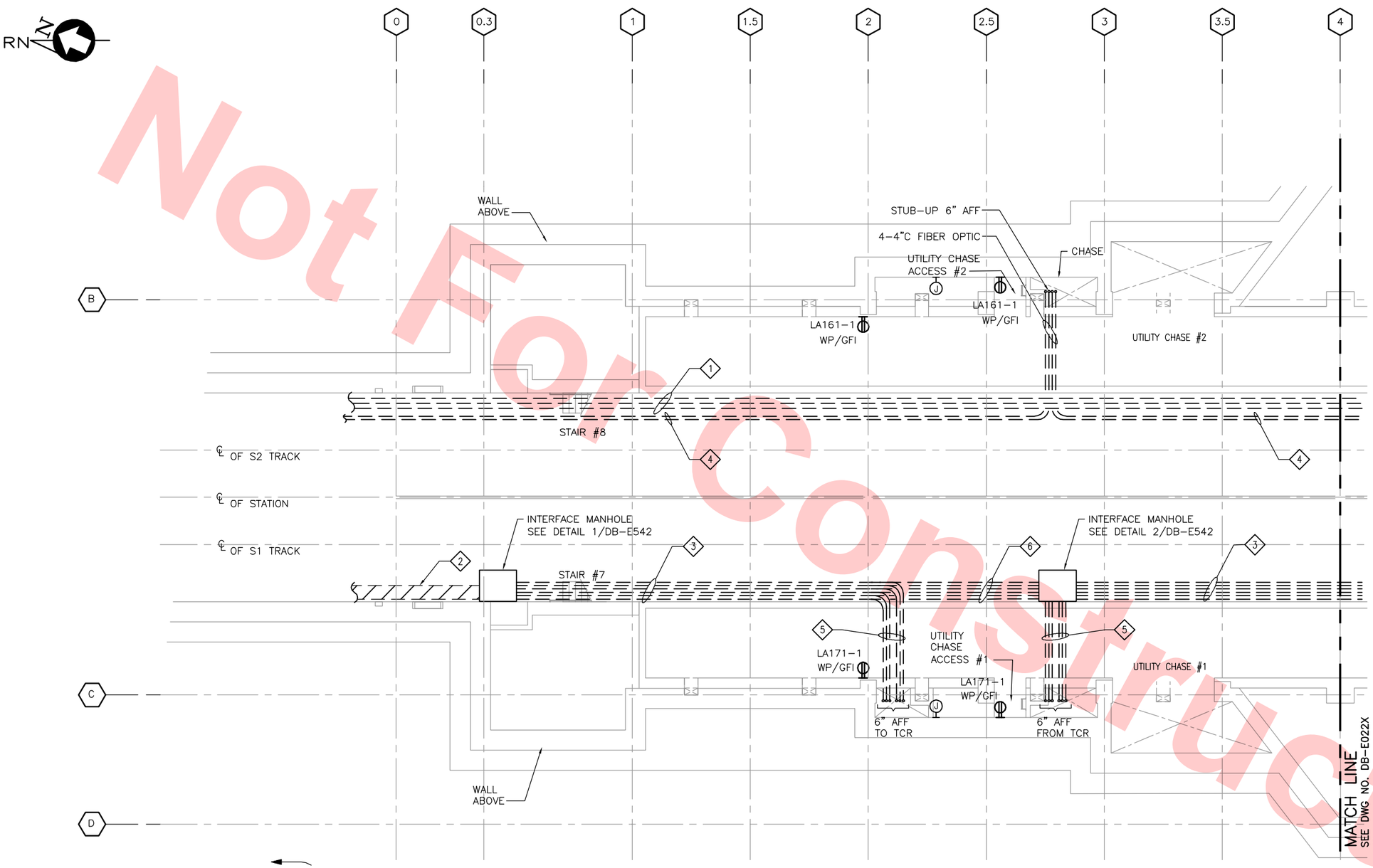
APPROVED

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
KEY PLAN
TRACK LEVEL
POWER AND MISCELLANEOUS

CADD FILENAME C700-S-DB-E020.dwg
SIZE D | SCALE 1/32"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E020 | PAGE NO. 0841

Jun 21, 2013 - 2:47pm G:\Giles Maravilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E020.dwg
GilesM



TRACK LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E020

KEY NOTES

1. SYSTEM WIDE 34.5KV 3-6"C 34.5 KV (TPSS) IN STRUCTURAL INVERT.
2. SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYSYSTEM UNDER TRACKWAY WALKWAY.
3. 28-4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT.
4. 2-4"C FIBER OPTIC IN STRUCTURAL INVERT
5. 9-4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT.
6. 19-4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT.

NOTES

1. ALL CONDUIT RUNS AS PER SYSTEM POWER/CONTROLS/COMMUNICATION SHOWN HERE ARE FOR REFERENCE ONLY, FOR DETAILS, CONSULT WITH SYSTEMS ELECTRICAL ENGINEERS.
2. FOR ELCTRICAL ABBREVIATIONS SEE DWG. DB-E001.
3. FOR ELCTRICAL LAYOUT SYMBOLS SEE DWG. DB-E002.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

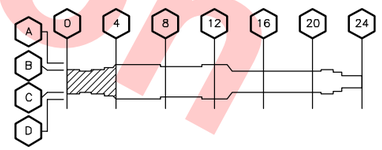
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E291, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER LOUIS L. N. CHEN E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 535 Oakland, CA 94612
Phone: (510) 835-2532 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T-Y-LIN INTERNATIONAL

SUBMITTED

APPROVED

BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
TRACK LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 1 OF 6

CADD FILENAME	
C700-S-DB-E021X.dwg	
SIZE D	SCALE 1/8"=1'-0"
CONTRACT NO. C700	REV. 0
AREA CODE DB	SHEET NO. E021X
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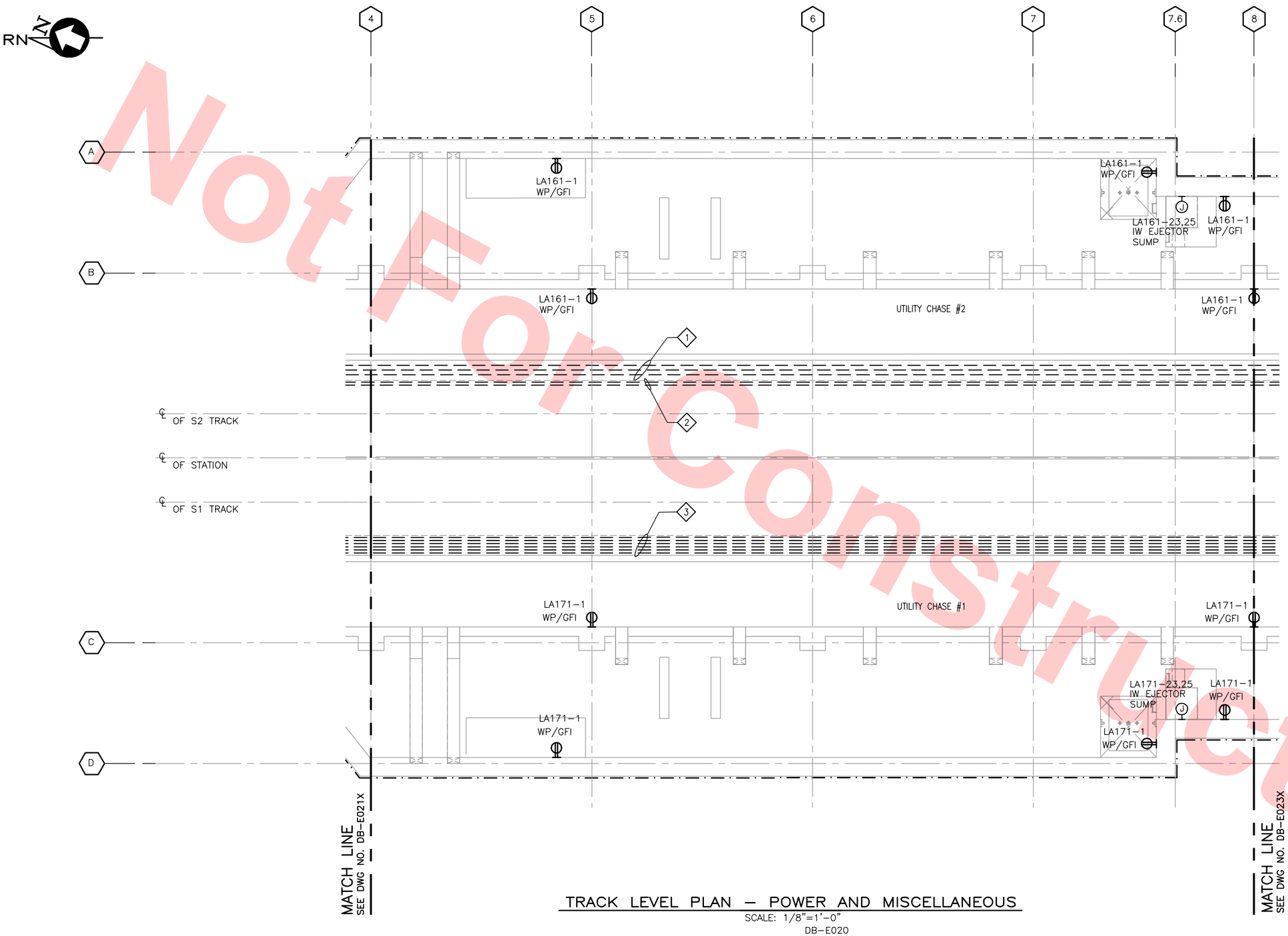


TRACK LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E020

KEY NOTES

1. SYSTEM WIDE 34.5KV 3–6"C 34.5 KV (TPSS) IN STRUCTURAL INVERT.
2. 2–4"C FIBER OPTIC IN STRUCTURAL INVERT
3. 28–4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT.

NOTES

1. ALL CONDUIT RUNS AS PER SYSTEM POWER/CONTROLS/COMMUNICATION SHOWN HERE ARE FOR REFERENCE ONLY, FOR DETAILS, CONSULT WITH SYSTEMS ELECTRICAL ENGINEERS.
2. FOR ELCTRICAL ABBREVIATIONS SEE DWG. DB–E001.
3. FOR ELCTRICAL LAYOUT SYMBOLS SEE DWG. DB–E002.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

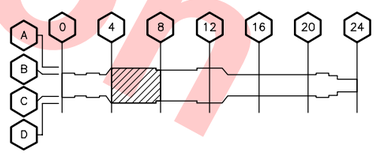
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700–DB–E292, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — CHARLES L. H. CHEN — E11904 — EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2532 Fax: (510) 835-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T-Y LIN INTERNATIONAL

APPROVED

BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
TRACK LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 2 OF 6

CADD FILENAME C700–S–DB–E022X.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E022X | PAGE NO. 0843

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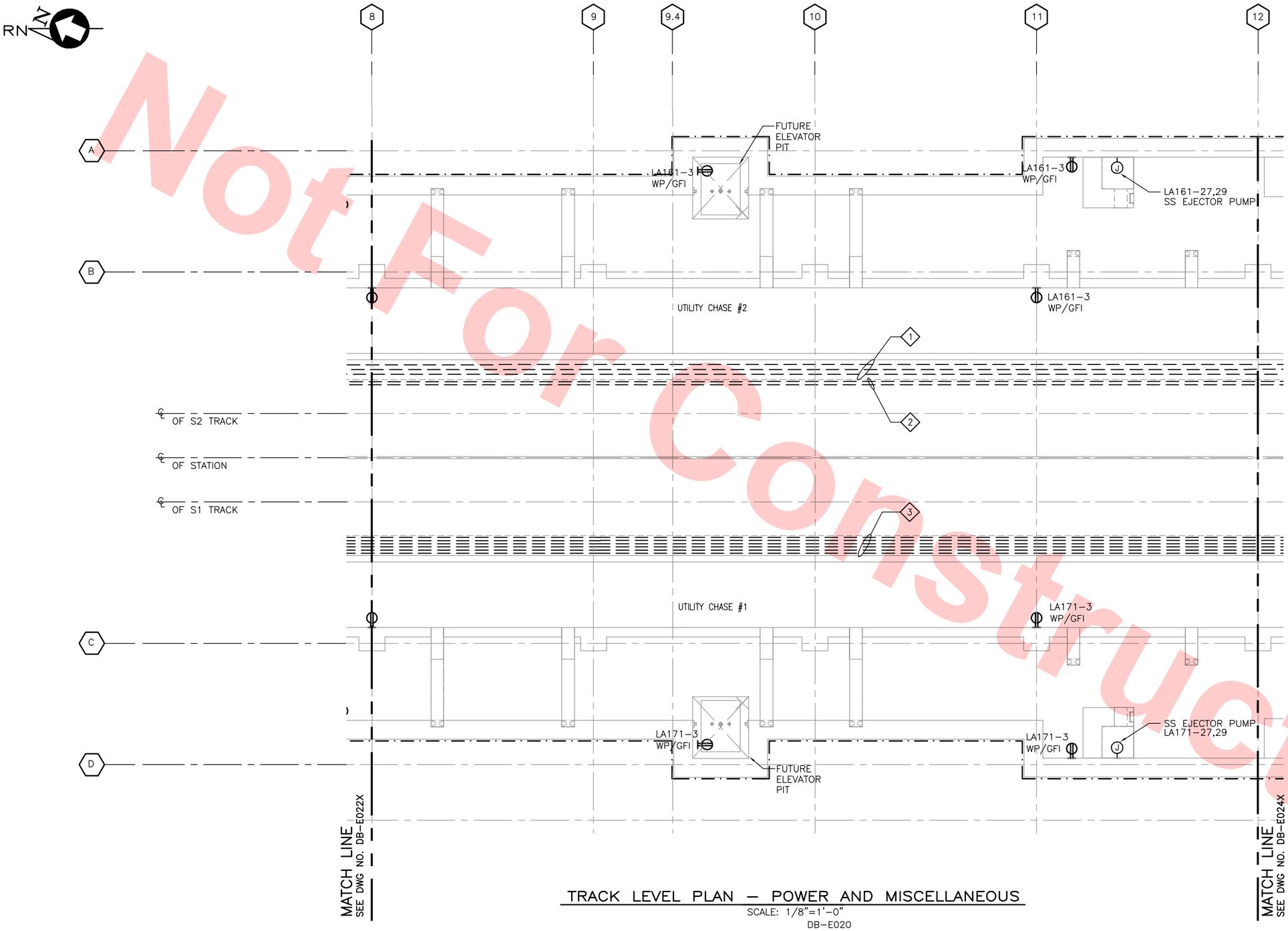


TRACK LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E020

KEY NOTES

1. SYSTEM WIDE 34.5KV 3-6"C 34.5 KV (TPSS) IN STRUCTURAL INVERT.
2. 2-4"C FIBER OPTIC IN STRUCTURAL INVERT
3. 28-4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT.

NOTES

1. ALL CONDUIT RUNS AS PER SYSTEM POWER/CONTROLS/COMMUNICATION SHOWN HERE ARE FOR REFERENCE ONLY, FOR DETAILS, CONSULT WITH SYSTEMS ELECTRICAL ENGINEERS.
2. FOR ELCTRICAL ABBREVIATIONS SEE DWG. DB-E001.
3. FOR ELCTRICAL LAYOUT SYMBOLS SEE DWG. DB-E002.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

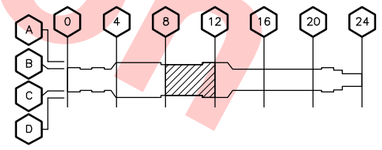
Contract No.: DB11002F

By: _____ **Date:** _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E293, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER LYNUS L. N. CHEN E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 835-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T-Y LIN INTERNATIONAL

APPROVED

BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
TRACK LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 3 OF 6

CADD FILENAME C700-S-DB-E023X.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E023X | PAGE NO. 0844

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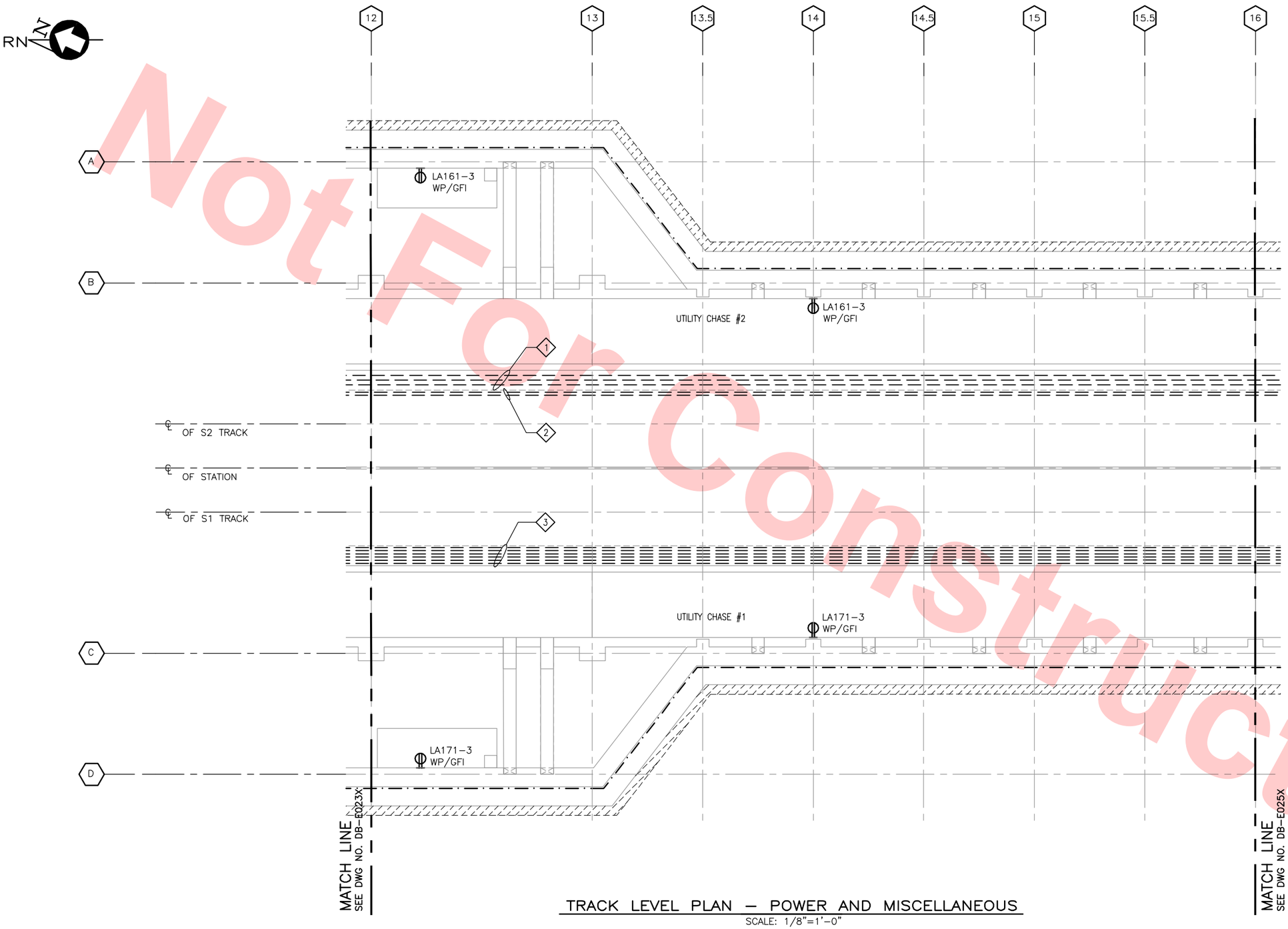


TRACK LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'–0"

DB–E020

KEY NOTES

1. SYSTEM WIDE 34.5KV 3–6"C 34.5 KV (TPSS) IN STRUCTURAL INVERT.
2. 2–4"C FIBER OPTIC IN STRUCTURAL INVERT
3. 28–4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT.

NOTES

1. ALL CONDUIT RUNS AS PER SYSTEM POWER/CONTROLS/COMMUNICATION SHOWN HERE ARE FOR REFERENCE ONLY, FOR DETAILS, CONSULT WITH SYSTEMS ELECTRICAL ENGINEERS.
2. FOR ELCTRICAL ABBREVIATIONS SEE DWG. DB–E001.
3. FOR ELCTRICAL LAYOUT SYMBOLS SEE DWG. DB–E002.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

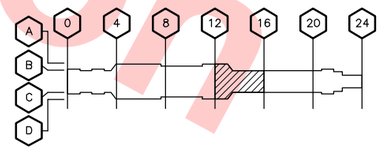
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700–DB–E294, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LALIT N. CHEN — E11904 — EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 535 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. — A LEO A DALY COMPANY
T·Y LIN INTERNATIONAL

SUBMITTED

APPROVED

BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
TRACK LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 4 OF 6

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CONTRACT NO.		REV.
C700		0
AREA CODE	SHEET NO.	PAGE NO.
DB	E024X	0845

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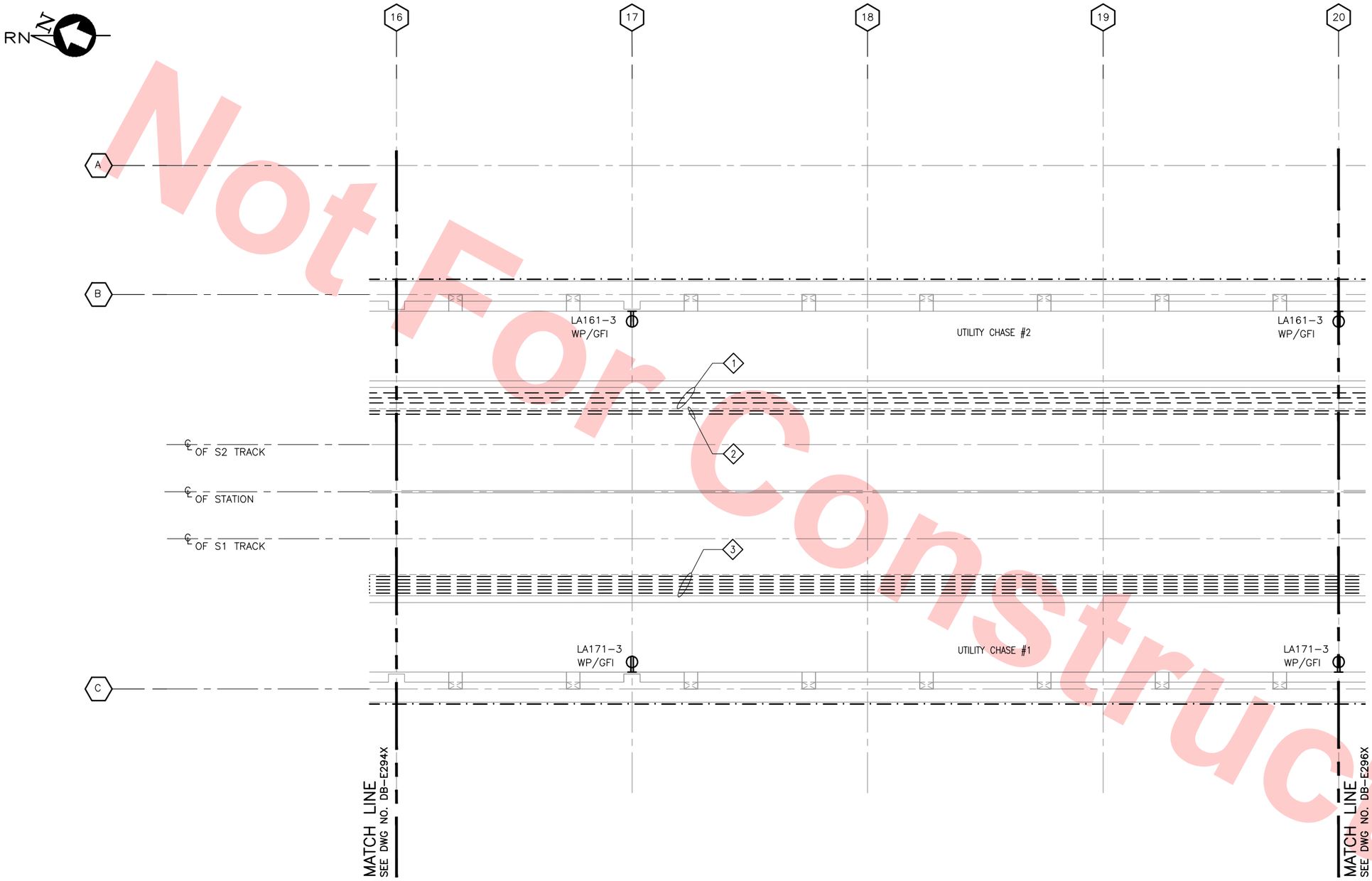


TRACK LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E020

KEY NOTES

1. SYSTEM WIDE 34.5KV 3-6"C 34.5 KV (TPSS) IN STRUCTURAL INVERT.
2. 2-4"C FIBER OPTIC IN STRUCTURAL INVERT
3. 28-4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT.

NOTES

1. ALL CONDUIT RUNS AS PER SYSTEM POWER/CONTROLS/COMMUNICATION SHOWN HERE ARE FOR REFERENCE ONLY, FOR DETAILS, CONSULT WITH SYSTEMS ELECTRICAL ENGINEERS.
2. FOR ELCTRICAL ABBREVIATIONS SEE DWG. DB-E001.
3. FOR ELCTRICAL LAYOUT SYMBOLS SEE DWG. DB-E002.

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

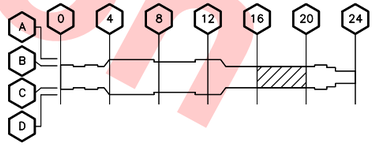
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E295, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. NG — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED _____

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED _____

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
TRACK LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 5 OF 6

CADD FILENAME	C700-S-DB-E025X.dwg
SIZE	D
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CONTRACT NO.	C700
REV.	0
AREA CODE	DB
SHEET NO.	E025X
PAGE NO.	0846

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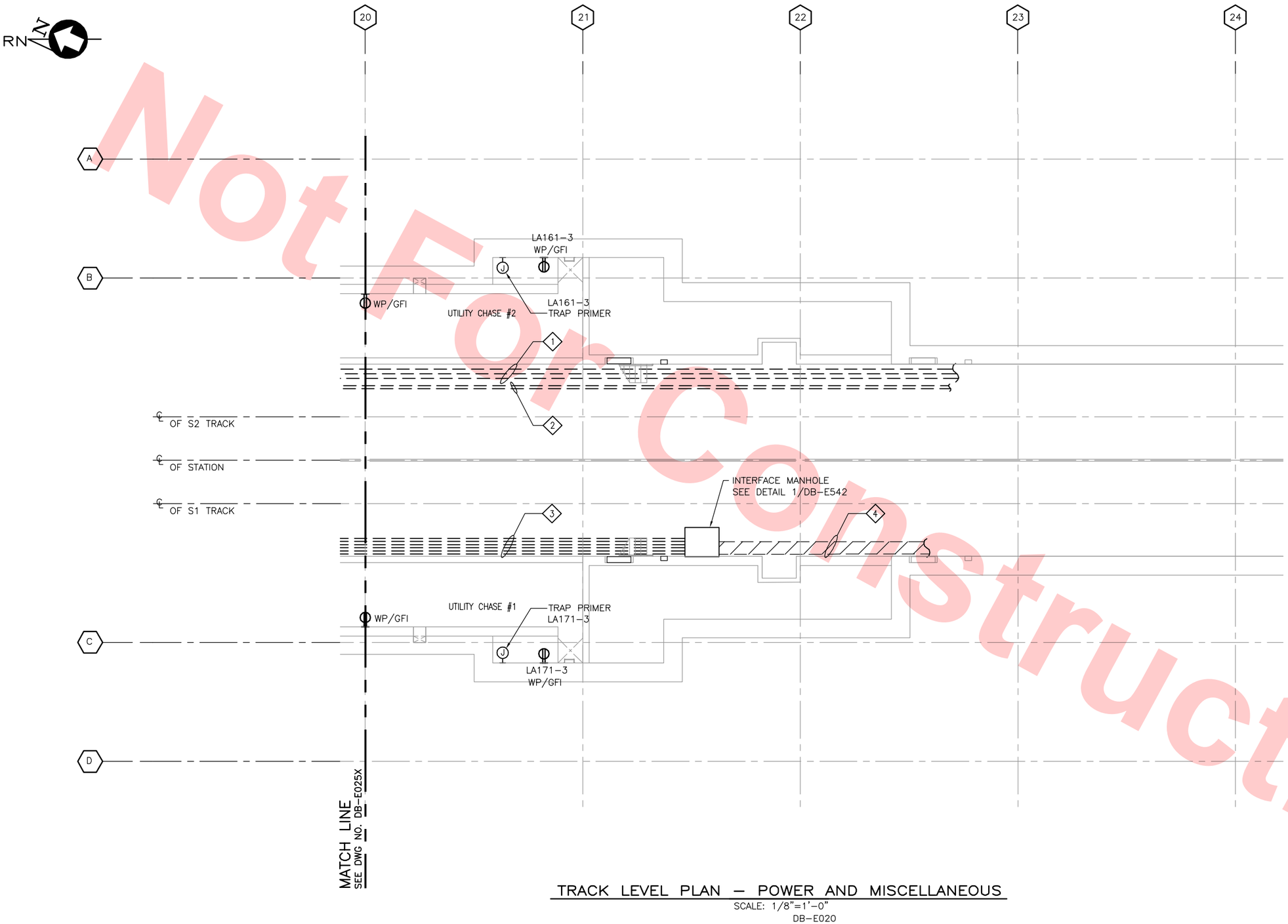


TRACK LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E020

KEY NOTES

1. SYSTEM WIDE 34.5KV 3-6"C 34.5 KV (TPSS) IN STRUCTURAL INVERT.
2. 2-4"C FIBER OPTIC IN STRUCTURAL INVERT
3. 28-4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT.
4. SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYSYSTEM UNDER TRACKWAY WALKWAY.

NOTES

1. ALL CONDUIT RUNS AS PER SYSTEM POWER/CONTROLS/COMMUNICATION SHOWN HERE ARE FOR REFERENCE ONLY, FOR DETAILS, CONSULT WITH SYSTEMS ELECTRICAL ENGINEERS.
2. FOR ELCTRICAL ABBREVIATIONS SEE DWG. DB-E001.
3. FOR ELCTRICAL LAYOUT SYMBOLS SEE DWG. DB-E002.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

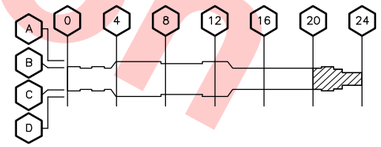
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E296, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER CHARLES L.N. CROSS E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 535 Oakland, CA 94612
Phone: (510) 835-2532 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

SUBMITTED

APPROVED

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
TRACK LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 6 OF 6

CADD FILENAME	C700-S-DB-E026X.dwg
SIZE D	SCALE 1/8"=1'-0"
CONTRACT NO.	C700
REV.	0
AREA CODE	DB
SHEET NO.	E026X
PAGE NO.	0847

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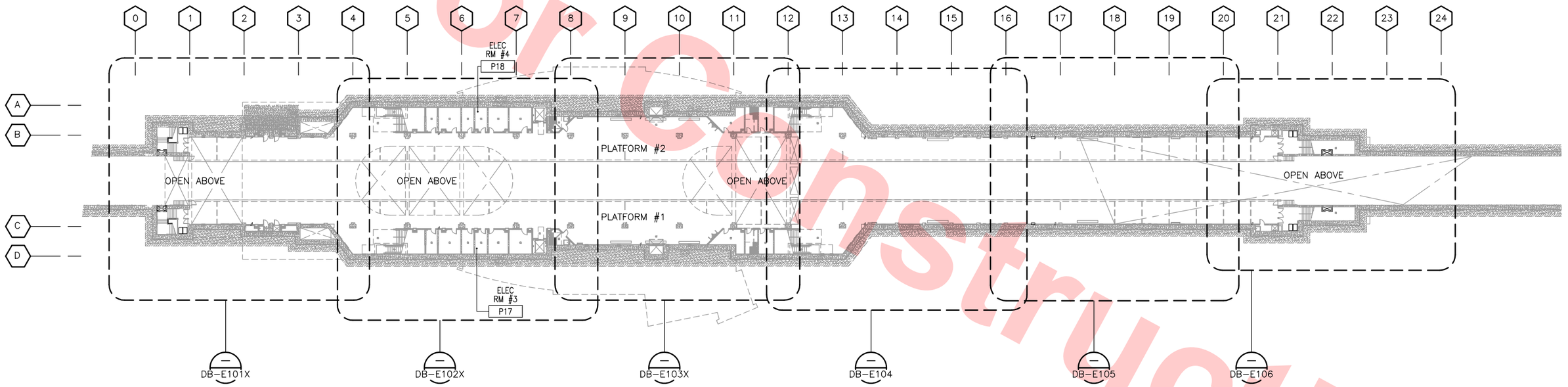

KEY PLAN – PLATFORM LEVEL – LIGHTING
SCALE: 1/32"=1'-0"

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

32' 0' 32' 64'
GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130430

REGISTERED PROFESSIONAL ENGINEER — JAMES L. NEU — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

SUBMITTED _____

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 465-2527 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. — A CH2M HILL COMPANY
T·Y·LIN INTERNATIONAL

APPROVED _____

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
KEY PLAN
PLATFORM LEVEL
LIGHTING

CADD FILENAME C700-S-DB-E100X.dwg
SIZE D | SCALE 1/32"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E100X | PAGE NO. 0848

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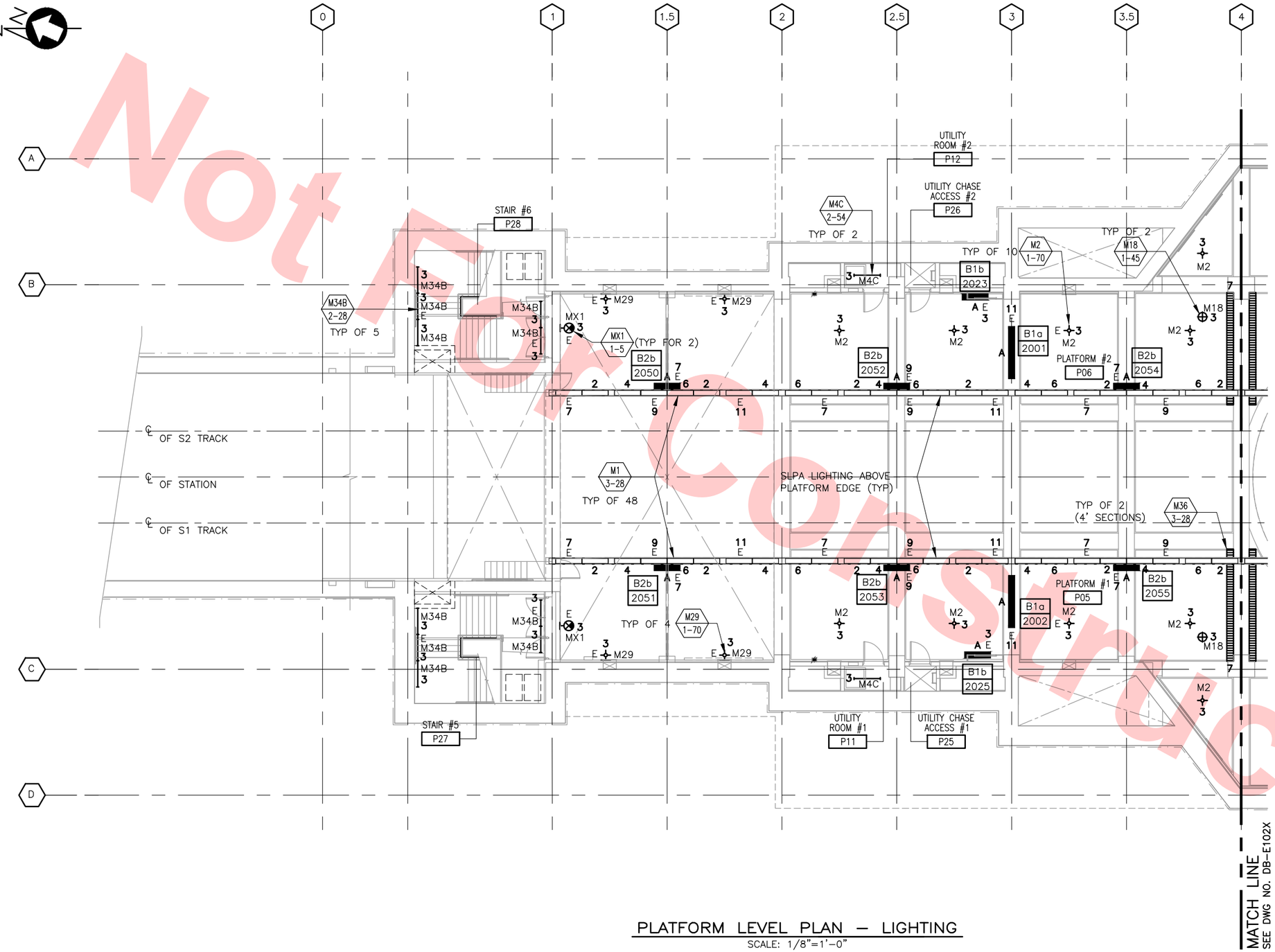


PLATFORM LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'-0"

DB-E100X

NOTES

1. FOR LIGHTING FIXTURE SCHEDULE SEE DRAWING DB-E515 AND DB-E516
2. ALL SIGNAGE SHALL BE POWERED BY EMERGENCY POWER PANELS.

LIGHT FIXTURE TABULATIONS

PANEL CIRCUIT	FIXTURE TYPE	QUANTITIES
EL241-3/EL242-3	MX1	1
	M2	1
	M29	2
	M34B	2
	SIGNS	4
EL241-7/EL242-7	M1	3
EL241-9/EL242-9	M1	3
EL241-11/EL242-11	M1	2
L15-3/L151-3	M2	4
	M4C	1
	M18	1
	M34B	3
L15-7/L151-7	M36	4
L15-2/L151-2	M1	6
L15-4/L151-4	M1	5
L15-6/L151-6	M1	5
EL241-7/EL242-7	M1	3
	SIGNS	2
EL241-9/EL242-9	M1	3
	SIGNS	1
EL241-11/EL242-11	M1	2
	SIGNS	2

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

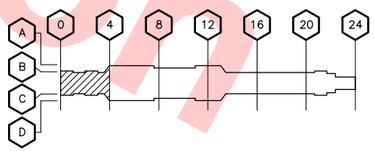
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E201, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. A. PHILLIPS — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2532 Fax: (510) 535-2539

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
PLATFORM LEVEL PLAN
LIGHTING
SHEET 1 OF 6

CADD FILENAME C700-S-DB-E101X.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E101X | PAGE NO. 0849

Jun 20, 2013 - 2:34pm G:\Giles Maravilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E101X.dwg
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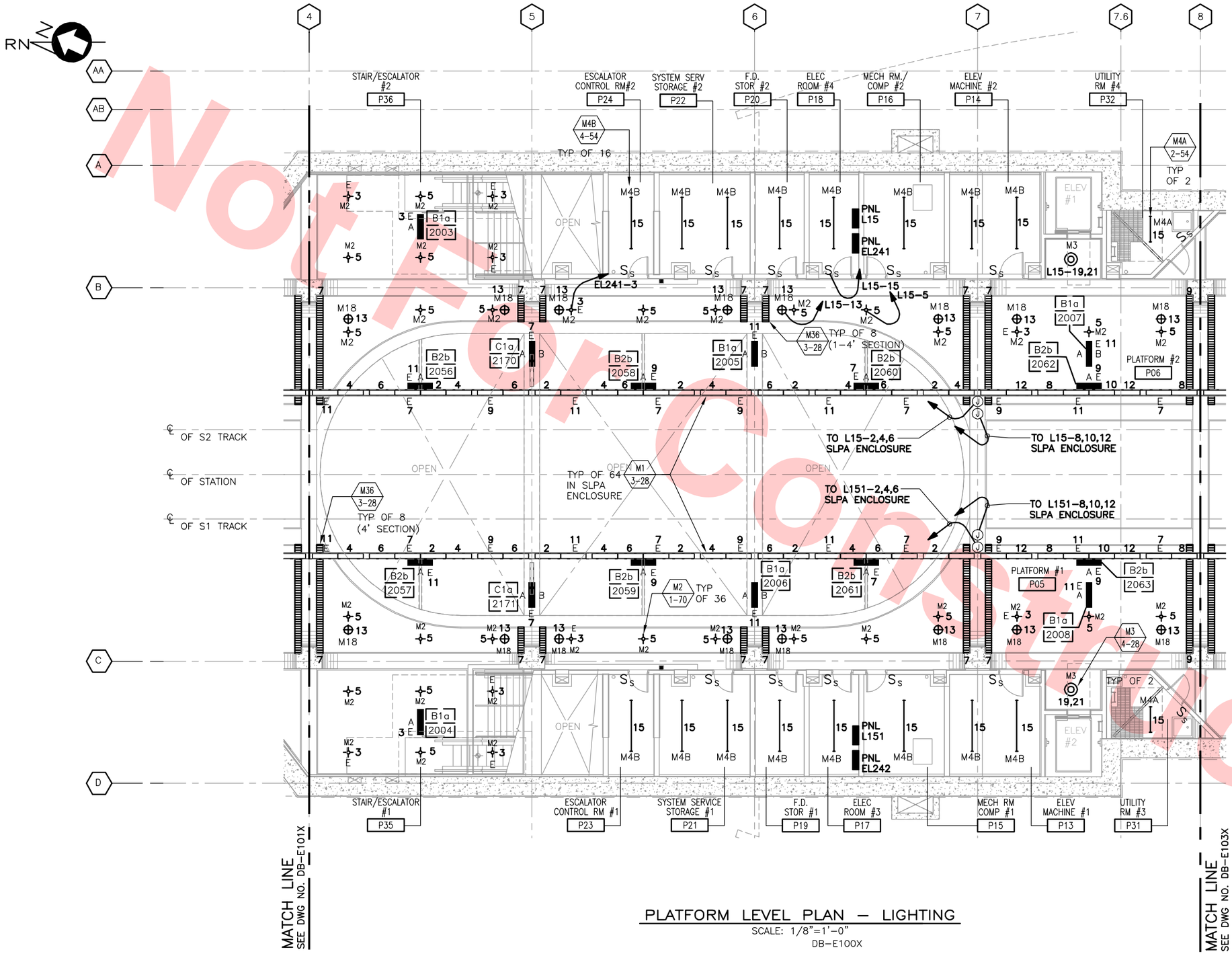

PLATFORM LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'-0"

DB-E100X

NOTE

1. FOR LIGHTING FIXTURE SCHEDULE SEE DRAWING DB-E515 AND DB-E516
2. ALL SIGNAGE SHOWN SHALL BE IN EMERGENCY CIRCUIT.

LIGHT FIXTURE TABULATIONS

PANEL CIRCUIT	FIXTURE TYPE	QUANTITIES
EL241-3/EL242-3	M2	5
	SIGNS	4
L15-5/L151-5	M2	13
L15-7/L151-7	M36	20
L15-9/L151-9	M36	4
L15-13/L151-13	M18	8
L15-15/L151-15	M4A	1
	M4B	8
L15-19/L151-19	M3	1
L15-21/L151-21	M3	1
L15-2/L151-2	M1	7
L15-4/L151-4	M1	7
L15-6/L151-6	M1	7
EL241-7/EL242-7	M1	4
	SIGNS	2
EL241-9/EL242-9	M1	3
	SIGNS	3
EL241-11/EL242-11	M1	4
	SIGNS	2

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

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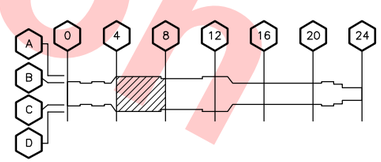
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



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					REPLACED C700-DB-E202, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — CALVIN L. N. CHEN — E11904 — EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

SUBMITTED Anil Verma Associates, Inc. 1970 Broadway, Suite 535 Oakland, CA 94612 Phone: (510) 835-2537 Fax: (510) 535-2339

APPROVED Lockwood, Andrews & Newnam, Inc. A LBG + BALY COMPANY — T-Y-LIN INTERNATIONAL

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
PLATFORM LEVEL PLAN
LIGHTING
SHEET 2 OF 6

CADD FILENAME C700-S-DB-E102X.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E102X | PAGE NO. 0850

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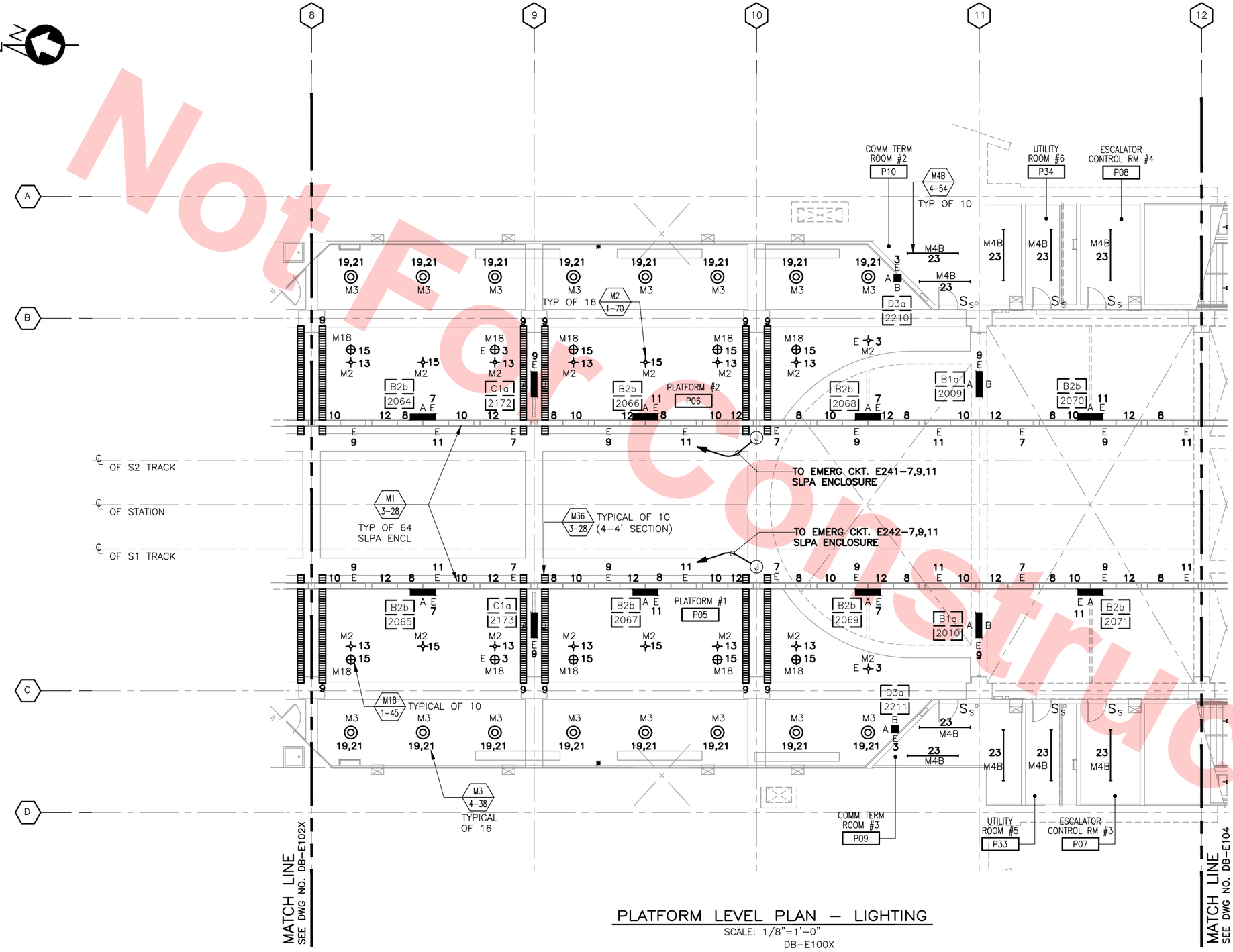

PLATFORM LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'-0"

DB-E100X

NOTES

1. FOR LIGHTING FIXTURE SCHEDULE SEE DRAWING DB-E515 AND DB-E516
2. ALL SIGNAGE SHALL BE IN EMERGENCY CIRCUIT.

LIGHT FIXTURE TABULATIONS

PANEL CIRCUIT	FIXTURE TYPE	QUANTITIES
EL241-3/EL242-3	M2	1
	SIGNS	1
L15-9/L151-9	M36	20
L15-13/L151-13	M2	5
L15-15/L151-15	M2	2
	M18	4
L15-19/L151-19	M3	8
L15-21/L151-21	M3	8
L15-23/L151-23	M4B	5
L15-2/L151-2	M1	7
L15-4/L151-4	M1	7
L15-6/L151-6	M1	7
EL241-7/EL242-7	M1	3
	SIGNS	2
EL241-9/EL242-9	M1	4
	SIGNS	2
EL241-11/EL242-11	M1	4
	SIGNS	2

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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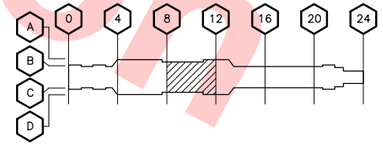
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
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					REPLACED C700-DB-E203, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER JAMES L. PACE E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2539

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
PLATFORM LEVEL PLAN
LIGHTING
SHEET 3 OF 6

CADD FILENAME C700-S-DB-E103X.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E103X | PAGE NO. 0851

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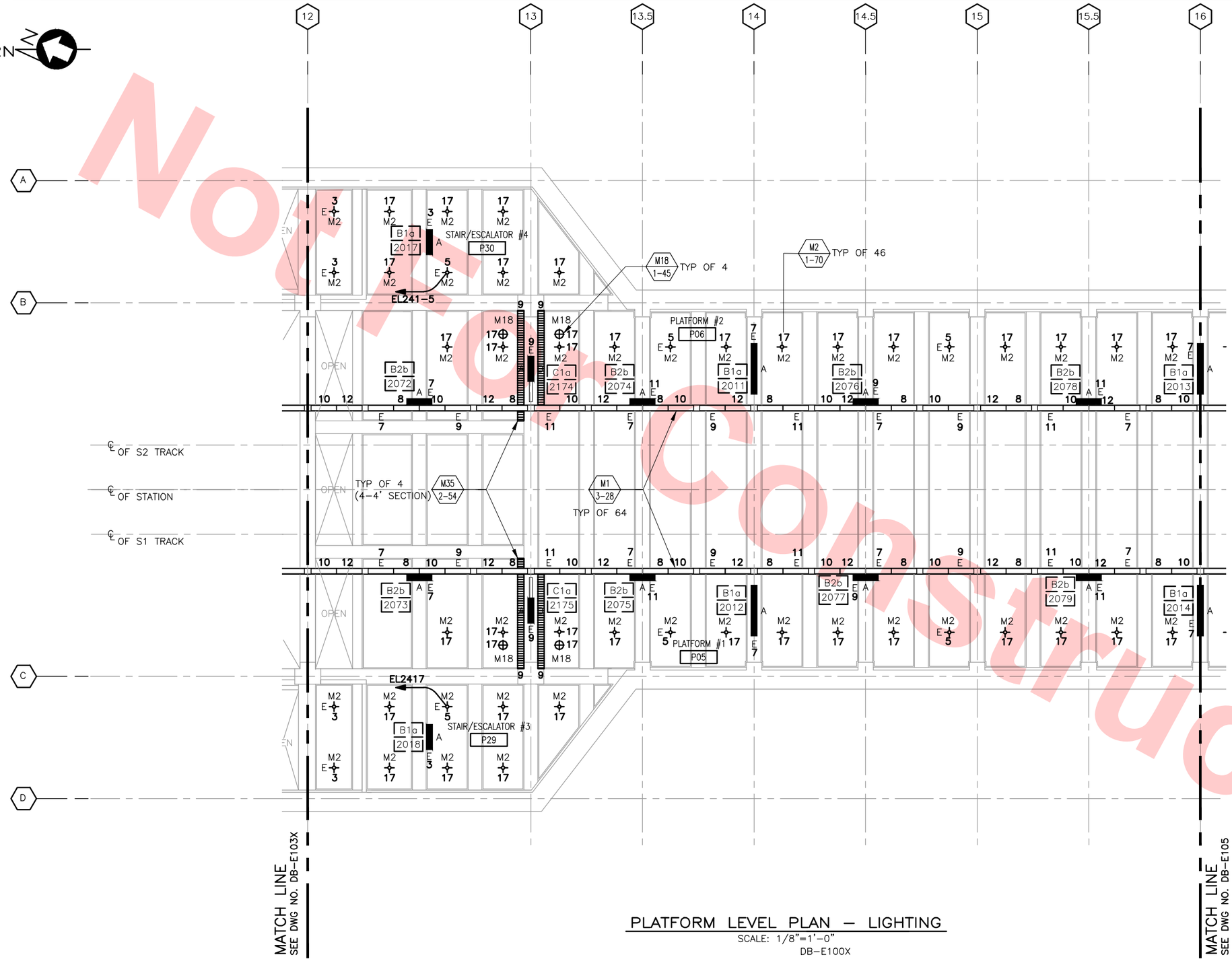

PLATFORM LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'-0"

DB-E100X

NOTE

1. FOR LIGHTING FIXTURE SCHEDULE SEE DRAWING DB-E515 AND DB-E516
2. ALL SIGNAGE SHOWN SHALL BE IN EMERGENCY CIRCUIT.

LIGHT FIXTURE TABULATIONS

PANEL CIRCUIT	FIXTURE TYPE	QUANTITIES
EL241-3/EL242-3	M2	2
EL241-5/EL242-5	M2	3
	SIGNS	1
L15-9/L151-9	M36	8
L15-15/L151-25	M2	18
	M18	2
L15-2/L151-2	M1	7
L15-4/L151-4	M1	8
L15-6/L151-6	M1	7
EL241-7/EL242-7	M1	4
	SIGNS	5
EL241-9/EL242-9	M1	3
	SIGNS	2
EL241-11/EL242-11	M1	3
	SIGNS	2

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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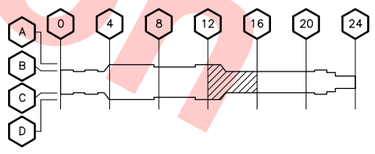
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



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					REPLACED C700-DB-E204, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER JAMES L. NEU E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2339

SUBMITTED

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APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
PLATFORM LEVEL PLAN
LIGHTING
SHEET 4 OF 6

CADD FILENAME C700-S-DB-E104.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E104 | PAGE NO. 0852

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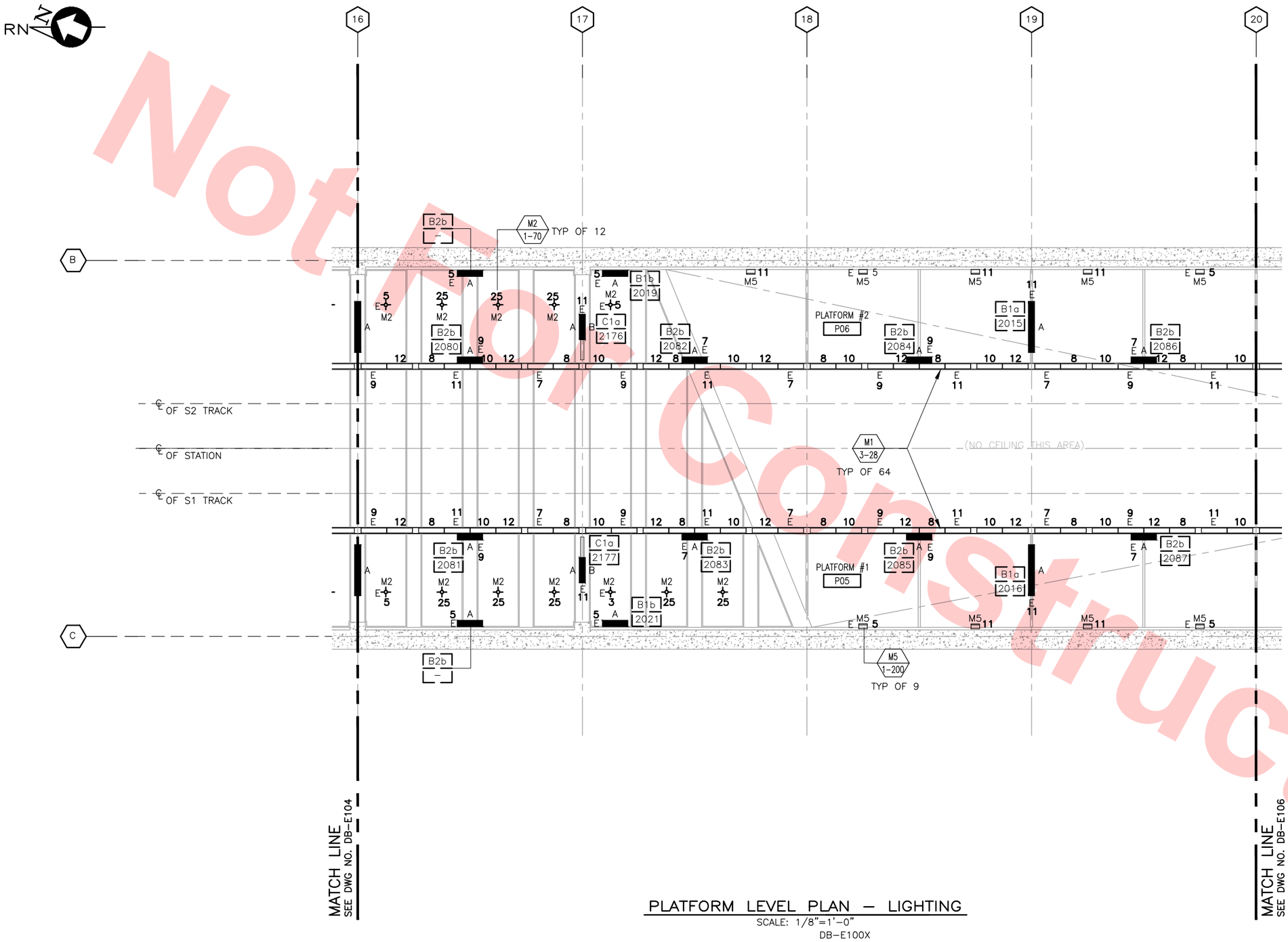

PLATFORM LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'-0"

DB-E100X

NOTE

1. FOR LIGHTING FIXTURE SCHEDULE SEE DRAWING DB-E515 AND DB-E516
2. ALL SIGNAGE SHALL BE IN EMERGENCY CIRCUIT.

LIGHT FIXTURE TABULATIONS

PANEL CIRCUIT	FIXTURE TYPE	QUANTITIES
EL241-5/EL242-5	M2	2
	M5	2
L15-11/L151-11	M5	3
L15-25/L151-25	M2	3
L15-2/L151-2	M1	7
L15-4/L151-4	M1	7
L15-6/L151-6	M1	7
EL241-7/EL242-7	M1	3
	SIGNS	2
EL241-9/EL242-9	M1	4
	SIGNS	2
EL241-11/EL242-11	M1	4
	SIGNS	3

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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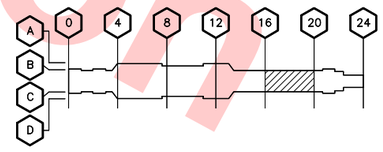
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
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					REPLACED C700-DB-E205, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

LICENSED PROFESSIONAL ENGINEER — JAMES L. PACE — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
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Anil Verma Associates, Inc.
1970 Broadway, Suite 505, Oakland, CA 94612
Phone: (510) 835-2532 Fax: (510) 835-2539

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
PLATFORM LEVEL PLAN
LIGHTING
SHEET 5 OF 6

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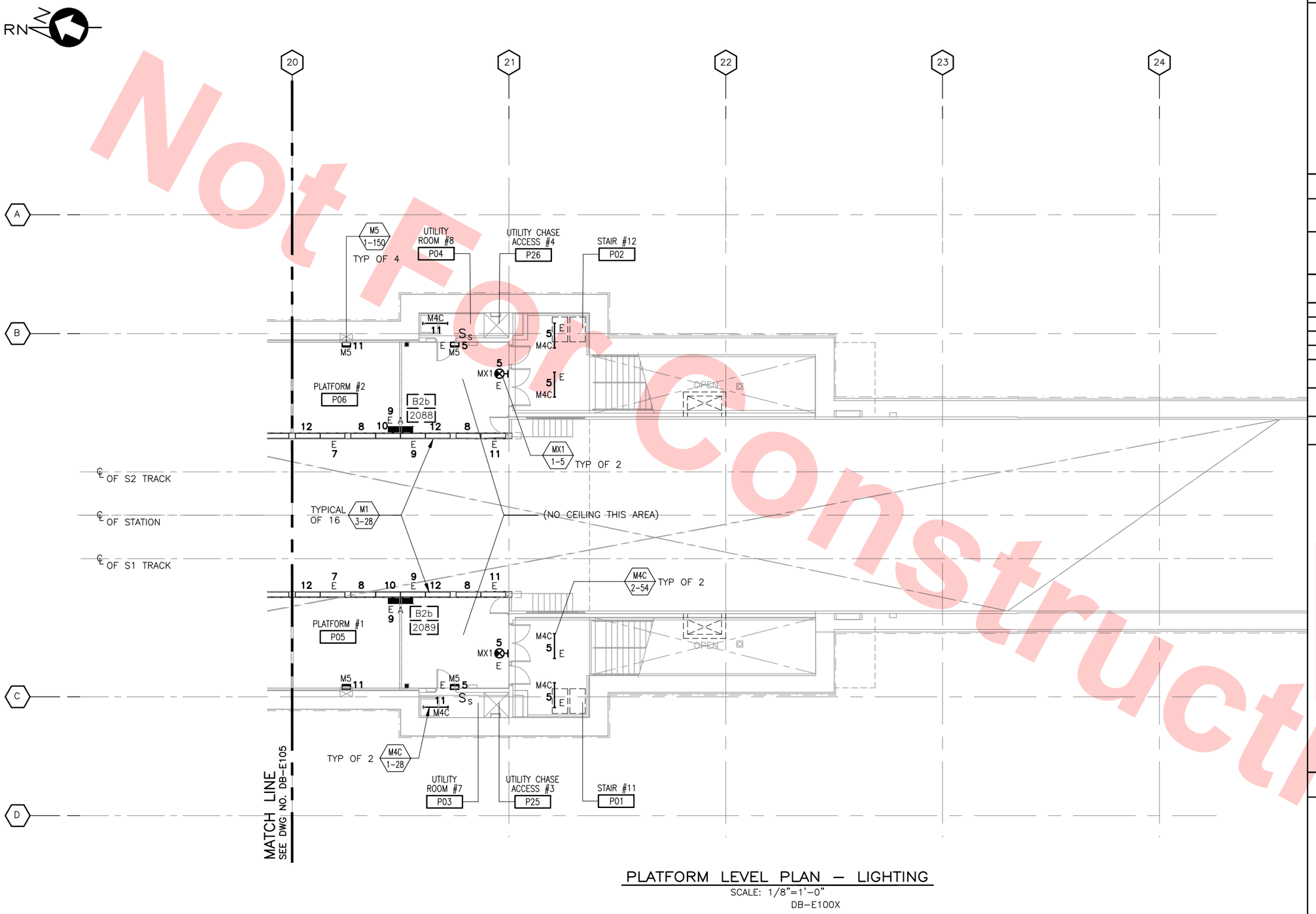
AREA CODE DB | SHEET NO. E105 | PAGE NO. 0853

Jun 20, 2013 - 2:35pm G:\Giles Maravilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E105.dwg GilesM



PLATFORM LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'–0"

DB–E100X

NOTE

1. FOR LIGHTING FIXTURE SCHEDULE SEE DRAWING DB–E515 AND DB–E516
2. ALL SIGNAGE SHALL BE IN EMERGENCY CIRCUIT.

LIGHT FIXTURE TABULATIONS

PANEL CIRCUIT	FIXTURE TYPE	QUANTITIES
EL241–5/EL242–5	MX1	1
	M4C	2
	M5	1
L15–11/L151–11	M5	1
	M4C	1
L15–2/L151–2	M1	2
L15–4/L151–4	M1	1
L15–6/L151–6	M1	2
EL241–7/EL242–7	M1	1
	SIGNS	
EL241–9/EL242–9	M1	1
	SIGNS	1
EL241–11/EL242–11	M1	1
	SIGNS	

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
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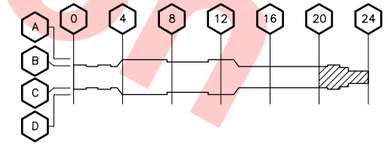
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700–DB–E206, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER JAMES L. [illegible] E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2532 Fax: (510) 835-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
PLATFORM LEVEL PLAN
LIGHTING
SHEET 6 OF 6

CADD FILENAME C700–S–DB–E106.dwg
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CONTRACT NO. C700 | REV. 0
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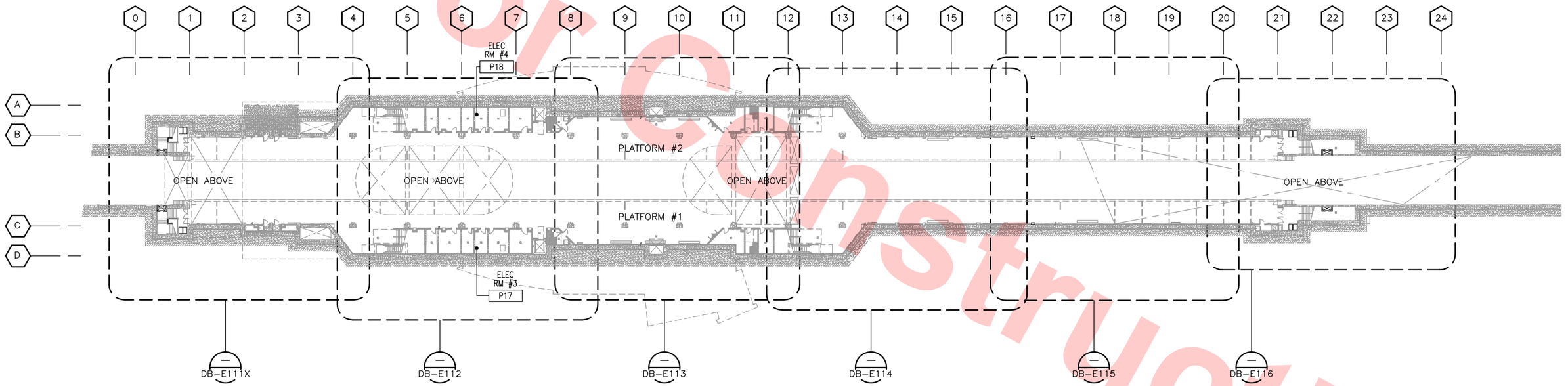

KEY PLAN PLATFORM LEVEL – POWER AND MISCELLANEOUS
SCALE: 1/32"=1'-0"

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

32' 0' 32' 64'
GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER JAMES L. NEWTON E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
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SUBMITTED

Lockwood, Andrews & Newnam, Inc. A URS / BALL COMPANY
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APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

KEY PLAN PLATFORM LEVEL
POWER AND MISCELLANEOUS

CADD FILENAME C700-S-DB-E110X.dwg
SIZE D | SCALE 1/32"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E110X | PAGE NO. 0855

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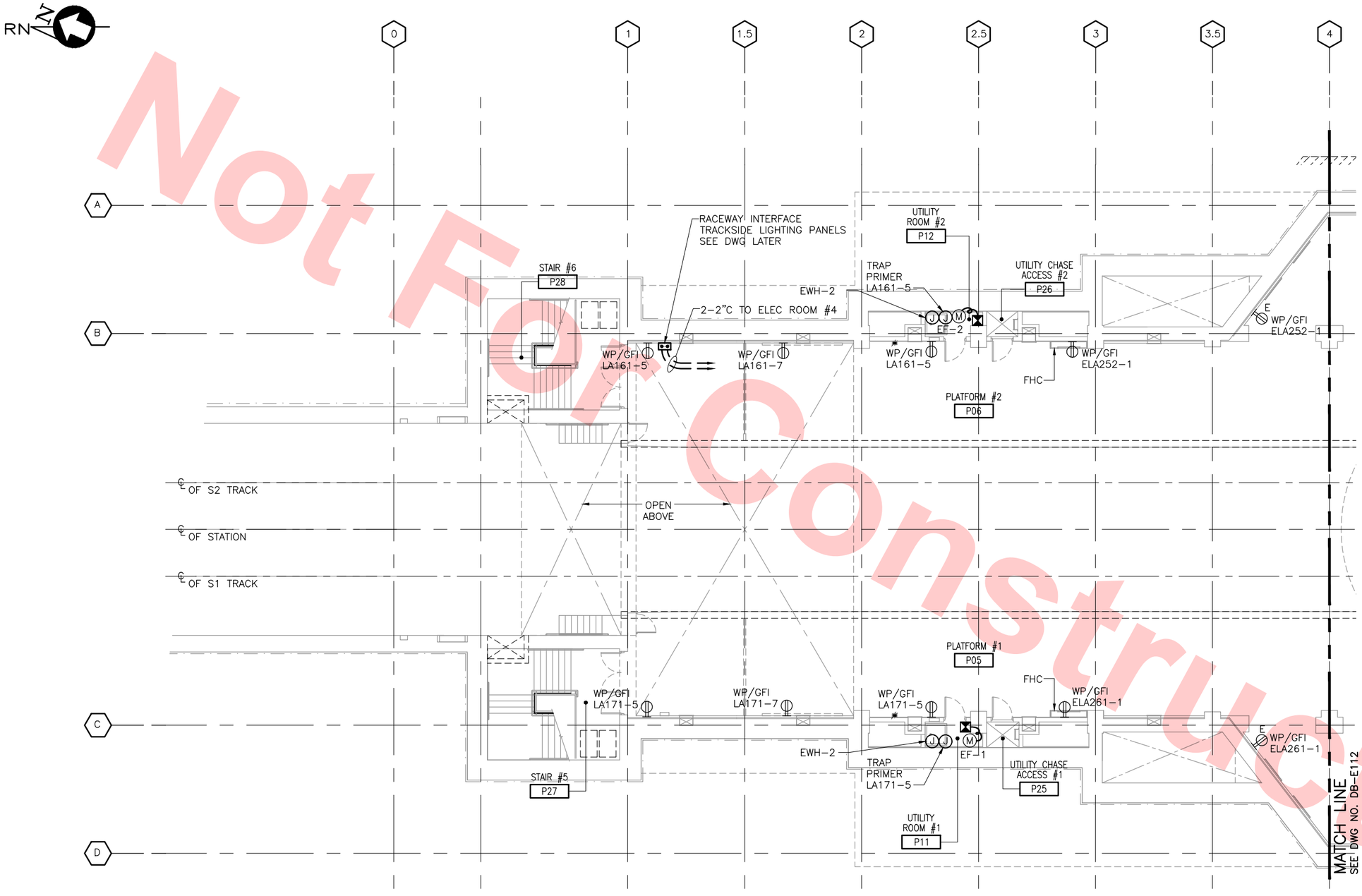


PLATFORM LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'–0"

DB–E110X

NOTE

1. FOR RECEPTACLE CIRCUIT ASSIGNMENTS, SEE PANEL SCHEDULE DB–E521
2. TABULATION LIST POWER CIRCUIT NUMBERS FOR THE FANS ON THIS SHEET. COMBINE POWER TO MANY LOADS INCLUDING RECEPTACLES FROM SAME PANEL IN CONDUIT TOGETHER TO MINIMIZE CONDUIT RUNS, MAKE SURE THAT CONDUIT FILL MUST MEET THE LATEST NATIONAL ELECTRICAL CODE REQUIREMENT.
3. SEE PANEL SCHEDULES ON DRAWINGS DB–E520 TO DB–E525 FOR COMPLETE PANEL LOADING.

MECH. EQUIP. TABULATIONS

EQUIP. ID	VOLT/PH	PNL. CKT.
EF–2	120/1	LA161–2
EWH–2	277/1	L15–14
EF–1	120/1	LA171–2
EWH–2	277/1	L151–14

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

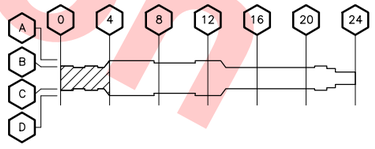
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700–DB–E301, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

LICENSED PROFESSIONAL ENGINEER — JAMES L. PAYER — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 500, Oakland, CA 94612
Phone: (510) 835-2532 Fax: (510) 835-2539

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

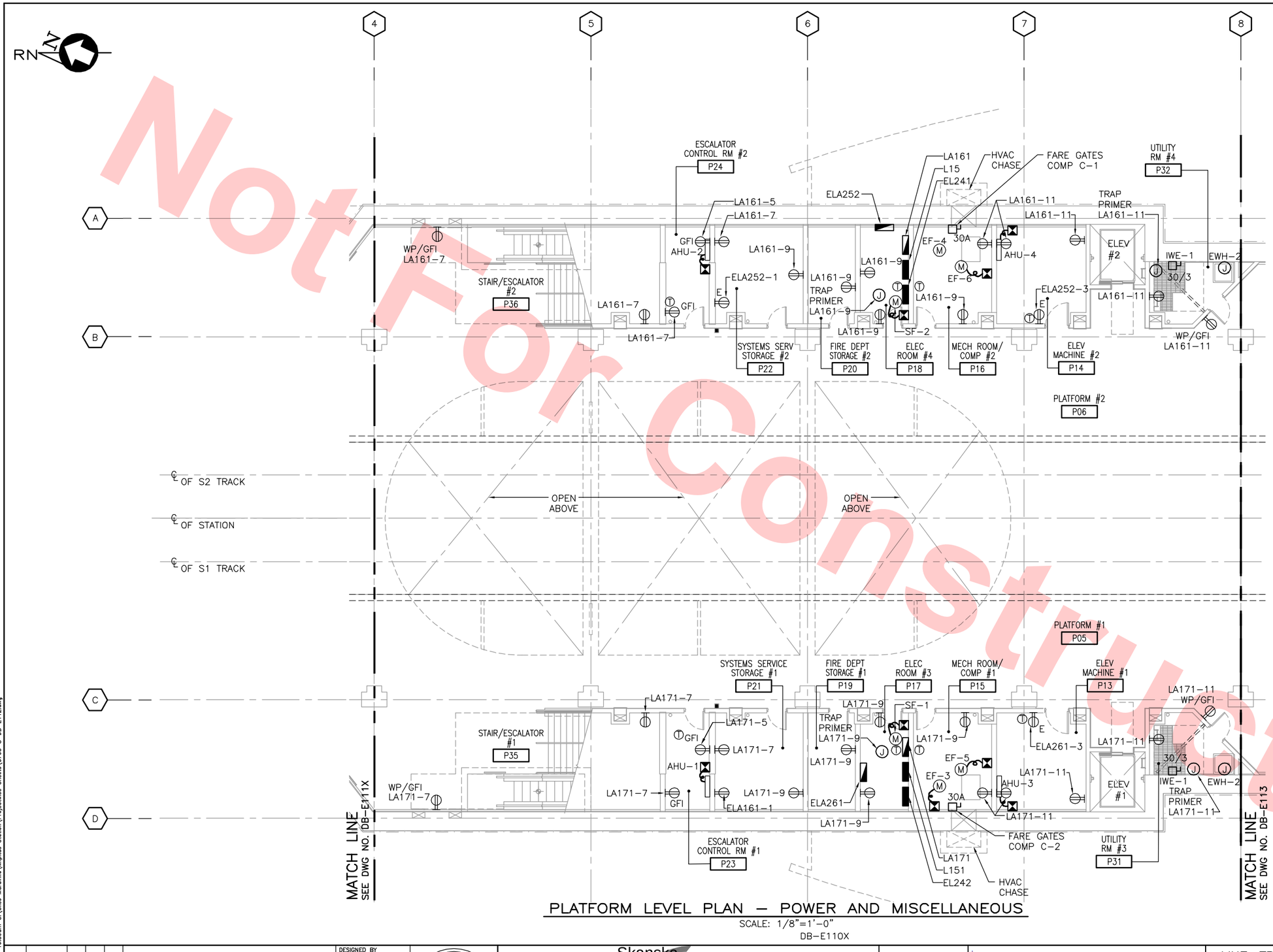
VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
PLATFORM LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 1 OF 6

CADD FILENAME C700–S–DB–E111X.dwg
SIZE D | SCALE 1/8"=1'–0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E111X | PAGE NO. 0856

Jun 20, 2013 – 2:35pm G:\Cities Morovilis\Milpitas Station\Projectwise Sheets\C700–S–DB–E111X.dwg GlesM



PLATFORM LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'–0"

DB–E110X

NOTE

1. FOR RECEPTACLE CIRCUIT ASSIGNMENTS, SEE PANEL SCHEDULE DB–E521
2. TABULATION LIST POWER CIRCUIT NUMBERS FOR THE FANS ON THIS SHEET. COMBINE POWER TO MANY LOADS INCLUDING RECEPTACLES FROM SAME PANEL IN CONDUIT TOGETHER TO MINIMIZE CONDUIT RUNS, MAKE SURE THAT CONDUIT FILL MUST MEET THE LATEST NATIONAL ELECTRICAL CODE REQUIREMENT.
3. SEE PANEL SCHEDULES ON DRAWINGS DB–E520 TO DB–E525 FOR COMPLETE PANEL LOADING.

MECH. EQUIP. TABULATIONS

EQUIP. ID	VOLT/PH	PNL. CKT.
AHU–2	208/1	LA161–4, 6
SF–2	120/1	LA161–2
EF–4	120/1	LA161–2
EF–6	120/1	LA161–2
AHU–4	208/1	LA161–8, 10
IWE–1	208/3	LA161–37,39,41
EWH–2	277/1	LA15–16
C–1	480/3	EL241–8,10,12
AHU–1	208/1	LA171–4, 6
SF–1	120/1	LA171–2
EF–3	120/1	LA171–2
EF–5	120/1	LA171–2
AHU–3	208/1	LA171–8, 10
IWE–1	208/3	LA171–37,39,41
EWH–2	277/1	LA151–16
C–2	480/3	EL242–8,10,12

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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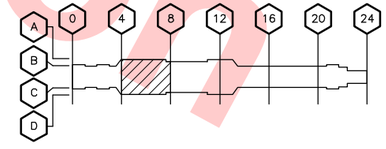
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700–DB–E302, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER JAMES L. D. CROSS E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 535 Oakland, CA 94612
Phone: (510) 835-2532 Fax: (510) 535-2339
SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T-Y LIN INTERNATIONAL
APPROVED

BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
PLATFORM LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 2 OF 6

CADD FILENAME C700–S–DB–E112.dwg
SIZE D | SCALE 1/8"=1'–0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E112 | PAGE NO. 0857

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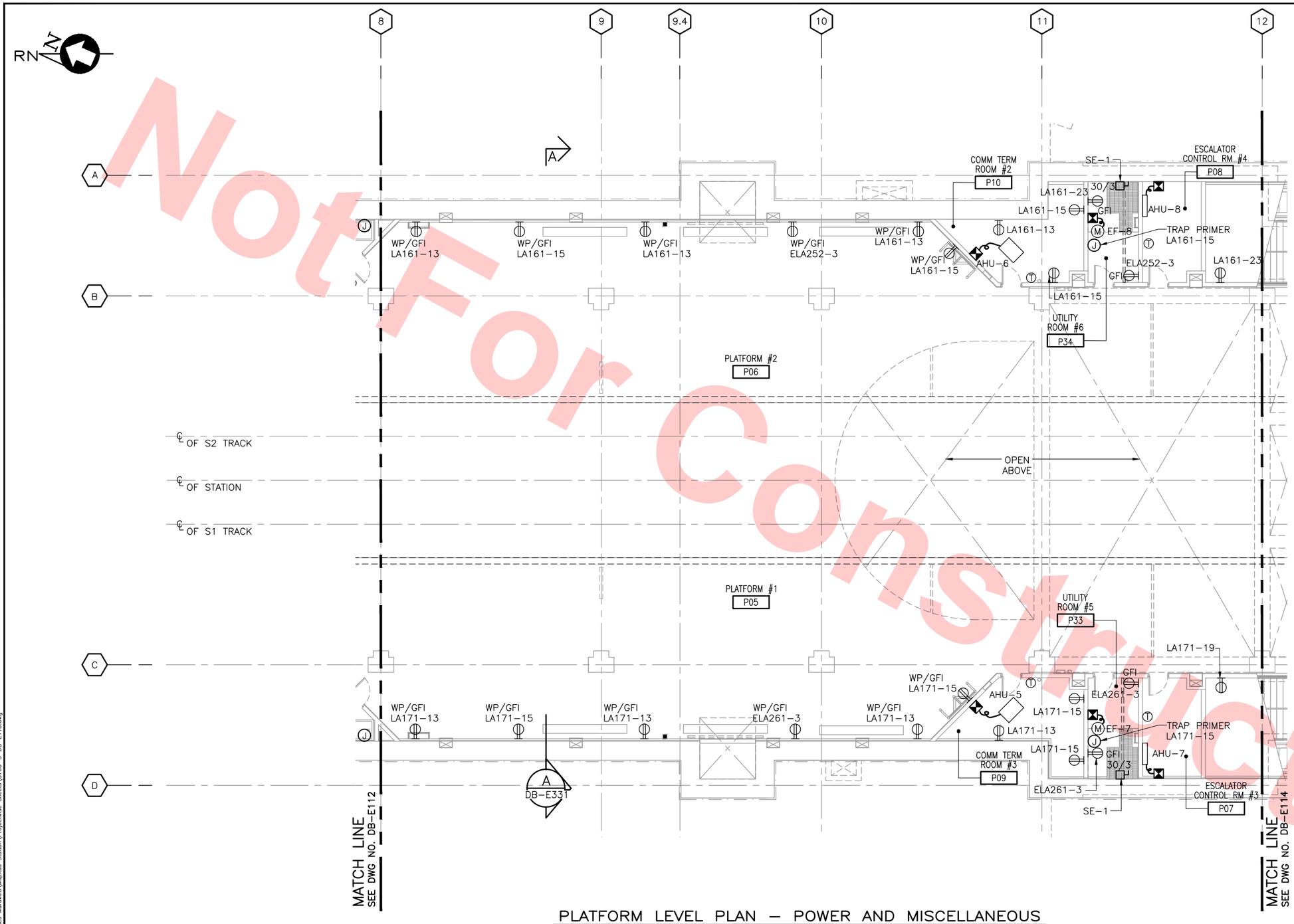

PLATFORM LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'–0"

DB–E110X

NOTE

1. FOR RECEPTACLE CIRCUIT ASSIGNMENTS, SEE PANEL SCHEDULE DB–E521
2. TABULATION LIST POWER CIRCUIT NUMBERS FOR THE FANS ON THIS SHEET. COMBINE POWER TO MANY LOADS INCLUDING RECEPTACLES FROM SAME PANEL IN CONDUIT TOGETHER TO MINIMIZE CONDUIT RUNS, MAKE SURE THAT CONDUIT FILL MUST MEET THE LATEST NATIONAL ELECTRICAL CODE REQUIREMENT.
3. SEE PANEL SCHEDULES ON DRAWINGS DB–E520 TO DB–E525 FOR COMPLETE PANEL LOADING.

MECH. EQUIP. TABULATIONS

EQUIP. ID	VOLT/PH	PNL. CKT.
AHU–6	208/1	LA161–8, 10
EF–8	120/1	LA161–16
AHU–8	208/1	LA161–12, 14
SE–1	208/3	LA161–31,33,35
AHU–5	208/1	LA171–12, 14
EF–7	120/1	LA171–20
AHU–7	208/1	LA171–16, 18
SE–1	208/3	LA171–31,33,35

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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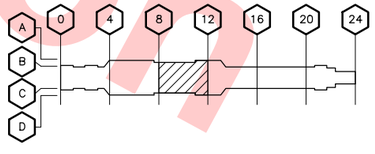
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700–DB–E303, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

LOUIS L. PINTER REGISTERED PROFESSIONAL ENGINEER E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2539

SUBMITTED

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VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
PLATFORM LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 3 OF 6

CADD FILENAME C700–S–DB–E113.dwg
SIZE D | SCALE 1/8"=1'–0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E113 | PAGE NO. 0858

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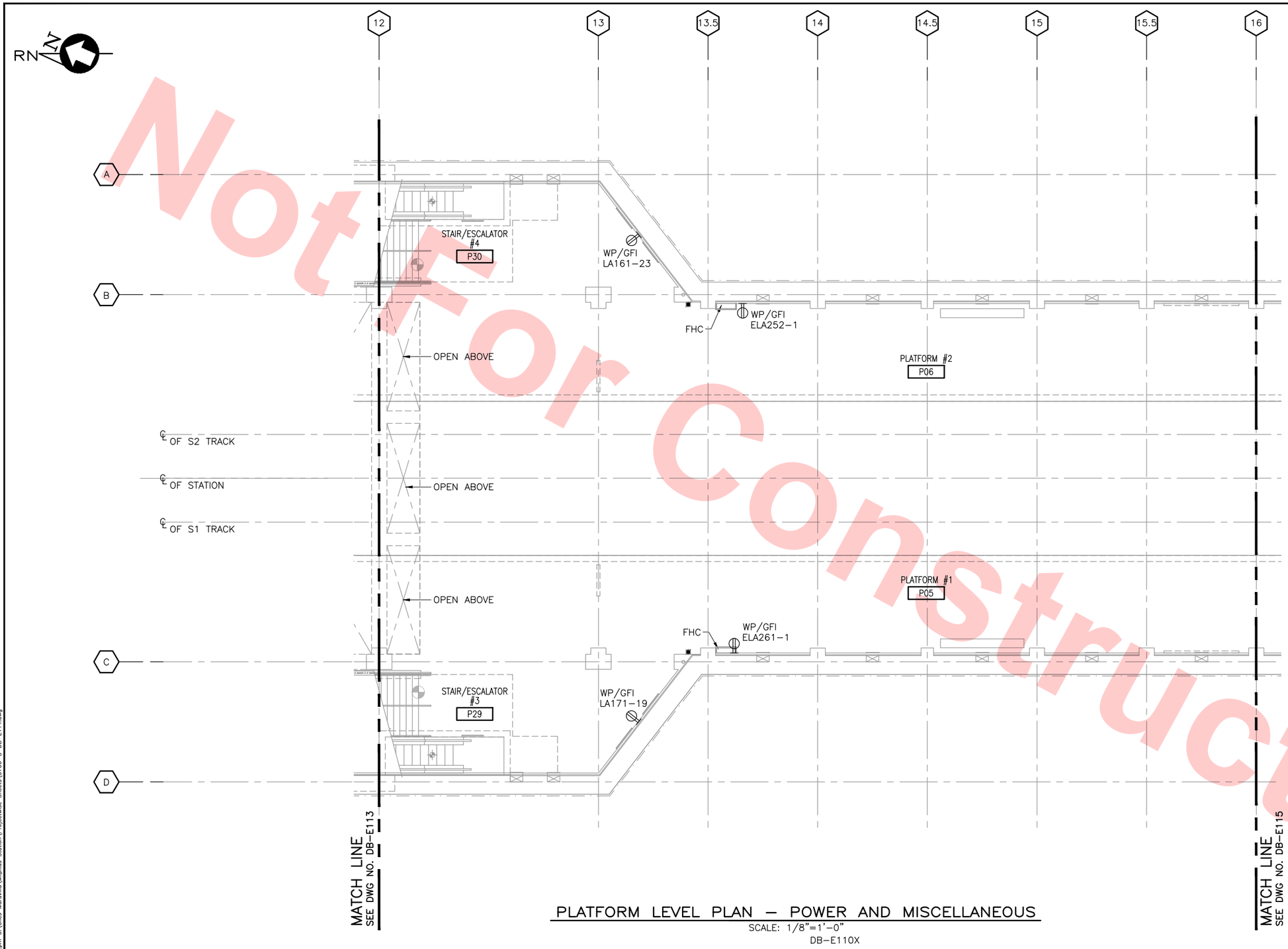

PLATFORM LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E110X

NOTE

1. FOR RECEPTACLE CIRCUIT ASSIGNMENTS, SEE PANEL SCHEDULE DB-E521
2. TABULATION LIST POWER CIRCUIT NUMBERS FOR THE FANS ON THIS SHEET. COMBINE POWER TO MANY LOADS INCLUDING RECEPTACLES FROM SAME PANEL IN CONDUIT TOGETHER TO MINIMIZE CONDUIT RUNS, MAKE SURE THAT CONDUIT FILL MUST MEET THE LATEST NATIONAL ELECTRICAL CODE REQUIREMENT.
3. SEE PANEL SCHEDULES ON DRAWINGS DB-E520 TO DB-E525 FOR COMPLETE PANEL LOADING.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
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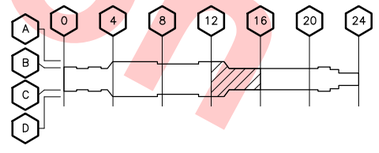
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E304, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER JAMES L. PACE E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2532 Fax: (510) 835-2339

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SUBMITTED

APPROVED

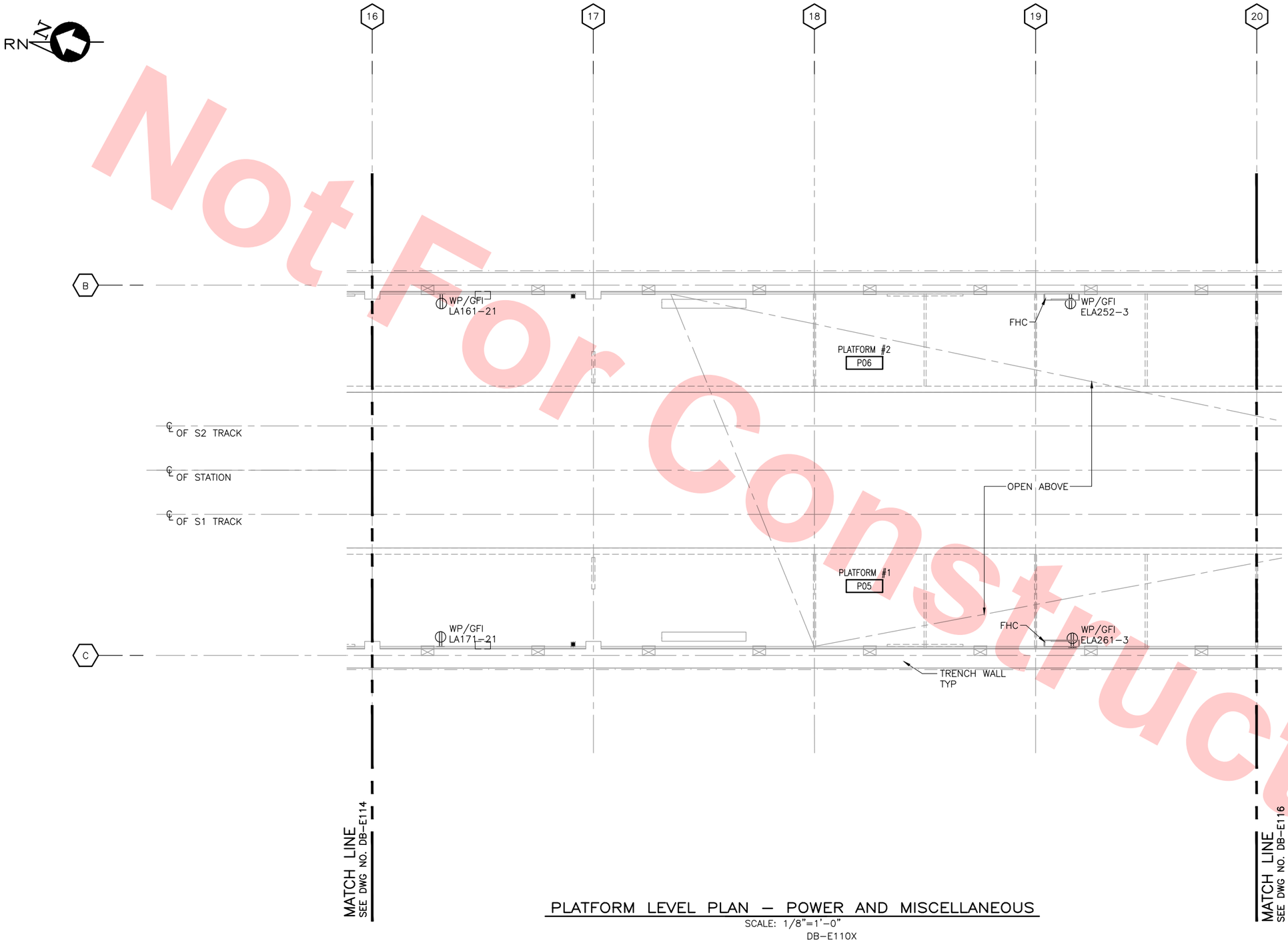
VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
PLATFORM LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 4 OF 6

CADD FILENAME C700-S-DB-E114.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E114 | PAGE NO. 0859

GileaM Jun 20, 2013 - 3:02pm G:\Giles Marovilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E114.dwg



PLATFORM LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E110X

NOTE

1. FOR RECEPTACLE CIRCUIT ASSIGNMENTS, SEE PANEL SCHEDULE DB-E521
2. TABULATION LIST POWER CIRCUIT NUMBERS FOR THE FANS ON THIS SHEET. COMBINE POWER TO MANY LOADS INCLUDING RECEPTACLES FROM SAME PANEL IN CONDUIT TOGETHER TO MINIMIZE CONDUIT RUNS, MAKE SURE THAT CONDUIT FILL MUST MEET THE LATEST NATIONAL ELECTRICAL CODE REQUIREMENT.
3. SEE PANEL SCHEDULES ON DRAWINGS DB-E520 TO DB-E525 FOR COMPLETE PANEL LOADING.

Santa Clara Valley Transportation Authority

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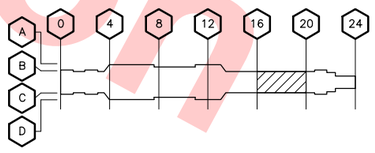
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E305, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER JAMES L. NEWMAN E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 325 Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2339

Lockwood, Andrews & Newnam, Inc. A URS + BALT COMPANY
T·Y·LIN INTERNATIONAL

SUBMITTED _____

APPROVED _____

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
PLATFORM LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 5 OF 6

CADD FILENAME C700-S-DB-E115.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E115 | PAGE NO. 0860

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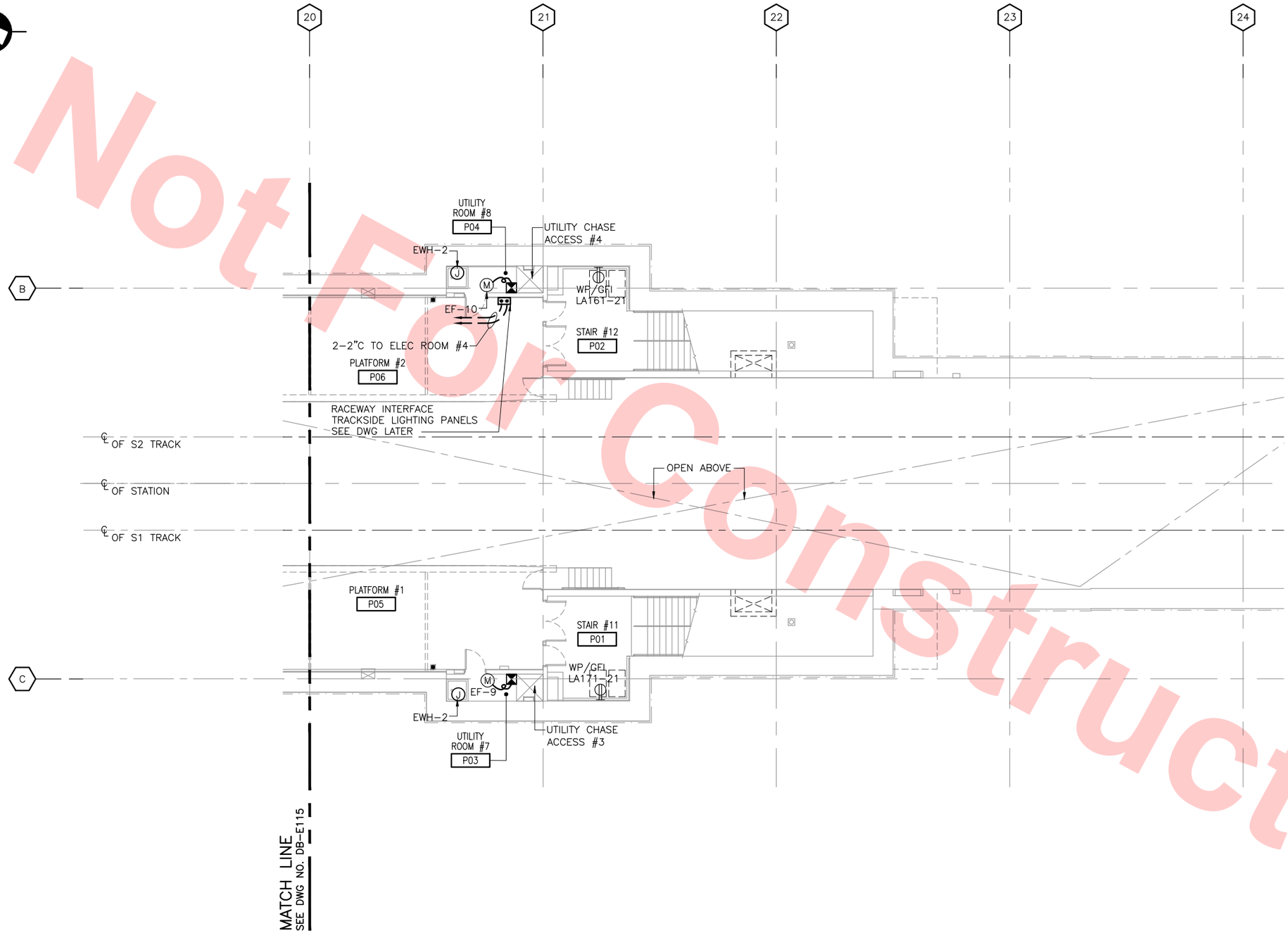

PLATFORM LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E110X

NOTE

1. FOR RECEPTACLE CIRCUIT ASSIGNMENTS, SEE PANEL SCHEDULE DB-E521
2. TABULATION LIST POWER CIRCUIT NUMBERS FOR THE FANS ON THIS SHEET. COMBINE POWER TO MANY LOADS INCLUDING RECEPTACLES FROM SAME PANEL IN CONDUIT TOGETHER TO MINIMIZE CONDUIT RUNS, MAKE SURE THAT CONDUIT FILL MUST MEET THE LATEST NATIONAL ELECTRICAL CODE REQUIREMENT.
3. SEE PANEL SCHEDULES ON DRAWINGS DB-E520 TO DB-E525 FOR COMPLETE PANEL LOADING.

MECH. EQUIP. TABULATIONS

EQUIP. ID	VOLT/PH	PNL. CKT.
EF-10	120/1	LA161-16
EWH-2	277/1	LA15-18
EF-9	120/1	LA171-20
EWH-2	277/1	LA151-18

Santa Clara Valley Transportation Authority

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____AMEND AND RESUBMIT (A/R)

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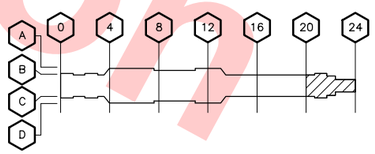
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E306, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

LICENSED PROFESSIONAL ENGINEER JAMES L. ALLEN E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2539

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
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APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
PLATFORM LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 6 OF 6

CADD FILENAME C700-S-DB-E116.dwg
SIZE D | SCALE 1/8"=1'-0"
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AREA CODE DB | SHEET NO. E116 | PAGE NO. 0861

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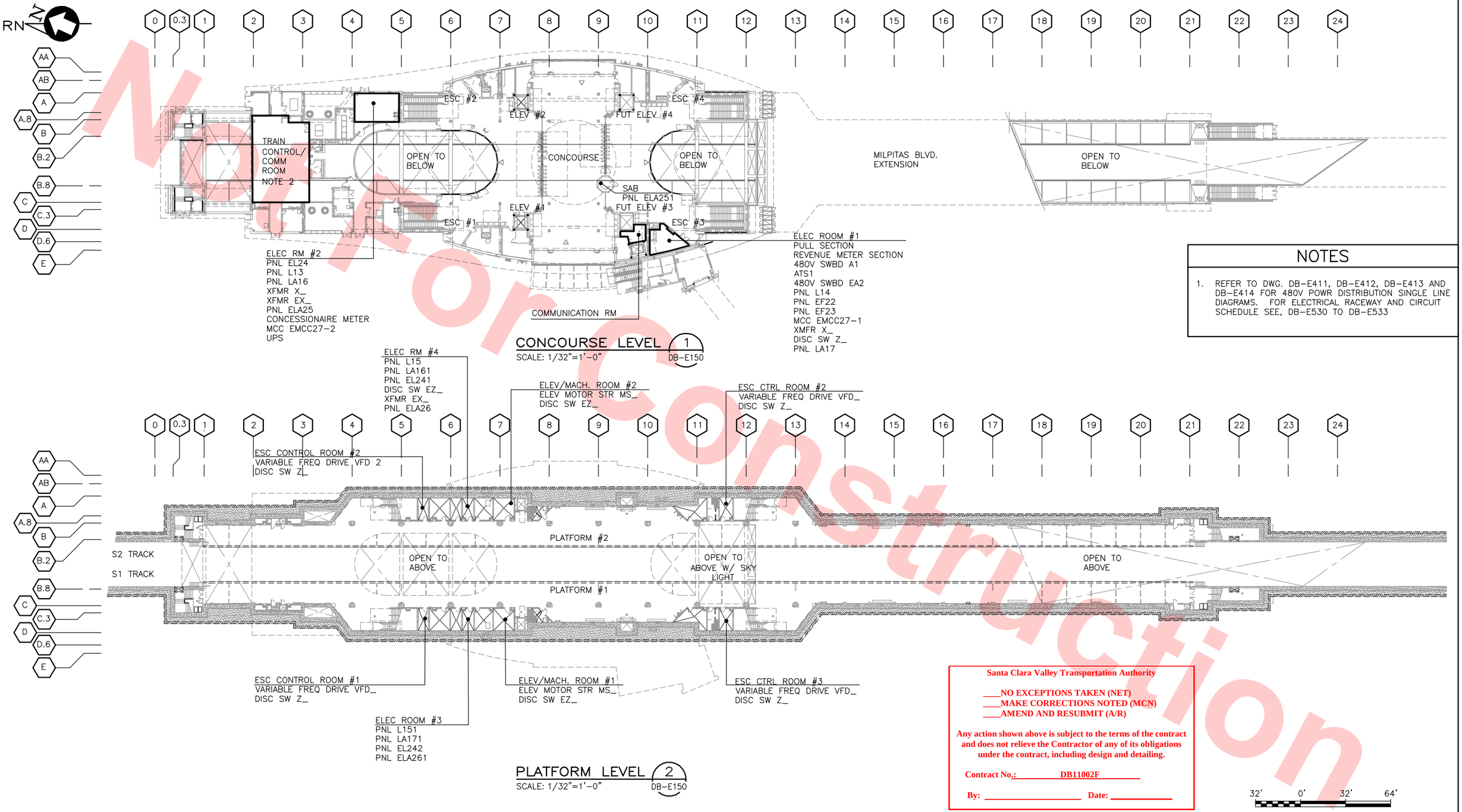

CONCOURSE LEVEL 1
SCALE: 1/32"=1'-0" DB-E150

PLATFORM LEVEL 2
SCALE: 1/32"=1'-0" DB-E150

NOTES

1. REFER TO DWG. DB-E411, DB-E412, DB-E413 AND DB-E414 FOR 480V POWR DISTRIBUTION SINGLE LINE DIAGRAMS. FOR ELECTRICAL RACEWAY AND CIRCUIT SCHEDULE SEE, DB-E530 TO DB-E533

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

32' 0' 32' 64'
GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E111, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER PAULUS L. N. CHEN E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

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1436 California Circle
Milpitas, California 95035
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Anil Verma Associates, Inc.
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Phone: (510) 835-2339 Fax: (510) 835-2339

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APPROVED

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

ELECTRICAL EQUIPMENT LOCATION PLAN
PLATFORM AND CONCOURSE LEVELS

CADD FILENAME C700-S-DB-E150.dwg
SIZE D | SCALE 1/32"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E150 | PAGE NO. 0862

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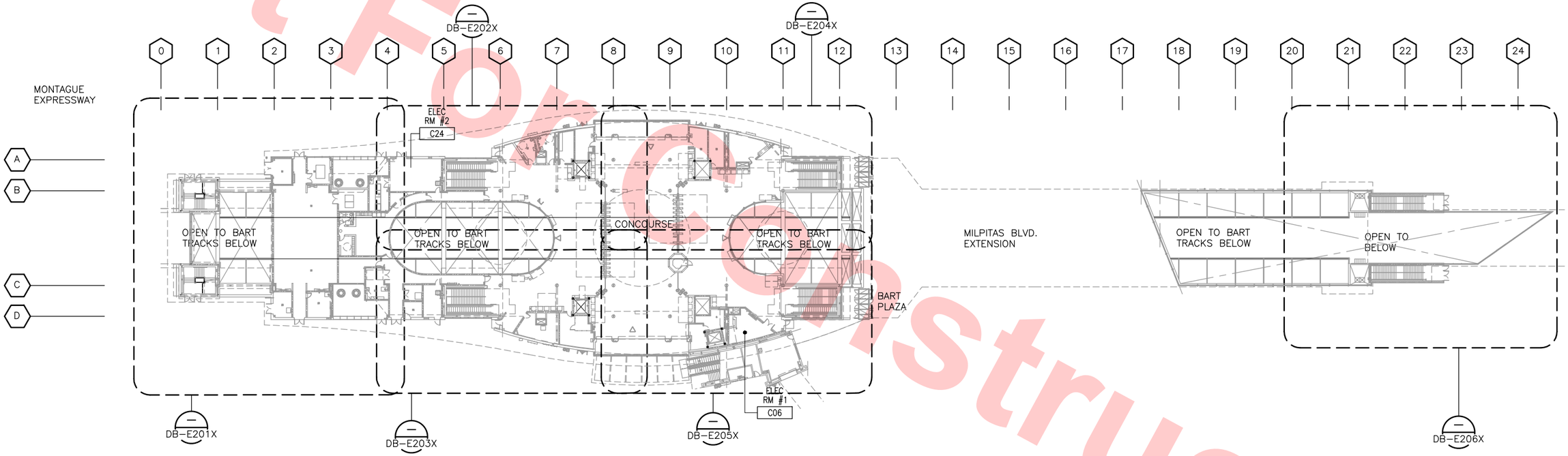

KEY PLAN – CONCOURSE LEVEL – LIGHTING

SCALE: 1/32"=1'-0"

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

32' 0' 32' 64'

GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

LICENSED PROFESSIONAL ENGINEER — JAMES L. PYLE — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2532 Fax: (510) 835-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
KEY PLAN
CONCOURSE LEVEL
LIGHTING

CADD FILENAME C700-S-DB-E200.dwg
SIZE D | SCALE 1/32"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E200 | PAGE NO. 0863

Jun 20, 2013 - 3:03pm G:\Giles Marcilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E200.dwg
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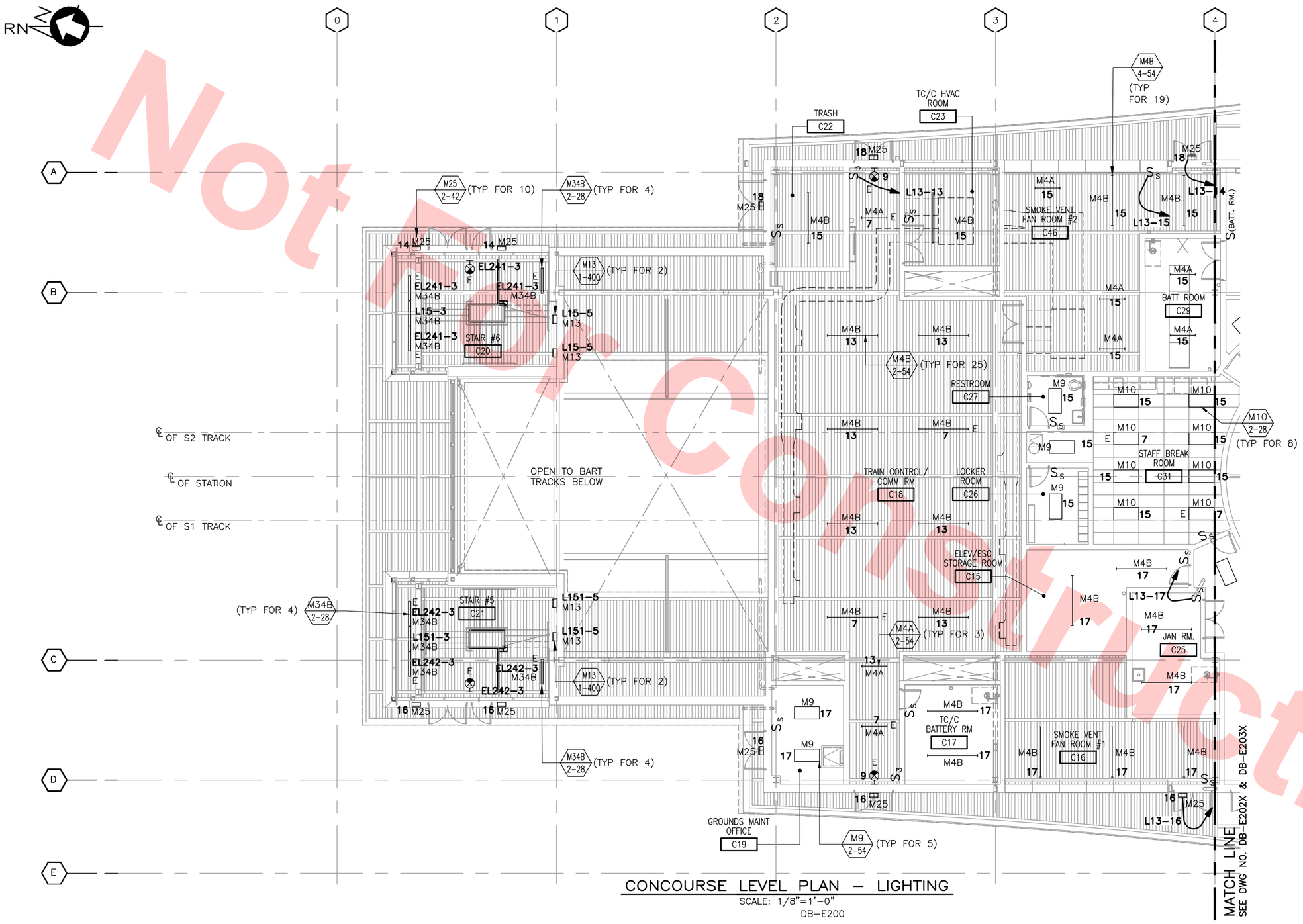


CONCOURSE LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'-0"

DB-E200

NOTE

1. FOR LIGHTING FIXTURE SCHEDULE SEE DRAWING DB-E515 AND DB-E516.
2. CONTINUATION OF STAIR LIGHTING CIRCUITS ARE VIA PLATFORM LIGHTING CIRCUIT RUNS, SEE DRAWING DB-E101X.

LIGHT FIXTURE TABULATIONS

PANEL CIRCUIT	FIXTURE TYPE	QUANTITIES
EL241-3/EL242-3	M34B	3
	MX1	1
L15-3/L151-3	M34B	1
L15-5/L151-5	M13	2
L13-13	M4A	1
	M4B	6
L13-14	M25	5
L13-15	M4A	4
	M4B	5
	M9	3
	M10	6
L13-16	M25	5
L13-17	M4B	9
	M9	2
EL24-7	M4A	2
	M4B	2
	M10	2
EL24-9	MX1	2

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

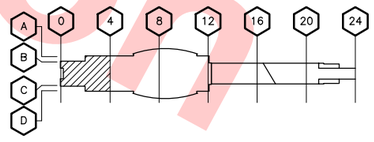
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E211, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER JAMES L. PACE E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

SUBMITTED

Anil Verma Associates, Inc.
1970 Broadway, Suite 500, Oakland, CA 94612
Phone: (510) 835-2532 Fax: (510) 835-2539

APPROVED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

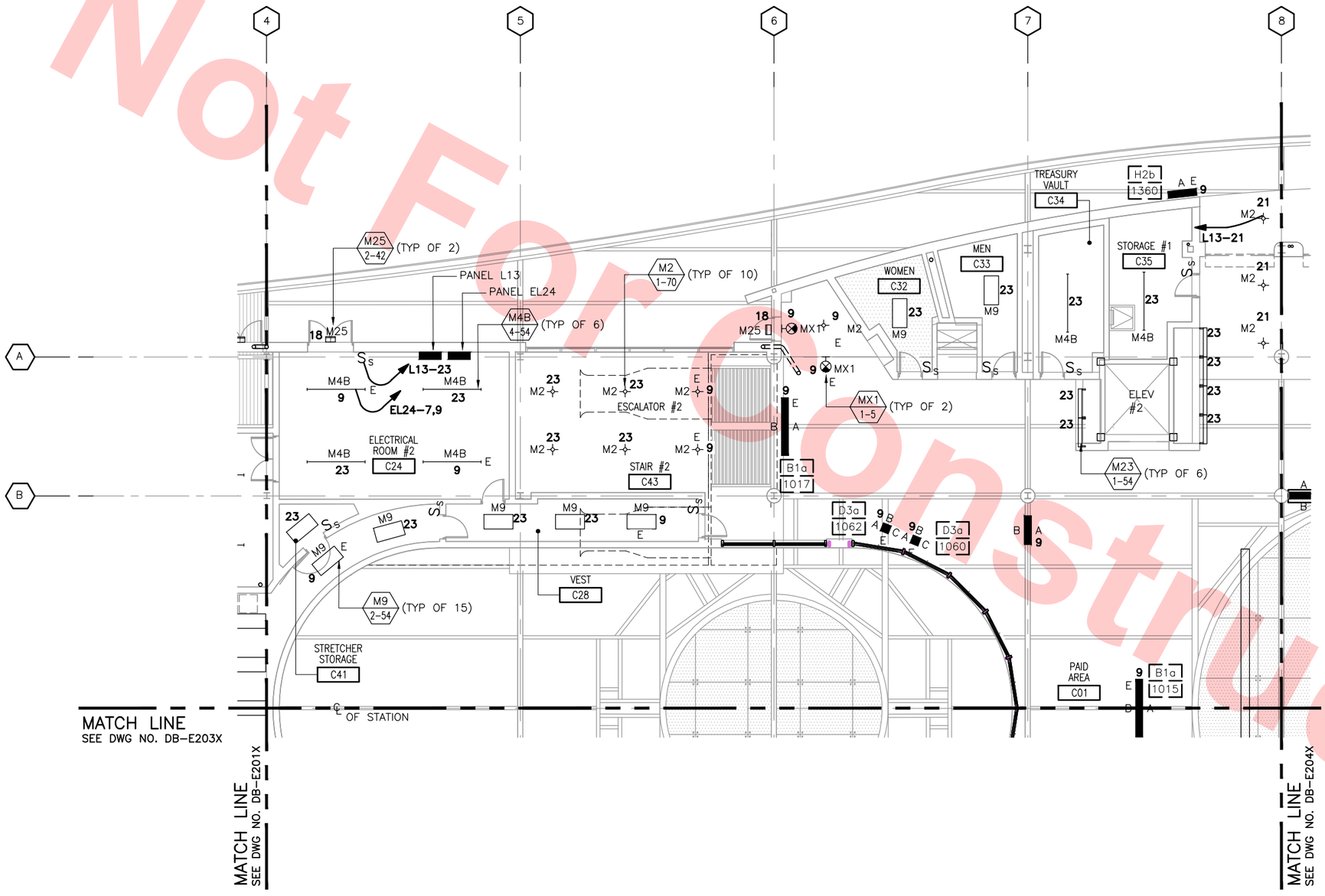
VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
CONCOURSE LEVEL PLAN
LIGHTING
SHEET 1 OF 6

CADD FILENAME C700-S-DB-E201X.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E201X | PAGE NO. 0864

Jun 20, 2013 - 3:04pm G:\Cities Maravilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E201X.dwg GlenM



CONCOURSE LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'-0"

DB-E200

NOTE

1. FOR LIGHTING FIXTURE SCHEDULE SEE DRAWING DB-E515 AND DB-E516.

LIGHT FIXTURE TABULATIONS

PANEL CIRCUIT	FIXTURE TYPE	QUANTITIES
L13-4	M25	2
L13-19	M2	4
	M4B	4
	M9	6
	M19	6
L15-21	M2	3
EL24-9	MX1	2
	M2	3
	M4B	2
	M9	2

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

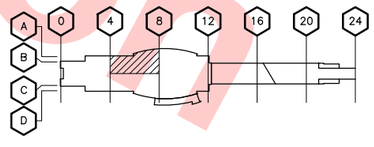
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E212, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. NG — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 835-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

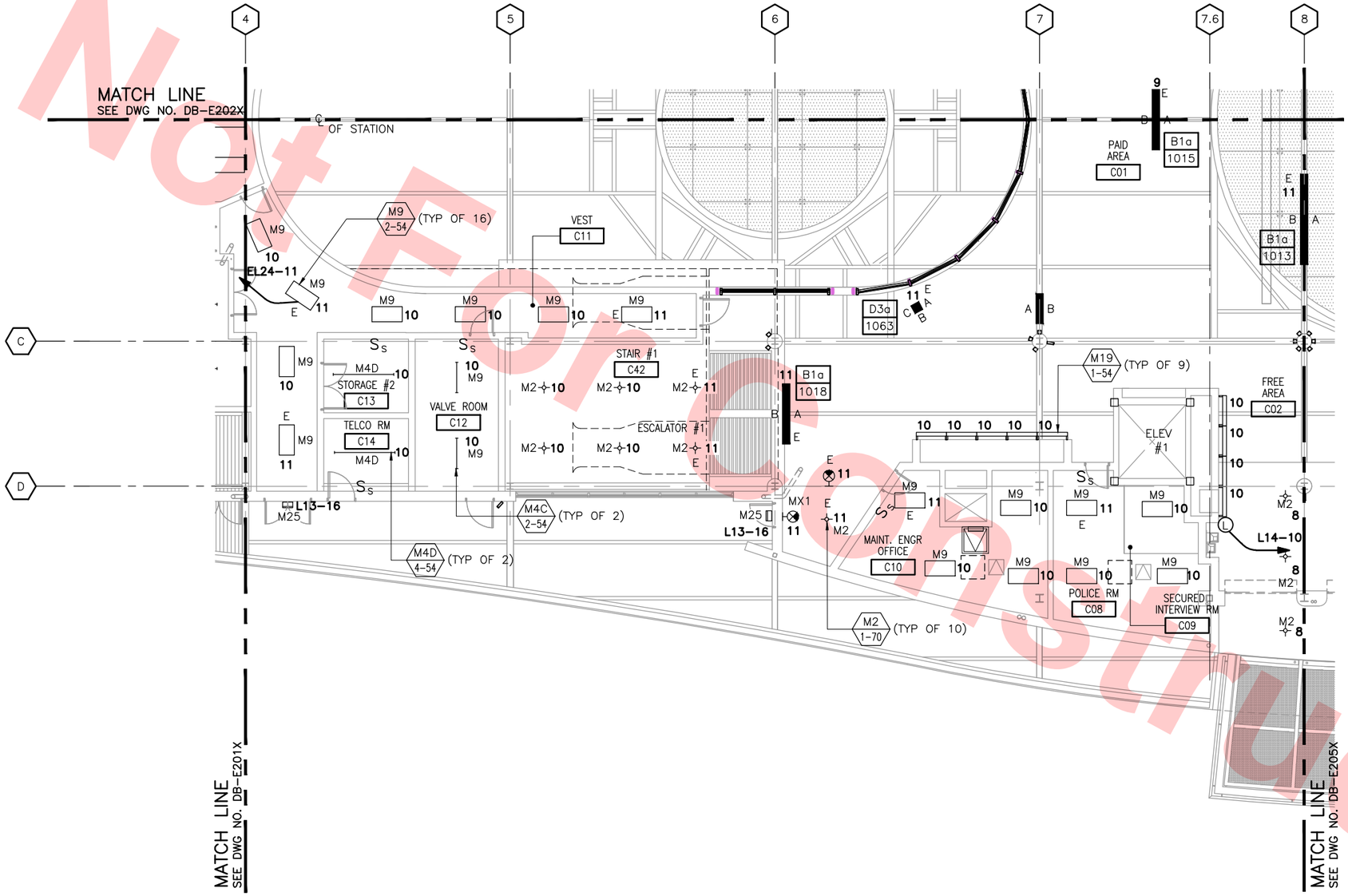
APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
CONCOURSE LEVEL PLAN
LIGHTING
SHEET 2 OF 6

CADD FILENAME C700-S-DB-E202X.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E202X | PAGE NO. 0865

Jun 20, 2013 - 3:04pm G:\Giles Maravilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E202X.dwg
GilesM



CONCOURSE LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'-0"

DB-E200

NOTE

1. FOR LIGHTING FIXTURE SCHEDULE SEE DRAWING DB-E515 AND DB-E516.

LIGHT FIXTURE TABULATIONS

PANEL CIRCUIT	FIXTURE TYPE	QUANTITIES
L13-16	M25	2
L14-8	M2	3
L14-10	M2	4
	M4D	2
	M9	13
	M19	9
EL24-11	MX1	2
	M2	3
	M9	5

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

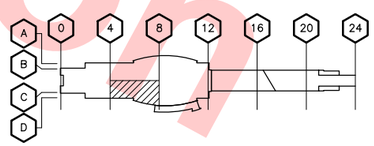
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E213, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. NG — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 655-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. — A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

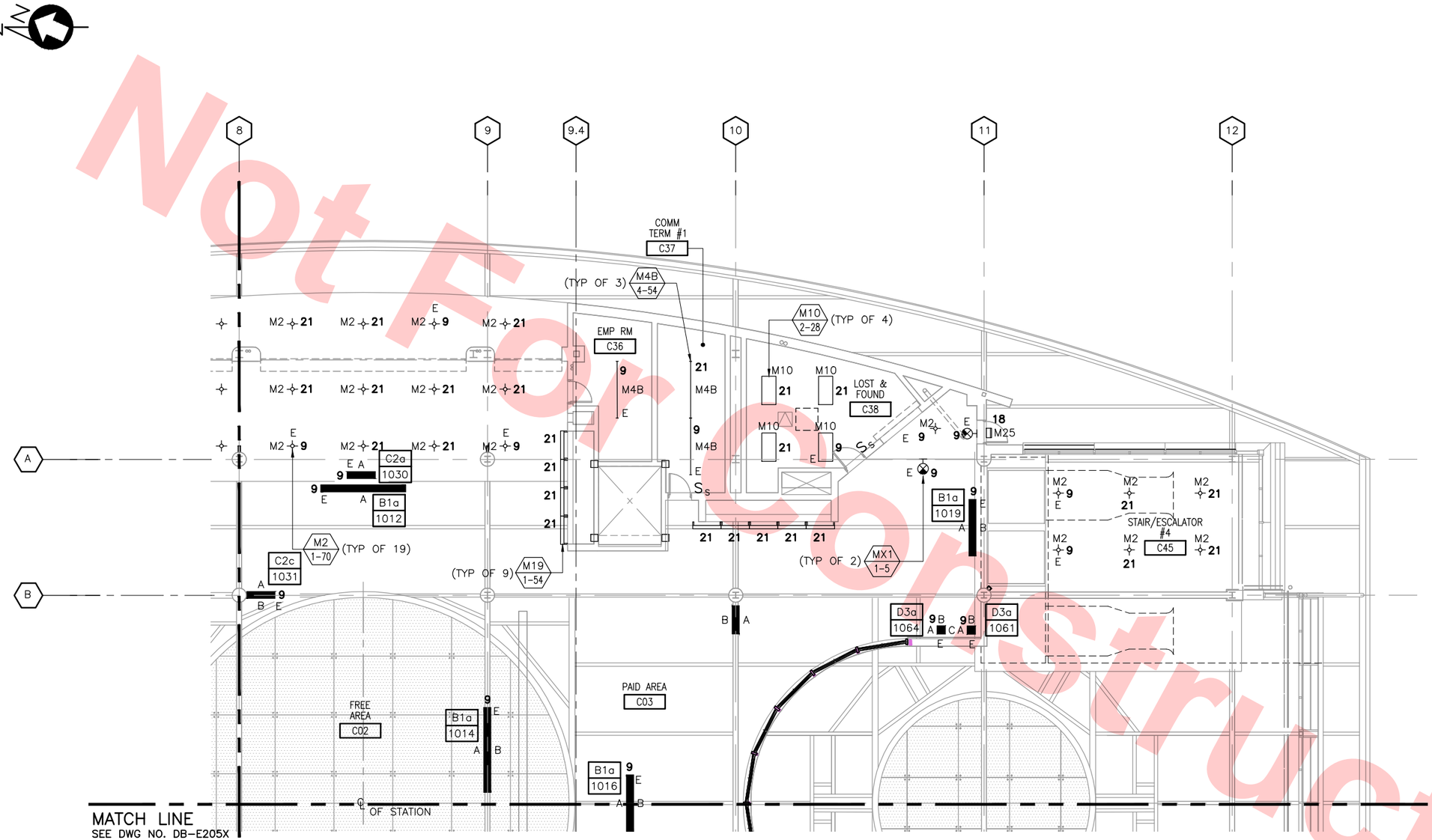
VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
CONCOURSE LEVEL PLAN
LIGHTING
SHEET 3 OF 6

CADD FILENAME C700-S-DB-E203X.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E203X | PAGE NO. 0866

Jun 20, 2013 - 3:05pm G:\Giles Maravilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E203X.dwg
GilesM



CONCOURSE LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'-0"

DB-E200

NOTE

1. FOR LIGHTING FIXTURE SCHEDULE SEE DRAWING DB-E515 AND DB-E516.

LIGHT FIXTURE TABULATIONS

PANEL CIRCUIT	FIXTURE TYPE	QUANTITIES
L13-14	M25	1
L13-21	M2	13
	M4B	1
	M10	3
	M19	9
EL24-9	MX1	2
	M2	6
	M4B	2
	M10	1

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

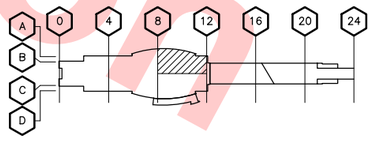
Contract No.: DB11002F

By: _____ **Date:** _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-214, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. NG — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

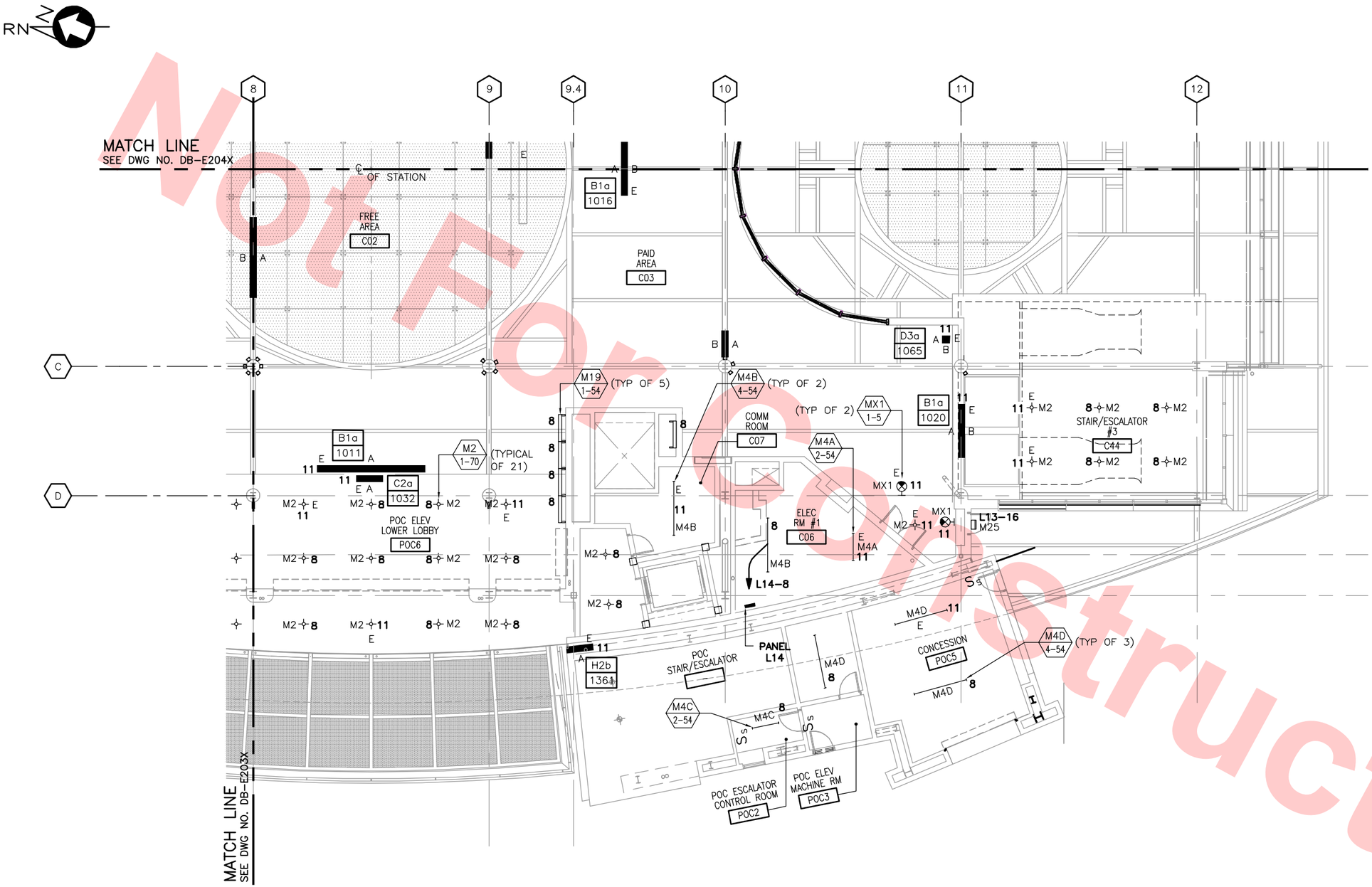
VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
CONCOURSE LEVEL PLAN
LIGHTING
SHEET 4 OF 6

CADD FILENAME C700-S-DB-E204X.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E204X | PAGE NO. 0867

GlenM Jun 20, 2013 - 3:01pm G:\Giles Maravilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E204X.dwg



CONCOURSE LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'–0"

DB–E200

NOTE

1. FOR LIGHTING FIXTURE SCHEDULE SEE DRAWING DB–E515 AND DB–E516.

LIGHT FIXTURE TABULATIONS

PANEL CIRCUIT	FIXTURE TYPE	QUANTITIES
L13–16	M25	1
L14–8	M2	15
	M4B	1
	M4C	1
	M4D	2
	M19	5
EL24–11	MX1	2
	M2	6
	M4B	1
	M4B	1
	M9	1

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

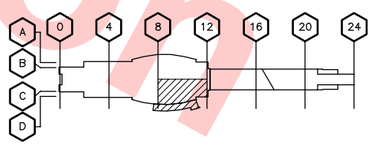
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



Not For Construction

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700–DB–E215, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — CARLOS L. PADILLA — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 535, Oakland, CA 94612
Phone: (510) 835-2337 Fax: (510) 535-2339

SUBMITTED _____

Lockwood, Andrews & Newnam, Inc. A LINO A BALY COMPANY
T-Y LIN INTERNATIONAL

APPROVED _____

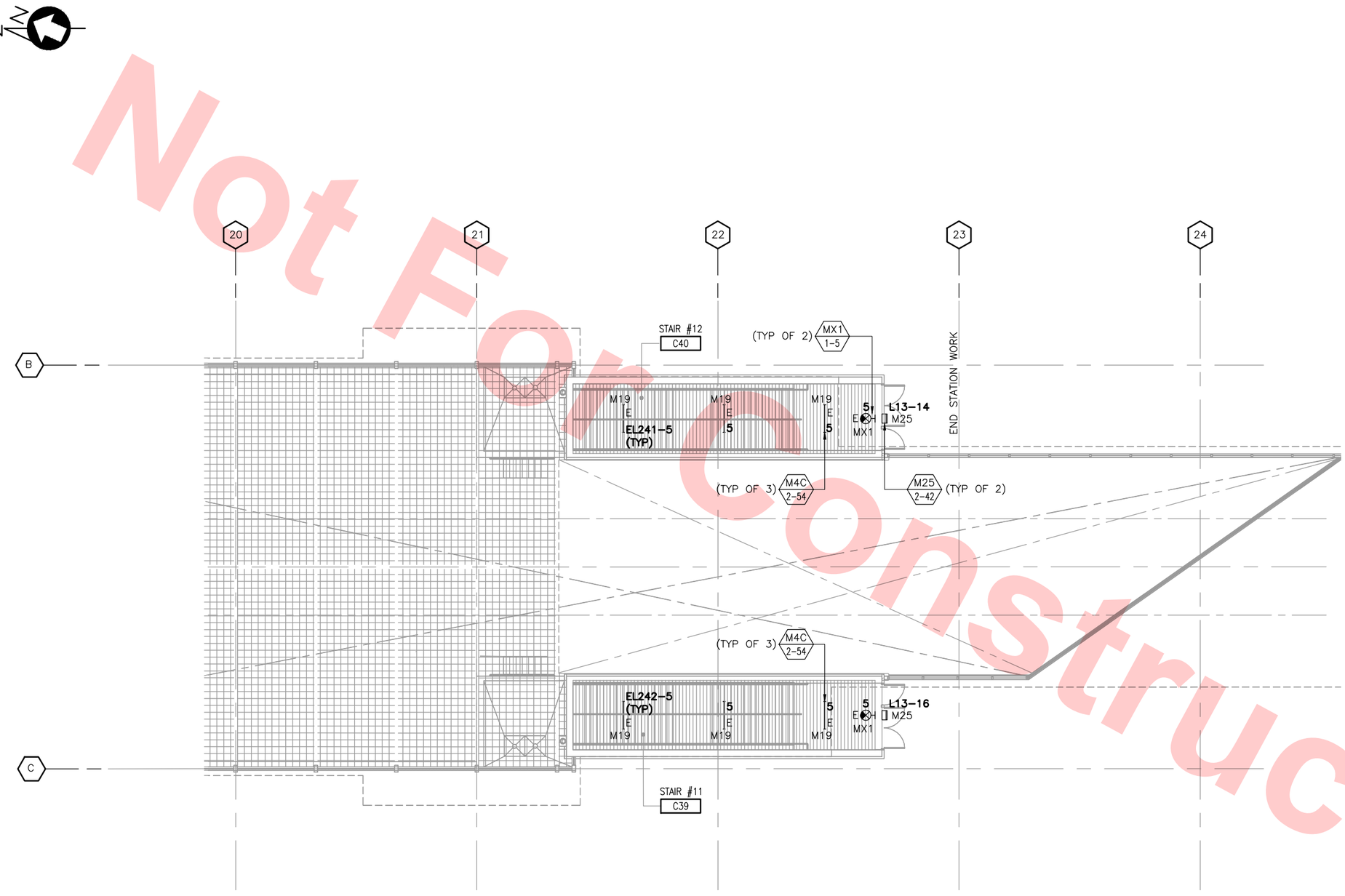
BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
CONCOURSE LEVEL PLAN
LIGHTING
SHEET 5 OF 6

CADD FILENAME C700–S–DB–E205X.dwg
SIZE D | SCALE 1/8"=1'–0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E205X | PAGE NO. 0868

GlenM Jun 27, 2013 - 1:20pm G:\Current Projects\VTA–Berryessa Extension Project\Station – Milpitas\CAD\Drawings Out\13–0710 C700 Milpitas Station – RFC Submit\C700–S–DB–E205X.dwg



CONCOURSE LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'–0"

DB–E200

NOTE

1. FOR LIGHTING FIXTURE SCHEDULE SEE DRAWING DB–E515 AND DB–E516.
2. CONTINUATION OF STAIR LIGHTING CIRCUITS ARE VIA PLATFORM LIGHTING CIRCUIT RUNS, SEE DRAWING DB–E106.

LIGHT FIXTURE TABULATIONS

PANEL CIRCUIT	FIXTURE TYPE	QUANTITIES
L13–14	M25	1
L13–16	M25	1
EL241–5/EL242–5	MX1	1
	M19	3

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

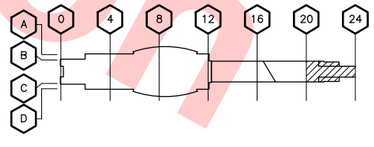
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700–DB–E216, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

LICENSED PROFESSIONAL ENGINEER — JAMES L. NEU — E11904 EXP 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 505 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

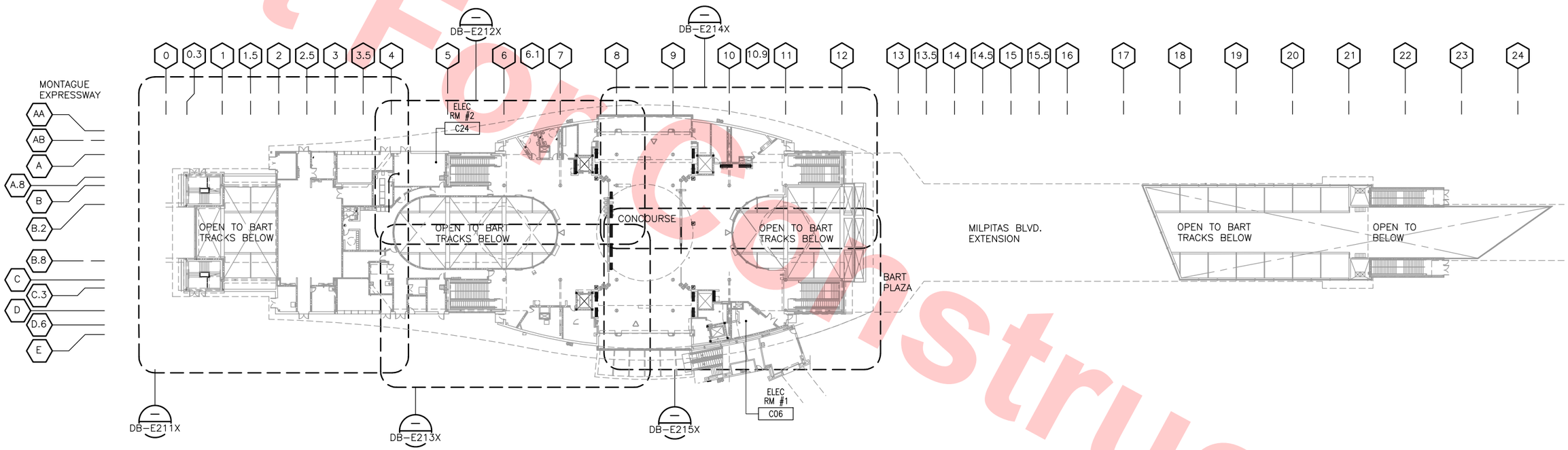
VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
CONCOURSE LEVEL PLAN
LIGHTING
SHEET 6 of 6

CADD FILENAME C700–S–DB–E206X.dwg
SIZE D | SCALE 1/8"=1'–0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E206X | PAGE NO. 0869

Jun 20, 2013 – 3:19pm G:\Giles Maravilla\Milpitas Station\Projectwise Sheets\C700–S–DB–E206X.dwg
GilesM



KEY PLAN –CONCOURSE LEVEL – POWER AND MISCELLANEOUS

SCALE: 1/32"=1'–0"

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

32' 0' 32' 64'

GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L.CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. NG — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 535 Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 835-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LOCKWOOD KELLY COMPANY
T-Y LIN INTERNATIONAL

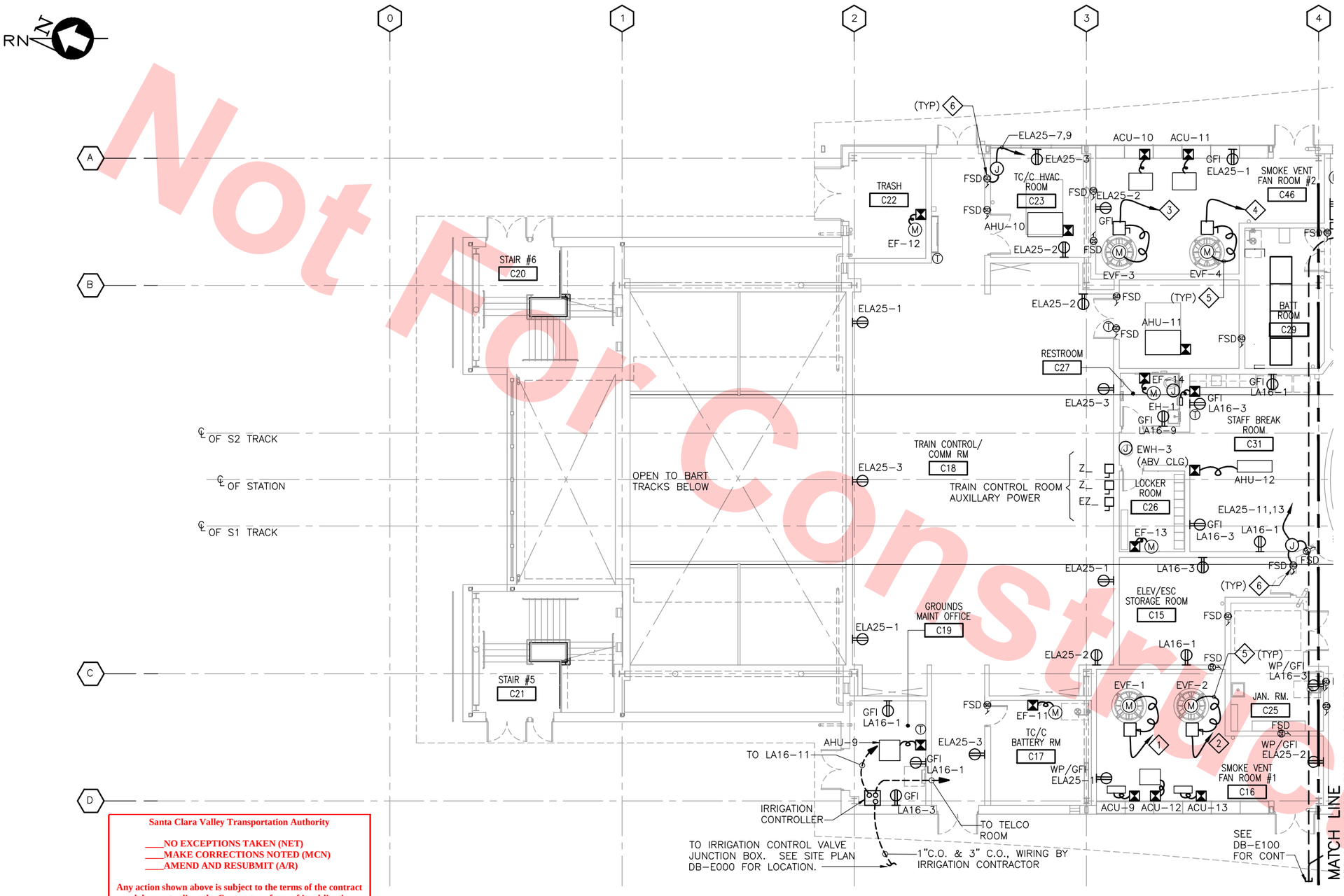
APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
KEY PLAN
CONCOURSE LEVEL
POWER AND MISCELLANEOUS

CADD FILENAME C700-S-DB-E210.dwg
SIZE D | SCALE 1/32"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E210 | PAGE NO. 0870

Jun 20, 2013 - 3:20pm G:\Giles Maravilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E210.dwg
GilesM



KEY NOTES

1. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-1", CIRCUIT EMCC2711
2. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-1", CIRCUIT EMCC2712
3. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-2", CIRCUIT EMCC2721
4. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-2", CIRCUIT EMCC2722
5. PROVIDE WEATHERPROOF FLEXIBLE CONDUIT FROM DISC. SWITCH TO FAN MOTOR.
6. "FSD" FIRE SMOKE DAMPERS, 4 CKTS PROVIDED FOR POWER (1 CKT EA FOR NORTH & SOUTH SIDE). SEE MECH DWGS FOR LOCATIONS.

NOTES

1. TO PARKING STRUCTURE TO BE EXTENDED BY C720.
2. DENOTES AREA ALLOCATED FOR CONDUIT STUB-UPS.
3. FOR CONT SEE DWG DB-E100.
4. FOR RECEPTACLE CIRCUIT ASSIGNMENTS, SEE PANEL SCHEDULE DB-E521
5. TABULATION LIST POWER CIRCUIT NUMBERS FOR THE FANS ON THIS SHEET. COMBINE POWER TO MANY LOADS INCLUDING RECEPTACLES FROM SAME PANEL IN CONDUIT TOGETHER TO MINIMIZE CONDUIT RUNS, MAKE SURE THAT CONDUIT FILL MUST MEET THE LATEST NATIONAL ELECTRICAL CODE REQUIREMENT.
6. SEE PANEL SCHEDULES ON DRAWINGS DB-E520 TO DB-E525 FOR COMPLETE PANEL LOADING.

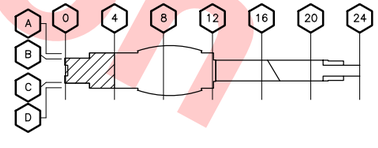
MECH. EQUIP. TABULATIONS

EQUIP. ID	VOLT/PH	PNL. CKT.
EF-12	120/1	LA16-14
EF-14	120/1	LA16-14
EH-1	208/1	LA16-16, 18
AHU-10	460/3	L13-26, 28, 30
ACU-10	460/3	L13-32, 34, 36
AHU-11	460/3	L13-31, 33, 35
ACU-11	460/3	L13-37, 39, 41
AHU-12	460/3	L13-8, 10, 12
ACU-12	460/3	L13-20, 22, 24
AHU-9	208/1	LA16-8, 10
ACU-9	208/1	LA16-14, 16
EF-11	120/1	LA16-20
EF-13	120/1	LA16-20
ACU-13	208/1	LA16-18, 20

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

CONCOURSE LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E210

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E311, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER JAMES L. NEU E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
CONCOURSE LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 1 OF 5

CADD FILENAME C700-S-DB-E211X.dwg
SIZE D | SCALE 1/8"=1'-0"
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AREA CODE DB | SHEET NO. E211X | PAGE NO. 0871

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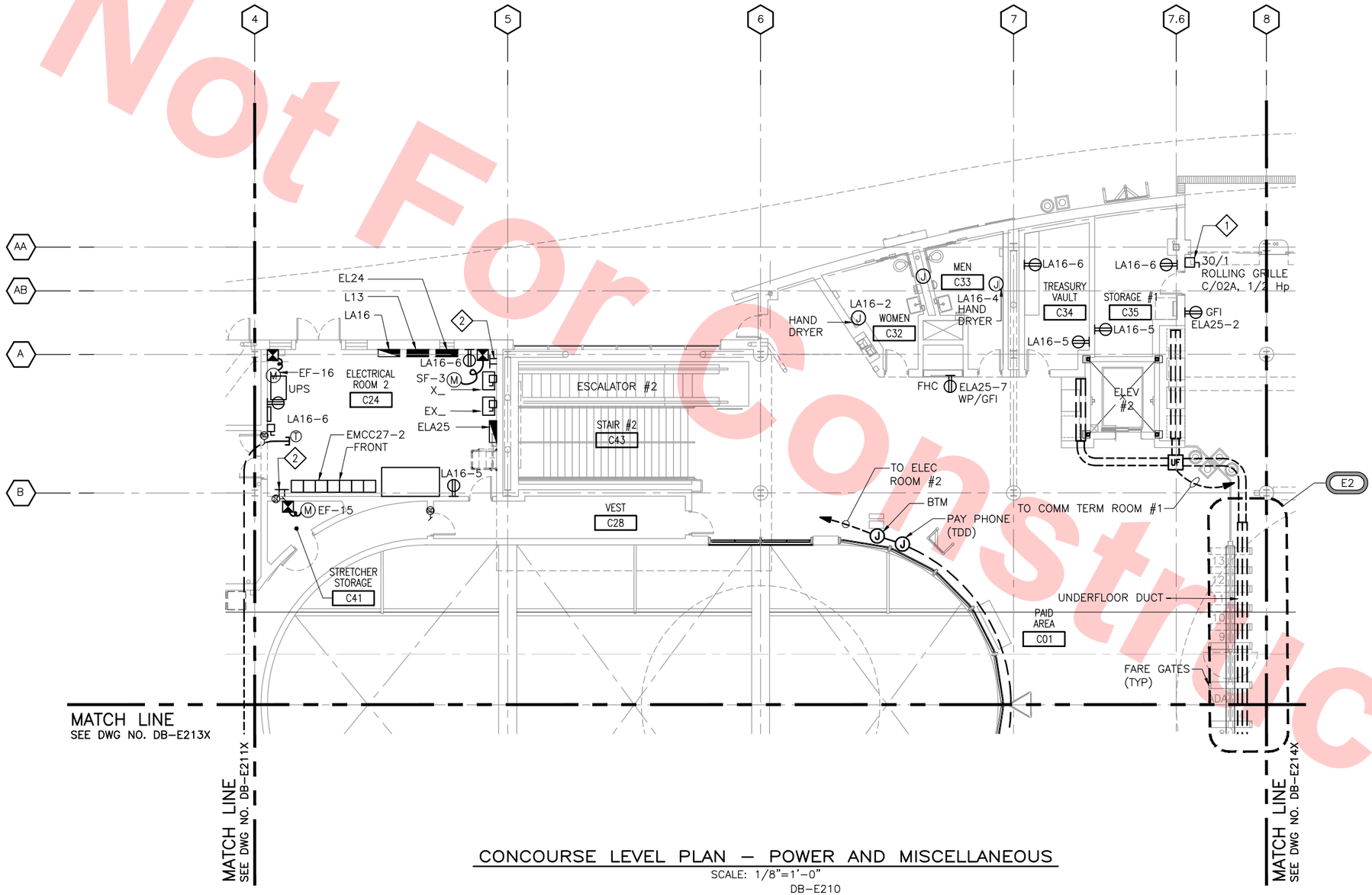


CONCOURSE LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E210

KEY NOTES

1. DISC. SWITCH FOR ROLLING GRILLE
2. GROUNDING BUS BAR TEST STATION

NOTES

1. COORDINATE EXACT LOCATION OF UNDER FLOOR DUCTS AT AUTOMATIC FARE COLLECTION EQUIPMENT. REFER TO STANDARD DETAILS SHOWN ON J-002, J-004, AND J-006. UNDER FLOOR DUCT ROUTING IS FOR GUIDANCE ONLY.
2. RUN CONDUITS IN FLOOR SLAB AND DETERMINE THE NUMBER OF CONDUITS REQUIRED PLUS ONE SPARE CONDUIT PER SYSTEMS REQUIREMENTS.
3. FOR RECEPTACLE CIRCUIT ASSIGNMENTS, SEE PANEL SCHEDULE DB-E521
4. TABULATION LIST POWER CIRCUIT NUMBERS FOR THE FANS ON THIS SHEET. COMBINE POWER TO MANY LOADS INCLUDING RECEPTACLES FROM SAME PANEL IN CONDUIT TOGETHER TO MINIMIZE CONDUIT RUNS, MAKE SURE THAT CONDUIT FILL MUST MEET THE LATEST NATIONAL ELECTRICAL CODE REQUIREMENT.
5. SEE PANEL SCHEDULES ON DRAWINGS DB-E520 TO DB-E525 FOR COMPLETE PANEL LOADING.

MECH. EQUIP. TABULATIONS

EQUIP. ID	VOLT/PH	PNL. CKT.
EF-16	120/1	LA16-22
EF-15	120/1	LA16-22
SF-3	120/1	LA16-37
C/02A	120/1	LA16-24 (ROLLING GRILLE)

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

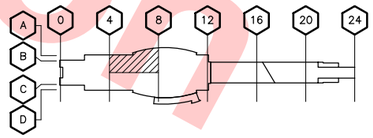
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E312, REV. 0

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER LOUIS L. NG E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 835-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A CH2M HILL COMPANY
T-Y LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
CONCOURSE LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 2 OF 5

CADD FILENAME C700-S-DB-E212X.dwg
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CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E212X | PAGE NO. 0872

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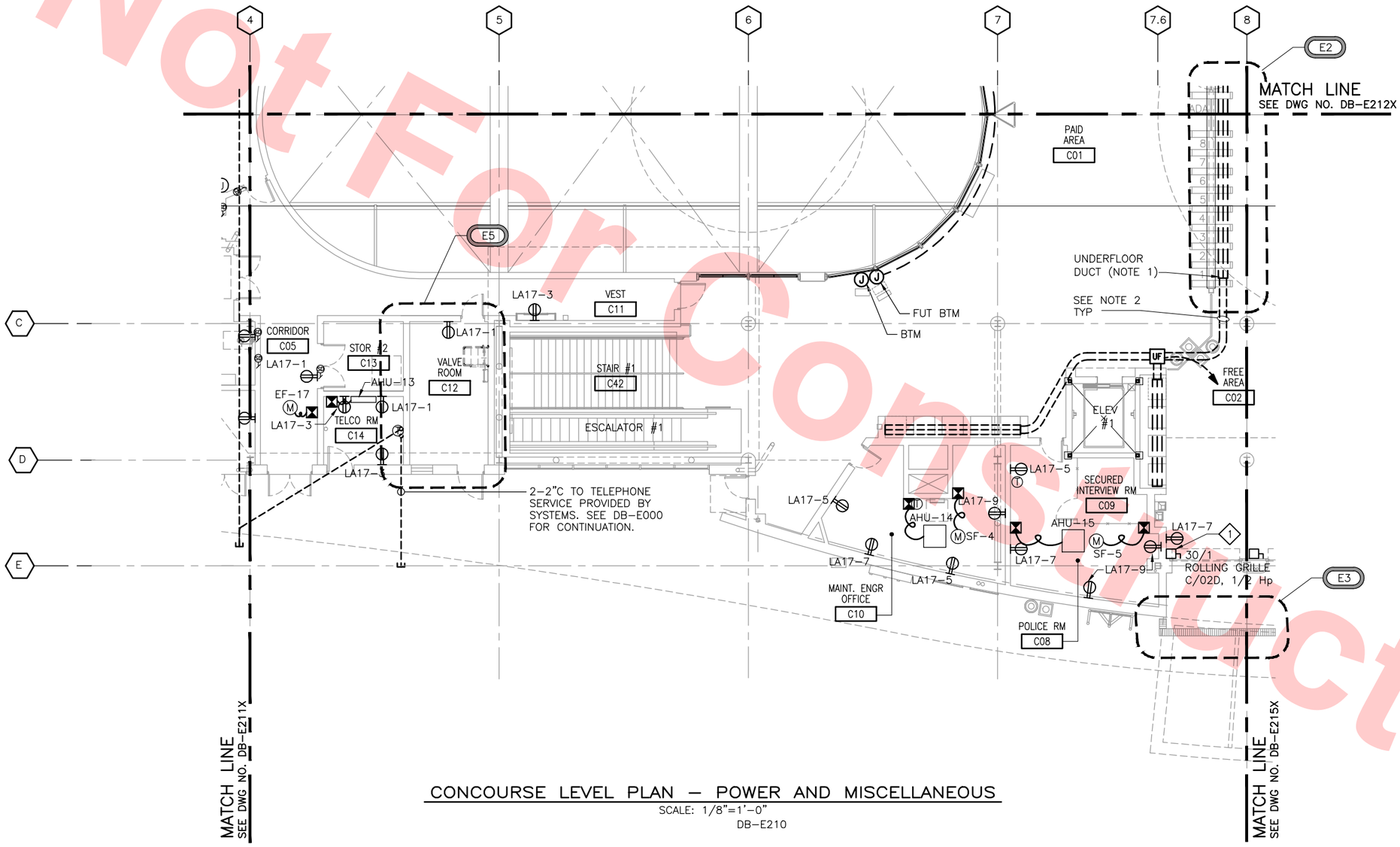

CONCOURSE LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E210

KEY NOTES

1. DISC. SWITCH FOR ROLLING GRILLE

NOTES

1. COORDINATE EXACT LOCATION OF UNDER FLOOR DUCTS AT AUTOMATIC FARE COLLECTION EQUIPMENT. REFER TO STANDARD DETAILS SHOWN ON J-002, J-004, AND J-006. UNDER FLOOR DUCT ROUTING IS FOR GUIDANCE ONLY.
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3. FOR RECEPTACLE CIRCUIT ASSIGNMENTS, SEE PANEL SCHEDULE DB-E521
4. TABULATION LIST POWER CIRCUIT NUMBERS FOR THE FANS ON THIS SHEET. COMBINE POWER TO MANY LOADS INCLUDING RECEPTACLES FROM SAME PANEL IN CONDUIT TOGETHER TO MINIMIZE CONDUIT RUNS, MAKE SURE THAT CONDUIT FILL MUST MEET THE LATEST NATIONAL ELECTRICAL CODE REQUIREMENT.
5. SEE PANEL SCHEDULES ON DRAWINGS DB-E520 TO DB-E525 FOR COMPLETE PANEL LOADING.

MECH. EQUIP. TABULATIONS

EQUIP. ID	VOLT/PH	PNL. CKT.
EF-17	120/1	LA17-6
AHU-13	208/1	ELA25-2, 4
AHU-14	208/1	LA17-12, 14
SF-4	120/1	LA17-6
AHU-15	208/1	LA17-16, 18
SF-5	120/1	LA17-6
C/02D	115/1	LA17-24 (ROLLING GRILLE)

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

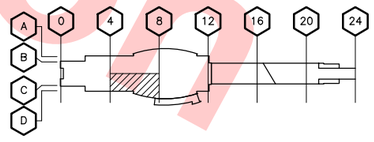
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E313, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER LOUIS L. NG E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 835-2339

SUBMITTED _____

Lockwood, Andrews & Newnam, Inc. A LINO × DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED _____

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
CONCOURSE LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 3 OF 5

CADD FILENAME C700-S-DB-E213X.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E213X | PAGE NO. 0873

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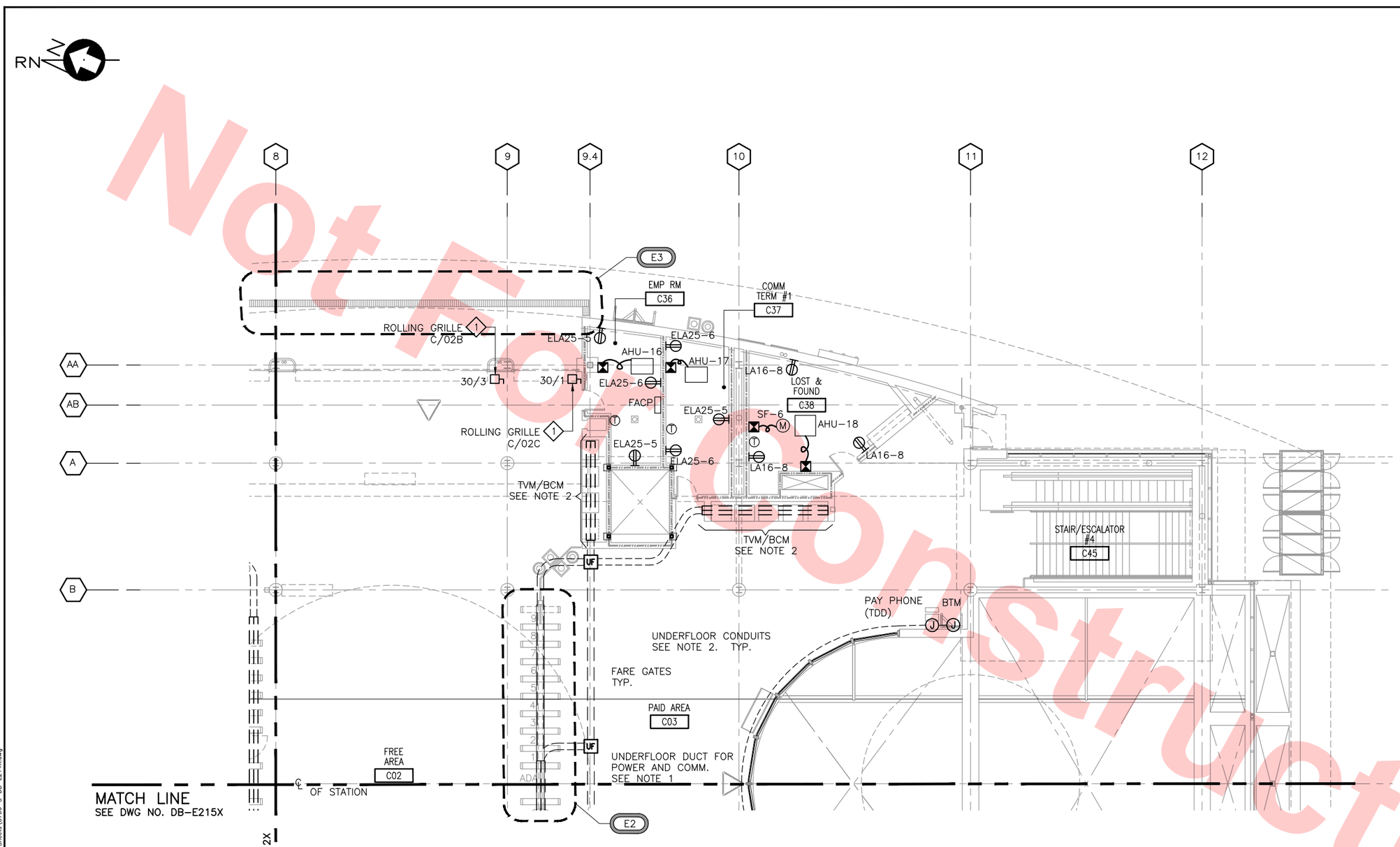


CONCOURSE LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E210

KEY NOTE

1. DISC. SWITCH FOR ROLLING GRILLE

NOTES

1. COORDINATE EXACT LOCATION OF UNDER FLOOR DUCTS AT AUTOMATIC FARE COLLECTION EQUIPMENT. REFER TO STANDARD DETAILS SHOWN ON J-002, J-004, AND J-006. UNDER FLOOR DUCT ROUTING IS FOR GUIDANCE ONLY.
2. RUN CONDUITS IN FLOOR SLAB AND DETERMINE THE NUMBER OF CONDUITS REQUIRED PLUS ONE SPARE CONDUIT PER SYSTEMS REQUIREMENTS.
3. FOR RECEPTACLE CIRCUIT ASSIGNMENTS, SEE PANEL SCHEDULE DB-E521
4. TABULATION LIST POWER CIRCUIT NUMBERS FOR THE FANS ON THIS SHEET. COMBINE POWER TO MANY LOADS INCLUDING RECEPTACLES FROM SAME PANEL IN CONDUIT TOGETHER TO MINIMIZE CONDUIT RUNS, MAKE SURE THAT CONDUIT FILL MUST MEET THE LATEST NATIONAL ELECTRICAL CODE REQUIREMENT.
5. SEE PANEL SCHEDULES ON DRAWINGS DB-E520 TO DB-E525 FOR COMPLETE PANEL LOADING.

MECH. EQUIP. TABULATIONS

EQUIP. ID	VOLT/PH	PNL. CKT.
C/02B	460/3	L13-38,40,42(ROLLING GRILLE)
C/02C	115/1	LA16-26 (ROLLING GRILLE)
AHU-16	208/1	LA16-30, 32
AHU-17	208/1	LA16-34, 36
SF-6	120/1	LA16-28
AHU-18	208/1	LA16-38, 40
FACP	120/1	ELA25-4

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

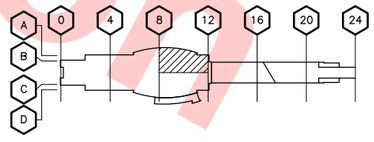
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E312, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. NEU — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 835-2339

SUBMITTED _____

Lockwood, Andrews & Newnam, Inc. A LINO × DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED _____

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
CONCOURSE LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 4 OF 5

CADD FILENAME C700-S-DB-E214X.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E214X | PAGE NO. 0874

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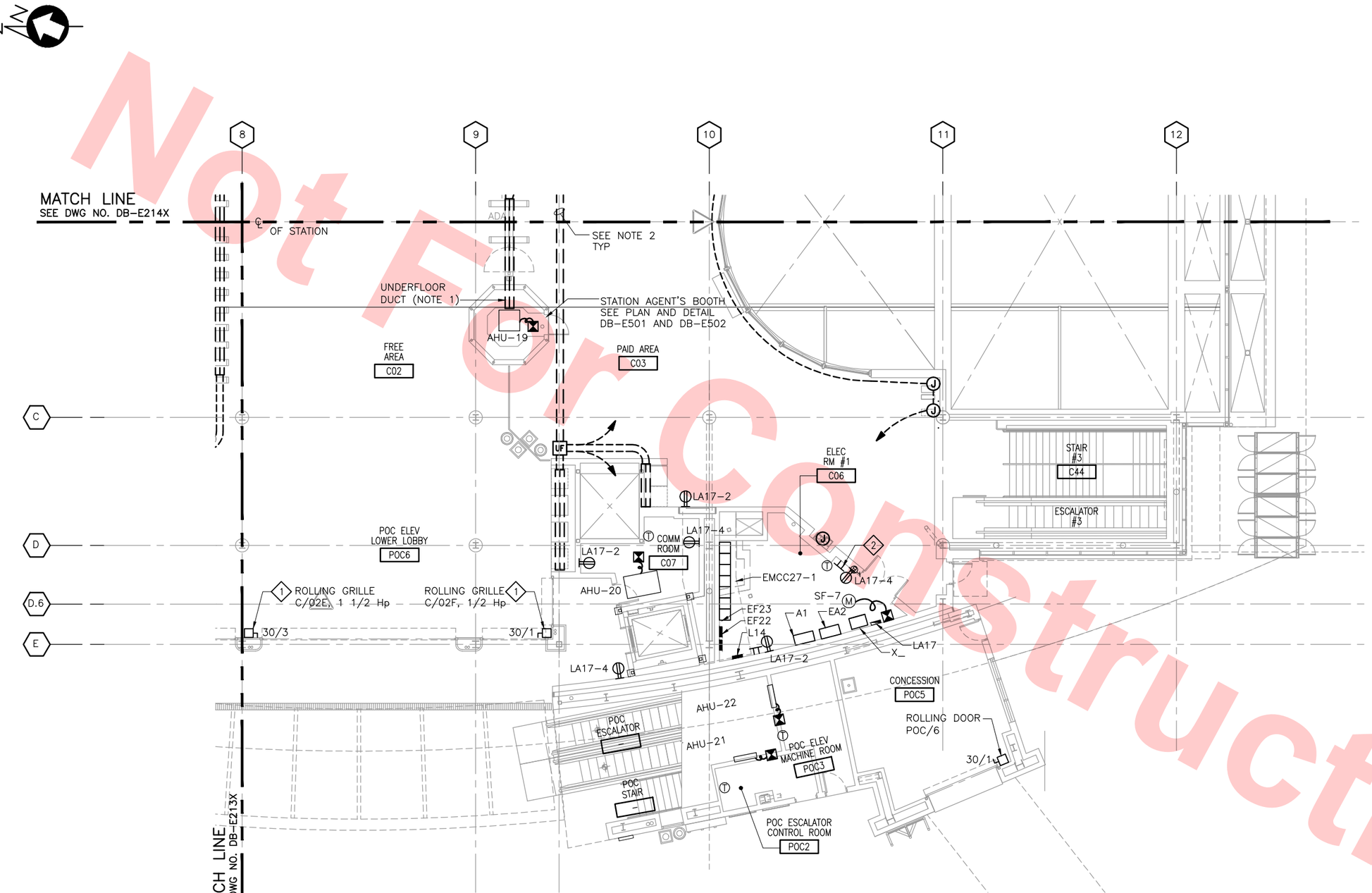

CONCOURSE LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E210

KEY NOTE

1. DISC. SWITCH FOR ROLLING GRILLE
2. GROUNDING BUS BAR TEST STATION

NOTES

1. COORDINATE EXACT LOCATION OF UNDER FLOOR DUCTS AT AUTOMATIC FARE COLLECTION EQUIPMENT. REFER TO STANDARD DETAILS SHOWN ON J-002, J-004, AND J-006. UNDER FLOOR DUCT ROUTING IS FOR GUIDANCE ONLY.
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5. SEE PANEL SCHEDULES ON DRAWINGS DB-E520 TO DB-E525 FOR COMPLETE PANEL LOADING.

MECH. EQUIP. TABULATIONS

EQUIP. ID	VOLT/PH	PNL. CKT.
C/02E	460/3	LA14-38,40,42(ROLLING GRILLE)
C/02F	115/1	LA17-26 (ROLLING GRILLE)
ACU-19	208/1	ELA251-10, 12
AHU-19	208/1	ELA251-6, 8
AHU-20	208/1	LA17-32, 34
AHU-21	208/1	LA17-36, 38
AHU-22	208/1	LA17-40, 42
SF-7	120/1	LA17-39
POC/6	115/1	LA17-41

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

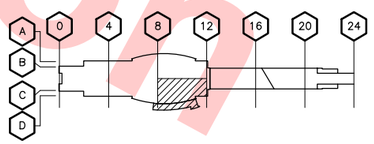
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E315, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER JAMES L. N. E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 535 Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
CONCOURSE LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 5 OF 5

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CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E215X | PAGE NO. 0875

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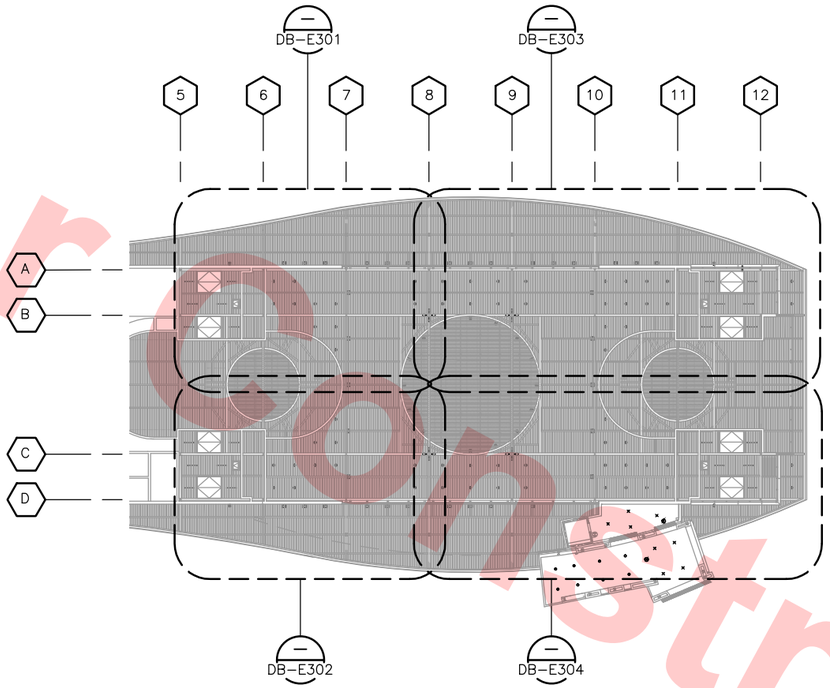

KEY PLAN – CONCOURSE LEVEL – HIGH CEILING – LIGHTING
SCALE: 1/32"=1'-0"

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

32' 0' 32' 64'
GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. NI — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

SUBMITTED

APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
KEY PLAN
CONCOURSE LEVEL – HIGH CEILING
LIGHTING

CADD FILENAME C700-S-DB-E300.dwg
SIZE D | SCALE 1/32"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E300 | PAGE NO. 0876

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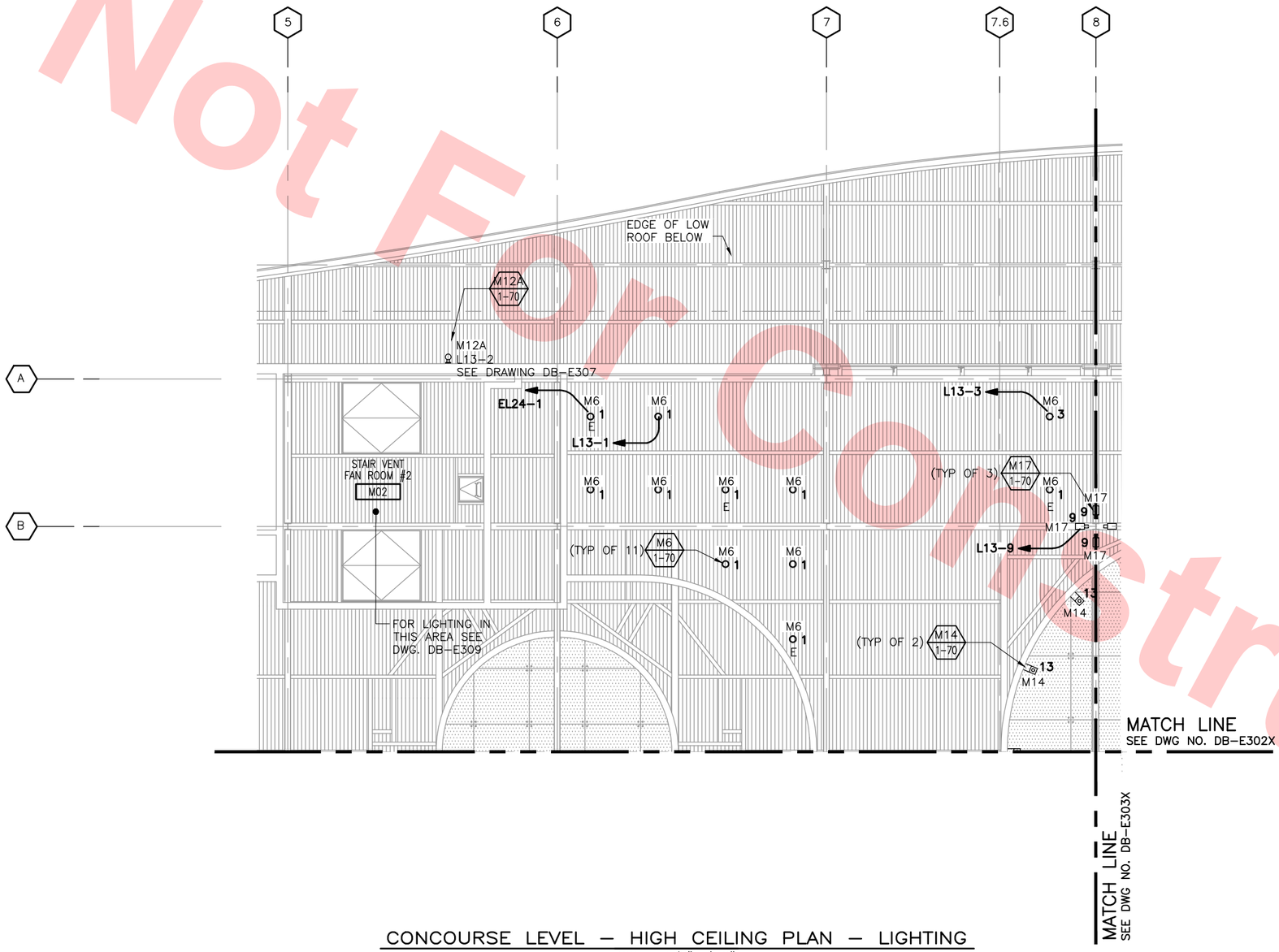

CONCOURSE LEVEL – HIGH CEILING PLAN – LIGHTING

SCALE: 1/8"=1'-0"

LEGEND

	LINEAR FLUORESCENT STRIP LIGHT
	6" DIAMETER x 12" HIGH SURFACE MOUNTED METAL HALIDE CYLINDER
M12	ROOF MOUNTED UPLIGHT TYPE M12, SEE LIGHTING DESIGN BASIS
M12A	9" DIAMETER METAL HALIDE DIRECT/INDIRECT WALL SCONCE TYPE M12A, SEE LIGHTING DESIGN BASIS
M13	18" WIDE METAL HALIDE UPLIGHT TYPE 13, CANTILEVERED 5" FROM BOTTOM CHORD OF TRUSS, SEE LIGHTING DESIGN BASIS
M14	7.5" WIDE METAL HALIDE ACCENT LIGHT TYPE M14, CANTILEVERED 6" FROM FACE OF WALL, SEE LIGHTING DESIGN BASIS
M17	4.5" DIAMETER METAL HALIDE UPLIGHT TYPE M17, MOUNTED TO COLUMN @ 20'-0" AFF TO BOTTOM OF FIXTURE, SEE LIGHTING DESIGN BASIS

TABULATIONS

PANEL CIRCUIT	FIXTURE TYPE	QUANTITIES
EL24-1	M6	4
L13-1	M6	6
L13-2	M12A	1
L13-3	M6	1
L13-9	M17	3
L14-13	M14	2

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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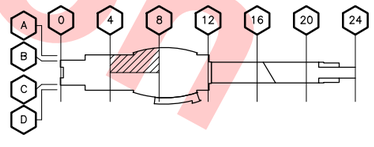
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E221

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER JAMES L. AI E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 535-2530 Fax: (510) 535-2539

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
CONCOURSE LEVEL – HIGH CEILING PLAN
LIGHTING
SHEET 1 OF 4

CADD FILENAME C700-S-DB-E301X.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E301X | PAGE NO. 0877

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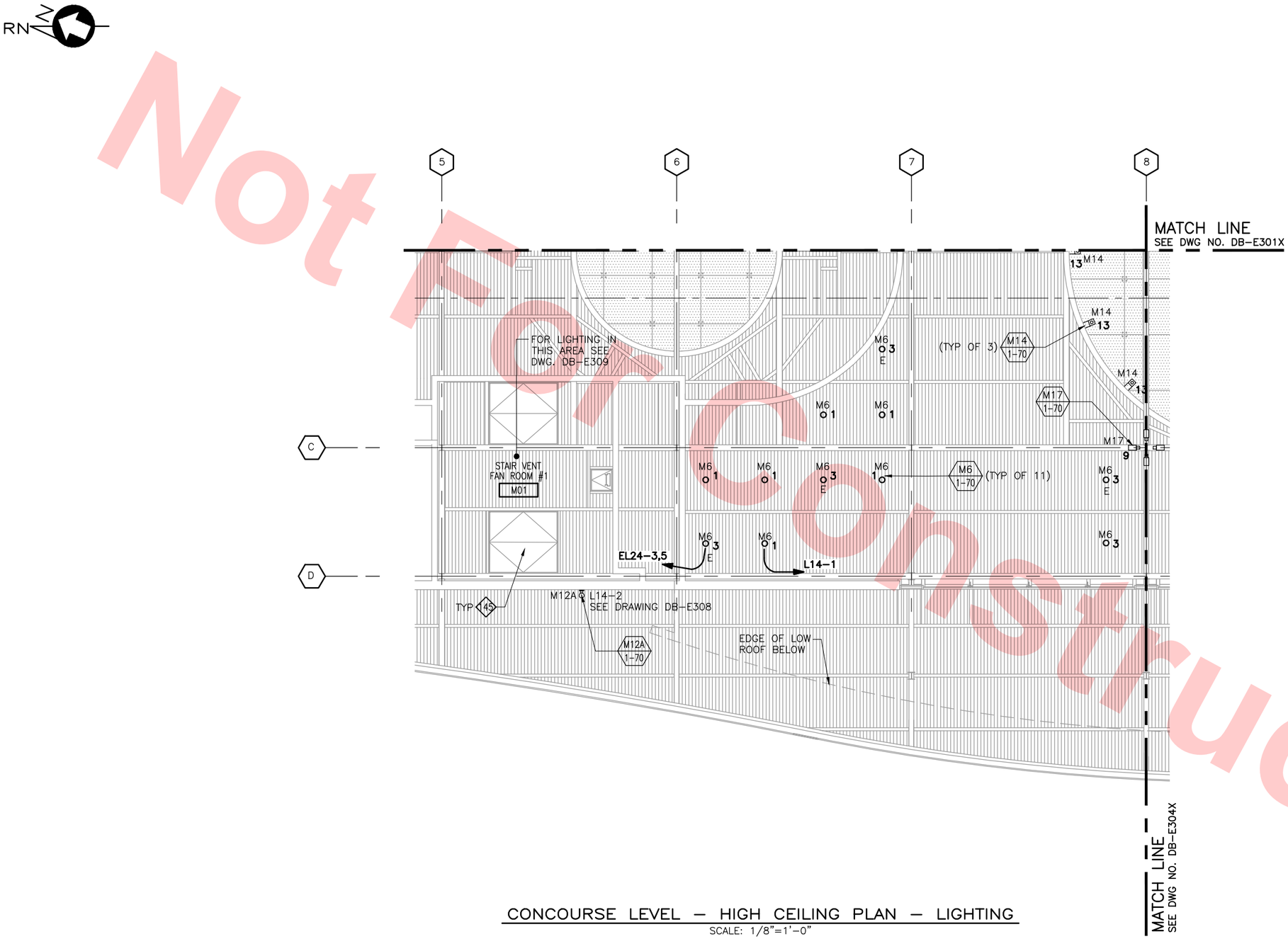

CONCOURSE LEVEL – HIGH CEILING PLAN – LIGHTING

SCALE: 1/8"=1'-0"

KEY NOTES

45 SMOKE CONTROL FAN AND DUCT

LEGEND

- LINEAR FLUORESCENT STRIP LIGHT
- 6" DIAMETER x 12" HIGH SURFACE MOUNTED METAL HALIDE CYLINDER
- M12 ROOF MOUNTED UPLIGHT TYPE M12, SEE LIGHTING DESIGN BASIS
- M12A 9" DIAMETER METAL HALIDE DIRECT/INDIRECT WALL SCONCE TYPE M12A, SEE LIGHTING DESIGN BASIS
- M13 18" WIDE METAL HALIDE UPLIGHT TYPE 13, CANTILEVERED 5" FROM BOTTOM CHORD OF TRUSS, SEE LIGHTING DESIGN BASIS
- M14 7.5" WIDE METAL HALIDE ACCENT LIGHT TYPE M14, CANTILEVERED 6" FROM FACE OF WALL, SEE LIGHTING DESIGN BASIS
- M17 4.5" DIAMETER METAL HALIDE UPLIGHT TYPE M17, MOUNTED TO COLUMN @ 20'-0" AFF TO BOTTOM OF FIXTURE, SEE LIGHTING DESIGN BASIS

TABULATIONS

PANEL CIRCUIT	FIXTURE TYPE	QUANTITIES
EL24-3	M6	4
L14-1	M6	6
L14-2	M12A	1
L14-3	M6	1
L14-9	M17	3
L14-13	M14	3

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

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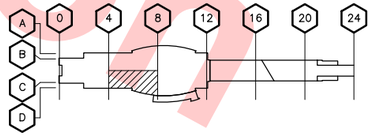
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E222

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. NG — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 535, Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 535-2539

Lockwood, Andrews & Newnam, Inc. A LINO A RALY COMPANY
T·Y·LIN INTERNATIONAL

SUBMITTED

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
CONCOURSE LEVEL – HIGH CEILING PLAN
LIGHTING
SHEET 2 OF 4

CADD FILENAME C700-S-DB-E302.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E302X | PAGE NO. 0878

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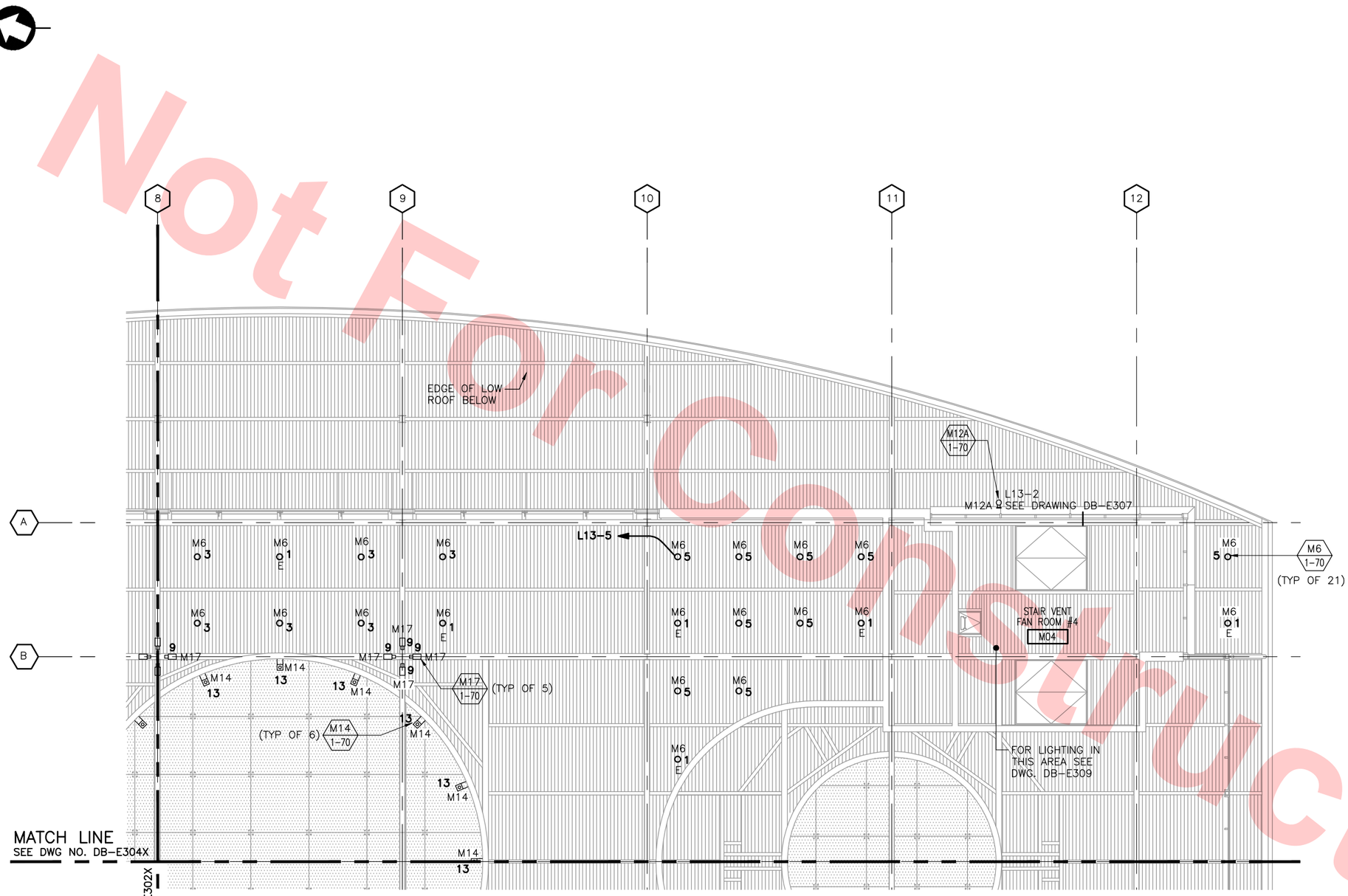


CONCOURSE LEVEL – HIGH CEILING PLAN – LIGHTING

SCALE: 1/8"=1'-0"

LEGEND

- LINEAR FLUORESCENT STRIP LIGHT
- 6" DIAMETER x 12" HIGH SURFACE MOUNTED METAL HALIDE CYLINDER
- M12 — ROOF MOUNTED UPLIGHT TYPE M12, SEE LIGHTING DESIGN BASIS
- M12A — 9" DIAMETER METAL HALIDE DIRECT/INDIRECT WALL SCONCE TYPE M12A, SEE LIGHTING DESIGN BASIS
- M13 — 18" WIDE METAL HALIDE UPLIGHT TYPE 13, CANTILEVERED 5" FROM BOTTOM CHORD OF TRUSS, SEE LIGHTING DESIGN BASIS
- M14 — 7.5" WIDE METAL HALIDE ACCENT LIGHT TYPE M14, CANTILEVERED 6" FROM FACE OF WALL, SEE LIGHTING DESIGN BASIS
- M17 — 4.5" DIAMETER METAL HALIDE UPLIGHT TYPE M17, MOUNTED TO COLUMN @ 20'-0" AFF TO BOTTOM OF FIXTURE, SEE LIGHTING DESIGN BASIS

TABULATIONS

PANEL CIRCUIT	FIXTURE TYPE	QUANTITIES
EL24-1	M6	6
L13-2	M12A	1
L13-3	M6	6
L13-5	M6	9
L13-9	M17	5
L14-13	M14	6

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

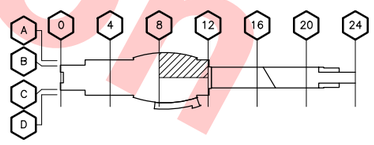
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700 DB-E223 REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. LALLIER — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
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Phone: (510) 835-2532 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

SUBMITTED _____

APPROVED _____

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
CONCOURSE LEVEL – HIGH CEILING PLAN
LIGHTING
SHEET 3 OF 4

CADD FILENAME C700-S-DB-E303.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E303X | PAGE NO. 0879

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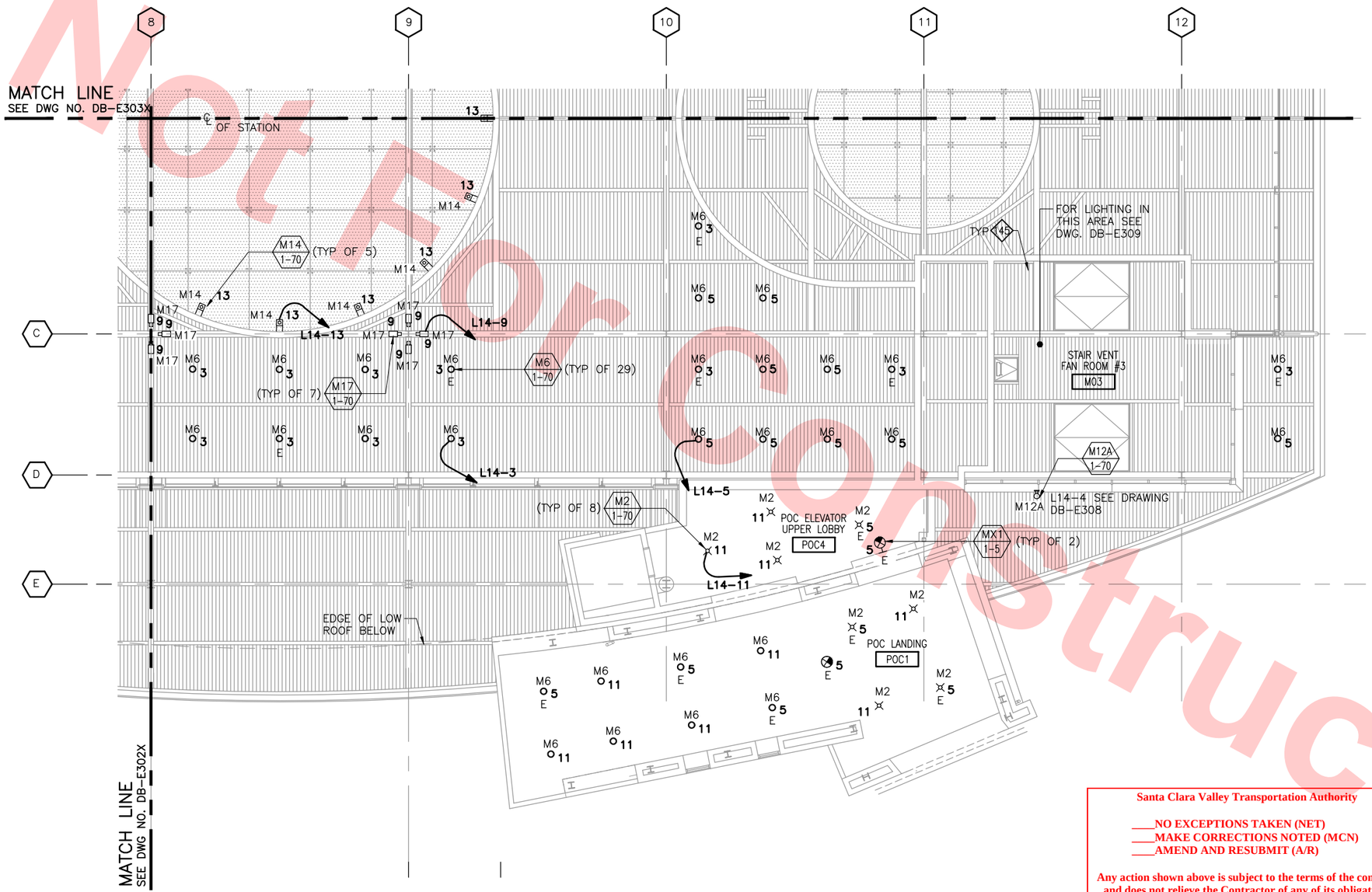


CONCOURSE LEVEL – HIGH CEILING PLAN – LIGHTING

SCALE: 1/8"=1'-0"

KEY NOTES

145 SMOKE CONTROL FAN AND DUCT

LEGEND

- LINEAR FLUORESCENT STRIP LIGHT
- 6" RECESSED METAL HALIDE
- 6" DIAMETER x 12" HIGH SURFACE MOUNTED METAL HALIDE CYLINDER
- M12 ROOF MOUNTED UPLIGHT TYPE M12, SEE LIGHTING DESIGN BASIS
- M12A 9" DIAMETER METAL HALIDE DIRECT/INDIRECT WALL SCONCE TYPE M12A, SEE LIGHTING DESIGN BASIS
- M13 18" WIDE METAL HALIDE UPLIGHT TYPE 13, CANTILEVERED 5" FROM BOTTOM CHORD OF TRUSS, SEE LIGHTING DESIGN BASIS
- M14 7.5" WIDE METAL HALIDE ACCENT LIGHT TYPE M14, CANTILEVERED 6" FROM FACE OF WALL, SEE LIGHTING DESIGN BASIS
- M17 4.5" DIAMETER METAL HALIDE UPLIGHT TYPE M17, MOUNTED TO COLUMN @ 20'-0" AFF TO BOTTOM OF FIXTURE, SEE LIGHTING DESIGN BASIS
- EXIT LIGHT

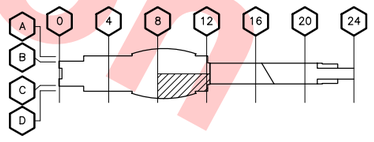
TABULATIONS

PANEL CIRCUIT	FIXTURE TYPE	QUANTITIES
EL24-3	M6	6
EL24-5	MX1	2
	M2	3
	M6	3
L14-2	M12A	1
L14-3	M6	6
L14-5	M6	9
L14-9	M17	7
L14-11	M2	5
	M6	5
L14-13	M14	5

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

Not For Construction

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-E224

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER LOUIS L. NG E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
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Phone: (510) 835-2339 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. A LINO A. RALY COMPANY
T·Y·LIN INTERNATIONAL

SUBMITTED _____

APPROVED _____

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
CONCOURSE LEVEL – HIGH CEILING PLAN
LIGHTING
SHEET 4 OF 4

CADD FILENAME C700-S-DB-E304.dwg
SIZE D | SCALE 1/8"=1'-0"
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AREA CODE DB | SHEET NO. E304X | PAGE NO. 0880

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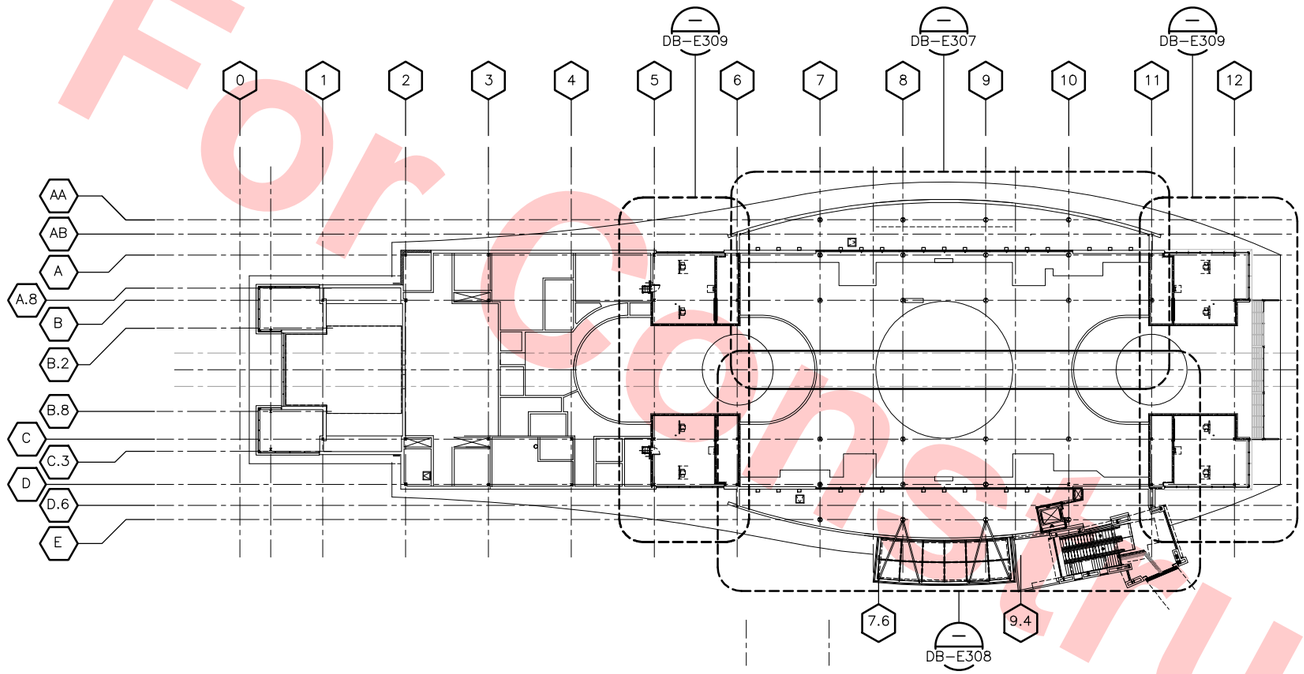

KEY PLAN LOWER ROOF LEVEL – LIGHTING
SCALE: 1/32"=1'–0"

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

32' 0' 32' 64'
GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER JAMES L. NEU E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 535 Oakland, CA 94612
Phone: (510) 835-2532 Fax: (510) 535-2339

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APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
KEY PLAN
LOWER ROOF LEVEL
LIGHTING

CADD FILENAME C700–S–DB–E306.dwg
SIZE D | SCALE 1/32"=1'–0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E306 | PAGE NO. 0881

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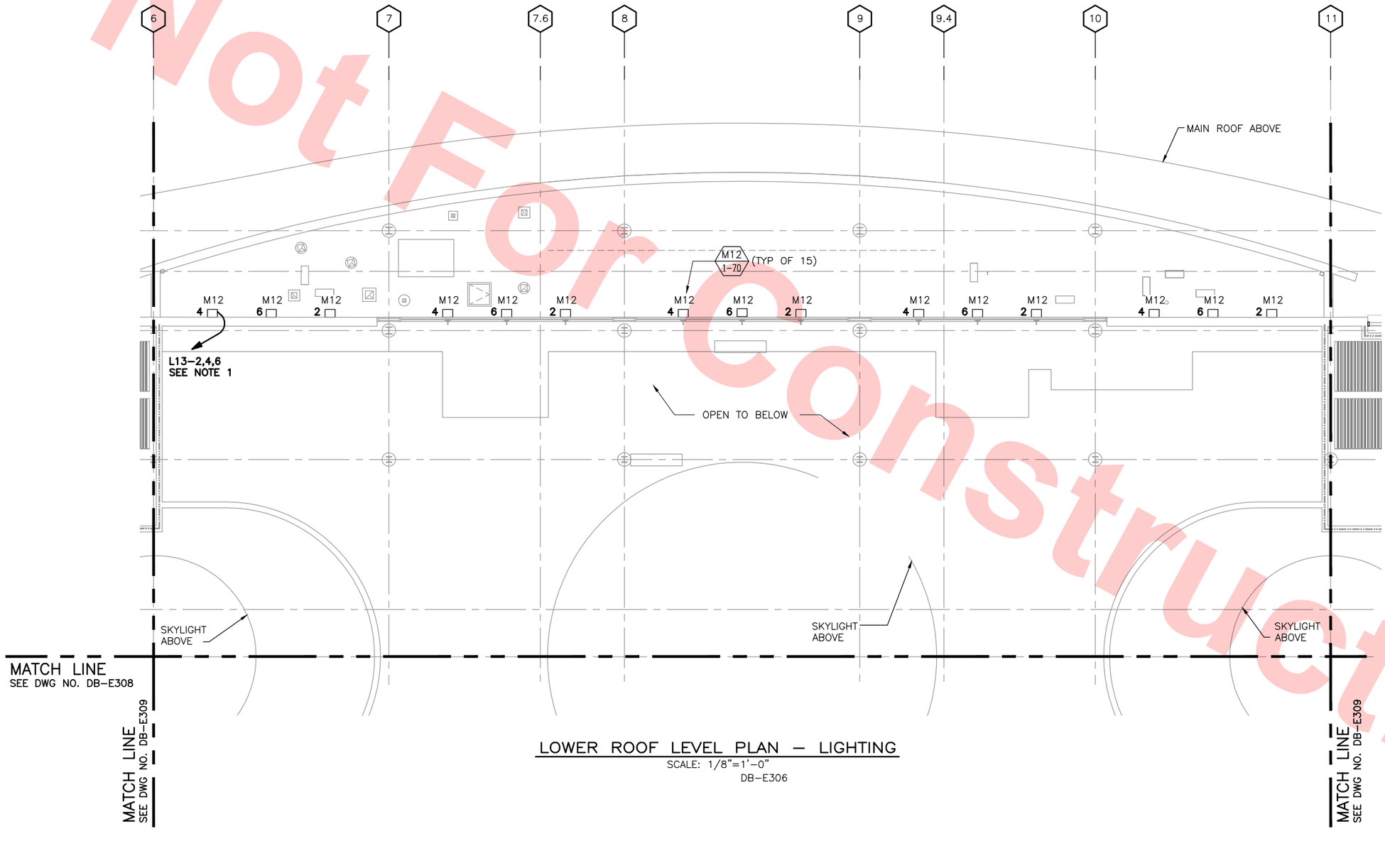

LOWER ROOF LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'-0"

DB-E306

NOTE

1. ALL LIGHT FIXTURES M12 ON THIS DRAWING ARE POWERED BY POWER CIRCUIT L13-2,4,6 IN PARARELL CONNECTION.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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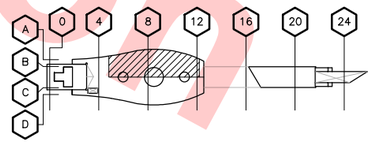
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

LOUIS L. NAVA — REGISTERED PROFESSIONAL ENGINEER — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

SUBMITTED

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 465-2530 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. — A LEO A DALY COMPANY
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APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
LOWER ROOF LEVEL PLAN
LIGHTING
SHEET 1 OF 3

CADD FILENAME C700-S-DB-E307.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E307 | PAGE NO. 0882

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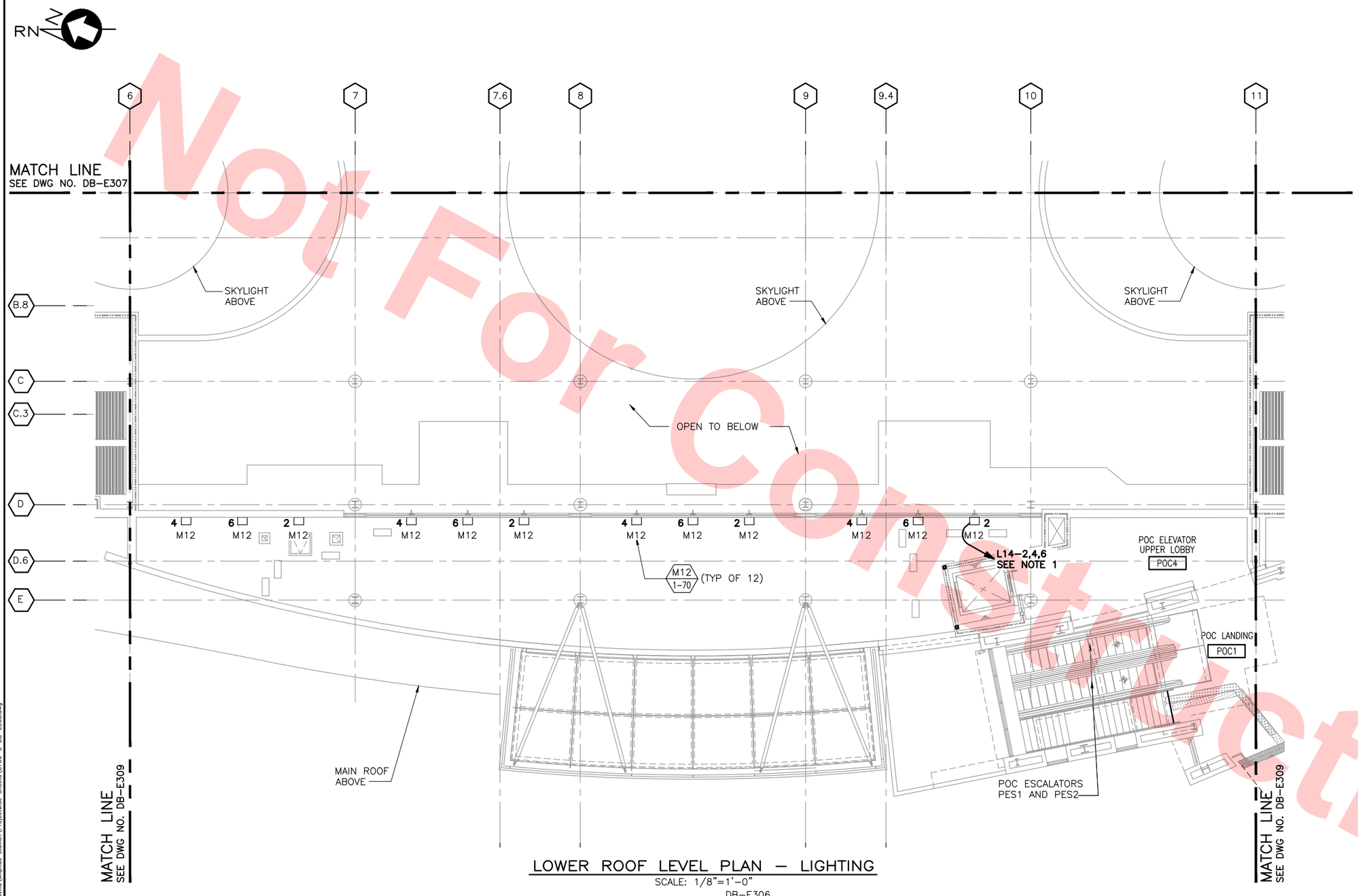

LOWER ROOF LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'-0"

DB-E306

NOTE

1. ALL LIGHT FIXTURES M12 ON THIS DRAWING ARE POWERED BY POWER CIRCUIT L14-2,4,6 IN PARARELL CONNECTION.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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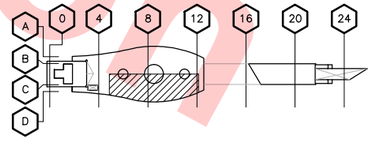
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LINUS L. PAN — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 505 Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
LOWER ROOF LEVEL PLAN
LIGHTING
SHEET 2 OF 3

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AREA CODE DB	SHEET NO. E308	PAGE NO. 0883

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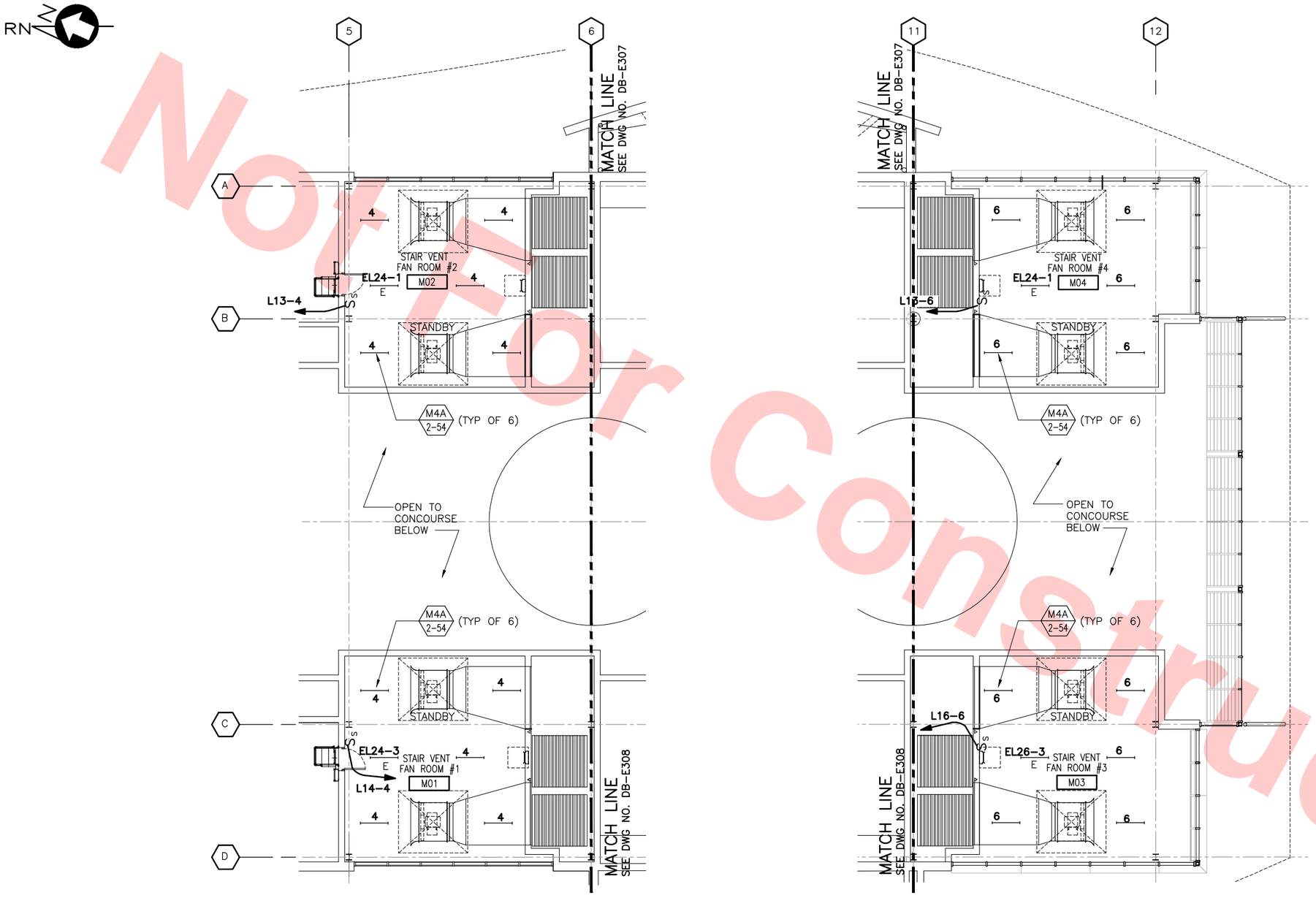

LOWER ROOF LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'-0"

DB-E306

KEY NOTES

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
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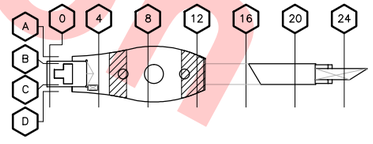
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LINUS L. PAN — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 505 Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
LOWER ROOF LEVEL PLAN
LIGHTING
SHEET 3 OF 3

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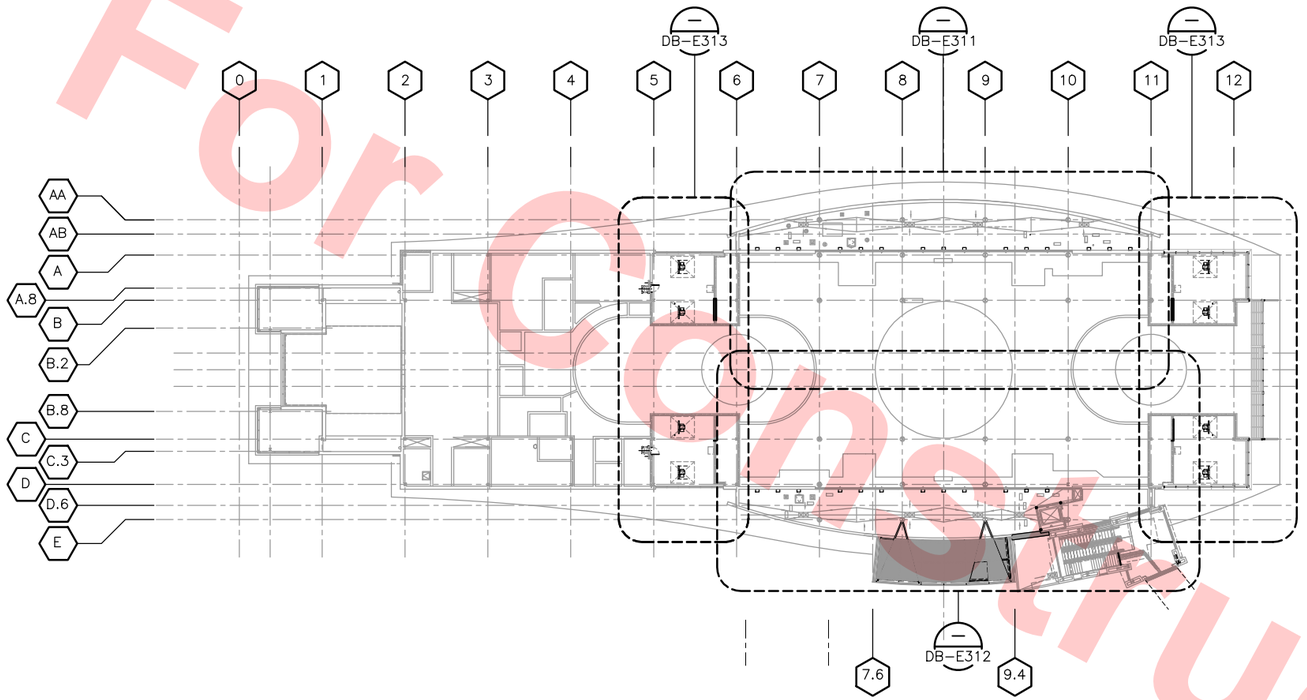

KEY PLAN LOWER ROOF LEVEL – POWER AND MISCELLANEOUS

SCALE: 1/32"=1'–0"

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

32' 0' 32' 64'

GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. NG — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

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1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A URS × BALL COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
KEY PLAN
LOWER ROOF LEVEL
POWER AND MISCELLANEOUS

CADD FILENAME C700–S–DB–E310.dwg
SIZE D | SCALE 1/32"=1'–0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E310 | PAGE NO. 0885

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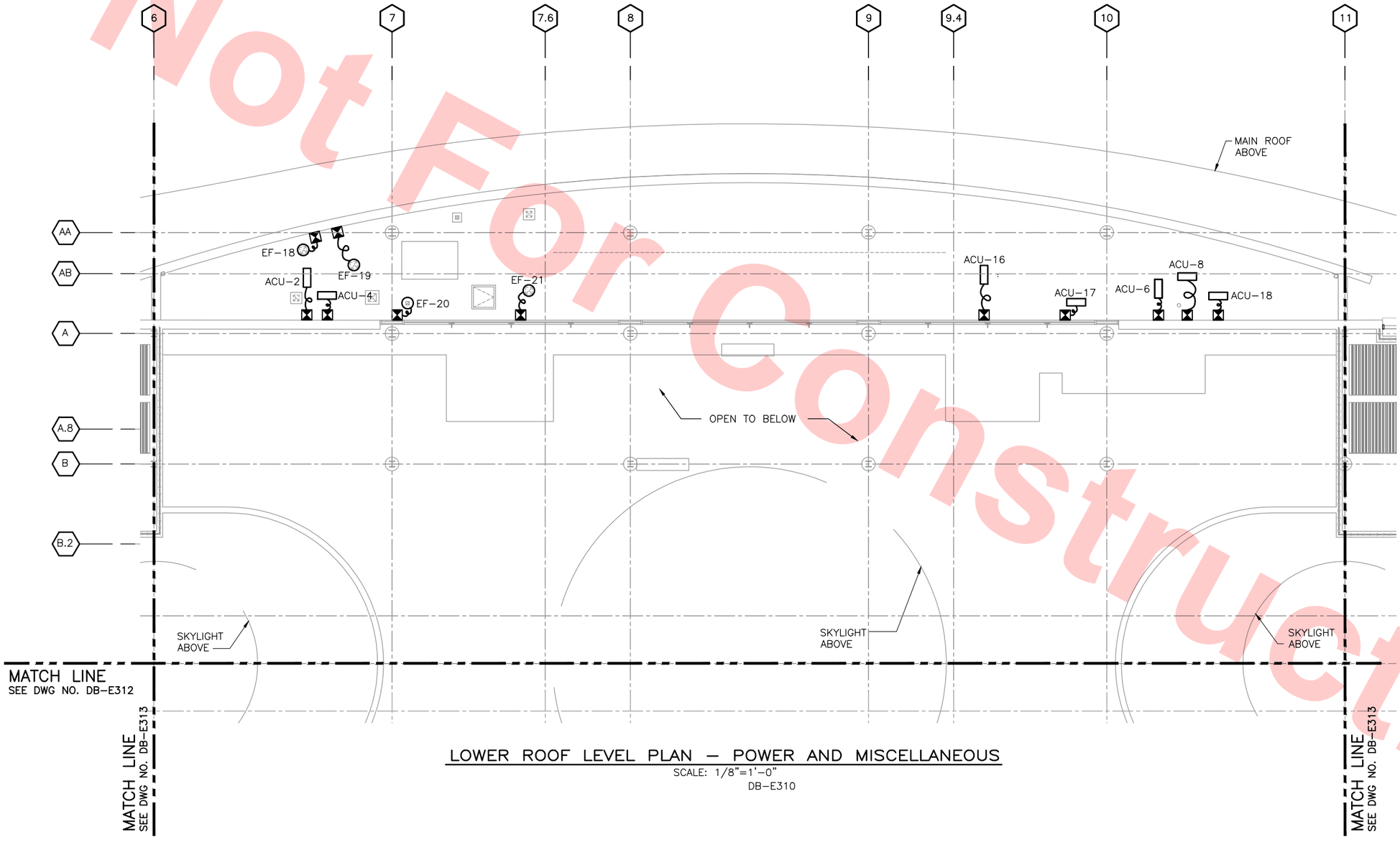

LOWER ROOF LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E310

KEY NOTES

MECH. EQUIP. TABULATIONS

EQUIP. ID	VOLT/PH	PNL. CKT.
EF-18	120/1	.
EF-19	120/1	
EF-20	120/1	
EF-21	120/1	
ACU-2	208/1	.
ACU-4	208/1	
ACU-16	208/1	
ACU-17	208/1	
ACU-6	208/1	
ACU-8	208/1	
ACU-18	208/1	

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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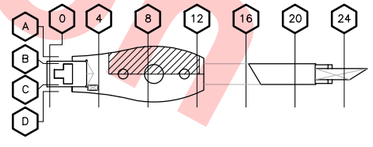
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

LICENSED PROFESSIONAL ENGINEER — LOUIS L.N. GILES — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

SUBMITTED

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. — A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
LOWER ROOF LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 1 OF 3

CADD FILENAME		
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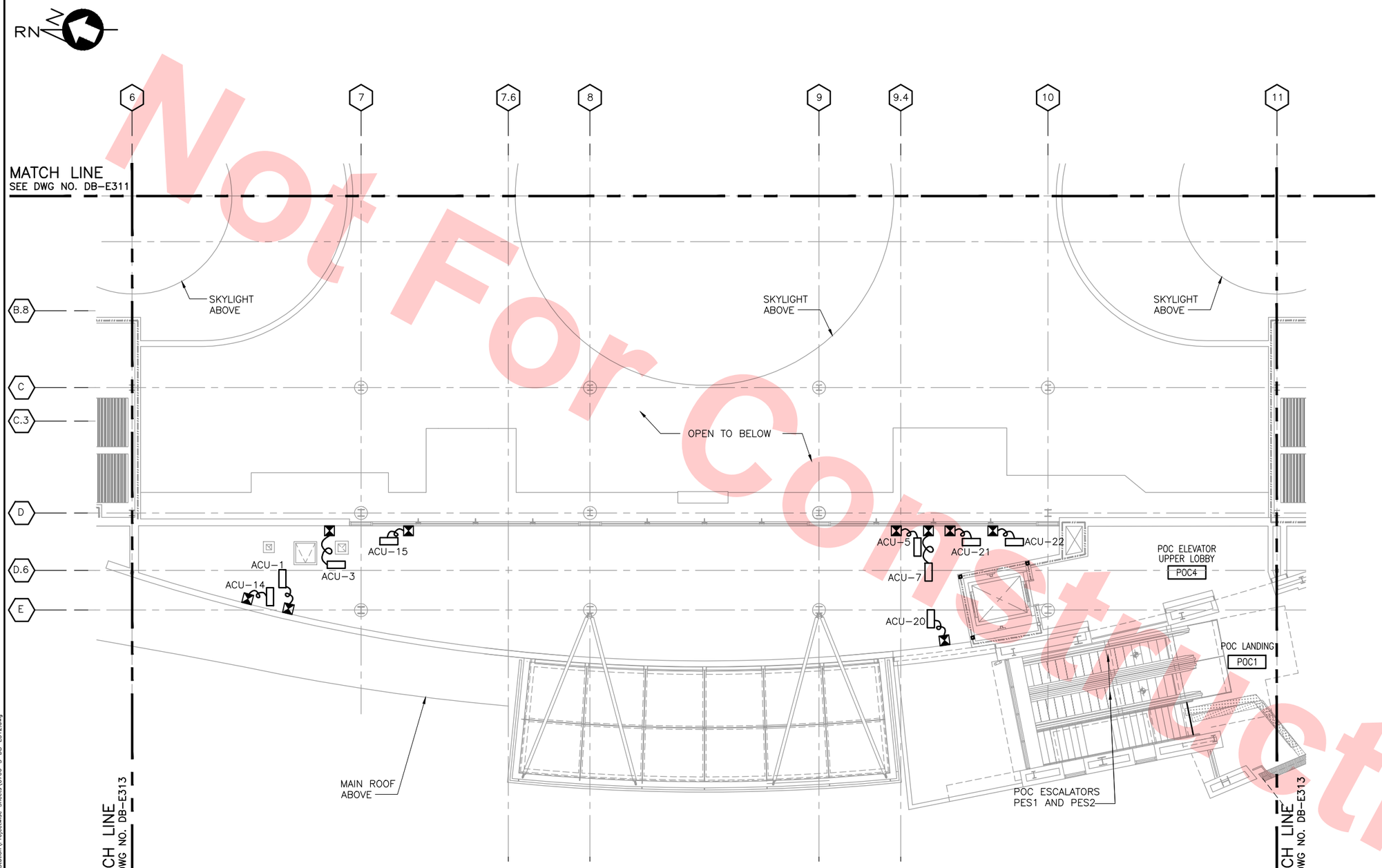


LOWER ROOF LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E310

KEY NOTES

MECH. EQUIP. TABULATIONS

EQUIP. ID	VOLT/PH	PNL. CKT.
ACU-1	208/1	.
ACU-3	208/1	
ACU-14	208/1	
ACU-15	208/1	
ACU-5	208/1	.
ACU-7	208/1	
ACU-20	208/1	
ACU-21	208/1	
ACU-22	208/1	

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

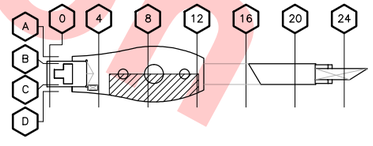
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER LINUS L. PAU E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 505 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
LOWER ROOF LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 2 OF 3

CADD FILENAME C700-S-DB-E312.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E312 | PAGE NO. 0887

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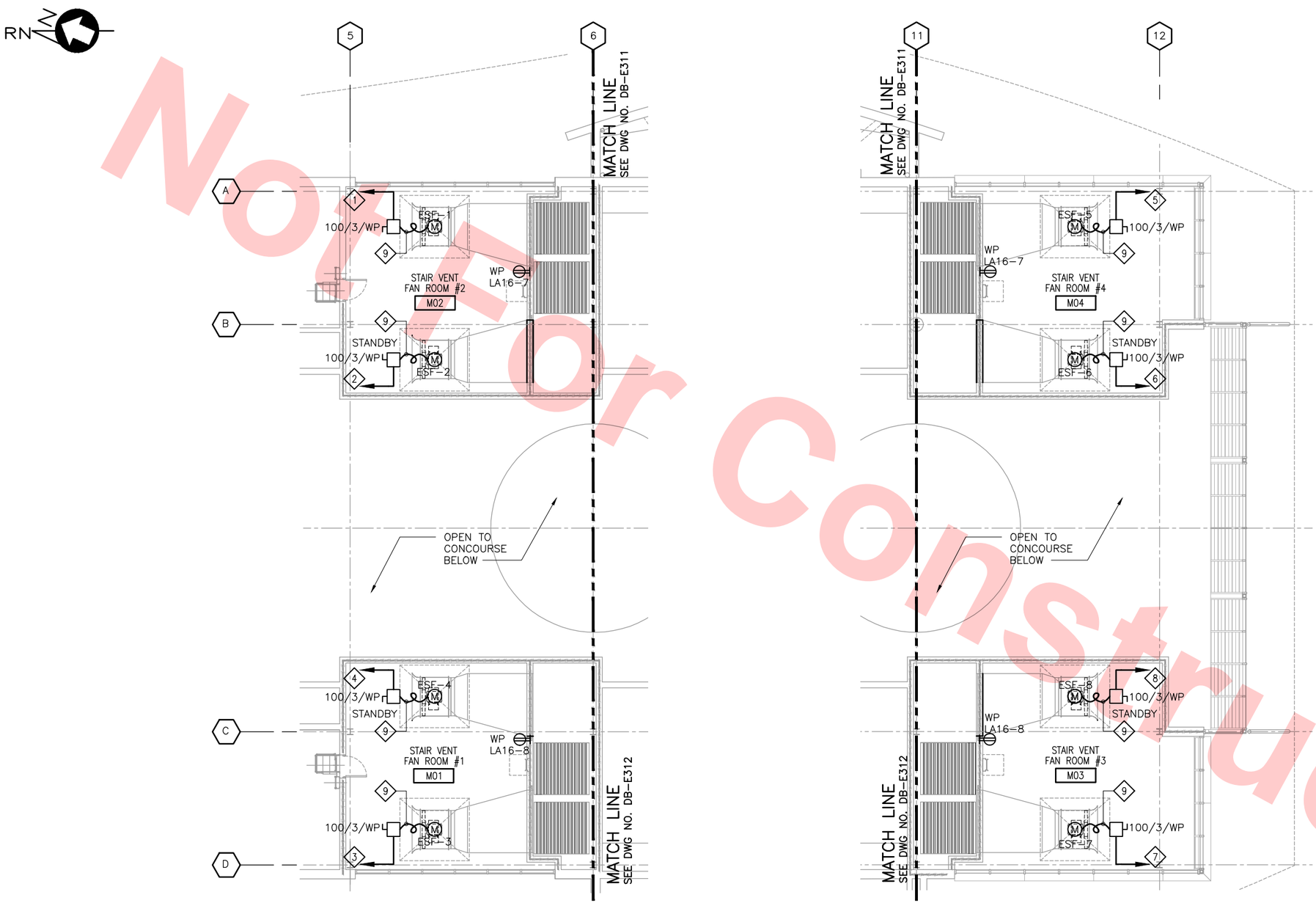

LOWER ROOF LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E310

KEY NOTES

1. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-2", CIRCUIT EMCC2729
2. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-2", CIRCUIT EMCC27210
3. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-1", CIRCUIT EMCC2719
4. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-1", CIRCUIT EMCC27110
5. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-2", CIRCUIT EMCC27211
6. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-2", CIRCUIT EMCC27212
7. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-1", CIRCUIT EMCC27111
8. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-1", CIRCUIT EMCC27112
9. PROVIDE WEATHERPROOF FLEXIBLE CONDUIT FROM 100A, 3P NON FUSIBLE DISC. SWITCH TO FAN MOTOR.

NOTE

1. FOR EXACT LOCATION OF EMERGENCY EXHAUST FANS, SEE MECHANICAL DRAWINGS DB-M323.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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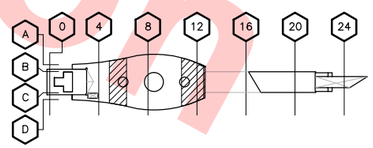
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. CHEN — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
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APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
LOWER ROOF LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 3 OF 3

CADD FILENAME	
C700-S-DB-E313.dwg	
SIZE D	SCALE 1/8"=1'-0"
CONTRACT NO. C700	REV. 0
AREA CODE DB	SHEET NO. E313
	PAGE NO. 0888

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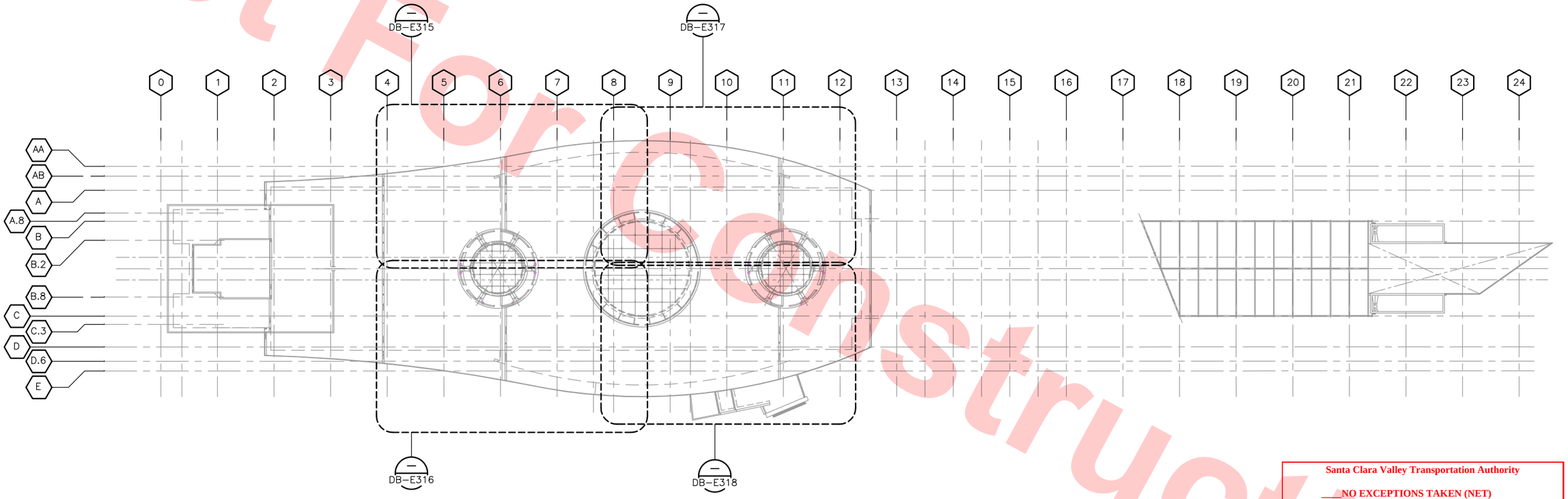

KEY PLAN ROOF LEVEL – POWER AND MISCELLANEOUS

SCALE: 1/32"=1'–0"

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

32' 0' 32' 64'

GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. NOLTE — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 505 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED

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VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
KEY PLAN
ROOF LEVEL
POWER AND MISCELLANEOUS

CADD FILENAME C700-S-DB-E314.dwg
SIZE D | SCALE 1/32"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E314 | PAGE NO. 0889

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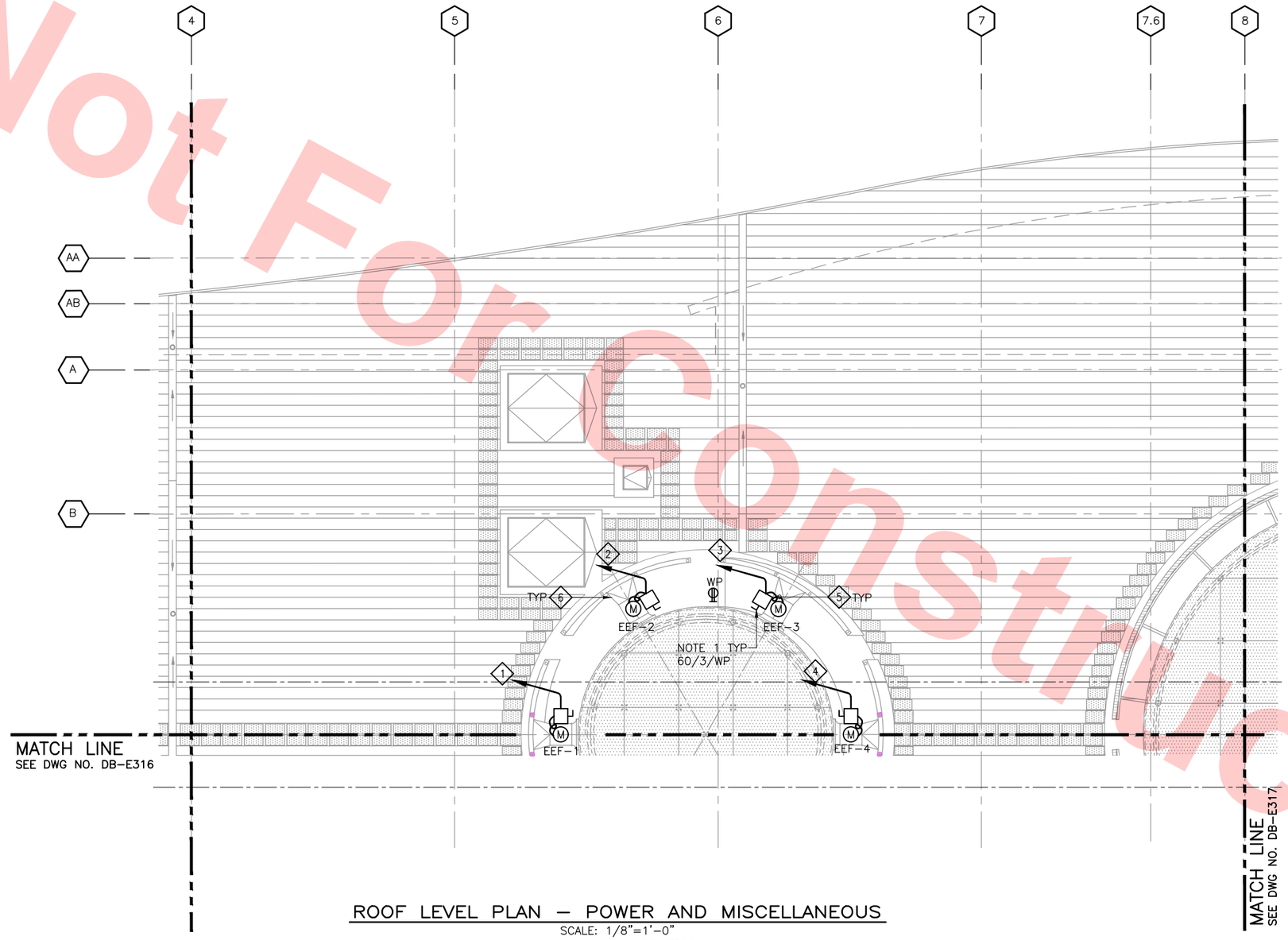


ROOF LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E314

KEY NOTES

1. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-2", CIRCUIT EMCC2723
2. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-2", CIRCUIT EMCC2724
3. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-2", CIRCUIT EMCC2725
4. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-2", CIRCUIT EMCC2726
5. PROVIDE WEATHERPROOF FLEXIBLE CONDUIT FROM 150A, 3P NON-FUSIBLE DISC. SWITCH TO FAN MOTOR.
6. SKYLIGHT SMOKE EVACUATION FAN

NOTE

1. ALL ELECTRICAL EQUIPMENT ON ROOF SHALL BE NEMA 4, WEATHERPROOF ENCLOSURE.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

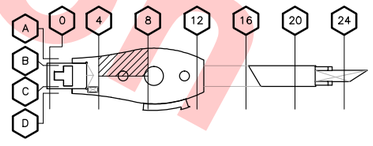
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY ROOF PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER JAMES L. NEU E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 655-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A URS / BALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
ROOF LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 1 OF 4

CADD FILENAME	
C700-S-DB-E315.dwg	
SIZE	SCALE
D	1/8"=1'-0"
CONTRACT NO.	REV.
C700	0
AREA CODE	SHEET NO.
DB	E315
	PAGE NO.
	0890

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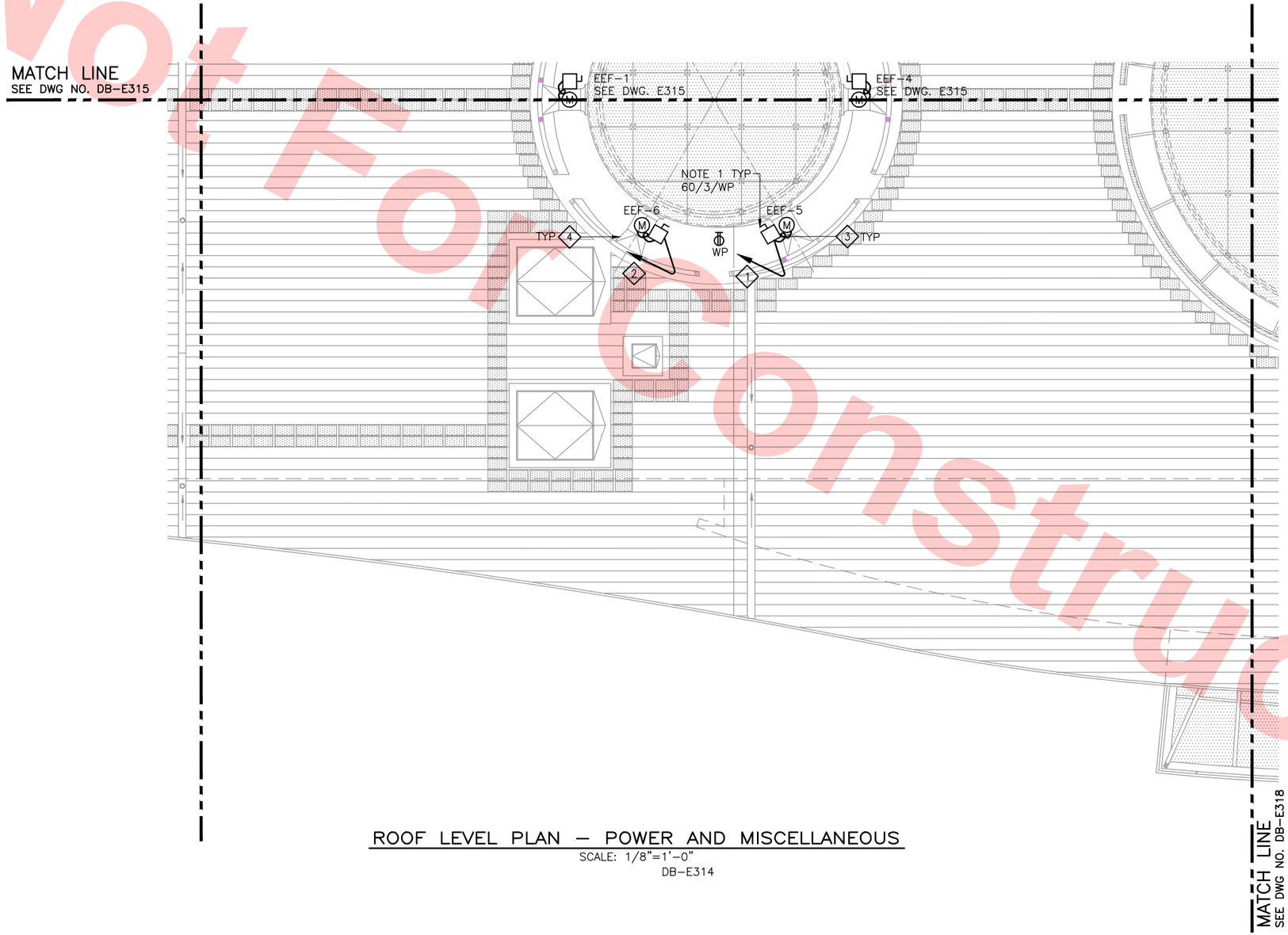


ROOF LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E314

KEY NOTES

1. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-2", CIRCUIT EMCC2727
2. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-2", CIRCUIT EMCC2728
3. PROVIDE WEATHERPROOF FLEXIBLE CONDUIT FROM 150A, 3P NON-FUSIBLE DISC. SWITCH TO FAN MOTOR.
4. SKYLIGHT SMOKE EVACUATION FAN

NOTE

1. ALL ELECTRICAL EQUIPMENT ON ROOF SHALL BE NEMA 4, WEATHERPROOF ENCLOSURE.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

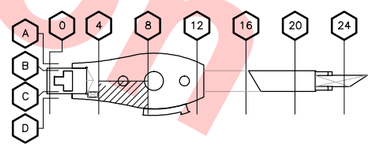
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY ROOF PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130430				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130430

REGISTERED PROFESSIONAL ENGINEER — JAMES L. GILES — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

SUBMITTED

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 655-2537 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
ROOF LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 2 OF 4

CADD FILENAME C700-S-DB-E316.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E316 | PAGE NO. 0891

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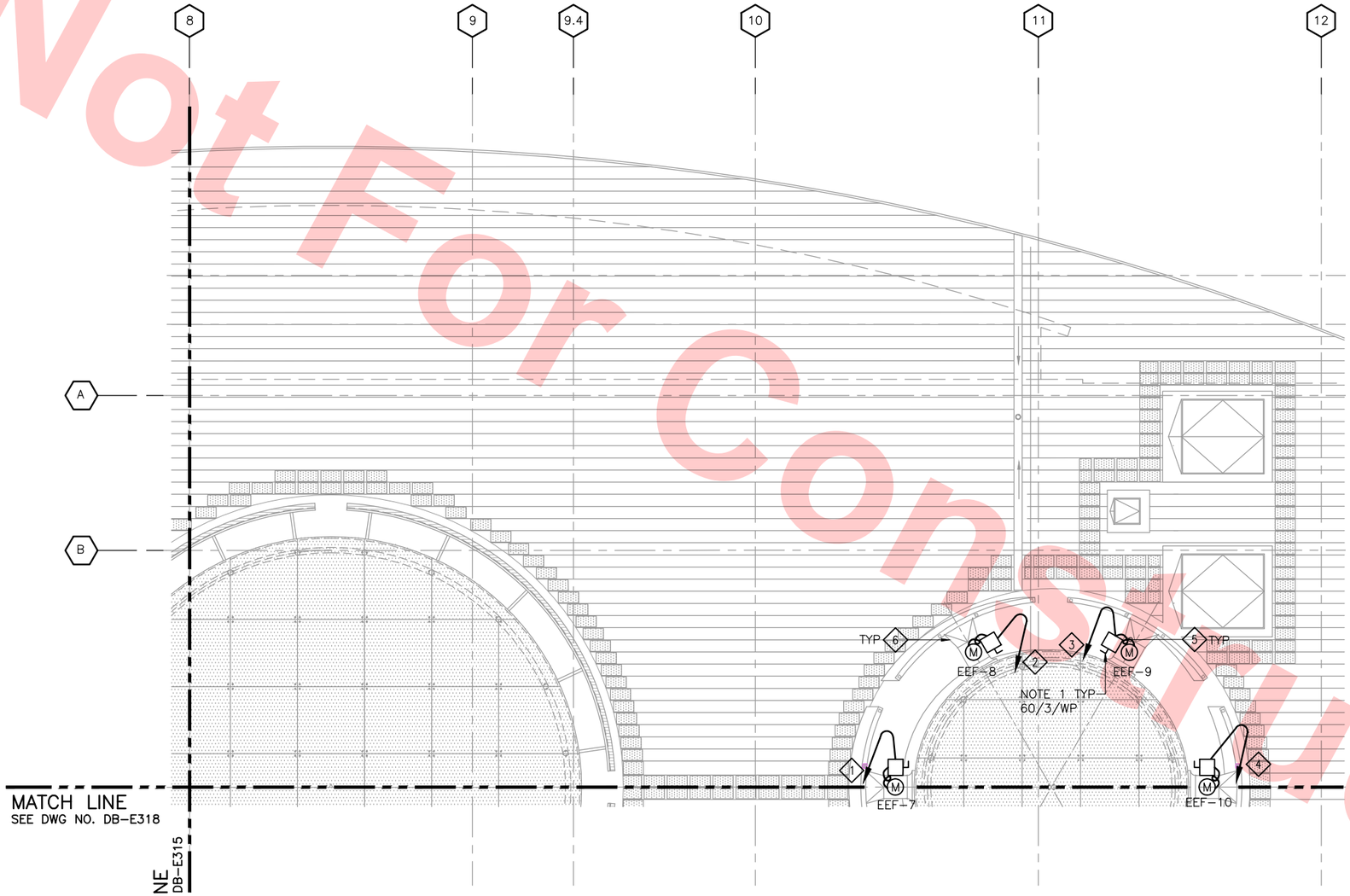


ROOF LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E314

KEY NOTES

1. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-1", CIRCUIT EMCC2713
2. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-1", CIRCUIT EMCC2714
3. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-1", CIRCUIT EMCC2715
4. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-1", CIRCUIT EMCC2716
5. PROVIDE WEATHERPROOF FLEXIBLE CONDUIT FROM 150A, 3P NON-FUSIBLE DISC. SWITCH TO FAN MOTOR.
6. SKYLIGHT SMOKE EVACUATION FAN

NOTE

1. ALL ELECTRICAL EQUIPMENT ON ROOF SHALL BE NEMA 4, WEATHERPROOF ENCLOSURE.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

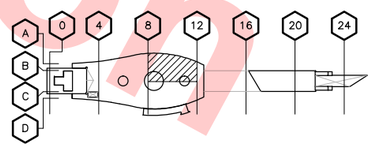
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY ROOF PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. ALLEN — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2539

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
ROOF LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 3 OF 4

CADD FILENAME	
C700-S-DB-E317.dwg	
SIZE D	SCALE 1/8"=1'-0"
CONTRACT NO. C700	REV. 0
AREA CODE DB	SHEET NO. E317
	PAGE NO. 0892

Jun. 20, 2013 - 3:57pm G:\Giles Maravilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E317.dwg
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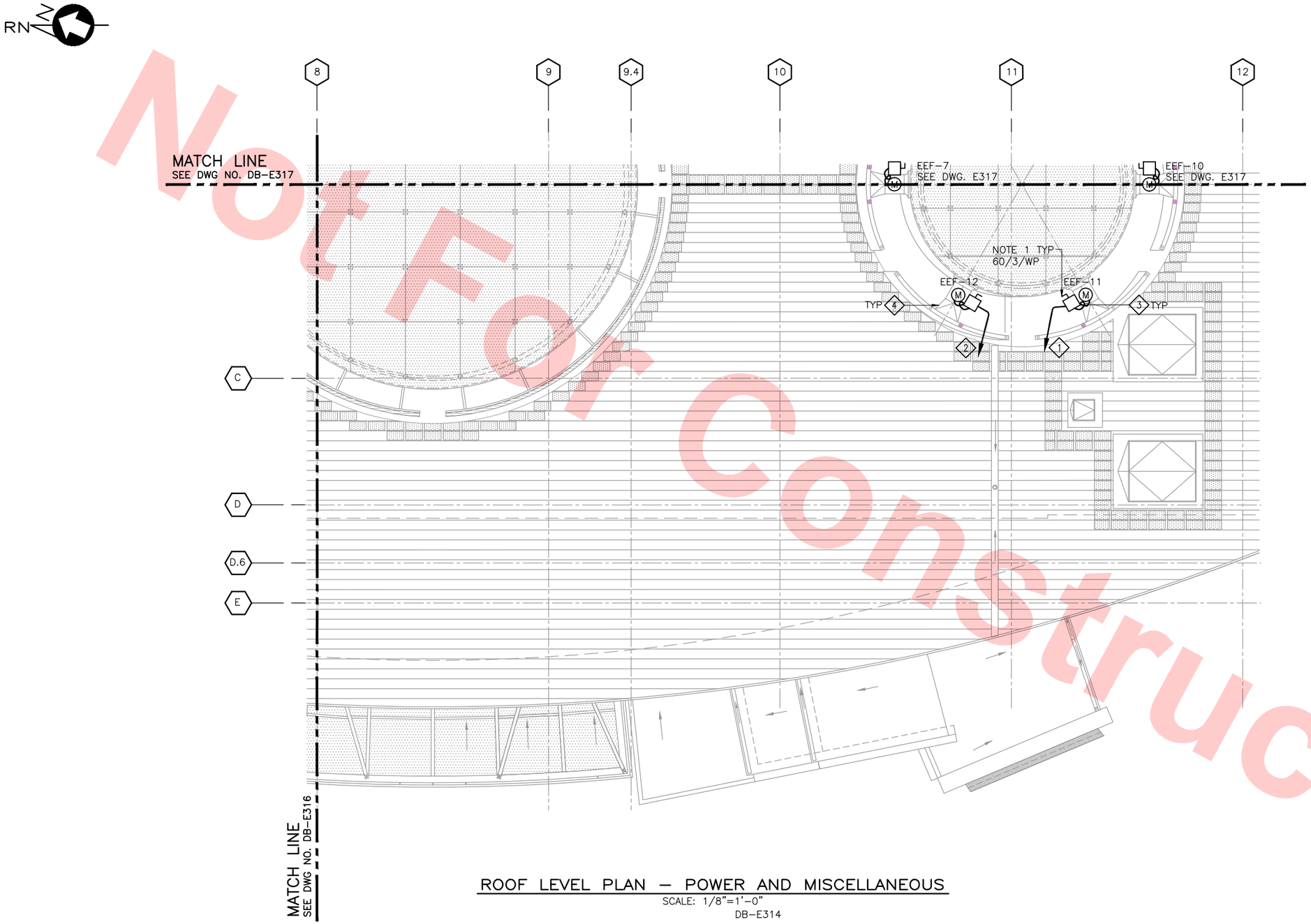


ROOF LEVEL PLAN – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-E314

KEY NOTES

1. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-1", CIRCUIT EMCC2717
2. TO EMERGENCY MOTOR CONTROL CENTER "EMCC27-1", CIRCUIT EMCC2718
3. PROVIDE WEATHERPROOF FLEXIBLE CONDUIT FROM 150A, 3P NON-FUSIBLE DISC. SWITCH TO FAN MOTOR.
4. SKYLIGHT SMOKE EVACUATION FAN

NOTE

1. ALL ELECTRICAL EQUIPMENT ON ROOF SHALL BE NEMA 4, WEATHERPROOF ENCLOSURE.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

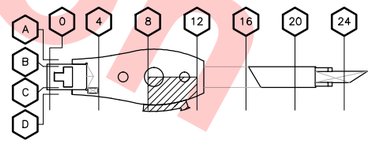
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY ROOF PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

LICENSED PROFESSIONAL ENGINEER — JAMES L. NEELY — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 505 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
ROOF LEVEL PLAN
POWER AND MISCELLANEOUS
SHEET 4 OF 4

CADD FILENAME C700-S-DB-E318.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E318 | PAGE NO. 0893

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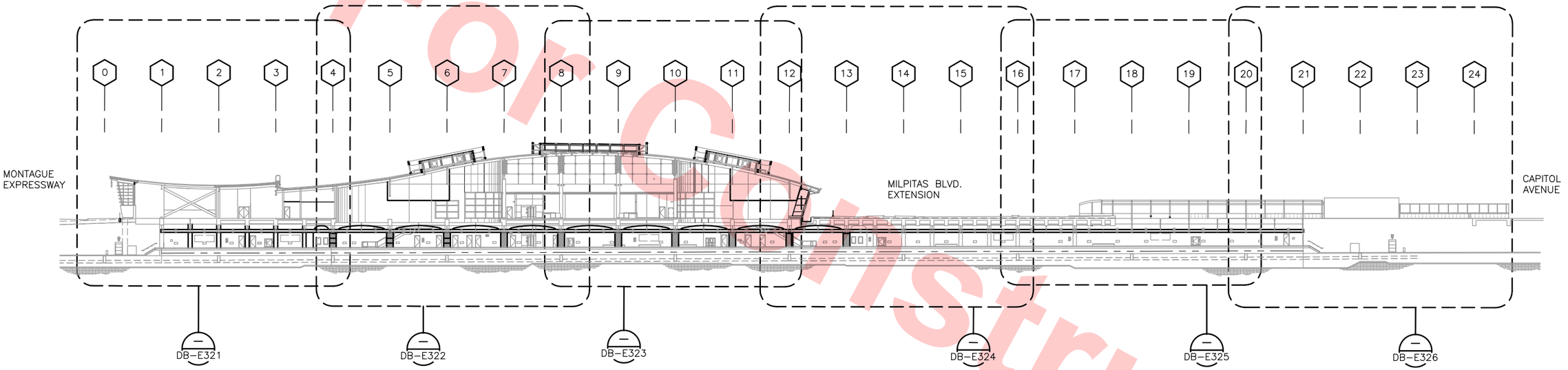

KEY LONGITUDINAL SECTION – POWER AND MISCELLANEOUS

SCALE: 1/32"=1'–0"

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

32' 0' 32' 64'

GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. PYLES — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

SUBMITTED

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

KEY LONGITUDINAL SECTION
POWER AND MISCELLANEOUS

CADD FILENAME C700-S-DB-E320.dwg
SIZE D | SCALE 1/32"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E320 | PAGE NO. 0894

Jun 20, 2013 - 3:58pm G:\Giles Maravilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E320.dwg
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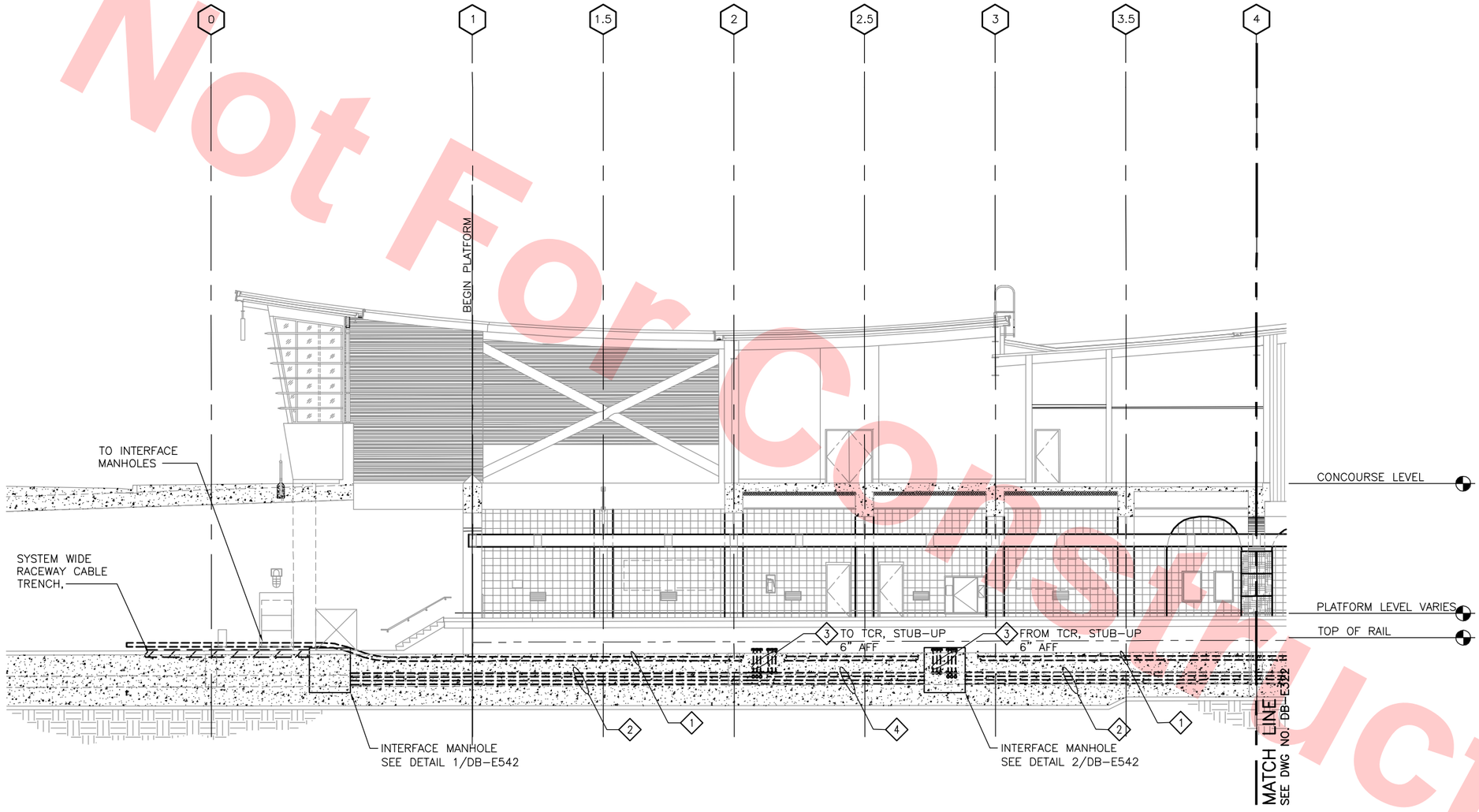


LONGITUDINAL SECTION – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-A320

KEY NOTES

1. SYSTEM WIDE 34.5KV 3–6"C 34.5 KV (TPSS) IN STRUCTURAL INVERT.
2. 28–4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT.
3. 9–4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT.
4. 19–4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT.

NOTE

1. ALL CONDUIT RUNS AS PER SYSTEM POWER/CONTROLS/COMMUNICATION SHOWN HERE ARE FOR REFERENCE ONLY, FOR DETAILS, CONSULT WITH SYSTEMS ELECTRICAL ENGINEERS.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

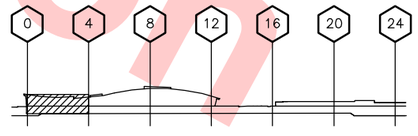
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LEWIS L.H. CHEN — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 535 Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T.Y. LIN INTERNATIONAL

APPROVED

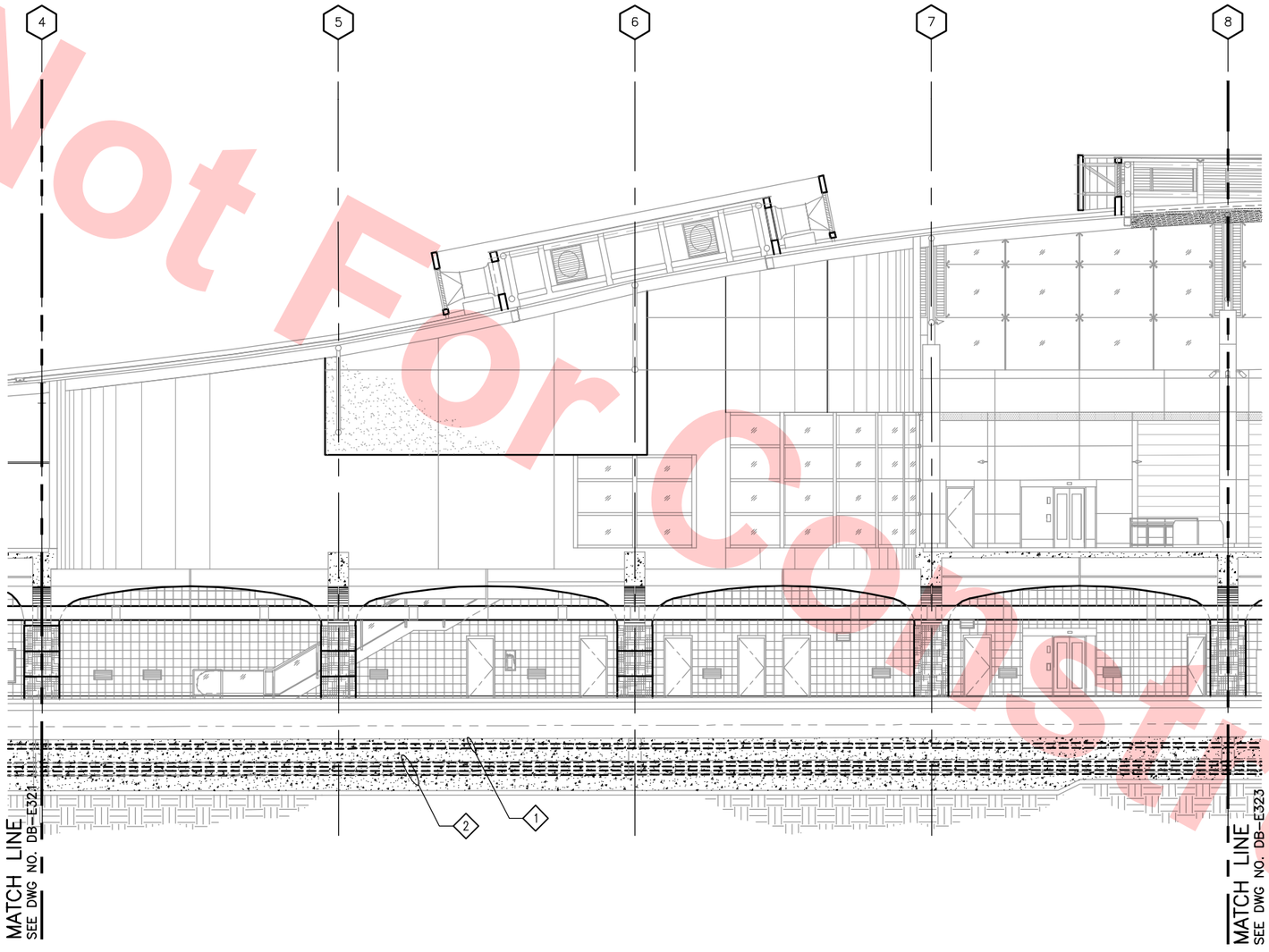
VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
LONGITUDINAL SECTION
POWER AND MISCELLANEOUS
SHEET 1 OF 6

CADD FILENAME C700-S-DB-E321.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E321 | PAGE NO. 0895

GilesM Jun 24, 2013 – 4:32pm G:\Giles Marovilio\Milpitas Station\Projectwise Sheets\C700-S-DB-E321.dwg



LONGITUDINAL SECTION – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-A320

KEY NOTES

1. SYSTEM WIDE 34.5KV 3-6"C 34.5 KV (TPSS) IN STRUCTURAL INVERT.
2. 28-4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT.

NOTE

1. ALL CONDUIT RUNS AS PER SYSTEM POWER/CONTROLS/COMMUNICATION SHOWN HERE ARE FOR REFERENCE ONLY, FOR DETAILS, CONSULT WITH SYSTEMS ELECTRICAL ENGINEERS.

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

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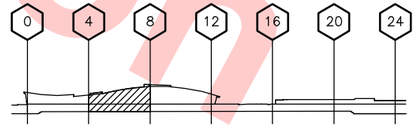
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L.N. CHEN — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 225 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y LIN INTERNATIONAL

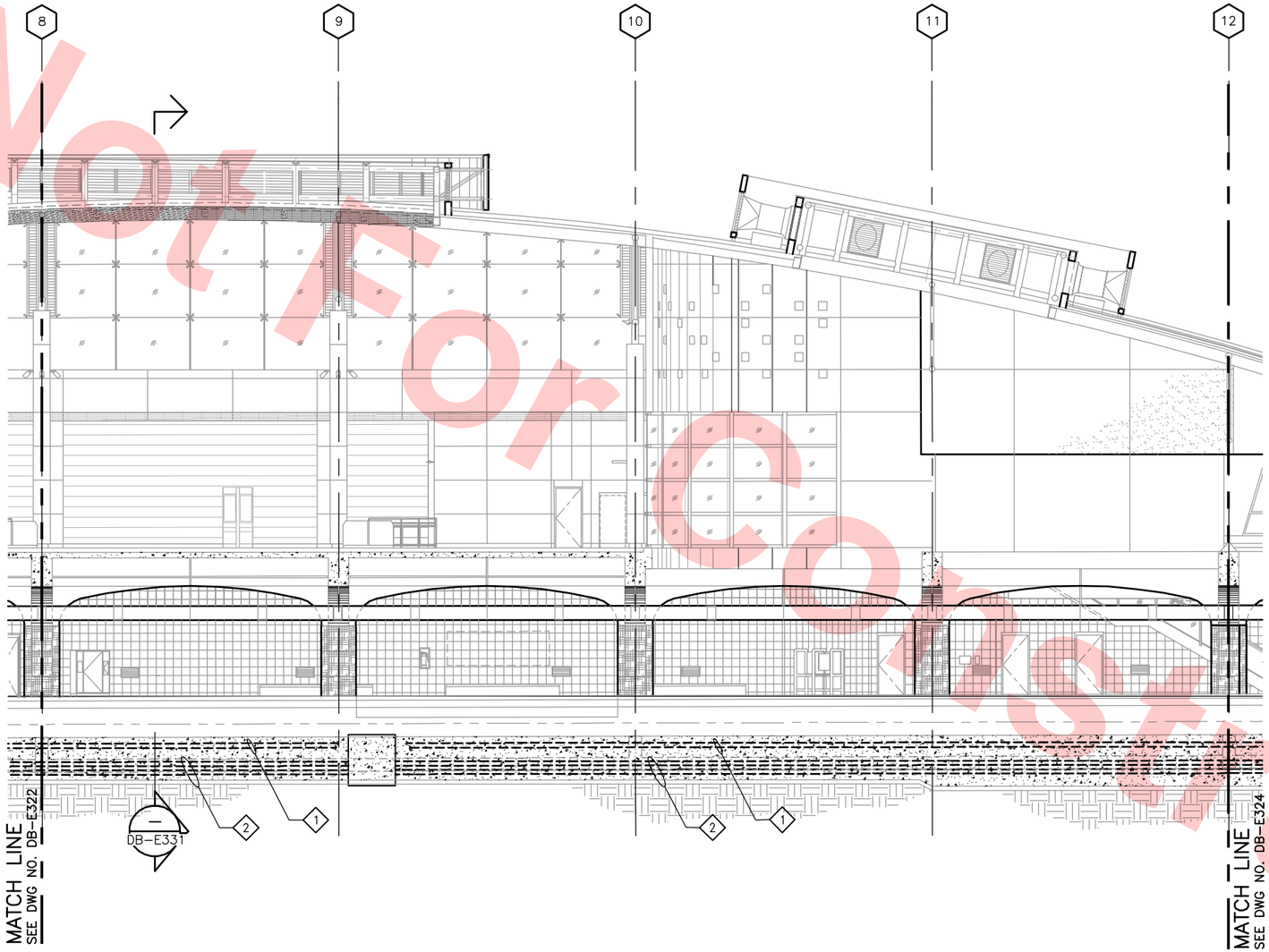
APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
LONGITUDINAL SECTION
POWER AND MISCELLANEOUS
SHEET 2 OF 6

CADD FILENAME C700-S-DB-E322.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E322 | PAGE NO. 0896



LONGITUDINAL SECTION – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-A320

KEY NOTES

1. SYSTEM WIDE 34.5KV 3-6"C 34.5 KV (TPSS) IN STRUCTURAL INVERT.
2. 28-4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT.

NOTE

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Santa Clara Valley Transportation Authority

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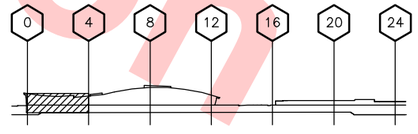
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER – CHARLES L. CHEN – E11904 – EXP. 12/31/14 – ELECTRICAL – STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 430, Oakland, CA 94612
Phone: (510) 465-2530 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y LIN INTERNATIONAL

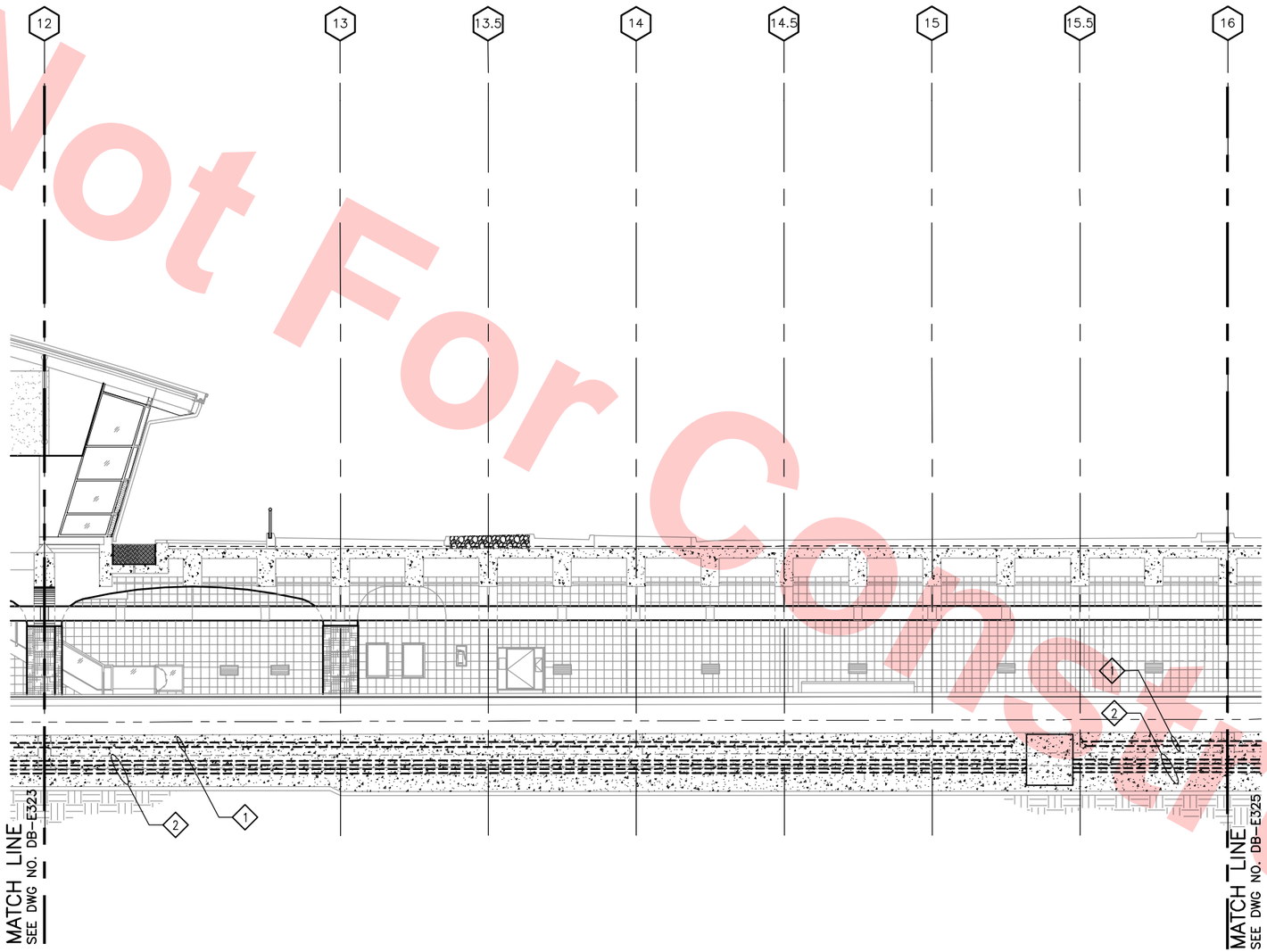
APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
LONGITUDINAL SECTION
POWER AND MISCELLANEOUS
SHEET 3 OF 6

CADD FILENAME C700-S-DB-E323.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E323 | PAGE NO. 0897



LONGITUDINAL SECTION – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-A320

KEY NOTES

1. SYSTEM WIDE 34.5KV 3-6"C 34.5 KV (TPSS) IN STRUCTURAL INVERT.
2. 28-4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT.

NOTE

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Santa Clara Valley Transportation Authority

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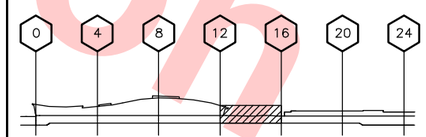
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L.N. CHEN — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 225 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y LIN INTERNATIONAL

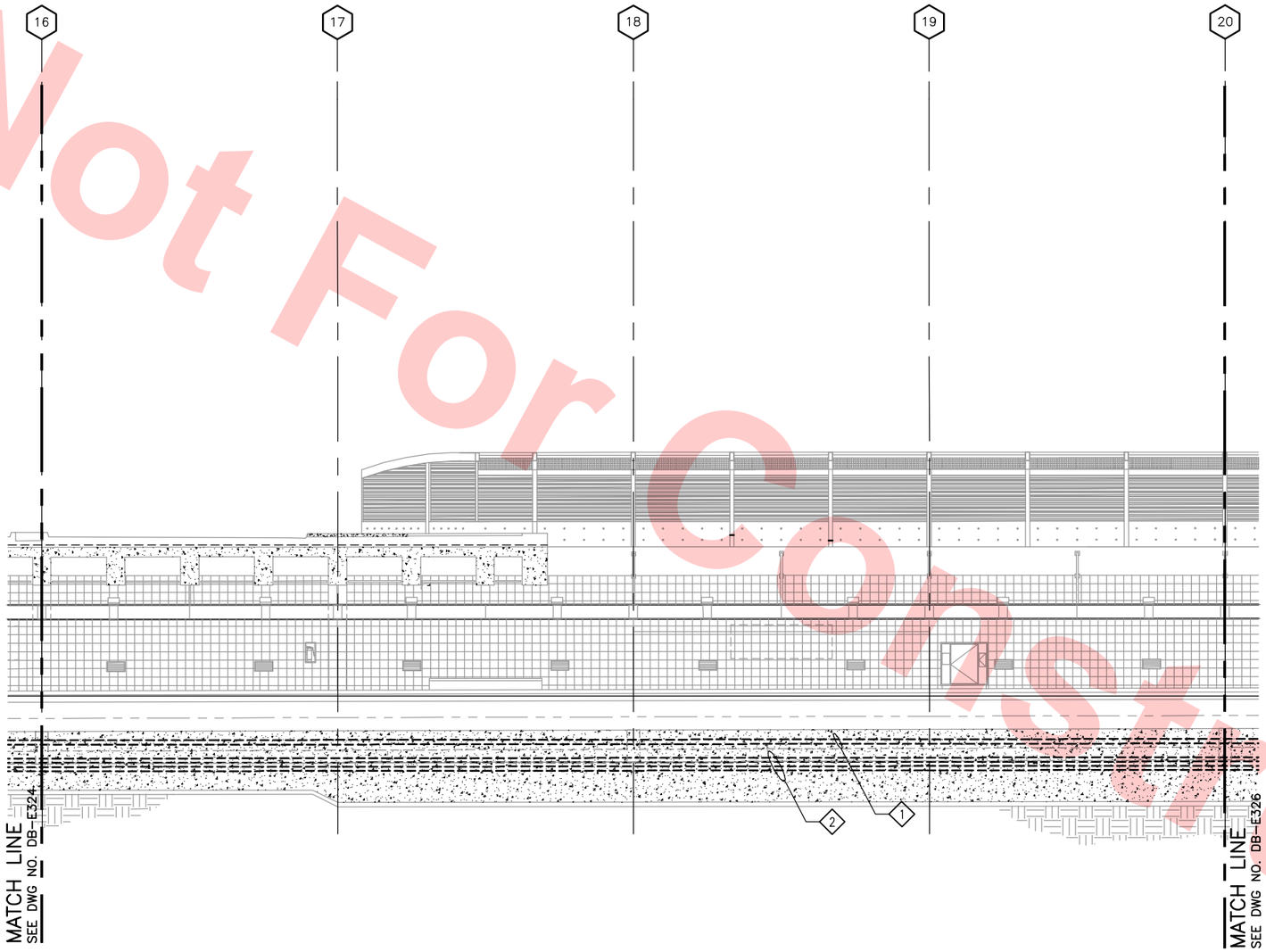
APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
LONGITUDINAL SECTION
POWER AND MISCELLANEOUS
SHEET 4 OF 6

CADD FILENAME C700-S-DB-E324.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E324 | PAGE NO. 0898



LONGITUDINAL SECTION – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

DB-A320

KEY NOTES

1. SYSTEM WIDE 34.5KV 3-6"C 34.5 KV (TPSS) IN STRUCTURAL INVERT.
2. 28-4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT.

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Santa Clara Valley Transportation Authority

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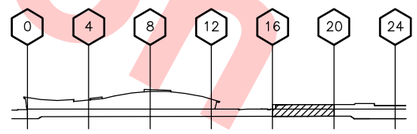
Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER LEWIS L. N. CHEN E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y LIN INTERNATIONAL

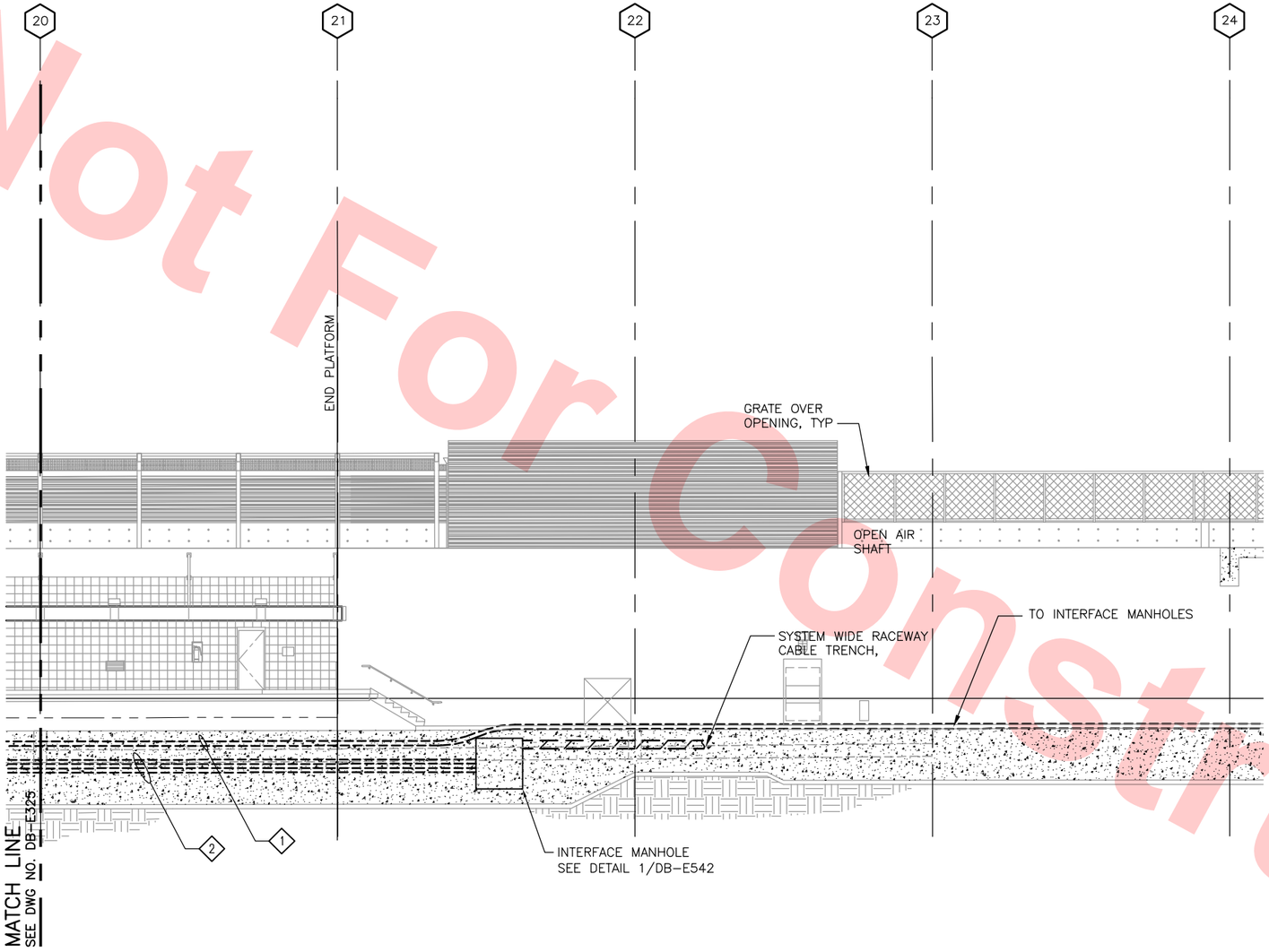
APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
LONGITUDINAL SECTION
POWER AND MISCELLANEOUS
SHEET 5 OF 6

CADD FILENAME C700-S-DB-E325.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E325 | PAGE NO. 0899



LONGITUDINAL SECTION – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"
DB-A320

KEY NOTES

1. SYSTEM WIDE 34.5KV 3-6"C 34.5 KV (TPSS) IN STRUCTURAL INVERT.
2. 28-4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT.

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Santa Clara Valley Transportation Authority

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____AMEND AND RESUBMIT (A/R)

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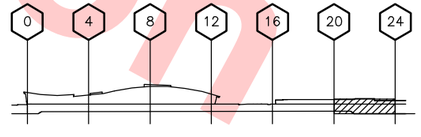
Contract No.: DB11002F

By: _____ **Date:** _____

8' 0' 8' 16'

GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER JAMES L. PAUL E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 535 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T.Y. LIN INTERNATIONAL

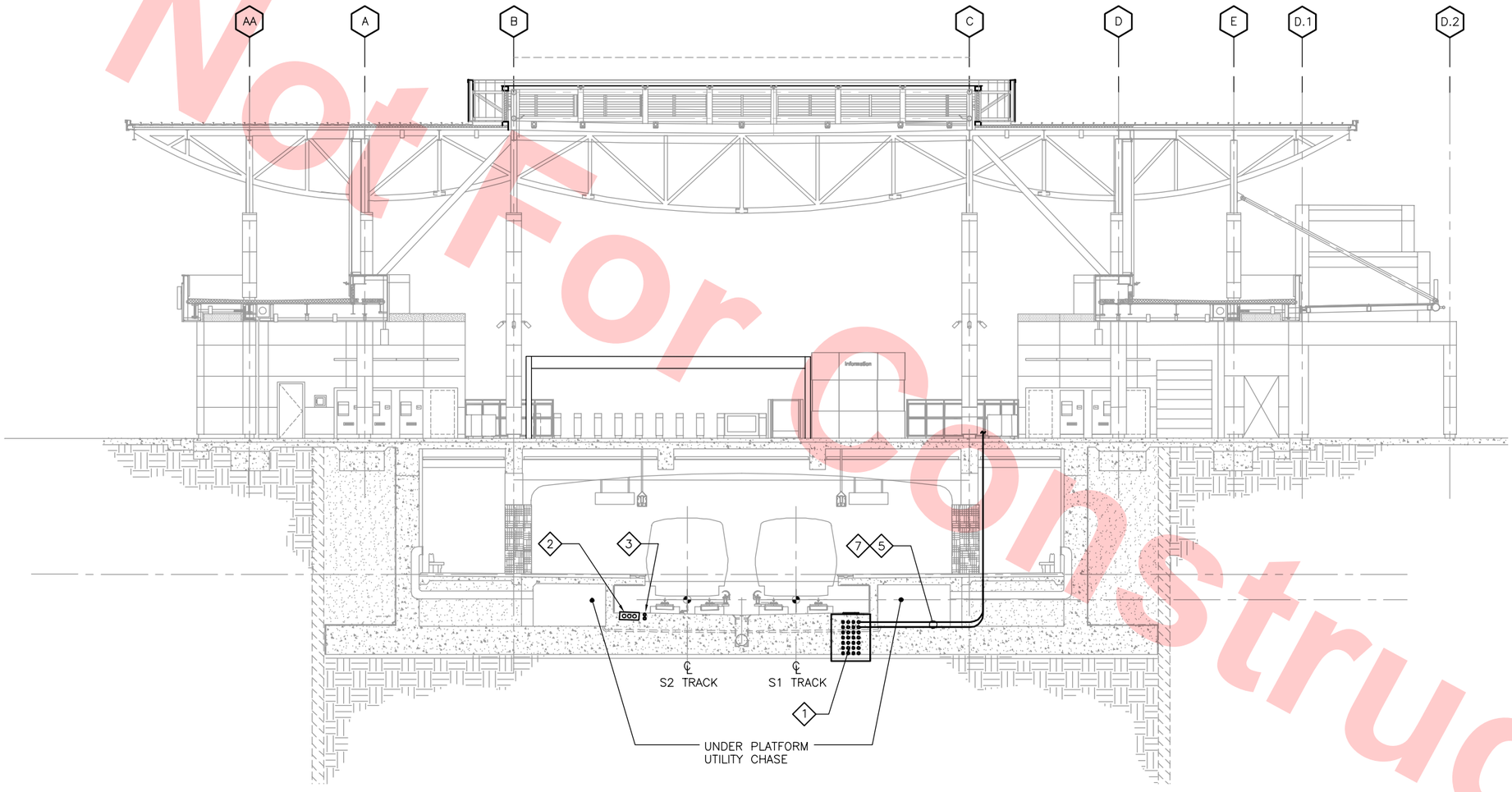
APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
LONGITUDINAL SECTION
POWER AND MISCELLANEOUS
SHEET 6 OF 6

CADD FILENAME		
C700-S-DB-E326.dwg		
SIZE D	SCALE 1/8"=1'-0"	
CONTRACT NO. C700		REV. 0
AREA CODE DB	SHEET NO. E326	PAGE NO. 0900



TRANSVERSE SECTION – POWER AND MISCELLANEOUS

SCALE: 1/8"=1'-0"

KEY NOTES

1. 28–4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT.
2. SYSTEM WIDE 34.5KV CONDUITS IN STRUCTURAL INVERT BY C700. SEE DWG (LATER)
3. SYSTEM WIDE FIBER OPTIC CONDUITS IN STRUCTURAL INVERT SEE C700 DWG (LATER) BER OPTIC PULLBOX BY SYSTEMS.
4. NOT USED
5. 9–4"C SYSTEM WIDE TRAIN CONTROL/COMMUNICATION RACEWAYS IN STRUCTURAL INVERT STUB–UP 6" ABOVE FINISHED CONCOURSE FLOOR.
6. NOT USED
7. SEE DRAWING DB–E211X FOR TRAIN CONTROL/COMM RM. #C18 (CONCOURSE LEVEL), LOCATION. REFER ALSO TO SYSTEMS DRAWINGS.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
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____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ **Date:** _____

8' 0' 8' 16'

GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER LOUIS L. H. CHEN E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

SUBMITTED Skanska Shimmick Herzog, 1436 California Circle, Milpitas, California 95035, A Joint Venture
Anil Verma Associates, Inc., 1970 Broadway, Suite 520, Oakland, CA 94612, Phone: (510) 535-2537, Fax: (510) 535-2339
Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY | T·Y LIN INTERNATIONAL

APPROVED

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

TRANSVERSE SECTION
POWER AND MISCELLANEOUS

CADD FILENAME C700–S–DB–E331.dwg
SIZE D | SCALE 1/8"=1'–0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E331 | PAGE NO. 0901

Jun 26, 2013 – 11:11am C:\projectwise\nbx–gmoroville\dms34734\C700–S–DB–E331.dwg GilesM

KEY NOTES

1. #4/0 BCW TO ELECTRICAL ROOM GROUND BAR
2. #2/0 BCW TO EMERGENCY GENERATOR
3. #2/0 BCW TO TRAIN CONTROL ROOM/ COMMUNICATIONS GROUNDING BAR
4. #2/0 BCW TO BATTERY ROOM
5. #2/0 BCW TO ESCALATOR AND ELEVATOR MACHINE ROOM GROUNDING BAR
6. #4/0 BCW TO TELCO ROOM
7. #2/0 BCW TO COMM ROOM GROUND BAR
8. CHASSIS GROUND BUS SEE BFS STANDARD DETAIL 1/NS69
9. CHASSIS GROUND BUS SEE BFS STANDARD DETAIL 2/NS69

NOTES

1. DEPTH OF GROUNDING GRID CONDUCTOR SHALL BE COORDINATED WITH STRUCTURAL FOUNDATION.
2. TEST GROUNDING GRID TO MEASURE GROUNDING RESISTANCE. RESISTANCE SHALL BE 5 OHMS OR LESS
3. PROVIDE 6'–0" GROUND PIGTAIL WHERE INDICATED OR REQUIRED.
4. PIGTAIL TO PENETRATE WALL AND RUN EXPOSED INSIDE ROOM.
5. GROUND ALL METAL DOORS AND HANDRAILS.
6. PROVIDE GROUND WIRE IN EACH ROOM.

Santa Clara Valley Transportation Authority

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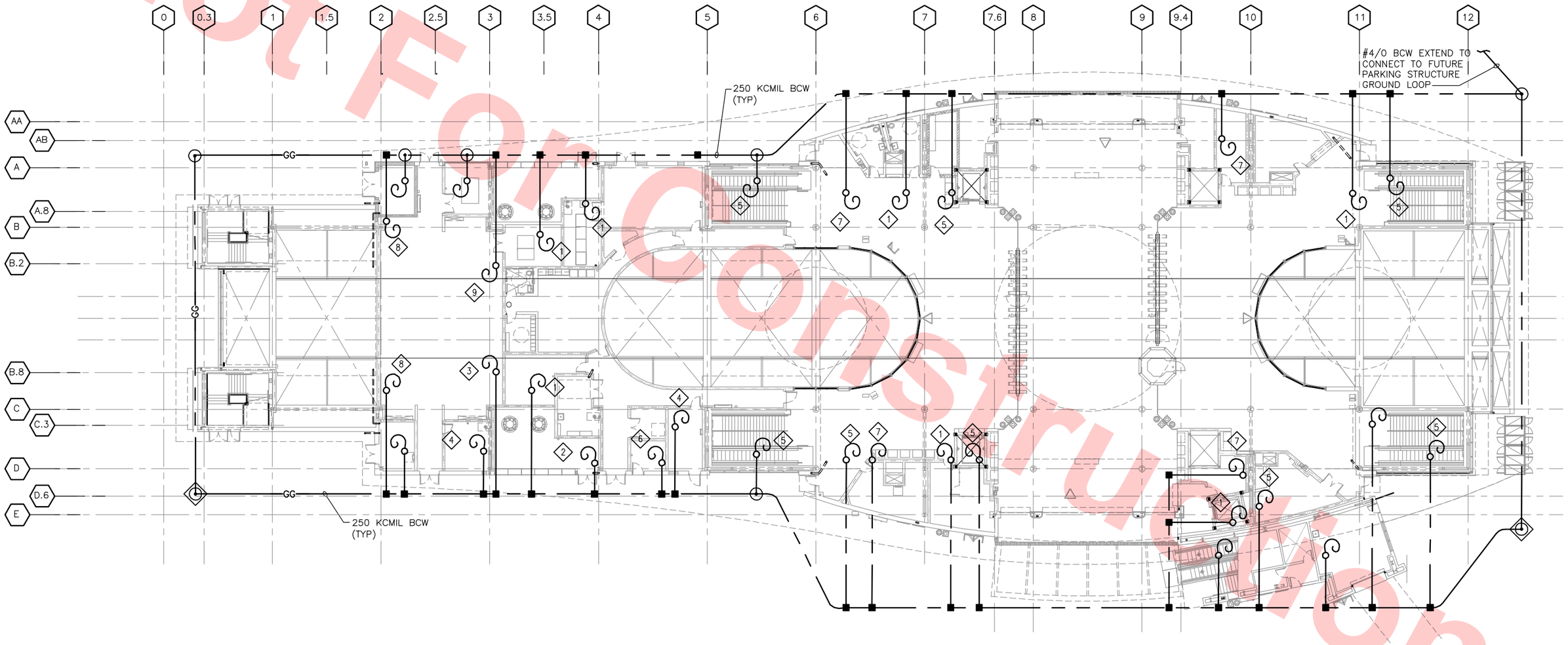
Contract No.: DB11002F

By: _____ Date: _____



STATION GROUNDING LAYOUT – CONCOURSE LEVEL

SCALE: 1/16"=1'-0"

16' 0' 16' 32'

GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER CARLOS L.N. QUINTO E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 535 Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 835-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T-Y LIN INTERNATIONAL

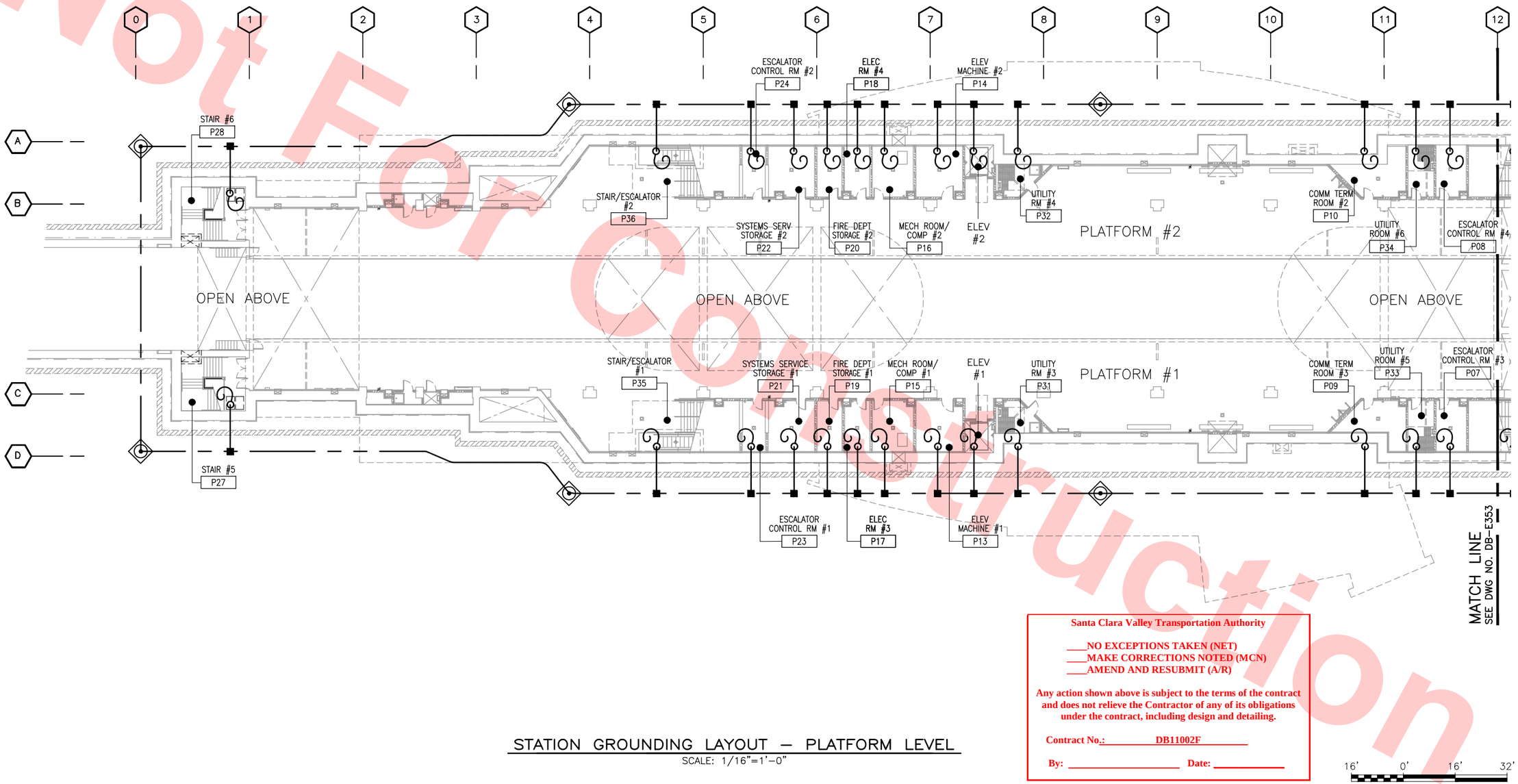
SUBMITTED _____
APPROVED _____

BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

STATION GROUNDING LAYOUT
CONCOURSE LEVEL

CADD FILENAME C700-S-DB-E351.dwg
SIZE D | SCALE 1/16"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E351 | PAGE NO. 0902



STATION GROUNDING LAYOUT – PLATFORM LEVEL

SCALE: 1/16"=1'-0"

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

16' 0' 16' 32'

GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

JAMES L. S. REGISTERED PROFESSIONAL ENGINEER E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2539

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A CH2M HILL COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
STATION GROUNDING LAYOUT
PLATFORM LEVEL
SHEET 1 OF 2

CADD FILENAME C700-S-DB-E352.dwg
SIZE D | SCALE 1/16"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E352 | PAGE NO. 0903

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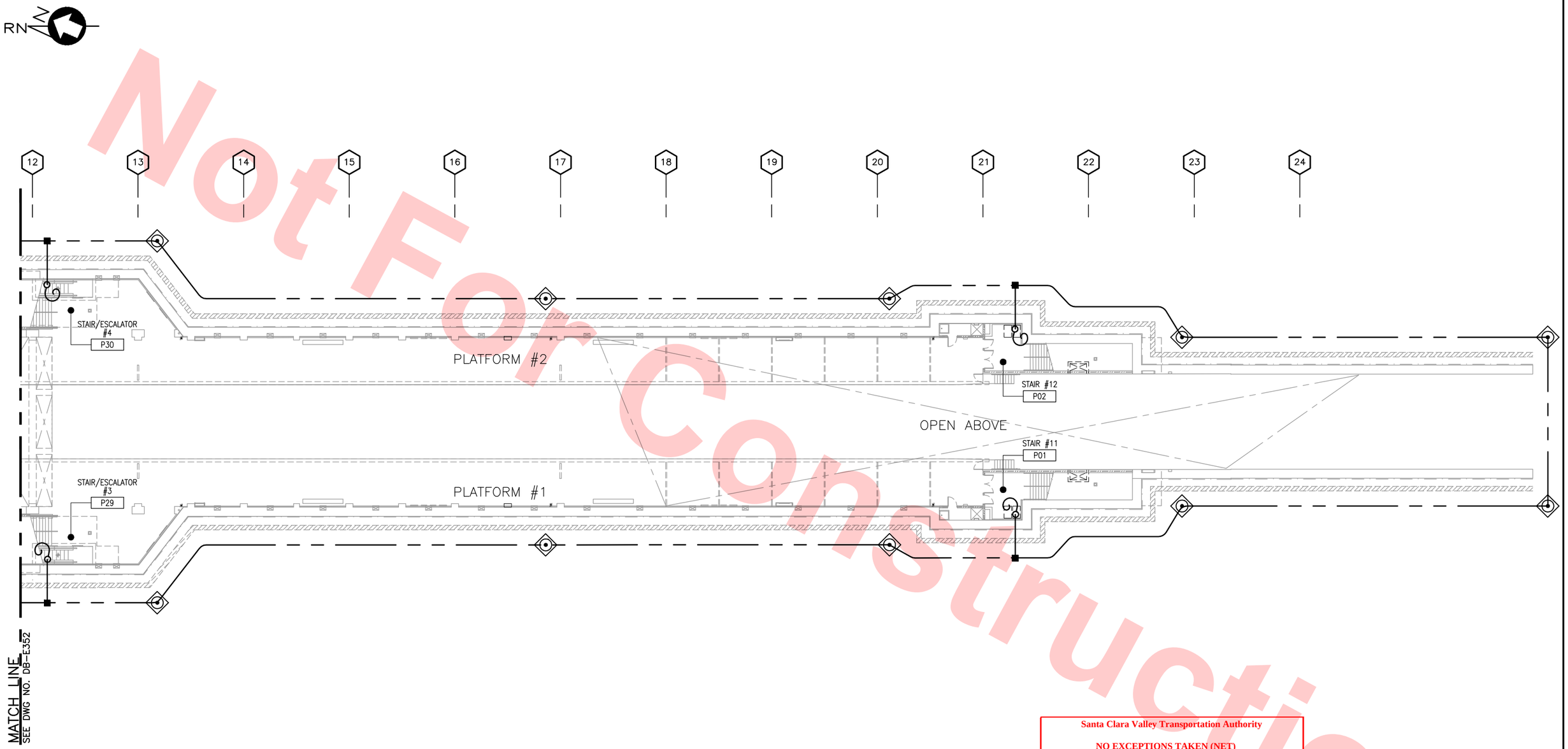

STATION GROUNDING LAYOUT – PLATFORM LEVEL

SCALE: 1/16"=1'-0"

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

16' 0' 16' 32'

GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. NI — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 835-2339

Lockwood, Andrews & Newnam, Inc. — A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

SUBMITTED _____

APPROVED _____

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
STATION GROUNDING LAYOUT
PLATFORM LEVEL
SHEET 2 OF 2

CADD FILENAME C700-S-DB-E353.dwg
SIZE D | SCALE 1/16"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E353 | PAGE NO. 0904

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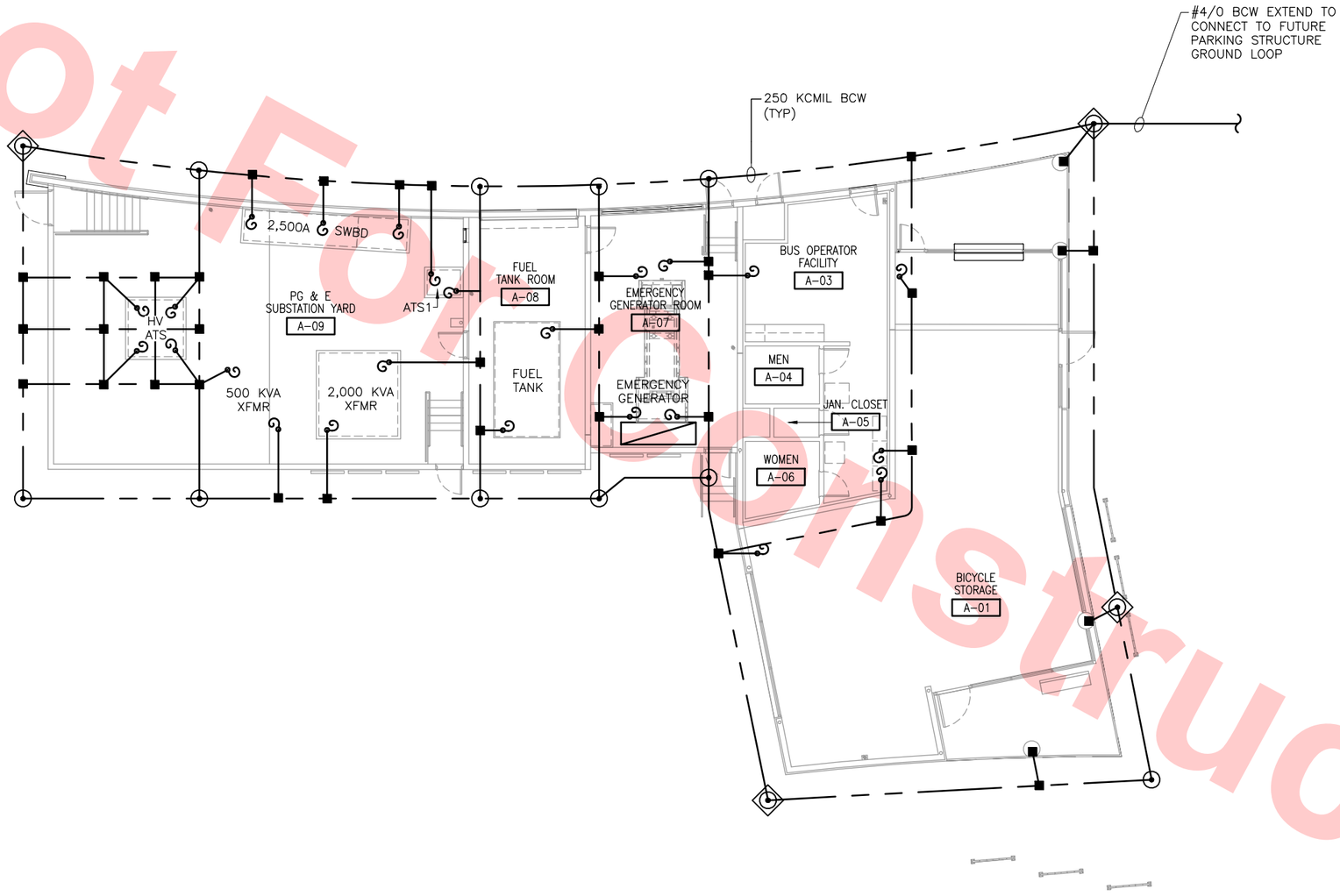


GROUNDING PLAN
SCALE: 1/8"=1'-0"

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

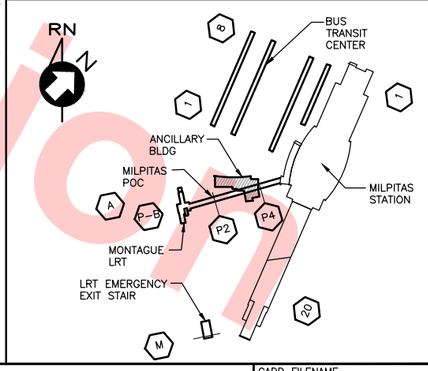
Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

8' 0' 8' 16'
GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. GILES — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
ANCILLARY BUILDING

GROUNDING PLAN

CADD FILENAME		
C700-S-DB-E354.dwg		
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CONTRACT NO.		REV.
C700		0
AREA CODE	SHEET NO.	PAGE NO.
DB	E354	0905

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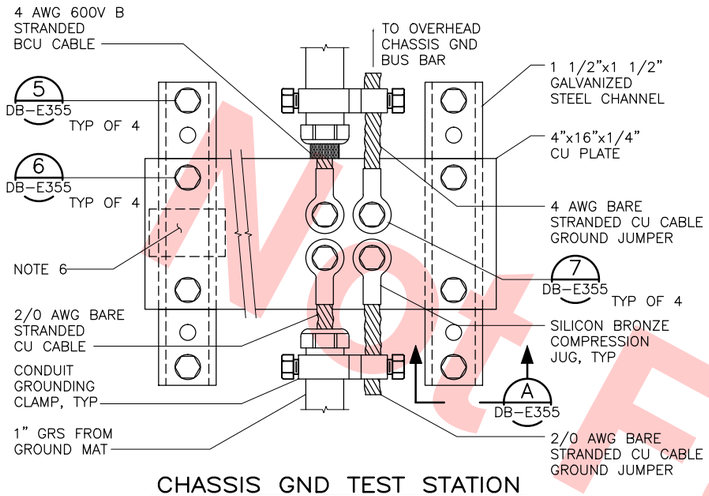
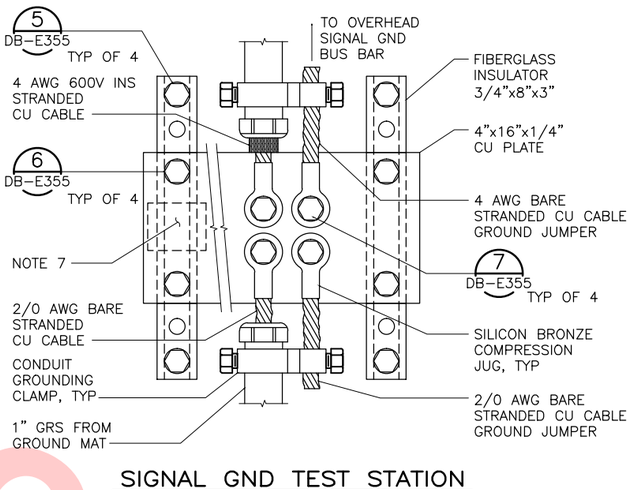


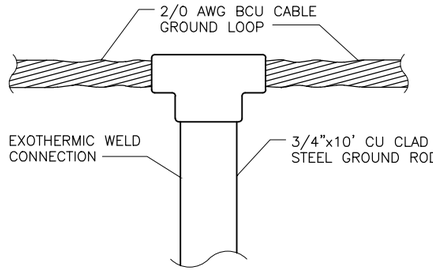
CHASSIS GND TEST STATION

DETAIL 1 DB-E355
SCALE: NTS



SIGNAL GND TEST STATION

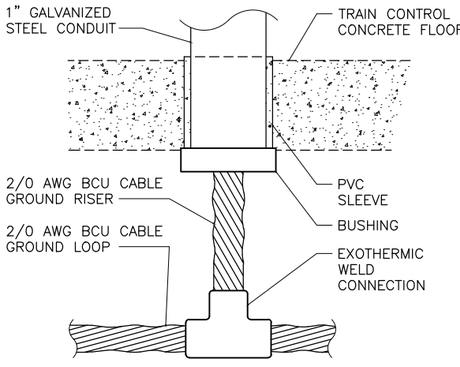
DETAIL 2 DB-E355
SCALE: NTS



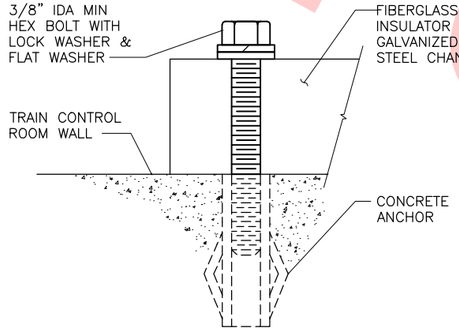
DETAIL 3 DB-E355
SCALE: NTS

NOTES

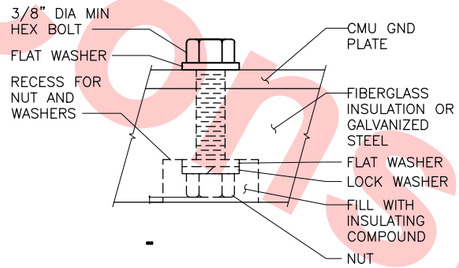
1. CONTINUOUS CABLE WITH MAXIMUM OF TWO EXOTHERMIC WELD SPLICES ALLOWED. CABLE BURIED MINIMUM 18" BELOW GRADE OUTSIDE PERIPHERY OF TRAIN CONTROL ROOM.
2. ONE GND TEST STATION SHALL BE DESIGNATED "SIGNAL GND TEST STATION" AND REST SHALL BE DESIGNATED "CHASSIS GND TEST STATION". SEE SITE SPECIFIC DRAWINGS FOR DESIGNATION ASSIGNMENT.
3. GROUND MAT CONSISTS OF 2/0 AWG BCU CABLE LOOP AND ATTACHED GROUND RODS.
4. ALL STAINLESS HARDWARE UNLESS OTHERWISE NOTED.
5. CONTACT SURFACES BURNISHED SHINY AND COATED WITH PROTECTIVE, NON-CORROSIVE, CONDUCTIVE AND NON-SEIZING JOINT COMPOUND.
6. "CHASSIS GND" LETTERING THIS AREA IN 3/8" HIGH WHITE ENAMEL LETTERS. SPRAY COAT WITH CLEAR ENAMEL FOR PROTECTION.
7. "SIGNAL GND" LETTERING THIS AREA IN 3/8" HIGH WHITE ENAMEL LETTERS. SPRAY COAT WITH CLEAR ENAMEL FOR PROTECTION.
8. GROUND CONDUCTOR CONDUIT SHALL BE INSULATED FROM EQUIPMENT, CABLE TRAY AND TRAIN CONTROL ROOM.
9. INSTALL TEST STATION AS REQUIRED REFER TO STATION DRAWINGS FOR REQUIREMENTS.



DETAIL 4 DB-E355
SCALE: NTS



DETAIL 5 DB-E355
SCALE: NTS



DETAIL 6 DB-E355
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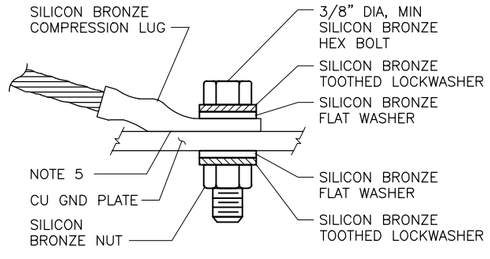
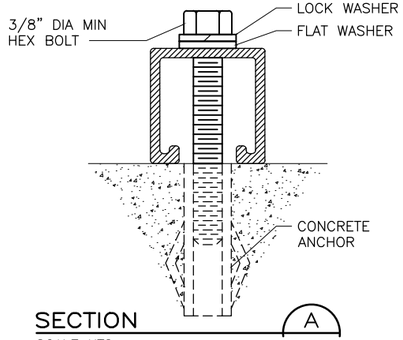
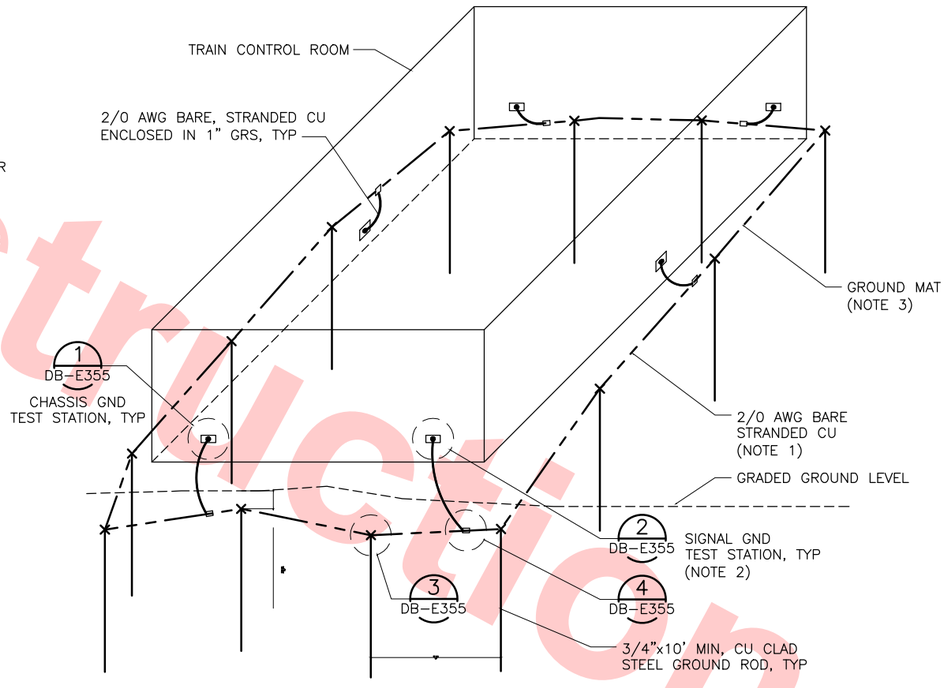


DETAIL 7 DB-E355
SCALE: NTS



SECTION A DB-E355
SCALE: NTS



TRAIN CONTROL HOUSE/RM GROUND MAT AND OVERALL GROUND PLAN

NTS

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

THIS DRAWING IS FOR REFERENCE ONLY.
SEE THE RESPECTIVE DISCIPLINE DRAWINGS FOR DETAILS.

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LAWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. PACE — E11904 EXP. 12/31/14 ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 835-2532 Fax: (510) 835-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

GROUNDING REQUIREMENT
TRAIN CONTROL HOUSE/ROOMS

CADD FILENAME C700-S-DB-E355.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E355 | PAGE NO. 0906

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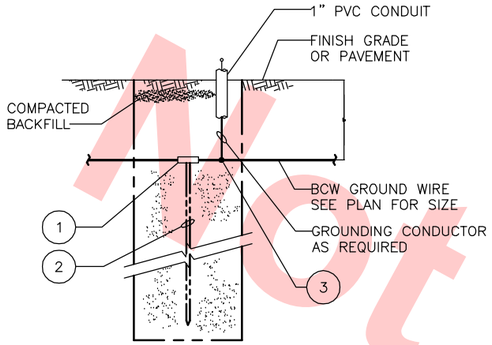
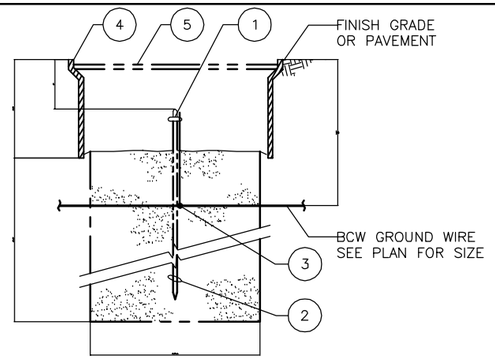


ITEM	DESCRIPTION
1	CONTRACTOR, CADWELL TYPE GT GROUND ROD OR APPROVED EQUAL
2	COPPERWELD GROUND ROD, 3/4"ø x 10'–0" OR APPROVED EQUAL
3	EXOTHERMIC CONNECTION, CADWELD TYPE TA OR APPROVED EQUAL

GROUNDING ROD INSTALLATION

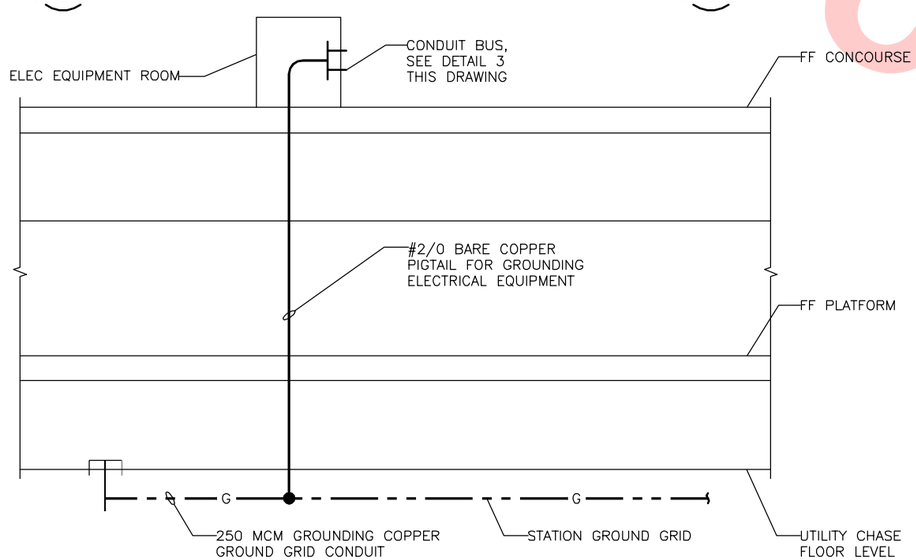
DETAIL 1
SCALE: NTS DB–E356



ITEM	DESCRIPTION
1	CONNECTOR, #2/0–25kcmil CONDUCTOR RANGE BURNDY CAT. GAR6429 OR APPROVED EQUAL
2	COPPERWELD GROUND ROD, 3/4"ø x 10'–0" OR APPROVED EQUAL
3	EXOTHERMIC CONNECTION, CADWELD TYPE TA OR APPROVED EQUAL
4	12"x20" CHRISTY B12 UTILITY BOX
5	CHRISTY B12D REINFORCED CONCRETE LID WITH TWO HOLES

GROUNDING WELL INSTALLATION

DETAIL 2
SCALE: NTS DB–E356



TYPICAL GROUND CABLE RISER DIAGRAM

DETAIL 4
SCALE: NTS DB–E356

Santa Clara Valley Transportation Authority

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Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LAWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — CARLOS L. D. CRUZ — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 535 Oakland, CA 94612
Phone: (510) 465-2537 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T-Y-LIN INTERNATIONAL

SUBMITTED _____
APPROVED _____

BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

GROUNDING DETAILS

CADD FILENAME C700–S–DB–E356.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E356 | PAGE NO. 0907

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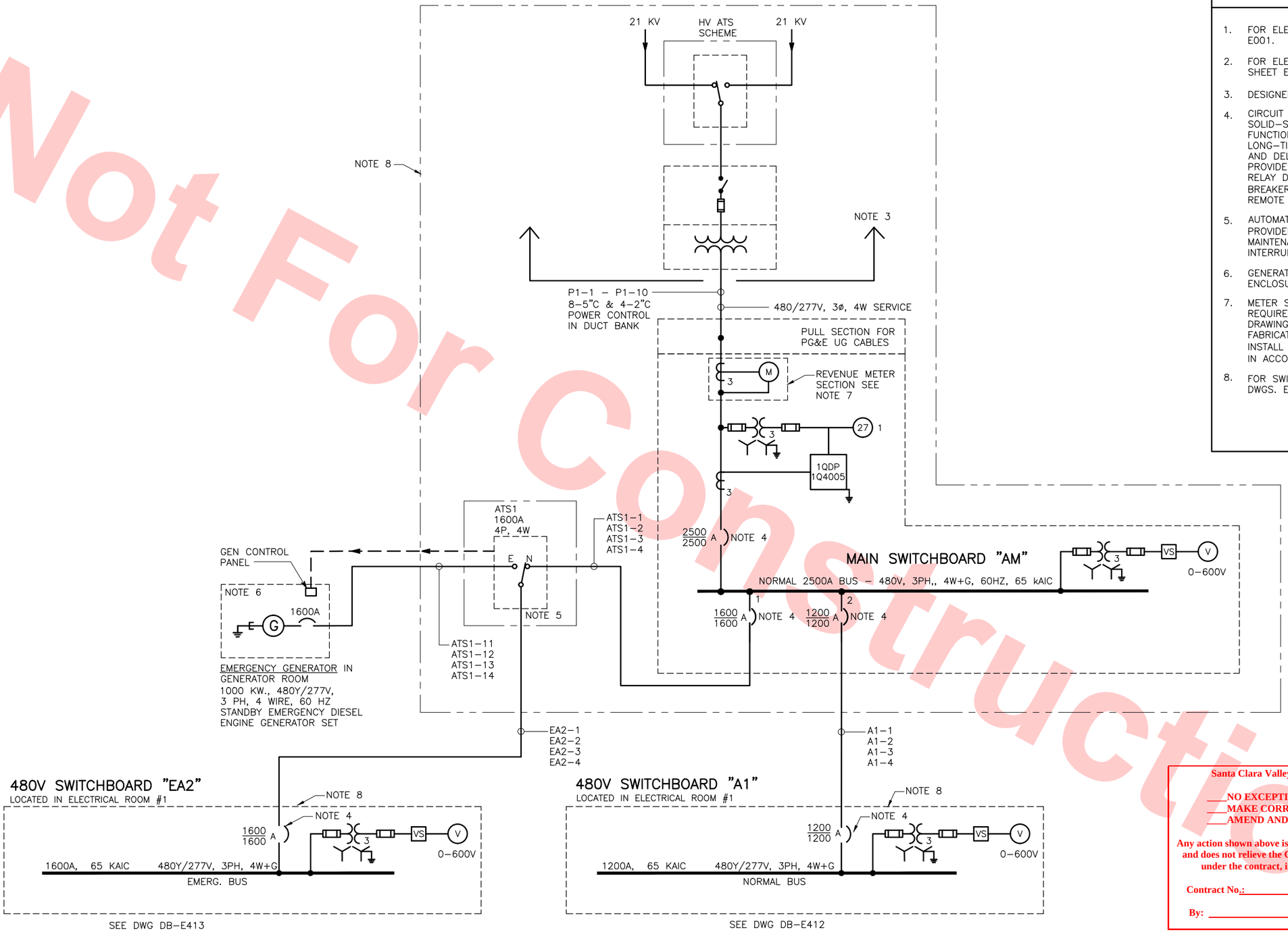
NOTES

1. FOR ELECTRICAL ABBREVIATION REFER TO SHEET E001.
2. FOR ELECTRICAL DIAGRAM AND SYMBOLS REFER TO SHEET E003.
3. DESIGNED AND FURNISHED BY PG&E
4. CIRCUIT BREAKER SHALL BE PROVIDED WITH SOLID–STATE TRIPPING UNIT HAVING THE FOLLOWING FUNCTIONS:
   LONG–TIME PICKUP AND DELAY, SHORT–TIME PICKUP AND DELAY AND GROUND FAULT PICKUP AND DELAY PROVIDE UNDERVOLTAGE RELAY AND LOCK–OUT RELAY DEVICE 86 AND AUXILIARY CONTACTS OF MAIN BREAKER FOR SCADA OPEN/CLOSE INDICATION AT REMOTE LOCATION.
5. AUTOMATIC TRANSFER SWITCH ATS1 SHALL BE PROVIDED WITH BYPASS/ISOLATION SWITCHES FOR MAINTENANCE TESTING AND REPAIR WITHOUT INTERRUPTING POWER TO THE LOAD.
6. GENERATOR SHALL BE WITH WEATHER/SOUND ENCLOSURE AND SUB BASE FUEL DAY TANK.
7. METER SECTION HOUSING TO COMPLY WITH PG&E REQUIREMENTS FOR PG&E METER. SUBMIT SHOP DRAWINGS FOR APPROVAL BY PG&E BEFORE FABRICATION OF SWITCHBOARD. FURNISH AND INSTALL 2–2" CONDUITS (FOR REVENUE METERING). IN ACCORDANCE WITH PG&E's REQUIREMENTS.
8. FOR SWITCHBOARDS LOADS OF "A1" AND "EA2, SEE DWGS. E412 AND E413 AND LOAD CALCULATIONS.



Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
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Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. N. CHEN — E11904 EXP 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 505 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2539

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
480V POWER DISTRIBUTION
SINGLE LINE DIAGRAM
SHEET 1 OF 4

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AREA CODE DB | SHEET NO. E411 | PAGE NO. 0908

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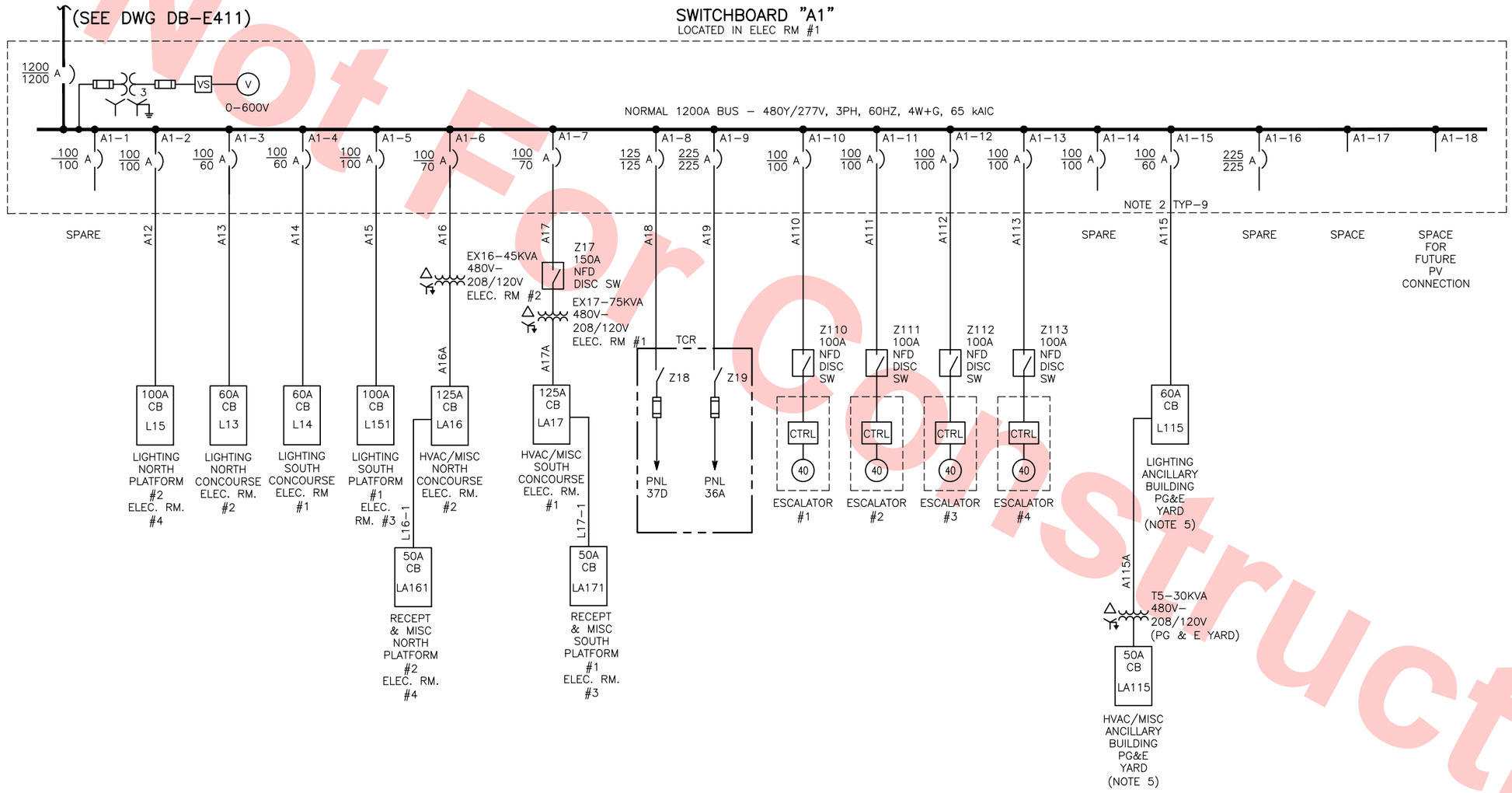

NOTES

1. FOR CONNECTIONS TO EQUIPMENT AND PANELS FOR ESSENTIAL BUS, SEE SYSTEMS INSTALLATION SINGLE LINE DIAGRAM DWG. NO. SE-E200.
2. ALL BREAKERS SHALL BE RATED FOR 65 kAIC @ 480V.
3. FOR ELECTRICAL ABBREVIATION REFER TO SHEET E001.
4. FOR ELECTRICAL DIAGRAM AND SYMBOLS REFER TO SHEET E003.
5. FOR LIGHTING AND POWER PANELS "L115", "LA115" LOCATED IN ANCILLARY BUILDING (PG&E YARD). SEE DRAWING E522 FOR PANEL SCHEDULES.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
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____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ **Date:** _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700 DB-E102 REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — James L. Nims — E11904 Exp. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED _____

Lockwood, Andrews & Newnam, Inc. — A URS / BALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED _____

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
480V POWER DISTRIBUTION
SINGLE LINE DIAGRAM
SHEET 2 OF 4

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SHEET NO.	E412
PAGE NO.	0909

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NOTES

1. FOR CONNECTIONS TO EQUIPMENT AND PANELS FOR ESSENTIAL BUS IN TCR, SEE SYSTEMS DWG.
2. FOR UPS EQUIPMENT AND ASSOCIATED BATTERIES SEE DRAWING DB–E504
3. 480V MAIN BREAKER AND METER ASSOCIATED WITH SWITCHBOARD "A1" ARE SHOWN ON DB–E411.
4. EMERGENCY MOTOR CONTROL CENTER (EMCC27–1 & EMCC27–2). FOR EMERGENCY VENTILATION SUPPLY AND EXHAUST FANS SEE DWG DB–E414.
5. NOT USED
6. TO EMERGENCY LIGHTING PANEL "EL243" AT ANCILLARY BUILDING (PG & E YARD). SEE DRAWING DB–E523 FOR CONTINUATION.
7. ALL ELEVATOR FEEDER BREAKERS SHALL BE EQUIPPED WITH SHUNT TRIP DEVICE, AND SHALL TRIP ON FIRE ALARM EMERGENCY.

SWITCHBOARD "EA2"

LOCATED IN ELEC RM #1

(SEE DWG DB–E411)

(NOTE 3)

1600/1600 A

0–600V

EMERGENCY 1600A BUS – 480Y/277V, 3PH, 60HZ, 4W+G, 65 KAIC

EA2–1	EA2–2	EA2–3	EA2–4	EA2–5	EA2–6	EA2–7	EA2–8	EA2–9	EA2–10	EA2–11	EA2–12	EA2–13	EA2–14	EA2–15	EA2–16	EA2–17	EA2–18
100/60 A	250/250 A	100/60 A	100/60 A	100/100 A	100/100 A	125/125 A	100/70 A	400/400 A	400/400 A	100/100 A ST	100/100 A ST	100/100 A ST	100/100 A ST	100/100 A	500/500 A	250/250 A	
SPARE	SPARE	EA23	EA24	EA25	EA26	EA27	EA28	EA29	EA210	EA211	EA212	EA213	EA214	EA215	EA216	EA217	SPACE

EA25: 100A 2P NFD DISC. SW. → BATTERY RM. C29

EA26: UPS/LI 60 KVA (NOTE 2); 100A TRANSFER SWITCH

EA23: 60A CB EF22 → FARE COLLECTION ELEC. RM. #1

EA24: 60A CB EF23 → FARE COLLECTION ELEC. RM. #1

EA26–1: 100A CB EL24 → EMERGENCY LIGHTING PANEL ELEC. RM. #2

EA26–2: 60A CB EL241 → LIGHTING NORTH PLATFORM #2 ELEC. RM. #4

EA26–3: 60A CB EL242 → LIGHTING SOUTH PLATFORM #1 ELEC. RM. #3

EA26–4 NOTE 6: 40A CB EL243 → LIGHTING ANCILLARY BUILDING @ PG&E YARD

EA27: EX27–75KVA 480V–208/120V ELEC. RM. #2

EA27–1: 225A CB ELA25 → HVAC/RECEPT /MISC NORTH CONCOURSE ELEC. RM. #2

EA27–3: 70A CB ELA252 → HVAC /RECEPT /MISC NORTH PLATFORM #2 ELEC. RM. #4

EA27–2: 70A CB ELA251 → STATION AGENT'S BOOTH

EA28: EZ28 100A NFD DISC. SW.; EX28–45KVA 480V–208/120V ELEC. RM. #3

EA28–1: 125A CB ELA26 → HVAC/RECEPT /MISC SOUTH PLATFORM #1 ELEC. RM. #3

EA29: EMCC 27–1 → EMERGENCY VENTILATION (NOTE 4) SEE DIAGRAM DWG. E414 ELEC. RM. #1

EA210: EMCC 27–2 → EMERGENCY VENTILATION (NOTE 4) SEE DIAGRAM DWG. E414 ELEC. RM. #2

EA211: EZ11 100A NFD DISC. SW. → CTRL → 40 → HYDRAULIC ELEV #1 STATION (NOTE 7)

EA212: EZ12 100A NFD DISC. SW. → CTRL → 40 → HYDRAULIC ELEV #2 STATION (NOTE 7)

EA213: EZ13 100A NFD DISC. SW. → CTRL → 40 → HYDRAULIC ELEV #3 STATION (FUTURE) (NOTE 7)

EA214: EZ14 100A NFD DISC. SW. → CTRL → 40 → HYDRAULIC ELEV #4 STATION (FUTURE) (NOTE 7)

EA215: TCR → EZ215 → TO UPS ESSENTIAL DIST PNL NOTE 1 → 60 KVA

EA216: TO PUMP STATION STZ

EA217: EZ217 250A NFD DISC. SW. → CONTROL PANEL WITH STARTERS → 30 FIRE PUMP; 10 JOCKEY PUMP

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ **Date:** _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JULIUS L. [illegible] — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 505 Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY — T·Y·LIN INTERNATIONAL

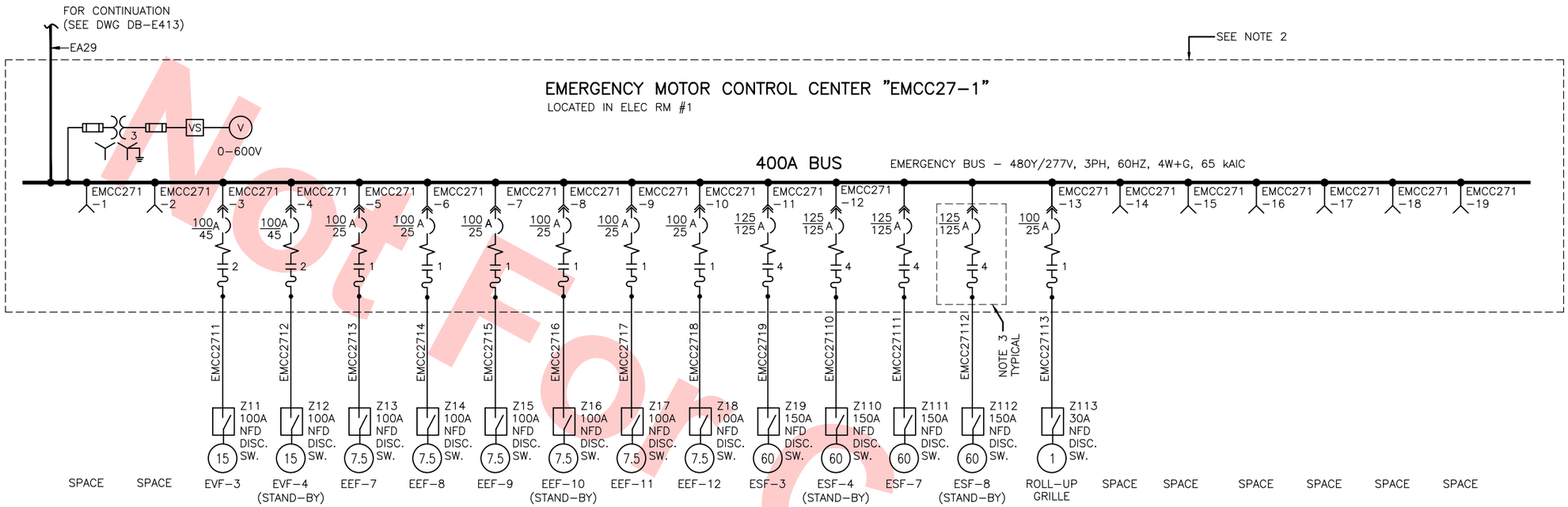
APPROVED

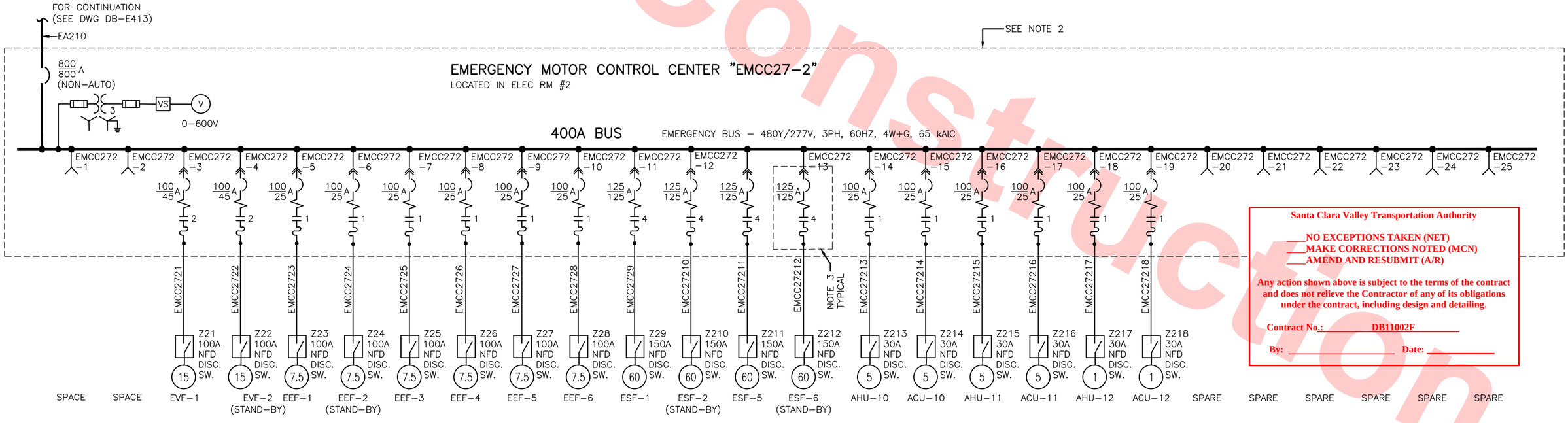
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
480V POWER DISTRIBUTION
SINGLE LINE DIAGRAM
SHEET 3 OF 4

CADD FILENAME C700–S–DB–E413.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E413 | PAGE NO. 0910

GilesM Jun 20, 2013 – 4:02pm G:\Giles Marovilio\Milpitas Station\Projectwise Sheets\C700–S–DB–E413.dwg





NOTES

1. EMERGENCY MOTOR CONTROL CENTERS (EMCC27-1 & EMCC27-2) SHALL CONTAIN FULL VOLTAGE NON-REVERSING STARTERS TO POWER LOAD LISTED BELOW:

   EVF-1 TO EVF-4
   4 - 15HP EMERGENCY VENTILATION FANS (2 OPERATING, 2 STANDBY)
   EEF-1 TO EEF-12
   12 - 7.5HP EMERGENCY EXHAUST FANS (12 OPERATING)
   ESF-1 TO ESF-8
   8 - 60HP EMERGENCY SUPPLY FANS (4 OPERATING, 4 STANDBY)

2. MOTOR CONTROL CENTERS "EMCC27-1" AND "EMCC27-2" SHALL BE EQUIPPED BY PLCs (PROGRAMABLE LOGIC CONTROLLER).
3. MOTOR RATED 50 HP AND ABOVE SHALL BE SOFT STARTER.
4. ALL SMOKE EXHAUST FANS SHALL BE EQUIPPED WITH SOFT STARTER.
5. ALL SMOKE FANS SYSTEM SHALL BE STARTED-UP IN STAGGERED SEQUENCE (180 SECONDS) AS NFPA REQUIRES.

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L.N. CHEN — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

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1970 Broadway, Suite 525, Oakland, CA 94612
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SUBMITTED

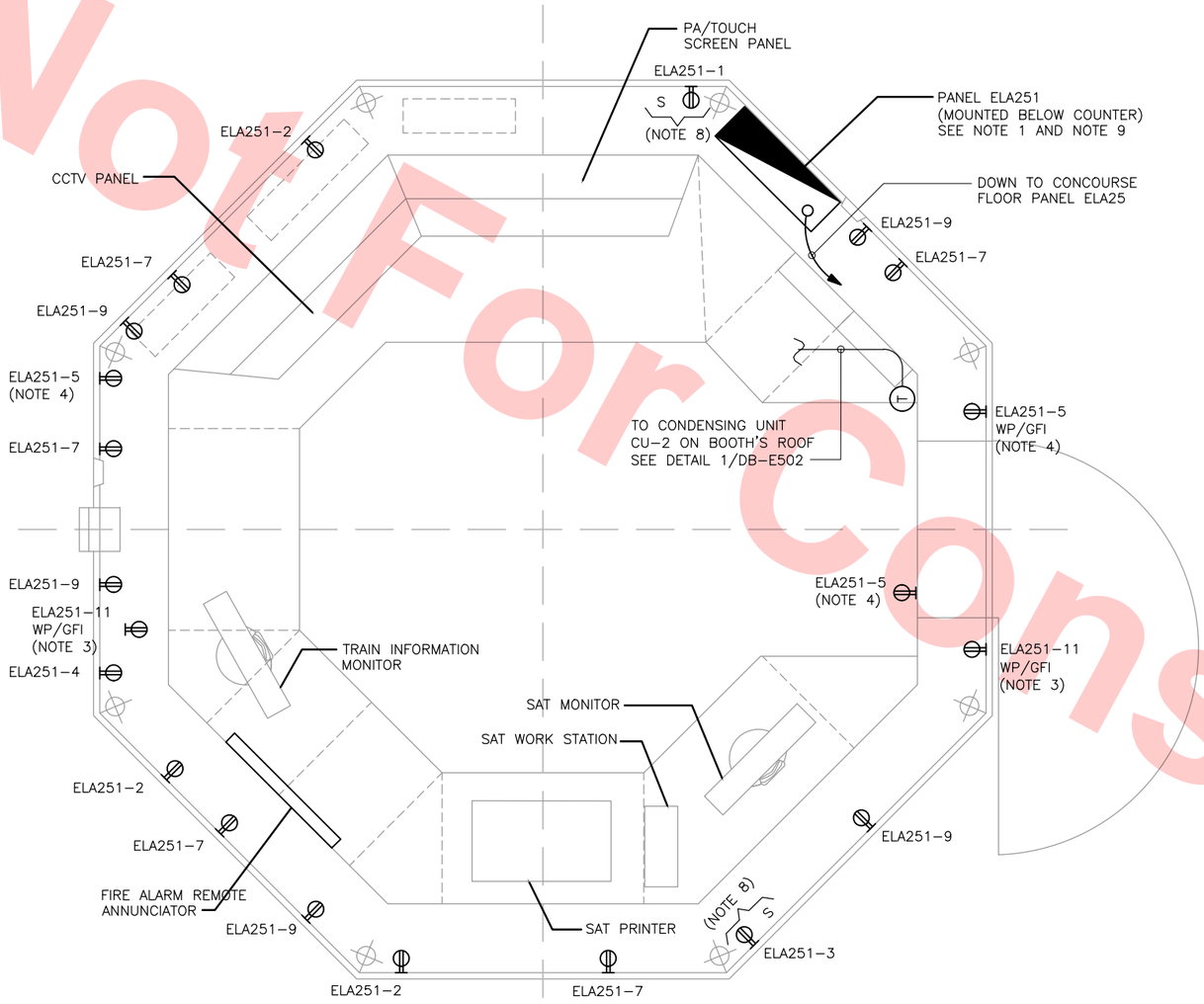
Lockwood, Andrews & Newnam, Inc. — A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
480V POWER DISTRIBUTION
SINGLE LINE DIAGRAM
SHEET 4 OF 4

CADD FILENAME C700-S-DB-E414.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E414 | PAGE NO. 0911



STATION AGENT'S BOOTH – ELECTRICAL PLAN AND DETAIL

SCALE: 1"=1'–0"

NOTES

1. DISTRIBUTION PANEL SHALL BE MOUNTED ON CHANNELS/UNISTRUT BEHIND THE WALL PANELS AND SHALL NOT BE SUPPORTED BY THE WALL PANELS.
2. USE #12 AWG FOR ALL BRANCH CIRCUIT WIRING UNLESS OTHERWISE NOTED.
3. MOUNT ROOF TOP WEATHER PROTECTED GFI RECEPTACLE 6" ABOVE ROOF SURFACE ON PARAPET FACE. SEAL CONDUIT PENETRATION.
4. INSTALL JUNCTION BOX AND DUPLEX RECEPTACLE ABOVE CEILING.
5. INSTALL ALL DUPLEX RECEPTACLES ABOVE COUNTER ON BACKSPLASH UNLESS OTHERWISE NOTED.
6. MINIMUM SIZE OF CONDUIT SHALL BE 3/4" DIA FOR ABOVE SURFACE AND 1" DIA FOR EMBEDDED CONDUIT.
7. SEE ARCHITECTURAL DRAWING FOR LIGHTING DESIGN AND DIMMING REQUIREMENTS.
8. DEDICATED DUPLEX RECEPTACLE INSTALLED UNDER COUNTER AND CONTROLLED BY SWITCH ABOVE COUNTER FOR PORTABLE HEATER USE.
9. THE MOUNTING OF THE SAB PANEL UNDER THE COUNTER IS CODE COMPLIANT OTHERWISE PANEL SHALL BE MOUNTED INSIDE A ROOM TBD CLOSEST TO THE SAB.
10. VERIFY VOLTAGE PRIOR TO INSTALLATION.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

1' 0' 1' 2'
GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. NEWMAN — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

SUBMITTED

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
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Phone: (510) 535-2537 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
STATION AGENT'S BOOTH
ELECTRICAL PLAN AND DETAIL
SHEET 1 OF 2

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SIZE D | SCALE 1"=1'–0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E501 | PAGE NO. 0912

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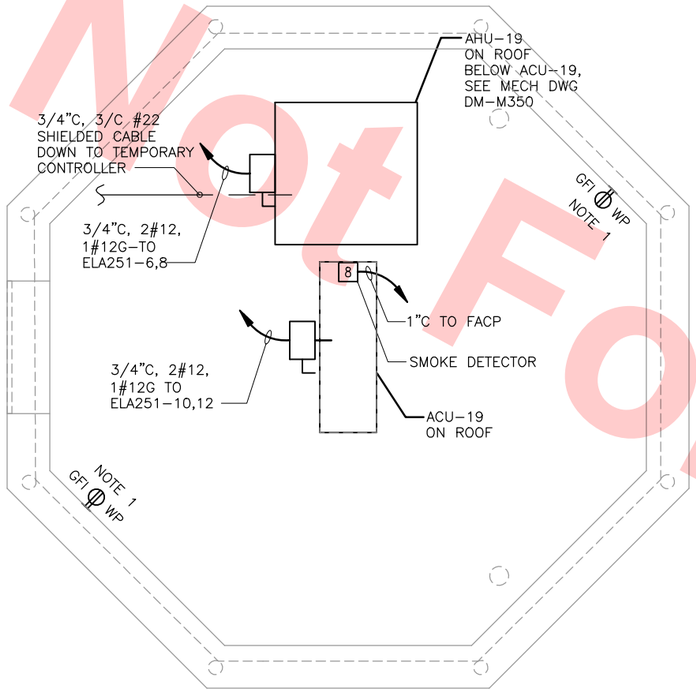
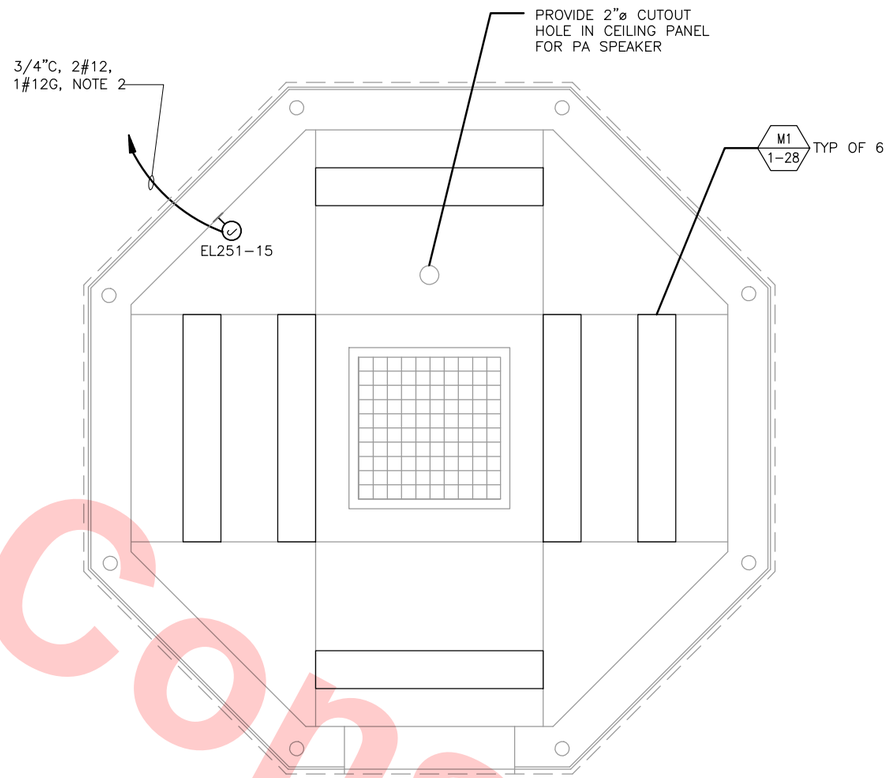


ROOF POWER PLAN

DETAIL 1 — SCALE: NTS — DB–E502



LIGHTING PLAN

DETAIL 2 — SCALE: NTS — DB–E502

NOTES

1. MOUNT RECEPTACLES IN PARAPET, 12" ABOVE ROOF FLOOR, SEAL PENETRATION THROUGH ROOF.
2. DOOR TO CONCOURSE LEVEL, PANEL EL251–15 FOR LIGHTING POWER.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. NG — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

SUBMITTED

Skanska Shimmick Herzog
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Milpitas, California 95035
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VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
STATION AGENT'S BOOTH
ELECTRICAL PLAN AND DETAIL
SHEET 2 OF 2

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CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E502 | PAGE NO. 0913

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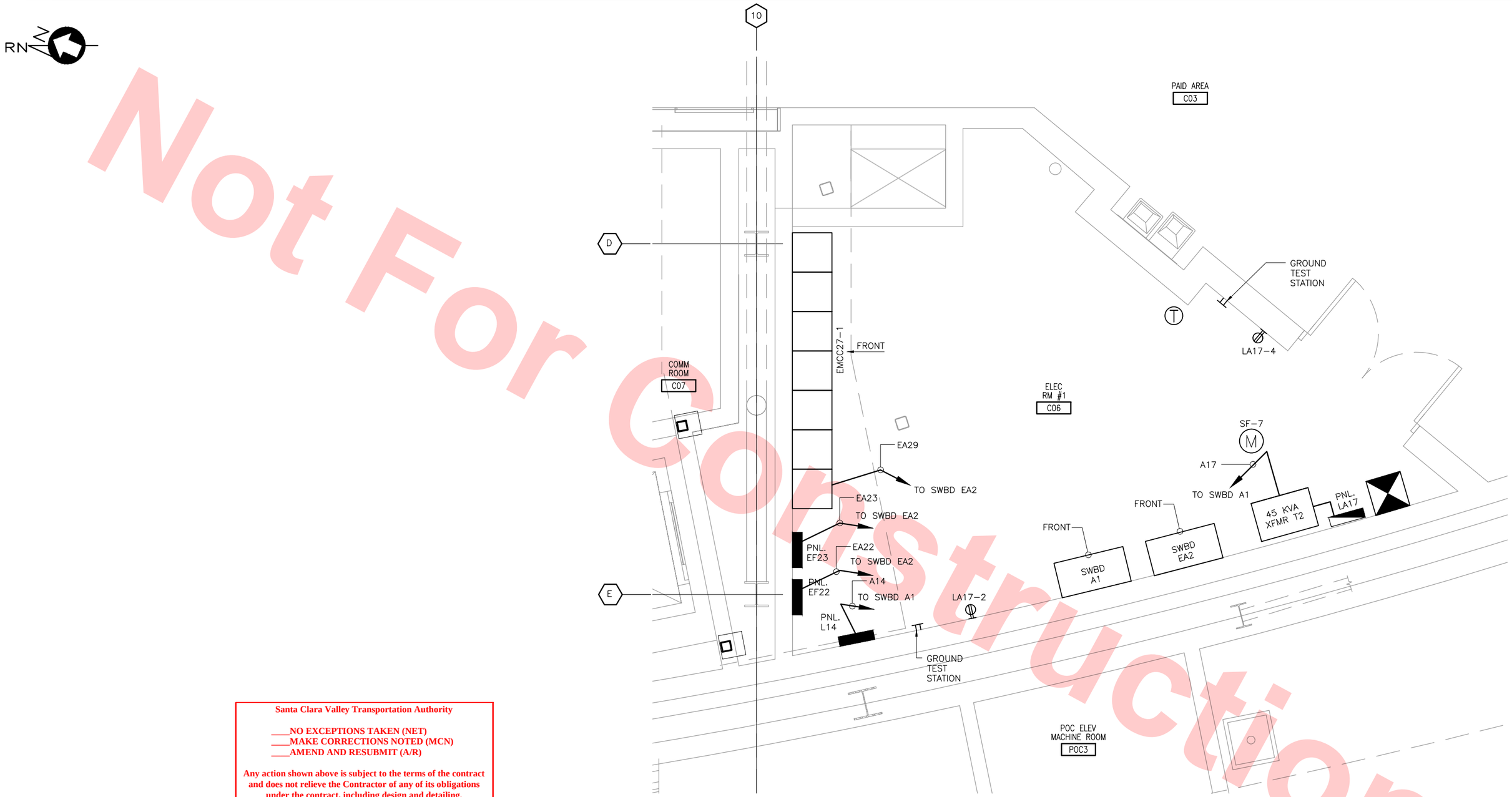

ELEC RM #1/CONCOURSE LEVEL

ENLARGED PLAN 2

SCALE: SCALE: 1/2"=1'–0"

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700–DB–E315, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. GILES — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

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Milpitas, California 95035
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SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

ELECTRICAL ROOM LAYOUT
SHEET 1 OF 3

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CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E503 | PAGE NO. 0914

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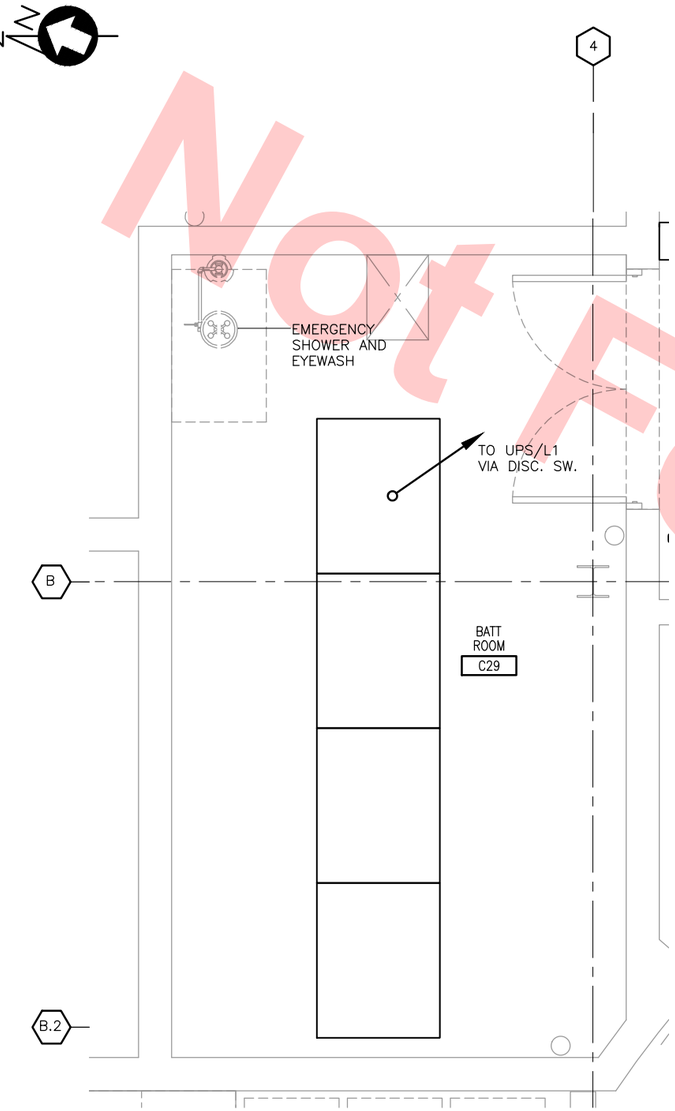
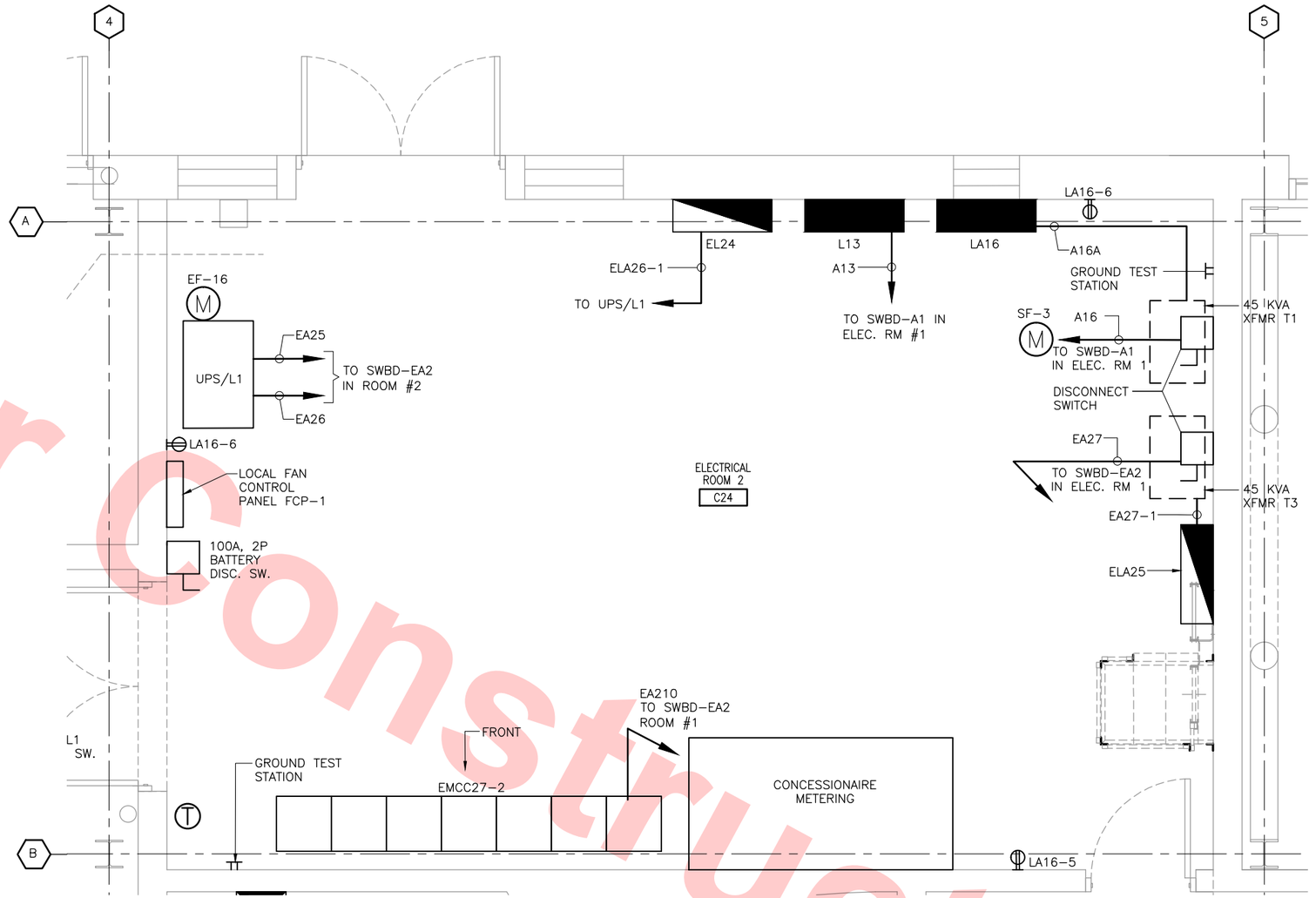


UPS/BATTERY RM

ENLARGED PLAN 1

SCALE: SCALE: 1/2"=1'-0"



ELEC RM #2/CONCOURSE LEVEL

ENLARGED PLAN 2

SCALE: SCALE: 1/2"=1'-0"

1' 0' 1' 2' 3' 4' 5'

GRAPHIC SCALE

Santa Clara Valley Transportation Authority

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____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
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					REPLACED C700-DB-E312, REV. 0

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

LICENSED PROFESSIONAL ENGINEER — LEWIS L. P. GILES — E11904 EXP. 12/31/14 — STATE OF CALIFORNIA — ELECTRICAL

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
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1970 Broadway, Suite 525, Oakland, CA 94612
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SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY — T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

ELECTRICAL ROOM LAYOUT
SHEET 2 OF 3

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AREA CODE DB | SHEET NO. E504 | PAGE NO. 0915

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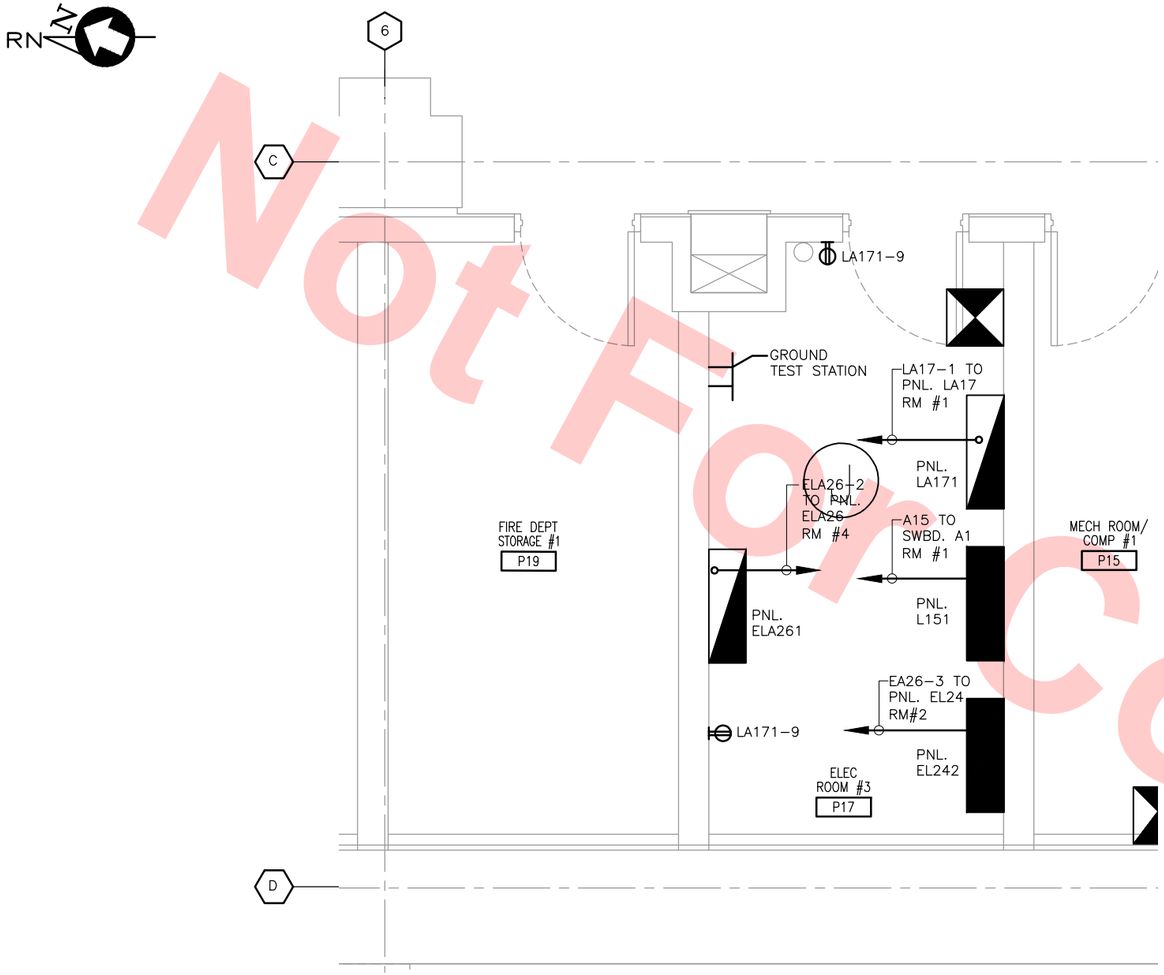

ELEC RM #3/PLATFORM #1 LEVEL

ENLARGED PLAN (1)

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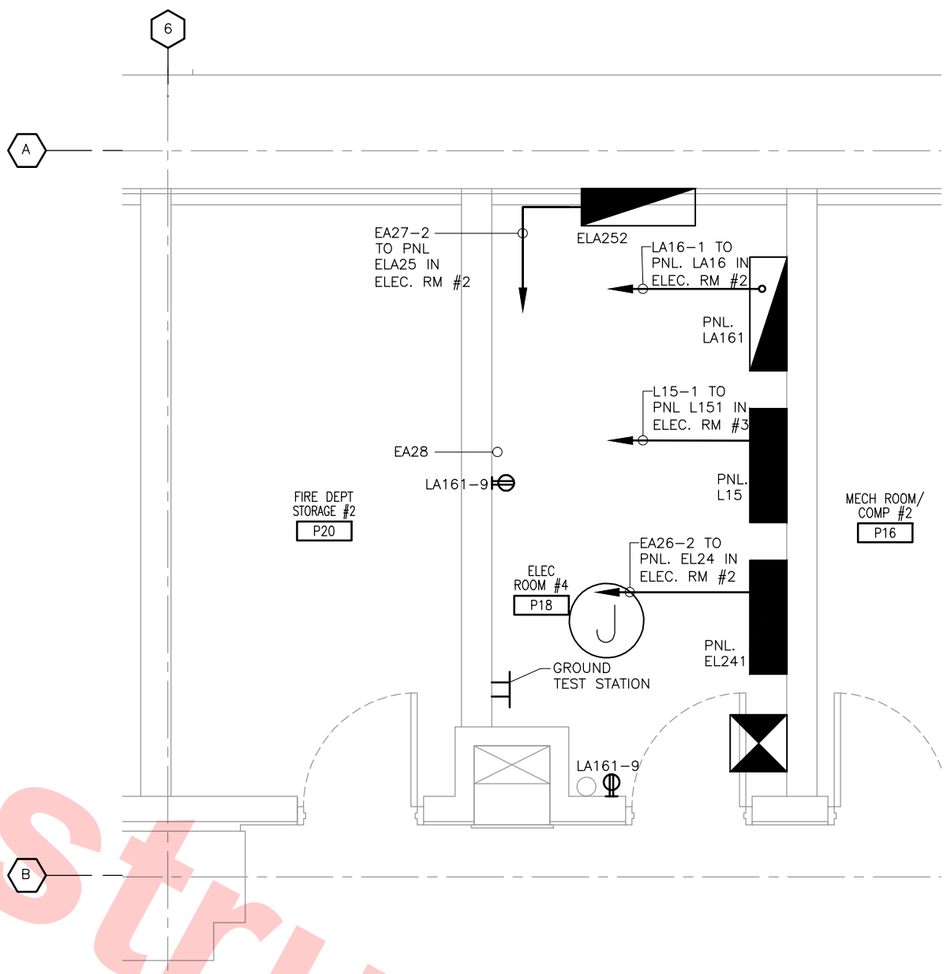

ELEC RM #4/PLATFORM #2 LEVEL

ENLARGED PLAN (2)

SCALE: SCALE: 1/2"=1'-0"

Santa Clara Valley Transportation Authority

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Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700-DB-302, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. NG — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
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SUBMITTED

Lockwood, Andrews & Newnam, Inc. — A URS × BALL COMPANY — T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

ELECTRICAL ROOM LAYOUT
SHEET 3 OF 3

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AREA CODE DB | SHEET NO. E505 | PAGE NO. 0916

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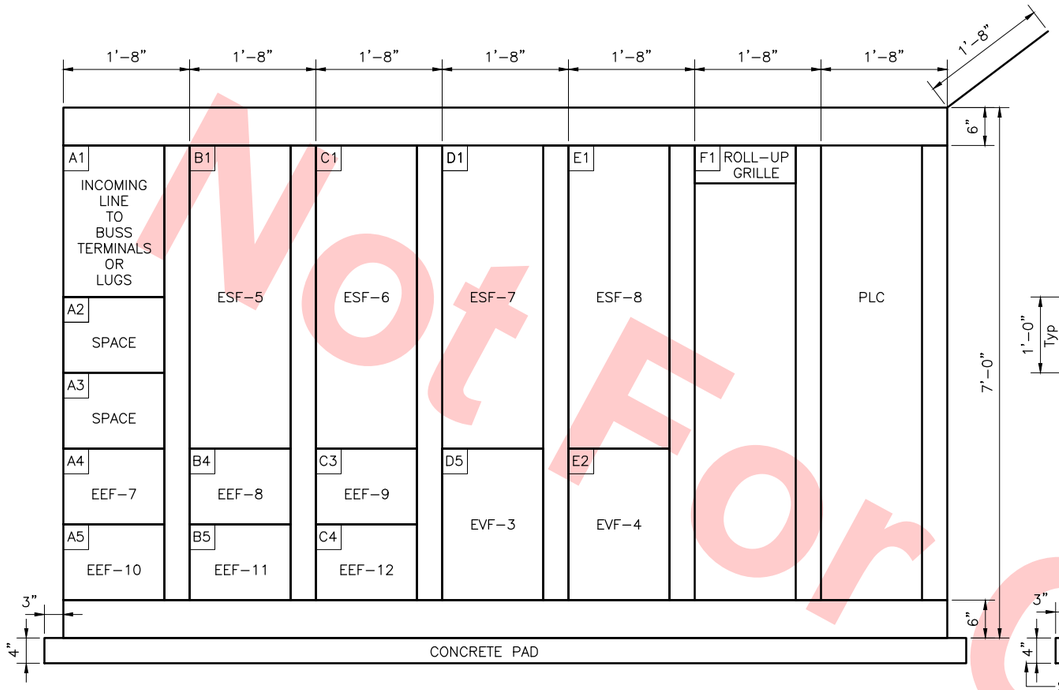
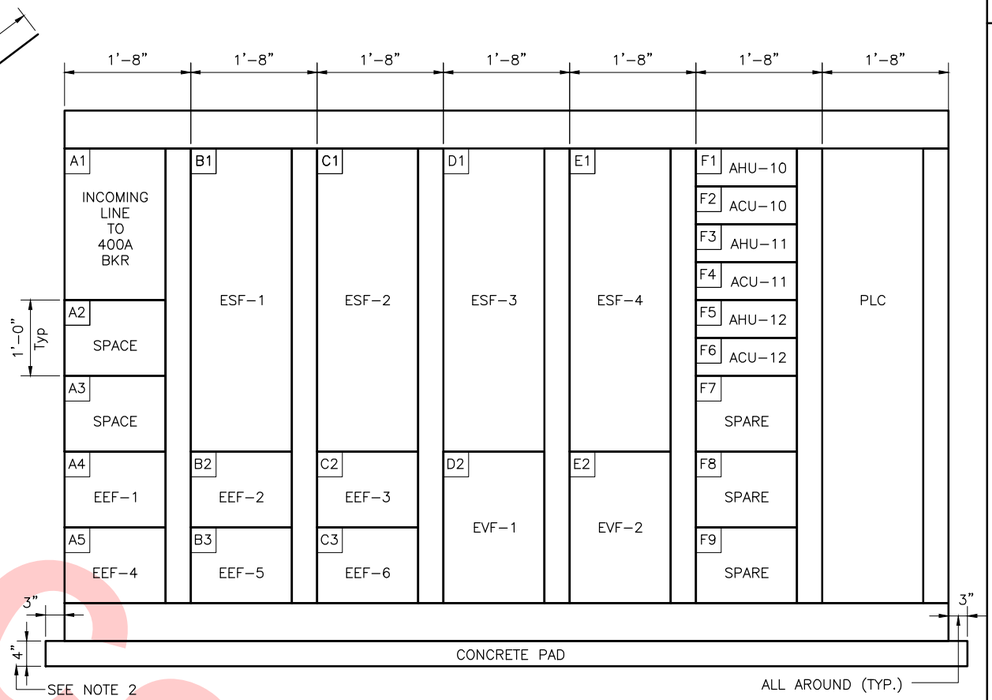


EMERGENCY MOTOR CONTROL CENTER "EMCC27-1"
(LOCATED IN ELEC. RM. #1, DWG. DB-E503) - ELEVATION 1
SCALE: NTS



EMERGENCY MOTOR CONTROL CENTER "EMCC27-2"
(LOCATED IN ELEC. RM. #2, DWG. DB-E504) - ELEVATION 1
SCALE: NTS

NOTES

1. FOR EMCC27-1 AND EMCC27-2, SEE SINGLE LINE DIAGRAM, SEE DRAWING E414 FOR BREAKER RATING.
2. PROVIDE 4" HIGH HOUSEKEEPING CONCRETE PAD FOR UNDER ALL FLOOR MOUNTED MOTOR CONTROL CENTERS. COORDINATE WITH EQUIPMENT MANUFACTURER'S SHOP DRAWINGS CONCERNING SIZE OF PAD, LOCATION AND SIZE OF BOLTS. INSERT ANCHOR BOLTS INTO BASE SLAB AS REQUIRED FOR EQUIPMENT STABILITY AGAINST OPERATING CONDITIONS AND SEISMIC EFFECTS. POUR CEMENT GROUT AFTER EQUIPMENT HAS BEEN LEVELED. ALL HOUSEKEEPING PADS SHALL BE REINFORCE WITH NO. 4 BARS AT 12" ON CENTER EACH WAY AT MID-HEIGHT OF PAD.
3. MOTOR CONTROL CENTERS EMCC227-1 AND EMCC227-2 CONTAINS ONLY FEEDER BREAKERS FOR FANS AND POWERS VFDs (VARIABLE FREQUENCY DRIVES) LOCATED NEAR EACH FAN.

Santa Clara Valley Transportation Authority

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By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. N. CHEN — E11904 EXP. 12/31/14 — STATE OF CALIFORNIA — ELECTRICAL

SUBMITTED Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture
Anil Verma Associates, Inc. 1970 Broadway, Suite 505 Oakland, CA 94612 Phone: (510) 535-2537 Fax: (510) 535-2339
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APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

MCC ELEVATIONS

CADD FILENAME C700-S-DB-E510.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E510 | PAGE NO. 0917

Jun 21, 2013 - 4:58pm G:\Giles Maravilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E510.dwg
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IDENTIFICATION	TYPE	DESCRIPTION	VOLTAGE	MFR CAT NUMBER	INPUT POWER (VA)	REMARK & MOUNTING
M1 1–28	FLUORESCENT	6"x4' PENDANT–MOUNTED LINEAR FLUOR. DOWNLIGHT (3)28–WATT LINEAR FLUORESCENT T5 PHILIPS LAMP OR EQUAL	277V	CUSTOMIZED PER BART SPEC	80	INTEGRATED INTO SLPA
M2 1–70	METAL HALLIDE	6" APERTURE RECESSED–MOUNTED METAL HALIDE ADJUSTABLE ACCENT LIGHT (1)70–WATT METAL HALIDE T6 PHILIPS LAMP OR EQUAL	277V	LIGHTOLIER C6T6ACCDP–MHT6RF– C6A70T6EZ OR EQUAL	85	PLATFORM
M3 4–28	FLUORESCENT	4" DIAMETER RECESSED–MOUNTED LINEAR FLUORESCENT WHITE ACRYLIC DOME (4)28–WATT LINEAR FLUORESCENT T5 PHILIPS LAMP OR EQUAL	277V	FOCAL POINT FSD44D4T5E– U–R–SC–HW OR EQUAL	120	PLATFORM
M4A 2–54	FLUORESCENT	6"x4' PENDANT–MOUNTED LINEAR FLUORESCENT STRIP LIGHT WITH REFLECTOR & GUARD (2)54–WATT LINEAR FLUORESCENT T5HO PHILIPS LAMP OR EQUAL	277V	HE WILLIAMS 84–4–254T5H– WG14–EB2–277 OR EQUAL	130	MTG 12'–0" AFF
M4B 4–54	FLUORESCENT	6"x8' PENDANT–MOUNTED LINEAR FLUORESCENT STRIP LIGHT WITH REFLECTOR & GUARD (4)54–WATT LINEAR FLUORESCENT T5HO PHILIPS LAMP OR EQUAL	277V	HE WILLIAMS 84–8–454T5H– WG14–EB2–277 OR EQUAL	260	
M4C 2–54	FLUORESCENT	6"x4' SURFACE–MOUNTED LINEAR FLUORESCENT STRIP LIGHT WITH REFLECTOR & GUARD (2)54–WATT LINEAR FLUORESCENT T5HO PHILIPS LAMP OR EQUAL	277V	HE WILLIAMS 84–4–254T5H– WG14–EB2–277 OR EQUAL	130	
M4D 4–54	FLUORESCENT	6"x8' SURFACE–MOUNTED LINEAR FLUORESCENT STRIP LIGHT WITH REFLECTOR & GUARD (4)54–WATT LINEAR FLUORESCENT T5HO PHILIPS LAMP OR EQUAL	277V	HE WILLIAMS 84–8–454T5H– WG14–EB2–277 OR EQUAL	260	
M5 1–150	METAL HALLIDE	WALL–MOUNTED METAL HALIDE AREA LIGHT (1)150–WATT METAL HALIDE ED17 PHILIPS LAMP OR EQUAL	277V	GARDCO 101–WT–150MH–277 –FINISH OR EQUAL	200	PLATFORM OPEN AREAS MTG 12'–0" AFF
M6 1–70	METAL HALLIDE	6" SURFACE–MOUNTED COMPACT METAL HALIDE CYLINDER DOWNLIGHT, WIDE BEAM SPREAD (1)70–WATT COMPACT METAL HALIDE T6 PHILIPS LAMP OR EQUAL	277V	LIGHTOLIER C6T6VNCCD–C6CS70T6E2 OR EQUAL	85	CONCOURSE STAIRS
M7 1–54	METAL HALLIDE	6" SURFACE–MOUNTED COMPACT METAL HALIDE CYLINDER DOWNLIGHT, NARROW BEAM SPREAD (1)70–WATT COMPACT METAL HALIDE T6 PHILIPS LAMP OR EQUAL	277V	LIGHTOLIER C6T6VNCCD–C6CS70T6E2 OR EQUAL	85	CONCOURSE STAIRS
M9 2–54	FLUORESCENT	2'x4' RECESSED–MOUNTED LINEAR FLUORESCENT UPLIGHT/DOWNLIGHT (2)54–WATT LINEAR FLUORESCENT T5HO PHILIPS LAMP OR EQUAL	277V	LIGHTOLIER CFS2–CEILING TYPE–P–W –2–54–277–PG OR EQUAL	130	
M10 2–28	FLUORESCENT	2'x4' RECESSED–MOUNTED LINEAR FLUORESCENT LENSED TROFFER (2)28–WATT LINEAR FLUORESCENT T5 PHILIPS LAMP OR EQUAL	277V	HE WILLIAMS 50–S24–228T5S–S–A12125 –EB2–277 OR EQUAL	80	
M12 1–70	METAL HALLIDE	WALL–MOUNTED COMPACT METAL HALIDE DIRECT/INDIRECT SCONCE (1)70–WATT COMPACT METAL HALIDE T6 PHILIPS LAMP OR EQUAL	277V	BEGA 6620MH OR EQUAL	85	EXTERIOR TRELLIS
M13 1–400	METAL HALLIDE	TRUSS –MOUNTED METAL HALIDE UPLIGHT (1)400–WATT METAL HALIDE ED28 PHILIPS LAMP OR EQUAL	277V	ELLIPTIPAR M–103–0400– MOUNTING–FINISH– B–00–0 OR EQUAL	480	CONCOURSE
M14 1–70	METAL HALLIDE	WALL–MOUNTED COMPACT METAL HALIDE ADJUSTABLE ACCENT LIGHT (1)70–WATT METAL HALIDE PAR 30 PHILIPS LAMP OR EQUAL	277V	RSA LIGHTING CGWA–24–A–FINISH– REMOTE BALLAST OR EQUAL	80	CONCOURSE
M15 1–70	METAL HALLIDE	6" TRUSS–MOUNTED COMPACT METAL HALIDE ADJUSTABLE ACCENT LIGHT (1)70–WATT COMPACT METAL HALIDE PAR 30 PHILIPS LAMP OR EQUAL	277V	LUMIERE 730–MH70PAR30 –277–ELMSM–FINISH– LVR–30 OR EQUAL	90	CONCOURSE
M16A 2–54	FLUORESCENT	6"x4' PENDANT–MOUNTED LINEAR FLUORESCENT STRIP LIGHT WITH REFLECTOR (2)54–WATT LINEAR FLUORESCENT T5HO PHILIPS LAMP OR EQUAL	277V	HE WILLIAMS 84–4–254T5H– WG14–EB2–277 OR EQUAL	130	

IDENTIFICATION	TYPE	DESCRIPTION	VOLTAGE	MFR CAT NUMBER	INPUT POWER (VA)	REMARK & MOUNTING
M17 1–70	METAL HALIDE	6" COLUMN–MOUNTED COMPACT METAL HALIDE ADJUSTABLE ACCENT LIGHT (1)70–WATT COMPACT METAL HALIDE PAR 30 PHILIPS LAMP OR EQUAL	277V	LUMIERE 730–MH70PAR30 –277–ELMSM–FINISH– LVR–30 OR EQUAL	90	CONCOURSE
M18 1–70	METAL HALLIDE	6"STRUCTURE–MOUNTED COMPACT METAL HALIDE ADJUSTABLE ACCENT LIGHT (1)70–WATT COMPACT METAL HALIDE PAR 30 PHILIPS LAMP OR EQUAL	277V	LUMIERE 730–MH70PAR30 –277–ELMSM–FINISH– LVR30 OR EQUAL	90	CONCOURSE ENTRY
M19 1–54	FLUORESCENT	6"x4' SURFACE–MOUNTED LINEAR FLUORESCENT STRIP LIGHT WITH LENS (1)54–WATT LINEAR FLUORESCENT T5HO PHILIPS LAMP OR EQUAL	277V	HE WILLIAMS 92–4–154T5H–A–WET/2 –EB1–277 OR EQUAL	65	CONCOURSE TVMS
M20 1–70	METAL HALIDE	LUMINOUSE – COLUMN METAL HALIDE AREA LIGHT (1) 70–WATT METAL HALIDE T6 PHILIPS OR EQUAL	277V	LUMEC OV2–70MH–277– LH6–11–PH–FINISH OR EQUAL	100	OUTDOOR PLAZA
M21 1–175	METAL HALIDE	POLE MOUNTED METAL HALIDE AREA LIGHT (1)175–WATT METAL HALIDE T6 PHILIPS LAMP OR EQUAL	277V	HESS CC450–175–M– 7–A–16RS–*_* OR EQUAL	200	CAMPUS
M22 1–39	METAL HALIDE	6" IN GRADE COMPACT METAL HALIDE ADJUSTABLE ACCENT LIGHT	277V	LUMIERE 730–MH39PAR30– 277–ELMB–FINISH– LVR–30 OR EQUAL		LANDSCAPE PLANTER
M23 1–39	METAL HALIDE	6" IN GRADE COMPACT METAL HALIDE ADJUSTABLE ACCENT LIGHT	277V	LUMIERE 730–MH39PAR30– 277–ELMB–FINISH– LVR–30 OR EQUAL		LANDSCAPE PLANTER
M24 2–32	FLUORESCENT	10" OPEN CYLINDER WITH 6" SEMI SPECULAR REFLECTOR HORIZONTAL POSITION	277V	GOTHAM LIGHTING CLED9–35/22–8ARLS		–
M25 2–42	FLUORESCENT	9" APERTURE WALL–MOUNTED COMPACT FLUORESCENT DOWNLIGHT (2)42–WATT	277V	GARDCO LIGHTING 101–WT–242TRF– 277–*_* OR EQUAL	85	
M26 LED	LED	0.75"WIDE X0.75" TALL HANDRAIL–MOUNTED LED DOWNLIGHT ( )–WATT LED	277V	ID LIGHTING 0–06–FINISH–2–PM –C–25–WHITE–LENGTH –2–1 OR EQUAL	15	POC HANDRAIL
M27 1–42	FLUORESCENT	8" APERTURE OPEN DOWNLIGHT 42TRT	277V	.	.	.

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — James L. N. Chen — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 535, Oakland, CA 94612
Phone: (510) 465-2537 Fax: (510) 535-2339

SUBMITTED _____

Lockwood, Andrews & Newnam, Inc. A URS / BALY COMPANY — T·Y·LIN INTERNATIONAL

APPROVED _____

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

LIGHTING FIXTURE SCHEDULE
SHEET 1 OF 2

CADD FILENAME C700–S–DB–E515.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E515 | PAGE NO. 0918

Jun 20, 2013 – 4:03pm G:\Giles Marovilla\Milpitas Station\Projectwise Sheets\C700–S–DB–E515.dwg GilesM

IDENTIFICATION	TYPE	DESCRIPTION	VOLTAGE	MFR CAT NUMBER	INPUT POWER (VA)	REMARK & MOUNTING
M28 2–54	FLUORESCENT	6"x4' PENDANT–MOUNTED LINEAR FLUORESCENT STRIP LIGHT WITH REFLECTOR (2)54–WATT LINEAR FLUORESCENT T5HO PHILIPS LAMP OR EQUAL	277V	HE WILLIAMS 84–4–254T5H–WG14–EB2–277 OR EQUAL	130	
M29 1–70	METAL HALIDE	6" WALL–MOUNTED COMPACT METAL HALIDE DOWNLIGHT (1)70–WATT COMPACT METAL HALIDE PAR 30 PHILLIPS OR EQUAL	277V	LUMIERE 715–MH70PAR30–*_*–OSL–30–LVR–30 OR EQUAL	90	POC GROUND LEVEL
M30 1–39	METAL HALIDE	6" WALL–MOUNTED COMPACT METAL HALIDE DOWNLIGHT (1)39–WATT COMPACT METAL HALIDE PAR 30 PHILLIPS OR EQUAL	277V	LUMIERE 715–MH39PAR30–*_*–OSL–30–LVR–30 OR EQUAL	50	POC BRIDGE LEVEL
M31 3–28	FLUORESCENT	6"x12' LONG WALL–MOUNTED LINEAR FLUORESCENT UPLIGHT (3)28–WATT LINEAR FLUORESCENT T5 PHILIPS LAMP OR EQUAL	277V	ELLIPTIPAR F105–T228–MOUNTING–FINISH–2–V00 OR EQUAL	110	
M32 2–54	FLUORESCENT	6"x4' SURFACE–MOUNTED LINEAR FLUORESCENT STRIP LIGHT WITH LENS (2)54–WATT LINEAR FLUORESCENT T5HO PHILIPS LAMP OR EQUAL	277V	HE WILLIAMS 92–4–254T5H–A–WET/2–EB1–277 OR EQUAL	130	UNDERFLOOR CHASE
M33 2–32	FLUORESCENT	2'x4' RECESSED–MOUNTED LINEAR FLUORESCENT SECURE ACCESS LENSED TROFFER (2)32–WATT LINEAR FLUORESCENT T5 PHILIPS OR EQUAL	277V	KENALL HASEF124–2–F54TSHO–EB–1–277–FRAME–HOUSING–1 OR EQUAL	130	SECURE INTERVIEW ROOM
MX1 1–5	LED	SINGLE FACE EXIT SIGN, CAST ALUMINUM HOUSING CLEAR U–V STABLE POLY CARBONATE COVER WITH UNIVERSAL DIRECTIONAL CHEVRON KNOCKOUTS, LED LAMPS, WHITE ON WHITE FACEPLATE/HOUSING COLOR GREEN COLOR LETTERING, DUAL VOLTAGE RATED OR EQUAL	120/277V		5	
MX2 1–5	LED	SAME AS MX1 EXCEPT DOUBLE FACE OR EQUAL	120/277V		5	
M1EM 1–28	FLUORESCENT	SAME AS M1 EXCEPT FIXTURE TO BE PROVIDED WITH EMERGENCY BATTERY PACK	277V		40	
M2EM 1–70	METAL HALIDE	SAME AS M2 EXCEPT FIXTURE TO BE PROVIDED WITH QUARTZ RESTRIKE	277V		85	
M4AEM 2–54	FLUORESCENT	SAME AS M4A EXCEPT FIXTURE TO BE PROVIDED WITH EMERGENCY BATTERY PACK	277V		130	
M4BEM 4–54	FLUORESCENT	SAME AS M4B EXCEPT FIXTURE TO BE PROVIDED WITH EMERGENCY BATTERY PACK	277V		260	
M4DEM 4–54	FLUORESCENT	SAME AS M4D	277V		260	
M6EM 2–32	FLUORESCENT	SAME AS D4	277V		70	
M6EM 1–70	METAL HALIDE	SAME AS M6 EXCEPT FIXTURE TO BE PROVIDED WITH QUARTZ RESTRIKE	277V		85	
M7EM 1–70	METAL HALIDE	SAME AS M7 EXCEPT FIXTURE TO BE PROVIDED WITH QUARTZ RESTRIKE	277V		85	

IDENTIFICATION	TYPE	DESCRIPTION	VOLTAGE	MFR CAT NUMBER	INPUT POWER (VA)	REMARK & MOUNTING
M9EM 2–54	FLUORESCENT	SAME AS M9 EXCEPT FIXTURE TO BE PROVIDED WITH EMERGENCY BATTERY PACK	277V		130	
M10EM 2–28	FLUORESCENT	SAME AS M10 EXCEPT FIXTURE TO BE PROVIDED WITH EMERGENCY BATTERY PACK	277V		70	
M16AEM 2–54	FLUORESCENT	SAME AS M16A EXCEPT FIXTURE TO BE PROVIDED WITH EMERGENCY BATTERY PACK	277V		130	
M32EM 2–54	FLUORESCENT	SAME AS M32 EXCEPT FIXTURE TO BE PROVIDED WITH EMERGENCY BATTERY PACK	277V		130	
M34A 1–28	FLUORESCENT	1' X 4' LINEAR DOWNLIGHT LENSED TROFFER (1) 28T5S PHILLIPS OR EQUAL	277V	HE WILLIAMS 50–F–S–1–4–128T5S–S–A–A12125–EB2–277	35	RECESSED
M34B 2–28	FLUORESCENT	1' X 4' LINEAR DOWNLIGHT LENSED TROFFER (1) 28T5S PHILLIPS OR EQUAL	277V	HE WILLIAMS 50–F–S–1–4–228T5S–S–A–A12125–EB2–277	70	RECESSED
M35A 3–54	FLUORESCENT	1' X 4' LINEAR DOWNLIGHT LENSED TROFFER (2) 54T5H PHILLIPS OR EQUAL	277V	HE WILLIAMS 50–F–S–1–4–254T5S–S–A–A12125–EB2–277	135	RECESSED
M36 3–28	FLUORESCENT	2' X 4' LINEAR DOWNLIGHT LENSED TROFFER (3) 28T5S PHILLIPS OR EQUAL	277V	HE WILLIAMS 50–F–S–2–4–328T5S–S–A–A12125–EB2–277	105	RECESSED
M37 2–32	FLUORESCENT	4' LINEAR FLUORESCENT WET LOCATION SURFACE MOUNTED LIGHT FIXTURE. (2) F32T8, W/ ELECTRONIC BALLAST AND OPTIONAL BATTERY PACK FOR EMERGENCY UNITS.	277V	LITHONIA EIS–2–32–PCL–277–GEB10IS–STSW–EL14DW (OPTIONAL)	95	RECESSED
M38 2–42	LED	2' X 4' LINEAR DOWNLIGHT LENSED TROFFER (3) 28T5S PHILLIPS OR EQUAL	277V	HE WILLIAMS 50–F–S–2–4–328T5S–S–A–A12125–EB2–277	105	RECESSED
M39 3–28	FLUORESCENT	2' X 4' LINEAR DOWNLIGHT LENSED TROFFER (3) 28T5S PHILLIPS OR EQUAL	277V	HE WILLIAMS 50–F–S–2–4–328T5S–S–A–A12125–EB2–277	105	RECESSED
M40 2–26	FLUORESCENT	10" APERTURE OPEN DOWNLIGHT WITH 6" SEMI REFLECTOR	277V	GOTHAM LIGHTING		
M41 1–150	METAL HALIDE	TRUSS–MOUNTED METAL HALIDE UPLIGHT. 1–150W	277V	LITHONIA	150	

Santa Clara Valley Transportation Authority

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Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

JULIUS L. GILES E11904 EXP. 12/31/14 REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA ELECTRICAL

SUBMITTED

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 505 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

LIGHTING FIXTURE SCHEDULE
SHEET 2 OF 2

CADD FILENAME C700–S–DB–E516.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E516 | PAGE NO. 0919

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LOCATION: ELEC RM#2 (Concourse Level, Col. A/4.5) — PANEL L13 NORMAL — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL-AMPS A	B	C	COL #2 VOL-AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	(6) M6, COL 6-7/A-B.5	510			1190			(15) M12, NORTH PARAPET LIGHTS	1	20	2
3	20	1	(7) M6, COL 7.6-9.3/A-B		595			650		(5) M4A, STAIR VENT RM. M02	1	20	4
5	20	1	(8) M6, COL 10-12.5/A-B.5			765			650	(5) M4A, STAIR VENT RM. M04	1	20	6
7	20	1	(5) M13, COL 7-10/A-B.5	2400			6691			AHU-12	3	35	8
9	20	1	(8) M17, COL 8-9/A-B.5		720			6691		--------	-	-	10
11	20	1	SPARE						6691	--------	-	-	12
13	20	1	TRAIN CONTROL/COMM. RM. C18	1690						SPARE	1	20	14
15	20	1	RMS. C22, C23, C46, C26-C29		3210					(11) M25 SOUTH PERIMETER LIGHTS	1	20	16
17	20	1	RMS C15, C25, C16, C19			2600				(9) M25 NORTH PERIMETER LIGHTS	1	20	18
19	20	1	SPARE				2310			ACU-12	3	20	20
21	20	1	RMS C03, C37, C38, C45		2190			2310		--------	-	-	22
23	20	1	RMS C24, C41, C28, C32-C34, C01			2460			2310	--------	-	-	24
25	20	1	EWH-3, COL 3/B.4	6000			2018			AHU-10	3	25	26
27	20		SPARE					2018		--------	-	-	28
29	20		SPARE						2018	--------	-	-	30
31	25	3	AHU-11	2018			3984			ACU-10	3	25	32
33	-	-	--------		2018			3983		--------	-	-	34
35	-	-	--------			2018			3983	--------	-	-	36
37	25	3	ACU-11	3984			2310			ROLLING GRILLE C/02B	3	20	38
39	-	-	--------		3984			2310		--------	-	-	40
41	-	-	--------			3984			2310	--------	-	-	42
SUB TOTAL				16602	12717	11827	18503	17962	17962	SUB TOTAL			

VOLTAGE: 480/227V,3P,4W
MAINS: 225A MAIN LUGS ONLY
MIN IC: 22,000A

35105 | 30679 | 29789

TOTAL 3 PHASE CONNECTED 95.57 KVA 114.9 AMPS

LOCATION: ELEC RM#4 (Platform #2 Level, Col. A/6.5) — PANEL L15 NORMAL — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL-AMPS A	B	C	COL #2 VOL-AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	PLATFORM #2, TRACK LEVEL CHASE LIGHTING	1690			1320			NORTH SLPA ENCL (11 M1) LIGHTS	1	20	2
3	20	1	NORTH CONCOURSE STAIR & NORTH PLATFORM		980			1320		NORTH SLPA ENCL (11 M1) LIGHTS	1	20	4
5	20	1	NORTH PLATFORM COL. 4-8/A-B.5,STAIR #6			2065			1200	NORTH SLPA ENCL (10 M1) LIGHTS	1	20	6
7	20	1	NORTH PLATFORM (M36) COL. 4-8/A-B.5	2340			2880			NORTH SLPA ENCL (24 M1) LIGHTS	1	20	8
9	20	1	NORTH PLATFORM (M36) COL. 8-10/A-B.5		2880			2800		NORTH SLPA ENCL (24 M1) LIGHTS	1	20	10
11	20	1	NORTH PLATFORM (M5) COL. 17.5-23/A-B.5			1015			3000	NORTH SLPA ENCL (25 M1) LIGHTS	1	20	12
13	20	1	NORTH PLATFORM COL. 4-10.5/A-B.5	880			3000			EWH-2, COL 2.25/B	1	20	14
15	20	1	NORTH PLATFORM COL. 8-11/A-B.5		2740			3000		EWH-2, COL 8/A.5	1	20	16
17	20	1	NORTH PLATFORM COL. 12-17.5/A-B.5			1965			3000	EWH-2, COL 20.6/B	1	20	18
19	20	1	NORTH PLATFORM COL. 7.5-11/A-B.5	540						SPARE	1	20	20
21	20	1	NORTH PLATFORM COL. 7.5-11/A-B.5		540					SPARE	1	20	22
23	20	1	NORTH PLATFORM COL. 7.5-11/A-B.5			1300				SPARE	1	20	24
25	20	1	SPARE							SPARE	1	20	26
27	20	1	SPARE							SPARE	1	20	28
29	20	1	SPARE							SPARE	1	20	30
31	20	1	SPARE							SPARE	1	20	32
33													34
35													36
37													38
39													40
41													42
SUB TOTAL				6450	7140	6345	7200	7200	7200	SUB TOTAL			

VOLTAGE: 480/227V,3P,4W
MAINS: 100A CB
MIN IC: 22,000A

13650 | 14340 | 13545

TOTAL 3 PHASE CONNECTED 41.5 KVA 50.0 AMPS

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

LOCATION: ELEC RM#1 (Concourse Leve,l Col. D/10.5) — PANEL L14 NORMAL — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL-AMPS A	B	C	COL #2 VOL-AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	(6) M6, COL 6-7/B.5-D	510			1020			(12) M12, NORTH PARAPET LIGHTS	1	20	2
3	20	1	(7) M6, COL 8-9.5/C-D		595			650		(5) M4A, STAIR VENT RM. M01	1	20	4
5	20	1	(8) M6, COL 10-12.5/B.5-D			680			650	(5) M4A, STAIR VENT RM. M03	1	20	6
7	20	1	(5) M13, COL 7-10/B.5-D	1440			3025			RMS C03, C06, C44, POC2, POC3, POC5	1	20	8
9	20	1	(8) M17, COL 8-9/C		720			2615		RMS C01, C11, C12, C42, C10, C08	1	20	10
11	20	1	(5) M6, (6)M2 COL 9.5-11.5/D-E.5			935				SPARE	1	20	12
13	20	1	(16) M14, SKYLIGHT AREA LIGHTING	1280			796			ROLLING GRILLE C/02E	1	20	14
15	20	1	SPARE					796		--------	1	20	16
17	20	1	SPARE						796	--------	1	20	18
19	20	1	SPARE							SPARE	1	20	20
21	20	1	SPARE							SPARE	1	20	22
23	20	1	SPARE							SPARE	1	20	24
25	20	1	SPARE							SPARE	1	20	26
27	20	1	SPARE							SPARE	1	20	28
29	20	1	SPARE							SPARE	1	20	30
31													32
33													34
35													36
37													38
39													40
41													42
SUB TOTAL				4190	1315	1615	4841	4061	1446	SUB TOTAL			

VOLTAGE: 480/227V,3P,4W
MAINS: 60A CB
MIN IC: 22,000A

9031 | 5376 | 3061

TOTAL 3 PHASE CONNECTED 17.47 KVA 21.01 AMPS

LOCATION: ELEC RM#3 (Platform #1 Level, Col. D/6.5) — PANEL L151 NORMAL — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL-AMPS A	B	C	COL #2 VOL-AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	PLATFORM #1, TRACK LEVEL CHASE LIGHTING	1690			1320			SOUTH SLPA ENCL (11 M1) LIGHTS	1	20	2
3	20	1	SOUTH CONCOURSE STAIR & SOUTH PLATFORM		980			1320		SOUTH SLPA ENCL (11 M1) LIGHTS	1	20	4
5	20	1	NORTH PLATFORM COL. 4-8/A-B.5,STAIR #5			2065			1200	SOUTH SLPA ENCL (10 M1) LIGHTS	1	20	6
7	20	1	SOUTH PLATFORM (M36) COL. 4-8/A-B.5	2340			2880			SOUTH SLPA ENCL (24 M1) LIGHTS	1	20	8
9	20	1	SOUTH PLATFORM (M36) COL. 8-10/A-B.5		2880			2800		SOUTH SLPA ENCL (24 M1) LIGHTS	1	20	10
11	20	1	SOUTH PLATFORM (M5) COL. 17.5-23/A-B.5			1015			3000	SOUTH SLPA ENCL (25 M1) LIGHTS	1	20	12
13	20	1	SOUTH PLATFORM COL. 4-10.5/A-B.5	880			3000			EWH-2, COL 2.25/D	1	20	14
15	20	1	SOUTH PLATFORM COL. 8-11/A-B.5		2740			3000		EWH-2, COL 8/C.5	1	20	16
17	20	1	SOUTH PLATFORM COL. 12-17.5/A-B.5			1965			3000	EWH-2, COL 20.6/D	1	20	18
19	20	1	SOUTH PLATFORM COL. 7.5-11/A-B.5	540						SPARE	1	20	20
21	20	1	SOUTH PLATFORM COL. 7.5-11/A-B.5		540					SPARE	1	20	22
23	20	1	SOUTH PLATFORM COL. 7.5-11/A-B.5			1300				SPARE	1	20	24
25	20	1	SPARE							SPARE	1	20	26
27	20	1	SPARE							SPARE	1	20	28
29	20	1	SPARE							SPARE	1	20	30
31													32
33													34
35													36
37													38
39													40
41													42
SUB TOTAL				6450	7140	6345	7200	7200	7200	SUB TOTAL			

VOLTAGE: 480/227V,3P,4W
MAINS: 100A CB
MIN IC: 22,000A

13650 | 14340 | 13545

TOTAL 3 PHASE CONNECTED 41.5 KVA 50.0 AMPS

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. NEUMANN — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2339

Lockwood, Andrews & Newnam, Inc. — T·Y·LIN INTERNATIONAL

SUBMITTED _____ APPROVED _____

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
PANEL SCHEDULES
LIGHTING
SHEET 1 OF 5

CADD FILENAME C700-S-DB-E520.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E520 | PAGE NO. 0920

Jun 21, 2013 - 4:58pm G:\Gles Manvilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E520.dwg GlesM

LOCATION: ELEC RM#2 (Concourse Level, Col. A/4.5) — PANEL LA16 NORMAL — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL-AMPS A	B	C	COL #2 VOL-AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	(5) RECPT AT RMS. C15, C19, C31	900			1200			(1) RECPT AT RM. C32 HAND DRYER	1	20	2
3	20	1	(5) RECPT AT RMS. C15, C19, C31, C25		900			1200		(1) RECPT AT RM. C33 HAND DRYER	1	20	4
5	20	1	(3) RECPT AT RMS. C24, C34, C35			540			1080	(6) RECPT AT RMS. C24, C34, C35	1	20	6
7	20	1	(2) RECPT AT RMS. M02, M04	360			900			(5) RECPT AT RMS. C38, M01, M03	1	20	8
9	20	1	(1) RECPT AT RM. C31 (WATER HEATER)		1000			52		AHU-9	2	20	10
11	20	1	IRRIGATION CONTROLLER RM. C19			500			52	--------	–	–	12
13	20	1	ROLLING GRILLE C/02A	1127			744			EF-12, EF-14	1	20	14
15	20	2	AHU-18		208			1300		EH-1	1	20	16
17	–	–	--------			208			1300	--------	1	20	18
19	40	3	PANEL LA161	4964			744			EF-11, EF-13	1	20	20
21	–	–	--------		3704			1435		ACU-9	2	20	22
23	–	–	--------			1728			1435	--------	–	–	24
25	20	1	SPARE				1716			ACU-13	2	20	26
27	20	1	SPARE					1716		--------	–	–	28
29	20	1	SPARE						1488	EF-16, EF-15, SF-3	1	20	30
31	20	1	SPARE				1176			ROLLING GRILLE C/02C	1	20	32
33	20	1	SPARE					208		AHU-16	2	20	34
35	20	1	SPARE						208	--------	–	–	36
37	20	1	SPARE				208			AHU-17	2	20	38
39	20	1	SPARE					208		--------	–	–	40
41	20	1	SPARE						372	SF-6	1	20	42
SUB TOTAL				6164	5812	3012	6616	6119	5935	SUB TOTAL			

VOLTAGE: 208/120V,3P,4W
MAINS: 125A CB
MIN IC: 22,000A

6616 | 6119 | 5935

TOTAL 3 PHASE CONNECTED 33.66 KVA 93.43 AMPS

LOCATION: ELEC RM#1 (Concourse Level, Col. D/10.5) — PANEL LA17 NORMAL — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL-AMPS A	B	C	COL #2 VOL-AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	(3) RECPT AT RMS. C05, C14, C12	540			540			(3) RECPT AT RMS. C03, C06, C07	1	20	2
3	20	1	(3) RECPT AT RMS. C14, C11		540			540		(3) RECPT AT RMS. C06, C07	1	20	4
5	20	1	(3) RECPT AT RMS. C10, C08			540			1212	EF-17, SF-4, SF-5	1	20	6
7	20	1	(3) RECPT AT RMS. C10, C08, C02	540			208			AHU-14	2	20	8
9	20	1	(3) RECPT AT RMS. C10, C08		540			208		--------	–	–	10
11	40	3	PANEL LA171	5494					208	AHU-15	2	20	12
13	–	–	--------		2882		208			--------	–	–	14
15	–	–	--------			1752				SPARE	2	20	16
17	20	1	SPARE							SPARE	–	–	18
19	20	1	SPARE				208			AHU-20	2	20	20
21	20	1	SPARE					208		--------	–	–	22
23	20	1	SPARE						1178	ROLLING GRILLE C/02D	1	20	24
25	20	1	SPARE				1178			ROLLING GRILLE C/02F	1	20	26
27	20	1	SPARE					52		AHU-21	2	20	28
29	20	1	SPARE						52	--------	–	–	30
31	20	1	SPARE				78			AHU-22	2	20	32
33	20	1	SPARE					78		--------	–	–	34
35	20	1	SPARE						1212	SF-7	1	20	36
37	20	1	SPARE				864			ROLL-UP DOOR POC/6	1	20	38
39	20	1	SPARE							SPACE	1	20	40
41	20	1	SPARE							SPACE	1	20	42
SUB TOTAL				6574	3962	2292	3284	1294	4070	SUB TOTAL			

VOLTAGE: 208/120V,3P,4W
MAINS: 125A CB
MIN IC: 22,000A

9858 | 5256 | 6362

TOTAL 3 PHASE CONNECTED 21.47 KVA 59.61 AMPS

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

LOCATION: ELEC RM#4 (Platform #2 Level, Col. A/6.5) — PANEL LA161 NORMAL — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL-AMPS A	B	C	COL #2 VOL-AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	(4) RECPT AT COL. 2, 5, 8, 11 (IN CHASE)	720			1584			EF-2, SF-2, EF-4, EF-6	1	20	2
3	20	1	(3) RECPT AT COL. 14, 17, 20 (IN CHASE)		540			52		AHU-2	1	20	4
5	20	1	(4) RECPT AT. COL. 1, 2.5, RM. P24			720			52	--------	1	20	6
7	20	1	(5) RECPT AT COL. 2, 4, 5, RMS. P24, P22	900			208			AHU-6	1	20	8
9	20	1	(5) RECPT AT RMS. P22, P20, P18, P16		900			208		--------	1	20	10
11	20	1	(5) RECPT AT COL. 8, RMS. P16, P14, P32			900			52	AHU-8	1	20	12
13	20	1	(5) RECPT BET. COL. 8-10	900			52			--------	1	20	14
15	20	1	(4) RECPT AT COL. 10 & RM. P10		720			744		EF-8, EF-10	1	20	16
17	20	1	SPARE			.				SPARE	1	20	18
19	20	1	SPARE	.						SPARE	1	20	20
21	20	1	(3) RECPT AT COL. 13.5, 16, RM. P02		540					SPARE	1	20	22
23	20	1	(3) RECPT AT COL. 13, RM. P34			540				SPACE			24
25	20	1	SPARE							SPACE			26
27	20	1	SPARE							SPACE			28
29	20	1	SPARE							SPACE			30
31	20	1	SPARE							SPACE			32
33	20	1	SPARE							SPACE			34
35	20	1	SPARE							SPACE			36
37	20	1	SPARE							SPACE			38
39	20	1	SPARE							SPACE			40
41	20	1	SPARE							SPACE			42
SUB TOTAL				3060	2700	1620	1844	1004	108	SUB TOTAL			

VOLTAGE: 208/120V,3P,4W
MAINS: 50A CB
MIN IC: 22,000A

4904 | 3704 | 1728

TOTAL 3 PHASE CONNECTED 10.34 KVA 28.69 AMPS

LOCATION: ELEC RM#3 (Platform #1 Level, Col. D/6.5) — PANEL LA171 NORMAL — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL-AMPS A	B	C	COL #2 VOL-AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	(4) RECPT AT COL. 2, 5, 8, 11 (IN CHASE)	720			1584			EF-1, SF-1, EF-3, EF-5	1	20	2
3	20	1	(3) RECPT AT COL. 14, 17, 20 (IN CHASE)		540			52		AHU-1	2	20	4
5	20	1	(4) RECPT AT COL. 1, 2, 3			720			52	--------	–	–	6
7	20	1	(6) RECPT AT COL. 4, 5, RMS. P23, P21	1080			78			AHU-3	2	20	8
9	20	1	(5) RECPT AT RMS. P21, P19, P17, P15		900			78		--------	–	–	10
11	20	1	(5) RECPT AT RMS. P15, P13, P31, COL. 8			720			208	AHU-5	2	20	12
13	20	1	(4) RECPT BET. COL. 8-10	720			208			--------	–	–	14
15	20	1	(4) RECPT AT COL. 11, RM. P09		720			52		AHU-7	2	20	16
17	20	1	SPARE						52	--------	–	–	18
19	20	1	(2) RECPT AT COL. 12, 13	360			744			EF-7, EF-9	1	20	20
21	20	1	(3) RECPT AT COL. 13.5, 16, RM. P01		540					SPARE	1	20	22
23	20	1	SPARE							SPARE	1	20	24
25	20	1	SPARE							SPARE	1	20	26
27	20	1	SPARE							SPARE	1	20	28
29	20	1	SPARE							SPARE	1	20	30
31	20	1	SPARE							SPARE	1	20	32
33	20	1	SPARE							SPACE			34
35	20	1	SPARE							SPACE			36
37	20	1	SPARE							SPACE			38
39	20	1	SPARE							SPACE			40
41	20	1	SPARE							SPACE			42
SUB TOTAL				2880	2700	1440	2614	182	312	SUB TOTAL			

VOLTAGE: 208/120V,3P,4W
MAINS: 50A CB
MIN IC: 22,000A

5494 | 2882 | 1752

TOTAL 3 PHASE CONNECTED 10.13 KVA 28.1 AMPS

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

LICENSED PROFESSIONAL ENGINEER — JAMES L. NEU — E11904 EXP. 12/31/14 — STATE OF CALIFORNIA — ELECTRICAL

SUBMITTED

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

PANEL SCHEDULES
SHEET 2 OF 5

CADD FILENAME C700-S-DB-E521.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E521 | PAGE NO. 0921

LOCATION: ANCILLARY BUILDING (PG&E Yard) — PANEL L115 NORMAL — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL–AMPS A	B	C	COL #2 VOL–AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	(2) M37 LTS AT RMS. A–08	190			200			EXH FANS EF–25, EF–26	1	20	2
3	20	1	(2) M37 LTS AT RMS. A–07		190					SPARE	1	20	4
5	20	1	SPARE							SPARE	1	20	6
7	50	3	T5 TRANSF. 30 KVA	10000						SPARE	1	20	8
9	–	–	--------		10000					SPARE	1	20	10
11	–	–	--------			10000				SPARE	1	20	12
13	20	1	SPARE							SPARE	1	20	14
15	20	1	SPARE							SPARE	1	20	16
17	20	1	SPARE							SPARE	1	20	18
19	20	1											20
21	20	1											22
23	20	1											24
25													26
27													28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
SUB TOTAL				10190	10190	10000	200			SUB TOTAL			

VOLTAGE: 480/277V,3P,4W
MAINS: 60A CB
MIN IC: 22,000A

10390 | 10190 | 10000

TOTAL 3 PHASE CONNECTED 30.58 KVA 36.78 AMPS

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

LOCATION: ELEC RM#4 (Platform #2 Level, Col. A/6.5) — PANEL EL241 EMERGENCY — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL–AMPS A	B	C	COL #2 VOL–AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	PLATFORM #2, TRACK LEVEL CHASE LIGHTING	910						SPARE	1	20	2
3	20	1	NORTH PLATFORM EMERGENCY LIGHTS		2075					SPARE	1	20	4
5	20	1	NORTH PLATFORM EMERGENCY LIGHTS			2010				SPARE	1	20	6
7	20	1	NORTH SLPA ENCLOSURE LIGHTS	2660						SPARE	1	20	8
9	20	1	NORTH SLPA ENCLOSURE LIGHTS		2660					SPARE	1	20	10
11	20	1	NORTH SLPA ENCLOSURE LIGHTS			2610				SPARE	1	20	12
13	20	1	SPARE							SPARE	1	20	14
15	20	1	BLUE LIGHT STATION–NORTH (EASTSIDE)		200					SPARE	1	20	16
17	20	1	BLUE LIGHT STATION–NORTH (WESTSIDE)			200				SPARE	1	20	18
19	20	1	SPARE										20
21	20	1	SPARE										22
23													24
25													26
27													28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
SUB TOTAL				3570	4935	2820				SUB TOTAL			

VOLTAGE: 480/227V,3P,4W
MAINS: 70A CB
MIN IC: 22,000A

3570 | 4935 | 4820

TOTAL 3 PHASE CONNECTED 13.33 KVA 16.0 AMPS

LOCATION: ANCILLARY BUILDING (PG&E Yard) — PANEL LA115 NORMAL — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL–AMPS A	B	C	COL #2 VOL–AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	(8) RECPT AT RMS. A–01, 02, 03, 04, 09	1440						SPACE			2
3	20	1	(7) RECPT AT RMS. A–02, 03, 07, 08, 09		1260					SPACE			4
5	20	1	(4) RECPT AT RMS. A–04, 06, 07, 09			720				SPACE			6
7	20	1	SPARE							SPACE			8
9	20	1	SPARE							SPACE			10
11	20	1	SPARE							SPACE			12
13	20	1	SPARE							SPACE			14
15	20	1	SPARE							SPACE			16
17	20	1	SPARE							SPACE			18
19	20	1	SPARE							SPACE			20
21	20	1	SPARE							SPACE			22
23	20	1	SPARE							SPACE			24
25	20	1	SPARE							SPACE			26
27	20	1	SPARE							SPACE			28
29	20	1	SPARE							SPACE			30
31	20	1	SPARE							SPACE			32
33	20	1	SPARE							SPACE			34
35	20	1	SPARE							SPACE			36
37	20	1	SPARE							SPACE			38
39	20	1	SPARE							SPACE			40
41	20	1	SPARE							SPACE			42
SUB TOTAL				1440	1260	720				SUB TOTAL			

VOLTAGE: 208/120V,3P,4W
MAINS: 50A CB
MIN IC: 22,000A

1440 | 1260 | 720

TOTAL 3 PHASE CONNECTED 3.42 KVA 16.5 AMPS

LOCATION: ELEC RM#3 (Platform #1 Level Col. D/6.5) — PANEL EL242 EMERGENCY — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL–AMPS A	B	C	COL #2 VOL–AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	PLATFORM #1, TRACK LEVEL CHASE LIGHTING	910			TBD			PANEL ELA243	1	20	2
3	20	1	SOUTH PLATFORM EMERGENCY LIGHTS		2075			TBD		--------	1	20	4
5	20	1	SOUTH SLPA ENCLOSURE (64 M1) LIGHTS			2010			TBD	--------	1	20	6
7	20	1	SOUTH SLPA ENCLOSURE LIGHTS	2660						SPARE	1	20	8
9	20	1	SOUTH SLPA ENCLOSURE LIGHTS		2660					SPARE	1	20	10
11	20	1	SPARE							SPARE	1	20	12
13	20	1	SPARE							SPARE	1	20	14
15	20	1	BLUE LIGHT STATION–NORTH (EASTSIDE)		200					SPARE	1	20	16
17	20	1	BLUE LIGHT STATION–NORTH (WESTSIDE)			200				SPARE	1	20	18
19	20	1	SPARE							SPARE	1	20	20
21	20	1	SPARE							SPARE	1	20	22
23													24
25													26
27													28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
SUB TOTAL				3570	4935	2210				SUB TOTAL			

VOLTAGE: 480/227V,3P,4W
MAINS: 60A CB
MIN IC: 22,000A

3570 | 4735 | 2010

TOTAL 3 PHASE CONNECTED 10.72 KVA 12.9 AMPS

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
	20130710				RECREATED SHEET, REV. P

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JULIUS L. [illegible] — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 505 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED _____

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED _____

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

PANEL SCHEDULES
SHEET 3 OF 5

CADD FILENAME C700–S–DB–E522.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E522 | PAGE NO. 0922

Jun 21, 2013 – 4:59pm G:\Giles Maravilla\Milpitas Station\Projectwise Sheets\C700–S–DB–E522.dwg GilesM

LOCATION: ELEC RM #2 (Concourse Level, Col. A/4.5) — PANEL EL24 EMERGENCY — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL–AMPS A	B	C	COL #2 VOL–AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	(9)M6 N. HIGH CLG., (2)M4A VENT FAN RMS.	1025			TBD			PANEL ELA241			2
3	20	1	(9)M6 S. HIGH CLG., (2)M4A VENT FAN RMS.		1025			TBD		--------			4
5	20	1	(3)M6, (3)M2 POC UPPER LOBBY & LANDING			510			TBD	--------			6
7	20	1	North Concourse Col. 2–4/A–D	1145			TBD			PANEL ELA242			8
9	20	1	North Concourse Col. 4–12/A–B.5		2000			TBD		--------			10
11	20	1	Rms C11,C42,C01,C06–C08,C44			1725			TBD	--------			12
13	20	1	SPARE										14
15	20	1	SPARE										16
17	20	1	SPARE										18
19	20	1	SPARE										20
21													22
23													24
25													26
27													28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
SUB TOTAL				2170	3025	2235				SUB TOTAL			

VOLTAGE: 480/227V,3P,4W
MAINS: 100A CB
MIN IC: 22,000A

2170 | 3025 | 2235

TOTAL 3 PHASE CONNECTED 7.43 KVA 8.09 AMPS

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

LOCATION: ELEC RM #2 (Concourse Level, Col. A/4.5) — PANEL ELA25 EMERGENCY — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL–AMPS A	B	C	COL #2 VOL–AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	(5) RECPT AT RMS. C46, C18, C16	900			1080			(6) RECPT AT RMS.C46,C25,C18,C16 COL 7.6	1	20	2
3	20	1	(4) RECPT AT RMS. C18, C16, C23		720			600		FACP AT EMP RM C36	1	20	4
5	20	1	(3) RECPT AT RMS. C36, C37			540			540	(3) RECPT AT RMS. C36, C37	1	20	6
7	20	1	FSD NORTH	200						SPACE			8
9	20	1	FSD NORTH		200					SPACE			10
11	20	1	FSD SOUTH			200				SPACE			12
13	20	1	FSD SOUTH	200						SPACE			14
15	20	1	SPARE							SPACE			16
17	20	1	SPARE							SPACE			18
19	20	1	SPARE							SPACE			20
21	20	1	SPARE							SPACE			22
23	20	1	SPARE							SPACE			24
25	20	1	SPARE							SPACE			26
27	20	1	SPARE							SPACE			28
29	20	1	SPARE							SPACE			30
31	20	1	SPARE							SPACE			32
33	20	1	SPARE							SPACE			34
35	20	1	SPARE							SPACE			36
37	20	1	SPARE							SPACE			38
39	20	1	SPARE							SPACE			40
41	20	1	SPARE							SPACE			42
SUB TOTAL				1300	920	740	1080	600	540	SUB TOTAL			

VOLTAGE: 208/120V,3P,4W
MAINS: 150A CB
MIN IC: 22,000A

GRAND TOTAL 2380 | 1520 | 1280

TOTAL 3 PHASE CONNECTED 5.18 KVA 14.4 AMPS

LOCATION: ANCILLARY BUILDING (PG&E YARD) — PANEL EL243 EMERGENCY — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL–AMPS A	B	C	COL #2 VOL–AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1													2
3													4
5													6
7													8
9													10
11													12
13													14
15													16
17													18
19													20
21													22
23													24
25													26
27													28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
SUB TOTAL				0	0	0	0	0	0	SUB TOTAL			

VOLTAGE: 480/277V,3P,4W
MAINS: 30A CB
MIN IC: 22,000A

TOTAL 3 PHASE CONNECTED ____ KVA ____ AMPS

LOCATION: (Station Agent's Booth (SAB),I Col. B.3/8) — PANEL ELA251 EMERGENCY — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL–AMPS A	B	C	COL #2 VOL–AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	(1) RECPT FOR HEATER AT SAB	1000			540			(3) RECPT AT SAB	1	20	2
3	20	1	(1) RECPT FOR HEATER AT SAB		1000			180		(1) RECPT AT SAB	1	20	4
5	20	1	(3) RECPT ABOVE CEILING AT SAB			540			166	AHU–19			6
7	20	1	(5) RECPT AT SAB	900			166			--------			8
9	20	1	(5) RECPT AT SAB		900			1716		ACU–19			10
11	20	1	(2) RECPT ABOVE COUNTER AT SAB			360			1716	--------			12
13	20	1	SPARE							SPACE			14
15	20	1	SPARE							SPACE			16
17	20	1	SPARE							SPACE			18
19	20	1	SPARE							SPACE			20
21	20	1	SPARE							SPACE			22
23	20	1	SPARE							SPACE			24
25	20	1	SPARE							SPACE			26
27	20	1	SPARE							SPACE			28
29	20	1	SPARE							SPACE			30
31	20	1	SPARE							SPACE			32
33	20	1	SPARE							SPACE			34
35	20	1	SPARE							SPACE			36
37	20	1	SPARE							SPACE			38
39	20	1	SPARE							SPACE			40
41	20	1	SPARE							SPACE			42
SUB TOTAL				1900	1900	900	706	1896	1882	SUB TOTAL			

VOLTAGE: 208/120V,3P,4W
MAINS: 70A CB
MIN IC: 22,000A

GRAND TOTAL 2606 | 3796 | 2782

TOTAL 3 PHASE CONNECTED 9.20 KVA 25.5 AMPS

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. NEU — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2339

Lockwood, Andrews & Newnam, Inc. — A LEO A DALY COMPANY
T·Y LIN INTERNATIONAL

SUBMITTED _____ APPROVED _____

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

PANEL SCHEDULES
SHEET 4 OF 5

CADD FILENAME C700–S–DB–E523.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E523 | PAGE NO. 0923

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LOCATION: ELEC RM#4 (Platform #2 Level, Col. A/6.5) — PANEL ELA252 EMERGENCY — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL–AMPS A	B	C	COL #2 VOL–AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	(5) RECPT AT COL. 3, 4, 13.5, RM. P22	900						SPACE			2
3	20	1	(5) RECPT AT COL. 10, 19, RM. P14, P34		900					SPACE			4
5	20	1	SPARE							SPACE			6
7	20	1	SPARE							SPACE			8
9	20	1	SPARE							SPACE			10
11	20	1	SPARE							SPACE			12
13	20	1	SPARE							SPACE			14
15	20	1	SPARE							SPACE			16
17	20	1	SPARE							SPACE			18
19	20	1	SPARE							SPACE			20
21	20	1	SPARE							SPACE			22
23	20	1	SPARE							SPACE			24
25	20	1	SPARE							SPACE			26
27	20	1	SPARE							SPACE			28
29	20	1	SPARE							SPACE			30
31	20	1	SPARE							SPACE			32
33	20	1	SPARE							SPACE			34
35	20	1	SPARE							SPACE			36
37	20	1	SPARE							SPACE			38
39	20	1	SPARE							SPACE			40
41	20	1	SPARE							SPACE			42
SUB TOTAL				900	900	0				SUB TOTAL			

VOLTAGE: 208/120V,3P,4W
MAINS: 70A CB
MIN IC: 22,000A

GRAND TOTAL 900 | 900 | 0

TOTAL 3 PHASE CONNECTED 1.80 KVA 8.65 AMPS

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

LOCATION: ELEC RM #1 (Concourse Level, Col. D/10.5) — PANEL EF22 EMERGENCY — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL–AMPS A	B	C	COL #2 VOL–AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	FARE GATE #1 – COL. 7.8/B–C	1000						SPACE	1	20	2
3	20	1	FARE GATE #2 – COL. 7.8/B–C		1000					SPACE			4
5	20	1	FARE GATE #3 – COL. 7.8/B–C			1000							6
7	20	1	FARE GATE #4 – COL. 7.8/B–C	1000									8
9	20	1	FARE GATE #5 – COL. 7.8/B–C		1000								10
11	20	1	FARE GATE #6 – COL. 7.8/B–C			1000							12
13	20	1	FARE GATE #7 – COL. 7.8/B–C	1000									14
15	20	1	FARE GATE #8 – COL. 7.8/B–C		1000								16
17	20	1	FARE GATE #9 – COL. 7.8/B–C			1000							18
19	20	1	FARE GATE #10 – COL. 7.8/B–C	1000									20
21	20	1	FARE GATE #11 – COL. 7.8/B–C		1000								22
23	20	1	FARE GATE #12 – COL. 7.8/B–C			1000							24
25	20	1	FARE GATE #13 – COL. 7.8/B–C	1000									26
27	20	1	ADA GATE #1 – COL. 7.8/B–C		1000								28
29	20	1	ADA GATE #2 – COL. 7.8/B–C			1000							30
31													32
33													34
35													36
37													38
39													40
41													42
SUB TOTAL										SUB TOTAL			

VOLTAGE: 480/227V,3P,4W
MAINS: 60A CB
MIN IC: 22,000A

TOTAL 3 PHASE CONNECTED ___ KVA ___ AMPS

LOCATION: ELEC RM#3 (Platform #1 Level, Col. D/6.5) — PANEL ELA261 EMERGENCY — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL–AMPS A	B	C	COL #2 VOL–AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	(5) RECPT AT COL. 3, 4, 13.5, RM. P23	900						SPACE			2
3	20	1	(5) RECPT AT COL. 10, 19, RMS. P13, P33		900					SPACE			4
5	20	1	SPARE							SPACE			6
7	20	1	SPARE							SPACE			8
9	20	1	SPARE							SPACE			10
11	20	1	SPARE							SPACE			12
13	20	1	SPARE							SPACE			14
15	20	1	SPARE							SPACE			16
17	20	1	SPARE							SPACE			18
19	20	1	SPARE							SPACE			20
21	20	1	SPARE							SPACE			22
23	20	1	SPARE							SPACE			24
25	20	1	SPARE							SPACE			26
27	20	1	SPARE							SPACE			28
29	20	1	SPARE							SPACE			30
31	20	1	SPARE							SPACE			32
33	20	1	SPARE							SPACE			34
35	20	1	SPARE							SPACE			36
37	20	1	SPARE							SPACE			38
39	20	1	SPARE							SPACE			40
41	20	1	SPARE							SPACE			42
SUB TOTAL				900	900	0				SUB TOTAL			

VOLTAGE: 208/120V,3P,4W
MAINS: 70A CB
MIN IC: 22,000A

GRAND TOTAL 900 | 900 | 0

TOTAL 3 PHASE CONNECTED 1.80 KVA 8.65 AMPS

LOCATION: ELEC RM #1 (Concourse Leve,l Col. D/10.5) — PANEL EF23 EMERGENCY — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL–AMPS A	B	C	COL #2 VOL–AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	FARE GATE #1 – COL. 9.2/B–C	1000						SPACE			2
3	20	1	FARE GATE #2 – COL. 9.2/B–C		1000					SPACE			4
5	20	1	FARE GATE #3 – COL. 9.2/B–C			1000							6
7	20	1	FARE GATE #4 – COL. 9.2/B–C	1000									8
9	20	1	FARE GATE #5 – COL. 9.2/B–C		1000								10
11	20	1	FARE GATE #6 – COL. 9.2/B–C			1000							12
13	20	1	FARE GATE #7 – COL. 9.2/B–C	1000									14
15	20	1	FARE GATE #8 – COL. 9.2/B–C		1000								16
17	20	1	FARE GATE #9 – COL. 9.2/B–C			1000							18
19													20
21													22
23													24
25													26
27													28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
SUB TOTAL										SUB TOTAL			

VOLTAGE: 480/227V,3P,4W
MAINS: 60A CB
MIN IC: 22,000A

TOTAL 3 PHASE CONNECTED ___ KVA ___ AMPS

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. N. [illegible] — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
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Anil Verma Associates, Inc.
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SUBMITTED _____

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED _____

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

PANEL SCHEDULES
SHEET 5 OF 5

CADD FILENAME C700-S-DB-E524.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E524 | PAGE NO. 0924

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480 V SWITCHBOARD "A1" (NORMAL BUS)

CIRCUIT NUMBER	APPLICATION	RUN			CONDUIT SIZE&TYPE	CONDUCTORS	INSTALLATION DRAWINGS	REMARKS
		FROM	VIA	TO				
A1–1	NORMAL POWER FEEDER–STATION	PG&E YARD MAIN SWBD AM	DUCT BANK "H–H"	SWITCHBOARD A1	5"C	4 #350 Kcmil, & 1 #1/0G		REF. DWG. DB–E825
A1–2	NORMAL POWER FEEDER–STATION	PG&E YARD MAIN SWBD AM	DUCT BANK "H–H"	SWITCHBOARD A1	5"C	4 #350 Kcmil, & 1 #1/0G		REF. DWG. DB–E825
A1–3	NORMAL POWER FEEDER–STATION	PG&E YARD MAIN SWBD AM	DUCT BANK "H–H"	SWITCHBOARD A1	5"C	4 #350 Kcmil, & 1 #1/0G		REF. DWG. DB–E825
A1–4	NORMAL POWER FEEDER–STATION	PG&E YARD MAIN SWBD AM	DUCT BANK "H–H"	SWITCHBOARD A1	5"C	4 #350 Kcmil, & 1 #1/0G		REF. DWG. DB–E825
A1–5	NORMAL POWER FEEDER–STATION	PG&E	DUCT BANK "H–H"	SWITCHBOARD A1	5"C			SPARE
A1–6	CONTROL	PG&E	DUCT BANK "H–H"	SWITCHBOARD A1	2"C	CONTROL		REF. DWG. DB–E825
A1–7	CONTROL	PG&E	DUCT BANK "H–H"	SWITCHBOARD A1	2"C	CONTROL		REF. DWG. DB–E825
SPARE	NORMAL POWER FEEDER	SWITCHBOARD "A1–1", SPARE 100AMP BREAKER		SPARE				
A12	NORMAL POWER FEEDER	SWITCHBOARD "A1–2"		PANEL "L15"	1 1/2"C	4#1, 1#8G		
A13	NORMAL POWER FEEDER	SWITCHBOARD "A1–3"		PANEL "L13"	2 1/2"C	4#4/0, 1#4G		
A14	NORMAL POWER FEEDER	SWITCHBOARD "A1–4"		PANEL "L14"	2 1/2"C	4#4/0, 1#4G		
A15	NORMAL POWER FEEDER	SWITCHBOARD "A1–5"		PANEL "L15"	2 1/2"C	4#4/0, 1#4G		
L15–1	NORMAL POWER FEEDER	PANEL "L15"		PANEL "L151"	1 1/2"C	4#4, 1#8G		
A16	NORMAL POWER FEEDER	SWITCHBOARD "A1–6"		75 KVA TRANSFORMER	1 1/2"C	4#1, 1#8G		
A16A	NORMAL POWER FEEDER	75 KVA TRANSFORMER		PANEL "LA16" HVAC/MISC. NORTH CONCOURSE	2 1/2"C	4#4/0, 1#8G		
L16–1	NORMAL POWER FEEDER	PANEL "LA16" HVAC/MISC. NORTH CONCOURSE		PANEL "L161" RECEPTACLE	1 1/2"C	4#1, 1#8G		
A17	NORMAL POWER FEEDER	SWITCHBOARD "A1–7"		75 KVA TRANSFORMER VIA NON–FUSED DISC. SW., Z17	1 1/2"C	4#1, 1#8G		
A17A	NORMAL POWER FEEDER	75 KVA TRANSFORMER		PANEL "LA17" HVAC/MISC. SOUTH CONCOURSE	2 1/2"C	4#4/0, 1#8G		
L17A–1	NORMAL POWER FEEDER	PANEL "LA17" HVAC/MISC. SOUTH CONCOURSE		PANEL "L171" RECEPTACLE	1 1/2"C	4#1, 1#8G		
A18	NORMAL POWER FEEDER	SWITCHBOARD "A1–8"		VIA NON–FUSED DISC. SW. Z18 FOR PNL 37D IN TCR	1 1/2"C	4#1, 1#8G		
A19	NORMAL POWER FEEDER	SWITCHBOARD "A1–9"		VIA NON–FUSED DISC. SW. Z19 FOR PNL 37D IN TCR	1 1/2"C	4#2, 1#8G		
A110	NORMAL POWER FEEDER	SWITCHBOARD "A1–10"		ESCALATOR #1 VFD VIA NON–FUSED DISC. SW.	1 1/2"C	3#1, 1#8G		
A111	NORMAL POWER FEEDER	SWITCHBOARD "A1–11"		ESCALATOR #2 VFD VIA NON–FUSED DISC. SW.	1 1/2"C	3#1, 1#8G		
A112	NORMAL POWER FEEDER	SWITCHBOARD "A1–12"		ESCALATOR #3 VFD VIA NON–FUSED DISC. SW.	1 1/2"C	3#1, 1#8G		
A113	NORMAL POWER FEEDER	SWITCHBOARD "A1–13"		ESCALATOR #4 VFD VIA NON–FUSED DISC. SW.	1 1/2"C	3#1, 1#8G		
SPARE	NORMAL POWER FEEDER	SWITCHBOARD "A1–14"		SPARE				
A115	NORMAL POWER FEEDER	SWITCHBOARD "A1–15"		PANEL "L115" IN PG & E SWITCH YARD	1 1/2"C	4#1, 1#8G		
A115A	NORMAL POWER FEEDER	PANEL "L115"		45 KVA TRANSFORMER IN PG & E SWITCH YARD	1 1/2"C	4#1, 1#8G		
A115A–1	NORMAL POWER FEEDER	45 KVA TRANSFORMER		PANEL "LA115" IN PG & E SWITCH YARD	1 1/2"C	4#1, 1#8G		
SPARE	NORMAL POWER FEEDER	SWITCHBOARD "A1–16", SPARE 225AMP BREAKER		SPARE				
SPACE	NORMAL POWER FEEDER	SWITCHBOARD "A1–17"		SPACE				
SPACE	NORMAL POWER FEEDER	SWITCHBOARD "A1–18"		SPACE				

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. N. BARLAAN — E11904 Exp. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

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Milpitas, California 95035
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SUBMITTED

Lockwood, Andrews & Newnam, Inc. — A URS / AECOM COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
ELECTRICAL RACEWAY AND
CIRCUIT SCHEDULE
SHEET 1 OF 4

CADD FILENAME C700–S–DB–E530.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E530 | PAGE NO. 0925

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480 V SWITCHBOARD "EA2" (GENERATOR BUS)

CIRCUIT NUMBER	APPLICATION	RUN			CONDUIT SIZE&TYPE	CONDUCTORS	INSTALLATION DRAWINGS	REMARKS
		FROM	VIA	TO				
EA2-1	EMERGENCY POWER FEEDER	PG & E YARD TRANSFER SWITCH "ATS-1"	DUCT BANK "H-H" REF. DWG. DB-E825	SWITCHBOARD "A1"	5" C	8-350MCM & 2 #1/0G		2-250 MCM PER PHASE & NEUTRAL AND 2-1#0 GND
EA2-2	EMERGENCY POWER FEEDER	PG & E YARD TRANSFER SWITCH "ATS-1"	DUCT BANK "H-H" REF. DWG. DB-E825	SWITCHBOARD "A1"	5" C	8-350MCM & 2 #1/0G		2-250 MCM PER PHASE & NEUTRAL AND 2-1#0 GND
EA2-3	EMERGENCY POWER FEEDER	PG & E YARD TRANSFER SWITCH "ATS-1"	DUCT BANK "H-H" REF. DWG. DB-E825	SWITCHBOARD "A1"	5" C	8-350MCM & 2 #1/0G		2-250 MCM PER PHASE & NEUTRAL AND 2-1#0 GND
EA2-4	EMERGENCY POWER FEEDER	PG & E YARD TRANSFER SWITCH "ATS-1"	DUCT BANK "H-H" REF. DWG. DB-E825	SWITCHBOARD "A1"	5" C	8-350MCM & 2 #1/0G		2-250 MCM PER PHASE & NEUTRAL AND 2-1#0 GND
EA2-5	EMERGENCY POWER FEEDER	PG & E YARD TRANSFER SWITCH "ATS-1"	DUCT BANK "H-H" REF. DWG. DB-E825	SWITCHBOARD "A1"	5" C			SPARE
A1-6	CONTROL	PG & E	DUCT BANK "H-H" REF. DWG. DB-E825	SWITCHBOARD "A1"	2" C	CONTROL		
A1-7	CONTROL	PG & E	DUCT BANK "H-H" REF. DWG. DB-E825	SWITCHBOARD "A1"	2" C	CONTROL		
SPARE	EMERGENCY POWER FEEDER	SWITCHBOARD "EA2-1", 60A BREAKER		SPARE				
SPARE	EMERGENCY POWER FEEDER	SWITCHBOARD "EA2-2", 250A BREAKER		SPARE				
EA23	EMERGENCY POWER FEEDER	SWITCHBOARD "EA2-3"		PANEL "EF22" FARE COLLECTION	1 1/2"C	4#4, 1#8G		
EA24	EMERGENCY POWER FEEDER	SWITCHBOARD "EA2-4"		PANEL "EF23" FARE COLLECTION	1 1/2"C	4#4, 1#8G		
EA25	EMERGENCY POWER FEEDER	SWITCHBOARD "EA2-5"		100A TRANSFER SWITCH	1 1/2"C	4#2, 1#8G		
EA26	GENERATOR POWER FEEDER	SWITCHBOARD "EA2-6"		60 KVA, UPS / L1	1 1/2"C	4#2, 1#8G		
EA26-1	EMERGENCY POWER FEEDER	60 KVA, UPS/L1	TRANSFER SWITCH	EMERGENCY DISTRIBUTION PANEL "EL24"	1 1/2"C	4#2, 1#8G		
EA26-2	EMERGENCY POWER FEEDER	EMERG. DIST. PNL. "EL24"		PANEL "EL241" LIGHTING NORTH PLATFORM	1 1/2"C	4#4, 1#8G		
L16A-3	EMERGENCY POWER FEEDER	EMERG. DIST. PNL. "EL24"		PANEL "EL242" LIGHTING SOUTH PLATFORM	1 1/2"C	4#4, 1#8G		
EA27	EMERGENCY POWER FEEDER	SWITCHBOARD "EA2-7"		75 KVA TRANSFORMER	1 1/2"C	4#1/0, 1#8G		
EA27-1	EMERGENCY POWER FEEDER	75 KVA TRANSFORMER		PANEL "ELA25" HVAC/RECPT./MISC. NORTH CONCOURSE IN ELECTRICAL ROOM #2	1 1/2"C	4#1, 1#8G		
EA27-2	EMERGENCY POWER FEEDER	PANEL "ELA25" IN ELEC. RM. #2		PANEL "ELA251" STATION AGENT'S BOOTH	1 1/2"C	4#4, 1#8G		
EA27-3	EMERGENCY POWER FEEDER	PANEL "ELA252" IN ELEC. RM. #2		PANEL "ELA252" IN ELEC. RM. #4 ON PLATFORM #2	1 1/2"C	4#1, 1#8G		
EA28	EMERGENCY POWER FEEDER	SWITCHBOARD "EA2-8"	DISC. SW. EZ28	45 KVA XFMR EX28	1 1/2"C	4#4, 1#8G		
EA28-1	EMERGENCY POWER FEEDER	45 KVA TRANSFORMER, EX28		PANEL "ELA26" HVAC/RECPT./MISC. PLATFORM	1 1/2"C	4#1, 1#8G		
NOT USED								
EA29	EMERGENCY POWER FEEDER	SWITCHBOARD "EA2-9"		EMERG. VENTILATION MOTOR CONTROL CENTER "EMCC27-1"	3 1/2"C	4#350 MCM, 1#2G		
EA210	EMERGENCY POWER FEEDER	SWITCHBOARD "EA2-10"		EMERG. VENTILATION MOTOR CONTROL CENTER "EMCC27-2"	3 1/2"C	4#350 MCM, 1#2G		
EA211	EMERGENCY POWER FEEDER	SWITCHBOARD "EA2-11"	NFD DISC. SW. EZ211	HYDRAULIC ELEV. #1 STARTER	1 1/2"C	4#2, 1#8G		
EA212	EMERGENCY POWER FEEDER	SWITCHBOARD "EA2-12"	NFD DISC. SW. EZ212	HYDRAULIC ELEV. #2 STARTER	1 1/2"C	4#2, 1#8G		
EA213	EMERGENCY POWER FEEDER	SWITCHBOARD "EA2-13"	NFD DISC. SW. EZ213	HYDRAULIC ELEV. #3 STARTER	1 1/2"C	4#2, 1#8G		
EA214	EMERGENCY POWER FEEDER	SWITCHBOARD "EA2-14"	NFD DISC. SW. EZ214	HYDRAULIC ELEV. #4 STARTER	1 1/2"C	4#2, 1#8G		
EA215	EMERGENCY POWER FEEDER	SWITCHBOARD "EA2-15"	FUSED DISC. SW.	TRAIN CONTROL ROOM (TCR) TO 60KVA UPS FOR ESSENTIAL DISTRIBUTION PANEL	1 1/2"C	4#2, 1#8G		
EA216	EMERGENCY POWER FEEDER	SWITCHBOARD "EA2-16"		PUMP STATION STZ	2 5"C			
EA217	EMERGENCY POWER FEEDER	SWITCHBOARD "EA2-17"	NFD DISC. SW. EZ217	FIRE PUMP & JOCKEY	2 1/2"C	4 #4/0, 1#4G		
EA218	EMERGENCY POWER FEEDER	SWITCHBOARD "EA2-18", 100A, FEEDER BREAKER		SPARE				

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. NG — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

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1970 Broadway, Suite 505 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
ELECTRICAL RACEWAY AND CIRCUIT SCHEDULE
SHEET 2 OF 4

CADD FILENAME C700-S-DB-E531.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E531 | PAGE NO. 0926

Jun 21, 2013 - 4:59pm GlesM G:\Gles Maravilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E531.dwg

EMERGENCY MOTOR CONTROL CENTER "EMCC27-1"

CIRCUIT NUMBER	APPLICATION	RUN			CONDUIT SIZE&TYPE	CONDUCTORS	INSTALLATION DRAWINGS	REMARKS
		FROM	VIA	TO				
EMCC2711	EMERGENCY BUS POWER FEEDER	EMERG. MCC, "EMCC271-1" BREAKER COMP	NFD DISC. SW. Z11	FOR EMERG. VENTILATION FAN, "EVF-1" 15 HP.	3/4" C	3#8 &, 1#8G		
EMCC2712	EMERGENCY BUS POWER FEEDER	EMERG. MCC, "EMCC271-2" BREAKER COMP	NFD DISC. SW. Z12	FOR EMERG. VENTILATION FAN, "EVF-2" 15 HP.	3/4" C	3#8 &, 1#8G		STAND-BY
EMCC2713	EMERGENCY BUS POWER FEEDER	EMERG. MCC, "EMCC271-3" BREAKER COMP	NFD DISC. SW. Z13	FOR EMERG. EXHAUST FAN, "EEF-7 7.5 HP.	3/4" C	3#10 &, 1#12G		
EMCC2714	EMERGENCY BUS POWER FEEDER	EMERG. MCC, "EMCC271-4" BREAKER COMP	NFD DISC. SW. Z14	FOR EMERG. EXHAUST FAN, "EEF-8" 7.5 HP.	3/4" C	3#10 &, 1#12G		
EMCC2715	EMERGENCY BUS POWER FEEDER	EMERG. MCC, "EMCC271-5" BREAKER COMP	NFD DISC. SW. Z15	FOR EMERG. EXHAUST FAN, "EEF-9" 7.5 HP.	3/4" C	3#10 &, 1#12G		
EMCC2716	EMERGENCY BUS POWER FEEDER	EMERG. MCC, "EMCC271-6" BREAKER COMP	NFD DISC. SW. Z16	FOR EMERG. EXHAUST FAN, "EEF-10" 7.5 HP.	3/4" C	3#10 &, 1#12G		STAND-BY
EMCC2717	EMERGENCY BUS POWER FEEDER	EMERG. MCC, "EMCC271-7" BREAKER COMP	NFD DISC. SW. Z17	FOR EMERG. EXHAUST FAN, "EEF-5" 7.5 HP.	3/4" C	3#10 &, 1#12G		
EMCC2718	EMERGENCY BUS POWER FEEDER	EMERG. MCC, "EMCC271-8" BREAKER COMP	NFD DISC. SW. Z18	FOR EMERG. EXHAUST FAN, "EEF-6" 7.5 HP.	3/4" C	3#10 &, 1#12G		
EMCC2719	EMERGENCY BUS POWER FEEDER	EMERG. MCC, "EMCC271-9" BREAKER COMP	NFD DISC. SW. Z19	FOR EMERG. SUPPLY FAN, "ESF-3" 60 HP.	1 1/2" C	3#10 &, 1#12G		STAND-BY
EMCC27110	EMERGENCY BUS POWER FEEDER	EMERG. MCC, "EMCC271-10" BREAKER COMP	NFD DISC. SW. Z110	FOR EMERG. SUPPLY FAN, "ESF-6" 60 HP.	1 1/2" C	3 #1/0 &, 1#8G		
EMCC27111	EMERGENCY BUS POWER FEEDER	EMERG. MCC, "EMCC271-11" BREAKER COMP	NFD DISC. SW. Z111	FOR EMERG. SUPPLY FAN, "ESF-7" 60 HP.	1 1/2" C	3 #1/0 &, 1#8G		
EMCC27112	EMERGENCY BUS POWER FEEDER	EMERG. MCC, "EMCC271-12" BREAKER COMP	NFD DISC. SW. Z112	FOR EMERG. SUPPLY FAN, "ESF-8" 60 HP.	1 1/2" C	3 #1/0 &, 1#8G		STAND-BY
SPACE	EMERGENCY BUS POWER FEEDER	EMERG. MCC, "EMCC271-13" BREAKER COMP		SPACE				
SPACE	EMERGENCY BUS POWER FEEDER	EMERG. MCC, "EMCC271-14" BREAKER COMP		SPACE				

EMERGENCY MOTOR CONTROL CENTER "EMCC27-2"

CIRCUIT NUMBER	APPLICATION	RUN			CONDUIT SIZE&TYPE	CONDUCTORS	INSTALLATION DRAWINGS	REMARKS
		FROM	VIA	TO				
EMCC2721	EMERGENCY BUS POWER FEEDER	EMERGENCY MCC, "EMCC272-1" BREAKER COMP	NFD DISC. SW. Z21	FOR EMERG. VENTILATION FAN, "EVF-3" 15 HP.	3/4" C	3#8 &, 1#10G		
EMCC2722	EMERGENCY BUS POWER FEEDER	EMERGENCY MCC, "EMCC272-2" BREAKER COMP	NFD DISC. SW. Z22	FOR EMERG. VENTILATION FAN, "EVF-4" 15 HP.	3/4" C	3#8 &, 1#10G		STAND-BY
EMCC2723	EMERGENCY BUS POWER FEEDER	EMERGENCY MCC, "EMCC272-3" BREAKER COMP	NFD DISC. SW. Z23	FOR EMERG. EXHAUST FAN, "EEF-1" 7.5 HP.	3/4" C	3#10 &, 1#12G		
EMCC2724	EMERGENCY BUS POWER FEEDER	EMERGENCY MCC, "EMCC272-4" BREAKER COMP	NFD DISC. SW. Z24	FOR EMERG. EXHAUST FAN, "EEF-2" 7.5 HP.	3/4" C	3#10 &, 1#12G		STAND-BY
EMCC2725	EMERGENCY BUS POWER FEEDER	EMERGENCY MCC, "EMCC272-5" BREAKER COMP	NFD DISC. SW. Z25	FOR EMERG. EXHAUST FAN, "EEF-3" 7.5 HP.	3/4" C	3#10 &, 1#12G		
EMCC2726	EMERGENCY BUS POWER FEEDER	EMERGENCY MCC, "EMCC272-6" BREAKER COMP	NFD DISC. SW. Z26	FOR EMERG. EXHAUST FAN, "EEF-4" 7.5 HP.	3/4" C	3#10 &, 1#12G		
EMCC2727	EMERGENCY BUS POWER FEEDER	EMERGENCY MCC, "EMCC272-7" BREAKER COMP	NFD DISC. SW. Z27	FOR EMERG. EXHAUST FAN, "EEF-5" 7.5 HP.	3/4" C	3#10 &, 1#12G		
EMCC2728	EMERGENCY BUS POWER FEEDER	EMERGENCY MCC, "EMCC272-8" BREAKER COMP	NFD DISC. SW. Z28	FOR EMERG. EXHAUST FAN, "EEF-6" 7.5 HP.	3/4" C	3#10 &, 1#12G		
EMCC2729	EMERGENCY BUS POWER FEEDER	EMERGENCY MCC, "EMCC272-9" BREAKER COMP	NFD DISC. SW. Z29	FOR EMERG. SUPPLY FAN, "ESF-1" 60 HP.	1 1/2" C	3#10 &, 1#12G		
EMCC27210	EMERGENCY BUS POWER FEEDER	EMERGENCY MCC, "EMCC272-10" BREAKER COMP	NFD DISC. SW. Z210	FOR EMERG. SUPPLY FAN, "ESF-2" 60 HP.	1 1/2" C	3 #1/0 &, 1#8G		STAND-BY
EMCC27211	EMERGENCY BUS POWER FEEDER	EMERGENCY MCC, "EMCC272-11" BREAKER COMP	NFD DISC. SW. Z211	FOR EMERG. SUPPLY FAN, "ESF-5" 60 HP.	1 1/2" C	3 #1/0 &, 1#8G		
EMCC27212	EMERGENCY BUS POWER FEEDER	EMERGENCY MCC, "EMCC272-12" BREAKER COMP	NFD DISC. SW. Z212	FOR EMERG. SUPPLY FAN, "ESF-6" 60 HP.	1 1/2" C	3 #1/0 &, 1#8G		STAND-BY
SPACE	EMERGENCY BUS POWER FEEDER	EMERGENCY MCC, "EMCC272-13" BREAKER COMP		SPACE				
SPACE	EMERGENCY BUS POWER FEEDER	EMERGENCY MCC, "EMCC272-14" BREAKER COMP		SPACE				

Santa Clara Valley Transportation Authority

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Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. PAGE — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

SUBMITTED

Skanska Shimmick Herzog
1436 California Circle
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A Joint Venture

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Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
ELECTRICAL RACEWAY AND
CIRCUIT SCHEDULE
SHEET 3 OF 4

CADD FILENAME	C700-S-DB-E532.DWG
SIZE / SCALE	D / NONE
CONTRACT NO. / REV.	C700 / 0
AREA CODE / SHEET NO. / PAGE NO.	DB / E532 / 0927

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PG & E "MAIN TRANSFORMER" NORMAL POWER 480/277V, 3ø, 60–HZ, 4W LOADS IN YARD

CIRCUIT NUMBER	APPLICATION	RUN			CONDUIT SIZE&TYPE	CONDUCTORS	INSTALLATION DRAWINGS	REMARKS
		FROM	VIA	TO				
P1–1	PG & E NORMAL POWER FEEDER	PG & E YARD MAIN TRANSFORMER SECONDARY	DUCT BANK	MAIN SWITCHBOARD "AM"	5" PVC			CONDUCTORS BY PG & E
P1–2	PG & E NORMAL POWER FEEDER	PG & E YARD MAIN TRANSFORMER SECONDARY	DUCT BANK	MAIN SWITCHBOARD "AM"	5" PVC			CONDUCTORS BY PG & E
P1–3	PG & E NORMAL POWER FEEDER	PG & E YARD MAIN TRANSFORMER SECONDARY	DUCT BANK	MAIN SWITCHBOARD "AM"	5" PVC			CONDUCTORS BY PG & E
P1–4	PG & E NORMAL POWER FEEDER	PG & E YARD MAIN TRANSFORMER SECONDARY	DUCT BANK	MAIN SWITCHBOARD "AM"	5" PVC			CONDUCTORS BY PG & E
P1–5	PG & E NORMAL POWER FEEDER	PG & E YARD MAIN TRANSFORMER SECONDARY	DUCT BANK	MAIN SWITCHBOARD "AM"	5" PVC			CONDUCTORS BY PG & E
P1–6	PG & E NORMAL POWER FEEDER	PG & E YARD MAIN TRANSFORMER SECONDARY	DUCT BANK	MAIN SWITCHBOARD "AM"	5" PVC			CONDUCTORS BY PG & E
P1–7	PG & E NORMAL POWER FEEDER	PG & E YARD MAIN TRANSFORMER SECONDARY	DUCT BANK	MAIN SWITCHBOARD "AM"	5" PVC			CONDUCTORS BY PG & E
P1–8	PG & E NORMAL POWER FEEDER	PG & E YARD MAIN TRANSFORMER SECONDARY	DUCT BANK	MAIN SWITCHBOARD "AM"	5" PVC			CONDUCTORS BY PG & E
P1–9	CONTROL	PG & E YARD MAIN TRANSFORMER SECONDARY	DUCT BANK	MAIN SWITCHBOARD "AM"	2" PVC			CONDUCTORS BY PG & E
P1–10	CONTROL	PG & E YARD MAIN TRANSFORMER SECONDARY	DUCT BANK	MAIN SWITCHBOARD "AM"	2" PVC			CONDUCTORS BY PG & E

PG & E "AUTO TRANSFER SWITCH ATS1" NORMAL & DIESEL GENERATOR POWER 480/277V, 3ø, 60–HZ, 4W

CIRCUIT NUMBER	APPLICATION	RUN			CONDUIT SIZE&TYPE	CONDUCTORS	INSTALLATION DRAWINGS	REMARKS
		FROM	VIA	TO				
ATS1–1	PG & E NORMAL POWER FEEDER	AUTO TRANSFER SWITCH ATS1	DUCT BANK "H–H" REF. DWG. DB–E825	PG & E YARD MAIN SWITCHBOARD "AM"	5" PVC	8–350MCM AND 2 #1/0 GND		2–350 MCM PER PHASE & NEUTRAL AND 2–1#0 GND
ATS1–2	PG & E NORMAL POWER FEEDER	AUTO TRANSFER SWITCH ATS1	DUCT BANK "H–H" REF. DWG. DB–E825	PG & E YARD MAIN SWITCHBOARD "AM"	5" PVC	8–350MCM AND 2 #1/0 GND		2–350 MCM PER PHASE & NEUTRAL AND 2–1#0 GND
ATS1–3	PG & E NORMAL POWER FEEDER	AUTO TRANSFER SWITCH ATS1	DUCT BANK "H–H" REF. DWG. DB–E825	PG & E YARD MAIN SWITCHBOARD "AM"	5" PVC	8–350MCM AND 2 #1/0 GND		2–350 MCM PER PHASE & NEUTRAL AND 2–1#0 GND
ATS1–4	PG & E NORMAL POWER FEEDER	AUTO TRANSFER SWITCH ATS1	DUCT BANK "H–H" REF. DWG. DB–E825	PG & E YARD MAIN SWITCHBOARD "AM"	5" PVC	8–350MCM AND 2 #1/0 GND		2–350 MCM PER PHASE & NEUTRAL AND 2–1#0 GND
ATS1–5	PG & E NORMAL POWER FEEDER	AUTO TRANSFER SWITCH ATS1	DUCT BANK "H–H" REF. DWG. DB–E825	PG & E YARD MAIN SWITCHBOARD "AM"	5" PVC			SPARE
ATS1–6	CONTROL	AUTO TRANSFER SWITCH ATS1	DUCT BANK "H–H" REF. DWG. DB–E825	PG & E YARD MAIN SWITCHBOARD "AM"	2" PVC	CONTROL		
ATS1–7	CONTROL	AUTO TRANSFER SWITCH ATS1	DUCT BANK "H–H" REF. DWG. DB–E825	PG & E YARD MAIN SWITCHBOARD "AM"	2" PVC	CONTROL		
ATS1–11	PG & E EMERG. POWER FEEDER	AUTO TRANSFER SWITCH ATS1	DUCT BANK	PG & E YARD DIESEL GENERATOR	5" PVC	8–350MCM AND 2 #1/0 GND		2–350 MCM PER PHASE & NEUTRAL AND 2–1#0 GND
ATS1–12	PG & E EMERG. POWER FEEDER	AUTO TRANSFER SWITCH ATS1	DUCT BANK	PG & E YARD DIESEL GENERATOR	5" PVC	8–350MCM AND 2 #1/0 GND		2–350 MCM PER PHASE & NEUTRAL AND 2–1#0 GND
ATS1–13	PG & E EMERG. POWER FEEDER	AUTO TRANSFER SWITCH ATS1	DUCT BANK	PG & E YARD DIESEL GENERATOR	5" PVC	8–350MCM AND 2 #1/0 GND		2–350 MCM PER PHASE & NEUTRAL AND 2–1#0 GND
ATS1–14	PG & E EMERG. POWER FEEDER	AUTO TRANSFER SWITCH ATS1	DUCT BANK	PG & E YARD DIESEL GENERATOR	5" PVC	8–350MCM AND 2 #1/0 GND		2–350 MCM PER PHASE & NEUTRAL AND 2–1#0 GND
ATS1–15	PG & E EMERG. POWER FEEDER	AUTO TRANSFER SWITCH ATS1	DUCT BANK	PG & E YARD DIESEL GENERATOR	5" PVC			SPARE
ATS1–16	CONTROL	AUTO TRANSFER SWITCH ATS1	DUCT BANK	PG & E YARD DIESEL GENERATOR	2" PVC	CONTROL		
ATS1–17	CONTROL	AUTO TRANSFER SWITCH ATS1	DUCT BANK	PG & E YARD DIESEL GENERATOR	2" PVC	CONTROL		

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
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Contract No.: DB11002F

By: _____ Date: _____

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0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

JULIUS L. GILES REGISTERED PROFESSIONAL ENGINEER E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

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Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
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SUBMITTED

APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
ELECTRICAL RACEWAY AND CIRCUIT SCHEDULE
SHEET 4 OF 4

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CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E533 | PAGE NO. 0928

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MECHANICAL EQUIPMENT FEEDER SCHEDULE

CIRCUIT NUMBER	APPLICATION	RUN			CONDUIT SIZE&TYPE	CONDUCTORS	INSTALLATION DRAWINGS	REMARKS
		FROM	VIA	TO				

E6

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REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER LINUS L.N. CHEN E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

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Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY | T·Y·LIN INTERNATIONAL
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VTA. BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
ELECTRICAL RACEWAY AND
CIRCUIT SCHEDULE
SHEET 5 OF 5

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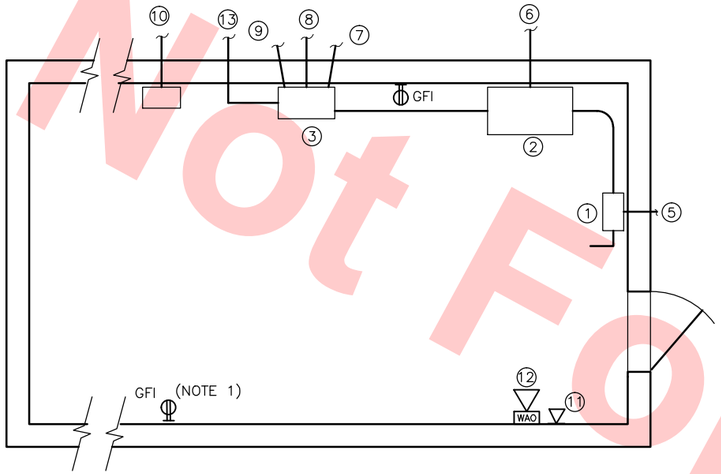
PAGE NO. 0929



ESCALATOR CONTROL ROOM PLAN (NOTE 5)

DETAIL 1
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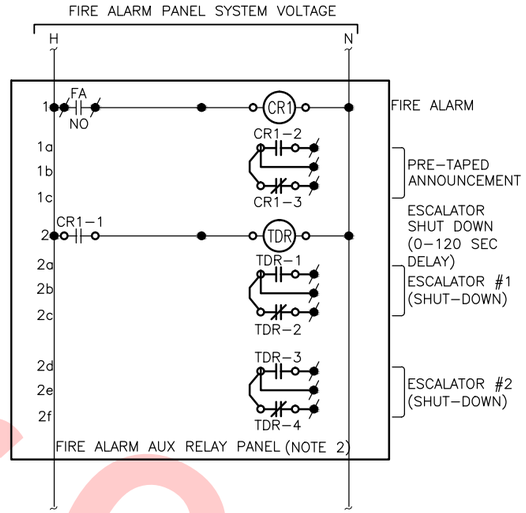
DB-E801



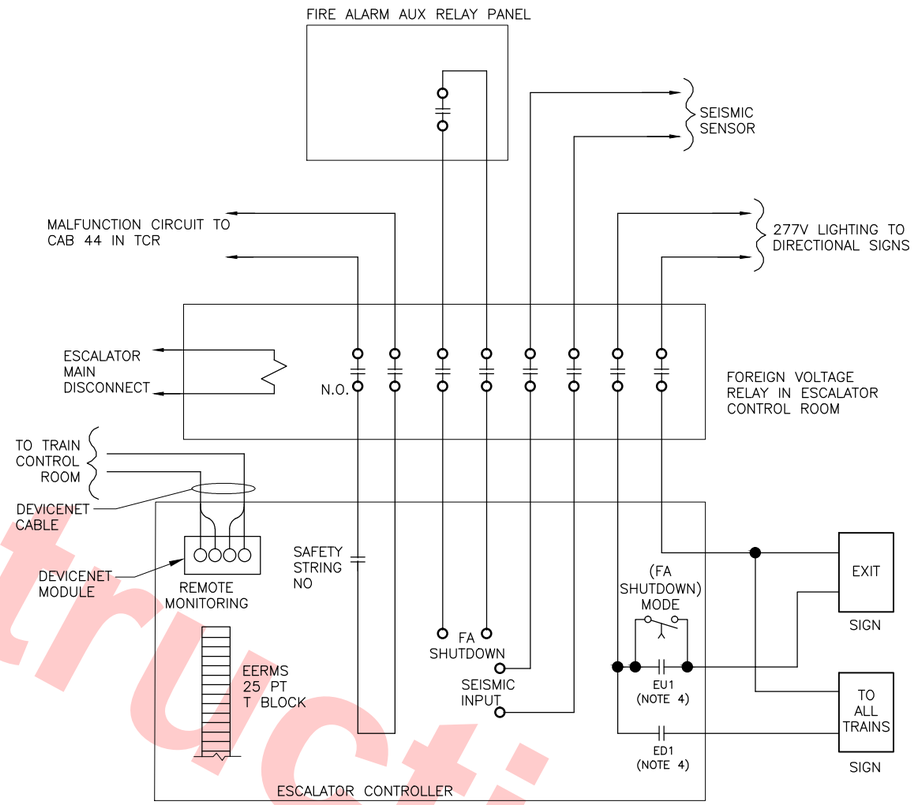
DETAIL 2
ESCALATOR FIRE ALARM SHUT-DOWN
SCALE: NTS
DB-E801

ITEM	DESCRIPTION	PURPOSE	REMARKS
①	DISCONNECT SWITCH FUSED, 480V, 3ø, 4W	MAIN POWER	THIS ITEM TO BE HP RATED
②	CONTROLLER (*)	ESCALATOR CONTROL	VARIABLE FREQUENCY DRIVE
③	FOREIGN VOLTAGE RELAY BOX	ESCALATOR SUPERVISORY AND CONTROL INTERFACE	TO BE CONTROLLED BY MAIN DISCONNECT
④	DRIVE MACHINE (*)	MAIN DRIVE	LOCATED AT ESC UPPER PIT MACHINE COMPARTMENT
⑤	CONDUIT AND WIRE	MAIN FEEDER	480V, 3ø, 4 WIRE
⑥	CONDUIT AND WIRE	SCADA REMOTE MONITORING	TO CABINET 25E IN TRAIN CONTROL ROOM
⑦	CONDUIT AND WIRE	277V EXITING SIGNS	277V, 1ø, 3 WIRE, SEE DETAIL 2
⑧	CONDUIT AND WIRE	FACILITIES SUPERVISION AND CONTROL	TO SUPERVISORY TERMINATION CABINET #44 FOR MALFUNCTION ALARM, SEE DETAIL 2
⑨	CONDUIT AND WIRE	FIRE ALARM SHUTDOWN	TO FACP AUXILIARY PANEL IN ELECTRICAL ROOM, SEE DETAIL 3
⑩	CONDUIT AND WIRE	120V LIGHTING & RECEPTACLES	NOTE 1
⑪	IPPBX PHONE		SEE COMMUNICATIONS DRAWING
⑫	WAO	TELECOMMUNICATIONS	SEE COMMUNICATIONS DRAWING
⑬	CONDUIT AND WIRE	SEISMIC SWITCH	IN TRAIN CONTROL ROOM

(*) SUPPLIED BY ESCALATOR VENDOR

NOTES:

1. PROVIDE ONE 20 AMP, 120 VOLT CIRCUIT FOR ESCALATOR CONTROL ROOM, LIGHT FIXTURES AND MINIMUM TWO (2) GF1 DUPLEX RECEPTACLES.
2. PROVIDE NEMA 1 ENCLOSURE, LOCATE IN ELECTRICAL ROOM.
3. PROVIDE LIGHT FIXTURE, LIGHT SWITCH AND TWO GFI RECEPTACLE AT THE ESCALATOR UPPER AND LOWER PIT.
4. EUI AND EDI AUX CONTACTS ON "UP" AND "DOWN" OF ESCALATOR CONTROLLER. DIRECTIONAL SIGNS ARE REQUIRED FOR PLATFORM ESCALATORS ONLY.
5. ROOM SIZE AND DOOR LOCATION VARIES.



DETAIL 3
ESC FOREIGN VOLTAGE DISCONNECTING DIAGRAM
SCALE: NTS
DB-E801

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. PAUL — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 500, Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2539

Lockwood, Andrews & Newnam, Inc. — A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

SUBMITTED _____
APPROVED _____

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

ELECTRICAL STANDARD
ELECTRICAL INTERFACE – ESCALATORS

CADD FILENAME C700-S-DB-E540.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E540 | PAGE NO. 0930

Jun 20, 2013 - 4:04pm G:\Cities Maravilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E540.dwg
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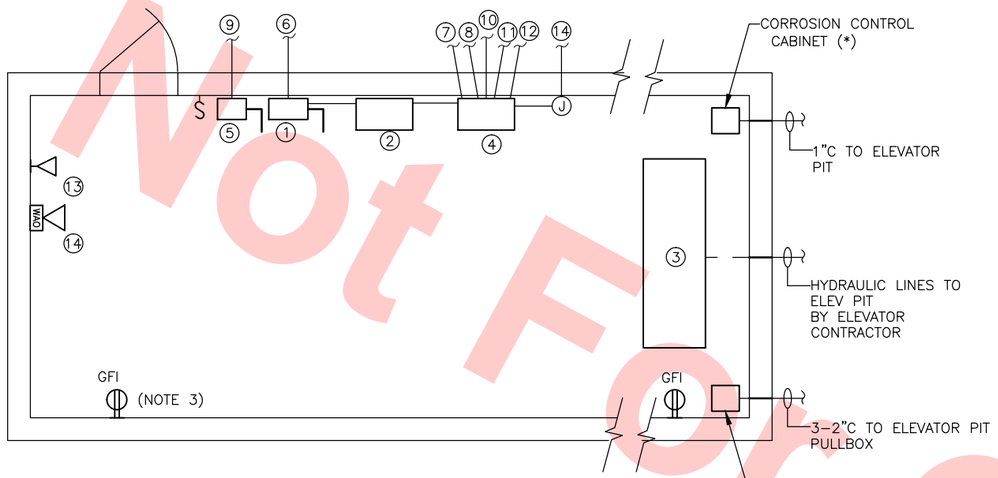
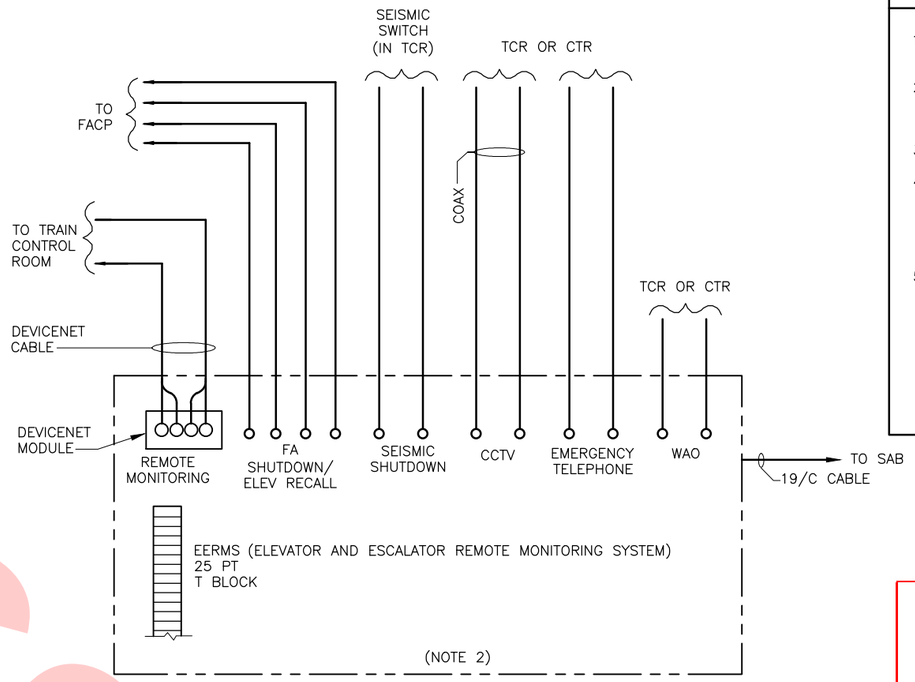


ELEVATOR MACHINE ROOM PLAN (NOTE 5)

DETAIL 1
SCALE: NTS DB-E802



DETAIL 2
COMMUNICATION INTERFACE CABINET
SCALE: NTS DB-E802

NOTES

1. PROVIDE ONE 20 AMP, 120V CIRCUIT FOR LIGHT FIXTURE AND GFI DUPLEX RECEPTACLE.
2. LOCATE COMMUNICATION INTERFACE CABINET ADJACENT TO THE CONTROLLER IN THE ELEVATOR MACHINE ROOM.
3. MINIMUM 2 DUPLEX GFI RECEPTACLES.
4. SEALED GASKETED LIGHT FIXTURE WITH 25W COMPACT FLUORESCENT LAMP WITH WIREGUARD. PIT LIGHT AND SWITCH SHALL BE ACCESSIBLE AND 42 INCHES ABOVE THE BOTTOM LANDING FLOOR LEVEL.
5. ROOM SIZE AND DOOR LOCATION VARIES.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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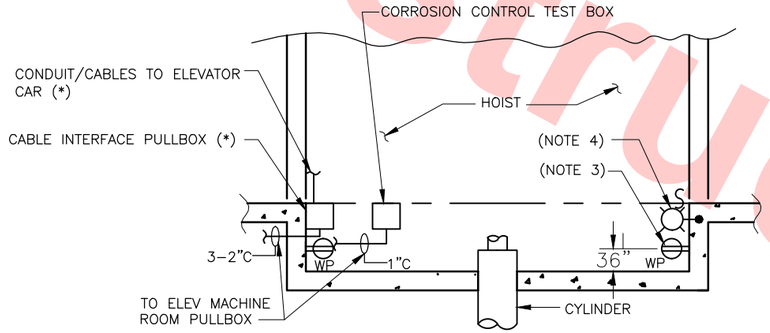
Contract No.: DB11002F

By: _____ Date: _____

ITEM	DESCRIPTION	PURPOSE	REMARKS
①	DISCONNECT SWITCH FUSED, 480V, 3ø, 4W	MAIN POWER	THIS ITEM TO BE HP RATED. CAPABLE OF BEING LOCKED IN 'OFF' POSITION
②	CONTROLLER (*)	ELEVATOR CONTROL	MANUFACTURED BY MCE
③	HYDRAULIC TANK (*) & PUMP UNIT	HYDRAULIC DRIVE POWER	
④	COMMUNICATIONS INTERFACE CABINET (CIC)	COMMUNICATIONS TERMINAL BOX	NEMA 12 ENCLOSURE
⑤	SAFETY SWITCH, LOCKABLE	ELEVATOR CAR 120V AUXILIARY POWER	RED COLOR
⑥	CONDUIT AND WIRE	MAIN FEEDER	480V, 3ø, 3W
⑦	CONDUIT AND WIRE	SCADA REMOTE MONITORING	VIA DEVICE NET MODULE MOUNTED INSIDE COMMUNICATONS INTERFACE CABINET
⑧	CONDUIT AND WIRE	FIRE ALARM SHUTDOWN	FACP IN EMP ROOM
⑨	CONDUIT AND WIRE	DEDICATED 120V POWER	NOTE 1
⑩	CONDUIT AND WIRE	CCTV	
⑪	CONDUIT AND WIRE	EMERGENCY TELEPHONE	
⑫	CONDUIT AND WIRE	SEISMIC SWITCH	
⑬	IPPBX PHONE		SEE COMMUNICATIONS DRAWING
⑭	WAO	TELECOMMUNICATIONS	SEE COMMUNICATIONS DRAWING

(*) SUPPLIED BY ELEVATOR VENDOR



DETAIL 3
ELEVATOR PIT
SCALE: NTS DB-E802

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. NEU — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. — A URS A BALY COMPANY
T·Y·LIN INTERNATIONAL

SUBMITTED _____
APPROVED _____

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

ELECTRICAL STANDARD
ELECTRICAL INTERFACE – ELEVATORS

CADD FILENAME C700-S-DB-E541.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E541 | PAGE NO. 0931

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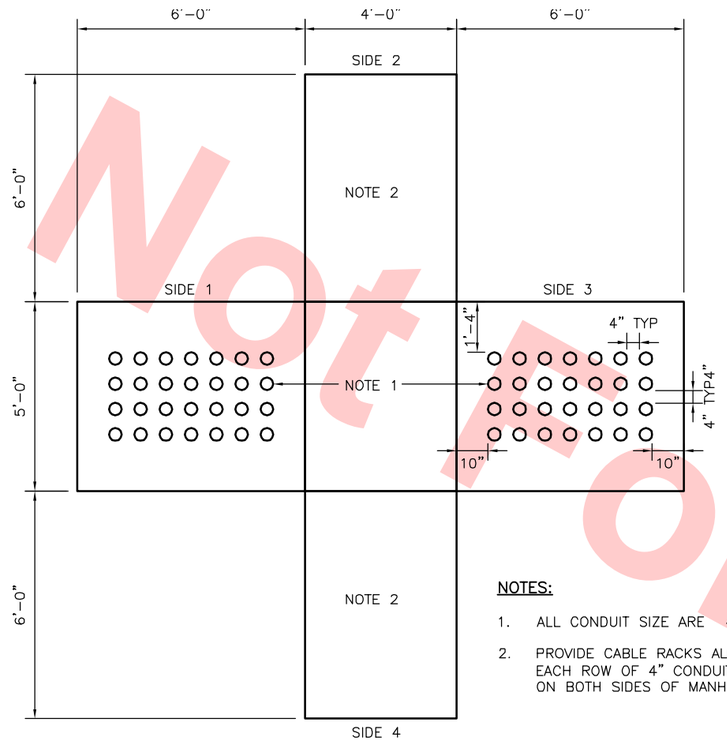
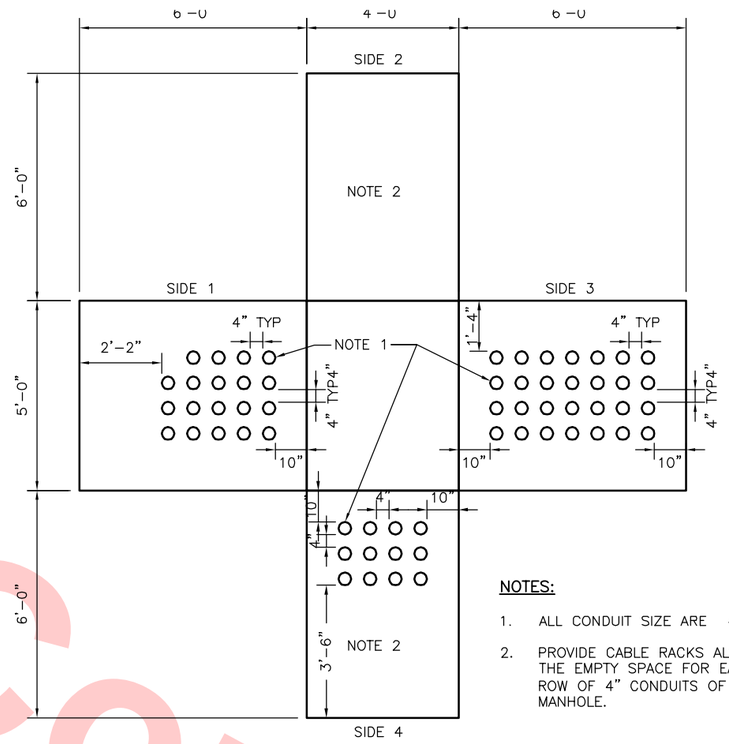


NOTES:

1. ALL CONDUIT SIZE ARE 4"ø.
2. PROVIDE CABLE RACKS ALONG EACH ROW OF 4" CONDUITS ON BOTH SIDES OF MANHOLE.

DETAIL 1
INTERFACE MANHOLE
SCALE: 1/2'=1'-0"
DB-E826



NOTES:

1. ALL CONDUIT SIZE ARE 4"ø.
2. PROVIDE CABLE RACKS ALONG THE EMPTY SPACE FOR EACH ROW OF 4" CONDUITS OF THE MANHOLE.

DETAIL 2
INTERFACE MANHOLE
SCALE: 1/2"=1'-0"
DB-E826

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE INTERFACE MANHOLE
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. CHEN — E11904 EXP 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 520, Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y LIN INTERNATIONAL

APPROVED

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

INTERFACE MANHOLE DETAILS

CADD FILENAME		
C700-S-DB-E542.dwg		
SIZE D	SCALE NONE	
CONTRACT NO. C700		REV. 0
AREA CODE DB	SHEET NO. E542	PAGE NO. 0932

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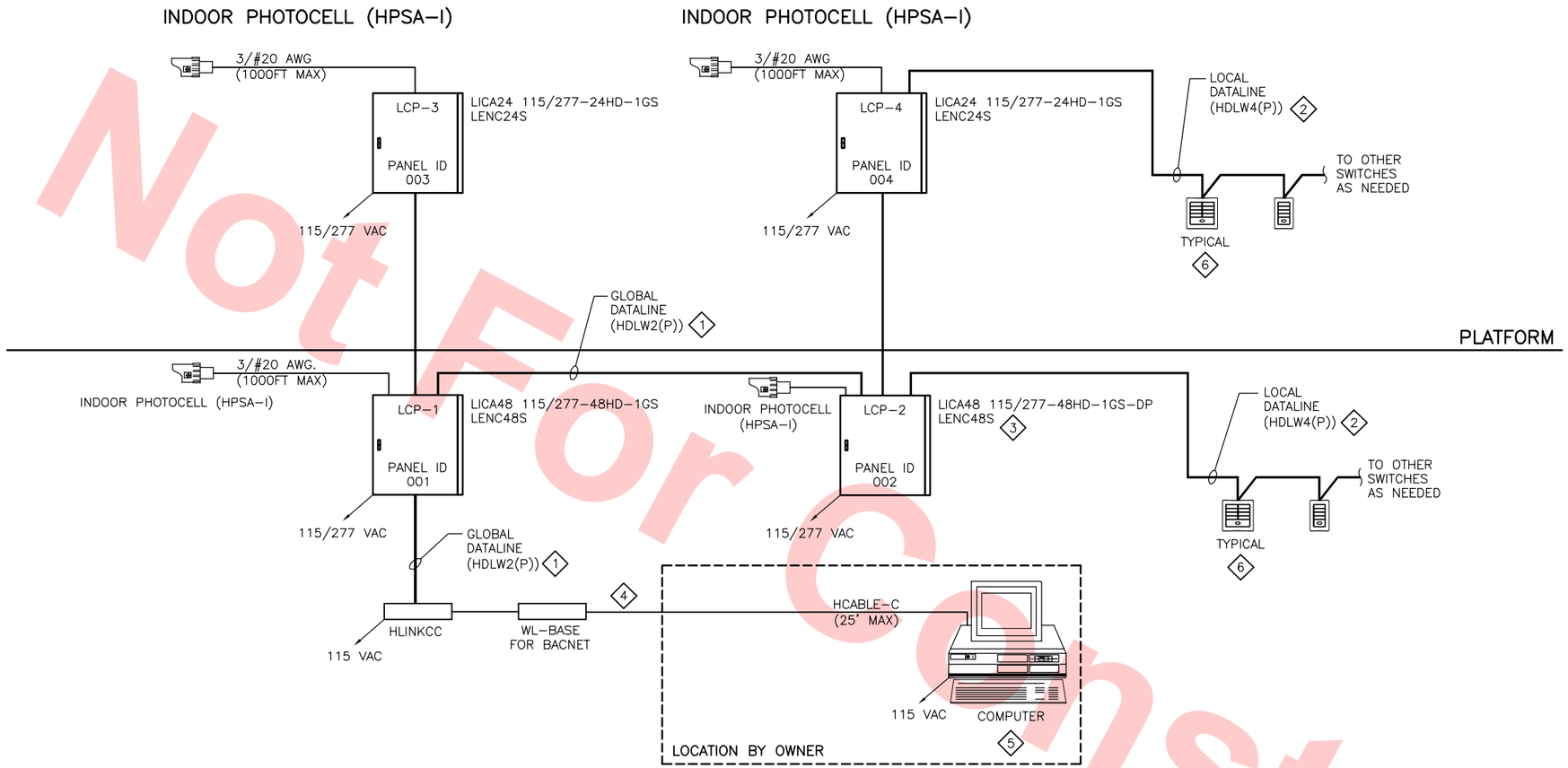
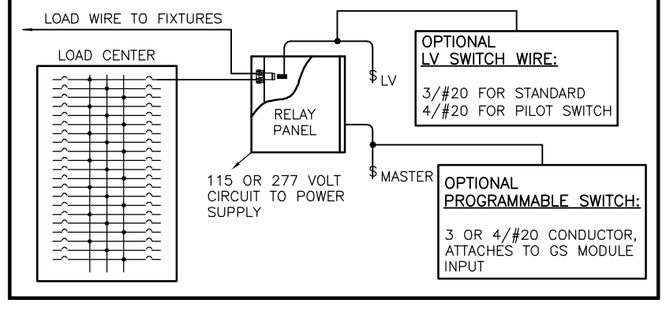


KEY NOTES

1. THE GLOBAL DATALINE IS A 2/#18 TWISTED, SHIELDED DATALINE (HDLW2(P)) THAT SHOULD ONLY BE SPLICED IN THE LIGHTING CONTROL PANELS. THE DATALINE MAY BE SPLICED TO FORM A STAR OR FREE TOPOLOGY AS REQUIRED. DO NOT GROUND THE SHIELD. THE DATALINE ROUTING SHOWN IS DIAGRAMMATIC ONLY.
2. THE LOCAL DATALINE PROVIDES COMMUNICATION AND POWER TO DATALINE SWITCHES. THE MAXIMUM LENGTH OF A LOCAL DATALINE FROM EACH LI PANEL WITH AN AUTOMATION CARD IS (1500FT) USING FREE TOPOLOGY WITHOUT A REPEATER AND (8000FT) USING LINEAR TOPOLOGY.
3. THE DATALINE POWER SUPPLY/OPTIONS PANEL (HDPS1CC) CAN BE PLACED WITHIN THE LCP.
4. THE TCP/IP INTERFACE MODULE (WEBLINK) CONNECTS TO THE LIGHTING INTEGRATOR (LI) COMMUNICATION CARD GLOBAL DATALINE THROUGH THE HLINKCC DATALINE LINK USING THE HCABLE-C CABLE, AND TO THE ETHERNET SIDE USING A STANDARD RJ45 CONNECTOR. A115V PLUG-IN TRANSFORMER IS SUPPLIED TO POWER THE HLANCC. A PC RUNNING WINCONTROL LIGHTING CONTROL SOFTWARE CONNECTS TO THE LI DATALINE THROUGH THE WEBLINK VIA ITS OWN CONNECTION TO THE ETHERNET NETWORK.
5. DESKTOP OR LAPTOP COMPUTER RUNNING WINCONTROL SOFTWARE.
6. A SINGLE DATALINE SWITCH BUTTON CAN CONTROL ANY GROUP OF RELAYS IN THE PANEL IT TERMINATES IN, OR, BY USING A GROUP CODE, CAN ALSO CONTROL RELAYS IN OTHER PANELS. AVAILABLE IN 1, 2, 4, OR 8 BUTTON SWITCHES.

TYPICAL RELAY PANEL CONNECTIONS



LIGHTING INTEGRATOR PART NUMBER CONSISTS OF THE FOLLOWING COMPONENTS:

1. TUB & COVER
2. POWER SUPPLY
3. INTERIOR INCLUDING, MOTHER BOARD, RELAY DRIVER CARDS, COMMUNICATION CARD, AUTOMATION CARD, GROUP SWITCH CARD(S), RELAYS INSTALLED IN BARRIER.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
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Contract No.: DB11002F

By: _____ Date: _____

E38

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — CHARLES L. H. CHEN — E11904 — EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 430, Oakland, CA 94612
Phone: (510) 465-2537 Fax: (510) 535-2339
SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y LIN INTERNATIONAL
APPROVED

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

LIGHTING SYSTEM CONTROL DIAGRAM
SHEET 1 OF 2

CADD FILENAME C700-S-DB-E545.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E545 | PAGE NO. 0933

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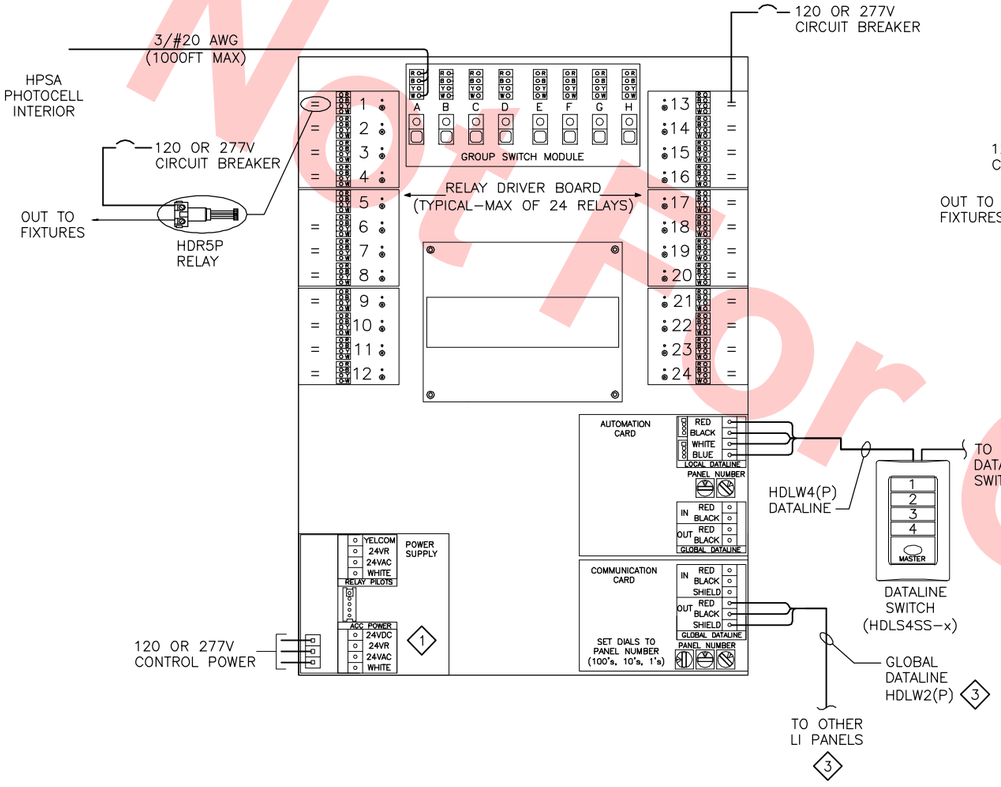
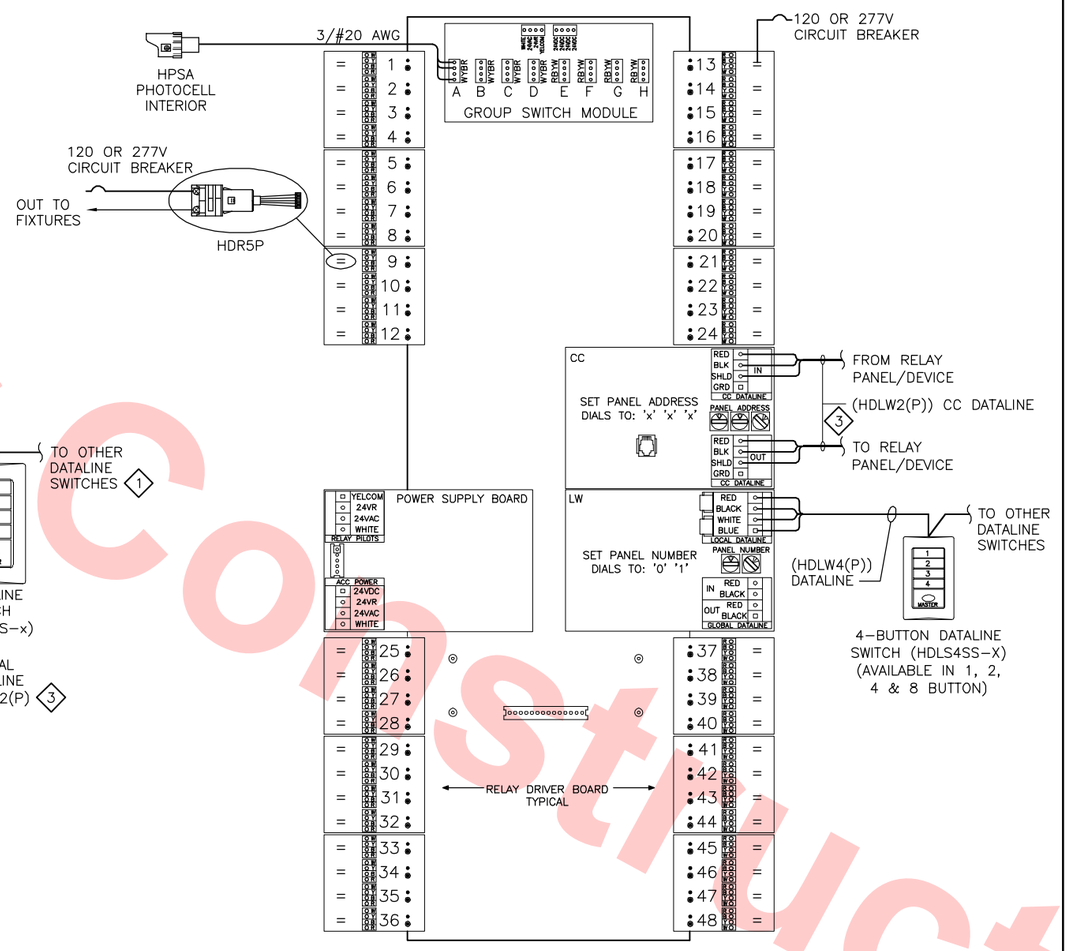
GilesM

LIGHTING INTEGRATOR 24–RELAY CAPACITY PANEL



LIGHTING INTEGRATOR 48–RELAY CAPACITY PANEL



KEY NOTES

1. THE MAXIMUM LENGTH OF A LOCAL DATALINE FROM EACH LI PANEL WITH AN AUTOMATION CARD IS (1500FT) USING FREE TOPOLOGY WITHOUT A REPEATER AND (8000FT) USING LINEAR TOPOLOGY.
2. MAXIMUM 1000 FEET WITH #20 AWG WIRE. ADDITIONAL SWITCHES CONTROLLING THE SAME ZONE CAN BE CONNECTED IN THE FIELD OR AT THE RELAY PANEL TERMINALS.
3. THE GLOBAL DATALINE IS A 2/#18 TWISTED, SHIELDED DATALINE (HDLW2(P)) THAT SHOULD ONLY BE SPLICED IN THE LIGHTING CONTROL PANELS. THE DATALINE MAY BE SPLICED TO FORM A STAR OR FREE TOPOLOGY. 1500 FT MAX. TOTAL CONNECTED DATALINE LENGTH BETWEEN PANELS WITH A FREE TOPOLOGY SYSTEM. DO NOT GROUND THE SHIELD.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

E38

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — CARLOS L.N. CHEN — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 835-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

SUBMITTED _____
APPROVED _____

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

LIGHTING SYSTEM CONTROL DIAGRAM
SHEET 2 OF 2

CADD FILENAME C700–S–DB–E546.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E546 | PAGE NO. 0934

LCP1–CONCOURSE LEVEL ELECTRICAL ROOM #1

RELAY #	ZONE/ FIXTURES	LOCATION	EMERGENCY BRANCH CKT	NORMAL BRANCH CKT	CONTROL DEVICE
1	B9–MH	COL 1–COL 5	EL251–9		
2	B9–MH	COL 1–COL 5		L13–7	
3	B2–LED	COL 5–COL 6	EL251–1		
4	B2–LED	COL 5–COL 6		L13–1	
5	B2–LED	COL 5–COL 6		L13–1	
6	B2–LED	COL 6–COL 14	EL251–7		
7	B2–LED	COL 6–COL 14		L13–4	
8	B1–FL	COL 6–COL 11	EL251–3		
9	B1–FL	COL 6–COL 11		L13–5	
10	B1–FL	COL 6–COL 11		L13–5	
11	B4–MH	COL 6–COL 11		L13–3	
12	B3–MH	COL 6–COL 10		L13–3	
13	B17–MH	COL 6–COL 10		L13–3	
14	B11–FL	COL 6–COL 10.5		L13–9	
15	B8–FL	COL 6–COL 11	EL251–5		
16	B10–LED	COL 6–COL 11		L13–2	
17	B7–FL	COL 6 & COL 10–11		L13–9	
18	B3–MH	STAIRS/ESCALATORS	EL251–4		
19	B1A–FL	STAIRS/ESCALATORS	EL251–4		
20	B6–LED	STAIRS HANDRAILS	EL251–6		
21	NEWEL COMB	ESCALATORS	EL251–6		
22		ELECTRICAL RM #1		L13–6	
23		ESCALATOR RM #3		L13–8	
24		VESTIBULE			
25		COMPUTER RM #1			
26		TELCO TM			
27		COMM TERM #1			
28		ELEC/ESC PARTS			
29		MAINTENANCE RM			
30		EMER EXIT #2			
31		STORAGE RM–5			
32		VALVE/PUMP RM			
33		COMM WORKSHOP			
34		ADMIN OFFICE			
35		STORAGE RM–L			
36		RESTROOM			
37		BREAK RM			
38		LOCKER RM			
39		STA AGENT BOOTH			
40		EXIT SIGNS	EL251–11		
41					
42					
43					
44					
45					
46					
47					
48					

LCP2–CONCOURSE LEVEL ELECTRICAL ROOM #2

RELAY #	ZONE/ FIXTURES	LOCATION	EMERGENCY BRANCH CKT	NORMAL BRANCH CKT	CONTROL DEVICE
1	B9–MH	COL 17–COL 23.5	EL252–9		
2	B9–MH	COL 17–COL 23.5		L14–9	
3	B2–LED	COL 16–COL 17	EL252–1		
4	B2–LED	COL 16–COL 17		L14–1	
5	B2–LED	COL 16–COL 17		L14–1	
6	B12–LED	COL 10.5–COL 12.5		L14–6	
7	B8–FL	COL 10.5–COL 12.5		L14–6	
8	B1–FL	COL 11–COL 16	EL252–3		
9	B1–FL	COL 11–COL 16		L14–5	
10	B1–FL	COL 11–COL 16		L14–7	
11	B4–MH	COL 13–COL 16		L14–3	
12	B3–MH	COL 13–COL 16		L14–3	
13	B17–MH	COL 13–COL 16		L14–3	
14	B11–FL	COL 10.5–COL 16		L14–11	
15	B8–FL	COL 11–COL 16	EL252–5		
16	B10–LED	COL 12–COL 16		L14–2	
17	B7–FL	COL 16		L14–11	
18	B3–MH	STAIRS/ESCALATORS	EL252–4		
19	B1A–FL	STAIRS/ESCALATORS	EL252–4		
20	B6–LED	STAIRS HANDRAILS	EL252–6		
21	NEWEL COMB	ESCALATORS	EL252–6		
22		MEN'S RESTROOM		L14–8	
23		WOMEN'S RESTROOM		L14–10	
24		GROUND MAINT			
25		COMPUTER RM #2			
26		JANITOR			
27		ELEV MACH RM			
28		HVAC RM			
29		TCR			
30		BATTERY RM #2			
31		BATTERY RM #1			
32		EMER EXIT #1			
33		TREASURY VAULT			
34		EMP RM			
35		STAFF LOCKER			
36		COMPUTER RM #3			
37		STAFF BREAK RM			
38		ELECTRICAL RM #2			
39		STAFF RESTROOM			
40		CAR CLEANING OFF	EL252–11		
41		EXIT SIGNS			
42					
43					
44					
45					
46					
47					
48					

LCP3–PLATFORM LEVEL ELECTRICAL ROOM #3

RELAY #	ZONE/ FIXTURES	LOCATION	EMERGENCY BRANCH CKT	NORMAL BRANCH CKT	CONTROL DEVICE
1	B13–FL	COL 1–COL 11.5	EL251–2		
2	B13–FL	COL 1–COL 11.5		L15–5	
3	B13–FL	COL 1–COL 11.5		L15–7	
4	B14–MH	COL 1–COL 4		L15–1	
5	B15–FL	COL 4–COL 9		L15–3	
6	B3A,B3B–MH	COL 4–COL 9	EL251–10		
7	B16–LED	COL 9–COL 11		L15–2	
8	B16–LED	COL 9–COL 11		L15–4	
9	B5–MH	COL 9–COL 14		L15–6	
10	B32	COL 10–COL 11		L15–6	
11		NORTH ROOMS			
12		FIRE DEPT STORAGE			
13		ELECTRICAL RM #3			
14		CARWASH EQPT RM 1			
15		COMM TERM RM #2			
16		ATTENDANT RM			
17					
18					
19					
20					
21					
22					
23					
24					

LCP4–PLATFORM LEVEL ELECTRICAL ROOM #4

RELAY #	ZONE/ FIXTURES	LOCATION	EMERGENCY BRANCH CKT	NORMAL BRANCH CKT	CONTROL DEVICE
1	B13–F	COL 11.5–COL 21	EL252–2		
2	B13–F	COL 11.5–COL 21		L16–5	
3	B13–F	COL 11.5–COL 21		L16–7	
4	B14–MH	COL 19–COL 21		L16–1	
5	B15–F	COL 14–COL 18		L16–3	
6	B3A,B3B–MH	COL 14–COL 18	EL252–10		
7	B16–LED	COL 12–COL 14		L16–2	
8	B16–LED	COL 12–COL 14		L16–4	
9	B5–MH	COL 9–COL 14		L16–6	
10	B32–MH	COL 12–COL 13		L16–6	
11	FL	SOUTH ROOMS			
12		CAR KIOSK #1			
13		CAR KIOSK #2			
14		CARWASH EQPT RM 2			
15		ELECTRICAL RM #4			
16		JANITOR RM #2			
17		E OF L 1ST LEVEL			
18		E OF L 2ND LEVEL			
19					
20					
21					
22					
23					
24					

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

E38

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LAWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LEWIS L.N. CHEN — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

SUBMITTED Skanska Shimmick Herzog, 1436 California Circle, Milpitas, California 95035, A Joint Venture
Anil Verma Associates, Inc., 1970 Broadway, Suite 520, Oakland, CA 94612, Phone: (510) 535-2537, Fax: (510) 535-2339
Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY | T.Y. LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION
LIGHTING SYSTEM
LIGHTING CONTROL PANEL
RELAY SCHEDULES

CADD FILENAME C700–S–DB–E547.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E547 | PAGE NO. 0935

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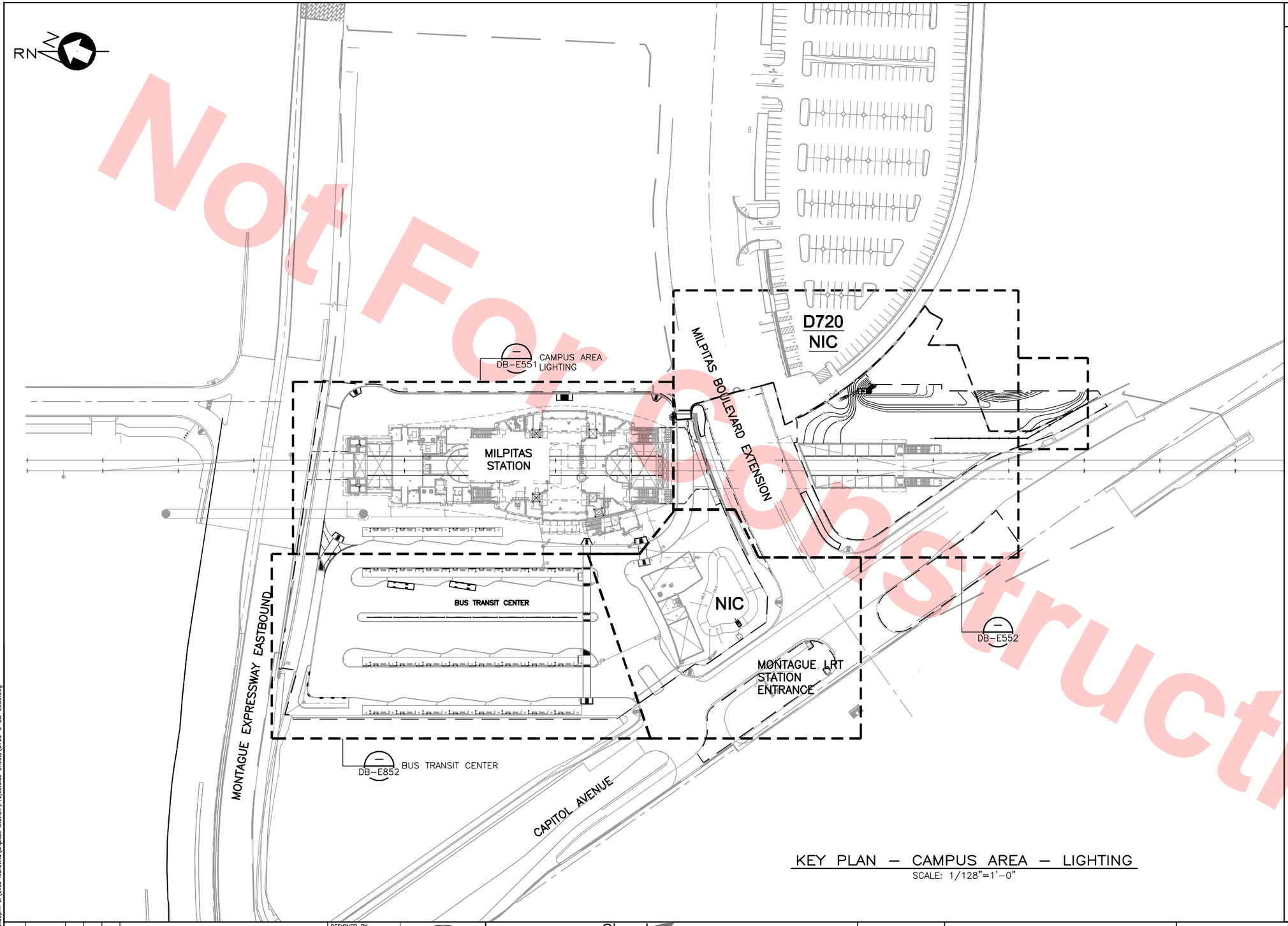

KEY PLAN – CAMPUS AREA – LIGHTING
SCALE: 1/128"=1'–0"

CONSTRUCTION NOTES

1. FURNISH AND INSTALL CITEA+NUN'ALVARES LARGE MODEL LUMINAIRE POLE WITH 1500 BRACKET, MOUNTED 26' ABOVE THE GROUND (150 W) AND REAR BRACKET, MOUNTED 13' ABOVE THE GROUND (100 W).
2. FURNISH AND INSTALL CITEA+NUN'ALVARES DOUBLE HEAD LARGE MODEL LUMINAIRE POLE WITH 1000 BRACKET, MOUNTED 26' FROM THE GROUND (150 W).
3. FURNISH AND INSTALL CALTRANS STANDARD TYPE 15 LUMINAIRE, MOUNTED 39' FROM THE GROUND (250 W).
4. FURNISH AND INSTALL CALTRANS STANDARD TYPE 15D LUMINAIRE, MOUNTED 39' FROM THE GROUND (310 W).
5. FURNISH AND INSTALL VTA STANDARD DOUBLE HEAD ELECTROLIER FIXTURE, MOUNTED 20' FROM THE GROUND (150 W).
6. FURNISH AND INSTALL VTA STANDARD SINGLE HEAD ELECTROLIER FIXTURE, MOUNTED 20' FROM THE GROUND (150 W).
7. FURNISH AND INSTALL CITEA+NUN'ALVARES SMALL MODEL LUMINAIRE POLE WITH SINGLE MOUNTING, MOUNTED 13' FROM THE GROUND (100 W).
8. FURNISH AND INSTALL CITEA+NUN'ALVARES SINGLE HEAD LARGE MODEL LUMINAIRE POLE WITH 1000 BRACKET, MOUNTED 26' FROM THE GROUND (150 W).
9. FURNISH AND INSTALL LUMINAIRE ON TRAFFIC SIGNAL POLE, SEE TRAFFIC SIGNAL PLANS FOR LUMINAIRE INFORMATION.

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

64 0' 64 128
GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER LEWIS T. HOLLOWAY E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 535-2637 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

SUBMITTED _____
APPROVED _____

BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

KEY PLAN CAMPUS AREA
LIGHTING

CADD FILENAME C700-S-DB-E550.dwg
SIZE D | SCALE 1/128"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E550 | PAGE NO. 0936

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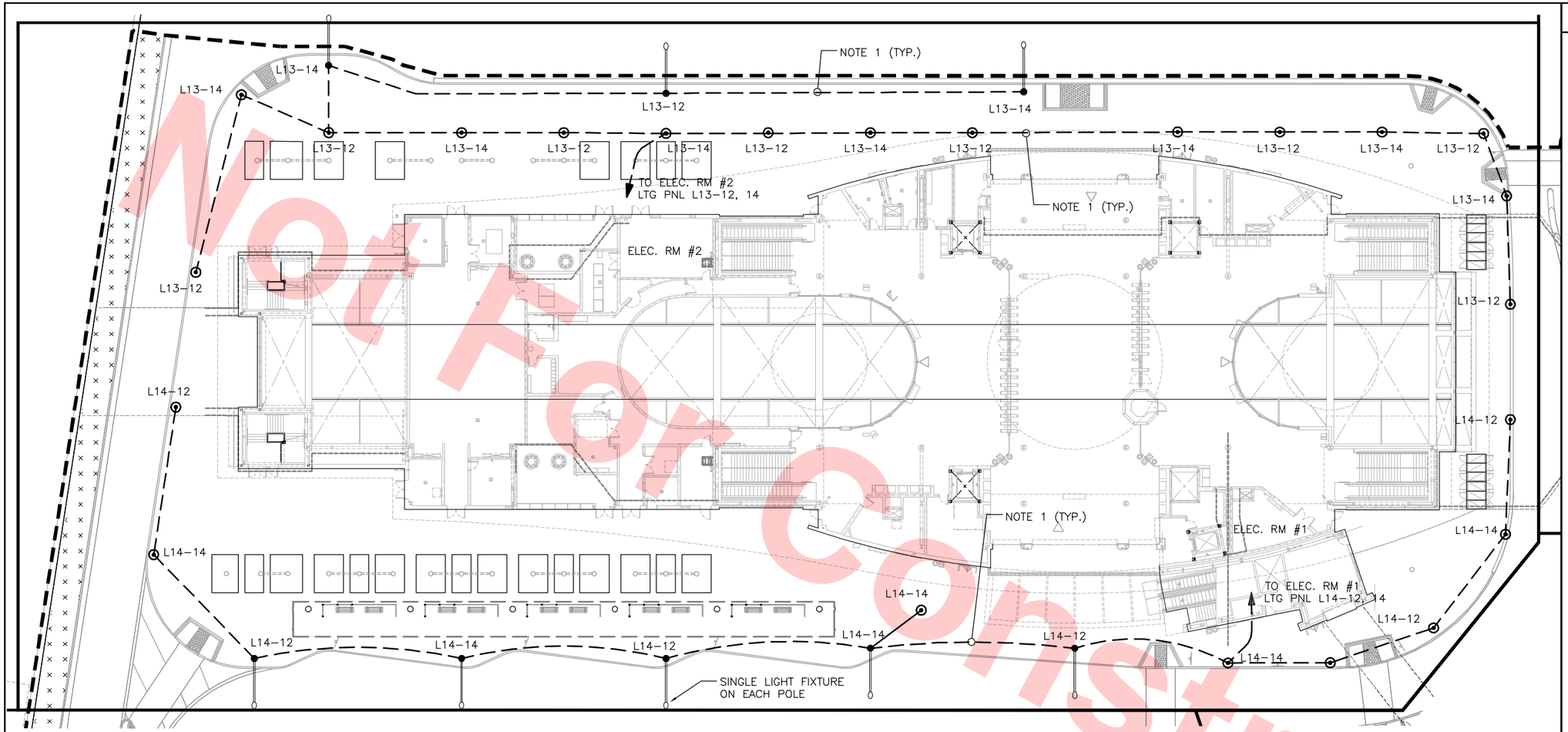

CAMPUS AREA PLAN – LIGHTING

SCALE: 1"=20'–0"

20' 0' 20' 40'

GRAPHIC SCALE

CONSTRUCTION NOTES

1. RUN 2–2"C IN CONCRETE ENCLOSED DUCTBANK. RUN MINIMUM 3'–0" BELOW FINISHED FLOOR.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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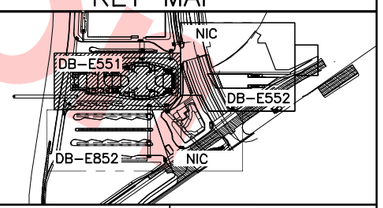
Contract No.: DB11002F

By: _____ Date: _____

KEY MAP



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — CARLOS L. N. CHEN — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

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1970 Broadway, Suite 535 Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 835-2339

SUBMITTED _____

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED _____

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

CAMPUS AREA PLAN – LIGHTING
SHEET 1 OF 2

CADD FILENAME		
C700–S–DB–E551.dwg		
SIZE D	SCALE 1"=20'–0"	
CONTRACT NO. C700		REV. 0
AREA CODE DB	SHEET NO. E551	PAGE NO. 0937

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N

D720
NIC

MATCH LINE
SEE DWG NO. DB-E551

MILPITAS STATION

SOUTH MILPITAS BOULEVARD EXTENSION

MATCH LINE
SEE DWG NO.
DB-E553

CAPITOL AVENUE

CAMPUS AREA PLAN – LIGHTING
SCALE: 1"=20'-0"

20' 0' 20' 40'
GRAPHIC SCALE

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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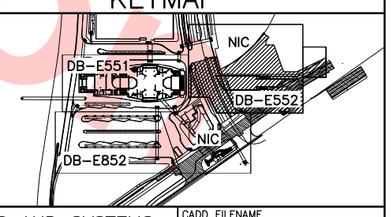
Contract No.: DB11002F

By: _____ Date: _____

KEYMAP



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LALWANI
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER
LINUS L.H. CHEN
E11904
EXP. 12/31/14
ELECTRICAL
STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
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Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

SUBMITTED _____

APPROVED _____

BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MILPITAS STATION

CAMPUS AREA PLAN – LIGHTING
SHEET 2 OF 2

CADD FILENAME C700-S-DB-E552.dwg
SIZE D | SCALE 1"=20'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E552 | PAGE NO. 0938

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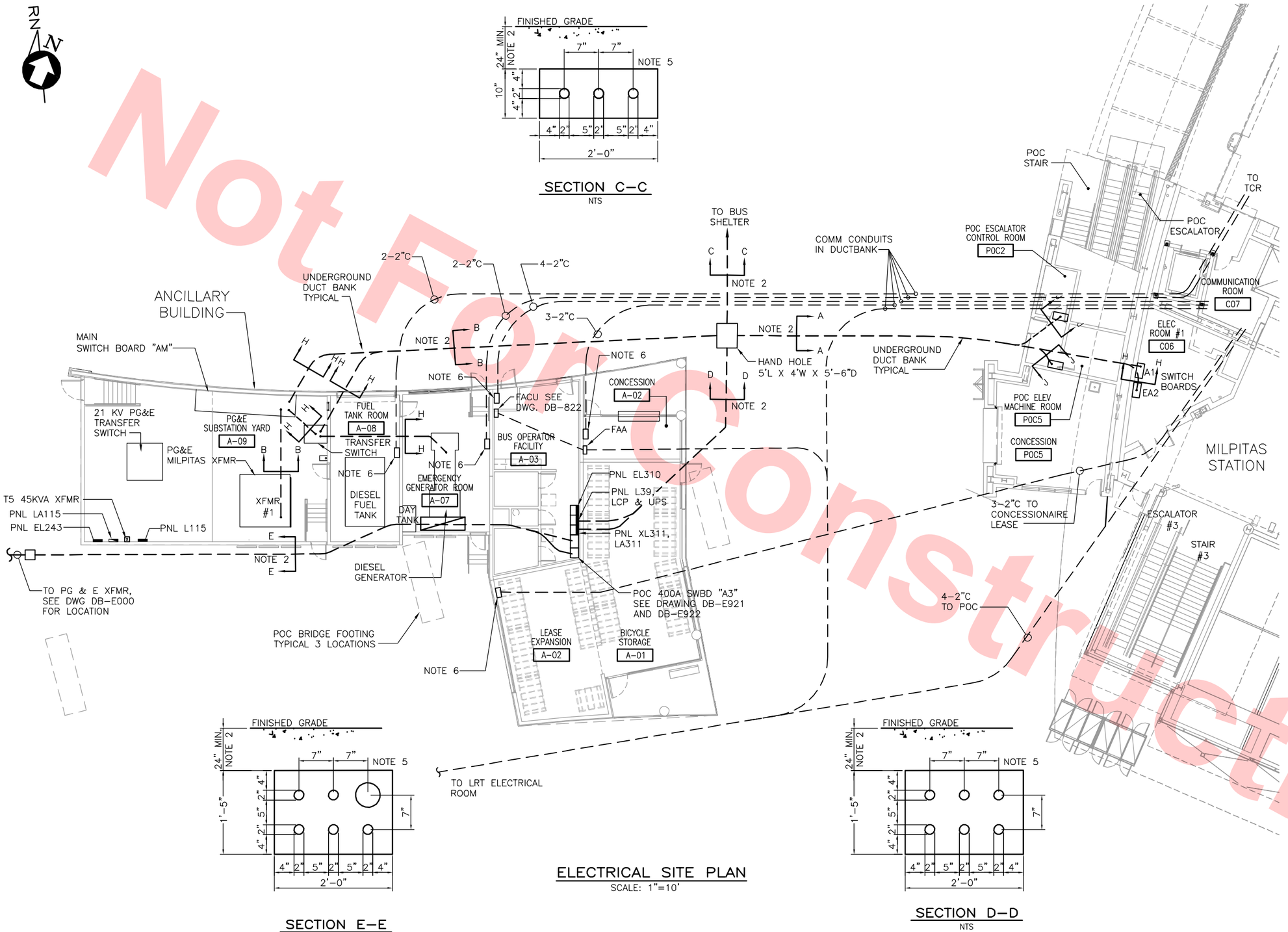

SECTION E-E

ELECTRICAL SITE PLAN
SCALE: 1"=10'

SECTION D-D
NTS

NOTE

1. FOR ELECTRICAL ABBREVIATIONS, LAYOUT SYMBOLS AND DIAGRAM SYMBOLS, REFER TO DRAWINGS DB-E001, DB-E002 AND DB-E003.
2. SEE NEC 2011 TABLE 300.5 FOR MINIMUM BURIAL DEPTH.
3. CONDUIT AND CABLE ROUTING TO BE FINALIZED BY CONTRACTOR
4. FOR ADDITIONAL SECTIONS AND DETAIL HAND HOLE SEE DRAWING DB-E825.
5. ALL CONDUIT ROUTINGS IN DUCTBANK SHALL BE CONCRETE ENCASED.
6. COMMUNICATION BOX INTERFACE. TYPICAL FOR 5 LOCATIONS.
7. PROVIDE RACKS IN DUCTBANKS AND HANDHOLES AT AVAILABLE WALLS AND AREAS FOR PROPER ROUTING OR RACKING OF CABLES.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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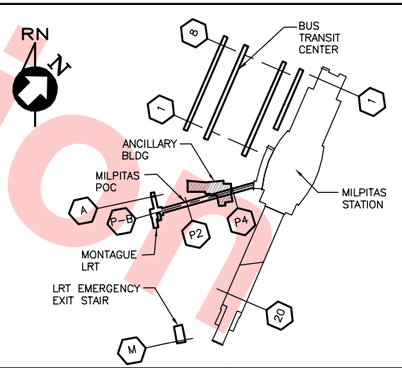
Contract No.: DB11002F

By: _____ Date: _____

10' 0' 10' 20'
GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY R. CRUZ
DRAWN BY P. NG
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. D. CRUZ — E11904 — EXP. 12/31/13 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 535, Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. — A LEO A DALY COMPANY
T.Y. LIN INTERNATIONAL

SUBMITTED _____
APPROVED _____

BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
ANCILLARY BUILDING

ELECTRICAL SITE PLAN

CADD FILENAME C700-S-DB-E820.dwg
SIZE D | SCALE AS NOTED
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E820 | PAGE NO. 0939

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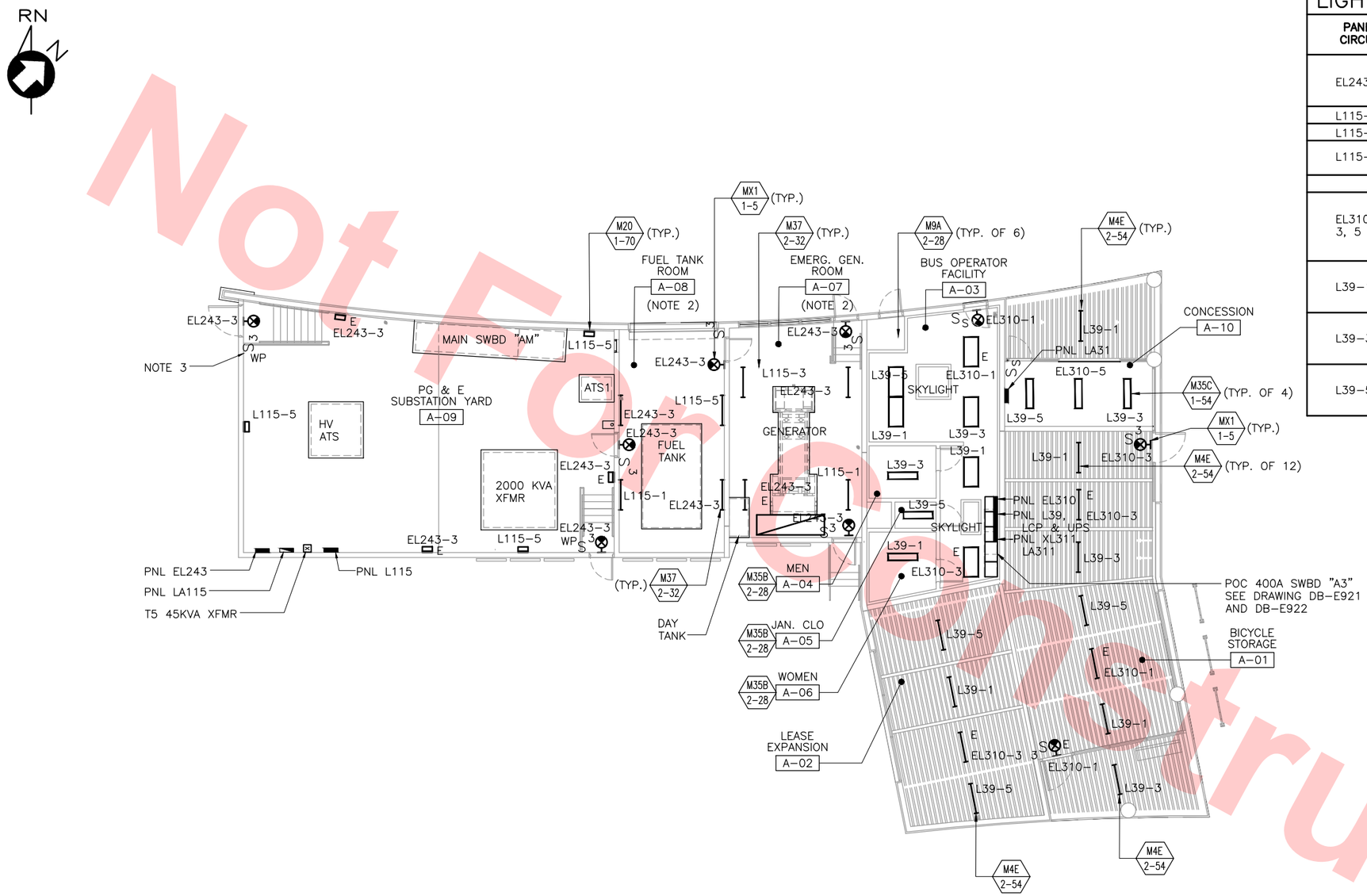


LIGHTING PLAN
SCALE: 1/8"=1'-0"

LIGHTING TABULATION

PANEL CIRCUIT	FIXTURE TYPE	QUANTITIES
EL243-3	MX1	6
	M20	3
	M37	4
L115-1	M37	2
L115-3	M37	1
L115-5	M20	3
	M37	1
EL310-1, 3, 5	MX1	3
	M9A	2
	M4E	3
	M35C	1
L39-1	M4E	4
	M9A	2
	M35C	1
L39-3	M4E	2
	M9A	2
	M35C	1
L39-5	M4E	3
	M9A	1
	M35C	1

LEGENDS

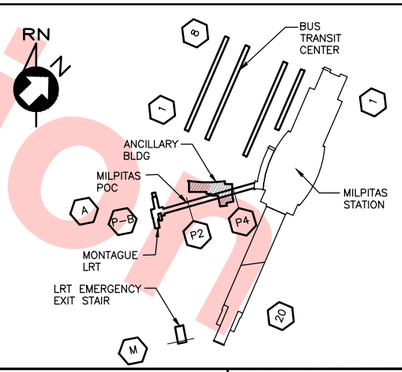
- SURFACE MOUNTED UPLIGHT LINEAR FLUORESCENT STRIP LIGHT.
- M25 — 9" DEEP x 16" WIDE METAL HALIDE WALL SCONCE TYPE M25, MOUNTED @ 12'-6" AFF TO BOTTOM OF FIXTURE UON, SEE LIGHTING DESIGN BASIS
- 2'x4' RECESSED LENSED TROFFER LIGHT FIXTURE. LITHONIA OR EQUAL.
- 1'x4' SURFACE MTD FL LIGHT FIXTURE. LITHONIA OR EQUAL.
- EXIT LIGHT
- X — 45 KVA TRANSFORMER
- L115/L39 — 480/277V (NORMAL) LIGHTING PANEL
- LA115 — 208/120V (NORMAL) HVAC/MISC PANEL
- EL243 — 480/277V (EMERG) LIGHTING PANEL
- ATS — AUTOMATIC TRANSFER SWITCH
- SURFACE MOUNTED LED 48L D50, LITHONIA OR EQUAL.

NOTE

1. SEE DRAWING DB-E918 FOR LIGHTING FIXTURE SCHEDULE
2. ALL CONDUITS SHALL BE GRS. CONDUITS IN ROOMS A-07 AND A-08 SHALL RUN CONCEALED IN WALLS AND IN FLOORS.
3. SWITCHES AT THE DOORS ARE FOR TO CONTROL ONLY NORMAL LIGHTS.
4. SUGGESTED FC (FOOT CANDLE) REQUIREMENT:
   RMS. A-03, A-10 = 30 FC
   RMS. A-01, A-04, A-05, A-06 = 20 FC
5. FOR LIGHTING CIRCUIT INFORMATION, SEE LIGHTING TABULATION THIS SHEET.

8' 0' 8' 16'
GRAPHIC SCALE

KEY PLAN



Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. PINO — E11904 — EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
ANCILLARY BUILDING

LIGHTING PLAN

CADD FILENAME C700-S-DB-E821.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E821 | PAGE NO. 0940

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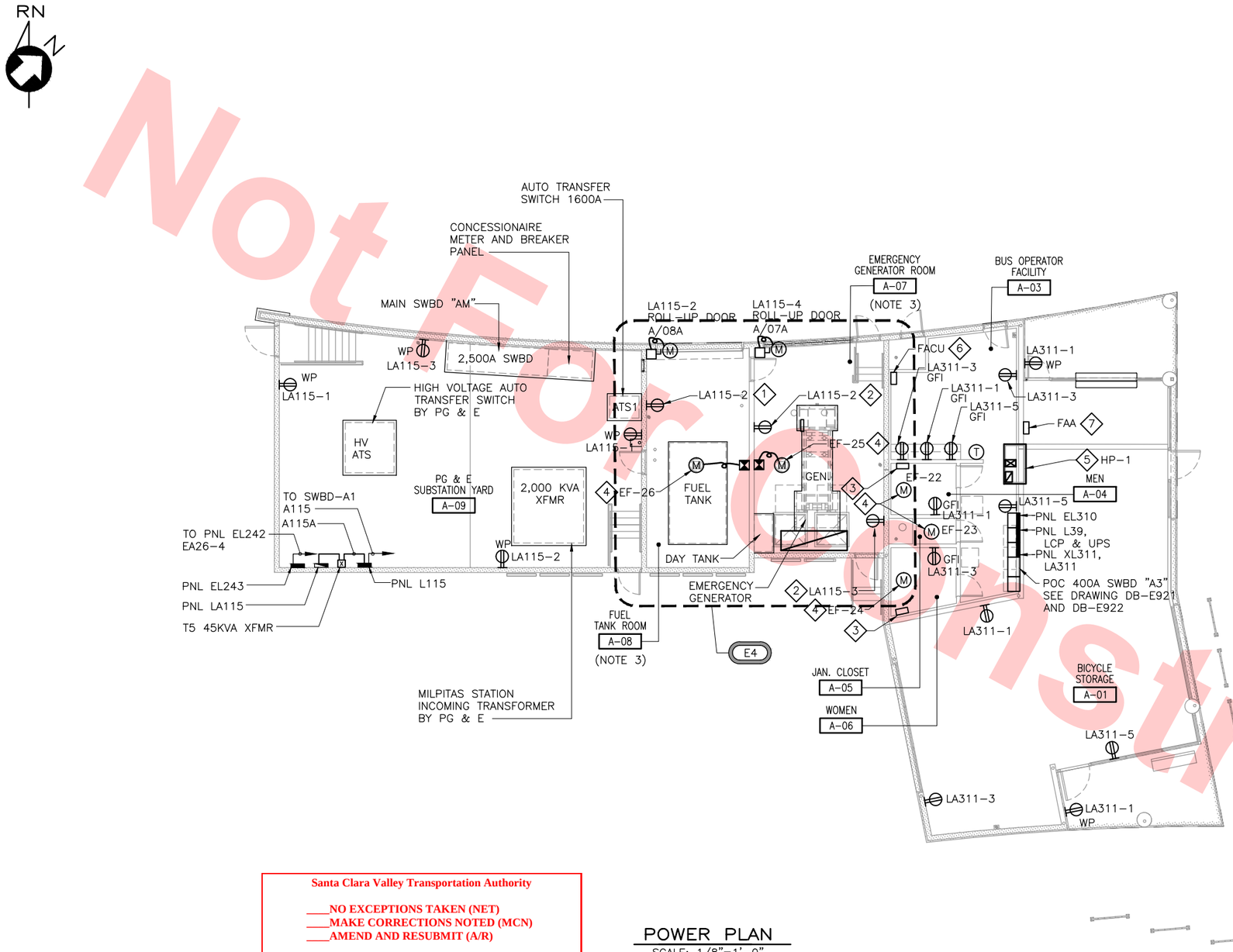

POWER PLAN
SCALE: 1/8"=1'-0"

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

KEY NOTES

1. EXPLOSION PROOF RECEPTACLE. CLASS 1 DIV. 1
2. EXPLOSION PROOF RECEPTACLE. CLASS 1 DIV. 2
3. ELECTRIC WALL HEATER
4. CEILING EXHAUST FAN
5. HEAT PUMP ON ROOF.
6. FACU (FIRE ALARM CONTROL UNIT)
7. FAA (FIRE ALARM ANNUNCIATOR WITH CONTROL)

NOTES

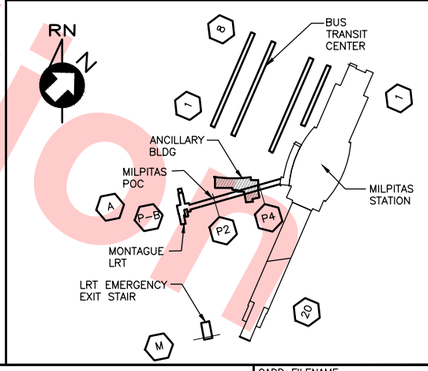
1. FOR ABBREVIATIONS AND GENERAL NOTES SEE SHEET DB-E001 AND DB-004.
2. SET THERMOSTAT AT 82°F
3. ALL CONDUITS SHALL BE GRS. CONDUITS IN ROOMS A-07 AND A-08 SHALL RUN CONCEALED IN WALLS AN IN FLOORS.
4. FOR FUEL OIL TANK AND DIESEL GENETATOR ROOM MOTORS AND DISC SWITCH SHALL BE DIV. 1, CLASS 2 ENCLOSURES.
5. FOR EQUIPMENT CIRCUIT, SEE TABULATION BELOW.

EQUIP. TABULATIONS

EQUIP. ID	VOLT/PH	PNL. CKT.
EF-22	120/1	LA311-11
EF-23	120/1	LA311-11
EF-24	120/1	LA311-11
EF-25	120/1	LA115-2
EF-26	120/1	LA115-2
FACU	120/1	EL310-2
FAA	120/1	EL310-4
HP-1	208/1	LA311-7,9

8' 0' 8' 16'
GRAPHIC SCALE

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130430				READINESS FOR CONSTRUCTION

DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130430

REGISTERED PROFESSIONAL ENGINEER — JAMES L. NEU — E11904 — EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

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1970 Broadway, Suite 505 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. — A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
ANCILLARY BUILDING

POWER PLAN

CADD FILENAME	C700-S-DB-E822.dwg
SIZE / SCALE	D / 1/8"=1'-0"
CONTRACT NO.	C700
REV.	0
AREA CODE	DB
SHEET NO.	E822
PAGE NO.	0941

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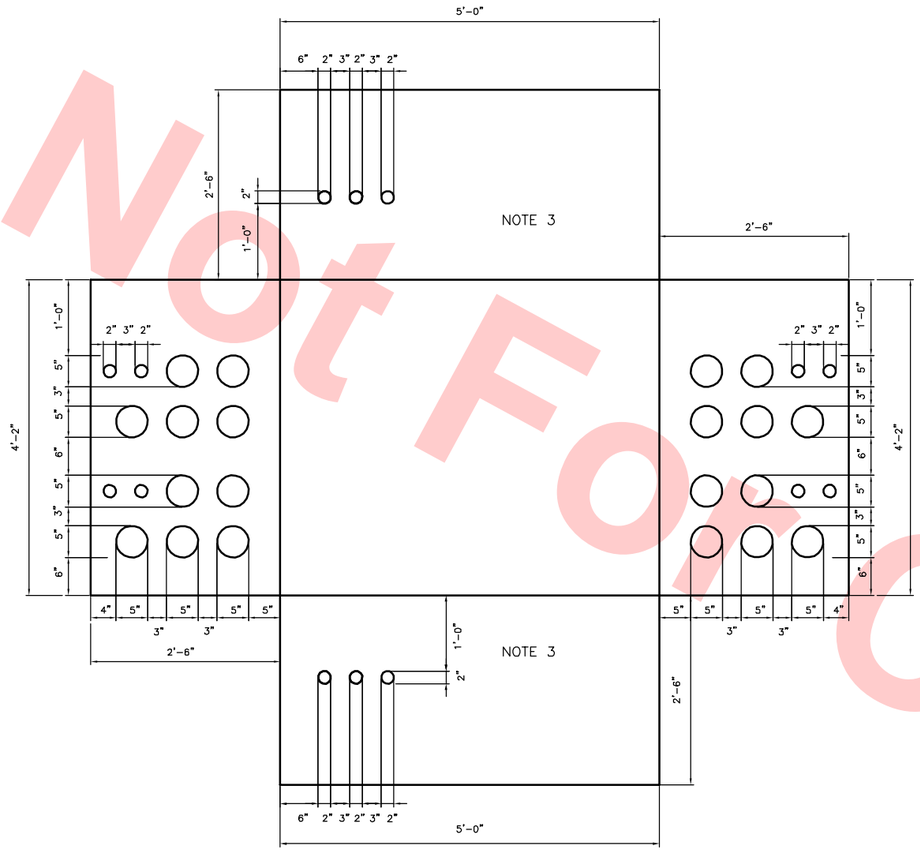
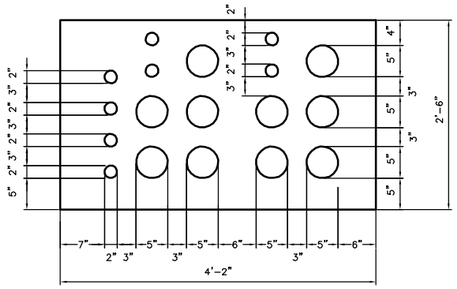
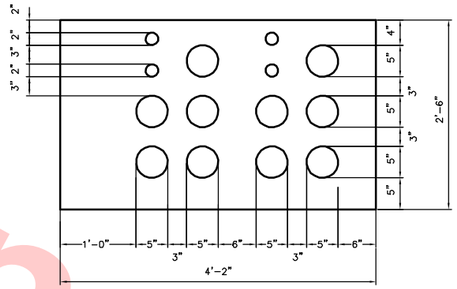


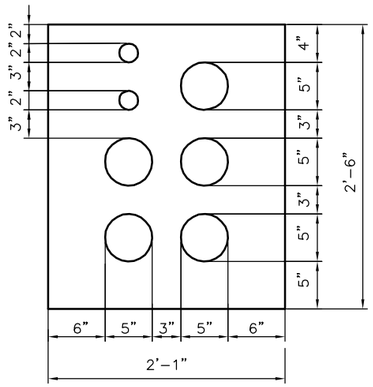
HAND HOLE DETAIL



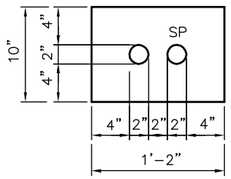
SECTION A–A



SECTION B–B



SECTION H–H



SECTION J–J

NOTES

1. ALL CONDUITS IN DUCT BANK SHALL RUN UNDERGROUND AND THE TOP OF THE DUCT BANK SHALL BE 30 INCHES BELOW THE GROUND SURFACE.
2. FOR ALL SECTIONS AND DETAIL SHOWN ON THIS DRAWING, REFER TO DRAWING DB–E820.
3. PROVIDE RACKS IN DUCTBANKS AND HANDHOLES AT AVAILABLE WALLS AND AREAS FOR PROPER ROUTING OR RACKING OF CABLES.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY G. LAWANI
DRAWN BY P. NG
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — CHARLES L. D. CHEN — E11904 — EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY | T·Y LIN INTERNATIONAL

SUBMITTED _____

APPROVED _____

BART SILICON VALLEY

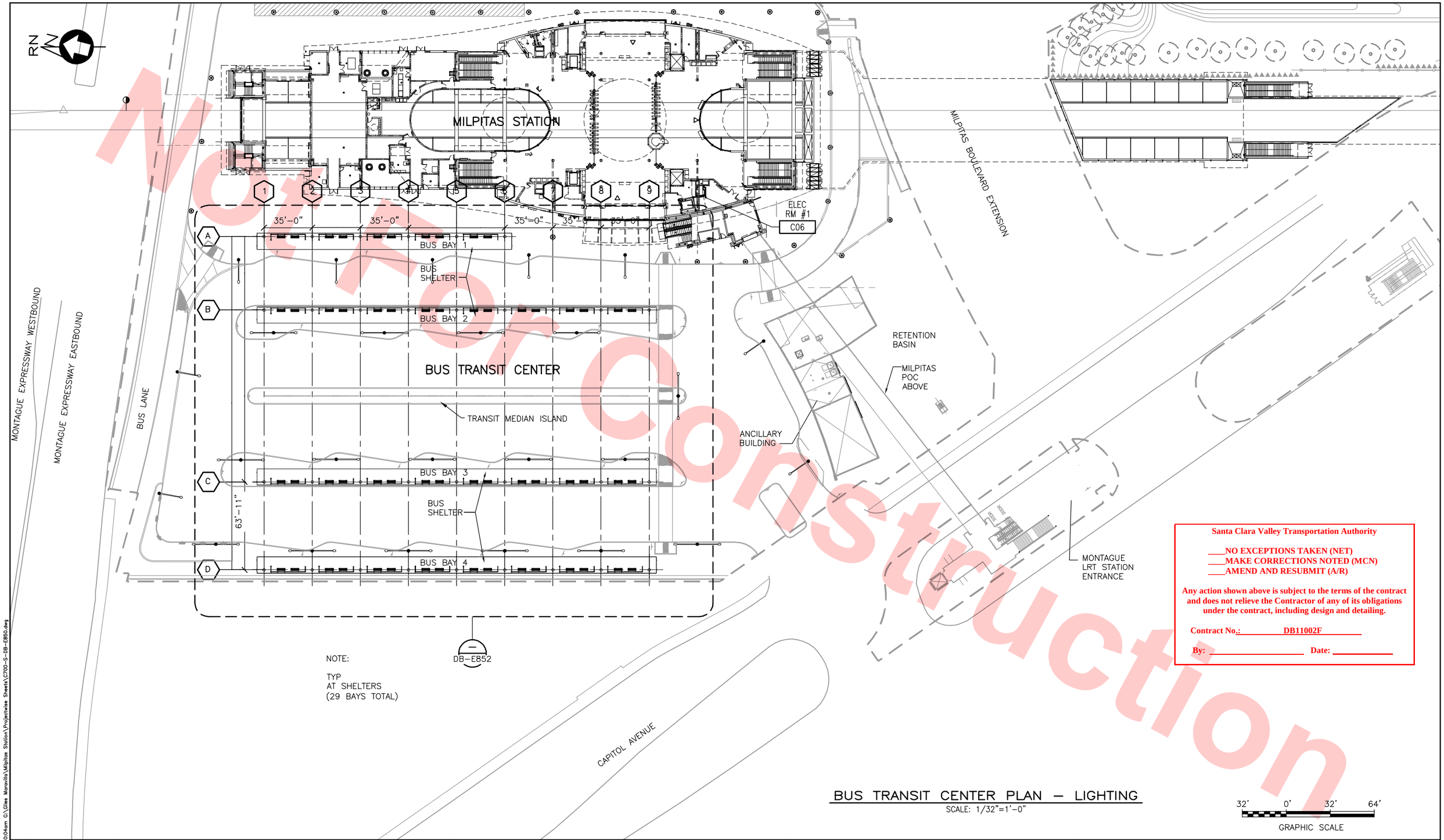
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
ANCILLARY BUILDING

UNDERGROUND DUCTBANK DETAILS

CADD FILENAME C700–S–DB–E825.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E825 | PAGE NO. 0942

Jun 26, 2013 - 2:29pm C:\projectwise\mbx-gnocrovillo\dms34734\C700-S-DB-E825.dwg GilesM



Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ **Date:** _____

BUS TRANSIT CENTER PLAN – LIGHTING

SCALE: 1/32"=1'-0"

32' 0' 32' 64'

GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER LEWIS L.N. CHEN E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
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A Joint Venture

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1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y LIN INTERNATIONAL

SUBMITTED _____
APPROVED _____

BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
TRANSIT CENTER BUS SHELTER

BUS TRANSIT CENTER
SITE PLAN

CADD FILENAME C700-S-DB-E850.dwg
SIZE D | SCALE 1/32"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E850 | PAGE NO. 0943

Jun 24, 2013 - 10:04am G:\Giles Maravilla\Milpitas Station\Projectwise Sheets\C700-S-DB-E850.dwg
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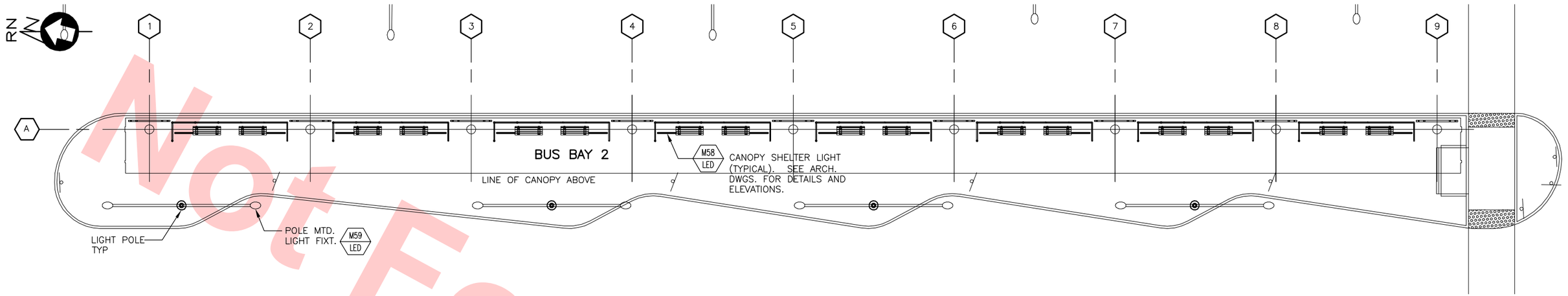
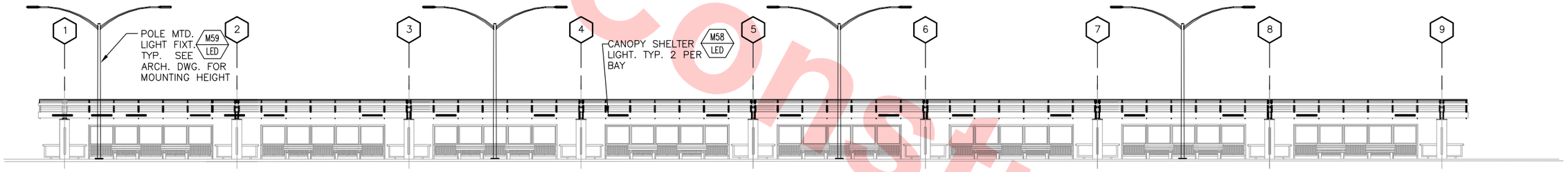


PLAN OF BUS BAY 2 – LIGHTING (B)

SCALE: 3/32"=1'–0"

DB–E851 DB–E852



4' 0' 4' 12' 20' 28'

GRAPHIC SCALE

ELEVATION OF BUS BAY 2 – LIGHTING (A)

SCALE: 3/32"=1'–0"

DB–E851

Santa Clara Valley Transportation Authority

___NO EXCEPTIONS TAKEN (NET)
___MAKE CORRECTIONS NOTED (MCN)
___AMEND AND RESUBMIT (A/R)

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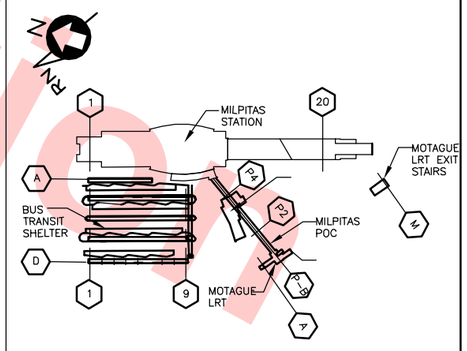
Contract No.: DB11002F

By: _____ Date: _____

KEY PLAN



REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — CHARLES L. PHILLIPS — E11904 — EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 430, Oakland, CA 94612
Phone: (510) 835-2532 Fax: (510) 835-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y LIN INTERNATIONAL

APPROVED

BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
TRANSIT CENTER BUS SHELTER

PLAN AND ELEVATION OF BUS BAY 2 LIGHTING

CADD FILENAME C700–S–DB–E851.dwg
SIZE D | SCALE 3/32"=1'–0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E851 | PAGE NO. 0944

NOTE

1. LIGHT POLES AND ALSO CANOPY LIGHTING IN THIS AREA IS POWERED FROM MILPITAS STATION. SEE DRAWINGS DB–E550 SERIES.

NOTE #1

BUS BAY 1

BUS BAY 2

L39–2 EL310–11 L39–4 L39–6 EL310–9 L39–2 L39–4 L39–6

L39–8 L39–10 L39–12 EL310–7

BUS SHELTER

EL310–9

A DB–A851

BUS TRANSIT CENTER

TRANSIT MEDIAN ISLAND

B DB–E851

MILPITAS POC ABOVE

MANHOLE, SEE DB–E820

INTERCEPT CIRCUIT AT MANHOLE

L39–8

SPARE

L39–2,4,6; L39–8,10,12 } VIA MANHOLE, TO PNL L39 @ BUS OPERATOR ROOM, ANCILLARY BUILDING

EL310–7,9,11 } VIA MANHOLE, TO PNL EL310 @ LRT ELECTRICAL ROOM, MONTAGUE LRT STATION

L39–8

ANCILLARY BUILDING

EL310–7

(TYP. FOR 32) M59

M58 (CANOPY LIGHTS, 2 PER BAY–TYP.)

BUS SHELTER

BUS BAY 3

L39–10 L39–8 EL310–9 L39–12 L39–10

EL310–11 L39–6 L39–4 L39–2 L39–6 L39–4 EL310–7 L39–2

L39–10

BUS SHELTER

BUS BAY 4

L39–12 L39–8 L39–10 L39–12 EL310–11 L39–8

L39–2 EL310–7 L39–4 L39–6 L39–2 EL310–9 L39–4 L39–6

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
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____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

NOTE:

TYPICAL AT SHELTERS (29 BAYS TOTAL)

16 0' 16 32

GRAPHIC SCALE

BUS TRANSIT CENTER ENLARGED PLAN

SCALE: 1/16"=1'–0"

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LEWIS L.N. CHEN — E11904 — EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
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Anil Verma Associates, Inc.
1970 Broadway, Suite 535 Oakland, CA 94612
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SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y LIN INTERNATIONAL

APPROVED

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
TRANSIT CENTER BUS SHELTER

BUS TRANSIT CENTER ENLARGED PLAN
LIGHTING

CADD FILENAME C700–S–DB–E852.dwg
SIZE D | SCALE 1/16"=1'–0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E852 | PAGE NO. 0945

Jun 24, 2013 – 10:08am G:\Giles Marcvilla\Milpitas Station\Projectwise Sheets\C700–S–DB–E852.dwg
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Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
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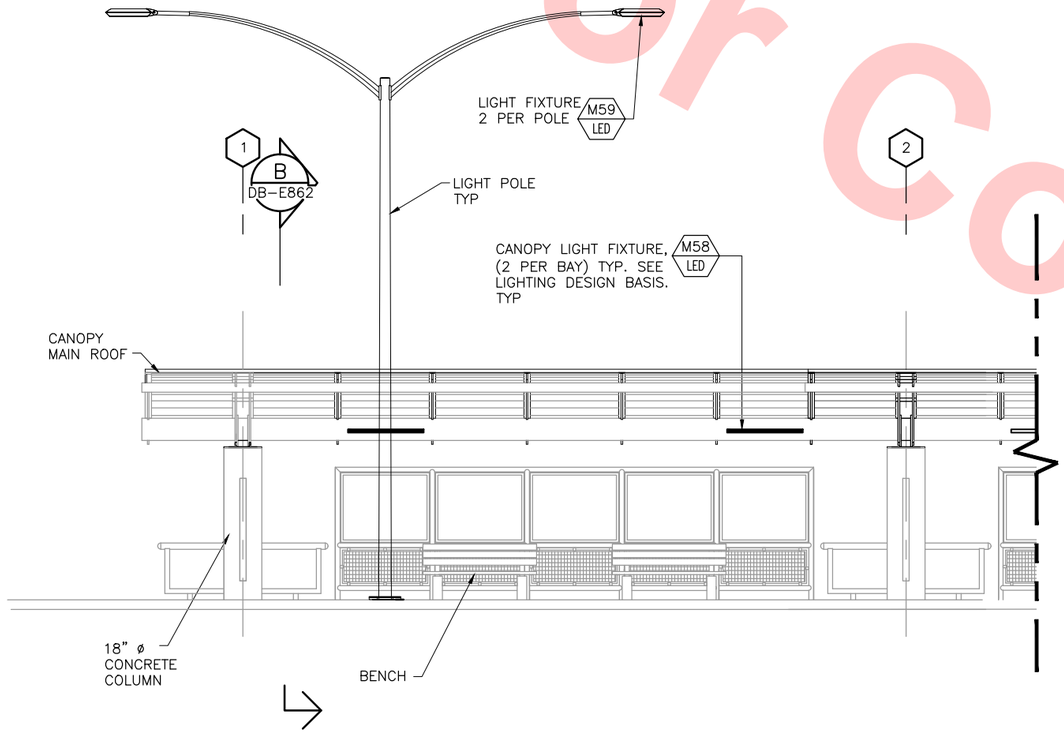
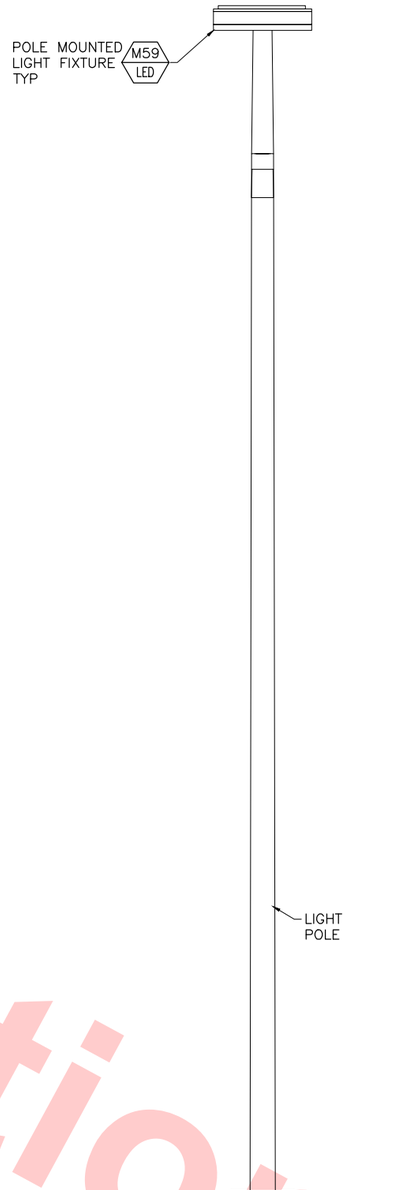
Contract No.: DB11002F

By: _____ **Date:** _____



FRONT ELEVATION (A, DB–E862) DB–E861
SCALE: 1/4"=1'–0"



SIDE ELEVATION (B, DB–E862) DB–E861
SCALE: 1/2"=1'–0"

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

LICENSED PROFESSIONAL ENGINEER — LOUIS L.N. CHEN — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
TRANSIT CENTER BUS SHELTER

DETAIL ELEVATION – LIGHTING

CADD FILENAME		
C700–S–DB–E862.dwg		
SIZE D	SCALE AS NOTED	
CONTRACT NO. C700		REV. 0
AREA CODE DB	SHEET NO. E862	PAGE NO. 0946

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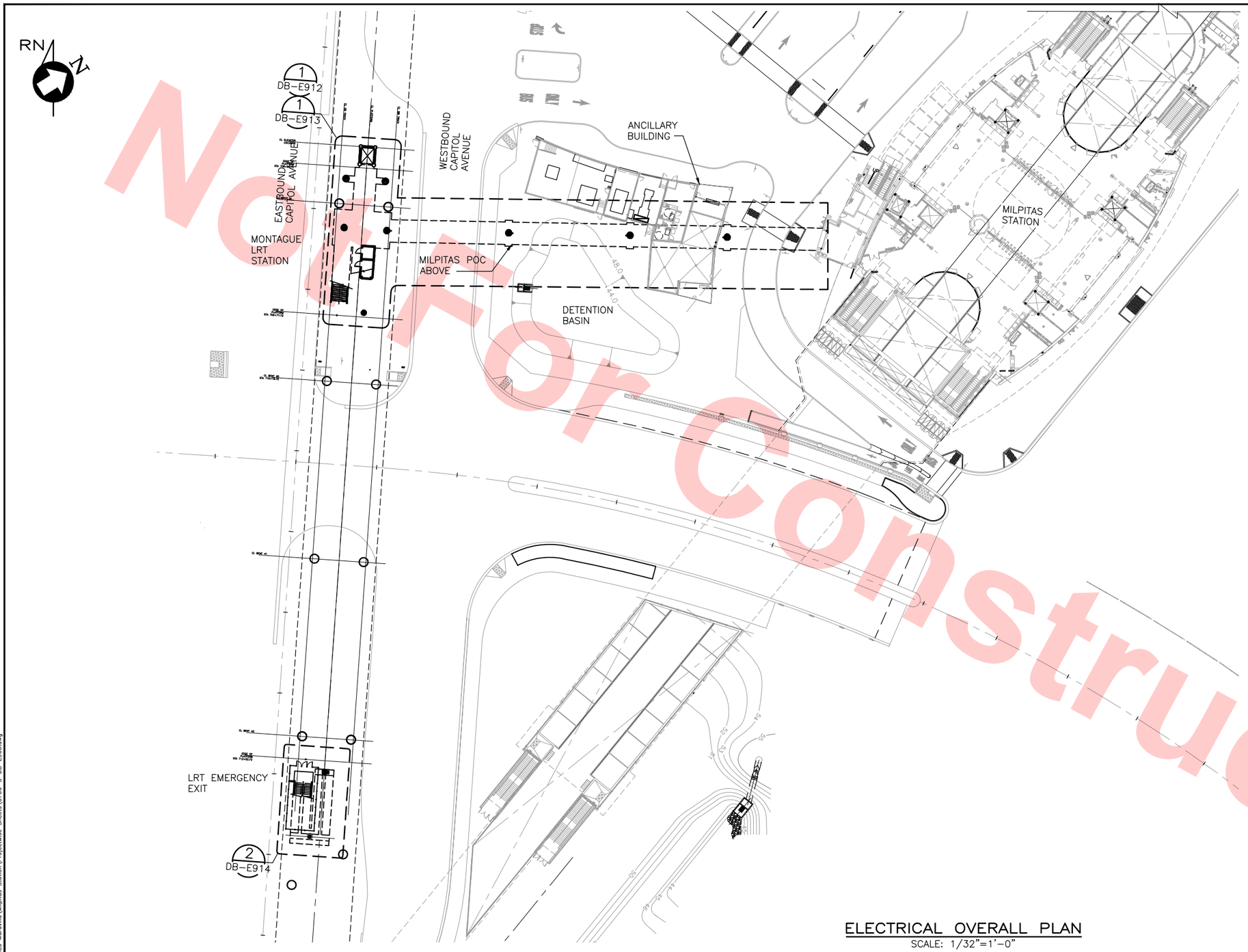

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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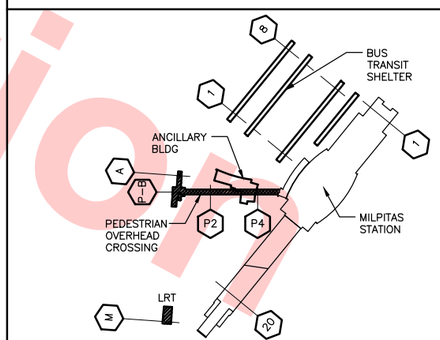
Contract No.: DB11002F

By: _____ Date: _____

32' 0' 32' 64'

GRAPHIC SCALE

KEY PLAN



ELECTRICAL OVERALL PLAN

SCALE: 1/32"=1'–0"

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JAMES L. GILES — E11904 — EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

SUBMITTED _____

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED _____

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MONTAGUE LRT & MILPITAS POC

ELECTRICAL OVERALL PLAN

CADD FILENAME C700–S–DB–E900.dwg
SIZE D | SCALE 1/32"=1'–0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E900 | PAGE NO. 0947

GilesM Jun. 24, 2013 – 8:53am G:\Giles Maravilla\Milpitas Station\Projectwise Sheets\C700–S–DB–E900.dwg

RN

(E) ELEVATOR

EDGE OF GUIDEWAY ABOVE

12'-0" M50 LED LIGHT FIXTURE, (TYP OF 6)

E EL32-1

L33-1

E EL32-3

L33-3

L33-5

EL32-5 E

NEW ENTRANCE LIGHT ABV. DOOR (TYP. OF 2) 9'-0" M53 LED

L33-1

(E) ELEVATOR EQUIP ROOM

L33-5

(E) ELECTRICAL EQUIP ROOM

EDGE OF GUIDEWAY ABOVE

PEDESTRIAN OVERCROSSING

FOR LIGHTING LAYOUT IN THIS AREAS, SEE MILPITAS STATION DWG. DB-E205X

MATCH LINE SEE BELOW

MATCH LINE SEE ABOVE

GROUND LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'-0"

8' 0' 8' 16'

GRAPHIC SCALE

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
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Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — PAUL L. NG — E11904 — EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

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1436 California Circle
Milpitas, California 95035
A Joint Venture

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1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2532 Fax: (510) 835-2339

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY | T-Y-LIN INTERNATIONAL

SUBMITTED _____ APPROVED _____

BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MONTAGUE LRT & MILPITAS POC

GROUND LEVEL PLAN
LIGHTING

CADD FILENAME C700-S-DB-E912.dwg
SIZE D | SCALE 1/8"=1'-0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E912 | PAGE NO. 0948

Jun 25, 2013 - 11:13am C:\projectwise\ynbx-gmaravilla\dms34734\C700-S-DB-E912.dwg GileseM

NOTE

1. FOR LIGHTING FIXTURE SCHEDULE SEE DRAWING DB–E515 AND DB–E516
2. FOR ELECTRICAL ABBREVIATION AND LAYOUT SYMBOL SEE DB–001X AND DB–002X.

Santa Clara Valley Transportation Authority

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Contract No.: DB11002F

By: _____ Date: _____

RN

(E) ELEVATOR

WP PPN2–36

E EL32–1

8'–0" M50 LED DSXPG LED (TYP FOR 13)

UNDERSIDE OF PLATFORM EXTENSION ABOVE

11'–6" M52 – LED LENSED STRIPLIGHT SUSPENDED ABOVE METAL VALENCE, TYP FOR 50. SEE ARCH DETAIL. (TYP. FOR 50)

TO PPN2–36

TO PPN2–34

PPN2–34

UNDERSIDE OF GUIDEWAY ABOVE

PEDESTRIAN OVERCROSSING

FOR LIGHTING LAYOUT IN THIS AREAS, SEE MILPITAS STATION DWG. DB–E304X

MATCH LINE SEE BELOW

MATCH LINE SEE ABOVE

POC LEVEL PLAN – LIGHTING

SCALE: 1/8"=1'–0"

8' 0' 8' 16'

GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER JAMES L. NEU E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525 Oakland, CA 94612
Phone: (510) 835-2530 Fax: (510) 835-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A URS + BALT COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MONTAGUE LRT & MILPITAS POC

POC LEVEL PLAN
LIGHTING

CADD FILENAME C700–S–DB–E913.dwg
SIZE D | SCALE 1/8"=1'–0"
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E913 | PAGE NO. 0949

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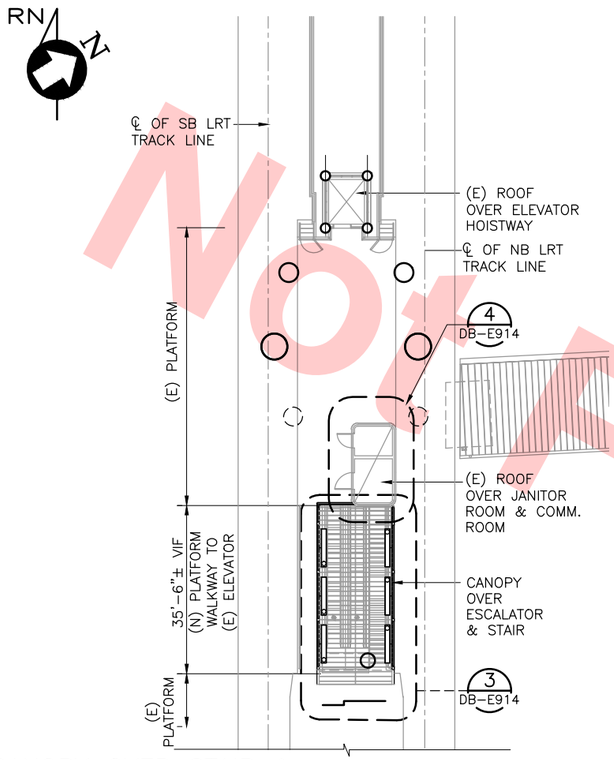
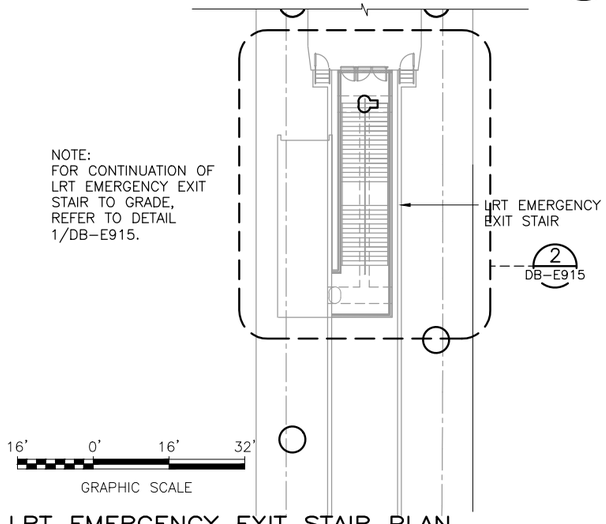


CANOPY OVER STAIR & ESCALATOR AT LRT PLATFORM LEVEL

SCALE: 1/16"=1'–0"

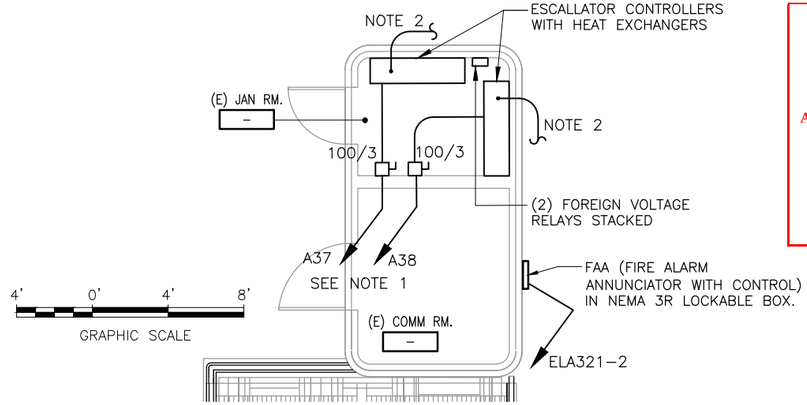
1 DB–E914



LRT EMERGENCY EXIT STAIR PLAN AT LRT PLATFORM LEVEL

SCALE: 1/16"=1'–0"

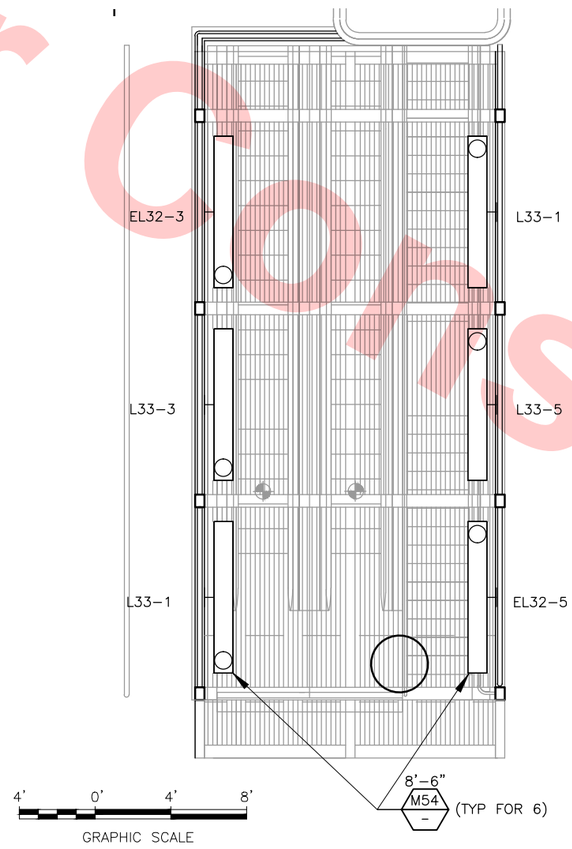
2 DB–E914



(E) JAN. AND COMM. RM. ENLARGED PLAN

SCALE: 1/4"=1'–0"

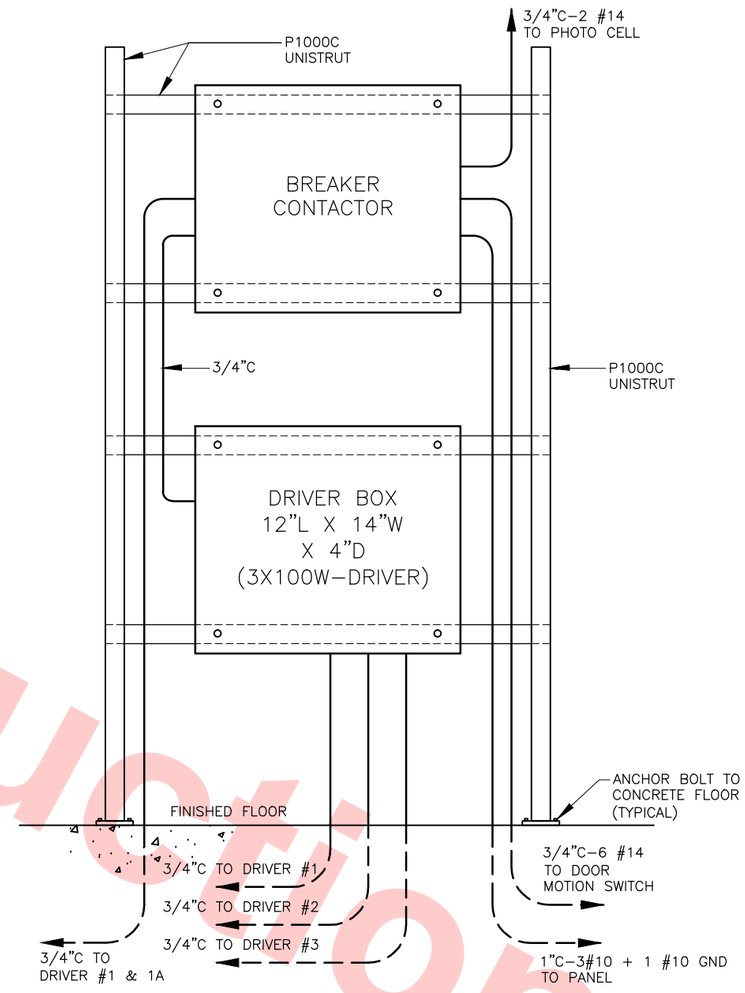
4 DB–E914



DETAIL CANOPY PLAN – LIGHTING

SCALE: 1/4"=1'–0"

3 DB–E914



LIGHTING CONTROLLER – DETAIL ELEVATION

NTS

5 DB–E914

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

NOTE

1. TO SWITCHBOARD "A3" AT BUS OPERATORS FACILITY (ANCILLARY BUILDING) VIA LRT ELECTRICAL ROOM, SEE DWG. DB–E820, DB–921 AND DB–E922.
2. POWER AND CONTROL CONDUITS TO ESCALATOR EQUIPMENT.
   – 3/4"C. FOR CONTROL WIRING BY VENDOR.
   – 2"C (1)–3/C #2, W/ GND FOR POWER.

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. PAO — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
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SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS DESIGN UNIT 023
MONTAGUE LRT & MILPITAS POC

LRT PLATFORM LEVEL PLAN
LIGHTING

CADD FILENAME C700–S–DB–E914.dwg
SIZE D | SCALE AS NOTED
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E914 | PAGE NO. 0950

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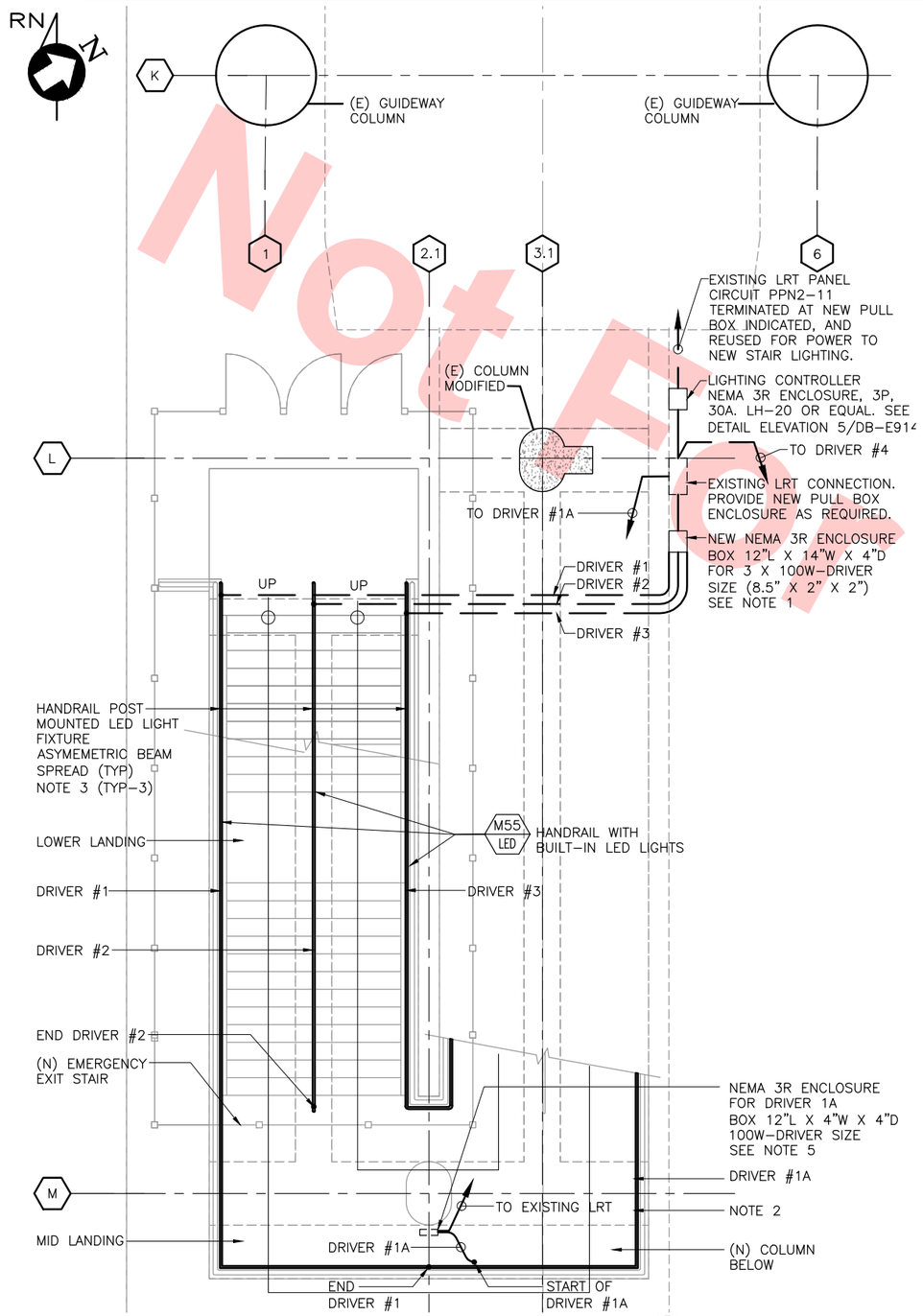
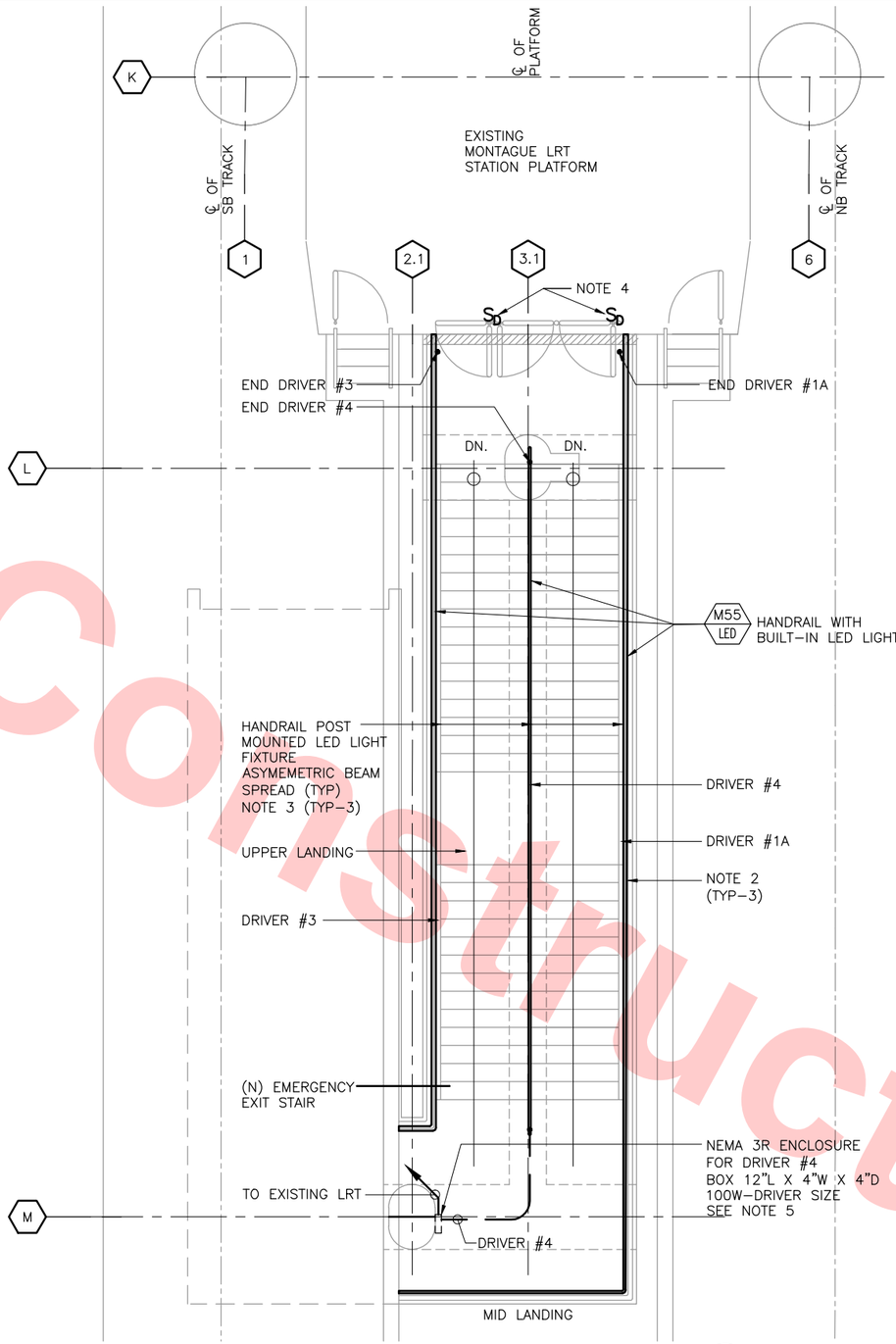


PLAN AT MID LANDING – LIGHTING 1

SCALE: 1/4"=1'–0"

DB–E915



PLAN AT LRT PLATFORM – LIGHTING 2

SCALE: 1/4"=1'–0"

DB–E915

NOTES

1. TYPE IS LUXRAIL OR EQUAL
2. CLEAR ANODIZED ALUMINUM, 1 1/2 " DIA., POST MOUNTED CONCRETE
3. LIGHT DISTRIBUTION, 55 DEGREE ON CENTER HANDRAIL, ASYMMETRIC ON BOTH SIDE HANDRAIL
4. EMERGENCY EXIT DOOR SWITCH INTERLOCKING TIMER (0–20 MIN) AND PHOTOCELL AND TO ALARM CIRCUIT.
5. INSTALL BOX ENCLOSURE @ 54" AFF.

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

Any action shown above is subject to the terms of the contract and does not relieve the Contractor of any of its obligations under the contract, including design and detailing.

Contract No.: DB11002F

By: _____ Date: _____

4' 0' 4' 8'

GRAPHIC SCALE

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — JANUS L. PAK — E11904 — EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 835-2532 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

VTA BART SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MONTAGUE LRT AND MILPITAS POC

LRT EMERGENCY EXIT STAIRS
LIGHTING

CADD FILENAME		
C700–S–DB–E915.dwg		
SIZE D	SCALE 1/4"=1'–0"	
CONTRACT NO. C700		REV. 0
AREA CODE DB	SHEET NO. E915	PAGE NO. 0951

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IDENTIFICATION	TYPE	DESCRIPTION	VOLTAGE	MFR CAT NUMBER	INPUT POWER (VA)	REMARK & MOUNTING
M50 LED	LED	D – SERIES LED 3 ENGINES(30 LEDs) DSXPG LED FIXTURE 530mA T5M, NATURAL ALUMINUM	277V	LITHONIA DSXPG LED 30 LEDS 10B530/40K T5M	37	LRT GROUND LEVEL POC LEVEL PLATFORM
M52 LED	LED	5" X 48" SURFACE MOUNTED LED LIGHT FIXTURE WITH ONE PIECE WRAPAROUND LENS AND CONDUIT ACCESS ON EACH END.	277V	KENALL N548 SERIES (7100) – LED OR EQUAL	59	CONCOURSE TVMS
M53 LED	LED	MRW LED ARCHITECTURAL WALL SCONCE (2) ENGINES 20LEDs 700mA, SR3, WLU WITH VANDAL GUARD OR EQUAL	277V	LITHONIA LIGHTING MRW LED 2, 10A700/40K SR3,WLU,VG DBLXD, OR EQUAL	47	CANOPY LIGHTING ELEC/COMM ROOM OUTDOOR
M54 LED	LED	KENALL ES5 – LED SURFACE MOUNT FIXTURE WITH REPLACEABLE BRIGHTNESS LED, 4000K TO 5700K LAMP OR EQUAL	277V	KENALL MODEL ES5–LED, OR EQUAL	32	CANOPY OVER STAIR AND ESCALATOR AT LRT
M55 LED	LED	IO LIGHTING (LUXRAIL) – STANDARD HANDRAIL LIGHTS	120/ 277V	IO LIGHTING LUXRAIL, 100W DRIVER, 2700K, 67 LUMENS/FT		EMERG. EXIT STAIR HANDRAIL
M31 LED	LED	OUTDOOR GENERAL LED WALL PACK, 1400 LUMENS	277V	LITHONIA LIGHTING LED WALL PACK, OLW14	35	ELEVATOR AND ELECTRICAL ROOM, GROUND LEVEL
M57 LED	LED	D–SERIES SIZE 2 LED FLOOD LUMINAIRE,4 COB ENGINES A530 – 40K FL WITH TENON SLIPFTTER, BLACK FINISH	277V	LITHONIA LIGHTING DSXF2 LED 4 A530/40K, FLOOD LIGHT OR EQUAL	75	LRT PLATFORM LANDING
M58 LED	LED	OL–SERIES, LED LINEAR FLOOD 277V, SV, 350mA, 7 ENGINES, 40K @ 35 WATTS	277V	CREE LIGHTING FLD–OL–40–4–07–D–UL–SV –350–40K FLOOD LIGHT OR EQUAL	35	BUS SHELTER CANOPY
M59 LED	LED	LED WAY – STREETLIGHT – TYPE III MEDIUM BY CREE LIGHTING	277V	CREE LIGHTING STR–LWY–5M–HT–D–UL– 700–48K @PT–2H (180)	238	BUS SHELTER POLE LIGHTS
M9A 2–28	FLUORESCENNT	PARAMAX PARABOLIC TROFFER, 2' X 4', 2LP, 28W75 12 CELL LOUVER, WITH ELECTRONIC BALLAST.	MV	LITHONIA LIGHTING 2PM3NGB28T5 12 LD MVOLT OSPS OR EQUAL	122	BUS OPERATOR RM A–03
M35B 2–28	FLUORESCENNT	4' WET LOCATION ENCLOSURE, 2–28W LINEAR FL–T5, HIGH IMPACT ACRYLIC LENS.	MV	LITHONIA LIGHTING DMW 2–28T5 OR EQUAL	122	BUS OPERATOR MEN'S & WOMEN'S RESTROOM
M4E 2–54	FLUORESCENNT	4' WET LOCATION ENCLOSURE, 2–54W LINEAR PL–T5, HO, HIGH IMPACT ACRYLIC LENS.	MV	LITHONIA LIGHTING DMW 2–54T5 OR EQUAL	110	LEASE EXPANSION BICYCLE STORAGE
M35C 1–54	FLUORESCENNT	CA WRAP 2–28W T5 LAMP	MV	LITHONIA LIGHTING CA–2–28T5–MV OR EQUAL	62	CONCESSIONAIRE
MX1 1–5	LED	FULLY ASSEMBLED SINGLE FACED EXIT SIGN, THERMOPLASTIC HOUSING 120/277V, LED, ILLUMINATED GREEN COLOR LETTERING	120/ 277V	LITHONIA LIGHTING EXGMG OR EQUAL	4	ANCILLARY BUILDING

E7

LOCATION: LRT Montague Ancillary Bldg, Bus Operator Rm A–03 — PANEL L39 NORMAL — NEMA 1 Enclosure MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL–AMPS A	B	C	COL #2 VOL–AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	Ancillary Bldg Rm A–01, 02, 03, 04, 06	567			462			Bus Shelter Canopy, Bus Bay 2,3 & 4	1	20	2
3	20	1	Ancillary Bldg Rm A–01, 03, & 10		564			462		Bus Shelter Canopy, Bus Bay 2,3 & 4	1	20	4
5	20	1	Ancillary Bldg Rm A–01, 02, 03, 05 & 10			462			462	Bus Shelter Canopy, Bus Bay 2,3 & 4	1	20	6
7	20	1	SPARE				888			Bus Transit Ctr., Bus Bay 2, 3 & 4	1	20	8
9	20	1	SPARE					888		Bus Transit Ctr., Bus Bay 2, 3 & 4	1	20	10
11	20	1	SPARE						888	Bus Transit Ctr., Bus Bay 2, 3 & 4	1	20	12
13	20	1	SPARE				200			Lighting Control	1	20	14
15	20	1	SPARE							SPARE	1	20	16
17	20	1	SPARE							SPARE	1	20	18
19			SPACE							SPACE			20
21			SPACE							SPACE			22
23			SPACE							SPACE			24
SUB TOTAL				567	564	462	1550	1350	1350	SUB TOTAL			

VOLTAGE: 480/277V,3ø,4W
MAINS: 100A CB
MIN IC: 25,000A

GRAND TOTAL 2684 | 1914 | 1812

TOTAL 3 PHASE CONNECTED x 1.25 8.01 KVA 9.64 AMPS @ 480V

LOCATION: LRT Montague Ancillary Bldg, Bus Operator Rm A–03 — PANEL EL310 EMERGENCY — NEMA 1 Enclosure MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL–AMPS A	B	C	COL #2 VOL–AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	Ancillary Bldg Rm A–01, 03 + EXIT	374			600			FACU WITH ANNUNCIATOR	1	20	2
3	20	1	Ancillary Bldg Rm A–01, 02, 03, 06 +EXIT		374			100		FACU REMOTE ANNUNCIATOR	1	20	4
5	20	1	Ancillary Bldg Rm A–02, 10 + EXIT			374				SPARE	1	20	6
7	20	1	Bus Transit Bay 2 + Bus Shelter Bay 2	527						SPARE	1	20	8
9	20	1	Bus Transit Bay 3 + Bus Shelter Bay 3		527					SPARE	1	20	10
11	20	1	Bus Transit Bay 4 + Bus Shelter Bay 4			527				SPACE			12
SUB TOTAL				901	901	901	600	100	0	SUB TOTAL			

VOLTAGE: 480/227V,3P,4W
MAINS: 100A CB
MIN IC: 25,000A

1501 | 1001 | 901

TOTAL 3 PHASE CONNECTED x 1.25 3.30 KVA 4.0 AMPS @ 480V

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — RAMON L.N. CRUZ — E11904 — EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 535, Oakland, CA 94612
Phone: (510) 835-2537 Fax: (510) 835-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. — A LEO A DALY COMPANY
T-Y LIN INTERNATIONAL

APPROVED

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS DESIGN UNIT 023
MONTAGUE LRT AND MILPITAS POC AND BUS FACILITY
PANEL SCHEDULES AND LIGHTING FIXTURE SCHEDULE

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SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E918 | PAGE NO. 0952

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LOCATION: LRT Montague Ancillary Bldg, Bus Operator Rm A-03 — PANEL LA311 NORMAL — NEMA 1 Enclosure MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL-AMPS A	B	C	COL #2 VOL-AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	Ancillary Bldg Rm A-01, 02, 03, 04 & 06	720						SPACE			2
3	20	1	Ancillary Bldg Rm A-01, 02, 03, 04 & 06		720					SPACE			4
5	20	1	Ancillary Bldg Rm A-01, 02, 03, 04 & 06			720				SPACE			6
7	20	1	Heat Pump, HP-1	2624						SPACE			8
9	20	1	----------		2624					SPACE			10
11	20	1	Exhaust Fans, EF-22, EF-23 & EF-24			550				SPACE			12
13	20	1	Supply Fan, SF-1	528						SPACE			14
15	20	1	Electric Heater, EH-1		750					SPACE			16
17	20	1	Electric Heater, EH-2			750				SPACE			18
19			SPARE							SPACE			20
21			SPARE							SPACE			22
23			Supply Fan, SF-2 for Heat Pump, HP-1			1176				SPACE			24
SUB TOTAL				3872	4094	3196				SUB TOTAL			

VOLTAGE: 208Y/120V, 3ø, 4W
MAINS: 100A CB
MIN IC: 10,000A

GRAND TOTAL 3872 4094 3196

TOTAL 3 PHASE CONNECTED x 1.25 12.47 KVA 34.65 AMPS @ 480V

LOCATION: LRT Montague Electrical Room — PANEL EL32 EMERGENCY — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL-AMPS A	B	C	COL #2 VOL-AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	POC Lvl + Bus Shelter Canopy Lighting	284						SPARE	1	20	2
3	20	1	POC Lvl + Bus Shelter Canopy Lighting		200					SPARE	1	20	4
5	20	1	POC Lvl + Bus Shelter Canopy Lighting			200				SPARE	1	20	6
7	20	1	POC Bridge P1-P4	195						SPARE	1	20	8
9	20	1	POC Bridge P1-P4		130					SPARE	1	20	10
11	20	1	POC Bridge P1-P4			130				SPARE	1	20	12
13	20	1	Lighting control Panel	200						SPARE	1	20	14
15	20	1	SPARE							SPARE	1	20	16
17	20	1	SPARE							SPARE	1	20	18
19			SPACE							SPACE			20
21			SPACE							SPACE			22
23			SPARE							SPARE			24
SUB TOTAL				679	302	302				SUB TOTAL			

VOLTAGE: 480/227V, 3ø, 4W
MAINS: 100A CB
MIN IC: 25,000A

679 302 302

TOTAL 3 PHASE CONNECTED + LCL 1.6 KVA 1.9 AMPS @ 480V

LOCATION: LRT Montague Electrical Room — PANEL L33 NORMAL — NEMA 1 Enclosure MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL-AMPS A	B	C	COL #2 VOL-AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	LRT Platform + Canopy Bay #2	440						SPARE	1	20	2
3	20	1	LRT Platform + Canopy Bay #3		220					SPARE	1	20	4
5	20	1	LRT Platform + Canopy Bay #4			440				SPARE	1	20	6
7	20	1	LRT POC Bridge Landing, P1-P4	990						SPARE	1	20	8
9	20	1	LRT POC Bridge Landing, P1-P4		990			233		LRT Ground Level Lights	1	20	10
11	20	1	LRT POC Bridge Landing, P1-P4			990			233	LRT Ground Level Lights	1	20	12
13	20	1	SPARE				200			LIGHTING CONTROL PANEL	1	20	14
15	20	1	SPARE							SPARE	1	20	16
17	20	1	SPARE							SPARE	1	20	18
19			SPACE							SPACE			20
21			SPACE							SPACE			22
23			SPACE							SPACE			24
SUB TOTAL				1430	1210	1430	200	233	233	SUB TOTAL			

VOLTAGE: 480/277V, 3ø, 4W
MAINS: 125A CB
MIN IC: 25,000A

GRAND TOTAL 1630 1443 1663

TOTAL 3 PHASE CONNECTED + LCL 4.73 KVA 5.7 AMPS @ 480V

LOCATION: LRT Montague Electrical Room — PANEL ELA321 EMERGENCY — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL-AMPS A	B	C	COL #2 VOL-AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	Fire Alarm	600						SPARE	1	20	2
3	20	1	Fire Alarm		600					SPARE	1	20	4
5	20	1	Communication			600				SPARE	1	20	6
7	20	1	Communication	600						SPACE	1	20	8
9	20	1	Security		400					SPACE	1	20	10
11	20	1	Security			400				SPACE	1	20	12
SUB TOTAL				1200	1000	1000				SUB TOTAL			

VOLTAGE:208Y/120V, 3ø, 4W
MAINS: 100A CB
MIN IC: 10,000A

1200 1000 1000

TOTAL 3 PHASE CONNECTED + LCL 3.2 KVA 8.9 AMPS @ 208V

LOCATION: LRT Montague Electrical Room — PANEL LA331 NORMAL — MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL-AMPS A	B	C	COL #2 VOL-AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	20	1	Receptacle	540						SPARE	1	20	2
3	20	1	Receptacle		540					SPARE	1	20	4
5	20	1	Receptacle			540				SPARE	1	20	6
7	20	1	SPARE							SPACE	1	20	8
9	20	1	SPARE							SPACE	1	20	10
11	20	1	SPARE							SPACE	1	20	12
SUB TOTAL				540	540	540	0	0	0	SUB TOTAL			

VOLTAGE:208Y/120V, 3ø, 4W
MAINS: 100A CB
MIN IC: 10,000A

540 540 540

TOTAL 3 PHASE CONNECTED + LCL 1.6 KVA 4.4 AMPS @ 208V

LOCATION: LRT Montague Electrical Room — PANEL PPN1 (Existing) NORMAL — NEMA 1 Enclosure MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL-AMPS A	B	C	COL #2 VOL-AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	50	3	T1 30KVA TRANSF.	6228			1600			POC Under Bridge Ltg	1	20	2
3					6228			1600			1	20	4
5						6228			1600		1	20	6
7	90	3	ELEV. #5	18546						SPARE	1	20	8
9					18546						1	20	10
11						18546					1	20	12
13	90	3	ELEV #6 FUT				688			POC EMERG. LIGHTING PANEL "EL32"	3	50	14
15								330					16
17									350				18
19	20	3	ELEV #5 HOIST VENT FAN	1600			1346			POC LIGHTING PANEL "L33"	3	100	20
21					1600			1579					22
23						1600			1289				24
SUB TOTAL				26374	26374	26374	585	618	618	SUB TOTAL			

VOLTAGE: 480/277V, 3ø, 4W
MAINS: 125A CB
MIN IC: 25,000A

GRAND TOTAL 30008 29883 89504

TOTAL 3 PHASE CONNECTED + LCL 103.4 KVA 125 AMPS @ 480V

REFERENCE DRAWING: TASMAN EAST LIGHT RAIL PROJECT – ELECTRICAL MONTAGUE STATION – PANEL SCHEDULES, AS BUILT DRAWING # EP216

Santa Clara Valley Transportation Authority

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____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L.N. CRUZ — E11904 — EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

SUBMITTED

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 535-2537 Fax: (510) 535-2339

Lockwood, Andrews & Newnam, Inc. — A LEO A DALY COMPANY
T·Y LIN INTERNATIONAL

APPROVED

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MONTAGUE LRT AND MILPITAS POC AND BUS FACILITY

PANEL SCHEDULES

CADD FILENAME C700-S-DB-E919.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E919 | PAGE NO. 0953

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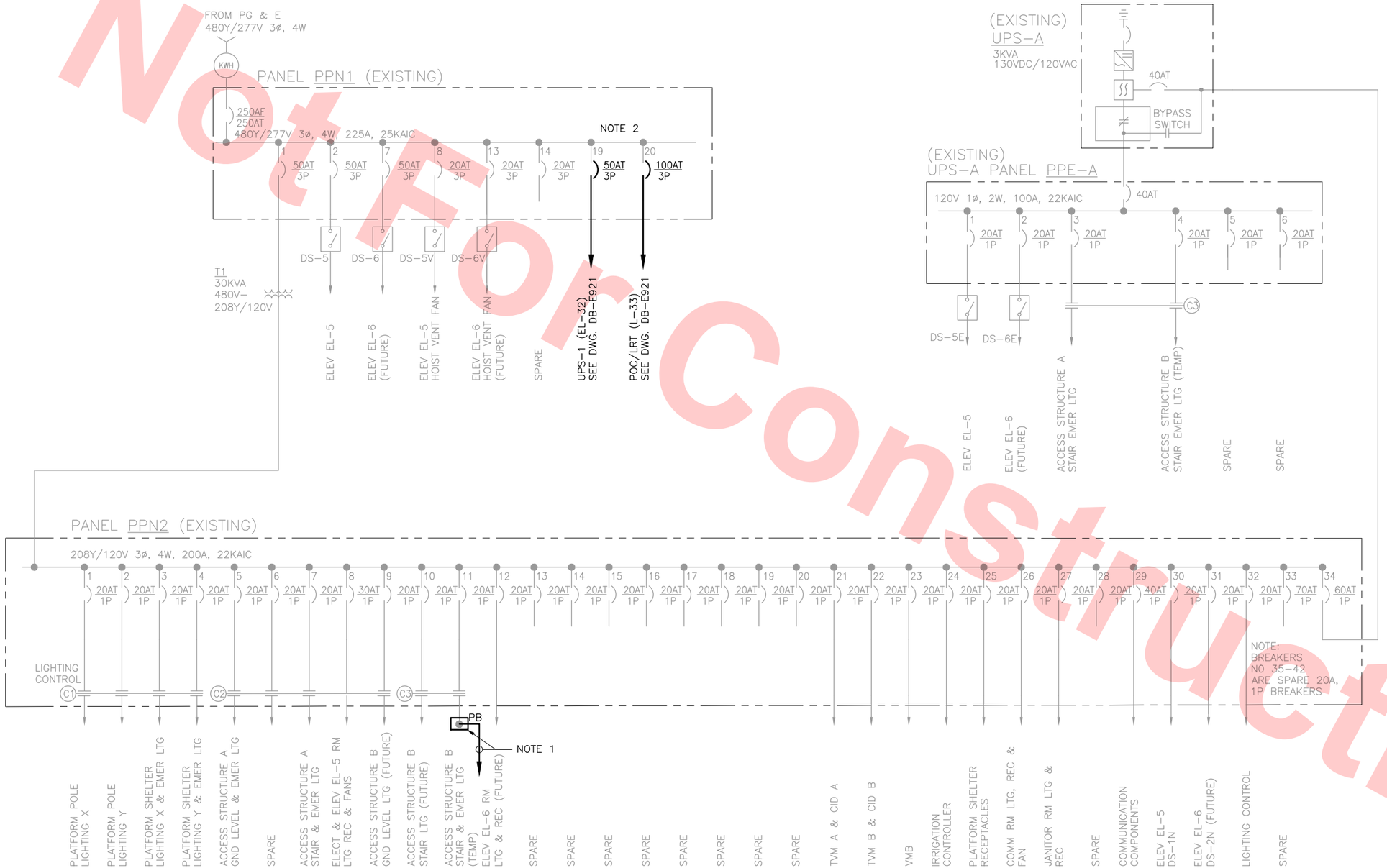

NOTE

1. TERMINATED FEEDER CIRCUIT PPN2-11 AT NEW PROVIDED PULL BOX NEAR COL. L/3.1. WIRE AND CONDUIT TO BE EXTENDED FOR REUSE. SEE DWG. 1/DB-E915.
2. CIRCUIT 19 TO FEED EMERG. PNL. EL32 VIA UPS-POC, AND CIRCUIT 20 TO FEED NORMAL PNL L33, SEE DWG DB-E921 FOR CONTINUATION. REMOVE EXISTING BKR OF CIRCUIT 19 AND REPLACE WITH NEW BKR OF 50AT/100AF/3P RATING. REMOVE EXISTING BKR OF CIRCUIT 20 AND REPLACE WITH NEW BKR OF 100AT/100AF/3P RATING.

Santa Clara Valley Transportation Authority

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Contract No.: DB11002F

By: _____ **Date:** _____

REV	DATE	BY	SUB	APP	DESCRIPTION
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DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER JAMES L. N. CHEN E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 655-2537 Fax: (510) 535-2339
SUBMITTED

Lockwood, Andrews & Newnam, Inc. A CH2M HILL COMPANY
T·Y·LIN INTERNATIONAL
APPROVED

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS DESIGN UNIT 023
MONTAGUE LRT AND MILPITAS POC

SINGLE LINE DIAGRAM

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SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E920 | PAGE NO. 0954

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TO EXISTING PANEL PPN1 CKT 19 & 20 @ LRT ELECTRICAL ROOM. SEE DWG. DB-E920 FOR CONTINUATION.

PPN1-19

PPN1-20

(NEW) UPS-POC
9 KVA
480V-480Y/277V, 3ø, 4W
(LOCATED LRT ELEC. ROOM)

50AT

BYPASS SWITCH

EL32 (LRT)

EMERG. PNL FOR POC BRIDGES AND PLATFORM
480Y/277V, 100A

30A, 3P

VA=1,700

LOCATED AT LRT ELEC. ROOM

EL321

6 KVA XEL321
480V- 208/120V
3ø, 4W, 60 HZ

(POC) ELA321
VA=3,200

COMMUNICATION SECURITY FIRE ALARM LOCATED AT LRT ELEC. ROOM SEE DWG. DB-E919

L33
POC LIGHTING PANEL

100A
480Y/277V
3ø, 4W
NEMA 3R

VA=11,030

LRT ELECTRICAL ROOM

5"C-4 #750 KCMIL +1 #2/0 GND
480/277V, 3ø, 4W SERVICE
PER PG & E DOCUMENTS 038193
REVISION 05, TABLE 5, RECOMMENDED
MAXIMUM CONDUIT FILL. NOTE 6.

FROM PG & E XFMR @ MONTAGUE LRT STA, SEE DB-E411 FOR CONT

PULL SECTION FOR PG&E UG CABLES

REVENUE METER SECTION. SEE NOTE 5

VS 1 V 0-600V

400/5A 3 AS 1 A 0-400A

400/400 A

POC SWITCHBOARD-"A3"

(BOF Rm #A-03 @ ANCILLARY BUILDING) NOTE 3

NORMAL 400A BUS - 480Y/277V, 3PH, 60HZ, 4W+G, 65kAIC

1	2	3	4	5	6	7	8	9	10	11
100/100 A	100/50 A	100/100 A	100/100 A	100/100 A	100/100 A	100/100 A	100/100 A	100/100 A	100/30 A	100/50 A
M 3	SPARE	SPARE	A34	A35	A36	A37	A38	A39	A310	A311
3 KVA XLA31 480V- 208/120V 3ø, 4W, 60 HZ			100A NFD DISC SW	100A NFD DISC SW	100A NFD DISC SW	100A NFD DISC SW	100A NFD DISC SW	L39 CTRL.		15 KVA XL311 480V- 208/120V 3ø, 4W, 60 HZ
A31			MS 3	MS 3	MS 3	MS 3	MS 3			LA311
3/4 "C - 4 #10 + 1 #10 GND			40	40	40	40	40			
LA31			Elevator PEL1 (Sta) 52A	Escalator PES1 (Sta) 52A	Escalator PES2 (Sta) 52A	Escalator LES1 (LRT) 52A	Escalator LES2 (LRT) 52A	BUS SHELTER LIGHTING PANEL		BUS SHELTER POWER PANEL
CONCESSION LOAD CENTER								VA=10.34 KVA		12.50 KVA

(NEW) UPS-1
9 KVA
480V-480Y/277V, 3ø, 4W
(LOCATED AT BUS OPERATORS FACILITY Rm. A-03)

30A

BYPASS SWITCH

(LRT) EL310

EMERG. PNL FOR

480Y/277V, 3.76 KVA

BUS SHELTER EMERG. LIGHTING PANEL

POC SWITCHBOARD "A3" LOAD SUMMARY

Type Nema 12 Enclosure, 480Y/277V, 3ø, 4W, 60Hz, 400A

Description VA=2,160	Volts	Connected Load (KVA)	Connected Amps
Elev. PEL1 (Sta)	480V	40.00	52.00
Esc. PES1 (Sta)	480V	40.00	52.00
Esc. PES2 (Sta)	480V	40.00	52.00
Esc. LES1 (LRT)	480V	40.00	52.00
Esc. LES2 (LRT)	480V	40.00	52.00
Panel LA31 (BOF Rm)	480-208/120V	3.00	36.13
Bus Shelter Panel L39	480/277V	10.34	12.40
Panel LA311 (BOF Rm)	480-208/120V	12.50	15.10
Panel EL310 (BOF Rm)	480/277V	3.76	4.50
TOTAL		229.60	328.13
30% Growth Factor		298.48	426.57
MAIN TRANSFORMER BY PG & E		500 kVA	

BOF - Bus Operators Facility Room #A-03

PEDESTRIAN OVERCROSSING ANCILLARY BUILDING

NOTES

1. FOR ELECTRICAL ABBREVIATION REFER TO SHEET DB-E001X.
2. FOR ELECTRICAL DIAGRAM AND LAYOUT SYMBOLS REFER TO SHEET DB-E002X AND DB-E003X.
3. NEW SWITCHBOARD "A3" SHALL BE NEMA 12.
4. AUTO-TRANSFER SWITCH "ATS1",100A, 65 KAIC, 3ø, 3W, CUTLER HAMMER TYPE AT45 OR EQUAL.
5. PROVIDE BLANK SOCKET FOR 1 METER AS PER SWITCHBOARD REQUIREMENT. CONTRACTOR TO PROVIDE AS PER BART STANDARD.
6. CABLE PROVIDED BY PG & E, CONDUITS BY AVA (ANIL VERMA ASSOSCIATES).

Santa Clara Valley Transportation Authority

____NO EXCEPTIONS TAKEN (NET)
____MAKE CORRECTIONS NOTED (MCN)
____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION
					REPLACED C700 DB-E102 REV. P

DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER JAMES L. PACE E11904 EXP. 12/31/14 ELECTRICAL STATE OF CALIFORNIA

Skanska Shimmick Herzog
1436 California Circle
Milpitas, California 95035
A Joint Venture

Anil Verma Associates, Inc.
1970 Broadway, Suite 525, Oakland, CA 94612
Phone: (510) 535-2539 Fax: (510) 535-2339

SUBMITTED

Lockwood, Andrews & Newnam, Inc. A LEO A DALY COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MONTAGUE LRT & MILPITAS POC AND BUS FACILITY
480V POWER DISTRIBUTION
SINGLE LINE DIAGRAM

CADD FILENAME C700-S-DB-E921.dwg
SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E921 | PAGE NO. 0955

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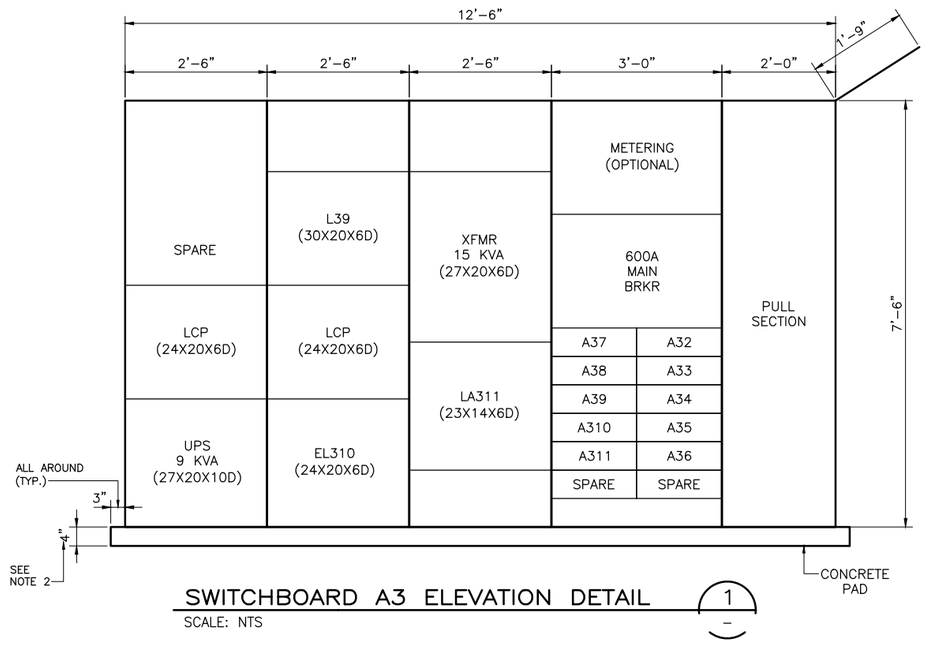
POC–LRT SWITCHBOARD "A3"
LOCATED @ ANCILLARY BUILDING – BUS OPERATOR ROOM No. A–03

CIRCUIT No.	APPLICATION	RUN FROM	RUN VIA	RUN TO	CONDUIT SIZE&TYPE	CONDUCTORS	CABLE LENGTH (FT)	INSTALLATION DRAWINGS	VOLT–AMPS	AMPS	VOLT–DROP	CONDUCTOR AREA (CM)	CONDUCTOR TYPE (CM)	SIZE	REMARKS
PGE–P1	MAIN FEEDER	PG & E – TRANSFORMER T2	TBD	POC SWITCHBOARD A3	5"C	4–1/C #750 Kcmil, & 1 #2/0G	240		227000	243.0	3.3	500000	THWN	500	SEE NOTE 6, DWG. DB–E921
A31	CONCESSIONAIRE	SWITCHBOARD A3	CONDUIT	CONCESSION LOAD CENTER	3/4"C	4 #10, + 1 #10G	40		3000	8.0	–	16510	THWN	10	
A32	SPARE	SWITCHBOARD A3	TBD	POC UPS & PANEL EL32	2"C	1–3/C #8, W/ GND	20		9000	10.8	4.8	12274	THWN	#8	
A33	SPARE	SWITCHBOARD A3	TBD	PANEL L33	2"C	1–3/C #6, W/ GND	20		12630	15.2	4.8	16972	THWN	#6	
A34	ELEVATOR (MILPITAS)	SWITCHBOARD A3	TBD	MILPITAS ELEVATOR PEL1	2"C	1–3/C #4, W/ GND	160		40000	48.2	4.8	35833	THWN	#4	
A35	ESCALATOR (MILPITAS)	SWITCHBOARD A3	TBD	MILPITAS ESCALATOR PES1	2"C	1–3/C #4, W/ GND	160		40000	48.2	4.8	35833	THWN	#4	
A36	ESCALATOR (MILPITAS)	SWITCHBOARD A3	TBD	MILPITAS ESCALATOR PES2	2"C	1–3/C #4, W/ GND	160		40000	48.2	4.8	35833	THWN	#4	
A37	ESCALATOR (LRT)	SWITCHBOARD A3	TBD	LRT ESCALATOR LES1	2"C	1–3/C #2, W/ GND	240		40000	48.2	4.8	53750	THWN	#2	
A38	ESCALATOR (LRT)	SWITCHBOARD A3	TBD	LRT ESCALATOR LES2	2"C	1–3/C #2, W/ GND	240		40000	48.2	4.8	53750	THWN	#2	
A39	BUS SHELTER	SWITCHBOARD A3	CONDUIT	PANEL "L39"	1"C	4 #10, + 1 #10G	30		10240	12.3	4.8	1720	THWN	#10	
A310	UPS–1/EL310	SWITCHBOARD A3	CONDUIT	PANEL "EL310"	3/4"C	4 #10, + 1 #10G	30		9000	10.8	4.8	1534	THWN	#10	
A311	BUS SHELTER	SWITCHBOARD A3	CONDUIT	PANEL "EL311"	3/4"C	4 #10, + 1 #10G	30		13950	16.8	4.8	2343	THWN	#10	
A312	SPARE	SWITCHBOARD A3	CONDUIT	FUTURE	2"C	NO CONDUCTOR	240		–	–	–	–	–	–	
EL321	COMM, SECURITY & FA	PANEL EL32	CONDUIT	XEL321	3/4"C	3 #10, + 1 #10G	15		3200	.	.	.	.	.	
PPN1–19	UPS–POC	LRT/POC PANEL PPN1	CONDUIT	UPS–POC (FOR EL32)	1"C	3 #6, + 1 #10G	15		1700	2.05	0	16510	THWN	#10	
PPN1–20	POC LIGHTING	LRT/POC PANEL PPN1	CONDUIT	PANEL "L33"	1–1/2"C	3 #1, + 1 #8G	15		7560	8.86	0	26240	THWN	#8	

PARTIAL CABLE & RACEWAY SCHEDULE - 1

CONDUIT No.	SIZE	TYPE	FROM	TO	CABLE QUANTITY	CABLE SIZE	VOLT	CIRCUIT NO(S)	DRAWING NO(S)	REMARKS
NP53	NP53	RGS	TVM A PB	CAPPED STUB–UP					EP204	FOR FUTURE CID
NP54	NP54	RGS	TVM A PB	CAPPED STUB–UP					EP205	FOR FUTURE CID
NP55	NP55	RGS	PPN2–34		2–1/C + GND	#10	120V	PPN2–34	E921	CONTRACT C545
NP56	NP56	RGS	PPN2–36		2–1/C + GND	#10	120V	PPN2–36	E921	CONTRACT C545

REFERENCE DRAWING: TASMAN EAST LIGHT RAIL PROJECT – ELECTRICAL MONTAGUE STATION – CABLE & RACEWAY SCHEDULE – 1, AS BUILT DRAWING # EP214



SWITCHBOARD A3 ELEVATION DETAIL 1

SCALE: NTS

LOCATION: LRT Montague Electrical Room — PANEL PPN2 (Existing) NORMAL — NEMA 1 Enclosure MOUNTING: SURFACE

CKT NO	TRIP AMP	POLES	DESCRIPTION	COL #1 VOL–AMPS A	B	C	COL #2 VOL–AMPS A	B	C	DESCRIPTION	POLES	TRIP AMP	CKT NO
1	15	1	PLATFORM LIGHTING (POLES 1,2,3,4,5)	1044			1044			PLATFORM LIGHTING (POLES 1,2,3,4,5)	1	15	2
3	15	1	SHELTER AND ACCESS A LIGHTING		1780			1780		SHELTER & ACCESS A LTG	1	15	4
5	40	1	ACCESS A GRND LEVEL & ELEVATOR LTG			2782			–	SPARE	1	20	6
7	20	1	SPARE	–			1667			ACCESS A ELEV EQPT & ELEC RMS	1	20	8
9	35	1	ACCESS B GRND LVL & ELEV AREA LTG(FUT)		2782			–		SPARE	1	20	10
11	20	1	ACCESS B STAIR LTG (TEMP)			1136			981	ACCESS B ELEV EQPT RM (FUT)	1	20	12
13	20	1	SPARE	–			1982			PANEL PPE VIA UPS	1	40	14
15	20	1	ELEV PIT LTG & RECEPT		311			–		SPARE	1	20	16
17	20	1	SPARE			–			–	SPARE	1	20	18
19	15	1	SPARE	–			–			SPARE	1	20	20
21	15	1	TVM A & CID A		480			480		TVM B	1	15	22
23	15	1	POLE 4 VMD			480			50	IRRRIGATION CONTROLLER	1	20	24
25	15	1	RECEPTACLES @ KIOSKS	360			653			COMMUNICATION ROOM	1	15	26
27	15	1	JANITOR ROOM		924			480		CID'S AND AVM'S	1	15	28
29	40	1	COMMUNICATION COMPONENTS			2700			600	ACCESS A ELEVATOR EL–5	1	20	30
31	15	1	ACCESS B ELEV EL–6 (FUT)	600			133			LIGHTING CONTROL	1	20	32
33	20	1	SPARE					360		POC LEVEL OUTLET (NOTE 1)	1	20	34
35	20	1	SPARE						360	POC BRIDGE OUTLET (NOTE 1)	1	20	36
37	20	1	SPARE				–			SPARE	1	20	38
39	20	1	SPARE					–		SPARE	1	20	40
41	20	1	SPARE						–	SPARE	1	20	42
SUB TOTAL				2004	6277	7098	5479	3100	1991	SUB TOTAL			

VOLTAGE: 208/120V, 3ø, 4W
MAINS: 225A LUGS ONLY
MIN IC: 22,000A

GRAND TOTAL 7483 9377 9089

TOTAL 3 PHASE CONNECTED + LCL 25.9 KVA 72.0 AMPS @ 480V

REFERENCE DRAWING: TASMAN EAST LIGHT RAIL PROJECT – ELECTRICAL MONTAGUE STATION – PANEL SCHEDULES, AS BUILT DRAWING # EP216
NOTE 1: CONTRACTOR TO ROUTE CONDUIT/CABLE TO OUTLET AT POC LEVEL AND POC BRIDGE.

Santa Clara Valley Transportation Authority

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____AMEND AND RESUBMIT (A/R)

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Contract No.: DB11002F

By: _____ Date: _____

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LOUIS L. NG — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

SUBMITTED

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Milpitas, California 95035
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Phone: (510) 835-2530 Fax: (510) 835-2539

APPROVED

Lockwood, Andrews & Newnam, Inc. A LBG + BALT COMPANY
T·Y·LIN INTERNATIONAL

VTA BART SILICON VALLEY
BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MONTAGUE LRT & MILPITAS POC AND BUS FACILITY
ELECTRICAL RACEWAY AND CIRCUIT SCHEDULE
SWITCHBOARD A3 ELEVATION DETAIL

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CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E922 | PAGE NO. 0956

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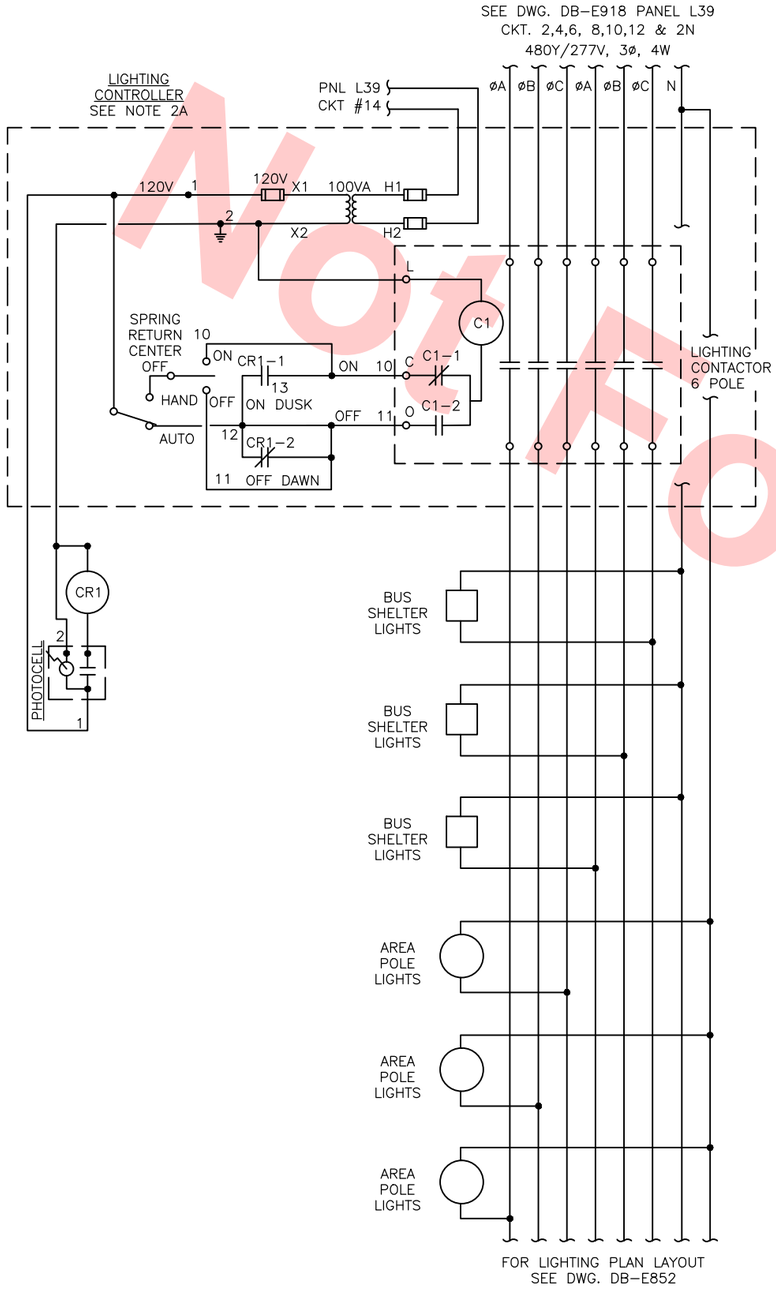
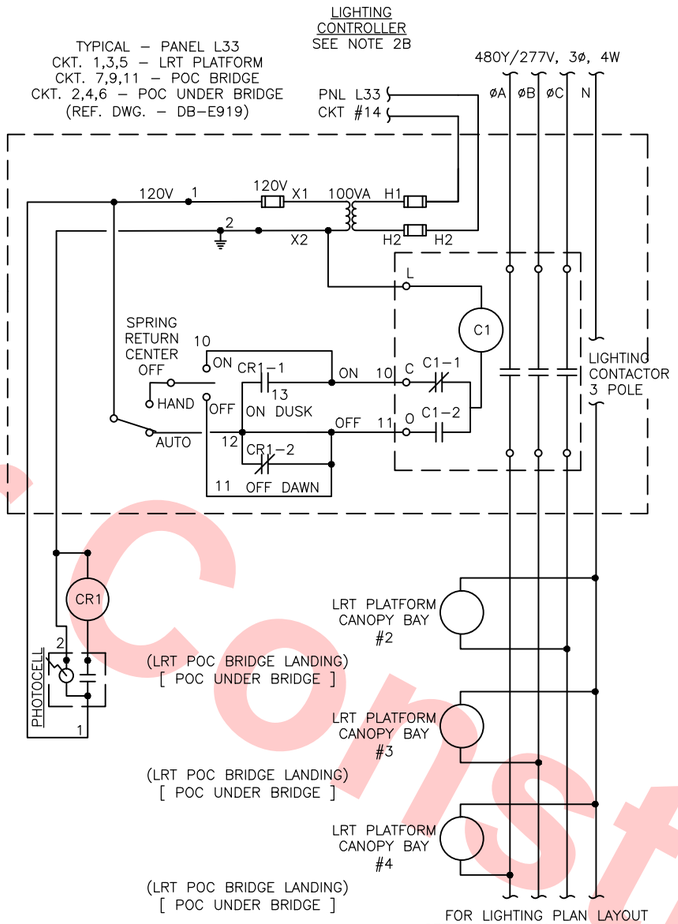


TYPICAL FOR 6 POLES LIGHTING CIRCUITS

BUS CENTER LIGHTING CONTROL DIAGRAM 1

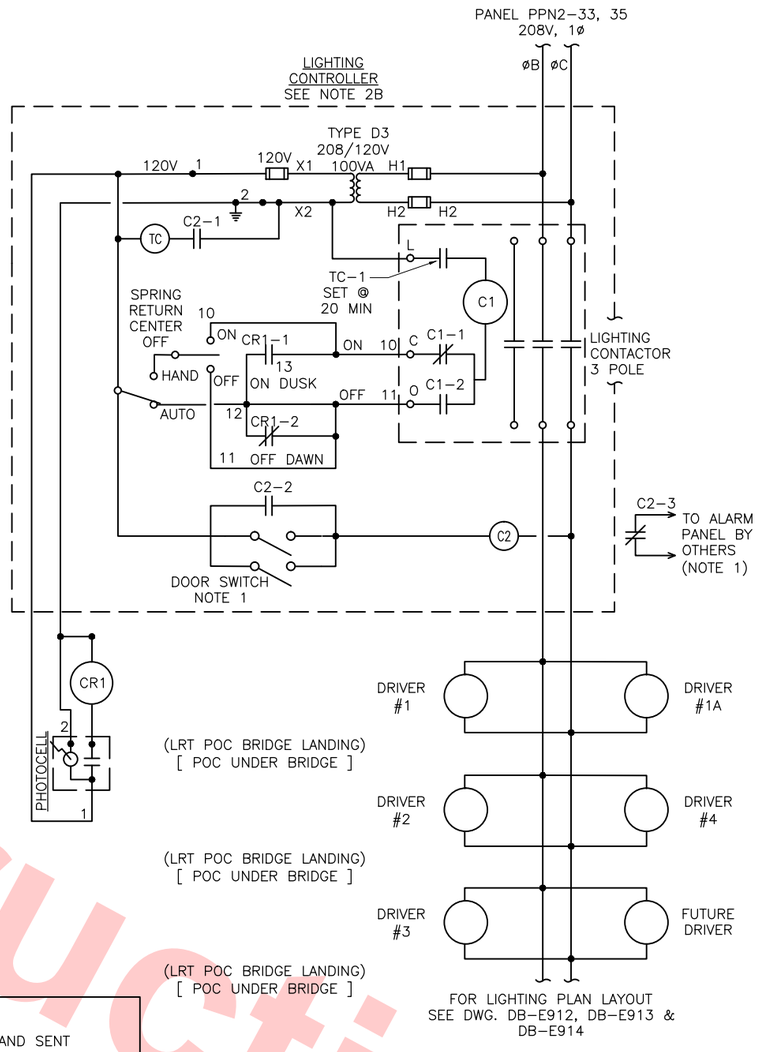
SCALE: NTS



TYPICAL FOR 3 POLES LIGHTING CIRCUITS

LRT LANDING & POC LIGHTING CONTROL DIAGRAM 2

SCALE: NTS



HANDRAIL LIGHTS CONTROL DIAGRAM 3

SCALE: NTS

Santa Clara Valley Transportation Authority

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Contract No.: DB11002F

By: _____ Date: _____

NOTES:

1. CLOSE AS EXIT DOOR OPEN AND SENT SIGNAL TO ALARM PANEL.
2A. TYPE LG-60, 30A, 6 POLE SCHNEIDER ELEC OR EQUAL.
2B. TYPE LG-30, 30A, 6 POLE SCHNEIDER ELEC OR EQUAL.

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130710				READINESS FOR CONSTRUCTION

DESIGNED BY R. CRUZ
DRAWN BY G. MARAVILLA
CHECKED BY L. CHEN
IN CHARGE R. BARLAAN
DATE 20130710

REGISTERED PROFESSIONAL ENGINEER — LANUS L. N. CHEN — E11904 EXP. 12/31/14 — ELECTRICAL — STATE OF CALIFORNIA

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SUBMITTED

Lockwood, Andrews & Newnam, Inc. — A URS / AECOM COMPANY
T·Y·LIN INTERNATIONAL

APPROVED

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
DESIGN UNIT 023
MONTAGUE LRT AND MILPITAS POC
AND BUS FACILITY
LIGHTING CONTROL DIAGRAM

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SIZE D | SCALE NONE
CONTRACT NO. C700 | REV. 0
AREA CODE DB | SHEET NO. E923 | PAGE NO. 0957