ABBREVIATIONS

AC – ABOVE COUNTER
AFC – ABOVE FINISHED CEILING
AFF – ABOVE FINISHED FLOOR
AFG – ABOVE FINISHED GRADE
AIC – AMPS INTERRUPTING CURRENT
AL – ALUMINUM
BFG – BELOW FINISHED GRADE
C – CRITICAL BRANCH
CB – CIRCUIT BREAKER
CR – CORROSION RESISTANT
CPT – CONTROL POWER TRANSFORMER
CT – CURRENT TRANSFORMER
CU – COPPER
(E) – EXISTING
ELR – END OF LINE RESISTOR
EM – EMERGENCY
ES – EMERGENCY STOP
ETM – ELAPSED TIME METER
EWC – ELECTRIC WATER COOLER
FLA – FULL LOAD AMPS
FVNR – FULL VOLTAGE, NON–REVERSING
FVR – FULL VOLTAGE, REVERSING
FWE – FURNISHED WITH EQUIPMENT
GFI – GROUND FAULT INTERRUPTER
GRC – GALVANIZED RIGID CONDUIT
HOA – HAND–OFF–AUTOMATIC
HP – HORSEPOWER
IG – ISOLATED GROUND
LC – LIGHTING CONTACTOR
LOR – LOCAL–OFF–REMOTE
LS – LEVEL SWITCH
LT – LET THROUGH
MCA – MINIMUM CIRCUIT AMPS
MCB – MAIN CIRCUIT BREAKER
MCC – MOTOR CONTROL CENTER
MCCB – MOLDED CASE CIRCUIT BREAKER
MCP – MOTOR CIRCUIT PROTECTION
MLO – MAIN LUGS ONLY
(N) – NEW
NC – NORMALLY CLOSED
NIC – NOT IN CONTRACT
NL – NIGHT LIGHT
(NL) – NEW LOCATION
NO – NORMALLY OPEN
NTS – NOT TO SCALE
OC – OVER CURRENT
OL – OVERLOAD
PT – POTENTIAL TRANSFORMER
(R) – REMOVE
(RL) – RELOCATE
RVNR – REDUCED VOLTAGE, NON–REVERSING
SC – SHORT CIRCUIT
SR – SAFE OR STOP/RUN
TTB – TELEPHONE TERMINAL BOARD
UG – UNDERGROUND
VFD – VARIABLE FREQUENCY DRIVE
WG – WIREGUARD
WP – WEATHERPROOF
XFMR – TRANSFORMER
XP – EXPLOSION PROOF
ZS – LIMIT OR POSITION SWITCH

NOTE: ALL ABBREVIATIONS SHOWN ARE NOT NECESSARILY USED.

SYMBOLS – TELEVISION SYSTEM

DESCRIPTION

4 11/16" [119mm] MASTER ANTENNA OUTLET BOX W/BLANK COVER FOR TV INSTALLATION, MTD. 18" [457mm] A.F.F. UNLESS OTHERWISE NOTED.

C — OUTLET FOR TV CAMERA (CCTV SYSTEM), MTD 18" [457mm] A.F.F.

M — OUTLET FOR TV MONITOR (CCTV SYSTEM).

CCTV — CCTV CONDUIT RUN, MINIMUM 1" [25mm] CONDUIT.

SYMBOLS – RADIO SYSTEM

DESCRIPTION

R — RADIO CHANNEL SELECTOR FACILITIES, MTD. 4'–6" [1372mm] A.F.F. UNLESS OTHERWISE NOTED.

R V — SPEAKER PROGRAM SELECTOR SWITCH & VOLUME CONTROL MTD. 4'–6" [1372mm] A.F.F. UNLESS OTHERWISE NOTED.

S — SPEAKER OUTLET, MTD. 7'–6" [2286mm] A.F.F. UNLESS OTHERWISE NOTED.

R — RADIO CONDUIT RUN, MINIMUM 3/4" [19mm] CONDUIT.

S M — CEILING MICROPHONE SPEAKER.

NOTE: ALSO SEE VA BARRIER FREE DESIGN GUIDE PG–18–13.

SYMBOLS – LIGHTING

DESCRIPTION

NORMAL BRANCH SURFACE OR RECESSED FLUORESCENT FIXTURE (TYPE DETERMINES MOUNTING)

CRITICAL BRANCH SURFACE OR RECESSED FLUORESCENT FIXTURE (TYPE DETERMINES MOUNTING)

LIFE–SAFETY BRANCH SURFACE OR RECESSED FLUORESCENT FIXTURE (TYPE DETERMINES MOUNTING)

NORMAL BRANCH SURFACE OR RECESSED FIXTURE (TYPE DETERMINES MOUNTING)

CRITICAL BRANCH SURFACE OR RECESSED FIXTURE (TYPE DETERMINES MOUNTING)

LIFE–SAFETY BRANCH SURFACE OR RECESSED FIXTURE (TYPE DETERMINES MOUNTING)

NORMAL BRANCH SURFACE OR SUSPENDED FLUORESCENT FIXTURE (TYPE DETERMINES MOUNTING)

EXIT LIGHT, PROVIDE DIRECTIONAL ARROWS AS INDICATED ON PLANS

SYMBOLS – RECEPTACLES

DESCRIPTION

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

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

FLOOR OUTLET.

DUPLEX RECEPTACLE SWITCHED 18" [457mm] AFF UNLESS OTHERWISE NOTED.

DUPLEX RECEPTACLE 18" [457mm] AFF UNLESS OTHERWISE NOTED.

FOURPLEX RECEPTACLE 18" [457mm] AFF UNLESS OTHERWISE NOTED.

SPECIAL RECEPTACLE 18" [457mm] AFF UNLESS OTHERWISE NOTED. REFER TO PLANS FOR NEMA DESIGNATION.

+XX" — DUPLEX RECEPTACLE, SPECIAL MOUNTING HEIGHT. MOUNTING HEIGHT AS NOTED ON PLANS.

GFCI RECEPTACLE 18" [457mm] AFF UNLESS OTHERWISE NOTED.

+XX" — GFCI RECEPTACLE, SPECIAL MOUNTING HEIGHT. MOUNTING HEIGHT AS NOTED ON PLANS.

SYMBOLS – SINGLE LINE

DESCRIPTION

O.C.B. — HIGH–VOLTAGE OIL CIRCUIT BREAKER

HIGH–VOLTAGE DRAWOUT AIR CIRCUIT BREAKER

SWITCH AND FUSE UNIT

MOLDED CASE CIRCUIT BREAKER

TRANSFORMER

XXX — PANELBOARD, DESIGNATION AS INDICATED

GROUNDING CONDUCTOR

N E — AUTOMATIC TRANSFER SWITCH

SYMBOLS – GENERAL

NOTE; MOUNTING HEIGHT FOR THE FOLLOWING SWITCHES SHALL BE 40" [1016mm] AFF IN ELECTRICAL CLOSET, MECHANICAL ROOMS, MOUNTING HEIGHT SHALL BE 4'–6" [1372mm] AFF.

S_D — DIMMER SWITCH – WITH SILICON CONTROLLED RECTIFIER.

S_{PO} — PILOT TYPE SWITCH, PILOT LIGHT ON WHEN SWITCH IN OFF POSITION..

NOTE: MOUNTING HEIGHT FOR THE FOLLOWING SWITCHES SHALL BE 4'–6" [1372mm] AFF UNLESS OTHERWISE NOTED.

S_{EXP} — EXPLOSION PROOF SWITCH.

S_L — LOCK TYPE SWITCH.

S_M — MANUAL MOTOR STARTING SWITCH.

S_{MC} — MOMENTARY CONTACT SWITCH.

S_{MP} — MOTOR SNAP SWITCH (THERMAL TYPE) WITH PILOT LIGHT.

S_{PB} — PUSH BUTTON STATION.

S_{RC} — REMOTE CONTROL SWITCH.

S_{WP} — WEATHERPROOF SWITCH.

$ — SINGLE POLE SWITCH – LINE INDICATES EMERGENCY BRANCH.

S_3 — THREE WAY SWITCH.

S_4 — FOUR WAY SWITCH.

S_{OC} — OCCUPANCY SENSOR SWITCH.

NOTE: ALSO SEE VA BARRIER FREE DESIGN GUIDE PG–18–13.

U — UNIT HEATER BLOWER MOTOR.

VENTILATOR OR FAN COIL UNIT OUTLET.

EX" — EQUIPMENT TAG, REFER TO OWNER EQUIPMENT SCHEDULE.

J — JUNCTION BOX.

DISCONNECT SWITCH.

PANELBOARD.

TRANSFORMER.

PUSHBUTTON.

CONDUIT TERMINATED 6" [152mm] A.F.F. IN STANDARD BOX FOR EXTENSION TO EQUIPMENT AS DIRECTED.

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

BRANCH CIRCUIT EXPOSED.

BRANCH CIRCUIT CONCEALED IN FLOOR.

BRANCH CIRCUIT CONCEALED IN CEILING OR WALL.

No. OF CKTS. IN CONDUIT — HOME RUN TO PANEL – ARROWHEADS INDICATE CIRCUITS.

SYMBOLS – NURSE CALL SYSTEM

DESCRIPTION

NCS — NURSE'S CALL MASTER STATION MTD ON NURSE'S COUNTER TOP UNLESS OTHERWISE NOTED.

NCT — NURSE CALL TERMINAL CABINET.

N E — NURSE'S CALL STATION – MTD 6'–0" [1829mm] A.F.F. FOR SHOWER LOCATION, MTD 4'–6" [1372mm] A.F.F. FOR TUB LOCATION, & MTD 3'–0" [914mm] A.F.F. FOR TOILET LOCATION.

N S — NURSE'S CALL AUDIO VISUAL MALL STATION (STAFF) MTD 5'–0" [1524mm] A.F.F. UNLESS OTHERWISE NOTED.

N D — NURSE'S CALL DUTY STATION. MTD 5'–0" [1524mm] A.F.F. UNLESS NOTED OTHERWISE.

N 2 — NURSE'S CALL STATION, SUBSCRIPT "2" INDICATES DUPLICATE FACILITIES FOR TWO BEDS (SEPARATE INDICATORS AT MASTER STATION) MTD 5'–0" [1524mm] A.F.F. UNLESS OTHERWISE NOTED.

N U — UTILITY CALL STATION, MTD 5'–0" [1524mm] A.F.F. UNLESS OTHERWISE NOTED.

N P — PSYCHIATRIC CORRIDOR STATION WITH KEY SWITCH.

D — NURSE'S CALL DOME LIGHT MTD 6" [152mm] ABOVE DOOR.

D I — NURSE'S CALL AUXILIARY INTERSECTIONAL DOME LIGHT.

D D — NURSE'S CALL CORRIDOR DOME LIGHT.

N — NURSE'S CALL CONDUIT RUN, MINIMUM 3/4" [19mm] CONDUIT.

T — SECURITY TYPE PANIC BUTTON. MTD 4'–6" [1372mm] A.F.F.

EP — NURSE'S CALL EMERGENCY PULL STATION, MTD 4'–6" [1372mm] A.F.F. UNLESS OTHERWISE NOTED.

DS — NURSE'S CALL DUTY STATION, MTD 4'–6" [1372mm] A.F.F. UNLESS OTHERWISE NOTED.

CB — NURSE'S CALL CODE BLUE STATION, MTD 4'–6" [1372mm] A.F.F. UNLESS OTHERWISE NOTED.

M — NURSE'S CALL DESK MONITOR STATION, MTD 3'–6" [1067mm] A.F.F. UNLESS OTHERWISE NOTED.

NOTE: ALSO SEE VA BARRIER FREE DESIGN GUIDE PG–18–13.

SYMBOLS – FIRE ALARM SYSTEM

DESCRIPTION

D X — SMOKE DETECTOR DUCT TYPE. REFER TO PLANS FOR SUPPLY/RETURN DESIGNATION.

OSY — VALVE SUPERVISORY SWITCH.

DH — ELECTROMAGNETIC TYPE DOOR HOLDER OUTLET.

FATC — FIRE ALARM TERMINAL CABINET.

PIV — POST INDICATOR VALVE.

FAT 2–4–6 — FIRE ALARM TRANSMITTER (BASE LOOP) NUMERALS DENOTE CODE.

FTT 2–4–6 — FIRE ALARM TROUBLE TRANSMITTER (BASE LOOP) NUMERALS DENOTE CODE.

CITY FIRE ALARM MASTER STATION MTD 5'–6" [1676mm] AFF UNLESS NOTED.

FAR — FIRE ALARM RECORDER.

BAT — FIRE ALARM BATTERIES.

CRG — BATTERY CHANGER.

FACC — FIRE ALARM CENTRAL CONSOLE.

D — FIRE ALARM SMOKE DETECTOR.

H — FIRE ALARM HEAT DETECTOR.

F — FIRE ALARM VISUAL ANNUNCIATOR.

F — FIRE ALARM HORN/VISUAL ANNUNCIATOR.

SYMBOLS – TELEPHONE SYSTEM

DESCRIPTION

TELEPHONE OUTLET (JACK TYPE), MTD 18" [457mm] A.F.F. UNLESS OTHERWISE NOTED.

W — TELEPHONE OUTLET (WALL TYPE), MTD 54" [1372mm] A.F.F. UNLESS OTHERWISE NOTED.

TELEPHONE/DATA OUTLET (JACK TYPE), MTD 18" [457mm] A.F.F. UNLESS OTHERWISE NOTED.

+XX" — TELEPHONE/DATA OUTLET (JACK TYPE), SPECIAL MOUNTING HEIGHT. MOUNTING HEIGHT INDICATED ON PLANS.

TELEPHONE TERMINAL CABINET.

TELEPHONE BACKBOARD (WALL MOUNTED)

NOTE:
FOR WHEELCHAIR PATIENT USE MOUNT TELEPHONE OUTLET 36" [914mm] A.F.F. TO BOTTOM OF OUTLET BOX.

DESK PHONES – MOUNT OUTLET 1'–6" [457mm] A.F.F.

PAY PHONES – MOUNT OUTLET 4'–0" [1219mm] A.F.F.

HEIGHT OF TELECART OUTLETS SHALL BE AS INDICATED ON BEDWALLS OR PBPU DETAILS.

SEE VA BARRIER FREE DESIGN GUIDE PG–18–13.

SYMBOLS – MISCELLANEOUS COMMUNICATIONS SYSTEMS

DESCRIPTION

REMOTE DICTATING OUTLET MTD 1'–6" [457mm] A.F.F. UNLESS OTHERWISE NOTED.

R M — 3–POLE TWIST–LOCK RECEPTACLE FOR MICROPHONE, MTD. 4'–6" [1372mm] A.F.F.

INTERCOM STATION (REFER TO SPECS. FOR FUNCTIONAL OPERATION OF INSTRUMENT & TYPE REQUIRED)

IC — INTERCOM CONDUIT RUN. MINIMUM 3/4" [19mm] CONDUIT

S — INTERCOM STAFF STATION.

PS — CEILING MOUNTED PUBLIC ADDRESS SPEAKER LOCATION.

S — CEILING MOUNTED SPEAKER LOCATION.

NOTE: ALSO SEE VA BARRIER FREE DESIGN GUIDE PG–18–13.

SYMBOLS – CODE ONE SYSTEM

DESCRIPTION

NIP — CODE ONE CONTROL AND ALARM STATION. MTD 5'–0" [1524mm] A.F.F. UNLESS OTHERWISE NOTED.

NIT — CODE ONE TERMINAL CABINET.

NIA — CODE ONE ANNUNCIATOR PANEL.

NI — CODE ONE BEDSIDE STATION.

NI D — CODE ONE DUTY STATION, MTD 5'–0" [1524mm] A.F.F. UNLESS OTHERWISE NOTED.

SYMBOLS – MISCELLANEOUS ALARM SYSTEMS

DESCRIPTION

T — SIGNAL TRANSFORMER

BUZZER MTD 1'–6" [457mm] A.F.F. UNLESS OTHERWISE NOTED

HORN MTD 7'–6" [2286mm] A.F.F. UNLESS OTHERWISE NOTED

NOTE: ALL SYMBOLS SHOWN ON LEGEND ARE NOT NECESSARILY USED.

GENERAL NOTES

G1. ALL FINAL LOCATIONS AND ARRANGEMENTS OF LIGHTING FIXTURES SHALL BE OBTAINED FROM THE ARCHITECTURAL REFLECTED CEILING PLAN.

G2. FIXTURES SHALL BE SO WIRED THAT TWO OUTSIDE LAMPS ARE CONTROLLED BY ONE SWITCH, AND REMAINING LAMPS CONTROLLED BY SECOND SWITCH.

G3. SEE MECHANICAL DRAWINGS AND SPECIFICATIONS FOR ALL INTERLOCK WIRING REQUIREMENTS BETWEEN MOTORS, MINIMUM CONTROL WIRING SHALL BE #14 AND MAY BE RUN IN SAME CONDUIT AS MOTOR FEEDERS.

G4. PROVIDE A SEPARATE NEUTRAL FOR EACH CIRCUIT OF A MULTI–WIRE BRANCH CIRCUIT PER THE 2008 NEC. DERATE CONDUCTORS AND UPSIZE CONDUITS AS REQUIRED.

GENERAL NOTES: DEMOLITION

D1. WHERE COMPLETE CIRCUITS ARE DEMOLISHED, THE WIRING AND RACEWAY SHALL BE DEMOLISHED BACK TO THE BRANCH CIRCUIT PANELBOARD. THE DEMOLISHED CIRCUIT'S BREAKER SHALL BE LABELED AS "SPARE" ON THE PANEL SCHEDULE.

D2. WIRING AND RACEWAY SHALL BE PROVIDED AS NECESSARY TO RE–ENERGIZE EXISTING OUTLETS TO REMAIN WHEN POWER TO SUCH OUTLETS IS INTERRUPTED DUE TO DEMOLITION OF OTHER DEVICES ON THE SAME CIRCUIT.

D3. CONTRACTOR SHALL USE CARE IN REMOVING DEVICES, EQUIPMENT, AND FIXTURES AND SHALL MAKE THEM AVAILABLE TO THE OWNER FOR FUTURE USE. ALL DEVICES, EQUIPMENT, AND FIXTURES NOT RETAINED BY THE OWNER SHALL BE DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH THE OWNER'S INSTRUCTIONS.

D4. ALL PENETRATIONS OF FIRE RATED PARTITIONS DUE TO THE REMOVAL OF ELECTRICAL SYSTEMS SHALL BE SEALED TO MAINTAIN THE FIRE RATING OF THE WALL.

D5. ALL EXISTING DEVICES AND EQUIPMENT MAY NOT BE SHOWN ON PLANS. CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING BID TO OBSERVE EXISTING CONDITIONS.

D6. ALL FIRE ALARM SYSTEM DEVICES REMOVED FROM AREAS TO BE RENOVATED SHALL BE SALVAGED AND RE–USED IN THE SAME AREAS.

D7. ALL DEVICES TO BE REMOVED MAY OR MAY NOT BE SHOWN ON THE PLANS. ALL DEVICES ON WALLS WHICH ARE DEMOLISHED ARE TO BE REMOVED. DEVICES SHOWN ARE FOR REFERENCE ONLY, INDICATING OVERALL SCOPE OF WORK. FIELD VERIFY ACTUAL CONDITIONS.

A. REMOVE ALL DEVICES, INCLUDING LUMINARIES, SHOWN UNLESS NOTED AS EXISTING TO REMAIN (E) OR TO BE RELOCATED (RL).

B. REMOVE ASSOCIATED FEEDER BACK TO PANELBOARD OR NEXT DEVICE ON CIRCUIT WHICH REMAINS UNLESS NOTED OTHERWISE.

C. MAINTAIN CIRCUIT CONTINUITY WHERE DEVICES REMAIN.

D. EXTEND CIRCUITING OF DEVICES BEING RELOCATED.

E. DISCONNECT MECHANICAL EQUIPMENT WHICH IS TO BE DEMOLISHED AND REMOVE DICONNECTING MEANS. REMOVE ASSOCIATED FEEDER PER GENERAL NOTE D7.B.

D8. PROVIDE BLANK COVER PLATES WHERE DEVICES ARE REMOVED IN WALLS WHICH REMAIN. REFER TO ARCHITECTURAL DRAWINGS FOR WALLS WHICH ARE REMOVED.

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ES602	ELECTRICAL SCHEDULES
ES603	ELECTRICAL SCHEDULES
ES604	ELECTRICAL SCHEDULES

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CONSULTANTS:

CIVIL/STRUCTURAL:
MARTIN/MARTIN
CONSULTING ENGINEERS
12499 WEST COLFAX AVENUE
P.O. BOX 151500
LAKEWOOD, COLORADO 80215
303.431.4080
FAX 303.431.6866

MECHANICAL, PLUMBING, AND ELECTRICAL:
SSR Smith Seckman Reid, Inc.
8055 E. Tufts Avenue, Suite 1100
Denver, Colorado 80237
(303) 779-1222
FAX: (303) 694-9144
www.ssr-inc.com
SSR JOB #: 06270120

PLAN NORTH

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

ARCHITECT/ENGINEERS:
HEERY design
Heery International Inc.
820 16th Street Mall,
Suite 200,
Denver, CO 80202-3219
720.946.0276

Heery Project Number:
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