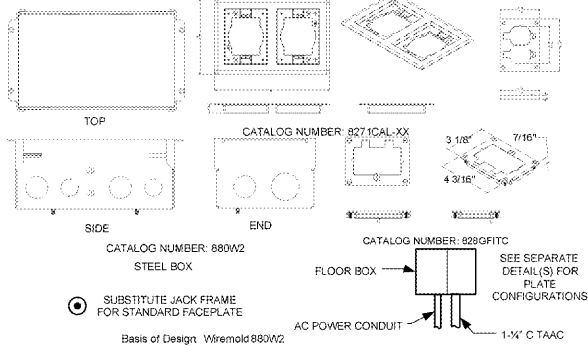


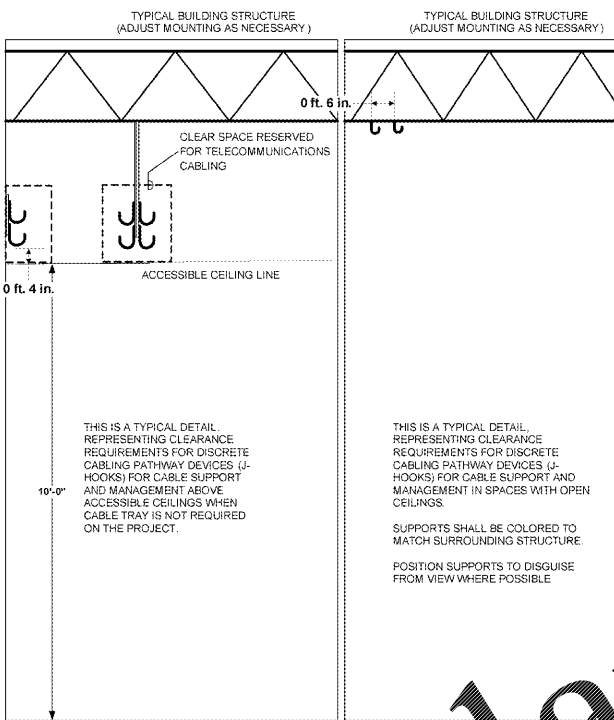
ROUGH-IN NOTES (THIS DETAIL):

- FLOOR BOX AND POKE-THROUGH DEVICES ARE TWO CATEGORIES OF DEVICES UTILIZED FOR FLOOR OUTLETS. THE LETTER DESIGNATION INDICATES THE DESIRED SIZE AND STYLE.
- UTILIZE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR PROPER MOUNTING.
- MINIMUM PATHWAY REQUIREMENTS ARE AS INDICATED, UON.
- ALL TELECOMMUNICATIONS PATHWAY RULES SHALL APPLY (I.E. NO MORE THAN 180 DEGREES OF BENDS WITHOUT AN ACCESSIBLE PULL BOX, ETC.) (SEE FLOORBOX CONDUIT DETAIL.)
- SLAB ON GRADE INSTANCES SHALL INCLUDE A 12"X12"X6" SCREW COVER BOX TO HOUSE A CONSOLIDATION POINT WHERE CONDUIT ENDS (TAC).



E TECHNOLOGY ROUGH-IN - FLOOR OUTLET "E" PATHWAY AND MOUNTING

Scale = NONE



DISCREET PATHWAY SUPPORT NOTES:

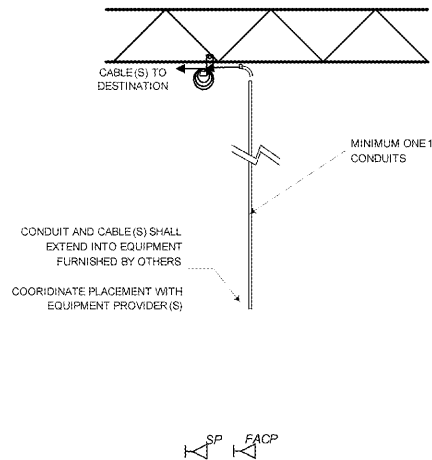
- ALL CABLES SHALL BE SUPPORTED AT MINIMUM EVERY 4'-0".
- J-HOOKS (DISCREET SUPPORT DEVICES) SHALL BE MOUNTED:
 - ONLY IN AREAS WHERE PATHWAY IS ACCESSIBLE.
 - TO SURFACES CAPABLE OF SUPPORTING THE WEIGHT AT FULL LOAD.
 - IN POSITIONS ALLOWING RE-USE.
- UNLESS OTHERWISE NOTED, MOUNTING HEIGHT ABOVE AN ACCESSIBLE CEILING SHALL BE 4'-8" ABOVE THE CEILING (TO THE BOTTOM OF THE JOIST) TO ALLOW TILE TO BE REMOVED.
- SPACE FOR ACCESS TO THE SUPPORT DEVICE SHALL BE 6" TO THE SIDE AND 4" ABOVE.
- DEVICES MOUNTED TOGETHER TO FORM A PATHWAY SHALL BE MOUNTED AT A UNIFORM HEIGHT AND POSITION TO FORM A CONTINUOUS STRAIGHT PATHWAY.
- DEVICES MUST BE MOUNTED TO SUPPORT CABLES BETWEEN TWO POINTS (I.E. FROM A TRAY TO A SLEEVE) SHALL BE POSITIONED SO AS TO RELIEVE THE STRESS OF PATHWAY EDGES ON THE CABLE (S).
- WHERE BACKBONE AND HORISONTAL CABLES SHARE THE SAME ROUTE, CREATE A SEPARATE ROW OF SUPPORT ABOVE THE PRIMARY PATH FOR BACKBONE CABLES.
- SIZE DEVICES AND QUANTITIES FOR UNDER-UTILIZATION. PROVIDE ONE 4-INCH J-HOOK PER 100 HORIZONTAL FEET. CABLES IN EXCESS OF 100 SHALL BE PLACED IN AN ADDITIONAL ROW BELOW THE FIRST. FILE J-HOOKS AND WORK DOWN WITH HORIZONTAL CABLES. LESSER UTILIZED HOOKS SHALL BE LOCATED AT BOTTOM.
- AVOID CABLES (SUCH AS FIRE ALARM, SECURITY, SOUND) SHALL NOT UTILIZE THE PATHWAY CREATED FOR VOICE, DATA, AND VIDEO. UTILIZE A SEPARATE SUPPORT FOR THESE SYSTEMS.
- COORDINATE PATHWAY PLACEMENT WITH ALL TRADES.

D DISCREET CABLE SUPPORT - ACCESSIBLE CEILING

Scale = NONE

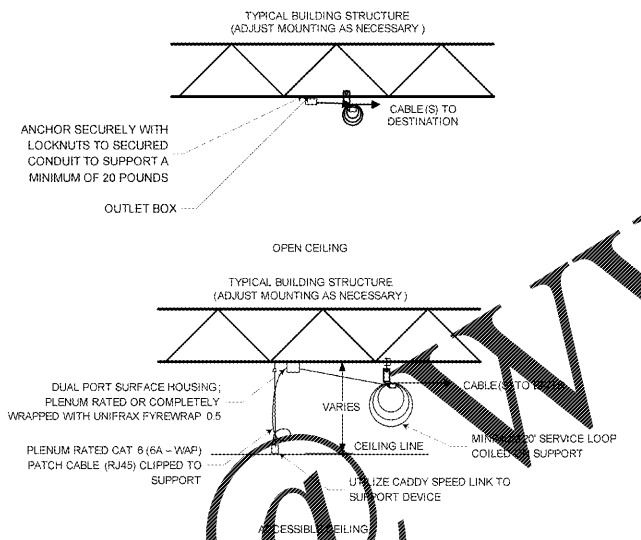
ROUGH-IN NOTES (THIS DETAIL):

- CONDUITS STUBBED INTO THE CEILING CAVITY SHALL BE MARKED WITH AN INDELEIBLE MARKER INDICATING THE CONDUIT'S INTENDED USE. MARK CONDUIT SO AS TO BE READABLE FROM BELOW. LABEL WITHIN 6 INCHES OF THE CONDUIT BUSHING. BELOW OF EXAMPLES OF LABELS TO BE USED: "WAP," "DATA," "PHONE," "COM," "RF," "VP," "INPUT," ETC.
- COORDINATE THE TELEPHONE CONNECTION REQUIREMENTS FOR THE FIRE ALARM CONTROL PANEL (FACP) WITH THE FIRE ALARM INSTALLER. PROVIDE CONDUIT FROM THE FACP TO ACCESSIBLE CORRIDOR CEILING SPACE, UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- COORDINATE DATA CABLEING AND TERMINATION REQUIREMENTS FOR HVAC BUILDING AUTOMATION SYSTEM (BAS), WITH THE BAS PROVIDER. PROVIDE CONDUIT FROM THE BAS TO ACCESSIBLE CORRIDOR CEILING SPACE, UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
- COORDINATE THE TELEPHONE CONNECTION REQUIREMENTS FOR THE SECURITY ALARM SYSTEM PANEL (SP) WITH THE SECURITY SYSTEM INSTALLER. PROVIDE CONDUIT FROM THE SP TO ACCESSIBLE CORRIDOR CEILING SPACE, UNLESS OTHERWISE INDICATED ON THE DRAWINGS.



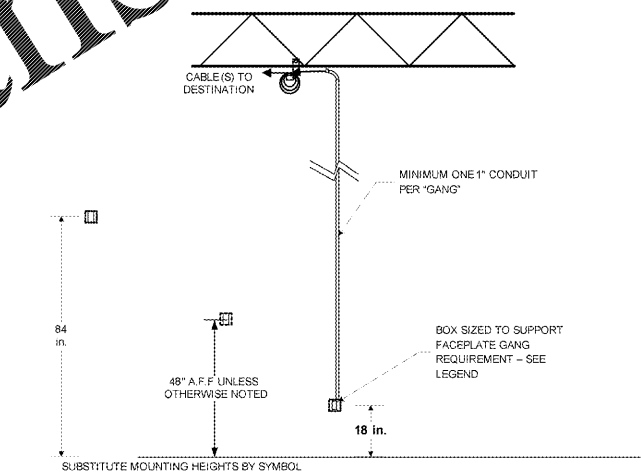
C TECHNOLOGY ROUGH-IN - BUILDING SERVICE OUTLET PATHWAY AND MOUNTING

Scale = NONE



B TECHNOLOGY ROUGH-IN - ABOVE CEILING OUTLET PATHWAY AND MOUNTING

Scale = NONE



A TECHNOLOGY ROUGH-IN - WALL OUTLET PATHWAY AND MOUNTING

Scale = NONE

ROUGH-IN NOTES (THIS DETAIL):

- EXPOSED CONDUIT SHALL NOT BE PERMITTED IN FINISHED AREAS UNLESS SPECIFICALLY NOTED. SURFACE MOUNTED BACK BOXES AND MATCHING RACEWAY SHALL BE USED FOR COMMUNICATION TECHNOLOGY DEVICES THAT ARE NOT INSTALLED WITHIN A WALL OR CEILING.
- CONDUIT INSTALLER SHALL INSTALL BUSHINGS AND PULL STRINGS IN CONDUITS IMMEDIATELY AFTER INSTALLATION. THIS INCLUDES CONDUITS TARGETED FOR IMMEDIATE AND FUTURE USE.
- WHERE A MOUNTING HEIGHT MEASUREMENT IS APPLIED TO A ROUGH-IN, THE MEASUREMENT SHALL BE REFERENCED TO THE CENTER OF THE ROUGH-IN DEVICE, EXCEPT WHERE OTHERWISE DETAILED.
- CONDUITS STUBBED INTO THE CEILING CAVITY SHALL BE MARKED WITH AN INDELEIBLE MARKER INDICATING THE CONDUIT'S INTENDED USE. MARK CONDUIT SO AS TO BE READABLE FROM BELOW. LABEL WITHIN 6 INCHES OF THE CONDUIT BUSHING. BELOW OF EXAMPLES OF LABELS TO BE USED: "WAP," "DATA," "PHONE," "COM," "RF," "VP," "INPUT," ETC.
- SURFACE MOUNTED HOUSING(S) SHALL BE STRAPPED TO BUILDING STRUCTURE AND SERVICE LOOP(S) SHALL BE CLAMPED TO ALLOW RE-POSITIONING AS REQUIRED BY SYSTEM INSTALLER.

ROUGH-IN NOTES (THIS DETAIL):

- EXPOSED CONDUIT SHALL NOT BE PERMITTED IN FINISHED AREAS UNLESS SPECIFICALLY NOTED. SURFACE MOUNTED BACK BOXES AND MATCHING RACEWAY SHALL BE USED FOR COMMUNICATION TECHNOLOGY DEVICES THAT ARE NOT INSTALLED WITHIN A WALL OR CEILING.
- CONDUIT INSTALLER SHALL INSTALL BUSHINGS AND PULL STRINGS IN CONDUITS IMMEDIATELY AFTER INSTALLATION. THIS INCLUDES CONDUITS TARGETED FOR IMMEDIATE AND FUTURE USE.
- WHERE A MOUNTING HEIGHT MEASUREMENT IS APPLIED TO A ROUGH-IN, THE MEASUREMENT SHALL BE REFERENCED TO THE CENTER OF THE ROUGH-IN DEVICE, EXCEPT WHERE OTHERWISE DETAILED.
- MOUNTING HEIGHTS FOR USE IN BLOCK WALLS SHALL BE ADJUSTED TO FIT THE COURSE AND SHALL BE CONSISTENT WITH THE ELECTRICAL DEVICE MOUNTING HEIGHT.
- DEVICES DESIGNATED WITH THE "CH" SUBSCRIPT (COUNTER HEIGHT) SHALL BE CLOSELY COORDINATED IN THE FIELD WITH ARCHITECTURAL CASEWORK AND FURNITURE VENDORS PRIOR TO ROUGH-IN.
- DEVICES TO BE INSTALLED AT CASEWORK LOCATIONS SHALL BE CLOSELY COORDINATED WITH THE CASEWORK TO ENSURE FUNCTIONAL CONNECTIVITY. COORDINATE WITH THE ARCHITECT AND THE EQUIPMENT AND CASEWORK DRAWINGS.
- CONDUITS STUBBED INTO THE CEILING CAVITY SHALL BE MARKED WITH AN INDELEIBLE MARKER INDICATING THE CONDUIT'S INTENDED USE. MARK CONDUIT SO AS TO BE READABLE FROM BELOW. LABEL WITHIN 6 INCHES OF THE CONDUIT BUSHING. BELOW OF EXAMPLES OF LABELS TO BE USED: "WAP," "DATA," "PHONE," "COM," "RF," "VP," "INPUT," ETC.

ROUGH-IN NOTES:

- ROUGH-IN SHALL BE CLOSELY REVIEWED AND COORDINATED PRIOR TO INSTALLATION. IT IS THE RESPONSIBILITY OF THE ROUGH-IN PROVIDER TO THOROUGHLY REVIEW AND UNDERSTAND THE REQUIREMENTS OF THE SYSTEMS THAT WILL USE THE PATHWAYS. THIS INCLUDES, BUT IS NOT LIMITED TO, PROPER SIZING OF BOXES, AND PROVIDING THE CORRECT QUANTITY AND SIZES OF CONVEYANCES.
- ROUGH-IN PROVIDER SHALL COORDINATE CLOSELY WITH THE DEVICE AND CABLE PROVIDER PRIOR TO INSTALLATION. TO BE CERTAIN THAT THE TYPE AND LOCATION OF ALL ROUGH-IN AND PATHWAY PROVISIONS ARE COORDINATED AND WILL ADEQUATELY SUPPORT THE SYSTEMS AS THEY ARE TO BE INSTALLED. ANY COSTS INCURRED RESULTING FROM A FAILURE TO ADEQUATELY COORDINATE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ROUGH-IN SHALL BE CLOSELY COORDINATED TO COMPLEMENT THE INTENDED FURNITURE PLAN. ENSURE THE SAFE AND EFFICIENT CONNECTIVITY OF EQUIPMENT.
- MANY COMMUNICATIONS DEVICES ARE INTENDED TO HAVE ADJACENT POWER AND TELEPHONE RECEPTACLES (MULTI-SERVICE) TO SERVE THE SAME EQUIPMENT. THE PROXIMITY OF SEPARATE DEVICES IS CRITICAL FOR USABILITY AND AESTHETICS. COORDINATE THE LOCATION OF SEPARATE DEVICES SO THAT THEY ARE LOCATED ADJACENT AND AT THE SAME ELEVATION.
- COMMUNICATIONS DEVICE MOUNTING HEIGHTS SHALL BE CONSISTENT WITH THE ELECTRICAL OUTLET MOUNTING HEIGHT FOR THE FACILITY (S) AND EXISTING, EXCEPT WHERE DIMENSIONALLY DETAILED. CONTRACTOR SHALL SEEK THE LOCATION OF THE DISCREPANCIES ARE FOUND.
- IN APPLICATIONS WHERE THE DRAWINGS AND SPECIFICATIONS REQUIRE THE USE OF SURFACE RACEWAY AND BOXES, THE USE OF CONCEALED RACEWAY, CONTRACTOR SHALL MATCH THE SIZE OF THE BOX LISTED ON THE DRAWINGS. THE QUANTITY OF USABLE RACEWAYS, AND SHALL MATCH THE RACEWAY RATING, QUANTITY AND SIZES OF RACEWAYS LISTED ON THE DRAWINGS. CONTRACTOR IS ADVISED THAT THIS MAY REQUIRE PROCUREMENT OF MATERIALS ONLY AVAILABLE BY SPECIAL ORDER FROM THE MANUFACTURERS.
- CONDUITS STUBBED INTO THE CEILING CAVITY SHALL BE MARKED WITH AN INDELEIBLE MARKER INDICATING THE CONDUIT'S INTENDED USE. MARK CONDUIT SO AS TO BE READABLE FROM BELOW. LABEL WITHIN 6 INCHES OF THE CONDUIT BUSHING. BELOW OF EXAMPLES OF LABELS TO BE USED: "CAMERA," "COM," "DOC," "PKR," "CLOCK," "VOL," "PANEL," "WAP," "DATA," "PHONE," "COM," "RF," "VP," "INPUT," ETC.
- PROVIDE SURFACE COVER PLATES FOR "FUTURE" OR "BLANK" DEVICE BOXES. COORDINATE MATERIAL AND FINISH OF BLANK PLATES TO MATCH SURROUNDING PLATES.
- WHERE CONDUITS ARE SPECIFIED "TAAC" (TO ABOVE ACCESSIBLE CEILING) THIS SHALL MEAN THAT CONDUITS SHALL BE STUBBED INTO AN ACCESSIBLE CEILING CAVITY WITHIN THE SAME ROOM AS THE DEVICE THE CONDUIT SERVES.
- WHERE DEVICE CONDUITS ARE SPECIFIED "THCH" (TO ABOVE ACCESSIBLE HALLWAY /CORRIDOR CEILING) THIS SHALL MEAN THAT CONDUITS SHALL BE RUN CONTINUOUS AND STUBBED OUT INTO AN ACCESSIBLE CEILING CAVITY WITHIN THE NEAREST CORRIDOR FEATURING AN ACCESSIBLE CEILING CAVITY.

EXISTING CONDITIONS:

- FIELD VERIFY EXISTING APPLICABLE CONDITIONS AND DIMENSIONS SHOWN ON THE DRAWINGS. AS IT PERTAINS TO THE INTENT OF THESE DRAWINGS, CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ARCHITECT AND DESIGNER ANY DISCREPANCIES DISCOVERED PRIOR TO THE COMMENCEMENT OF ANY WORK AFFECTED BY OR RELATED TO SUCH DISCREPANCY. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH OR CAUSED BY THAT CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT.
- ALL ROUGH-IN AND PATHWAY IN NEWLY CONSTRUCTED AREAS SHALL BE CONCEALED WITHIN THE STRUCTURE.
- EXISTING WALLS WHERE CONCEALED INSTALLATION OF ROUGH-IN IS IMPRACTICAL SHALL UTILIZE SURFACE MOUNTED RACEWAY. CAPACITY SHALL BE EQUAL TO OR GREATER THAN THE EQUIVALENT CONCEALED ROUGH-IN.
- FACILITIES WHERE TUBULAR METAL CONDUITS HAVE BEEN PREVIOUSLY INSTALLED FOR OUTLET ROUGH-IN SHALL CONTINUE THIS STYLE ROUGH-IN TO MATCH EXISTING.
- ROUGH-IN LOCATIONS WHERE BOTH ELECTRICAL AND TELECOMMUNICATIONS CONNECTIVITY IS REQUIRED SHALL UTILIZE A COMBINED MULTI-USE RACEWAY WITH REQUIRED DIVIDER.
- WHERE NOT SPECIFICALLY SPECIFIED, AESTHETICS SHALL BE CONSIDERED IN SELECTION AND INSTALLATION OF SURFACE RACEWAY. STYLE AND COLORS SHALL BE APPROPRIATE TO SURROUNDINGS.

ROBERT F. VANNEY ARCHITECT

3001 ROBERT STREET, STE. 201
STANT TALL, MINNESOTA 55101
(612) 322-4242 FAX (612) 322-3338

consultant



HALLBERG ENGINEERING
Mechanical/Electrical Consulting Engineers
1750 Commerce Court
White Bear Lake, MN 55110
(651) 748-1100 • Fax (651) 748-9370

West Marine
500 Westridge Drive
Watsonville, California 95076
p: 831.728.2700 f: 831.761.4220

STORE #TBD
1389 S DIXIE HWY.
LANTANA, FL 33462

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- LL Final
- Permit 05/17/2017
- Bidding

drawing title

TECHNOLOGY DETAILS

sheet number

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