

MULTIPLE HOMERUN CIRCUIT CONDUITS TO PANEL FOR SERVING SURFACE RACEWAY WITH MULTIPLE BRANCH CIRCUITS—MAXIMUM SIX CURRENT CARRYING CONDUCTORS PER CONDUIT—PROVIDE CONDUIT FROM HOMERUN JUNCTION BOXES TO PANELS ONLY AS NEEDED FOR INITIAL INSTALLATION OF CIRCUITRY

HOMERUN JUNCTION BOX—4 11/16" SQ. x 2 1/8" D BOX WITH 1" KNOCKOUT FOR CONNECTION TO CONDUIT FROM WALL BOX CONNECTOR—PROVIDE ONE HOMERUN JUNCTION BOX PER 1" CONDUIT—LOCATE JUNCTION BOX ABOVE ACCESSIBLE CEILING DIRECTLY IN FRONT OF SURFACE RACEWAY

BRANCH CIRCUITRY FROM HOMERUN JUNCTION BOX TO SURFACE RACEWAY AND DEVICES IN SURFACE RACEWAY SHALL BE MINIMUM #10 AWG—ALL CIRCUITRY FROM HOMERUN JUNCTION BOX TO SURFACE RACEWAY SHALL BE DERATED 50% PER NEC FOR 10–20 CONDUCTORS—DERATING ALLOWS FOR FUTURE INSTALLATION OF MORE CONDUCTORS

FOR TELECOM SERVICE TO RACEWAY—MINIMUM TWO 1 1/4" C FROM TELECOM BOX SERVING SURFACE RACEWAY STUBBED UP AND OUT TO TELECOM CABLE TRAY

TELECOM BOX—4" SQ. x MIN. 2 1/8" D BOX WITH 1" KNOCKOUTS FLUSH IN WALL—BOX IN MASONRY SHALL BE DOUBLE GANG MASON BOX 3 1/2" D (GARVIN #DS-52181-3/4-1 OR APPROVED EQUAL)—BOX SHALL BE CENTERED ON SURFACE RACEWAY—TYPICAL FOR TELECOM BOXES

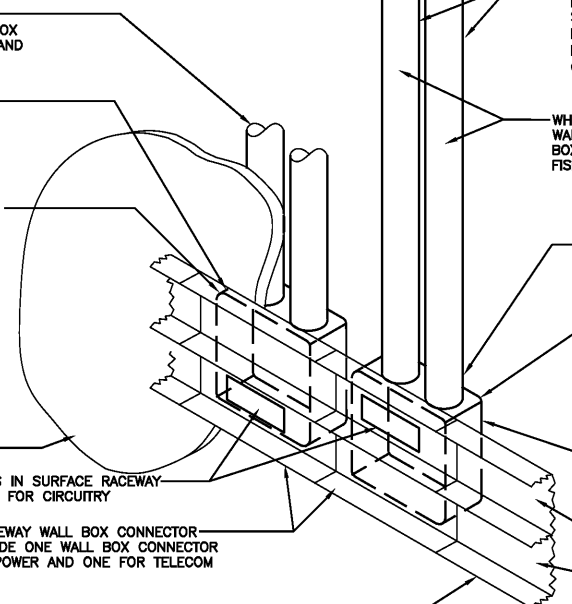
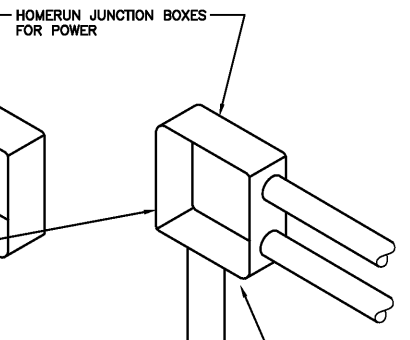
**NOTES**

- 1— LOCATE WALL BOX CONNECTOR AS INDICATED ON PLANS. LOCATION HAS BEEN SELECTED IN ORDER TO LIMIT THE QUANTITY OF CONDUCTORS ROUTED IN EACH DIRECTION EXITING FROM FROM THE WALL BOX CONNECTOR.
- 2— PROVIDE ALL CONDUIT, CIRCUITRY AND HOMERUN BOXES AS SHOWN WHETHER THEY ARE NEEDED FOR THE INITIAL INSTALLATION OR NOT. THE SYSTEM IS DESIGNED FOR FUTURE EXPANSION AND INSTALLATIONS.

WALL FINISH  
USE RECTANGULAR KNOCKOUTS IN SURFACE RACEWAY WALL BOX CONNECTOR FITTING FOR CIRCUITRY

SURFACE RACEWAY WALL BOX CONNECTOR FITTING—PROVIDE ONE WALL BOX CONNECTOR FITTING FOR POWER AND ONE FOR TELECOM

SURFACE RACEWAY—SEE PLANS FOR LOCATION AND CONFIGURATION



1 SURFACE RACEWAY WALL BOX CONNECTOR FOR POWER/TELECOM DIVIDED RACEWAY

E408 SCALE: NOT TO SCALE

PROVIDE HOMERUN JUNCTION BOXES AND CONDUIT TO SURFACE RACEWAY AS SHOWN WHETHER THEY ARE NEEDED FOR THE INITIAL INSTALLATION OR NOT—SYSTEM IS DESIGNED FOR FUTURE EXPANSION AND INSTALLATIONS

FOR POWER SERVICE TO RACEWAY—MINIMUM TWO 1" C FROM POWER BOX SERVING SURFACE RACEWAY UP TO HOMERUN JUNCTION BOX (ONE HOMERUN JUNCTION BOX PER 1" CONDUIT)

WHERE INSTALLED IN AN EXISTING MASONRY WALL THIS CONDUIT FROM HOMERUN JUNCTION BOX TO SURFACE RACEWAY MAY BE LFMC WHEN FISHED DOWN IN CMU CELLS—TYPICAL

PROVIDE CONDUIT REDUCER FITTING WHERE CONDUIT SERVING BOX IS LARGER THAN KNOCKOUT

MIN. 4" SQ. x 2 1/8" D BOX WITH 3/4" KNOCKOUTS FLUSH IN WALL—BOXES IN MASONRY SHALL BE DOUBLE GANG MASON BOX 3 1/2" D—ONE BOX FOR POWER AND ONE BOX FOR TELECOM—BOXES SHALL BE CENTERED ON SURFACE RACEWAY—TYPICAL FOR POWER AND TELECOM BOXES

POWER BOX

POWER SECTION (UPPER SECTION)

TELECOM SECTION (LOWER SECTION)

HOMERUN JUNCTION BOX—4 11/16" SQ. x 2 1/8" D BOX WITH 1" KNOCKOUT FOR CONNECTION TO CONDUIT FROM SURFACE RACEWAY—LOCATE JUNCTION BOX ABOVE ACCESSIBLE CEILING DIRECTLY IN FRONT OF SURFACE RACEWAY

BRANCH CIRCUITRY FROM HOMERUN JUNCTION BOX TO SURFACE RACEWAY AND DEVICES IN SURFACE RACEWAY SHALL BE MINIMUM #10 AWG—ALL CIRCUITRY FROM HOMERUN JUNCTION BOX TO SURFACE RACEWAY SHALL BE DERATED 50% PER NEC FOR 10–20 CONDUCTORS—DERATING ALLOWS FOR FUTURE INSTALLATION OF MORE CONDUCTORS

FOR TELECOM SERVICE TO RACEWAY—PROVIDE SYSTEM SIMILAR TO POWER SERVICE TO SURFACE RACEWAY

FOR POWER SERVICE TO RACEWAY—1" C FROM HOMERUN JUNCTION BOX DOWN TO SURFACE RACEWAY

EXPOSED CONDUIT AND CONDUIT BODIES SERVING SURFACE RACEWAY WHERE RECESSED BOXES AND RECESSED CONDUIT CANNOT BE INSTALLED

POWER CONDUIT BODY

ENTRANCE END FITTING WITH MIN. 3/4" KNOCKOUT

TELECOM CONDUIT BODY

WALL FINISH

CONDUIT FROM CONDUIT BODY TO SURFACE RACEWAY SHALL BE AS SHORT AS POSSIBLE

PROVIDE CONDUIT REDUCER FITTING WHERE CONDUIT SERVING ENTRANCE END FITTING IS LARGER THAN KNOCKOUT

SURFACE RACEWAY—SEE PLANS FOR LOCATION AND CONFIGURATION

NORMAL POWER SECTION (UPPER SECTION)

OPTIONAL STANDBY POWER SECTION (LOWER SECTION)

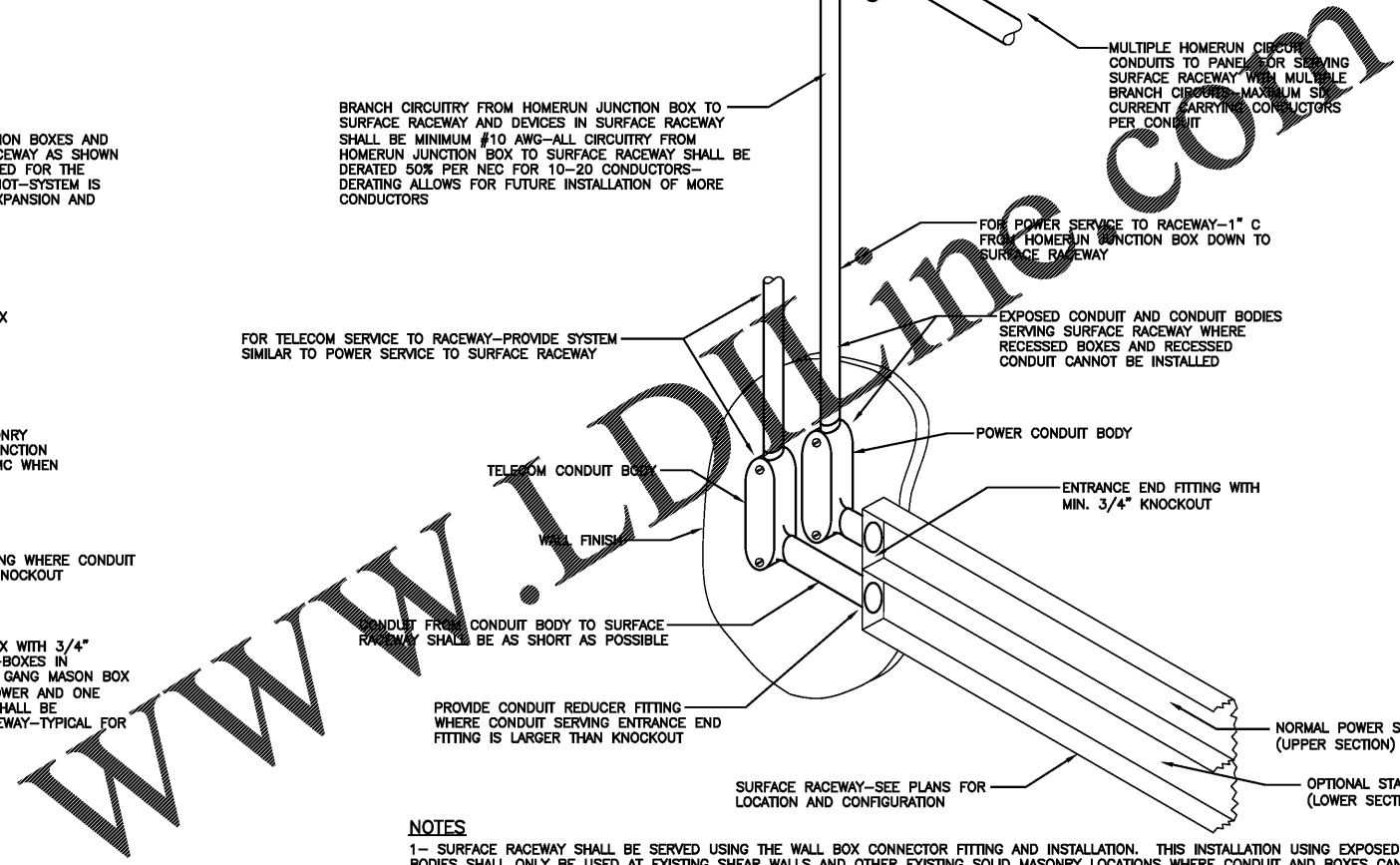
**NOTES**

- 1— SURFACE RACEWAY SHALL BE SERVED USING THE WALL BOX CONNECTOR FITTING AND INSTALLATION. THIS INSTALLATION USING EXPOSED CONDUIT AND CONDUIT BODIES SHALL ONLY BE USED AT EXISTING SHEAR WALLS AND OTHER EXISTING SOLID MASONRY LOCATIONS WHERE CONDUIT AND BOXES CANNOT BE INSTALLED WITHIN AN EXISTING MASONRY WALL. THE CONTRACTOR SHALL NOTIFY THE DESIGNER AND REQUEST PERMISSION TO INSTALL IN THIS MANNER.
- 2— PROVIDE CONDUIT BODY FEED AT EACH END OF THE SURFACE RACEWAY. CIRCUITRY SHALL BE ROUTED TO LIMIT THE CROSS SECTIONAL QUANTITY OF CONDUCTORS TO THE LEAST AMOUNT.
- 3— COORDINATE WITH THE DESIGNER WHEN THIS INSTALL METHOD IS USED AS SURFACE RACEWAY MAY NEED TO BE BROKEN INTO SEPARATE SECTIONS TO PROVIDE ADDITIONAL CONDUIT BODY FEEDS DEPENDING ON THE QUANTITY OF CIRCUITS.

2 SURFACE RACEWAY CONDUIT BODY FEED FOR POWER/TELECOM DIVIDED RACEWAY

E408 SCALE: NOT TO SCALE

Order Plans @



REVISION

SHEET TITLE  
**DETAILS**  
SCALE (IN 1")  
NOT TO SCALE

UNC SCHOOL OF MEDICINE  
NEUROSCIENCES RESEARCH BUILDING  
7th & 8th FLOORS FOR DERMATOLOGY  
LOCATION  
15 Wilson Farm Road, Campus Box 7250  
Chapel Hill, North Carolina 27599-7250



ISSUE DATE  
9/25/2019  
JOB NO.  
10761-00  
DWG NO.  
E408

BID SET